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JANUARY 1951

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AMATEUR RADIO

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EDITORIAL

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In this issue of "Amateur Radio" you will read with interest of the terms and conditions under which you may serve in the R.A.A.F. as a member of the Reserve.

The need is for men of all ranks and grades of experience, and the purpose of the Reserve is to create shadow forces which will be capable of quick expansion into a formidable fighting force should the occasion demand.

The article under review is clear and concise and is now put forward for your careful consideration, bearing in mind that history seems to be slowly repeating itself and that help, to be valuable, should be given early. Any future conflicts will have a large "electronic content" and as known from experience, the value of a smoothly working communication and radar system cannot be underestimated. It is hoped that the scheme as now presented will provide the opportunities for service for which the Institute has so long been asking.

—Federal Executive.

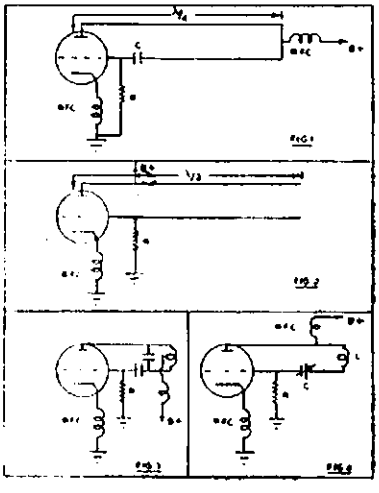
The Contents . . .

Using Tubes Above Their Self-Resonant Frequency

BY A. K. HEAD,* VK3AKZ

THE COLPITTS OSCILLATOR To start the ball rolling, let's have a look at the usual form of v.h.f. single tube oscillators (Fig. 1). This is a Colpitts type circuit with a linear quarter wave line as tuned circuit. The feed back is provided by the interelectrode capacities (i.e. is conviently built-in) and can be varied over a certain range by the r.f. choke in the cathode lead. As you know the quarter wave line is less than a physical quarter wave long due to the end loading effects of the grid-plate capacity.

Now when the frequency is raised by moving the shorting bar in towards the tube, either of two things will eventually happen. With a lot of tubes, as the frequency is raised, oscillation gets weaker and weaker and finally conks out. This will happen with low transconductance tubes with bases, etc., and what has happened is that the gain of the tube has dropped (because of transit time effects, etc.) until it is less than the losses of the circuits. Hence no oscillation and nothing can be done about it except maybe to pulse the tube with a higher anode voltage.



On the other hand with close spaced high transconductance v.h.f. type tubes, it may be found that the tube is still oscillating merrily with the shorting bar as close to the tube as it can get. This situation is what the tube handbooks mean when they talk about the self-resonant frequency of the tube. The only thing preventing operation at a higher frequency is the fact that you can't get the shorting bar inside the tube.

But by using a **half** wave line (Fig. 2) this can, in effect, be done. Fig. 2 has been drawn to emphasise the internal plate and grid leads and it is easy to see that as the frequency is raised by shortening the lines it does not particularly matter if the electrical midpoint of the line is **inside** the tube. If this is the case, then the grid-plate capacity and the lead inductance account for more than one quarter wave length and effectively the shorting bar (i.e. the electrical mid-point of the line) is inside the tube. Thus by using half wave lines the frequency limit can be pushed above the self-resonant frequency of the tube.

One of the main barriers to the population of the Amateur v.h.f. and u.h.f. bands is the lack of suitable tubes. Although there are tubes in existance for all bands, it is another thing to obtain them (and another one again to pay for them). This article aims to pass on some suggestions which may be helpful in raising the useful frequency limit of tubes you may have on hand. How far up the limit can be pushed is for you to find out.

As a practical example, for a 955 in a standard ceramic socket, the self-resonant frequency is about 580 Mc. It will oscillate quite well, but there is no external circuit to couple into and no easy way of tuning. By using a half wave circuit (of which about one quarter wave is inside the tube and one quarter wave outside), a useful oscillator results which can be tuned across the 580 Mc. band by swinging a block of polystyrene in between the open ends of the line, thus changing their effective length.

LUMPED CONSTANT CIRCUITS As line circuits are often inconvenient to tune smoothly for receiver applications, lumped constant circuits are often more convenient. The equivalent to a quarter wave line is a parallel tuned circuit (Fig. 3), and the equivalent to a half wave line is a series tuned circuit (Fig. 4).

As an example of how a series tuned circuit will permit a tube to operate above its self-resonant frequency, a 7193 was used with the circuit of Fig. 5. This differs from Fig. 4 in having the external inductance divided into two parts, but both are essentially the same circuit. "C" was a Philips' concentric trimmer and LI and L2 represent the inductances of ·1.5" of 10 gauge wire running from the grid and plate terminals of the condenser.

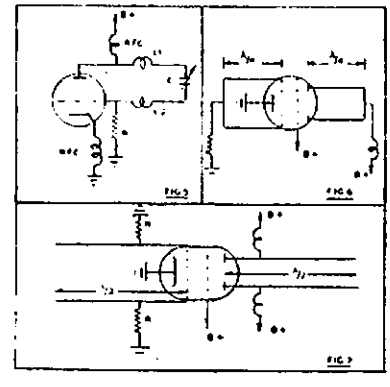
Now the self-resonant frequency of a 7193 is about 350 Mc., and it was found that the above circuit gave continuous operation from 250 Mc. up to 450 Mc. as the trimmer was unscrewed. This limit of 450 Mc. was not due to lack of external circuit (the trimmer had a capacity of about 8 pF. at this stage), but the gain of the tube had dropped too much to support oscillation. If the high tension was increased to 400 volts it would operate at a higher frequency but the plate dissipation became too high. In such a case, the previous remark about pulsing the tube might be useful.

Incidentally, the equivalence between a half wave line and the series tuned circuit might be seen more easily by comparing Fig. 5 with Fig. 2.

OTHER APPLICATIONS If in Fig. 4 the resistor between grid and ground is removed and a large resistance is connected across the tuning capacitor, then a superregen. receiver results. One disadvantage is that the quench frequency will vary as the condenser is tuned, but VK3NW has used this idea successfully on 580 Mc. with a lighthouse tube.

It will be seen that for a single tube, the series tuned circuit has the advantage of not requiring a d.c. blocking condenser. But for push pull circuits the parallel tuned circuit has the simpler d.c. connections, as illustrated in Figs. 6 and 7 of a push pull p.a. However, the series tuned (or half wave) circuit has the advantage of leaving more of the circuit outside the tube and so is easier to couple into.

Thought for today: "If you want to go higher, try series tuning."



RECEIVING S.S.S.C.

Readers may be interested in one method used by 6WZ for receiving s.s.s.c. Finding the receiver b.f.o. unreliable and the Class C Wavemeter too jerky in its tuning (who hasn't), the v.f.o. was used recently to copy the first W.A. station to use this transmission (VK6EC) and it worked very well. If yours is a multi-stage v.f.o. arrange switching so that you can select "osc. only" or "osc. and buffers" at will. This should give you sufficient control over the amount of carrier re-insertion.

If your v.f.o. drifts so that it's hard to keep the s.s.s.c. tuned in, it's time you had a new v.f.o. anyway—and if it's as stable as it should be, you'll have effortless copy of s.s.s.c. transmissions.

—R. H. ATKINSON, VK6WZ.

* Asst. Technical Editor, 12 Peverill St., Balwyn, E.8, Victoria.

The Theory and Design of Speech-Clipping Circuits

BY K. C. SEDDON,* VK3ACS

Before building myself a modulator, I came across an article describing the theory and design of speech-clipping circuits. Being very impressed by the theoretical advantages, I decided to incorporate a similar unit when I eventually built my own modulator, and on completion it has been extremely successful.

The advantages are as follows:—

- Impossibility of overmodulation.
- Increased average level of modulation, giving effect of higher power.
- Increased intelligibility of speech and freedom from hum pick-up is obtained by the removal of the high and low audio frequencies.

A study of the way intelligibility is conveyed by speech has shown that the major power carrying components in speech are the vowel sounds (or semi-vowels such as l, m, and n). These give character to speech and a general outline of the intelligence. However, it is the consonants, which are much lower in power, that enable words with the same basic vowel sounds to be distinguished.

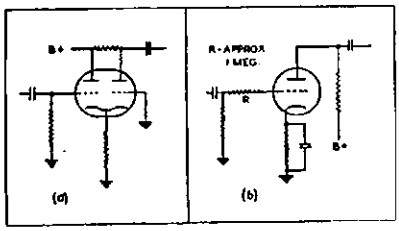


Fig. 1.—Types of Peak Clipping Circuits.

If the peak sound only is limited, the sounds immediately following the peak will be unaffected and the relative amplitude of the low level sounds increased. The fact that the vowel sounds are so basic and characteristic makes them easily recognisable in spite of the decrease in their relative amplitude. The effect is a considerable increase in the apparent volume with some distortion introduced due to the limiting of the peak sounds.

It can thus be seen that this method has more advantages than volume compression, as in volume compression the sounds immediately following the peaks are also reduced in amplitude and where they are consonants rendering the word intelligible, the increased level of any remaining portion of the word is of no advantage. Also in volume compression a finite time must elapse before the compressor comes into action and reduces the gain and hence initial peaks will not be reduced, thus causing overmodulation.

The process of clipping consists of squarely chopping off both positive and negative peaks at a predetermined amplitude. The harmonics present in the square-topped waves from the peak sounds will cause distortion and also extend the transmitted sidebands and hence must be removed by a low pass filter following the clipper. With low frequency sounds, say 100 cycles, and a low pass filter cutting off at 3,000 cycles, up to the 30th harmonic of the 100 cycle sound will be retained. Therefore a high pass filter is included before the clipping stage with a cut-off frequency of approximately 500 cycles and only the 6th harmonic of this frequency will be retained and hence there will be less distortion in the output. Incidentally, this is not the only reason for including the high pass filter, there being two more important reasons.

In any stages following the clipping stage, the phase shift distortion must be as low as possible or the peak amplitude of the output from the clipper can be exceeded. This normally requires good frequency response over the audio range from approximately half the cut-off frequency of the high pass filter to twice the cut-off frequency of the low pass filter. This effect is most noticeable at the low frequency end of the spectrum and is the main reason for including the high pass filter before the clipping stage.

Peak clipping may be accomplished in several ways which may be divided into two classes:—

(a) Those involving the cut-off characteristic of a tube (as used in the circuit described—Fig. 1a).

(b) Those involving current flow in a tube when a fixed bias has been exceeded—Fig. 1b.

In the latter case, diodes or triodes are generally used and the principle is that the biased tube element offers a high impedance until the signal reaches the bias level, above which the impedance is low. By feeding the biased element through a high series impedance no increase in output voltage will occur once the conduction point is reached. However, this type is more complex and hence the first type was used.

With up to 10 db of clipping, the distortion present is barely noticeable, while with 20 db of clipping (i.e. 10 times the audio voltage input that will give 100% modulation) the distortion is not excessive. The audio power output from the modulator is, of course, not increased by 20 db, but is increased by a considerable amount.

In addition to the increase in modulation level due to the clipper, several other advantages are claimed for the unit.

Firstly, the major part of the power in speech is below 500 cycles and it has also been shown that very little intelligence is conveyed by this portion of the spectrum. Thus, removing these frequencies, enables the modulation level of the middle range frequencies to be increased, giving a more intelligible signal.

Secondly, the higher audio frequencies above 2,500 to 3,000 cycles, while not contributing a great deal to the intelligibility, increase the bandwidth occupied and hence removing them reduces QRM. Also, removing both high and low frequencies together, retains better balance of the speech than removing highs or lows alone.

Thirdly, with low frequencies removed, no precautions against hum pick-up are required.

Fourthly, the unit described has low impedance output and can be placed well away from the modulator and transmitter without any trouble from long connecting cables, and also there is less chance of r.f. feedback if the preamplifier is well away from the transmitter.

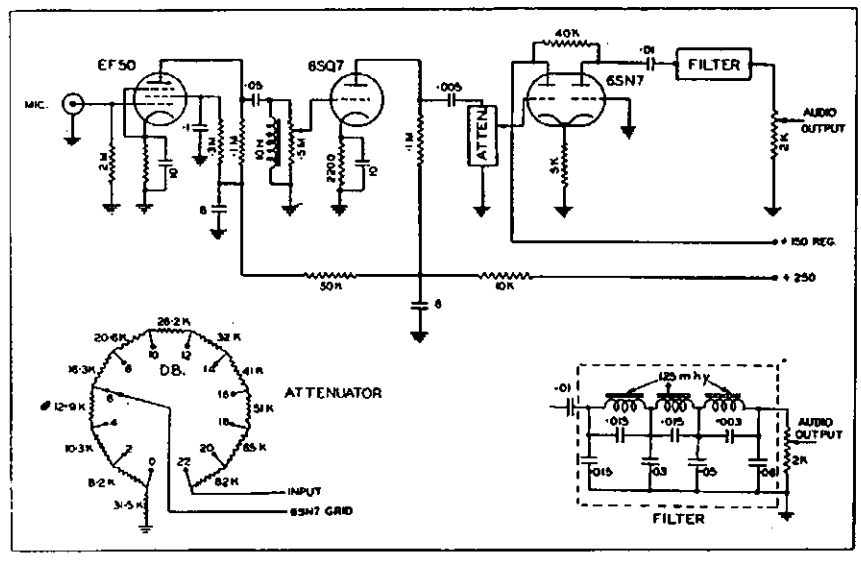


Fig. 2.

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Last of all, the unit is useful when entertaining visitors with loud voices as one does not have to wind the gain control up and down to compensate for different voice levels to prevent over-modulation.

The unit described here is a modified version of a circuit described in "QST." The first stage uses any high slope pentode such as an EF50 or 6SH7. The high pass filter is simply a 10 henry midget filter choke in series with a 0.05 uF. condenser connected across the load resistance of the pentode. If more lows are desired a larger choke or condenser could be used. No precautions against r.f. feedback were taken except to shield the grid lead and grid resistor of the pentode.

The next stage is a high-mu triode (6SQ7). The reasons for two high gain tubes are:—

1. The pentode has a low plate load and voltage gain is relatively low (measured gain 81).
2. The input level which the 6SN7 commences to limit the signals is approximately 4 volts r.m.s., and thus for 22 db of clipping, this means an input of over 40 volts r.m.s. to the 6SN7. (The measured gain of the 6SQ7 was 37, giving a total gain of 3,000 or 70 db for the first two tubes.)

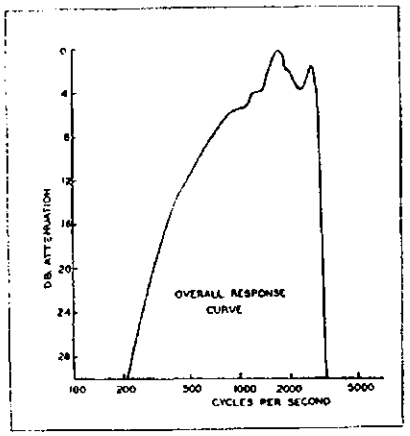

Fig. 3.—Frequency response curve of complete unit.

Following the 6SQ7 is an attenuator (Fig. 2) going from 0 to 22 db in 2 db steps. It consists of a 12 position switch with ½ watt resistors wired across the contacts. The resistors were picked within 1% by putting two in series where necessary, although this accuracy is not really required.

The clipping is done by the cathode coupled 6SN7, the first section clipping negative peaks that drive the grid beyond cut-off. Positive peaks produce positive peaks across the cathode resistor and cause the second half of the tube to be driven beyond cut-off, hence clipping the positive peaks. Originally, the 150 volt supply for the 6SN7 clipper was obtained from a voltage divider, consisting of two 50,000 ohm resistors, but it was found that the output from the unit decreased as the degree of clipping was increased. This was due to the 6SN7 drawing higher average current when clipping and hence reducing the plate supply voltage. This difficulty was solved by using a VR150/30 in the power supply.

The three section "m" derived filter gives a very sharp cut-off at 3,000 cycles. The inductances were home-made but will be available soon from a city firm. The condensers were chosen within 1% tolerance, but probably 5% would be close enough.

The filter is terminated in a 2,000 ohm potentiometer which is placed at the back of the unit as it **should not be shifted after initial adjustment unless the transmitter input is varied.**

The maximum output of the unit was measured as 1.25 volt r.m.s. or 1.77 volts peak.

The unit was constructed on a 10" x 6" x 2¼" chassis. The low pass filter was assembled on a 9" x 3" strip of aluminium and fitted over an 8" x 2" hole cut across the chassis. The 125 mhy. chokes were wound on 7/16" diameter slug tuned formers and were mounted vertically on the 9" x 3" strip at approximately 2½" centres. Originally aluminium shield cans were fitted over the chokes, but these reduced their Q and as there was no apparent magnetic coupling between them, they were left unshielded.

The adjustment of the unit is best done with a c.r.o. using a trapezoidal modulation pattern. With the attenuator switch on 22 db and the first gain control well advanced, speak into the mike and adjust the output control until modulating nearly 100% on peaks. Then put the attenuator switch to 0 db and adjust the first gain control until again nearly modulating 100% on peaks. While performing this operation, it is necessary to maintain your normal speaking conditions (voice level and distance from the microphone) and also to maintain them in the future when using the unit if you want to know exactly how much clipping you are using at any given time. This completes the adjustment of the unit, the only control that need be touched is the attenuator when it is desired to alter the clipping level.

My own practice has been to use about 10 db of clipping for normal work and when conditions are bad to use 18 to 20 db of clipping.

Because of the high gain of the unit, it is advisable to speak fairly close to the microphone in order to keep the level of background noises to a minimum.

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RADIO & ELECTRONICS (N.Z.) LIMITED

The above wish to advise that as and from 1st December, 1950, they will take over the complete interest of the Australian monthly technical journal known as "Australasian Radio World."

It is their intention to produce the December issue as a composite one under the old title, and then change the name to "Australian Radio and Electronics" (incorporating Australasian Radio World) as and from the January 1951 issue.

To facilitate the above a new company known as Radio and Electronics (Aust.) Pty. Ltd. is being formed. The parent Company already produces "Radio and Electronics" in New Zealand—which also circulates on the Australian market —and it is their intention to cease importing the New Zealand journal, and to produce the Australian edition of "Radio and Electronics" in lieu thereof, whilst maintaining the same high standard. With the close liaison with New Zealand and other overseas tie-ups, engineers, servicemen, dealers, hams and hobbyists are assured that the articles will bring to them the latest developments for the advancement of radio and electronic knowledge.

Some Notes on Command Receivers

BY DON B. KNOCK,* VK2NO

Probably one of the best bargains in surplus war radio material has been the Command series of equipments, available in Australia, unfortunately in limited quantities only, but on disposals counters in profusion in U.S.A. and Britain. In case the hopeful reader may run across such receivers, especially of course, if fortunate enough to be travelling overseas, a few words about frequencies and possible Amateur usage may be of interest.

First on the list of these attractions has been the model popularised two years ago in the pages of "QST" as the "Q Fiver." This simple double conversion application to a narrow band-pass low frequency i.f. results in a high degree of selectivity, of material advantage to the 14 Mc. phone man in particular. This model is the BC453, and in passing it is worth mentioning that the circuit of **all** these Command receivers is the same. Each is comprised of a 6-valve superhet with one r.f. stage, mixer-oscillator, two i.f's., detector-beat oscillator and audio output stage. BC453 tunes from 190 to 550 Kc. in the signal circuit and the i.f. is at 85 Kc. Obviously, this unit can be used in conjunction with any receiver having an i.f. falling within the 190-550 Kc. range.

TUNING RANGE AND INTERMEDIATES

Most of our present-day single i.f. receivers are in the region of 460 Kc. With receivers of the BC348 series, however, the consideration is different, for here the i.f. is at 915 Kc., and so the "Q Fiver" of the BC453 type does not suit. There is a model that does, however, but whether or not you are likely to run across one in Australia is a doubtful point. This is the BC946B, a Command receiver that covers the regular broadcast range, i.e. 520 to 1500 Kc. The i.f. of this model is not at 85 Kc., but at 239 Kc. This is yet a low frequency and the band-pass characteristics of the i.f. amplifier are variable by push-rod operation of the coupling between primaries and secondaries as in the BC453. So, if you don't prefer to use this BC946B solely for entertainment purposes, it makes an excellent companion "Q Fiver" for the BC348 kind of receiver having i.f. at 915 Kc.

Next on the useful list of Command receivers is the BC454, and this tunes from 3 to 6 Mc. with i.f. at 705 Kc. As this stands, it will make an excellent 80 metre receiver and, of course, is applicable with crystal controlled converter ahead of it for higher frequencies in the now popular set-up. Better still, with a crystal-locked converter for 20 and 10 metres ahead of it, will be the BC455, a model tuning between 6 and 9.1 Mc. and with the i.f. at 1415 Kc. Another model, the BC495, tunes the same range and has the i.f. at 2830 Kc. A little figuring with available crystals in relation to tuning range will reveal many useful possibilities. Remember also, that all these Command receivers follow a similar design; that both the i.f.t's. and the r.f. coils are plug-in items, and that the assembly lends itself to variations to suit one's own needs.

POWER SUPPLIES

Valves used in the Command receivers are all 12 volt types, namely, 12SK7, 12K8, 12SR7, 12A6. They are wired in series-parallel heater connection for use from the aircraft 24 volt d.c. supply. A genemotor, shock-mounted at the rear, provides h.t. at 250 volts. In setting out to use these receivers on a.c., many Amateurs go to the laborious trouble of re-wiring the heaters in parallel for application from a 12 volt transformer. One might as well use two 12 volt heater transformers to give you the normally required 24 volts heater supply by seriesing the secondaries, or better still, apply a 24 volt transformer. In any case, the latter is the simplest answer, for it isn't an easy matter to get at the valve heaters for rewiring. It entails hanging chokes and things over the sides of the chassis in order to get at the sockets. It is easy enough to make up, or get made, a heater transformer handing out 3 amperes between 24 and 28 volts. With a dry rectifier power pack to accompany the 24 volt transformer, that's all there is to it. You can, of course, if of ample rating, draw on the accompanying receiver power unit for the h.t., in which case the 24 volt heater transformer is the only item extra.

With a Command receiver powered as suggested, a converter to be used with it can draw power thence by using 12 volt valves in series-parallel heaters, or 6 volt types similarly with ballasting resistors. The Command receivers can be used without any alteration at all from a 32 volt home lighting plant, if the dynamotor on the receiver is of the 28 volt and not the 12 volt kind. Some of the receivers may have been fitted with 12 volt types and the valves wired in parallel heaters, but such instances are rare.

Finally, for the benefit of lucky people who may have acquired Command units, the most complete conversion article to be perused anywhere appeared in "Short Wave Magazine" (England) in the issue for September, 1948. This article leaves nothing to guesswork or imagination. Neither do the advertisements in the same magazine where London dealers offer the receivers in all ranges complete with valves at 25/- each—or a set of three for 70/-!!!

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PROPER CARE OF CRYSTAL MICROPHONES

The following information was extracted from G.E's. "Ham News," May-June, 1950.

Crystal microphones are likely to lose their sensitivity and frequency response during hot humid weather. Although microphones are sealed against moisture, moisture may creep in and damage the crystal element.

For some time I have noticed the modulation percentage in my transmitter gradually go down until I could barely modulate 50% with the audio gain wide open. A careful check of the speech amplifier and modulators indicated no trouble there. The microphone was then suspected because of the unusually damp weather that has existed here all summer. I was about to discard the mike or send it to the factory for repairs, but I decided to try a little stunt as a last resort.

The microphone was placed in a clean, dry, airtight can with one pound of fresh silica gel obtained from a local radio and refrigeration supply house. In twenty-four hours the mike worked as good as new; in fact, it works better now than it has in two years.

I would recommend that this trick be tried on all crystal microphones which have been subjected to excessive moisture or humidity before discarding. In fact, I believe it would be good practice to store the mike in this manner when not in use, particularly during the hot humid months of summer.—W4AEE.

[Ed's. Note.—The following complete story on the proper care of crystal microphones appeared in a recent Electro-Voice release—Lighthouse Larry.]

"What causes crystal microphones to lose sensitivity? To answer this, let's first see what the crystal is made from.

"Rochelle salt crystals are formed synthetically. When the rochelle salt crystal is grown, it takes four molecules of water of crystallisation for every molecule of sodium potassium tartrate. In humid climates, the crystal has the property of absorbing moisture and the result is leakage resistance or low output. Placing the microphone or cartridge in a silica gel desiccator will reduce this excess moisture, but there is the possibility that if left in too long, the moisture content of the crystal might be lowered to the point of damage.

"If the humidity is less than 23% for a long period, you will get dehydration or drying out. If the temperature rises to 127°F. the sodium potassium tartrate dissolves into the water of crystallisation. In other words, if a crystal microphone gets too hot, too dry or too wet, it won't work.

"These statements seem to run down devices using rochelle salt crystals. This is not true. If the humidity is between 23% and 86%, except for brief periods, crystals will stand up fine. If the temperature is below 127°F., no trouble will result. That's why the manufacturer puts a guarantee on crystal devices and caution is given about heat. Occasionally crystals are damaged when the limits mentioned above are exceeded.

"Rochelle salt crystals are treated to prevent damage from moisture. E-V has given an additional protection for added life on crystal cartridges. The case is competely filled with silicone to prevent moisture from getting to the crystal. Leads are a bad spot for moisture to enter and the E-V silicone treatment eliminates this fault. E-V crystal devices are all thoroughly moisture inhibited, the result of intensive moisture-proofing research." (Electro-Voice "Report to the Distributor," August 15, 1949. Reprinted by permission of Electro-Voice, Inc.)

R.A.A.F. ACTIVE RESERVE

ADMINISTRATIVE POLICY

1. The basic object of the Active Reserve is to enable unit commanders of certain specified units to obtain their requirements of personnel (by ranks and musterings) necessary to bring their units to provisional war establishments. It is intended that these personnel should be obtained, if possible, from the local district.

2. At the present time, there should be little difficulty in securing ample numbers of war-trained men who are prepared to accept the obligation of being available for immediate call-up on mobilisation being ordered.

3. The unit commander concerned is responsible for selecting and enlisting the best available volunteers—such volunteers can be grouped as:—

(a) Ex-R.A.A.F. personnel.
(b) Ex-Navy and Army personnel.
(c) Qualified men with no Service background.

It is not intended to restrict the unit commander in any way to his choice, or priority of selection of these personnel —he is expected to select the best offering. In those cases where insufficient personnel of an acceptable standard are offering locally, area commanders may obtain the units' needs from any convenient locality.

4. Some may be fully and completely qualified to fill establishment vacancies —others may not. In the case of the former, their service at units will be entirely productive. However, in the case of the latter, the unit commander will no doubt point out that he (the active reservist) will need some training in order to qualify for his post, and that a maximum of 28 days per annum is available for him to do such training at the unit. If he cannot give the necessary time, it may not be worth while enlisting him. It is imperative that it be clearly understood by all concerned that there is no fixed or obligatory period of training—the 28 days is the maximum period for which pay may be given each year.

CONDITIONS OF SERVICE

5. Personnel will be appointed or engaged for a period of five years followed by five years on the General Reserve.

6. Personnel will be liable for immediate mobilisation in the event of an emergency or on the outbreak of war. They will be subject to such other general obligations as reservists in accordance with applicable Air Force orders.

7. Personnel in the Active Reserve will be subject to the conditions and rates of pay at present in force for members of the Active Citizen Air Force. Payment will be approved up to a maximum of 28 days per year; for attendances for periods of less than a full day, payment will be calculated on a pro-rata basis.

8. Personnel will be provided with uniforms and Service clothing rank.

9. Ranks on appointment or enlistment in the Active Reserve will be in accordance with those provided in the provisional war establishments. It may not be possible for all members to be appointed or enlisted in their former wartime ranks, but in the event of an emergency or outbreak of war such personnel will not be prejudiced nor superseded by members who choose to remain on the General Reserve. When a member completes his service on the Active Reserve he will be transferred to the General Reserve in either his former rank or such higher rank as he may attain whilst on the Active Reserve. Members without former R.A.A.F. service will be appointed or engaged with the normal commencement rank for the Permanent Air Force, i.e. Pilot Officers and Aircraftmen.

PUBLICITY

10. Publicity for the Active and General Reserve will be incorporated in the Australia-wide recruiting campaign. Separate instructions have already been issued to area authorising unit commanders and area commanders arranging with State Directors of Recruiting suitable local publicity for the Active Reserve.

RECRUITING

11. Personnel will be recruited from either:—

(a) Present members of the R.A.A.F. Reserve;
(b) Direct from civil life, with or without former defence service and experience.

QUALIFICATIONS FOR APPOINTMENT AND/OR ENLISTMENT

12. Retirement will be governed by the following retirement ages:—

Rank	GD	Other Branches
Flight Lt.	45	54
Sqn. Leader	48	54
Wing Cdr.	53	57
Group Cpt.	55	60

Airmen: 55 years for all musterings, except aircrew for whom retiring age will be 40 years.

13. Personnel selected for exclusive employment as pilots should not be over the age of 32 years at the time of appointment or enlistment.

CIVILIAN EMPLOYMENT

14 (a). **Reserved Occupations.**—In due course it may be necessary to debar from service on the Active Reserve those persons who are in reserved civil occupations, e.g. civil airlines, aircraft industry, etc. At this stage, however, it is not clear which persons will be prevented from leaving their occupations in the event of war. In the meanwhile, persons who would obviously be unavailable on the outbreak of war are not to be enlisted.

(b) **Employer Relationship.**—Employers are not compelled to grant leave of absence during their absence on Air Force service. The most that can be expected is that employers will follow the example set by the Government in releasing members of the Public Service and subsidising their pay. Personnel attending for Air Force duty, therefore, should be provided with an official statement verifying their attendance.

MEDICAL

15. Personnel appointed or enlisted in the Active Reserve will be subject to medical fitness to the same standard as laid down for P.A.F. members of the appropriate categories or musterings.

The South African International DX Contest, January, 1951

This Contest is open to all Licensed Hams in the world and is sponsored by the South African Radio League.

GENERAL

1. This Contest is open to all Licensed Hams in the world, but the prizes can only be won by a member of a recognised society of the I.A.R.U.

2. All countries as listed in the official countries list of the A.R.R.L. 1950 Handbook will be eligible.

3. The above is also the official country list for scoring.

4. The Contest will take place on 20th January, 1951, at 00.01 hours Saturday, to 24.00 hours G.M.T., Sunday, 21st, on c.w. only.
From 00.00 Saturday, 27th January, 1951, to 24.00 hours Sunday, 28th, on telephony.

5. The bands to be used will be the 40, 20 and 10 metre bands.

RULES

1. A contestant is bound by the rules governing this Contest.

2. Contacts with unlicensed and Government stations is forbidden.

3. A contestant must submit log sheets which must show an analysis and a signed declaration.

4. An incomplete log or the omission to submit an analysis or failure to make the declaration will disqualify the contestant. An incomplete entry will not count as points.

5. The judging will rest with the Contest Committee, S.A.R.L., and in cases of dispute the decision of the Chairman will be final.

6. Serial numbers comprising 6 (six) figures for c.w. and 5 (five) for telephony as the case may be. The first three figures for c.w. or two figures for phone will be the report.

7. Off band operation will disqualify the contestant.

8. Cross band operation is not allowed.

9. Scoring. The method of scoring for each band is as follows: ZS Stations score 2 points for working other ZS Stations and 5 points for contacts in other countries as listed in A.R.R.L. list. The multiplier is the number of countries worked on all bands. Rest of the world work ZS Stations only and score 5 points per station worked, with a multiplier of total number of ZS divisions worked on all bands.

10. Serial numbers will change with each contact. When you work your first station your number will be the RST report plus any three figures. Your second contact the number will be RST plus the last three figures of the first contact. You continue to use this method throughout the contest. For example:—

Number Sent	Number Received
559111	559777
559777	559802
559802	559818

11. Logs are to be sent to the following address: Contest Committee, P.O. Box 8911, Cape Town, South Africa, and must arrive by 30th April, 1951.

12. The declaration will be as follows: I hereby declare that my station was operated strictly in accordance with the conditions and rules of this Contest, and I agree to abide by the decision of the Chairman in the event of dispute.

13. The Log Sheets must be in the following form:—

S.A. INTERNATIONAL DX CONTEST, JAN., 1951
Name.....Call Sign.....
Address .....

Date and Time Cont. G.M.T.	Band Used	Call Sign	No. Sent	No. Revd.	Country	Pts.

14. An analysis must show the following:—
Number of countries worked.
Number of contacts.
Number of points.
Number of bands worked.

PRIZES

The winners of each section in South Africa will receive a DX Cup together with a certificate, the runner-up will receive a certificate. Certificates will also be awarded to the top scorers in each country.

N.S.W. Division Hold Field Day at Woy Woy

Once again the Annual Woy Woy Field Day (held on Sunday, 26th November, 1950) has fully maintained its reputation as one of the brighest one-day functions held in N.S.W. Active preparations commenced some months ago when that energetic trio—2KR, 2GA and 2RU—got their heads together and submitted plans to Council for the big fiesta. It was expected that the function would supersede last year's effort and this hope was realised when over 150 members and their families and friends turned up at Woy Woy despite the early prospect of a dismal day. Fortunately the weather turned out favourably and full advantage was taken of this.

Although timed to start at 11 a.m., there was a huge gathering of the gangs who had determined to get in early for a good "earbash" with some of the "blokes you work, but rarely see or meet." Among the registrations the following were noted:—VKs 2EF, 2AJQ, 2ACD, 2ARF, 2AXZ, 2ARY, 2OF, 2AJB, 2YC, 2HZ, 2RU, 2ZP, 2KP, 2DY, 2LY, 2GA, 2XU, 2AVO, 2AMW, 2SF, 2UY, 2AAI, 2AIO, 2AYE, 2EO, 2AYP, 2ARV, 2AMM, 2WH, 2RF, 2WF, 2AX, 2YL, 2PZ, 2KF, 2CS, 2XY, 2ADT, 2KZ, 2FP, 2AHA, 2MM, 2CE, 9GW, 2ZC, 2AGD, 2VW, 2AJZ, 2WJ, 2QZ, 2XT, 2BG, 2OA, 2YM, 2IT, 2PU, 2AAM, 2YI, 2MQ, 2FO, 2HO, 2AET, 2NX, 2EH, 2AOA, 2XX, 2IO, 2RQ, 2ARN, 2YR, 2ADW, 2CZ, 2AGN, 2GH, 2ACV, 2ACW, 2AAB, 2ASW, 2VL, 2XH, 2ARD, 2LX, 2ZW, 2AEZ, 2LS.

The country zones were well represented by members from Inverell, Forbes, Dubbo, Bellingen, Cessnock, Wollongong, Coffs Harbour. An overseas visitor in the person of VK9GW was welcomed. The Newcastle gang turned out in great style under the leadership of their President, 2CS, and it seemed that the Hunter Branch were holding their annual convention.

Registration duties were ably managed by 2HZ, while President 2YC "went to town" meeting all members and interesting them in some intriguing guessing competitions. An alfresco lunch occupied the first part of the morning and, thanks to the wonderful kitchen effort of Mrs. Hardman (XYL of 2KR) and 2OF, there was full and plenty for all. Indeed, tea seemed to flow all day long and the gang took full advantage of it. For the harmonics, there was a copious supply of "lolly water" and milk.

Two transmitters were hidden for the competition, one on 144 and the other on 3.5 Mc. The hunt was started at 2 p.m. and the 144 Mc. job was unearthed by 2AAN and party in 23 minutes. Second to locate was 2AGN who arrived one minute behind 2AAN, with 2AAB close on his heels.

BY D. E. EVANS, VK2AYE

The 3.5 Mc. proposition proved a more difficult job and it took 2SF and party 70 minutes to run it to ground. In this case the runners-up were also close, 2XU completing the course in 71 minutes with 2XT a few seconds later.

The return to base was accomplished in remarkably fast time as a signal from one of the boys indicated that the broaching of a 14 watter was imminent.

An interesting innovation was the Amateur Quiz (appended herewith). This was won by 2CS who turned in 8½ correct answers out of 10, and the runner-up was 2ZC with a score of 8½.

In the L/C circuit competition, the oscillator was set on 7050 Kc. and the nearest guess was provided by 2ACW's YL who guessed 7025 Kc. Associate Horrie Oakes ran second with 7080 Kc.

A recording was played which gave short "bursts" of contacts on 7 Mc. band and contained twenty-three voices. This was won by 2AHA with a return of 11 correct, followed by 2ADT with a score of eight.

The winners of the lucky numbers for ladies and gentlemen, call books and disposals raffles were announced.

While the above events were being completed, a lucky dip was being thoroughly explored at 6d. a dip and some of the finds turned out to be amazingly good value. There were tubes in plenty, one lucky gent pulling out a good 813 while there seemed to be an endless supply of 807s and smaller fry. Headphones also came to light and a couple of "booby" traps were unearthed. It was amazing to watch some of the "old hands" feverishly digging around in the sawdust and then taking their place in the queue for another go. While the dip was in progress, Jim Corbin gave a running commentary from the stage of the prowess of the various "dippers" and announced the nature of their finds.

Main event of the afternoon was the presentation of prizes and Jim Corbin delegated this pleasant duty to Lionel Swain, President of the Hunter Branch. Lionel prefaced the job with a happy remark or two, possibly prompted by the fact that the Hunter Branch had almost scooped the pool and shown those city slickers a few points, and called the lucky winners to the stage for their prizes. On the completion of presentations, President Jim Corbin made a brief address, the main point of which was an appeal to the XYLs to allow the OM to be more active in the coming year—particularly as they **had** brought them to Woy Woy for the day!

The thanks of the Division are deservedly due to the Committee who implemented the programme—Cec., John and Major—who should be quite happy about the outcome. To Mrs. Hardman and Jack Francis, who did a trojan job in the kitchen, everybody is indebted.

The next outstanding event in the Division Calendar will be the Hamfest during the week-end of the National Field Day. An attractive programme has been arranged and it is hoped that members will endeavour to get set for portable operation on the Field Day and arrange individual picnic parties during which contacts may be made and logs recorded. The Council will appreciate an effort on the part of members to place this Division in a leading position in the Contest.

N.S.W. FIELD DAY RADIO QUIZ

1. What was the call sign of the first Australian Station to contact a DX station (over 2,000 miles) on the 50 Mc. band?
2. What is a "Discriminator"?
3. Reg Fox is the operator of a rare DX Station. What is his call sign?
4. Who is the Federal President of the W.I.A.?
5. What does "Nagaoka's Constant" concern?
6. What is "Schott Noise"?
7. In the late 30's an Australian, world famous in Amateur Radio, was killed while experimenting with Television. Who was he?
8. Approximately how many materials are used in the manufacture of radio valves?
9. What are the Amateur prefixes for the following countries: Turks and Caicos Islands, Swan Island, Christmas Island, Vatican City, Bulgaria?
10. What is an "Endfire" Array?

(Answers on Page 13).

TASMANIA WINS AGAIN

RESULTS OF 1950 REMEMBRANCE DAY CONTEST

Despite the fact that there was some preliminary misunderstanding with respect to Rule 1—the duration—of the 1950 Remembrance Day Contest, which was incorrectly published in the August issue of "Amateur Radio," the Contest got away to a flying start with greater activity than in any previous year. Although VK7 have won again, closely contested by VK6, the statistics published below indicate clearly that the winning State was far from being the most active participant and won by virtue of the fact that their low State Amateur licensee figure gave them a high multiplier number for the percentage of logs sent in.

Comparison of the logs received with the licensed Amateurs in VK6 and VK7 shows an approximate percentage of one third. Taking, for example, the VK2 Division with the highest State Amateur licensee figure—992 at the time of the Contest—and assuming that the logs received had been one third of this figure, VK2 still could not have won the Contest!

It appears to be impossible for the larger States to win, indicating that something must be done to the scoring system to give a more even chance to all States. Your suggestions will be gladly received.

Generally speaking the standard of the logs sent in was good though much extra work had to be done by the Contest Committee where members had not summarised their logs fully.

The percentage of logs sent in was disappointing, necessitating giving entrants the benefit of the doubt where there was no log to check against. **Why don't you send your log in and help your State score even if you have not had many contacts?**

Due to conditions there was very little activity on the 28 Mc. band, most of the operating being confined to the 7 and 14 Mc. bands with quite a deal of activity on the 3.5 Mc. band. Had the 28 Mc. band been open the results could have been quite different.

The time factor involved in having these results ready in time for the January issue of the magazine which, because of the Christmas and New Year holidays, goes to press much earlier than usual, coupled with the fact of a shortage of space in the magazine, has made it impossible to publish more than the top twenty entrants in the Contest. However, Federal Executive would like to thank all those who assisted in making this Contest a success for 1950.

Our hearty congratulations go to Tasmania who keep the Trophy for the second year running.

INDIVIDUAL SCORES

Individual scores of the top twenty in each State are listed below. The figures represent in the following order: Call, Type of Emission (O—phone and c.w., P—phone only, and C—c.w. only), Bands Used, Contacts, and Points scored.

NEW SOUTH WALES

VK2PA	O	4	237	621	VK2DO	O	3	121	296
VK2EO	O	4	192	583	VK2OA	O	2	108	292
VK2ZC	O	4	169	463	VK2OK	P	3	117	289
VK2BX	P	3	152	420	VK2AYP	O	3	103	278
VK2SH	O	3	153	411	VK2OT	P	3	104	270
VK2ADT	O	4	146	407	VK2XQ	O	3	96	258
VK2WH	O	3	155	386	VK2AMM	O	2	94	229
VK2ASM	P	2	123	386	VK2PN	O	3	84	224
VK2AMV	O	3	128	384	VK2XU	O	3	77	215
VK2BO	O	3	110	314	VK2PQ	P	2	80	207

VICTORIA

VK3ZK	O	3	203	496	VK3ARL	P	3	117	284
VK3BD*	O	3	177	465	VK3AWW	O	2	85	267
VK3ADF	O	3	146	373	VK3FII	C	2	92	265
VK3JG	P	3	141	367	VK3RH	O	2	99	245
VK3FF	O	3	145	354	VK3JZ	O	2	100	243
VK3XB	O	3	130	337	VK3ZA	O	2	84	223
VK3ATN	O	3	121	304	VK3AEP	O	3	76	194
VK3JE	O	3	96	300	VK3KC	P	1	83	171
VK3DG	O	3	116	298	VK3HG	O	2	50	141
VK3ZC	C	3	118	297	VK3YS	C	3	51	128

* Non-Member of W.I.A.

QUEENSLAND

VK4QL	C	3	109	438	VK4SE	O	1	110	235
VK4TU	O	2	177	419	VK4RF	O	1	100	217
VK4KW	P	2	148	365	VK4NC	P	1	66	180
VK4FN	P	3	143	362	VK4PR	P	2	71	180
VK4FH	P	2	157	358	VK4XJ	O	2	59	165
VK4BQ	O	2	158	347	VK4DI	P	1	56	160
VK4CG	O	2	130	347	VK4GH	O	2	46	99
VK4AI	O	2	137	346	VK4FP	P	1	32	92
VK4RW	P	1	100	251	VK4JF	C	3	30	62
VK4BO	O	2	103	238	VK4LB*	P	2	21	45

* Non-Member of W.I.A.

SOUTH AUSTRALIA

VK5KN	P	2	164	417	VK5RR	O	2	100	258
VK5OU	C	3	132	380	VK5KE	O	2	99	230
VK5CT	O	3	155	365	VK5MD	C	3	96	228
VK5NK	C	3	128	348	VK5LQ	O	2	84	218
VK5EN	P	2	130	345	VK5MK	P	3	95	210
VK5FM	O	3	127	327	VK5HI	O	1	67	196
VK5CE	P	2	133	315	VK5LL	O	2	67	181
VK5AX	P	2	126	296	VK5WF	O	1	57	169
VK5CO	O	2	109	286	VK5GL	P	2	62	161
VK5JS	C	2	101	203	VK5HR	O	2	61	161

VK5LC was disqualified for incorrect points scoring system.

WESTERN AUSTRALIA

VK6RU	O	3	232	558	VK6SA	C	2	24	58
VK6KW	O	2	211	492	VK6WZ	C	1	16	33
VK6DX	O	3	205	484	VK6JK	O	1	9	26
VK6FL	O	2	191	467	VK6MG	P	2	11	25
VK6KR	O	2	187	448	VK6DM	C	1	9	24
VK6MB	O	3	147	357	VK6LM	P	1	9	21
VK6AS	O	3	57	182	VK6WT	C	1	7	21
VK6LJ	C	2	44	104	VK6RW	P	1	7	19
VK6DW	O	3	37	84	VK6WM	C	1	7	19
VK6QU	P	2	25	60	VK6MO	P	1	7	18

TASMANIA

VK7RK	O	3	202	532	VK7MC	P	1	76	141
VK7JB	O	3	207	523	VK7DS	C	2	53	128
VK7PF	O	2	163	404	VK7LE	P	1	38	105
VK7OM	O	3	134	333	VK7LZ	O	2	34	95
VK7AL	O	2	113	329	VK7LD	P	2	46	89
VK7LJ	O	3	111	285	VK7KA	O	2	34	71
VK7RL	P	3	108	276	VK7BQ	P	2	23	66
VK7RY	C	3	78	159	VK7CK	P	2	23	62
VK7BH	O	2	76	150	VK7CT	P	1	23	61
VK7IL	O	3	77	148	VK7AB	P	2	28	60

NEW GUINEA, Etc.

Logs were received from three VK9s which precludes them becoming eligible to contest the Trophy.

VK9MR	C	1	45	118
VK9GW	C	2	47	108
VK2VN/9	C	1	15	24

LISTENER'S LOG

HERS-195 E. Trebilcock . . . . O 2 116 289

A Check Log was received from VK6LZ—Thanks OM!

	VK2	VK3	VK4	VK5	VK6	VK7	VK9
Eligible logs received	79	46	25	67	60	37	3
Licensed Amateurs at time of Contest	992	909	306	308	185	95	29
Multiplier	0.079	0.051	0.081	0.217	0.324	0.389	
Average of first six logs	484.1	399.0	380.8	363.6	467.6	400.8	
Final State score, 1950	38.24	20.35	30.84	78.90	151.5	155.9	
Final State score, 1949	16.16	10.98	16.3	26.77	49.47	74.59	
Place for 1950	4	6	5	3	2	1	
Place for 1949	5	6	4	3	2	1	

DX Countries of the World

The list of countries as hereunder, and as amended from time to time in Federal Notes, is the Official List to be used in connection with the issue of the Australian DX C.C. Award, and is also the official list used by the A.R.R.L. for their Award.

The list below shows first the Country, the Zone number in parenthesis (as used by the "CQ" W.A.Z. Award) and the Amateur Prefix.

Aden and Socotra Island (21) VS9
Afghanistan (21) .... YA
Alaska (1) KL7
Albania (15) .... ZA
Aldabra Islands (39)
Algeria (33) .... FA
Andaman & Nicobar Is. (26) VU5
Andorra (14) .... PX
Anglo-Egyptian Sudan (34) .... ST
Angola (36) CR6
Antarctica (13) KC4
Argentina (13) .... LU
Ascension Island (36) ZD8
Australia (inc. Tas.) (29, 30) .... VK
Austria (15) .... (MB9), OE
Azores Islands (14) CT2

Bahama Islands (8) VP7
Bahrein Island (21) MP4
Baker, Howeland & Am. Phoenix Islands (31) KB6
Balearic Islands (14) EA6
Barbados (8) VP6
Basutoland (38) ZS8
Bechuanaland (38) ZS9
Belgian Congo (36) OQ5
Belgium (14) .... ON
Bermuda Islands (5) VP9
Bhutan (22)
Bolovia (10) .... CP
Bonin and Volcano Islands (Iwo Jima) (27) KG6
Borneo, British North (28) VS4
Borneo, Netherlands (28) PK5
Brazil (11) .... PY
Brunei (28) VS5
Bulgaria (20) .... LZ
Burma (26) .... XZ

Canteroons, French (36) .... FE
Canada (2, 3, 4, 5) .... VE, VO
Canal Zone (7) KZ5
Canary Islands (33) EA8
Cape Verde Islands (35) CR4
Caroline Islands (27) KC6
Cayman Islands (8) VP5
Celebes & Molucca Is. (28) PK6
Ceylon (22) VS7
Chagos Islands (39) VQ8
Channel Islands (14) .... GC
Chile (12) .... CE
China (23, 24) .... (B), C
Christmas Island (29) ZC3
Clipperton Island (7) FO8
Cocos Island (7) .... TI
Cocos Islands (29) ZC2
Colombia (9) .... HK
Comoro Islands (39) FB8
Cook Islands (32) ZK1
Corsica (15) .... FC
Costa Rica (7) .... TI
Crete (20) .... SV
Cuba (8) .... CM, CO
Cyprus (20) .... (MD7), ZC4
Czechoslovakia (15) .... OK

Denmark (14) .... OZ
Dodecanese Islands (Rhodes) (20) SV5
Dominican Republic (8) .... HI

Easter Island (12)
Ecuador (10) .... HC
Egypt (34) .... (MD5), SU
Eire (Irish Free State) .... EI
England (14) .... G
Eritrea (37) .... (MD3), MI6
Ethiopia (37) .... ET

Faeroes, The (14) .... OY
Falkland Islands (13) VP8
Fanning Island (Washington Is.) VR3
Fiji Islands (32) VR2
Finland (15) .... OH
Formosa (24) C3
France (14) .... F
French Equatorial Africa (36) FQ
French India (22) .... FN
French Indo-China (26) .... FI
French Oceania (Tahiti) .... FO
French West Africa (35) .... FF
Fridtjof Nansen Land (Franz Josef Land) (40) UA1

Galapagos Islands (10)
Gambia (35) ZD3
Germany (14, 15) .... DL
Gibraltar (14) ZB2
Gilbert, Ellice & Ocean Is. (31) VR1
Goa (Portugese India) (22) CR8
Gold Coast (and British Togoland) (35) ZD4
Greece (20) .... SV
Greenland (40) .... OX
Guadeloupe (8) .... FG
Guantanamo Bay (8) KG4
Guatemala (7) .... TG
Guiana, British (9) VP3
Guiana, French, and Inini (9) .... FY
Guiana, Netherlands (Surinam) (9) PZ
Guinea, Portugese (35) CR5
Guinea, Spanish (35)

Haiti (8) .... HH
Hawaiian Islands (31) KH6
Heard Island (39) VK1
Honduras (7) .... HR
Honduras, British (7) VP1
Hong Kong (24) VS6
Hungary (15) .... HA

Iceland (40) .... TF
Ifnl (33)
India (22) .... VU
Iran (21) .... EP, EQ
Iraq (21) .... (MD6), YI
Ireland, Northern (14) .... GI
Isle of Man (14) .... GD
Israel (20) 4X4
Italy (15) I

Jamaica (8) VP5
Jan Mayen Island (40)
Japan (25) .... JA
Jarvis & Palmyra Is. (31) KP6
Java (28) .... PK
Johnston Island (31) KJ6

Kenya (37) VQ4
Kerguelon Islands (39) FB8
Korea (25) .... HL
Kuwait (21) .... (VT1)

Laccadive Islands (22) VU4
Lebanon (20) AR8
Leeward Islands (8) VP2
Liberia (35) .... EL
Libya (34) .... (MC1, MD1, MD2, MT2)
Liechtenstein (15) HE1
Luxembourg (14) LX

Macau (24) CR9
Macquarie Island (30) VK1
Madagascar (39) .... FB
Madeira Islands (33) CT3
Malaya (28) VS1, 2
Maldive Islands (22) VS9
Malta (15) ZB1
Manchuria (24) C9
Marianas Is. (Guam) (27) KG6
Marion Is. (and Prince Edward Is.) (39) ZS2
Marshall Islands (31) KX6
Martinique (8) .... FM
Mauritius (39) VQ8
Mexico (6) .... XE
Midway Island (31) KM6
Miquelon & St. Pierre Is. (5) .... FP
Monaco (14) .... (CZ)
Mongolian Rep. (Outer) (23) .... (JT)
Morocco, French (33) .... CN
Morocco, Spanish (33) EA9
Mozambique (37) CR7

Nepal (22) VU7
Netherlands (14) .... PA
Netherlands West Indies (9) .... PJ
New Caledonia (32) .... FK
New Guinea, Netherlands (28) PK7
New Guinea, Territory of (28) VK9
New Hebrides (32) .... FU, YJ
New Zealand (32) .... ZL
Nicaragua (7) .... YN
Nigeria (35, 36) ZD2
Niue (32) ZK2
Norfolk Island (32) VK9
Norway (14) .... LA
Nyasaland (37) ZD6

Oman, Trucial (21) MP4

Pakistan (22) .... AP
Palau (Pelew) Islands (27) KC6
Palestine, Arab (20) ZC8
Panama (7) .... HP
Papua Territory (28) VK9
Paraguay (11) .... ZP
Peru (10) .... OA
Philippine Islands (27) .... DU
Phoenix Is., British (31)
Pitcairn Island (32) VR8
Poland (15) .... SP
Portugal (14) CT1
Principe & Sao Thome Is. (36)
Puerto Rico (8) KP4

Reunion Island (39) .... FR
Rhodesia, Northern (36) VQ2
Rhodesia, Southern (38) .... ZE
Rio de Oro (33) .... (EA8)
Roumania (20) .... YO
Ryukyu Is. (Okinawa) (25) KR6

St. Helena (36) ... ZD7
Salvador (7) ... YS
Samoa, American (32) ... KS6
Samoa, Western (32) ... ZM
San Marino (15) ... (M1)
Sarawak (28) ... VS5
Sardinia (15) ... IS
Saudi Arabia (Hedjaz & Nejd) (21) HZ
Scotland (14) ... GM
Seychelles (39) ... VQ9
Siam (26) ... HS
Sierre Leone (35) ... ZD1
Sikklm (22) ... AC3
Solomon Islands (28) ... VR4
Somaliland, British (37) (MD4), VQ6
Somaliland, French (37) (MD4), FL
Somaliland, Italian (37) (MS4, MD4)
South Georgia (13) ... VP8
South Orkney Islands (13) ... VP8
South Sandwich Islands (13) ... VP8
South Shetland Islands (13) ... VP8
Southwest Africa (38) ... ZS3
Soviet Union:
European R.S.F.S.R. (16) UA1, 3, 4, 6
Asiatic R.S.F.S.R. (17, 18, 19) UA9, 0
Ukraine (16) ... UB5
Belorussian S.S.R. (16) ... UC2
Azerbaijan (21) ... UD6
Georgia (21) ... UF6
Armenia (21) ... UG6
Turkoman (17) ... UH8
Uzbek (17) ... UI8
Tadzhik (17) ... UJ8
Kazakh (17) ... UL7
Kirghiz (17) ... UM8
Karelo-Finnish Republic (16) UNI
Moldavia (16) ... UO5
Lithuania (15) ... UP2
Latvia (15) ... UQ2
Estonia (15) ... UR2
Spain (14) ... EA
Sumatra (28) ... PK4
Svalbard (Spitzbergen) (40) (LA)
Swan Island (8) ... KS4
Swaziland (38) ... ZS7
Sweden (14) ... SM
Switzerland (14) ... HB
Syria (20) ... YK

Tanganyika Territory (37) ... VQ3
Tangier Zone (33) ... EK
Tannu Tuva (23) ... (TT)
Tibet (23) ... AC4
Timor, Portuguese (28) ... CR10
Togoland, French (35) ... FD
Tokelau (Union) Islands (31)
Tonga (Friendly) Islands (32) ... VR5
Transjordan (20) ... ZC1
Trieste (15) ... AG2, MF2
Trinidad and Tobago (9) ... VP4
Tristan da Cunha & Gough Is. (38) ZD9
Tunisia (33) ... (3V8), FT
Turkey (20) ... TA
Turks & Caicos Islands (8) ... VP5

Uganda (37) ... VQ5
Union of South Africa (38) ... ZS
United States of America (3, 4, 5) K, W
Uruguay (13) ... CX

Vatican City State (15) ... HV
Venezuela (9) ... YV
Virgin Islands (8) ... KV4

Wake Island (31) ... KW6
Wales (14) ... GW
Windward Islands (8, 9) ... VP2
Wrangel Island (19)

Yemen (21)
Yugoslavia (15) ... YU

Zanzibar (37) ... VQ1

STAND OFF INSULATORS

Cheap, strong, electrically nearly perfect, convenient and easily installed one hole mounting Stand Off Insulators or tie points can be made as follows:—

From a length of quarter inch or five-sixteenth inch polystyrene rod a section the length of the desired insulator is cut and each end is squared smooth with a file. Along the axis a hole is drilled vertically into each end of the rod and a thin self tapping steel screw one third to one half inch long is driven in.

As long as the self tapping screws are not too thick in relation to the tube diameter, the polystyrene will not break and the screw will lock rigidly. One of the screws is used to secure the rod to the chassis or panel. A solder-lug is fixed with the other to carry conductors or equipment.

When installed, this simple insulator, the construction of which is a matter of seconds, is amazingly strong and rigid.

It will be found abundantly substantial to support inductances and similar equipment in v.h.f. transmitters and it has an attractively low self capacitance at the "hot" point.

It is better to use a hand drill running slowly than any powered drill in making the holes as less heat is generated in the process and a cleaner job results.

The usual precautions must be observed in soldering to the lug to avoid overheating and distortion, but the heat conveyed into the body of the insulator by the screw will frequently tend to seal the screw into its anchorage and make an even firmer job.

—Anonymous, Canberra.

DX NOTES BY VK4QL

Each month of late I have been hoping that we had reached the stage that we would not be digging so deep into the "DX bucket" looking for something to work with ease and comfort, but November in North Queensland needed deep digging and fairly hard work, trying to read stations through the exceptionally high and continuous static on the 14 Mc. band. I have done practically nothing this month on 3.5 and 7 Mc. for the reason that static was so severe day after day. It apparently has not been isolated to this QTH, as southern stations have all complained along the same lines.

With the poor conditions on 14 Mc., one thing has been very noticeable, and that is the big increase in poor signals, as far as quality goes, emanating from VK and ZL. At one time a T9X or good phone was the rule, but now it is fast becoming the exception more than the rule to hear the real good signals. Many T6 and T7 carriers are on the band, and then these are modulated with nerve shattering results to those trying to dig for the weak DX. Key clicks, chirps, parasitics, sidebands are heard from the same stations day after day, which either indicates they don't care for their fellow Hams or dishonest reports are being given. One Brisbane phone station had three S9 sigs on the band here. You can imagine what it did to DX. Somebody else has a poor sense of humor, as "v.f.o. or more correctly transmitter swishing" has been prevalent. One bloke had a T5 signal at S9, going up and down the band. These antics go on for considerable periods, and it certainly helps you to read the S4 DX, so blokes in VK, what about cleaning up the bands a bit, eh?

The strangest call heard on the band was MGBN1, and your guess at its derivation is as good as mine. A point of interest comes from KP4HU who said that ET9X will be moving round a bit, and one location will be FL8. As I haven't heard him of late he may be somewhere new now. The old story, you never know what will appear on an apparently dead band, was well borne out this month by stations such as ET6AC, OQ5BR, FQ8AE, CR4AH and MI3VG being worked when things seemed hopeless, as far as 14 Mc. was concerned. Excursions to 7 Mc. produced very little except one or two weak South Africans round about 6.30 a.m.

The rarer prefixes worked or heard for the month were ZK2AA, ZK1AB, ET6AJ, KC6WB, PK7NL, VQ2AB at 3 p.m., EK1AO, HZ1KE, YJ1AA, YJ1AB, C9AA Manchuria, ZB2I, OQ5BR, KB6AQ, CT3AN, UJ8KAA, FQ8AE (Box 69, Fort Lamy), CR4AH Cap Vert Sal Is., ZD2LD, CR6AW, ZC4HX, CR5AC, MI3VG, FO8AI, KW6AO, HK4DP, 4X4RE, HP1LO, HS1VR Army Signal Corps, Bangkok, EQ3FM.

For those who are not aware, FK8AC told me the other day that FK8AD died last June. Vale FK8AD.

2ADV advises that he will be distributing and receiving QSL cards for VR1F. For those who desire to send the card to VR1F, his address is: Don Schroder, P.A.A., Canton Is., Phoenix Group. Don will forward lists of stations worked to Mac. Heard discussion on air the other night as to whether VR1F was a different country to KB6. The DX C.C. Committee could possibly give a ruling on that to set the DX C.C. enthusiasts' minds at rest.

By the way, reverting to the VK8 business, in 1936, I had cause to operate VK8SC and gave VK2VG a VK8 QSO, so another one is chalked up.

VK3CX comes good again, and tells me he has been hearing ZS stations between 3 and 4 p.m. on 14 Mc. This used to be the time one heard them on 28 Mc. Heard AP2N at 5 p.m. VS6s have been heard here as well as Js round 3 p.m. Alan added HR1AT, ZM6AK and FI8GD to his score, making 127 countries. As Alan faded out, his bulletin is incomplete. He said 3YP has 207 and 3FH 187 respectively. By adding 10 new ones for the month, my total for the nine months' operation in VK4 is 129, with 69 confirmed. QSLs from VK1RD and CR10AA have been seen this month. Other QSLs of interest for the month are VP9OO and KV4AA.

● The thought for the month, taken from a Swedish Amateur Radio Society pamphlet: "Amateurs in all the world, form one body emanating mutual friendship, understanding and co-operation. Let us unite even more and help to preserve world Peace."

DX C.C. LISTING

PHONE

Call	No.	Ctrs.	Call	No.	Ctrs.
VK3JU	1	151	VK4JP	8	114
VK3EE	10	148	VK3AWW	14	112
VK3BZ	3	141	VK4WJ	17	104
VK6KW	4	140	VK2ADT	13	102
VK6RU	2	138	VK2AHA	15	102
VK6DD	6	126	VK4WF	16	101
VK3LN	11	125	VK3GG	18	100
VK4HR	12	122	VK3IG	5	100
VK4KS	9	121	VK8JE	7	100

CW

Call	No.	Ctrs.	Call	No.	Ctrs.
VK3BZ	6	183	VK7LZ	17	112
VK2EQ	2	152	VK3JE	21	108
VK3CX	1	151	VK4RC	13	107
VK3PU	15	151	VK2GW	16	107
VK4EL	9	150	VK3YD	27	106
VK2QL	5	141	VK3XK	30	105
VK3VW	4	140	VK5BO	33	105
VK3KB	10	138	VK5FH	31	105
VK6SA	28	136	VK3JI	25	104
VK4HR	8	131	VK2YC	34	103
VK4RF	11	125	VK4FJ	29	102
VH6RU	18	125	VK3APA	14	101
VK3EK	3	122	VK3NC	19	101
VK5RX	23	119	VK3CX	26	101
VK3UM	12	116	VK2OA	32	101
VK4DA	7	113	VK7RK	22	100
VK4DO	20	113	VK7LJ	24	100

OPEN

Call	No.	Ctrs.	Call	No.	Ctrs.
VK3BZ	4	202	VK2ADT	14	113
VK6RU	8	170	VK4RC	21	110
VK3KX	1	167	VK3ZB	34	110
VK4HR	7	167	VK3HT	11	110
VK3HG	3	166	VK4WF	40	100
VK6KW	13	161	VK2ZC	25	108
VK2DI	2	160	VK2YL	11	106
VK3JE	12	154	VK2AHM	20	106
VK4EL	10	150	VK8JI	33	105
VK4DO	15	140	VK3AWN	36	105
VK3MC	5	139	VK2VN	18	104
VK4KS	24	139	VK4UL	27	104
VK3OP	19	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK2ADE	28	133	VK2TI	37	103
VK2AHA	9	128	VK3HO	38	103
VK3LN	29	128	VK6DX	42	102
VK2NS	16	123	VK7RK	31	102
VK4FJ	32	120	VK4TY	35	102
VK7LZ	23	116	VK2ACX	6	100
VK6FL	26	116	VK2TG	30	100
VK3JA	43	114			

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

JANUARY, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forcasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

Canberra charts refer to following world zones:—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N.-West America	San Francisco
3a	N.-East America	New York
4	Central America	Barbados
5	South Africa	Capetown
6	Far East	Manila

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

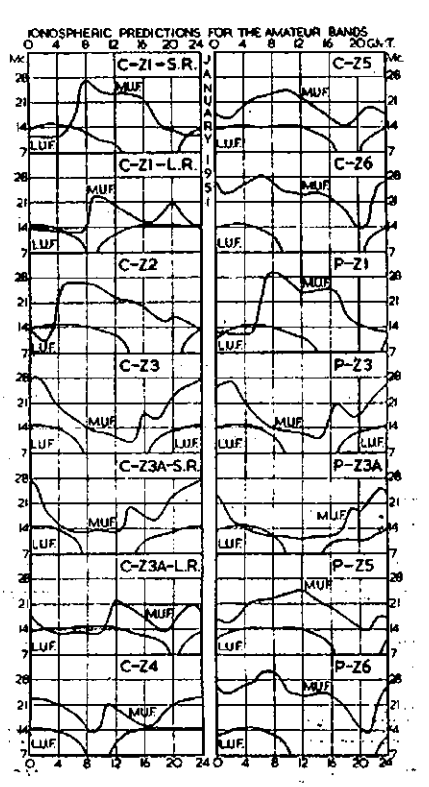
All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere, but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a it is necessary to consult both the short-route (s.r.) chart and the following long-route (l.r.) chart.

QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Perth-Manila circuit would be useful:—

1. Were good conditions experienced on 7 Mc. for the period 1000 to 2200 hours G.M.T.?
2. Was the 14 Mc. band workable around 2000 hours G.M.T.?
3. Was the 28 Mc. band workable from 0600 to 0900 hours G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

In spite of its somewhat later than usual awakening, at the time of writing the 50 Mc. band appears to be offering plenty of opportunities for DX work. By far the most consistent stations have been ZLs, although signals in general have not been as good as could be desired. All ZL districts have been heard and worked by VK2 and VK3 stations.

50 Mc. ACTIVITY

NEW SOUTH WALES

All districts of New Zealand have been worked from Sydney and the Newcastle boys have been getting through to ZL also. The usual time seems to be about when the evening meal is ready here, although the openings last up to 22.00 hours.

An excellent opening to VK7 occurred on 27/11/50 when VKs 7LZ, 7BQ, 7XL, 7AB and 7AJ came through at S9 to the end of a dipole—signals also went in the other direction. VK3s and VK5s also have been worked from Sydney. VK2GU in Canberra has been on to the ZLs. VKs 2VW, 2ABC, 2AH, 2ANF, 2UD, and 2WJ have been raising most of the DX from Sydney and 2ADT in Cessnock is collecting a share of it. 2YR now has a beam and has come up out of the traffic noise with a nice signal.

The VK2WI Sunday night broadcast to v.h.f. members is now quite a complicated affair. 2VW has his beam pointed north on 50 Mc. and initiates the signal. He is relayed by 2DF on 144 Mc. and then this signal is relayed by 2ANF with a beam pointed to the west for Amateurs in the Blue Mountains.

2XK has re-appeared on the band on c.w. as the modulator is out of action—40 watts to a dipole managed to raise VK7. 2LG made a CQ call and hasn't been heard of since.

VICTORIA

November opened up with all the regular VK3 operators keyed up ready for DX, but the first Saturday in the month giving no signs of opening. The last three seasons showed us all good DX openings on this day, but not so this year, possibly due to the sunspot cycle starting to get toward its minimum.

The first signs of DX was on Sunday evening, 12th, around 9 to 9.30 p.m. when VK3BD had a snatchy contact with VK4XN. VK4XN was also heard by VK3RR at McCrae and later contacts showed that these stations were also heard by VK4KK. VK3BQ called CQ as usual on Monday, 13th. at 12.00 hours and was answered by 3IM, 3QO and 3RR and on tuning round in between overs our old friend, 4BT was heard calling CQ. This resulted in hooking up with 3RR on phone for a couple of overs each way.

No more DX was heard until Friday evening, 24th, when 3BD had a quick contact with a ZL, then the following evening (25th) for approx. two hours the ZLIs came through up to S8 and the VK3s had the best opening so far this season. 3RR got over the lump of dirt—Arthur's Seat (1031 ft.)—for the first time to ZL from his McCrae location during this opening. VK2s were heard and also VK5s for a short period. 2WS called 3RR and a good S9 contact was made. 2ADE was having a beautiful local rag chew with 2OS and said that he was going to listen for the beacons—shame on you, Charles, when the band was open.

The band was open between VK3 and ZL again on 27th, 28th and 29th. VK3ZL at Ballarat had a contact with VK6WG on the 29th. VK4s and VK5s were also contacted by VK3s on 27th, 28th and 29th.

The next v.h.f. Field Day is scheduled for Sunday, 14th January, when the boys will be out portable again. Amongst those going out will be 3RR and 3CR who are going to Reid's Lookout near Hall's Gap in the Grampians, 2654 ft. high. Dick and Ken are going up there on the Saturday and will be there with the local boys 3ARL, 3AKR, 3AGD and Dick is taking 100 watt rig on 144 and 50 Mc., powered by petrol driven alternator and it is hoped that contacts will be made with VK5, VK2 and possibly VK7 from this location. The party will also be operating on 40 and 80 metres for teeing up skeds, etc. If any VK5 could operate on Mt. Lofty there may be a chance of getting through and contacts should be made with the VK5s at Mt. Gambier district. Also, if any VK2 could possibly go to Deniliquin or Balranald districts, it is possible that contacts could be made on 144 Mc. However, the boys will be on 80 and 40 metres on the Saturday night and Sunday morning to see who is where.

SOUTH AUSTRALIA

Well the long awaited DX break seems to have come by the number of break throughs during the past few weeks on 50 Mc. The band appears to have opened up a little earlier this year and those who have missed out have no excuse as the warning has been mentioned for the last month or two. One notable point is the early appearance of the VK3s and ZLs. November 28 was an exceptionally good opening with the ZLs in early in the evening then VK7, VK3, VK2 and VK4; no VK6 or Northern Territory were heard although a ZL was heard calling a VK6.

Most VK4s who were on worked several ZLs and then the other States. One prominent VK5 was heard complaining about QRM on 14 Mc., such talk from a v.h.f. man. No reports have been received from any country member on 50 Mc. activity as yet this season, although stations were heard in QSO with 5BC one night. Hughie has been to town and had a listen to his own signal from his brother's place, 5HD. These two are to be commended for their efforts over the past months to keep skeds and it is remarkable the number of times and reliability of their contacts from Renmark to Adelaide on 50 Mc.

144 Mc. enthusiasts are asked to keep a sharp lookout for break throughs on this frequency, especially in the early mornings. Quite frequently during the past few weeks on aircraft frequencies around the 120 Mc. mark, have been wide open and reports are that Mount Gambier and Mildura have been worked from Adelaide, so there is no reason that on 144 Mc. with multi-element beams that the feat could not be accomplished between VK5 and VK3 if pre-warning could be given to enable those interested to get to an elevated position before the band folded. It is suggested to watch for indications on the weather charts for isobar formations showing equal barometric pressures. Any pre-warning that can be given will be done so from this State to anyone interested.

5BC heard QSO 5HD, has an addition to family, a daughter. 5KO heard on 50 Mc. c.w., has been dabbling with harmonic oscillators. 5GL has his beam up again, wider spaced and better performance; recently spent a week in VK3. 5GF also been to VK3 on business. 5PQ reports he is re-building at the moment. 5ZL in amongst the ZLs and worked five in one night. 5RT heard on one night in QSO with 5GF and 5QR. 5UL returned to the band and heard QSO 4LY. 5HD building a xtal converter. Nil heard re the activities of the boys in Darwin, so take it either the mosquitoes or a taipan snake is keeping them off 50 Mc. Happy New Year, gang, and good DXing on the v.h.f.—5KL.

WESTERN AUSTRALIA

Very little to report in the way of fresh activity this month. 6BO, 6GB, 6HR, 6GS, 6DW and 6AS have been the most regular users of the band of late. 6RK not as active as usual. 6BO is getting all ready to go portable down to Bunbury over his holidays. 6HR's beam is still fixed towards the East, but hopes to have it rotatable soon.

Everyone is waiting for the expected break through to the East, but at the time of writing (November 28) there has been no sign of any DX, unless 6WG, down in Albany, has managed to get through. Either he or 6DW in Bruce Rock will probably be the first ones to work the DX. Last year the first break through occurred in the first week of December and the band was only open on seven days that we know of, the last day being January 7. Here's hoping for more re-openings this year.

144 Mc. DOINGS OF THE MONTH

NEW SOUTH WALES

Sixty odd stations took part in the three week-end contest which consisted of two sections—number of contacts and distance worked. Many new stations made their bow on the band and even 2QZ came on with a mod. osc. borrowed from 2PU.

The contest was a happy one and no one seems displeased with it except the Contest Committee who would like a lot more logs—2QZ wants to see them too fellows, to write up your 144 Mc. gear. The results have not yet been released but a chap in Lane Cove seems to have made a lot of contacts. He made 18 new contacts.

The Field Day at Woy Woy saw a large and varied assortment of 144 Mc. gear in cars and on motor cycles too! The hidden 144 Mc. Tx (2XX) was soon located by 2AAN with half a dozen others along soon after. 2ANF, who stayed at home, worked portables VKs 2AET, 2IT, 2BG, 2AAB, 2AYP and 2XX as they were driving back to Sydney.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK5LC	1	
VK4RY	2	2
VK6DW	3	
VK4HR	4	1
VK3PQ	5	1
VK3RR	6	1
VK3HT	7	

The chief feature of the v.h.f. section meeting for November was a debate on the desirability of mod. osc. on the 144 Mc. band. 2YM, 2ANF, and 2ABH extolled the supposed virtues of the blantaphone, and 2QZ, 2ARF and Berne Taylor (an associate member) merely had to point out the obvious advantages of xtal control and modulated amplifiers to secure a moral victory, despite the draw declared by the adjudicator, 2MQ, and the vote of the members for the mod. oscs. 2QZ took along a tiny 2 x 6J6 exciter 4½" x 4" x 2½" with a 8 Mc. xtal to show that the more elaborate gear can be compact. There was much good-natured barracking and everyone agreed that mod. oscs. still have a place on the band—for the tyros and the peripatetics.

Attempts are already being made by 2WJ and 2AH to raise ZLs on this band—which reminds me that there was an opening on Sunday night to Newcastle like a 50 Mc. DX opening. 2VW had his tape recorder going and was able to play back the northerners' signals during the 2WI broadcast. Vaughan will soon be collecting v.h.f. voices so keep a supply of throat lozenges handy.

2ANU is a new signal on the band and is not a badly-sent 2PU! The rig has a vibrator power supply with 6 Mc. xtal and p.p. 7193s in the final.

We hope to have lots of dope on 144 Mc. gear for next month's notes and may the opportunity be taken for wishing the v.h.f. gang the compliments of the season. Good DX and make 100 per cent. QSL the New Year's resolution.

VICTORIA

The v.h.f. group meeting night is the third Wednesday each month. All interested are welcome. With an attendance of 20, the November meeting heard the final results of the October Field Day Contest; reports of activities on the November Field Day; a lecture and demonstration of v.h.f. gear by Mr. C. Jackson, and a discussion regarding the lack of stations using the high frequency end of the v.h.f. bands with particular emphasis on the 50 Mc. and 144 Mc. bands.

3ACH, 3AJI, 3FO, 3JO, 3ABA, 3AUX and 3QQ all reported their activities on the November Field Day. Although fewer stations were active on this Field Day as compared with the previous one, it was nevertheless acclaimed a successful day by all who participated. Once again we had perfect co-operation from the weather and once again signals from VK7KB, who was at the same portable location as on 15th October, were well received and many good contacts made. Unfortunately the Geelong stations and 3AKR and 3AGD were tied up with the S.W. Zone Convention and were unable to participate.

Mr. C. Jackson, of the University, continued his lecture of the previous meeting and, in addition to the oscillators shown then, he demonstrated a wave guide, showing by means of a crystal diode and micro-ammeter, how it was possible to locate the positions of nodes and anti-nodes and so measure the frequency in much the same way as is done with Lecher wires at v.h.f. Mr. Jackson also explained with the aid of diagrams on the board how the electric and magnetic fields are confined in wave guides—altogether a very interesting and informative lecture for which a vote of thanks was suitably accorded.

3FO, group chairman, brought up the matter of the lack of use of the high frequency ends of the v.h.f. bands and declared that because all activity was concentrated at the low frequency ends, there was grave danger that we may have to forfeit these channels. After much animated discussion a motion calling for an agenda item for the forthcoming Federal Convention to ensure that this urgent matter could be tackled on a Federal plane was carried. The real cure for this unsatisfactory state of affairs, of course, lies in the hands of all us Hams. If we are to retain these frequencies for our own use and for the use of future Hams, we must make use of them. Let us therefore put signals on all channels in these bands and make those receivers, which at present cut off at 52 and 146 Mc., cover the complete bands. Remember the Technical Editor is always pleased to get articles for our magazine and you may be able to supply one that may also help your fellow Hams to populate these useful frequencies.

Acknowledgments to VKs 2QZ, 3HN, 3RR, 5KL and 6AS for the above material.

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ANSWERS, AMATEUR RADIO QUIZ

(QUESTIONS ON PAGE 8)

1. VK5KL.
2. The type of detector used for f.m. signals.
3. AC4YN.
4. Bill Gronow, VK3WG.
5. The calculation of the inductance of a coil. It depends on the ratio of coil length to diameter.
6. Noise or hiss produced by random bombardment of electrons flowing from cathode to plate in a valve.
7. Ross Hull.
8. Just over 120 (R.C.A. Tube Manual).
9. VP5, KS4, ZC3, HV, LZ.
10. An array where maximum radiation is in the same plane as the elements. The elements being fed out of phase.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: W. R. GRONOW (VK3WG); Federal Secretary: G. M. HULL (VK3ZS), Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President.—J. Corbin, VK2YC.
Secretary.—David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.
Meeting Night.—Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
Divisional Sub-Editor.—A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt, N.S.W.
Zone Correspondents.—Nth. Coast & Tablelands: J. M. Retallick, VK2XO, Raleigh; Newcastle: H. Whyte, VK2AHA, Vale St., Birmingham Gardens, Newcastle; Coalfields and Lakes: H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cumbijowa, Forbes; South Coast and Southern: R. H. Rayner, VK2DO, 42 Pettit St., Yass; Western Suburbs: A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt, Eastern Suburbs: D. B. Knock, VK2NO, 43 Yanko Avenue, Waverley; North Sydney: L. D. Cuffe, VK2AM, 779 Military Rd., Mosman; St. George: J. A. Ackerman, VK2ALG, 32 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President.—G. S. C. Semmens, VK3GS.
Secretary.—C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).
Administrative Secretary.—Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne, C.1.
Meeting Night.—First Wednesday of each month at the Radio School, Melbourne Technical College.
Zone Correspondents.—Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. E. Tennant, 18 Harold St., Shepparton; Far North Western: M. Folic, 101 Lemon Ave., Hildura; Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cumming Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI.—Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI.—Sundays, 1130 hours EST, simultaneously on 3580 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI.—Sundays, 0900 hours E.S.T. simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WL

VK5WI.—Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangement only on the 7 and 14 Mc. bands.

VK6WI.—Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI.—Sundays at 1000 hours E.S.T. on 7196 Kc. No frequency checks are available.

QUEENSLAND

President.—J. F. Pickles, VK4FP.
Secretary.—W. L. Stevens, VK4TB, Box 638J, G.P.O., Brisbane.
Meeting Night.—Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor.—Clive J. Cooke, VK4CC Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President.—E. A. Barbier, VK5MD.
Secretary.—G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night.—Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor.—W. W. Parsons, VK5PS, 483 Esplanade, Henley Beach.

WESTERN AUSTRALIA

President.—R. W. S. Hugo, VK6KW.
Secretary.—W. E. Coxon, VK6AG, 7 Howard St., Perth.
Meeting Place.—Padbury House, Cnr. St. George's Ter. and King St., Perth.
Meeting Night.—Third Tuesday of each month.
Divisional Sub-Editor.—Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President.—J. Brown, VK7BJ.
Secretary.—R. D. O'May, VK7OM, Box 871B, G.P.O., Hobart.
Meeting Night.—First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor.—S. Excell (VK7SJ), 77 Molle Street, Hobart, Tasmania.
Northern Zone Correspondent.—R. H. Kilby, VK7RK, 5 Galvin Street, Launceston.

FEDERAL

SPECIAL AMATEUR PROGRAMMES

The Belgian National Broadcasting Service have announced the transmission from their Leopoldville Station (Belgian Congo), call letters OTC, of regular twenty minute programmes for Radio Amateurs in collaboration with Amateur Clubs. The station, rated at 50 kw., transmits on 9767 Kc. at the following times:—

1810 G.M.T.—in Dutch.
1910 G.M.T.—in English.
2010 G.M.T.—in French.

Each programme is composed of news about Amateur transmitting and reception, interviews with Belgian and foreign Radio Amateurs, DX news, a letter box and a review of Amateur radio periodicals.

Any interested members are asked to forward a signal report, together with their QSL card to:—Belgian Overseas Service, OTC, Programme DX, 18 Place E. Flagey, Brussels (Belgium).

ADDITIONS, ALTERATIONS, AND DELETIONS TO AMATEUR CALL SIGNS—NOVEMBER, 1950

Additions—

VK2IQ—A. J. E. Robertson, 6 Lachlan Flats, 108 Brook St., Coogee (changed from VK2QZ).
2QZ—Dr. R. H. Black, 36 College St., Sydney (changed from VK2AQZ).
2AEC—R. H. Clark, 13 French Ave., Bankstown.
2AFX—H. J. MacPhee, 23 Scholey St., Mayfield, Newcastle.
2AQR—R. W. Rose, 26 Weir St., Warragamba.
2ATT—T. W. Thatcher, 51 Stanmore Rd., Stanmore.
VK3AY—R. R. C. Davies, 26 Sutherland Rd., Armadale.
3ZZ—W. L. Stevens, 18 Winmalle Rd., Balwyn.
3AAQ—J. Duffy, 706 Mair St., Ballarat.
3ALP—J. R. Cations, 14 Francis St., Werribee.
3AND—N. T. Buchanan, 230 Ascot Vale Rd., Ascot Vale.
VK4KM—J. H. Mack, Willis Island.
4SA—S. J. Armstrong, Hawthorne St., Enoggera, Brisbane.
VK5AH—E. L. Williamson, 24 Salisbury Terrace, Collinswood.
5TF—H. P. Fuller, Night Cliff, Darwin.
5WP—A. H. Watts, 15 Robert St., North Unley.
VK9CS—C. J. Spehr, Lutheran Mission, Madang, N.G.
VK1RF—R. J. Frost, Macquarie Island.

SILENT KEY

It is with deep regret that we record the passing of:—

VK4ER—Eric Rielly, in November, 1950.

VK2ZN—Bill Cottrell, 1st December, 1950.

Alterations—

VK2AL—29 Currawang St., Blakehurst.
2BO—110 Auburn Street, Goulburn.
2BZ—Sundgate Road, Wallsend.
2MC—81 Kenibea Avenue, Kahibah.
2ON—Baan Baan Street, Dapto.
2QI—S.S. "Bilkurra," 25 Castle St., Randwick.
2UG—3 "Acropolis Flats," Parkway Avenue, Newcastle.
2YZ—226 Franklin Street, Matraville.
2ZB—88 Juno Parade, Lakemba.
2ZH—107 Archer Street, Chatswood.
2AQG—Seven Acres, Princes Highway, Heathcote, Sydney.
2AQP—120 Headland Road, Dee Why.
2ASN—No. 18, 23rd Street, Warragamba Dam.
2AWY—65 Dalton Street, Orange.
VK3AN—33 Field Avenue, Edithvale.
3FQ—29 Inkerman Street, Maryborough.
3IQ—Carisbrook, c/o. 3CV.
3KJ—12 MacDonald Street, Colac.
3MH—1010 Mair Street, Ballarat.
3MI—42 Capon Street, Oakleigh.
3PE—80 Munro Street, Coburg.
3QM—41 McIntyre Street, Hamilton.
3ZH—Fernley Avenue, Macleod.
3ABP—R.A.A.F. Station, East Sale.
3AEM—7 Plumbridge St., White Hills, Bendigo.
3AKG—41E Lava Street, Warrnambool.
3ALB—Springvale Road, Glen Waverley.
3ALV—33 Howitt Road, Caulfield North.
VK5DF—Agnes Street, Newtown, Kadina.
5DK—7 Godfrey Terrace, Lea Brook.
VK6GU—460 Canning Highway, Melville.
VK7BH—266 Park Street, Hobart.
7CK—Dairy Plains Estate, Deloraine.
7GK—Cr. Brooke & Tarleton Sts., E. Devonport.

Deletions—

VK2AQ—Cancelled, now operating under VK3AAQ.
2IB—Cancelled.
2QZ—Cancelled, now operating under VK2IQ.
2ANB—Cancelled, now operating under VK3AND.
VK2AQZ—Cancelled, now operating under VK2QZ.
VK3ACG—Cancelled.
VK4IR—Cancelled.
4RQ—Cancelled, now operating under VK2AQR.
4TB—Cancelled, now operating under VK3ZZ.
VK5FC—Cancelled.
5IJ—Cancelled, now operating under VK3AY.
5TK—Cancelled.
VK6DG—Cancelled.
VK9PJ—Cancelled.

W.I.A. ACTIVITIES CALENDAR

Jan. 19: Convention Motions due in to Federal Executive.
Jan. 27-28: W.I.A. Nat. Field Day Contest.
Jan. 27-28: South African International DX Contest, 1951.
Jan. 31: Membership Roll of each Division due with F.E.
Feb. 3-4: B.E.R.U. Contest—Phone.
Feb. 24-25: B.E.R.U. Contest—C.W.
Feb. 28: Convention Per-Capita due with F.E.; end of Fiscal Year of Divisions.
March 3-4: B.E.R.U. Contest—C.W.

FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

John of HL1ZZ admitted deriving intense interest from listening to the short wave broadcast of the first test match from Brisbane. John would not commit himself as to whether he had a previous knowledge of the game or to which team he owes his allegiance.

According to a superscription on a card from KH6CD addressed to VR3A, the latter is back in Australia. QTH please?

A choice one worked by VK3LN recently is EA0AB with QTH, Angel G. Margallo, Box 195, Santa Isabel, Spanish Guinea. Angel is keen to work more VK stations and is on 14305 Kc. with phone or c.w. daily. Time is not stated however. He QSLs.

A par in these notes calling for the present QTH of ex-VK4KO has brought results. VK3BD phoned to say that he is the uncle of the Ham concerned who is now VK2AWE, R. M. Weston, Des Indes, Mary St., Blakehurst, N.S.W. Should this catch the eye of VK2AWE, please write to VU2JP. Indian papers please copy.

The long expected parcel of cards from Max Rieper, VK9MR, arrived at last and have all been distributed. Quite a number of locals as well as some hundreds of overseas stations will derive satisfaction from their receipt.

VR1C, Gilbert, Islds. QTH: CGLTS No. 4, Navy 824 FPO, San Francisco, U.S.A.

W3EQL writes, "I have been sending my cards for VK stations to the W.I.A. QSL Bureau and it seems that the boys have not been getting the cards." Rest assured W3EQL, your cards have reached their destinations OK as evidenced by Frank Kline, VK4QL.

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NEW SOUTH WALES

The usual monthly meeting of the New South Wales Division was held at Science House, Gloucester St., Sydney, on Friday, 24th November, 1950, the meeting opening at 7.45 p.m. Correspondence was quickly dealt with and fifteen new members were admitted to the membership.

A number of Interstate and oversea visitors were welcomed to the meeting. The hall was tightly packed as has been usual in recent months and the reserve of chairs had to be called upon to seat the seemingly endless flow of arrivals.

Upon conclusion of general business, Mr. W. M. Christiansen, M.Sc., proceeded to deliver his absorbing lecture on the subject of "Radio Waves from the Sun and the Milky Way."

Two films and various stills were shown to illustrate various points that cropped up during the course of the lecture. Films showed the effect of sunspot activity on radio communication with the sun in eclipse, and also the trace of a signal directed to the moon striking the face of that body and being reflected back to earth. This latter by means of an oscilloscope specially arranged for this purpose.

Many questions were directed at Mr. Christiansen at the conclusion of his lecture and apparently the interest of those present had been keenly aroused. 2JR gave a vote of thanks to Mr. Christiansen on behalf of those present, in his usual breezy (cat and canary) style, and this was carried by general acclamation. The meeting adjourned at 10.40 p.m.

EASTERN SUBURBS

This zone will be poorer by the departure for country locations of Frank ("Pop") Stroud, an erstwhile enthusiastic listener to local Amateur doings, and a personal friend to many of us. "Pop" recently suffered the loss of his XYL after a protracted illness, and has decided to move to other surroundings. His means of movement will be by car and caravan-trailer, which he intends to make his home for the future. It goes without saying that provision is being made for radio reception.

2ZQ is heard now and then on 20 (and lately on 40) phone, mainly in confab with a VK3 cobber. Much of Fred's time has been taken up with the seeking out and handling of disposals in the interests of members of N.S.W. Division. Any lighthouses QM?

2AC is a foremost exponent of single sideband transmission and appeals for some co-operation on the part of Amateurs. He and 2CP are both on 20 with e.s.s.c. and whereas Orm can insert some carrier, Leo is confined to suppression of the carrier for the time being. He had been on 40, but recently changed to 20 as he simply could not attract QSOs. 2TN is heard about once a fortnight on 40 and sometimes on 20 phone, using but 15 watts with *EL3s* in the Tx final.

That uncertain quantity "conditions" has been no better in this area than elsewhere of late, and there seems to be an increasing level of electrical appliance QRM. What is in store for TV lookers around here, I shudder to think, unless a few dinmaking machines are run to earth and dealt with. Also, the miscreant who, if not actually in this zone is near enough to it, with a burbling r.a.c. emission of some kind has caused QRM of a seemingly deliberate nature on 40 and 20, seems to have subsided. Maybe I shouldn't have mentioned that—he might read these notes and start up again just for spite!

This zone has its quota of beam arrays for various purposes, but there are people who stick to the plain old simple Zepp antenna, whether by choice or necessity. One who makes good use of the Zepp on 20 phone DX is 2AHJ. He isn't so often on the air nowadays, but when he is, the DX takes just as much notice of him as it does of the beam blokes. By the way, his antenna is a well-engineered job, not merely an afterthought of strung wire, etc.

Somebody, 'tis said, pulled a swiftie on our newest Amateur in this zone—2ASE. A marauding gent from a country area, whilst visiting, switched a wire or two behind a panel. Nowt blew up, but nowt 'appened it seems. 2ASE took it in good part and soon discovered the joker's work. A recent visitor to 2ASE was 2DO, the Yogi from Yass.

N.S.W. DIVISION HAMFEST

Over Australia Day Week-end, 26th, 27th and 28th Jan., 1951

The following programme has been arranged for the Hamfast to be run in conjunction with the *National* Field Day:—

FRIDAY EVENING, 26th JANUARY

The W.I.A. will be the guests of A.W.A. at their factory at Ashfield where it is anticipated a Television Demonstration will be held.

This will substitute for the normal monthly meeting.

SATURDAY, 27th JANUARY

The morning will be left free for country members for visits, shopping, etc.

During the afternoon from 2 p.m. onwards at Federation House, Phillip St., Sydney, a demonstration of selected Amateur equipment—grid dip meters, frequency meters, selectoject, and other home constructed gear. A lecture will also be delivered. Time will be allowed for the Amateurs, both city and country, to get together.

In the evening, at the same address, a semi-formal dinner will be held with a maximum of entertainment and a minimum of speeches.

SUNDAY, 28th JANUARY

VK2WI will operate in the field in the National Field Day and a picnic outing is to be arranged. Many other stations will also be operating from various locations.

Tickets at a cost of 15/- covering all events were available at the December meeting and anyone requiring tickets can do so by contacting members of the Council or by ringing Jim Corbin, VK2YC, MU 1092. All attending are assured of an enjoyable time.

What's this I hear about a Chinese laundry? 2NO is not very active, but occasionally on 20 to keep skeds with ZL Land G. Is still using the tried and proven triplex version of the now famous G8PO antenna.

Zone stations heard about include VKs 2YF, 2AFZ, 2CF, 2FJ, 2AX, 2QG, 2AIG, 2VA, 2HP, 2AZH, 2BV, 2ABD, 2HH, 2AJG, 2AYE, 2ASE, 2JO, 2AHJ, 2QF, 2XB, 2IH, 2ZQ, 2EZ. A word of warning: Neither this nor any other scribe can go on indefinitely thinking up gen about zonites without some co-operation. If anybody has anything to air at all in this zone, then drop it in the mail. Otherwise Napoo.

WESTERN SUBURBS

2XH has his new 14 Mc. beam up and finds that it is working out extremely well; Rex notices the difference in the way the DX is rolling in! 2EG had a seven-way hook-up with Africa on phone the other morning so the old receiver must be working out well. 2ATL playing around with the BC348 and getting some new life into the thing. Tom is endeavouring to reduce the noise level to reasonable proportions. 2ZF heard prowling around the 14 Mc. band the last few mornings; pounces on the juicy ones coming through in the early a.m. 2ACD heard working YJ1AA recently; after much anticipation, Ted seems to have his folded dipole on the nose. Can't understand what has happened to 2OQ; works nothing but c.w. and seems to have given the phone away; heard stacking up the DX end to end around 10 p.m. these nights.

2ANC has been on, using his new beam, and getting some excellent reports. Must be working out well. 2ADL has not been heard since the junior op. arrived; teaching him the code Erm? 2UP tries his hand at the DX on 14 Mc., but finds it hard going, like many others just at present. 2AGU was heard complaining about lack of DX one night recently; has only worked MI3, 4X4, and FA9 in recent weeks. Things must be tough out on Abbotsford Point, Harry!

NORTH COAST AND TABLELANDS

No news from the Richmond River boys again this month. 2RK building new Tx, and 2ASO a v.f.o. 2OE busy building b.c. sets and expects to have a new QTH soon. 2GI doing more listening than transmitting. Keith re-vamping 1196 for emergency work. 2SR staged a comeback on 40, the new house being completed. 2TB and 2EA *heard only once during the month.* 2ARY been at Yarralla, but is well again now. 2JK, 2ARJ still both re-building. 2AJB re-hashing 1196 for portable and emergency work; Len and family now on a month's holiday and will be on 6 on his return. 2ADN putting out nice phone with his new 100 watt rig; Jack just returned from a holiday in Melbourne and South Australia.

2AWP on again after a 12 months' holiday in England; Wal returned to Mungindi during the floods and had to ride seven miles and row three miles to get to his front door. The Western gang turned it on for their city visitor at Narribri recently and although there were two commercial ops present—c.w. was off—they were rather QRO with p.p. and o.p. 2APS just returned from Sydney with new car; Sid will be giving Ham Radio away for a while until the car is run in, but will be at Urunga to meet the boys next Easter. 2JC has erected a new antenna with improved results; Hart will be on holidays at Xmas with his family. 2AAP using 144 with life boat transmitters. The Committee for the next Urunga W.I.A. Convention are busy preparing the programme, good trophies and prizes will be given, and it will be worthwhile for the gang to build and bring along their portables. Programmes will be off the press early in the new year and anyone requiring one should contact 2XO.

As mentioned in the W.I.A. Bulletin, a memorial fund to the late Gerry Challender (VK2ZS) is being organised by his friends on the North Coast. Anyone who may wish to contribute to this fund, may do so by contacting either 2AYE, 2ASF, 2ZC or 2XO. All money received will be acknowledged in "A.R." All the best for 1951 from the N.C.

HUNTER BRANCH

The November meeting was one of the best on record, an excellent attendance, and two particularly fine lectures. Mr. J. H. White (VK2UO), P.M.G. *Divisional Engineer at Newcastle*, presented an excellent lecture and demonstration on "Picture Transmission." Some very good slides were shown; 2AAJ was the projectionist. Two identical pictures were passed around for members to examine, one using a.m. and the other f.m., and the majority seemed to agree that both were excellent, and there was little to choose between them. A very practical lecture then followed, given by Bert Watte (VK2CN) on "Meter Maintenance." The gang now know how to fix meters, or rather I should say—who to take them to. 2ZC outlined the 2ZS Memorial Fund for which he is the Hunter representative. So chaps, please give your donation to 2ZC and they will be acknowledged through "Amateur Radio."

Branch Secretary, 2SF, is still very busy, has booked up six new members recently and hopes to get his 30 watt 807s on the air soon; the bug surely bit during the Hunter Scramble and Varley is determined to get his rig finished. President 2CS has been fairly quiet of late, had XYL sick also junior op., but all should be 100 per cent. by this. Vice-President 2AFS has been away in Canberra and the 10 metre band has surely missed you Bob! 2AMM is catching up on his country total on 20, getting around the 50 mark now with his QRP. 2ASJ not very active on 40; Bon has had his brother working on the rotary beam, so it should be OK now. Ivan Shearman talking 144 and may christen his new call sign there. 2FP is still working the *Europeans fine on* 10, plus some short skip.

2AGY did an excellent job as Chairman at the last meeting during the absence of 2CS; nice going Fred and congrats from the committee. The 2 metre rig is putting a very solid signal around the town. 2XF driving a new Riley these days and working 40 phone when possible. 2CI still chewing the fat on 40 mostly with 2ASF; watch you two, the Urunga Committee is listening. 2UF got back on 2 again and glad to hear the health is much improved. Nil from 2AWD, 2VJ or 2MC, must be hiding somewhere. Still on cars. 2NX and 2UY are the latest possessors—a touch of YL-itis we believe too. 2ANA making big preparations for a "do" for his eldest daughter's wedding—congrats to Bill and Marie. 2CW has some nice phone on 40 from his exciter, now busy on his turret tuned Rx.

Congrats to Mrs. and Harold 2LV on the new harmonic, believe Harold listens for weird DX at all sorts of hours killing two birds with the one stone. 2TE and 2PQ keeping Charlestown on the air, both getting more than their share of DX. 2PT at New Lambton is going from the new QTH on 2 using converted 1FF Tx and ASV Rx. 2ZT liked the Hunter Contest so much that he decided to join up, fine Tom. 2KG is still away up Townsville way on holidays, visiting ex-Newcastle R.I. Munro.

ACCURATE FREQUENCY TRANSMISSIONS

It is anticipated that dual transmissions on the 3.5 and 7 Mc. bands will be made in February, May, August, and November so as to give a better coverage for the Country Ham during the winter months. Watch for full details of VK3WI's Accurate Frequency Transmissions in the next issue.

2AHA will have some local opposition on 20 now. 2BZ has recovered from his recent illness and well settled down now in new home at Wallsend; Dave has been working the DX on 6. 2ADS at Birmingham Gardens is also getting amongst the 6 DX. 2OS' four element beam on 8 brings in the ZLs very well. 2AAI has a converter going very nicely on 14 and 28 and trying some 2 metre gear out. 2DZ has a new 20/10 beam up at Adamstown, so DX should be popular when Johnnie gets time. 2ZC not very active, mainly on 40 with that f.b. portable rig; that was the rig that was the hidden transmitter on 80 at Woy Woy. We all had a great time, thanks to 2KR, 2RU, 2GA, 2HZ and company for a great show.

Up Maitland way 2XQ cancelled the November Emergency Net sked as it fell on the day of the Field Day. Next sked will be December 31, 7002 Kc. at 10 a.m. for a real New Year's Eve get-together. 2AKP is always QRL lately, but gets on only during blackouts when he can't work—so goes to town on the portable. 2DG heard more often on 40 nowadays, nice phone too. 2TY still hopping about on all bands from 144 to 3.5; Bob puts a nice signal into Cessnock on 2. 2VU always about on 6 and sometimes on 40 phone; beautiful 6 signal in Newcastle Geoff. QRU chaps and all the best for 1951 from the Hunter gang.

COALFIELDS AND LAKES

2ANU is going QRP on 144 Mc. and is heard OK in Cessnock and has been working Interstate on 50 Mc.; using 3 over 3 on 144 Mc. 2VU also on 144 and 50 Mc., working 50 Mc. mostly and getting his share of ZLs. 2TY on 50 quite a bit these days. 2KZ still planning for the re-building, quite interested in the v.h.f's, at the moment and using a converter on 50; Max should be an authority on xtal mikes judging from the line-up seen on a recent visit. 2KF having trouble with his 50 Mc. converter, mainly on 28 these days; has a nice beam going. 2GA and 2KR are both on 6, but not heard well at this QTH. 2PZ showed up one Sunday after several years of inactivity. 2ADT getting plenty of his share of the 50 Mc. DX, ZLs and Interstate no trouble, using a four element beam this season; Jack quite active on 144 these days, works all the locals and getting into Newcastle and Sydney very well.

My thanks to Rev. Wilber Brook, an old-timer, VK2BR, for his letter with some news. Says he is as keen as ever and getting good DX on 14 Mc. Hope to contact you one of these days. 2BR is now at Dora Creek, was at Jerry's Plains in the early 30's. 2RU has usual good 50 Mc. sig and works 40 now and again; guess Major is sweating on summer 50 Mc. DX eh! 2YL not on much and not working much when on either. 2GA, 2RU and 2KR did some sterling work for the Woy Woy Field Day. It was mainly due to their efforts that the day was such a success. Over 150 came along to enjoy the event. 2GA busy painting his telegraph pole, to be erected for the new beams. 2KR is making a job of the new 50 Mc. beam—copper elements, bought them very cheaply too; Cess will tell you how to go about it. The Lakes section of the zone was disturbed on Sunday, 26th November, when the various teams went rushing about the Woy Woy district looking for the hidden transmitters—the comments of some of the local identities were unprintable! All the best for the New Year from the Coalfields and Lakes.

WESTERN ZONE

Zone officer Hugh Stitt, VK2WH, is excused from contributing notes this month as having been marooned in his island home during the flood, is, we believe, celebrating in Sydney. Journeyed up to Woy Woy to see the gang at the Field Day. 2EX did a repair job on 2LY's antenna, who was on his way to Woy Woy; one of Springwood's trees did the damage. Dubbo is well ahead in prospective Hams—one has just passed the A.O.C.P. and two are very close—2AMP and 2XP did the tutoring—a very fine gesture. The Western Zone looses a very fine beam to the Southern Zone; 2BT has disposed of his 1½/20 beam to 2APP—letting the zone down Bill! Orange sees 2JW and 2ALX both active on 6 metre and should be amongst the DX. 2AMR incidentally has his 100 watts on 6.

2ACU was active during the floods at Coonamble obtaining permission from official station VK2AA to operate and assist on the forestry frequency. 2AGN is a new one in the zone and sends a beautiful fist—issue of the key. 2RT, of Katoomba, on the key is also always worth listening too. 2EF, Warimoo, is not too active these days, but ventured out to the Woy Woy Field Day. 2HZ, with the assistance of 2LY, managed to lift the h.v. supply on to the top of the cupboard and now manages a few extra watts. 2OF complains that he isn't in any zone although the western zone officially finishes at the Nepean River, we will give Jack a mention, spends most of his time moving the all-band antenna around so it doesn't interfere with the 20 beam. All the best for the New Year from all out West.

Stop Press—The Western Zone is very pleased to welcome it's first YL operator—VK2AWH, of Warimoo. Give her a call chaps.

VICTORIA

EASTERN ZONE CONVENTION

The fourth post-war Convention of the zone was held at Sale on 25th and 26th November and surpassed all previous efforts, especially regarding the number of licensed Hams in attendance. The Melbourne visitors were VKs 3GS, 3XD, 3DY, 3WQ, 3AWC, Len Jackson, Jack Gordon and 3FO. The zone was represented by 3VG, 3BB, 3ALA, 3IO, 3AJA, 3QZ, 3HK, 3VL, 3US, 3PR, 3WE, 3SS, 3TH, 3DI, 3RH, 3ABF, 3AFG, 3ADA, 3ADC, 3ANC, and 3AHK. Several Associates from Bairnsdale and the R.A.A.F. were present and if I have left out any call signs, please excuse.

The dinner was presided over by 3SS, who was oscillating very well on pink lolly water. Until the speeches started, we didn't know how good the Eastern Zone really is, but judging by the nice things the visitors said, we are extra super good. The toast of the Eastern Zone was proposed by 3WQ and though some people suggested that he was crawling to us, I prefer to say that he'll get on!

The highlight of the dinner was provided by 3PR, who came to light with a beautiful fruit cake; decorated with the W.I.A. badge in icing and surmounted by a beam antenna (also icing). Mrs. Jardine is our friend for life now! This presentation gave 3SS another opportunity to bash the ears and after about half an hour, he ran dry, so producing a large knife, he stabbed the cake through the sultanas and declared the innings closed. The ladies then departed for the movies and we adjourned to our meeting place down the street for the serious business of electing office-bearers, etc.

Our new President is 3TH, Vice-President 3DI and 3QZ is still Secretary-Treasurer. Notes correspondents are 3AHK, with 3SS and 3VL as assistants. General business came next and we decided to hold a field day contest later on, which pleased the 6 meter wallahs very much. 3WQ dazzled us with science in the matter of disposals, in which there is still great interest. A motion by 3VL, that the 6 meter addicts of the Eastern Zone, should concentrate on the 52-54 Mc. portion of the band was carried. If we don't use the band, we could easily lose it! The time and place of our next Convention was left to be fixed up later, so that will be a subject for the Sunday night hook-up later. About 2300 hours the ladies reappeared and supper was served, the usual earbash session began and the gang quit about midnight.

We planned to visit the East Sale Aerodrome on the Sunday morning, but unfortunately the trip had to be cancelled so all hands adjourned to the 3SS shack for the 3WI broadcast.

After that we visited the local commercial station studio. We found our way into the "auditorium," and 3WQ informed us that the word is derived from "audio," to hear, and "Taurus," the bull! He is correct in this instance, as a type wandered in, switched on a monitor or something and wandered out again, leaving us listening to Taurus being broadcast. No one else came near us, so after goggling at the announcer through the window, we all trooped out again, being little wiser as to how things are done in commercial stations. Evidently "courtesy week" was over!

In the street 3FO and 3DY were playing with 144 Mc. stuff and we scooped them up and headed for Longford Hall, where we consumed large quantities of eatables and drinkables too!

Next stop was A.B.C. regional station 3GI, where we were welcomed by 3VG and 3LY who are employed therein. We were shown all over the works and 3LY even started the diesel auxiliary power plant for us. We noted that the station receivers—a Hammarlund Super Pro and a B28—were securely screwed into a rack!

The 508 foot tower aroused great interest and 3DI wanted someone to climb it with him, not, he said, that he was nervous, he just wanted someone to talk to! When everyone had had an eyeful of the works, we returned to the hall where we cleaned up the remaining eats and the party finally concluded about 1700 hours. The 6 metre blokes, 3HK, 3DI, 3VL and 3US, all had their Morris Minors filled with gear and Keith had a 3 element beam hung on his jalopy! The bug bites pretty hard, must look into it and see what 6 is all about sometime!

The zone hook-up took place as usual at 2000 hours but for once we quit early.

CENTRAL WESTERN ZONE

Amateur transmitters have often been used in dire emergencies, but possibly few have been called upon to supply a supplementary telephone circuit to cope with an overload. Such was the job ably carried out by 3TA Horsham in conjunction with 3FC and 3AFC in Ouyen on the occasion of the Wimmera Hospital Radio Appeal. The frequency used was 6120 Kc. on the recommendation of the C.S.I.R. and it worked out fine with 89 sigs and the boys thought the hand an excellent one. They did a good job too, it was an interesting exercise getting 3TA on to 5120 Kc. via the telephone.

3DP is now deeply immersed in the mysteries of the construction of a xtal filter s.s.s.c. transmitter using xtals on 1.6 Mc. We will be looking forward to hearing Jim's results in the near future.

3YW's s.s.s.c. is going OK as far as the Class A 807, but the p.a., a pair of 807s in AB2, is of a difficult temper and requires neutralising, so at present we have QRP s.s.s.c. which is OK anyway.

3ARL, who is helping 3YW a lot of late with W.I.A. skeds, is getting his £1 Rx going in great style. Lin has just installed a set of "80 Mc." coils, but they will only tune to 25 Mc., so what! Our 20 metre expert, 3AKP, was heard busily pounding brass and despite the fact that the beam has been taken down, Keith is raking in his share of DX. 3HL is now busy with the harvest, so apart from bushfire frequency work (which will be getting close attention now), Allan will have to go quietly on the radio for a spell.

A new Ham activity as far as the zone is concerned is the granting to 3TA, of Horsham, to play back recordings of Amateur transmissions if requested. Byron mentioned this during the last zone hook-up, but he must be requested to do so. Byron is also interested in xtal controlled v.h.f. converters so maybe he might be after those 6AG5s etc that are waiting for the maker of the first Melbourne-Central Western Zone 144 Mc. two-way contact.

NORTH EASTERN ZONE

3FD was paid a visit and I am now happy to inform the zone that Andy is over his charging battery worries for the time being anyway, being now equipped with a 32 volt lighting plant. Also seen was a magnificent lightning arrestor for his aerial. Should have it patented Andy. Wish to welcome Andy's sister home after a sojourn of 12 months in hospital. The zone wishes you a speedy recovery and hopes to hear your voice modulating Andy's signal in the near future.

Further south, down Avenel way, 3ACW hoeing into the garden under XYL's supervision. Understand Chas, XYL takes pride in garden competitions, but from what I hear, you should collect the prizes Chas. Chas does quite a lot on 20, both local and DX. Believe you can also get on 40, so don't forget zone hook-up each month and I know you have a modulator. Furthermore, I hear you are also on 6 and 2 metres so a little news should be forthcoming from your direction on your doings Chas.

3AGT not heard of late, what is it Stan, harmonic trouble or sleepless nights? 3AGG will not be heard for quite a considerable time. Bruce has a lot of work around new QTH before any gear can be assembled. Reason YL is now XYL. 3PE has sold up gear to buy car, so won't be heard for a while either.

3UI has new 13 tube Rx complete with separate tube for S meter. Alan heard nattering to 3KR when Ken's dinner is on the table. Don't know how either of you get away with it. 3APF has 6 metre transceiver fitted in car, about 80 watts in and 2 out Peter thinks. However, heard you worked Melbourne successfully, so can't be too bad Peter. 3HZ is Murray Clyne who, due to my error, has appeared as 3YZ, please note correction. Notice you have your beams up and nicely painted Murray.

Stumbled on two new Associates, Maurice Mitchell and Mervyn Kennedy, of Shepparton. Now don't tell me I'm the last to know, as usual. Hope to hear more of you boys soon. Re your zone correspondent obtaining his ticket at last exam., No Comment. 3AOK's comment, "Serve you right." And to wind up these notes I ask you not to forget the Zone Correspondent, 148 Harold St., Shepparton. He would like some news. 3UI and 3APF working ZLs and VK5s on 6 metres. 3KR working considerable DX on 20 c.w. phone. 3AGTs silence explained! Got bushed going to zone picnic. Must have just arrived home.

GEELONG RADIO CLUB CONDUCTS HUNT FOR HIDDEN TRANSMITTER

The field day in the form of a hidden transmitter hunt, organised by the Geelong Amateur Radio Club in conjunction with the South Western zone convention on 12th November, proved a great success and the weather was ideal. The Tx was hidden very well among trees at Ocean Grove and was first located by 3AKE, followed by 3AKR, 3AQD, 3ADN and party in a Jeep. Eight groups entered into the fun and all but one party were able to find the Tx which was due to failure of batteries. 3AKE was in the vicinity of the Tx in 20 minutes of starting, but took 20 more minutes to find it. A good job was done in operating the station by 3WT, 3OP and 3WX who were attacked by moeys. The station was operating under the Club's call of VK3ATL.

Members of the Club recently visited the shack of 3AJT. The Tx John uses is built very fine in rack and panel, v.f.o. controlled and runs 100 watts to a 35TG. The Rx is an Eddystone "750." During the evening, contact was made with 6MK whom the boys had a yarn to. The 10 and 20 metre beams are mounted on a 30 ft. windmill tower mounted on top of the house.

Another visit, this time to 3ALG, was arranged. His gear consists of a 6 tube Rx home brew, an FS6, 1148 and a rack and panel rig for 40 and 20 metres running an 807 in the final with an input of 25 watts. The antenna is a doublet for both bands. Fred also has a mod. osc. for 144 Mc. going now.

QUEENSLAND

We had a very heavy westerly recently and Clare's gloomy suggestion of "gone with the wind" became an actual fact—no more beams at 4CC for a while now. 4CC frightened the neighbours who, with a sarcastic note in their voices, have said, "They are sorry to see it fall down, but are glad it fell in his own back yard."

Well the old hands are certainly coming back in fine style. The latest old-timer to re-enter the Amateur ranks is Russell Roberts (4PM, ex-5PM) after an absence of 18 years. From what I can make out, Russ was the second W.A.C. in Queensland and that a Tom Starkey was the first W.A.C. He had the first phone contact with India and the first Australian East Coast to South Africa contact (not sure if phone or c.w.). He said his original call sign of 4PM was changed soon after it was allotted because it was thought it would conflict with time (past meridan). Russ said he was re-attracted by the v.h.f. problems which offer the same challenge as 20 metres used to offer in the old days; so all you v.h.f. men have at least one man about to join your ranks, although Russ is at present on 20 with nice phone, and using unusual bottles too (KT8 and KF6).

Speaking of old-timers, I am informed that Jack Goldsworthy (4WA) pulled the big switch for the last time recently when he passed away. Jack had been inactive as a Ham for a long time, but no doubt many of you knew him. To his loved ones we extend our deepest sympathy.

After an absence from the Ham bands for 12 months or so, 4JP has become active again—lucky mah has been to the States.

It was decided at the last Council meeting to call the city-country contest off and to run it again later on when the bands are more favourable. I'm tipping that it will be held over the Xmas period, so start stoking up that portable gear if you are going on holidays.

The response to the student class has been so overwhelming that it has been decided to close the books for the current year. We have 36 on the roll which is a mighty effort.

Federal Executive is keen to get information on any unauthorised stations who are using our bands so you are all asked to co-operate by logging them; showing the call sign, frequency, time, and type of emission—and forward the data to Box 638J, P.O.O., Brisbane (our Box). You are not to know who is or is not authorised but log the lot and let 4VJ sort them out. Yes, there are a few foreign stations who are actually authorised to use the frequencies.

4CG played safe on "black Saturday," when the winds came, by taking his 6 metre beam off the roost—lucky man to even be home. Another man who nearly lost his 10 metre beam was 4WF; heard Bill saying that he expected the worst with his 20 metre beam but couldn't do anything about it. Anyhow he smartly had to go into action to save his 10 metre beam which had tipped up at an acute angle on the garage roof.

We will all be sorry to see 4TB go to VK3 in the near future; it's a permanent move, so we are going to lose a good Secretary. Bill has been active in that capacity for the last two years and has done a splendid job as you will all agree. Still I guess he has definite reasons for making the move and although we hate to see him go, we wish him all the luck he wishes himself. Thanks Bill for a mighty fine effort. Until the next elections Jack Farrell (4WJ) has kindly taken on the dual job of Secretary-Treasurer, ably assisted by our worthy Assistant Secretary, Jim Baker who because he is not yet a full member is, according to our rules, unable to take on the official designation of Secretary. Hurry up and get that ticket Jim.

Although this is not news of Queensland Amateurs, it may be of interest to you all to know something about the six element rotary beam XZ2KN has which I think is a little unorthodox. The whole structure is only six feet above an iron roof and about 33 feet above the ground. The elements are of various sized bits and pieces of tubing, but the part which is most unusual is the fact that he has a 3 element wide-spaced beam 33 feet director to reflector, the driven element of which is common to a 4 element close-spaced beam (7 feet between all such elements). The whole assembly is in the same plane and the back-to-front ratio is between 40 and 50 db. He is very thrilled with it even if it does only clear his shack roof by about a foot.

4WJ has been having fun and games twisting the knob of a recently acquired Super Pro Rx—lucky man. It's hard to imagine why Jack wanted to go and get a Super Pro because from what we have seen, he only requires a fox-hole xtal set to work them in conjunction with that structure in the back yard. For some reason or other the air seems to be full of beams lately, the latest to start building one is 4DN. Told me recently he has just been to the sawmill and ordered great quantities of timber for it; also 100 feet of tinned conduit. What's happened to the house-building Phil?

Via 3JR we managed to get some news of some of the Gympie boys. 4DP has been inactive lately owing to examinations, but has now started up again—and although he is usually on 40, has just started on 20 metres. 4CR is allegedly using a clothes line as an aerial since his usual one hit the deck some time ago. I wonder if there are any arguments on washing day! 4HZ and 4CR are interested in 288 Mc. Let's hope they soon put the thought into action as we are given to understand that 50 and 144 Mc. have been getting better lately. Before handing over to Clare, I take this opportunity of wishing you all the Compliments of the Season and "thanks for listening." In conclusion, sorry no notes from Townsville or Central zone managers this month.

CLARE'S CORNER

There is very little of interest to report this month, band conditions have been very poor and very few locals have been heard of an evening. Maybe after having to walk home from work during the tram strike they just flopped into a chair and stayed there, or could it be 4NC's receiver?

4TT will not be heard again as a VK4 as he is leaving for the south about the middle of next month. When next you bear Tom, you'll have no trouble in recognising the accent, he will probably be operating under his old call sign, 2AAO. Best of luck, Tom. A freak cyclone hit Brisbane on 4/10/50 and caused a certain amount of damage to beams, etc. Known damage included 4FN's 20 metre vertical and 144 Mc. beam; 4CC's beam, and 4TT's feed line. 4WF's 10 metre beam also suffered some damage; 4NF played safe by lowering his to the ground until the danger had passed. Those who did not suffer any damage certainly had a few anxious moments.

4MR is another one who will shortly be leaving the ranks of VK4s to become a VK2. Looks like you picked yourself a good location too Edgar, quite high and ideal for DX. 4YA is re-building at the moment, and will soon be on the air again knocking over the Ws; Bill is using an 804 in the final. Heard 4FP getting a 30 db over 9 report from a W2 one evening; that 3 element beam is certainly working John.

4UX is leaving the metropolitan area for a few months on transfer to Longreach and is frantically building up a 40 metre transmitter in order to keep in touch with the locals. By the way, Claude's XYL is giving him all the assistance she can. The motive being, if Claude is on the air she will at least hear what's going on. Here's wishing 4MD, 4WF, 4KS and 4NF success in their recent exams. No doubt last minute preparations have been responsible for not hearing them on the air as much as usual.

DARLING DOWNS ZONE

Members in this zone were deeply shocked at the news of the sudden and untimely passing of Eric Rielly (VK4ER). I'm sure that nobody realised he was so ill just a few short weeks back when he was suddenly missing from our Sunday hook-up. Left with us is the memory of a solid, thoughtful and real Amateur who put into the game more than he took out. We all mourn his passing—Amateur Radio is the poorer for it.

Great excitement the past few weeks at the 6 metre shacks as the band took a few spasmodic flutters. As was to be expected, 4XN and 4CU were in it up to the eyebrows. If ever anyone deserved some sort of an award, it is 4XN. How a bloke can sit for hours listening to all that hiss and noise just to work a VK3 or ZL on 50 Mc. has always been a source of wonder and open-mouthed amazement, because it's so much easier and cheaper (note, that) on 14 Mc.—and lots better too. Hats off to the pibneehs, me boys.

4IG, 4JC, and 4SG have been fairly active on 40 metre band when QRN allowed. Noise has been pretty solid this summer. Don't like 4SG's clamper tube modulation much. 4RK at Milmerran will be into the 50 Mc. Scramble with his 70 watts and big beam, and 4TY report that his Tx is ready to go on that band also. Anybody lose beams in the big blow? 4CG hurriedly dismantled his and it's still grounded. Lot of wind on this mountain at best of times.

No news of 4DA since his return from trip to VK3. 4RF hibernating. 4AF called on 4CG a few weeks back to renew old acquaintance. New Ham in Toowoomba, 4PT, gets out well on 40 with 18 watts. 4CK, Warwick, active on 40 also, and 4LS, Goondiwindi, keeps that end up.

4CG been on 3 weeks' holiday. Conditions on 14 Mc. improved slightly this month with good signals from Europe from 11 p.m. 28 Mc. shows signs of opening to U.S.A. and Asia with some good signals from W around 10 a.m. to noon. We take this opportunity of wishing everyone the Compliments of the season.

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SOUTH AUSTRALIA

The monthly general meeting for November took the form of a film evening at which a very representative gathering of members were entertained with a screening of films from the P.M.G's. Dept. Education Section and supporting films. A colour film of one of the many Mountford expeditions to the Northern Territory was worth going far to see, and members were very appreciative of the kindness of the P.M.G's. Dept. and also Mr. Mountford, for making such a pleasant night possible. I was again not able to attend the evening and therefore any further details will have to be taken for granted. I regret my inability to attend and secure details, but when one has a family of twelve mouths to feed, one must work and work and work, even though one must assume what might be called an acrobatical position. Quiet Barbier.

The latest news to hand of Ross Adey (ex-5AJ and now G3GPE) is to the effect that his XYL will be leaving England on the Strathaird on 18th January, and Ross will be leaving for VK6, via the States, at the beginning of March and arriving at the end of April. We will all be pleased to see Ross back in his homeland although what he will say when he sees my fallen cheat has me a little worried.

Most of the VK6 boys were not very happy to read in the current issue of "QST" that the fate of the 21 Mc. band is still well up in the air, owing to the postponement of the conference that was going to decide just what was going to happen to it. However, on second thoughts the news has its bright side, because whilst the conference is inactive no action can be taken concerning the loss of the 14350-14400 Kc. portion of the Amateur band. Every cloud has its silver lining they say.

I notice in the last issue of the magazine that my partner in crime, 5KL, who writes the v.h.f. notes, was asking the boys to send in some news of their doings. I wish Clarrie the best of luck, but on my own experience I fear that he is talking to deaf ears. I am glad to report that 5MD openly admits that he is feeling particularly well and fully recovered from his sojourn in hospital, and also that 5XU is feeling a lot better, but he has to take things easy for a while.

5KB is at last on the air on 40, 20 and also 2 metres, and Pete entered the "around the town" sked on 144 the other night and was officially welcomed by all present; he is using a 522 on 2. 5MS has been reducing the standing waves on his beam feeder; Stewart is talking of house building, so it naturally follows that he will soon be very busy. 5QH is heard fairly consistently on 40 and is always on time for his 2 metre skeds; Claude is using the increasingly popular 300 ohm feed, half wave aerial on 40.

5KU is another one who did not heed my warning that a stork had been sighted looking at the latest list of call signs, and therefore he has become the father of a bonny bouncing boy, and whilst the family has been in hospital, Erg has been raking in the European DX on 40 c.w.; he says that the best times for this DX is between 4 and 6 a.m.! 5TW is managing to work a few stations on 40, but otherwise he has been fairly quiet. 5FD is among the missing persons this month, but as Col Ferguson is still using his converter, it is safe to assume that John is still inactive. 5CJ managing to work a few on 40, and is heard quite often on 2; his young son is nearly ready to learn the code and whilst quite a number of people may think that a one-year-old would find such a task almost beyond him, all I can say is that you don't know "young Ferguson!"

The district of Mount Gambier has this month been honoured by the visit of 5LC who has been spending a leisure holiday motoring hither and thither; the boys in that area were very pleased to meet Les for the first time in person. 5JA is still in England and John now has a British license, but as yet his call sign is unknown.

It has been felt by Council that with the large number of contests being held these days, and

VALE VK4ER

On Sunday, 12th November, 1950, VK4ER passed away at his home in Laidley. Queensland has lost one of the finest persons this State has ever known. Eric obtained his A.O.C.P. in September, 1934, and in 1936 he became a member of the R.S.G.B. and the A.R.R.L.—memberships of which he maintained until his death. It was also in 1936 that he won the W.B.E. and W.A.C. Awards which were later followed with the B.E.R.T.A. and W.A.S. America Awards. Just before his untimely end, Eric had worked 96 countries on c.w., post-war.

A stalwart supporter of the W.I.A., Eric was a prominent member of the W.I.A. Sunday morning hook-ups and was also a member of the Emergency Network. He was a quiet unassuming chap and his pleasant voice, demeanor, and excellent fist will be missed by Hams everywhere.

He was President of the Laidley Bowling Club, and the Ambulance of the same district, and in fact, was connected with almost every organisation in his town. His services were always in great demand as compere of concerts and various other entertainments during the 12 years he was living at Laidley after moving from Stanthorpe where he was married and also obtained his call sign.

To his wife and son, we all extend our heartfelt sympathy—Vale Eric Rielly.

the large number of grouches regarding these contests, that a contest committee should be formed to give all contests "the once over," advise Council on any controversial points that might arise, and all in all, do everything in its power to improve the contest position with possible satisfaction to all, or should I say, as near to possible satisfaction to all. The following members were appointed to the committee: 5PH, 5QR and 5RX.

Talking about committees, the following members were appointed to a committee to organise and handle all details of a field day to co-incide with the National Field Day: 5LW, 5AW, 5BJ, 5AL and Joe McAllister.

Per medium of the magazine and the daily papers, VK5 Hams have read of the disastrous floods that have visited the other States, and whilst they deeply sympathise with the victims and all those who have suffered in the visitation, they cannot help but feel a sense of pride in the splendid service that Amateur Radio has rendered to these areas. We in VK5 salute these Hams and thank them for keeping our grand hobby so well to the forefront. Due to their efforts it is now becoming increasingly evident to the general public that an Amateur Radio Station is not inhabited by a moron, complete with a bagfull of inhibitions.

I have heard it said that there comes a time in everybody's life when one becomes immune to being picked on and kicked around, and I was just beginning to believe that I had reached that point when I happened to be reading the VK6 notes and what do I read in the last paragraph; yes, you said it, I read a scandalous attack on me by the correspondent for that State. The things that he insinuated about me, why if I knew someone in the police force in VK6, I would take up the matter with them. Anyway, I shall keep a careful eye on those VK6 notes and if he says one word that is not the truth, well he had better look out. In the meantime, if anybody happens to know a member of the police force in VK6, would they please send the address to me.

Preparations for the Annual Xmas Social are well in hand and by the time these notes are being read it will be only a memory, a painful one to some, maybe, but a pleasant one to most I hope.

Periodically, the Treasurer receives complaints regarding the non-delivery of the magazine, and when these complaints are investigated it is invariably found that the member making the complaint has for some reason or other forgotten to renew his subscription. Naturally the magazine must cease with the subscription and all members who may be having trouble in receiving their copy of the magazine should check up on the subscription angle before putting on a winge.

We now come to the end of the notes for this month and if you consider that I could have written more, then I can only offer the excuse that news is scarce and also these notes have to be in the hands of the Editor a week earlier than usual owing to the nearness of the festive season. The mention of the festive season reminds me that it is my annual and pleasant duty to extend to all Amateurs the Compliments of the Season on behalf of the members of my Council, and they sincerely hope that the New Year will bring to you all, everything that you wish for yourselves. Speaking for myself, I thank you all for your patience with my feeble attempts at writing these notes. I humbly apologise to anyone whom I may have unintentionally hurt with my peculiar attempts at humour. I am deeply appreciative of all the help that I have received from my various sources of gossip, particularly 5CJ, without whose help with the south east notes, I would have found it difficult to carry on, and last but by no means least, I wish to thank my chief target for the year, one who by allowing me to use his name in all my funny ha-ha stories, has demonstrated only too well that he can take as well as "dish it out," none other than "Doc" Barbier (5MD) who is better known as my arch enemy, which reminds me, to you Mrs. Barbier, MAAAAAA. in fact, MAAAAAA again.

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WESTERN AUSTRALIA

Just for a change we will commence this month's notes with a commentary of the last general meeting (21st November). Did I say change? Anyway this meeting, although not well attended, turned out to be one of the best held during that year and incidentally it was the last for the year, there being no December meeting. Several members whom we had not seen at a meeting for a long *time managed* to drag themselves away from the fons of DX that has been offering lately (no, I haven't heard it either OM!), and honour us with their presence. 6BO, 6FC, 6CF and 6NL were welcomed by the President like prodigal sons. I must try staying away for a few meetings. Someone may notice me when I finally do get around to attending again.

The chief item of business for the evening was the National Field Day and it was resolved to make an entry under call sign VK6WI on a co-operative basis and with this objective in view, members were asked for donations of equipment of a portable nature. These were speedily forthcoming and offers of gear, etc., poured in from 6KW, 6RU, 6GM, 6GA, 6JW, 6PJ, and 6BO, the sum total of which will enable all bands from 80 to 6 to be covered. The final details and correlation were left to the contest committee.

Individual members wishing to enter for the National Field Day should still do so. The more the merrier. 6HL is one who intends taking his mobile gear out for the Field Day and all the best of luck to you Harry.

It was also decided to hold a 2 metre field day some time in February on the lines of the pre-war five metre field days. No definite date was decided upon but with 6AG as the prime mover behind this field day it should be a very good show and just what the doctor ordered to give a fillip to 144 Mc. The debate, "V.F.O. Versus Xtal," proved very interesting and at times most enjoyable. Despite a good case put up by the xtal team, who had the more difficult subject, the result, as most expected, was a win for the v.f.o. team. If sufficient speakers can be found it is hoped to hold further debates in the new year.

6JW followed on with his lecture, "Negative Peak Clipping and Restricted Audio Frequency Ranges in Modulators." This proved to be one of the most interesting and well presented we have had the pleasure of listening to for a long time. It was evident that 6JW, with assistance from 6GH had done considerable research and experiment on the subject and in the process finding out some interesting results. The fact that John held the attention of the meeting for well over an hour speaks volumes for the way it was delivered and received by the meeting, which closed shortly after 11 p.m.

PERSONALITIES

Very little to offer under this heading this month mainly because, instead of doing my duty and assiduously tuning the bands searching for scraps of news dropped on the ether by unsuspecting VK6s, I have been vainly tuning the 6 metre band hoping for an opening to the east. So far no luck. 6LM still persevering with 10 metres, talking of letting 20 benefit from his presence; starting work on a "sooper dooper" Rx. 6NL keeping 6LM company on ten, not interested in 20, but is also hard at work on a new Rx. 6GU back in Perth *after a lengthy stay in Boulder; at present busy* looking for somewhere to settle down and put up a few antennae.

6HR has just had a few days off from toil with influenza; is at present concentrating on 6, and putting out a very nice signal on that band. 6KW and 6JS seem to have forsaken the communication bands for 144 Mc.; the former will probably show up again when the contests get rolling again though. I found out what has happened to 6CM, he turned the shack into a garage and has been doing a major repair job on the family jalopy. I believe 6FL, who recently settled down in Gooseberry Hill after house hunting for six months, will soon be on the move again; where to this time, Frank?

6GA has just returned to work after an enforced absence of three weeks, caused by two broken fingers, which couldn't stand up to the combined weight of Bill and his motor bike. Has his T40 working well on 20 now and has "built out" both modulators. At one stage he had the 10 metre modulator practically built out altogether. When I spoke over it no one could hear me—yes, the modulator was on. No sign of 6SA, what are you doing these days Jim? 6XG down at Katanning, is busy building a new Rx around a commercial coil kit; hope the results surpass expectations George.

Well by the time these notes appear in print the festive season will have just concluded, so here's wishing you one and all a very Merry Xmas, a Bright and Prosperous New Year, with lots of DX, happiness and everything that you could wish yourselves. Cheerio for now and I'll be seeing you.

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TASMANIA

Instructional films were the highlight of the November meeting of the Division, ably presented by 7AJ. At the conclusion of the meeting, 7RM and 7PA gave animated versions of the "bagpipes," much to the disgust of 7AF, who has now offered to provide entertainment at the Annual Dinner, just for Rupe and Peter's benefit.

Rather disappointing feature of the evening was the lack of attendance, although the promising good weather may improve this at the next meeting. News from the north west indicate untiring efforts are being made to foster Ham activity in this area. A.O.C.P. classes in theory and morse practice are being well attended, and future prospects for advancement of this zone are very favourable. It is hopes, when things become settled, arrangements can be made so that the North Western Zone will have a section of these notes.

7AL, our worthy QSL Manager of many years standing, now finds, due to increased pressure of business, the Bureau has become too much for one individual. Putting this to the meeting, an offer was received to assist Tom in his activities. This should reduce the work considerably, as Tom now handles all Inward QSL Cards, while 7SJ disposes of the Outward Cards. Many thanks go to Tom for his sterling work in this matter.

Believe "Tiny" 7JD became a little tired of talking to himself on 2 metres, and is now down on 40 and runs approx. 25 watts and uses crystal control. Apart from a long wait for a modulation transformer and some b.c.i., there has been few worries with the new transmitter. 7LD has now finally got his v.f.o. actually on the air. It has been rumoured 7JB and 7YL were seen holidaying at "Lufra," our leading seaside resort recently. This is overshadowed by much hard work and worry in the home building programme which is now well under way. A recent arrival on 20 has been 7RX who has worked some "rare" DX. Another busy builder is 7LJ, now decided to erect a week-end shack at Pipe Olay Lagoon. This is a popular spot apparently as 7CW is already in occupation with a 6 metre beam predominating from the shack.

Johnny Grace seen recently with the front panel of the new receiver which, from the dscription given should be f.b. When completed this Rx will cover all low frequency bands; it seems as though John has "had" 2 metres. Much improvement noticed in transmission of 70M of late; believe Bob is using the new voice controlled carrier and from reports received this works very well. Others using this type of modulation are 7AF and 7KA. *Folded dipoles are popular with 7KX and 7CT* who have now decided on this type of antenna. 7SD, after much labour, decided it was not worth the effort—matched impedance being preferred. 7LL active again, hard trying one or two microphones with not the desired results. By the time these notes appear the festive season will be with us and it is my pleasure on behalf of the Council to wish all the Compliments of the Season and all the best for the coming year. Let us make a resolution which we hope will not be broken and that is to put every effort in building up the ranks of the W.I.A. By the increase of members and more active participation in Ham affairs, so eventually we will have a united body.

NORTHERN ZONE

The November meeting was treated to a most interesting discussion on "Wave Propagation" by Mr. Laurie George, from the communication staff at Western Junction Airport. Coming well equipped with ionospheric prediction charts, etc., Mr. George very ably traced the history of such observations, gave us an insight into the equipment used to collect the data and showed how the complete charts are compiled and used. Altogether a very complete coverage of a subject that must be of interest to all. Our thanks are due to Mr. George for a most educational evening.

Had a flying visit from 7JB who took back to *the south with him a feast* of v.h.f. ideas from 7LZ. Closer home sees the v.h.f. bug in full swing, biting with all its early summer ferocity. Both 7LZ and 7BQ are knocking them over like nobody's business. 7PF has changed the location of his battle for daily bread and is now with Civil Aviation at Western Junction. Best of luck in the new venture Peter.

Conditions for the first week-end of the European Contest were disappointing at respectable hours *but did manage to get among a few in the wee* small hours of Sunday and some good contacts resulted. Despite several short warming up breaks on ten the preceding week, that band failed to provide any interest for the test and just when the Europeans should have been adding to our totals the only sign of occupancy was the short skip QSOs.

Two of our local commercial Hams have been enjoying and otherwise somewhat contrasting activity. 7RB has I believe been languishing on holidays while 7XW, perspiring freely with outdoor broadcasts, took the b.c. station to the Xmas Fair at the Albert Hall. So, 'tis the last till the festive season and to those brave souls who have waded through this may I extend the Compliments of the Season with the sincere hope that 1951 be bigger, brighter and better, may someone persuade all politicians and/or dictators to take up Ham Radio so we can have some real peace and may all who say "sure QSL" really mean it.

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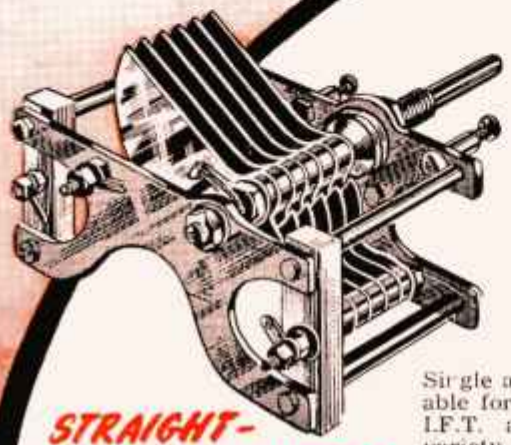

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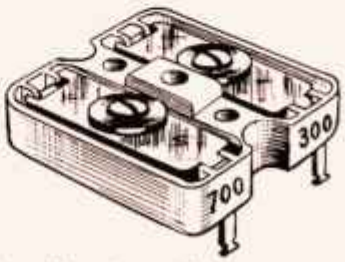

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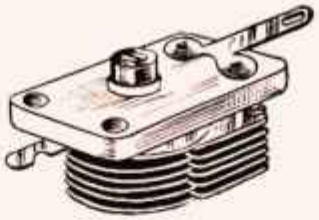

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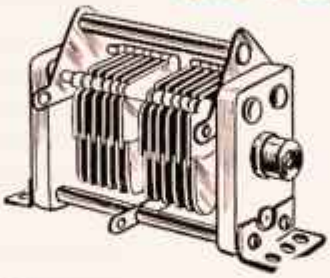

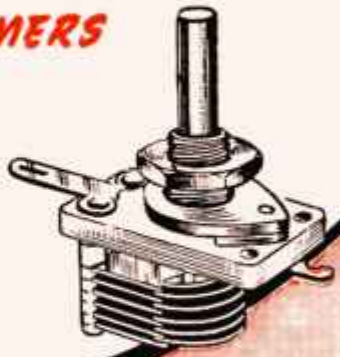

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AMATEUR RADIO

FEBRUARY 1951

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EDITORIAL

★

SAFETY PRECAUTIONS

A B C. You have heard of these three letters since the days of your very early youth. Now that the years have rolled on, are these first three letters of the alphabet just a dim memory or are they foremost in your mind when pursuing your hobby? If the former be the case, let us bring them to the surface and help you keep them there.

Elementary electricity and magnetism teaches us that the speed of electric and light waves travel at the speed of approximately 186,000 miles per second and in addition it is known that our reflexes work at a somewhat slower speed, therefore, it is obvious that you cannot win in a battle of electricity versus human flesh.

It has been said that by keeping your hand in your pocket you safeguard your wealth, why not safeguard your health by doing the same, when making adjustments to your transmitter.

The following alphabet gives a few pertinent points to remember:—

A—Always
B—Be
C—Careful.
D—Don't forget to short circuit high voltage filter condensers. You may have an open or no bleeder resistor.
E—Everytime you make an adjustment to your equipment see that it is DEAD or you may be.
F—Forgetfulness does not pay. Fuses do.
G—Good design will ensure the personal safety of the operator and his friends.
H—High voltage—Heed it.
I—Interlock circuits are good commercial practice. Make it yours.
J—Just think a little longer before you act.
K—Keying circuits can be lethal. Are yours?
L—Look for the green safety lights on the rig.
M—Must you test the voltage of a rig with your body? Voltmeters are cheaper.
N—Never let your mind wander from what you are doing when adjusting the transmitter.
O—Oh! How many times have you said this because of your carelessness.
P—Proud flesh! An early demise by electrocution is nothing to be proud of.
Q—Quick results are achieved when making adjustments to live equipment with both hands.
R—Red is for danger. What warning devices have you on your equipment? Can those already in existence be improved? Let the Editor have some dope on them so that your fellow Hams may derive some benefit.
S—Study your circuit diagrams carefully. You may find them to be dangerous due to wrong connections.
T—Take time off for a second look before you throw the switch in.
U—You only live once.
V—Vulnerable.
W—We are all subject to this condition when caution is thrown to the wind.
X—Exit. Will your thoughtlessness accelerate yours?
Y—Why not play safe.
Z—ZAC. The game is not worth one of these unless everybody observes safety precautions.

—Federal Executive.

Make your motto: **"The ABC of Safety First is Always Be Careful."**

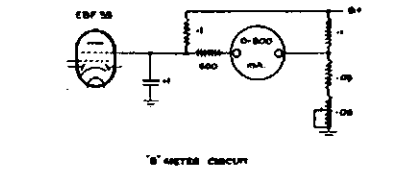
The Contents . . .

A Simple Ham-Band Super

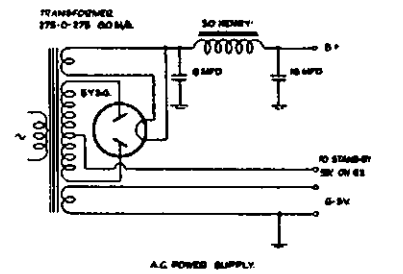
BY W. R. JARDINE,* VK3PR

In "QST" for August, 1938, there was described a small three-tube superhet receiver using 6K8, 6K7 and 6C8, and operating from 6 volts for filament supply and from a 45 to 90 volt B battery. Not having any a.c. available, this hook-up appealed to the writer and the set was built up. The results were beyond expectations and the little set did yoeman service up to the start of the war.

At the cessation of hostilities it was found that the B batteries were flat (not to be wondered at) and it was decided to build something larger that would work from a vibrator unit and at the same time be suitable for operation from the a.c. mains when the long overdue a.c. arrived.



"S" METER CIRCUIT



A.C. POWER SUPPLY

S Meter Circuit.

This circuit is suitable for any receiver using 6K7 or any similar tube in a.v.c. controlled i.f. stage.

A.C. Power Supply

Four-pin plug on power supply to four-pin socket on back of Receiver.

The circuit of the little set was studied and it was decided to add r.f. and a.f. stages. This would make a five-tube receiver which would not be too heavy on the vibrator unit available—a FS6 unit—and as there was no trouble in keeping a 6 volt battery charged, the job was put under way.

It was decided to make use of the latest tubes available and to include a.v.c. The next problem was the tuning of the aerial, r.f. and oscillator circuits. The idea of gang tuning appealed to the writer, but the work of coil trimming, etc., to get the stages to track properly did not, so it was decided to compromise and to gang the r.f. and detector and separately tune the oscillator.

About this time the 10th edition of the Radio Handbook came to hand wherein there was a five-tube receiver described using this system and it was decided to build the set along these lines and to follow their layout.

From the outset it was decided to use plug-in coils as these were the simplest to get going and in the writer's opinion the most efficient.

Let us take the circuit stage by stage. In the r.f. stage a EF50 is used. It was originally intended to use a 6K7 or 6SK7, but it was thought that the EF50 would be the best bet so it went in and there it stayed. A 6K8 was used in the original three-tube set, but the ECH35 looked better on paper so it was included. The manufacturer's recommendation to plate tune the oscillator coil was adhered to and it works very well. The X61M has also been used in this position without any alterations to the circuit and the results are as good as, if not better than, the ECH35.

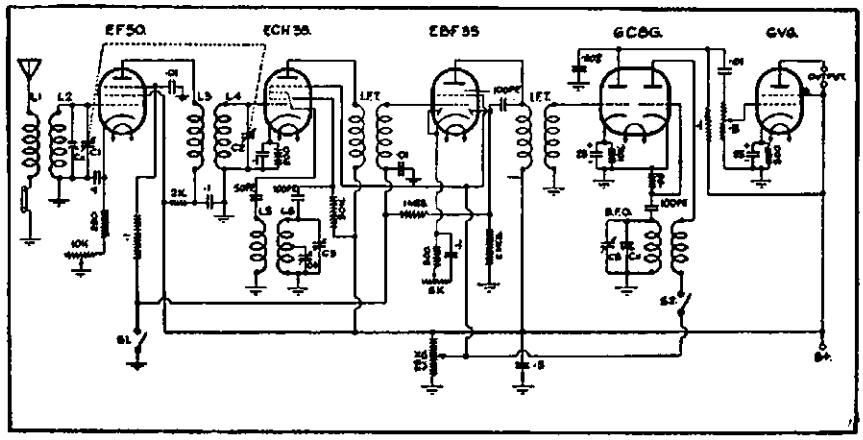
It was decided to stick to 455 Kc. i.f. stage to get a reasonable amount of selectivity and gain the one stage. After much thought, it was decided to use a EBF35 in this stage and use one of the diode plates for a.v.c. The a.v.c. circuit is quite simple and works efficiently.

The second detector and b.f.o. created no problem as the 6C8G had performed quite well in this position in the previous set, hence it was retained. It is necessary to bring the grid lead from the 2nd i.f.t. out the top of the can and use the first section of the 6C8 as the detector and the other section for the b.f.o. There is enough coupling inside the tube to give a good b.f.o. note. The b.f.o. coils are an old air core 455 Kc. i.f.t. with the trimmer across one winding (the plate) removed. A two-plate midget condenser is connected across the grid winding to vary the beat note from the front panel.

A 6V6G was the obvious choice for the audio stage and needs no comment, except to say that no provision has been made for headphones as the author does not use them.

It will be noticed in the circuit that a i.f. gain control has been included. This was not found necessary in the writer's set and was never used especially as later on an S meter was included in this stage and the gain control only upset the meter adjustment. The r.f. gain control was found quite satisfactory for controlling strong local signals.

The original set was constructed on a 13½" x 7" x 2½" aluminium chassis and the front panel is 14" x 10" masonite. The sketches will give an idea of the chassis and front panel layout. There is an aluminium shield on the back of the panel between it and the oscillator bandspread tuning condenser to cut out hand capacity. The r.f. and mixer tubes and coils are enclosed in an aluminium



C1, C2—50 pF. variable, ganged.
C3—0.0001 uF. variable.
C4—35 pF. variable.
C5—2 plate variable.
Cx—see coil table.

DETAILS OF COILS FOR 80, 40 AND 20 METRES

	L1 and L3	L2 and L4
80 Metres	9 turns	45 turns on 1¼" ribbed former, close wound.
40 Metres	6 turns	22 turns on valve base, close wound.
20 Metres	4 turns	10 turns on valve base, close wound.

Spacing between L1 and L2, and L3 and L4, ⅛".

Cx is mica trimmer taken from i.f.t. (later used as b.c.o. coil) and placed across L2 on the 80 metre coil only.

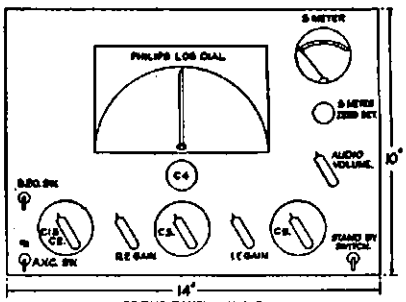
	L5	L6	Tap	
80 Metres	7 turns	19 turns	top of coil	Close wound on 1¼" ribbed former.
40 Metres	5 turns	15 turns	7 turns	Winding spaced 1¼" on 1¼" dia. former.
20 Metres	4 turns	5 turns	3 turns	Winding spaced ¾" on 1¼" dia. former.

All windings with 22 gauge enamel wire.

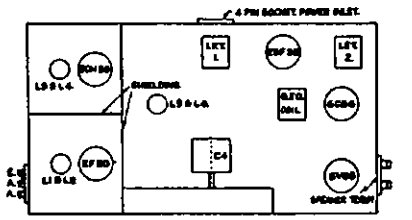
* Box 52, Leongatha, Victoria.

box and separated from each other with a piece of aluminium the same height as the rest of the shielding which is 4½" high. No lid is used on the top of the box.

Condensers C1 and C2 are ganged together and mounted under the chassis close to their respective coil sockets, while C3 is also mounted under the chassis at the oscillator coil socket and a flexible extension shaft goes to the front panel for band-setting. With the coils in use in the original set the band-set condenser peaks the centre of the band at about 60 degrees on a 100 degrees scale and if the set is required for Ham band use only, it is suggested that the coils be well doped so that the



FRONT PANEL LAYOUT



CHASSIS PLAN

turns do not slip with handling and C3 be replaced by a 0.00005 uF. fixed mica condenser and a 3-30 pF. air trimmer be mounted on each coil connected to the pins so that when the coil is plugged in, the 50 pF. fixed and the trimmer are in parallel. The trimmer condenser can then be used to set each coil in the band and there will be no trouble when changing bands in finding the exact spot, and the main tuning dial, C4, can then be reasonably accurately calibrated.

The coil table gives full particulars of the number of turns and construction of each coil. The bandset tap on L6 gives about 100 to 120 degrees band-spread on each band on a 180 degrees scale. Coils for 80, 40, and 20 metre bands only are shown as these are the only bands used by the author. The set should work quite well on 10 metres also, though there will be some trouble from double spot tuning.

An S meter circuit is also shown which has given quite good results. It is connected in the screen circuit of the r.f. tube. In the circuit, the screens of the EBF35 and ECH35 mixer are joined together and go to the 100 volt tap on the voltage divider. If the S meter circuit is wired in it will be necessary to disconnect the screen lead of the EBF35 from the 100 volt tap and connect it to the main B plus and another 0.1 uF. by-pass condenser will be required to by-pass the screen circuit. The circuit diagram of the S metre is self explanatory.

As stated previously, the set works quite well from a 6 volt accumulator and FS6 or similar vibrator unit, or it can be operated from an a.c. power pack delivering 250 volts at about 80 Ma. The power supply is built on a separate chassis.

The tuning is quite simple and once each band is found, it will be noticed that C1 and C2 will peak when tuned with C4. On 40 and 20 metres, these condensers can be left set in the middle of the band, but on 80 metres it is necessary to follow up with these condensers to some extent.

If a 6K7 or 6SK7GT is used in the r.f. stage in place of the EF50 it will be necessary to take the screen voltage from the 100 volt tap on the voltage divider.

The results from the little set far exceeded all expectations. The set was on loan to a local Ham for some months and he reported that its performance astounded him.

It is suggested to anyone building this set that they use a larger chassis with a view of further expansion at a later date.

The Present Phase of the Solar Cycle

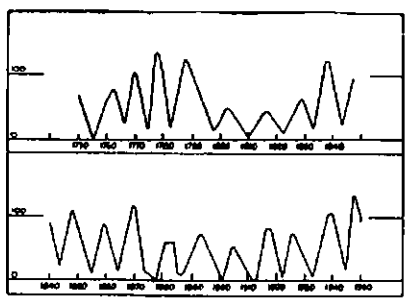
BY L. L. BRENNAN,* VK2AMU

The time of the last sunspot maximum was 1947.5. Although this was three years ago, sunspot activity has remained at a relatively high level. It has decreased by approximately one third since maximum. As can be seen in the diagram, maxima have been alternately high and low since 1850. If this alternation had continued, the maximum of 1947 would have been lower than the high one of 1947. The maximum of 1947, however, did not follow this rule, but proved to be the highest (N = 152) since 1778 (N154.4). It was approached only by the maxima of 1837 (N = 138.3) and 1870 (N = 139.1).

The average latitude of spot groups decreases steadily from approximately 25° at the beginning of a new cycle to about 5° at the end of the cycle. At maximum the average latitude is about 15°. The latitude of sunspots during the present cycle has decreased at the expected rate, being 17.3° in 1947, 14.3° in 1948, and 13.4° in 1949. The relatively high average latitude at maximum was due to the early occurrence of maximum in the cycle. If the two hemispheres are considered separately, a difference of two years between northern maximum and southern maximum is found in the present cycle, the southern maximum having occurred in 1947. The northern belt maximum occurred in 1949 and the greater activity has remained there to date. Higher latitude groups of the new cycle may be in evidence during the latter part of 1952 or early in 1953.

The time of the next sunspot minimum can be estimated only from the average length of the cycle (11.2 years) and the average time from maximum to minimum. A provisional forecast by the "American Association Variable Star Observers Solar Division" for the next minimum is set for the period between 1954.6 to 1955.3.

Professor W. Gleissberg, Director of the University Observatory at Bayazyt, Instanbul, Turkey, has forecast with a probability of 19-1, that solar activity at the coming minimum will be stronger than that of all minimum since 1843.



The sunspot cycle for nearly two centuries. The relative spot numbers are computed from the formula:

$$N = K\ (n + 10g)$$

where N is the Wolf number, n is the number of individual sunspot umbrae, g the number of groups, and K a constant determined from the observing conditions.

* Cr. Duke and Albany Sts., Gosford, N.S.W. Observer for "The American Association Variable Star Observers Solar Division."

Accurate Frequency Transmissions for 1951 from VK3WI

During last year, four Accurate Frequency Transmissions were made from VK3IK, representing VK3WI. These transmissions were made possible with the help of the Frequency Measuring Station at Mont Park, and the thanks of the Victorian Division are hereby extended to those boys at that Centre.

To fit in with their long list of activities, it has been decided to change the month of operation for the transmissions.

Dates for the next twelve months are as follows:—

Thursday, 22nd February, on the 7 Mc. band.
Thursday, 24th May, on the 3.5 Mc. band.
Thursday, 23rd August, on the 3.5 Mc. band.
Thursday, 22nd November, on the 7 Mc. band.

It will be observed that two of the transmissions will be on the 80 metre band. This procedure was thought advisable as this band should give complete coverage over the State, and the QRN should be less at that time of the year.

Transmissions take place on the 7 Mc. band at intervals of 20 Kc., whilst on the 3.5 Mc. band, the intervals of 30 Kc. will be taken.

The operating procedure and times of transmissions are as follows: 9.5 p.m., phone transmission on 7196 Kc., with a general call, and information on what is about to take place. 9.15 p.m., VK3WI changes frequency to 7000 Kc. and calls as follows on c.w. at 12 w.p.m. "AFT (three times), DE VK3WI (three times), then —...— QRG —...— 7000 Kc. (twice)." The key is then held down for one minute, then "QSY 7020 Kc. (twice), DE VK3WI (once), AR."

The transmitter then commences operation on 7020 Kc. and the procedure is repeated until 7200 Kc. is reached, after which there will be a phone transmission on 7196 Kc. and if corrections are immediately available, they will be broadcast at this time, also on the following Sunday broadcast over VK3WI.

The 80 metre transmissions will be the same as the former, only the voice will call on 3598 Kc. and then the checks will start on 3.5 Kc. and finish on 3.8 Kc., with the exception that the checks will be given every 30 Kc.

If the hour is not too late, frequency checks will be made for any member contacting VK3WI.

— · · · —

ANOTHER TYPE 3 MK. II MODIFICATION

When attempting to use the ZB2 as a converter in conjunction with the Type 3 Receiver and supplying it from the Type 3 power pack, it was observed that when the ZB2 drew current the sensitivity of the Type 3 receiver dropped off sharply; so much, in fact, as to render it almost useless for reception of any but the strongest of signals. A study of the circuits with particular reference to the biasing arrangements, soon revealed the reason for this and enabled a simple cure to be effected.

A system of back biasing is used. A 500 ohm resistor in the power pack through which all current drawn by the receiver and ZB2 must flow, produces, normally, about 12.5 volts bias which is applied to the various stages by means of a suitable voltage dividing network. When the ZB2 draws current, this voltage increases to more than 15 and the consequent result is more negative bias on the tubes and less gain. In order to keep this voltage down to about 12.5 the ZB2 is being used, a resistor is connected in parallel with the 500 ohm back biasing resistor. It was found more convenient to mount this resistor in the receiver rather than in the power pack as it was also necessary to mount a switch to enable it to be cut out of the circuit when the ZB2 was not in use.

This switch, a single pole single throw toggle, is mounted above the b.f.o. control knob and wired so that, when closed, a resistor of 750 ohms is connected across the negative bias supply. 750 ohms is really a bit low as the bias voltage with the ZB2 in use drops to about 10 or 11, but it was the only resistor available that approached the correct value and the slightly lower bias voltage has restored some of the sensitivity lost by the receiver due, apparently, to ageing of the tubes.—VK3JO.

PREMODULATION CLIPPING AND FILTERING

Their Effects on the Intelligibility of Speech

Over the past ten years, radio journals have published extensively on amplitude and frequency limiting speech amplifiers. The fundamental purpose of such equipment has been the improvement of transmission efficiency in radiophone transmitters, by permitting only the frequencies essential to speech to modulate the transmitter, and by maintaining the highest average proportion of modulation possible without exceeding the transmitter's linear capability. The principal devices recommended have used volume compressors, limiters, clippers, or automatic gain-control networks, and usually incorporate frequency filters which eliminate all but the band occupied by typical speech.

The physics and economics of these amplitude and frequency restricting amplifiers have apparently been generally accepted. However, there seems to have been a good deal of unwillingness to employ them, regardless of their technical advantages, on the ground that they so distort the natural voice as to jeopardise intelligibility. This argument does not square with the results of some recent experiments designed to study exactly this problem.

How do clipping and filtering affect speech intelligibility? Indicative of this work was an article published about four years ago in "QST" (Feb. 1946, p. 46). Several others have appeared in the engineering and scientific literature which are worth the Amateur phone man's consideration. This paper will undertake a review of these articles, and attempt to demonstrate the usefulness of their results.

First, let us refresh our knowledge of the dynamics of speech. When the human voice is impressed upon a microphone, voltages are set up whose instantaneous peaks normally exceed the root-mean-square value by 12 to 15 db. It is this "peak factor" which requires us to design our amplifiers with a much greater range of linear amplification than we expect to use most of the time, when we wish to transmit voice signals with minimum distortion. Also, in English as we speak it, the average vowel produces a peak voltage which run about 12 db. higher than that produced by the average consonant. This 12 db. figure is the average vowel consonant ratio for all combinations of sounds in our language; the instantaneous value may vary from a fraction of the average to several times its magnitude. Now, peculiarly enough, the intelligibility of speech depends much more heavily upon sounding of consonants (b, p, z, s, t, d, f, v, th, k, l, m, n, etc.) than upon vowels (a, e, i, o, u, y, etc.), despite the fact that the ordinary vowel sound has around 16 times the power of the usual consonant.

EFFECTS OF CLIPPING ON INTELLIGIBILITY

From the foregoing, we can immediately see what happens when the peaks are clipped from the speech wave. At one and the same time we reduce (1) the peak factor, and (2) the vowel-to-consonant ratio. Effectively, we have cut down the range of variation in speech-energy amplitude, and in so doing have given proportionally greater emphasis to consonants, upon which intelligibility largely depends, as we have seen.

This would lead us to expect that we might improve intelligibility by the use of clipping. There is, on the other hand, the possibility that the distortion of amplitudes resulting from peak clipping might actually reduce intelligibility. This is the gist of the question for which answers have been sought in the psychological laboratory, using some techniques of measurement which have become standard in studying voice communication.

Some years ago the Bell Telephone Laboratories devised tests to measure the effects of telephone circuits on the intelligibility of speech. A talker would read lists of syllables or words made up of all the sounds of the English language, in various combinations. His voice was then transmitted over a telephone circuit to a group of listeners who would write down what they thought the talker had said. By comparing the talker's original list with the listeners' reproductions of it, a percentage could be computed representing the proportion of spoken sounds correctly received by the listeners, as circuit conditions were systematically changed by introducing various degrees of filtering, attenuation, non-linear amplification and the like.

EXTRACT FROM "QST" NOVEMBER, 1950

In World War II. this method was applied, by a group of psychologists at the Harvard University Psycho-Acoustic Laboratory, to a study of the effects of premodulation clipping upon the intelligibility of speech transmitted over a miniature radiophone circuit, using standard amplitude modulation. The results of this testing showed that in the absence of QRN, when extremely weak unclipped signals were only about 30% intelligible, using 24 db. of clipping would raise intelligibility to 75%. These percentages represent intelligibility of words on the special lists; the equivalent in connected meaningful sentences may be higher. Such an advantage in favor of clipping also holds when QRN is very heavy, to almost the same degree.

Listeners in these experiments were asked to report on change of voice quality as clipping increased. Here is their average opinion: at 0 db. clipping, natural voice; 6 db., clipping effects barely noticeable (comparable with standard broadcast quality); 12 db., talker appeared to be enunciating with unusual care; 18 db., voice took on a sharp "sandy" character, quality rated not as good as before; 24 db., voice was coarse and "grainy," rated as poor. Note, however, that despite the very evident changes in voice quality, intelligibility actually improved, particularly when conditions were less than optimal. This effect has been noted before, although perhaps not so explicitly documented.

The question arises, "What about the effects of clipping on intelligibility when conditions are nearly perfect?" The most definitive answer available comes from another series of experiments. With 0 db. clipping, signals were 100% intelligible; as clipping was increased, intelligibility fell off slightly until at 20 db. clipping it had reached 96%. Clipping was gradually advanced, and at 100 db. (almost all speech peaks flattened to rectangles), intelligibility had fallen to 75%. (This, remember, under ideal conditions of quiet for both talker and listeners, with no fading or interference.) Incidentally, these experiments revealed that with signal-noise conditions which completely obscured unclipped speech (intelligibility at 0% to 10%), the same signal when clipped 100 db. and over was 30% intelligible. In these experiments, nothing was said about changes in quality; it could be expected, however, that with such severe clipping as 100 db. it would be very hard to identify the talker by the distinctive sound of his voice.

EFFECTS OF FILTERING ON INTELLIGIBILITY

Up to this point, we have discussed speech in terms of its gross amplitudes only, without considering the individual frequencies present in spoken language. For reasons dictated by engineering standards, several recent amplifier designs ("QST," Feb., 1949, p. 11; "Ham News, 5, 3, May-June, 1950; "QST," July, 1950, p.50; "Amateur Radio," Jan., 1951, p.4) have included both high and low pass filtering. Since this practice is becoming more widespread, let us examine its effect on intelligibility.

This matter has also been investigated in the psychological laboratory, under conditions comparable with those found in the Amateur phone bands. Using the same testing procedures as in the study of clipping effects, a talker's voice was transmitted over a wire circuit to a group of listeners. The speech was subjected to various degrees of filtering and attenuation, and was then combined with an unfiltered, constant-intensity thermal noise, simulating QRN and led to the listeners' headphones. At no time was peak clipping permitted to occur; thus the effects of filtering alone could be evaluated. One series of experiments, studying changes of intelligibility at various signal levels and signal-noise ratios when either high or low frequencies were separately filtered out, showed that when everything below 350 cycles was cut off, intelligibility of moderately to very strong signals was slightly improved by comparison with unfiltered signals. However, at the lower signal levels, where QRN presumably was more disturbing, intelligibility suffered some loss as a result of such filtering. Extremely weak signals in noise were 5% intelligible when the 350 cycle high-pass filter was in the circuit, but jumped to 25% when the filter was switched out, although signal

strength and noise level remained unchanged.

It was further found that when signals were strong and in the clear, everything up to 580 cycles could be cut off with little damage to intelligibility. As to cutting off the highs, when everything above 3950 cycles was eliminated, there followed very little reduction of intelligibility regardless of signal strength. However, when the cut-off point was moved down to 2500 cycles, results were quite different. When signals were strong and clear, intelligibility was down to 78% with the filter in, as compared to 90% with no filter. As signals grew weaker, the **proportional** loss of intelligibility due to filtering diminished somewhat, although even at the lowest signal level used in the tests, the 2500 cycle low-pass filter hampered intelligibility appreciably.

We may now ask, "What happens to intelligibilty when we filter off both highs and lows at the same time?" The effects of bandpass filtering on speech in a noise background have been separately investigated. As before, unfiltered constant-intensity noise was superimposed upon the filtered speech signal, which was also varied in strength to secure various signal/noise ratios. As might be expected from the discussion of high and low-pass filtering, greatest intelligibility at all signal strengths resulted when the widest passband was used (130-9200 cycles, intelligibility about 90%). The effects of filtering upon intelligibility were most noticeable, as before, when signals were strong and relative noise level was low. Interestingly enough, at all signal levels, the passbands 340-3900 cycles and 550-3900 cycles produced almost identical effects on intelligibility; **actually, neither one seriously impaired intelligibility when compared with the widest passband.** However, shifting the cut-off points toward each other clearly resulted in poorer intelligibility, as the following table shows. Signal strength and signal/noise ratio are the same for all filter combinations.

Passband Limits	Intelligibility
130-9200 cycles	90%
340-3900 ,,	80%
550-3900 ,,	80%
550-2500 ,,	70%
870-3900 ,,	65%
870-2500 ,,	55%

SUMMARY

1. Speech clipping definitely improves intelligibility.

2. As signals get weaker, and as signal/noise ratio gets worse, the greater the clipping, the greater the improvement of intelligibility, up to at least 24 db. of clipping.

3. Extremely heavy clipping (100 db. or more) is beneficial under very severe signal/noise conditions, although it will not make poor signals completely understandable.

4. Although the quality of speech changes noticeably over the clipping range from 0 db. to 24 db. (and probably above), even under the best signal conditions intelligibility is not impaired by clipping.

5. In general, high-pass filtering up to 350 cycles will not harm intelligibility, and may actually make a slight improvement when signals are strong and clear.

6. Under optimum signal conditions, frequencies below 580 cycles may be eliminated with little loss of intelligibility.

7. Cutting off frequencies above 3900 cycles by use of a low-pass filter will have hardly any effect on intelligibility.

8. Cutting off frequencies above 2500 cycles will seriously impair intelligibility.

CONCLUSIONS

We may conclude, therefore, that the engineering advantages obtained from speech clipping prior to modulation are accompanied by definite improvement of intelligibility at the receiving end of a radio circuit, especially under adverse operating conditions. Further, the change in voice quality noted as a by-product of clipping does not really impair intelligibility of the signal; speech can be distorted very severely by non-linear transmission and still be perfectly understandable. Filtering to avoid or remove the undesirable side effects of clipping will not impair the intelligibility of speech until the upper cut-off frequency gets down around 2500 cycles. In fact, filtering off the low frequencies (below 350) may actually improve intelligibility under good signal conditions. The limit for cutting off low frequencies is apparently much less critical than for high frequencies; any cut-off point up to almost 600 cycles may serve for the lows with little damage to intelligibility, while for the highs cut-off should be well above 2500. It appears now that the more or less arbitrary low-pass cut-off of 3000 cycles now rather widely employed may be a little too slow for optimum communication. This last observation assumes, of course, that the frequencies above nominal cut-off are abruptly and completely attenuated. It may very well be that intelligibility would not suffer so seriously were the frequencies above, say, 2000 cycles subjected to the relatively gentle treatment of the typical RC network, i.e., 3 to 6 db. attenuation per octave.

A ZERO BEAT INDICATOR

It is very handy to have an exact zero beat indicator when matching two r.f. signals. They can be matched on a c.r.o., but few have the facilities for doing that. If the signals are strong enough, you can hear the swish in your receiver or watch the S meter swing.

In these cases all is easy, but more commonly the signals are not strong enough to allow of such obvious and easy measures. A very easy, exact and almost universally obtainable method is in one's own receiver.

The method is to beat the two signals until there is no audible note. In that position the frequencies are, we will say, within ± 50 cycles. If now you turn on your b.f.o. to give a note of about 1,000 cycles, you can beat the two signals very easily to within a cycle a second. As you approach the point of exact zero beat, the 1,000 cycle will vary according to the difference between the two r.f. signals. The effect is very marked and is just as obvious on weak as strong signals.

It is an effect with which those who match audio frequencies exactly are familiar. You can use any frequency of note from your b.f.o. that you like. The whole system is extremely simple and very accurate.

There is only one point to watch—that is that you don't zero one of the r.f. signals with your b.f.o. For that reason it is best not to turn your b.f.o. on until you have got to the point of no audible note.

A fundamental point in matching r.f. signals, but one that will bear repeating, is that varying the tuning of the receiver does not vary the beat note from two outside signals. If the beat note does vary, one of the incoming signals is beating against the oscillator in your receiver. This is exemplified when tuning in a single station on a receiver and when tuning across two stations who are heterodyning one another.

—Dr. Leo H. McMahon, VK2AC.

DX NOTES BY VK4QL

Well, up here I find I am still digging down in the noise and hash to see what DX is to be found. What has been there has not been strong, and it has been found at unexpected times in some cases. Static on 14 Mc. has been what I would normally expect to find on 3.5 Mc. and occasionally 7 Mc. in Sydney. Some peculiar effects have been noticed with the static. It would be very severe, but there would be some signals on the band even if only Pacific or Asian. Within a short space of time the noise level would drop considerably and the signals would also disappear, causing one to check his receiver for serviceability. But the receiver would be OK and next day the noise would be there as usual. Once again a big change took place on the 14 Mc. band during the month. In the beginning round 6 a.m., North and Central Americans together with North and West Africans were workable, but they were non-existant at the end of the month. I believe the Southern VKs heard me working the Africans but they could hear no sign of them.

14 Mc. has been pretty useless of late except after midnight and up to 3 a.m. Have had only one or two sessions at that time so cannot give a consistent report. But with the poor conditions, if you are lucky enough to be around at the right time, there are some good pickings.

One morning recently when the 14 Mc. band was flat, I played a hunch, and braved the QRN and went to 7 Mc. to find the band full of DX, including the North West Africans which I had been working on 14 Mc., such as FF8JC and CR5AC. The thing I was crook on was how many days it had been open before I went there. The opening only lasted four days. Stations worked in that period were SP1CM, FA8RJ, SM7IA, HA4AS, DL1CS, UB5BH, FF8JC, CR5AC, while others were heard there.

Evenings on 7 Mc. have been hopeless due to the high noise level, and in any case I could only hear one or two weak W and ZL signals. 3.5 Mc. was listened to once or twice but the noise was terrific, but even through it, W5ATW was heard at 10 p.m. one night.

Was all set for a CQ from VP3SW on 14 Mc. one night, when an extensive power failure occurred, so I don't know what happened, but guess plenty were after that one. The strong Interstate signals which were heard last month on 14 Mc. have dropped right off and are very unsteady now.

A strange coincidence occurred the morning I worked FF8JC and CR5AC on 7 Mc. Their QSLs for 14 Mc. contacts arrived in the morning's mail.

Last month I mentioned the call of MGBN1. Well, it's derivation is obtained by the operator using the ship's call sign and adding the letter 1 to it, which, the op. sez., is in accordance with current regulations. Port of registry was in India.

FZR6 was always a good band marker on 14 Mc., being 2 Kc. outside the band. Now, however, he has moved into the band, and for the whole of the month has been on between 14004 and 14006 Kc., varying from time to time. As if that was not enough, he has had two bad parasitics which were very broad and rough.

Two points of interest this month come from ON4QF and KP4KB. ON4QF said he will probably be going to Andorra this spring. His plans to do it last spring were prevented by red tape he said. Wants the VKs to keep an ear open for him; who won't be. KP4KB, operating KP4HU worked VK5LE the long way round on 7 Mc. at 0715 E.S.T. on 22nd Dec. I had heard KP4KB two days before, but had to QRT before had a go at him. This was during the period of opening I mentioned earlier.

A number of stations have appeared on the band this month using the HS prefix, so another difficult one has a few more starters. HS1VR wanders all over the place during his transmission, often under a commercial.

VR1F has supplied the following on all existing VR1 stations:—

VR1A, Chas Adams, at Tarawa.
VR1B, Stan Silver, at Tarawa.
VR1C, uses number of ops., at Tarawa.
VR1D, Des Walcot, at Bairiki.
VR1E, Ted Lamon, at Canton.
VR1F, at Canton (see last month's notes).

Don also says there are nine KB6 licenced, but not very active.

The rarer prefixes for the month show some interesting ones. 14 Mc.: ZC4AN, ZD1AR, ZD2DYM (Nigeria Signals Squadron, Lagos), ZD2LO, ZD6HJ, CR4AH, CR5AC, CR5AD (Box 200, Bissau), OQ5LL (Box 4129, Leopoldville), FF8AC (Box 19, Port Etienne), FF8GP, FF8JC, FM7WF, FQ8AC, FY8AC (Cayenne, F.G.), KC6WD, CGLB (C.G. Depot, Box 3, Navy 926 F.P.O., Frisco), VP3CW, VP4TB (21 Edward St., Port of Spain), EQ3FM, YS1O (Box 329, San Salvador City), AP2Z, 3P5B, VQ8CB, C3CL (Box 1, Tanchui, Taiwan), MI3FG (Box 513, Asmara), VP7NH, CP5EK (Box 496, Cochabamba), KG4AD (Box 35, Navy 115, F.P.O., New York), PJ5OK, CP5EQ, UG6AB, UD6AH, I1MV/Trieste, YI3BZL (QSL via G3BZL). In addition to those worked at the 7 Mc. opening, these were heard: KP4KD, HB9IN, ON4ZJ, UB5KAA, UB5BZ, CN8MZ, DL4CR, 4X4CF, CR7IZ, I1LI, I1ARK, I1AIV, FA8BG, YU1CAG, OK1SK and a few ZS. All between 6 and 7.30 a.m.

QSLs for the month: VO6A, VP5FR, FF8JC, CR5AC, NY1AA, TA3AA, HA4AS, FM7WF, FN8AD.

Would like to know from 3RJ if any QSLs have been sighted from HC8GRC to date. According to "QST" they have been sent so am wondering if this is another I miss out on; eight months since the contact.

Have a few doings from some of the gang this month including Eric Trebilcock, who took pity on me, when my appeals for dope from transmitting members get negative results. Many thanks fellas. Eric says he has qualified for his H.A.Z., by receiving a QSL from AC4YN, but it took from 1946 to get it, so one never knows when that much needed QSL may turn up. Has received some interesting QSLs, such as OY3IGO, ST2FC, IS1EHM, CR6AI, I1RC (Trieste), and also VP2AD and EA8BC. Trev., you may be able to do a swop for something Eric needs. His heard list for this month on 7 Mc. includes ZS7D and four Ws the long way round, which confirms something which I thought I must have misheard previously. 2DG won the jackpot one afternoon. Had heard a few ZS stations coming through on 14 Mc., so called a CQ ZS and of all people ZS3K answered him. Keith has also been hearing and working stuff like F9QV/FC, CT3AN, YI3ECU. Also finds that 7 Mc. is a band well worth watching. Alan, 3CX, has now reached a total of 138, by hooking AP5B and KC6WC. As I am also 138, have challenged him to reach 150 worked first. Has now worked all his countries for the W.A.P. Award, so we are both waiting for the total QSLs necessary. 5BY has 185 countries up, whilst 2ACX has 212 worked and 200 confirmed. 2HZ occasionally manages to open the cupboard and let the light of day on his gear. One opening produced a QSO with YS1O, his first new country for 20 months and the total of 172. Is very pleased, as he now has his W.A.Z. certificate. This makes us wonder where AC4YN is, these troublesome days in Tibet. 2JP requires three more for his phone DX C.C.

Well blokes that about winds up the issue for this month. Ham Radio commercialised was noticed the other day.

DX C.C. LISTING

PHONE

Call	No.	Ctrs.	Call	No.	Ctrs.
VK3JD	1	161	VK4JP	8	114
VK3EE	10	148	VK3AWW	14	112
VK6RU	2	141	VK4WJ	17	104
VK3BZ	3	141	VK2ADT	13	102
VK6KW	4	140	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK6DD	6	126	VK3GG	18	100
VK3LN	11	125	VK3IQ	5	100
VK4HR	12	122	VK3JE	7	100

CW

Call	No.	Ctrs.	Call	No.	Ctrs.
VK3BZ	6	183	VK4DO	20	113
VK3FH	15	155	VK7LZ	17	112
VK2EO	2	152	VK3JE	21	108
VK3CN	1	151	VK4RO	13	107
VK4EL	9	160	VK2GW	16	107
VK2QL	5	141	VK3YD	27	105
VK3VW	4	140	VK5BO	33	105
VK3KB	10	138	VK5FH	31	105
VK6SA	28	136	VK3JI	25	104
VK4HR	8	131	VK2YO	34	103
VK6RU	18	128	VK4FJ	29	102
VK4RF	11	125	VK3APA	14	101
VK8EK	3	122	VK3NO	19	101
VK5RX	23	119	VK3CX	26	101
VK3UM	12	116	VK2OA	32	101
VK3XK	30	114	VK7RK	22	100
VK4DA	7	113	VK7LJ	24	100

OPEN

Call	No.	Ctrs.	Call	No.	Ctrs.
VK3BZ	4	202	VK3JA	43	114
VK6RU	8	175	VK2ADT	14	113
VK3KX	1	167	VK4RO	21	110
VK4HR	7	167	VK3ZB	34	110
VK3HG	3	166	VK3HT	41	110
VK6KW	13	161	VK4WF	40	109
VK2DI	2	160	VK2ZO	25	108
VK3JE	12	154	VK2YL	11	106
VK4EL	10	150	VK3JI	33	105
VK4KS	24	140	VK3AWN	36	105
VK4DO	15	140	VK2VN	18	104
VK3MC	5	139	VK4UL	27	104
VK3OP	19	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK2ADE	28	133	VK2TI	37	103
VK2AHA	9	128	VK3HO	38	103
VK3LN	29	128	VK6DX	42	103
VK2AHM	20	125	VK7RK	81	102
VK2NS	16	123	VK4TY	35	102
VK4FJ	32	120	VK2ACX	6	100
VK7LZ	23	116	VK2TG	39	100
VK5FL	26	116			

HC1JW was on using 2kw., yes two is right, and a rhombic.

J stations are not now permitted to operate on 7 Mc.

● The thought for the month. You can still use cheap postage rates if you get the energy to send me some "gen." Penny only for surface mail, and fourpence for air mail.

7 Mc. ACTIVITY BY VK5JE

In South Australia conditions on 7 Mc. have been very patchy, very few DX stations are coming through at night, and only two or three W stations are workable. However Asiatic stations are heard almost every night and the following have been recently worked: VS7NG, UA0KOB, MX1AF who gives QTH as 250 miles east of Mukden, DU1MB who is on every night on about 7005 Kc. from 10.30 p.m. EST. Also the following KV4AU, FK8AH, VK9ML, W1FAX/KW6 (Wake Is.) who puts in a S8/9 signal. Europeans can be heard for a brief period around 6.30 p.m. EST, but are hard to contact. The following have appeared recently: PA0US, F8NF and a few GS.

Early morning rising is met with mixed results but one morning realised contacts with YO3PF, HB9JU, DL3SD and DL7AA. 19th Dec. at 4 a.m. revealed conditions that could well be mistaken for 14 Mc., the band being alive with strong Europeans. The following were snatched up: G2APV, G3AZ, JA3FE, G5DQ, HB9KV, YU1CAG (Belgrade). choice ones heard that morning were SM7LA, SP1CM, OH2XT, CT1DJ, and FA8BG working VK4QL. The DX continued coming through until 7 a.m. EST. However a week later a listen at 5 a.m. only revealed a few stations breaking through and F3NB was worked and CT1DJ heard. The writer finds it hard to rise early but thinks that the younger chaps ought to be a bit more enthusiastic —after all 25 years is a long time to keep THAT enthusiastism, hi.

VK1JW, Macquarie Is., often pops up on about 7005 Kc. and gave the writer his 40th country on this band. South Americans are rarely heard although numerous Cuban stations like CO8RH, CO6ZE, etc., and Canal Zone stations are heard. A newcomer to the band wants to listen for weak phone carriers on his intended frequency as fruitless CQs have revealed the fact that Central American phone stations are causing much QRM in the States on the low frequency end. A few culprits in VK please note! The stations just outside the low frequency end of 7 Mc. band, signing A1——, are Army stations in Japan and one advised me they are not allowed to work Amateurs. A DU station in Manilla, although contacted four times, always says near the end of the QSO that a ban is existing and he is not allowed to contact me!

VS7NX appeared on this band and was worked on the 31st Dec. A commotion was caused by the appearance of HL1BD (7040 Kc.) on New Year's Day at 8 p.m. The "dog-fight" of stations trying to work him was reminiscent of 14 Mc. when a "rare" one turns up. He was heard telling Yanks "I'm not supposed to be on the air, but what the heck! It's freezing here and I'm trying to send with thick gloves on." He gave his home QTH as a W2. Here's hoping we hear him from his home before long.

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MODIFICATION TO AR8 RECEIVER

It will be recalled that in the AR8 receiver, the plates of V202 (m.f. converter) and V102 (h.f. mixer) are tied together and fed to the primary of the first i.f. transformer T201.

It was found that the shunting effect of the m.f. converter tube was accounting for quite a large loss of signal when operating on h.f. and on 7 Mc. this loss was measured at 12 db.

To take advantage of this extra gain and selectivity, it was decided to switch the plate circuits. Switch S102 (m.f.-h.f.) was used for this function and as no spare contacts were available, the pilot lamp circuits oh terminals 6, 7 and 8 were removed. The switch was rewired with terminal 6 going to connection A4 on transformer T201, terminal 7 to the plate of V202, and terminal 8 to the plate of VI02.

The pilot lamp circuits had previously been re-wired for 6 volt operation. The pilot lamps being 3v. type were now connected in series and the resistor R113 deleted. Both lamps now operate continuously.

It will be seen that with this arrangement, although h.t. is removed from the plate of the tube being used, the screen is at its normal potential and while it is agreed that this is not good practice, the tubes have suffered no noticeable detrimental affects. With further rearrangement the screen potential could also be removed.

The position of the switch S102 in relation to the tubes V102 and V202 is most convenient for this modification.

Tests on 14 Mc. showed a marked improvement, especially in selectivity. The signal gain was not measured at this frequency.

—Roger Torrington, VK3TJ.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

FEBRUARY, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forcasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

Canberra charts refer to following world zones:—

Zone	Region	Terminal
1	Western Europe	London
2	Mediterranean	Cairo
3	N.-West America	San Francisco
3a	N.-East America	New York
4	Central America	Barbados
5	South Africa	Capetown
6	Far East	Manila

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

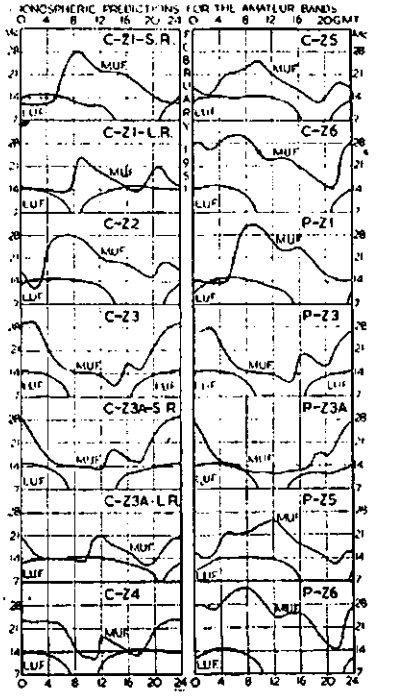
All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere, but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a it is necessary to consult both the short-route (s.r.) ohart and the following long-route (l.r.) chart.

QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Perth-Manila circuit would be useful:—

1. Were good conditions experienced on 7 Mc. for the period 1000 to 2200 hours G.M.T.?
2. Was the 14 Mc. band workable around 2100 hours G.M.T.?
3. Was the 28 Mc. band workable from 0400 to 1000 hours G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

NEWS FLASH—VK5QR's 144 Mc. SIGNALS HEARD BY VK3RR

The expedition organised by VK3RR, and comprising Dick (3RR), VKs 3AKR, 3AGD, 3ALC, 3BV, and 3CR set itself up on top of Mt. Buangor (3250 ft.) on Sunday morning, 14th Jan. Due to numerous difficulties it was not possible to be in operation on Saturday evening, 13th Jan., as was originally intended. After setting up the gear, contact was made at 1450 hours on 40 mx. with VK5JD who was with VK5QR at Mt. Barker. Unfortunately this 40 mx. contact was badly QRMed and copy was made very difficult at both ends. Jack informed Dick that 5QR was about to transmit on 144 Mo. c.w. on a frequency of 144.5 Mo. Upon listening on this frequency, 5QR was heard calling 3RR at R4, S3. Although many attempts were made it was not possible to make two-way contact, but it has been since learned that Reg heard a signal on 145 Mo. (3RR's frequency), but could not copy it. 5QR's signals were copied for a period of 1¼ hours, although QSB was exceptionally severe. Very good contacts were made with VK3QM and party (3ZL and 3HK) at Mt. Buninyong and VK3YS at Mt. Macedon.

VK2 144 Mo. CONTEST RESULTS

The results of the recent VK2 144 Mc. Contest were announced on 31st December. They were as follows: Points score (DX section)—VK2ANF 218, VK2WJ 214, VK2YM 212; Number of Contacts—VK2ANF 190, VK2BO 172, VK2WJ 150.

The contest was held in November and ran over three consecutive week-ends, with approximately 60 stations participating.

VICTORIAN V.H.F. GROUP NOTES

Group meeting night is the third Wednesday each month. All interested in v.h.f. activities, 50 Mc. and all bands higher are especially welcome. The December meeting, attended by 14 members, spent most of the evening discussing rules and regulations for field day contests. The results of theNov., 1950, field day contest were announced; 3ED winning the section for home stations and 3FO winning the portable station section. However, as only ten logs were received and very few portable stations were active, neither winner felt that he was entitled to the prize for his section, and both prizes will be held for the present and used for future contests arranged by the group.

Rules of Field Day Contest

1. Period of Contest. Between 1200 and 1700 hours on Sunday, 14th Jan., 1951, and the third Sundays in Feb., March, and April, 1951.

2. Contacts. Every contact made counts towards the final score with the restriction that only one contact with any one station per band per day will count unless location has been shifted at least one mile.

3. Scoring. The following system of mileage and points will apply:—

50 Mc.		288 Mo.	
0-60 miles . . .	1 pt.	0-10 miles . . .	1 pt.
60-90 miles . .	2 ,,	10-40 miles . .	2 ,,
90-120 miles . .	3 ,,	40-60 miles . .	3 ,,
120-400 miles .	4 ,,	60 miles up . .	5 ,,
400-1300 miles .	2 ,,	576 Mc.	
1300 miles up .	5 ,,	0-5 miles . . .	1 pt.
144 Mo.		5-10 miles . . .	8 ,,
0-30 miles . . .	1 pt.	10-15 miles . .	4 ,,
30-60 miles . .	2 ,,	15-30 miles . .	5 ,,
60-90 miles . .	3 ,,	30-60 miles . .	6 ,,
90-120 miles . .	4 ,,	60-90 miles . .	7 ,,
120 miles up .	5 ,,	90 miles up . .	8 ,,

1215 Mc. band and up, each band same as 576 Mc.

This system of scoring is the one adopted for the recent V.H.F. Marathon Contest and reference should be made to these columns of the July, 1949, issue of "A.R." wherein an explanation is given of some apparent anomolies.

4. Multipliers: 50 Mc. 1; 144 Mc. 1; 288 Mc. 2; 576 Mc. 3; 1215 Mc. and up 4. The multipliers for the various bands worked are added together and the score obtained from the mileage-points scale multiplied by this sum. Thus, if a station worked on 50 and 144 Mc., he would multiply his score by 1 plus 1, i.e., 2. If he worked on 288, 576 and 10,000 Mc. he would multiply the score by 2 plus 3 plus 4, i.e., 9.

5. There will be two sections, one for portable stations and one for fixed stations. Prizes will be allocated to the winners of each section.

6. A portable station is defined as one whose power is not obtained from either public or private mains, and whose location is at a point at least one mile from the home station address.

7. Logs, preferably on forms available from the Institute should show: Date, time, station worked, reports given and received, frequency band used, points claimed, estimated mileage for each contact, whether home or portable station, must be signed by the operator and should be posted to reach the Secretary of the Group by the end of each month. Any log submitted without these particulars will be ineligible. Although not necessary for the contest, it would be appreciated by the Group if logs were accompanied by a description of the gear used and by any comments or suggestions about the contest, field days and v.h.f. work generally.

8. In selecting the winners, the best three out of the four logs submtited will be used. A log should be submitted for each of the four days, except where there has been complete inactivity.

Information has been received within the last few days that 7AB on 145.3 Mc. will be transmitting and listening for each alternate five minutes commencing at 1925 almost every night with the beam on VK3. The commencing and finishing dates and the time of closing down each night are unknown.

Thirteen stations on 144 Mc. in one night is at least unusual if not something of a record. They were 3BH, 3EN, 3EM, 3FO, 3CW, 3YJ, 3ACH, 3BD, 3IM, 3VF, 3AKE, 3ED, 3JO.

50 Mc. ACTIVITY

NEW SOUTH WALES

The early part of the month saw the continuance of the good 50 DX conditions of late November with an excellent opening to VK5. The band then went dead for the opening of the 50 Mc. DX Contest. 144 Mc. is still trying to recover from the recent contest.

Main v.h.f. activity of the month has been confined to this band with the 50 Mc. DX Contest in full swing. After a poor opening, the Contest looked like dragging badly but the band came good with a bang on the 24th with all States being either heard or worked. The band was open for five hours. Xmas Day produced neither DX or locals! The 26th was once again a day of DX with the band open for hours to all States including VK6. The 27th produced a remarkable set of conditions with an all day opening, S9 signals and plenty of them. Some astounding totals were logged by stations participating in the Contest. The 28th was again a good day with VK8 in practically all day and ZLs plentiful during the evening.

During the opening of the 27th, several stations, including 2ADW and 2YR tried the high end of the band (53.6 Mc.) and found it just as good as the low frequency end. 2ADW received S8 report from VK8.

2RQ went mobile for the holidays using an 1143 rig with vertical whip antenna on his car. Managed to work some DX including a VK6. The strange object thought to be a flying saucer turned out to be Joe's hat which for some reason he threw into the air! 2HO working them on 10 mx. beam and getting out well, but is concentrating on building a 3 over 3 beam in an effort to put a better signal out of "Hart's 'Ollow." The Eastern Suburbs gang heard getting in each others' hair during the DX periods. 2WJ has shifted lower in frequency, 2VW moves about a bit and 2ABC stays put. It needs a good ZL to get past this trio at the low end of the band. 2WJ lost a director from his four element beam, but it seems to put out a better signal than ever. 2XK persevering with c.w. and has been raising some of the DX. News comes somewhat belatedly from 2AH that he worked 2PN of Tumut during October with S7 sigs at both ends. 2AML is putting out a strong signal. How about a listen on 50.12 Pat? 2ARH has re-appeared with a larger rx than the previous three-valve effort and is busy with beams. 2QZ pepped up rx. with EF50 pre-amp. and is hearing a few new stations—2AU of Gosford and 2GU Canberra.

2LZ started up at new QTH in Wentworth Falls; puts a soid signal into Sydney on 50 and 144 Mc. 2AHA Newcastle heard knocking over the DX with his 20 mx. beam. 2ADT forging ahead with a large score in the contest. 2XO Raleigh has a converter for six and is listening on the band. 2ADE Casino, 2LH Lismore and 2AMR Dubbo are country stations who have been heard in Sydney during the DX openings so skip must have been very short. 2WH and 2AMV of Forbes are both going on 50 Mc. and looking forward to making contact with Sydney. 2WH has 522 and hopes to hook an 829 on the end of it, whilst 2AMV is using 833s. Hear that 2YR went to 7 Mc. but was not greatly impressed! 2XX may be heard late at night burrowing even deeper into 50.94 Mc. despite the fact that his folded dipole reads 3,000 ohms from one side of the feed line to the other.

SOUTH AUSTRALIA

December saw 50 Mc. open up nicely on several occasions and on a couple of times signals were there all day and in the evenings. Signals from all VK and ZL were at terrific strengths. Scoring in the contest is spirited and with a few more openings early in January have made it interesting. Forecast is it will be between 2ADT, 6DW or 5QR, depending upon multiplier. Suggestions are that the contest is of too long duration and that QSOs be limited to one contact per station during contest. 5JD moves that school teachers be given a multiplier of point zero zero one, they having the wood on those who have to work over Xmas. Anyway, it was good fun and enjoyed by all. It was good to hear the country chaps being called by the DX showing they were getting amongst it.

In conjunction with 5KO and 5JD, 5KL has sent a converter to 5RA at Darwin in an attempt to get the chaps up there on 50 Mc. Results are expected shortly. 5KO and 5MO have been carrying out antenna comparison tests. 5HD has a xtal converter working to satisfaction now and has convinced brother 5BC of their merits, so Hughie will blossom with one before long. 5BC, 5MP and 5AX not heard here in the city, but the DX is heard calling you boys.

5RO had misfortune of lightning striking the mains and burning out his tx. power supply. Previously a xtal blew up. Col doing excellent job on single wire fed dipole. Has worked some ZLs. 5RT caused a slight panic by calling OQ W one afternoon. Matter not cleared up, but maybe it was a beat from 28 or 14 Mc. 5QR has xtal converter for 144. Can hear 5GL on it but not audible on old 522 rx. 5RT playing with xtal circuit capable of getting 23rd harmonic. 5JD had some difficulty getting harmonic osc. in xtal converter going. 5WL heard using v.f.o. 5KC heard playing back several VK2s, believe it was a recording. Viewed in bad taste in several quarters, suggest you read the good book again Ken. 5PS, OK Warrick, I can't get the country Hams to give me notes, but I'll admit your imagination is several db. better than my push-pull r.f. stage. 5GL heard working 5QR cross-band, etc., 50-144. No other news of higher frequencies this month, so for 1951 good hunting chaps and better v.h.f. DX.

WESTERN AUSTRALIA

Quite a marked increase in activity on this band during the last month or so (these notes are being written on the fifth of January). Firstly it was reported that 6MU has made a welcome re-appearance on the band. Mal is still domiciled in Merredin and so far has not been worked from Perth although he has heard 6BO's signal up there. The rig runs a pair of 833s with 70 watts input and the antenna a three element beam. No doubt Mal has been amongst the DX during the past fortnight. Then 6LM appeared on the band picking a day when the band was open to the east and working a VK5 using an 807 doubling and a dipole. Wouldn't it? However, since then Lionel has made himself a three element beam, pushed it up 27 feet and has the final running straight through. Being on holidays he has also been able to keep a close watch on six and the result, some fine QSOs, particularly with VK5. Lucky Lionel they call him. Just before Xmas, 6BO went portable to Bunbury (approx. 100 miles south of Perth). Rollo returned to Perth for Xmas, and in time to work some DX from the home station, and then decamped to Bunbury again. From there he has worked 6GS, in Harvey (about 20 miles from Bunbury), 6RK, 6FC, 6GB, and 6AS, all in Perth. Not satisfied with that effort, Rollo has also worked VK5, 3, and 4 from the portable location.

The breakthrough to the east was approximately three weeks later this year in eventuating. The first sign of any DX was on the Wednesday before Xmas when 6GB heard an Eastern States' station in QSO with someone, but signals faded before any contact could be made. It must be realised that these notes are written from the metropolitan area man's point of view. 6WG, Albany, had openings previously and I think 6DW likewise. 26th December provided the first big opening and incidentally the best so far this year, or season, should I say. VK5s, 2s, and 3s were heard at very strong levels and the band stayed open from early in the morning until about midday. 6BO worked 19 stations, 6GB 11, and 6RK quite a few, not sure of Roger's score. 6GS, 6DW and 6WG in the country also successfully participated. At this time 6AS was down at Mandurah trying to catch fish, thereby missing out on the first opening. 6HR found that he could not receive the DX strong enough to go on and make contacts and was bitterly disappointed. However since then Lew has managed to work 5QR on c.w. and is a much happier man.

Early in the morning of December the 28th provided another good opening. On this occasion the band was open at 5.20 a.m. when 6GB arose and just for fun switched on the rx. Jack was very surprised to hear 2ADT at S9 and numerous other VK2s, 3s and 5s. According to 6BO, who was on holidays and didn't leave the band all day, it stayed open till 3 in the afternoon, with VK4s making an appearance during the morning. Rollo even heard ZLs and at one stage was called by a ZL, but signals faded and no QSO resulted. Very bad luck, Rollo. 6GB and 6AS reluctantly dragged themselves off to work leaving the band to 6BO, 6FC and 6LM. Can't remember if 6RK was on the band that day or not. I fancy he was and made quite a few contacts. On this same day (28th Dec.) the band opened for half an hour to VK5 at 6.30 p.m. when 6GB, 6BO and 6AS worked 5QR, 5HD and 5MK, who were the only stations operating apparently. Signals were very good during this short break.

Saturday, 30th Dec. at 3 p.m. saw an opening for approximately an hour when 6GB and 6LM worked into VK2 and VK5. At this time, 6RK was busy making some repairs to his beam, which was airborne again in time for Roger to work 2GU before the band faded out. 6AS likewise missed out, being busy taking some "new year nourishment."

The following morning at 0900 there was a further break-through to VK2 when 2ADT, 2ABC, 2WJ, 2XX, 2OS and a couple of others were worked by 6GB, 6RK and 6AS. Signals were rather patchy on this occasion although 2ADT peaked at S8 for a while. At 1010 the band closed up. During the evening at 2025, 6GB worked 3IM for a few minutes, long enough to exchange numbers. 6AS was answered by an unidentified station on m.c.w. Signals went out before any contact being made.

A surprise opening occurred to VK2 and VK5 on the second of January at 2230, and lasting until just after midnight. 2JU, who paved the way, 5QR and 2XX were worked by 6GB and 6AS. I think 6GB also worked 2OS on this occasion. 6HR made contact with 5QR on c.w. On Thursday, 4th, 6LM who was on holidays, had a nice break-through to VK5 during the forenoon.

No news from 6WG or 6DW as to how the DX has been with them, but it can be safely said that both Wally and Don will have had plenty of openings. To those stations in the metropolitan area, six mx. proved both tantalising and unpredictable, but well worthwhile, the time being spent tuning and waiting for things to break. Incidentally 6GS (Harvey) worked eight 2s, and 6s during those openings detailed above, 6BO made 68 contacts from home location and 20 while portable, 6GB 41 contacts, 6RK between 20 and 30, 6FC no details, 6AS 16 contacts, 6LM about 12 I think. Everyone is wondering if the band will last after the 7th of January this year.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK5LC	1	
VK4RY	2	2
VK6DW	3	
VK4HR	4	1
VK2PG	5	1
VK3RR	6	1
VK3HT	7	
VK2ABC	8	
VK2VW	9	
VK2AEZ	10	1

144 Mc. DOINGS OF THE MONTH

New South Wales.—New stations heard on the band are 2FD Wahroonga, 2FM QTH unknown, 2KS Yagoona, 2AX Bondi. As yet, gear at these stations is simple, but good signals are resulting. 2ADT has on several occasions been romping in in Sydney. 2RU Gosford has been working cross band with 2WJ, 2MQ, 2ABZ and 2ANF. 2ABZ has finally vacated the washhouse and is installed in a brand new shack—name belong him, "House Wireless" master? 2HO playing with beam inside the shack and putting out a good signal with same. 2PD is a consistent station on 144 and is often heard late at night. 2YM says his gear has cobwebs on it—now has new A40 and very happy about it.

2MQ is still looking forward to a VK3 contact and is improving his gear accordingly. His cascode converter receiver currently on loan at this QTH performs extremely well. For the benefit of VK3 and VK7 stations, 2MQ is re-broadcasting the 2WI Sunday morning broadcasts at 11 a.m. on 144 Mc. exact with 100 watts and 16 elements firing in a southerly direction. At the conclusion of the broadcast a careful listening check is made on the band. VK2 stations operating 50 Mc. and also having suitable 144 Mc. gear hope to try 144 to Interstate during 50 Mc. openings, so when the 50 Mc. band opens up warm up the 144 gear and maybe we'll crack it yet.

2GA Ettalong heard on 50 Mc. working some of the Sydney stations cross band from 144. It seems John has a good 144 Mc. path to Sydney—how's the 144 tx. coming along John? 2AST has migrated to Gosford and finds he can work Cessnock on 144. He hopes to be able to work Sydney also, but may have to improve his gear. 2AWZ minus beam at present, but is heard occasionally on the band. 2DF has excellent f.m. signal and is still trying to talk some of the boys into putting discriminators in their rx. 2XG is back on the band after quite a long silence. 2LZ heard putting in strong signal from the Blue Mountains.

2AH experiementing with series phased arrays and getting good results. Now has a linear tank circuit hooked up to EFF51/6J6 combination which makes an excellent rx. with low noise. 2AYP has acquired a BC733D rx. which he hopes to get going on the band along with an 829B tx. 2GU, Canberra, reports his 144 Mc. rx. complete but not yet on the band

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A TECHNICAL TIP

If you possess one of those Command Receivers covering from 3 to 6 Mc., that means you have on hand a good little receiver for 80. Don't be tempted to pull condenser gang rotor plates out in order to get to 40—you can get there that way, but can kiss 80 goodby. If you take out the plug-in coil unit from underneath the chassis and remove just two turns only from each of the three grid coils, the receiver will then cover from around 3.45 to 7.3 Mc. Of course, the calibrated dial will no longer mean what it says, but a card scale cemented thereon and a spot of home calibration, and you have a nice little two-band receiver.

Now, if you like to use a crystal converter for 20 (and maybe 10) ahead of it, you have a three or four band receiver. Only thing is the i.f. band-pass is not so narrow, but there are worse things than that anyway. An 8 Mc. crystal in the converter will look after 10 metres, and a little i.f. width is appropriate for that band.

That receiver can go a step further yet. If you like to apply a converter with crystal at 7700 Kc., you can cover the 6 metre band in the receiver tuning range. It can be a sort of Paddy's Market Collins type outfit. I forgot to mention, for the 20 metre converter you will need a crystal at 5900 Kc.

—Don Knock, VK2NO.

17th A.R.R.L. INTERNATIONAL DX COMPETITION

C.W.: Feb. 9-11 and March 9-11; Phone: Feb. 16-18 and March 16-18

RULES

1. **Eligibility.**—Amateurs operating fixed Amateur Stations in any and all parts of the world are invited to participate.

2. **Object.**—Amateurs in the continental U.S. and Canada will try to work as many Amateur Stations in other parts of the world as possible under the rules and during the contest periods.

3. **Conditions of Entry.**—Each entrant agrees to be bound by the provisions of this announcement, the regulations of his licensing authority, and the decisions of the A.R.R.L. Award Committee.

4. **Entry Classifications.**—Entry may be made in either or both the phone or c.w. sections; c.w. scores are independent of voice scores. Entries will be further classified as single- or multiple-operator stations. Single-operator stations are those at which one person performs all the operating functions. Multiple-operator stations are those obtaining assistance, such as from "spotting" or relief operators, or in keeping the station log and records.

5. **Contest Periods.**—There are four week-ends, each 48 hours long; two for phone work and two for c.w. The c.w. section starts at 2400 G.C.T., Friday, February 9 and Friday, March 9, ends 2400 G.C.T., Sunday, February 11 and Sunday, March 11. Phone section starts at 2400 G.C.T. Friday, February 16 and Friday, March 16, ends 2400 G.C.T., Sunday, February 18 and Sunday, March 18.

6. **Valid Contacts.**—In the phone section, all claimed credits must be made voice-to-voice. In the telegraph section, only c.w.-c.w. contacts count. Crossband contacts may not be counted.

7. **Exchanges.**—Each participating operator will use three figures to represent the approximate transmitter power input. C.w. contestants will exchange six-figure numbers, each consisting of an RST report plus the three "power" numbers. (Examples are given in the sample log.) Phone contestants will exchange five-figure numbers, each consisting of a Readability-Strength report plus the three "power" numbers. If the input power varies considerably on different bands, the "power" number should be changed accordingly.

8. **Scoring.**—(a) **Points:** 1 point is earned by a W (K) or VE/VO station upon receiving acknowledgment of a number sent, and 2 points upon acknowledging a number received. Two points are earned by any other station upon receiving acknowledgment of a number sent, and 1 point upon acknowledging a number received.

(b) **Final Score:** W (K) and VE/VO stations multiply total points earned under Rule 8(a) by the number of countries worked on one band plus the number of countries worked on each other band. All other stations multiply total points earned under Rule 8(a) by the sum of the number of W (K) and VE/VO licensing areas worked on one band plus the number of W (K) and VE/VO licensing areas worked on each other band.

Countries will be those on the A.R.R.L. Countries List. There are 19 licensing areas: 10 in the United States, 9 in Canada (VO, VE1-VE8).

9. **Repeat Contacts.**—The same station may be worked again for additional points if the contact is made on a different frequency band. The same station may be worked again on the same band if the complete exchange for a total of three points was not made during the original contact on that band.

10. **Quotas.**—The maximum number of points per country per band which may be earned by W (K) stations in the c.w. section is 12, and contacts made on the same band with the same country after the quota is filled will not count. Thus complete exchanges with four stations in one country on one band fill the band quota for that country. The maximum number of points per country per band which may be earned by VE/VO stations in the c.w. section is 18, and contacts made on the same band with the same country after the quota is filled will not count. Exchanges with six stations in one country on one band are thus permitted Canadian participants. There is no quota for stations in the c.w. section outside of the U.S. and Canada. There is no quota for any station in the phone section.

11. **Reporting.**—Contest work must be reported as shown in the sample form. Each entry must include the signed statement as shown in that example. Contest reports must be mailed no later than April 20, 1951, to be eligible for "QST" listing and awards. All DX Contest reports become the property of the American Radio Relay League. No contest reports can be returned.

12. **Awards.**—To document the performance of participants in the Seventeenth A.R.R.L. International DX Competition, a full report will be carried in "QST." In addition, special recognition will be made as follows:—

(a) Special certificates will be awarded to the phone and to the c.w. winners in each country (as shown in the A.R.R.L. Countries List) and in each of the 72 U.S. and Canadian A.R.R.L. sections from which valid entries are received. Only single-operator stations will be eligible for these awards.

(b) A suitable certificate will be awarded to the operator making the highest single-operator phone score in each A.R.R.L.-affiliated club, provided the Club Secretary submits a listing of a minimum of three phone entries by bona fide resident members of such club, and provided further that these scores are confirmed by receipt at A.R.R.L. headquarters of the individual contest logs from such members. The highest single-operator c.w. scorer in each club will be awarded a certificate under the same conditions.

(c) A.R.R.L. will award a gavel to the affiliated club submitting the greatest aggregate phone and c.w. score by bona fide resident club members, whether single- or multiple-operator entries, provided such scores are confirmed by receipt at A.R.R.L. headquarters of the individual contest logs from such members.

13. **Judges.**—All entries will be passed upon by the A.R.R.L. Award Committee, whose decisions will be final. The Committee will void or adjust entries as its interpretation of these rules may require.

14. **Disqualifications.**—Off-frequency operation (as confirmed by a single F.C.C. citation or advisory notice or two A.R.R.L. accredited official observer measurements) will disqualify. Low tone reports in logs will also be considered by the A.R.R.L. Award Committee as grounds for disqualification.

SUMMARY, 17th A.R.R.L. INTERNATIONAL DX COMPETITION

.....Entry Call..... Country.....

Name..... Address.....

Transmitter Tubes.....

Receiver..... Antenna(e).....
(Logs from foreign countries show number of U.S.A. and Canadian call areas worked.)

Bands	3.5 Mc.	7 Mc.	14 Mc.	27 Mc.	28 Mc.	Total
No. Q'ntries QSOed	1		4		3	*8
Number of Contacts						15

Number of different Countries Worked.....

Number of Hours of Station Operation.....

Assist. Person(s) Name(s) or Call(s).....
45 8 360

..... X ..... equals .....
(Points) (Multiplier) Final Score

I certify, on my honor, that I have observed all competition rules as well as all regulations established for Amateur Radio in my country, and that my report is correct and true to the best of my belief. I agree to be bound by the decisions of the A.R.R.L. Award Committee.

.....Operator's Signature

* Figure in this box is multiplier.

Sample of summary sheet that must accompany all reports.

LOG, 17th A.R.R.L. INTERNATIONAL DX COMPETITION

Sheet..1..of..1.. Call..... A.R.R.L. Section.....or Country.....

Date & Time	Station Worked	Country	Record of New Countries for Each Band					Serial Numbers		Points
			3.6	7	14	27	28	Sent	Rcvd.	
Feb. 17										
0005 OCT	VP9E	Bermuda			1			56275	57080	3
Feb. 18										
1300	PA0GN	Netherlands					1	58375	47075	3
1306	G6CL	England					2	58375	46150	3
1345	PA0RA	Netherlands					2	50375	59080	3
2030	LU7AZ	Argentina					3	58375	57750	3
2310	VP9X	Bermuda			1			57500	56050	3
March 17										
1020	ZL1MR	New Zealand			2			58500	58075	3
1035	VK2TI	Australia	1					47500	46100	3
1105	VK2RA	Australia	1					46500	46100	3
1421	PA0LQ	Netherlands					3	45375	57100	3
March 18										
0925	TF3EA	Iceland			3			57600	67050	3
1245	G2MI	England					3		46125	2
1255	G3KP	England					3	56875	57100	6
1350	G2MI	England					3	57375		1
1430	G5BA	England					3	46375	55100	3
2320	KZ5AW	Canal Zone			4			58500	58600	3

Sample of report form that must be used by foreign c.w. and all phone participants.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: W. R. GRONOW (VK3WG); Federal Secretary: G. M. HULL (VK3ZS), Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President.—J. Corbin, VK2YC.
Secretary.—David H. Duff (VK2EO), Box 1784 G.P.O., Sydney.
Meeting Night.—Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
Divisional Sub-Editor.—A. O. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt, N.S.W.
Zone Correspondents.—Nth. Coast & Tablelands: J. M. Retallick, VK2XO, Raleigh; Newcastle: H. Whyte, VK2AHA, Vale St., Birmingham Gardens, Newcastle; Coalfields and Lakes: H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cumbijowa, Forbes; South Coast and Southern: R. H. Rayner, VK2DO, 42 Pettit St., Yass; Western Suburbs: A. O. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt, Eastern Suburbs: D. B. Knock, VK2NO, 43 Yanko Avenue, Waverley; North Sydney: L. D. Cuffe, VK2AH, 779 Military Rd., Mosman; St. George: J. A. Ackerman, VK2ALG, 82 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President.—G. S. C. Semmens, VK3GS.
Secretary.—C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6826).
Administrative Secretary.—Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne, C.1.
Meeting Night.—First Wednesday of each month at the Radio School, Melbourne Technical College.
Zone Correspondents.—Western: O. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, 18 Harold St., Shepparton; Far North Western: M. Folle, 101 Lemon Ave., Mildura; Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cumming Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI.—Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI.—Sundays, 1130 hours EST, simultaneously on 3580 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI.—Sundays, 0900 hours E.S.T. simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI.—Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangement only on the 7 and 14 Mc. bands.

VK6WI.—Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI.—Sundays at 1000 hours E.S.T. on 7196 Kc. No frequency checks are available.

QUEENSLAND

President.—J. F. Pickles, VK4FP.
Secretary.—W. L. Stevens, VK4TB, Box 638J, G.P.O., Brisbane.
Meeting Night.—Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor.—Clive J. Cooke, VK4CC Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President.—E. A. Barbier, VK5MD.
Secretary.—G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night.—Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor.—W. W. Parsons, VK5PS, 483 Esplanade, Henley Beach.

WESTERN AUSTRALIA

President.—R. W. S. Hugo, VK6KW.
Secretary.—W. E. Coxon, VK6AG, 7 Howard St., Perth.
Meeting Place.—Padbury House, Cnr. St. George's Ter. and King St., Perth.
Meeting Night.—Third Tuesday of each month.
Divisional Sub-Editor.—Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President.—J. Brown, VK7BJ.
Secretary.—B. D. O'May, VK7OM, Box 371B, G.P.O., Hobart.
Meeting Night.—First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor.—S. Excell (VK7SJ), 77 Molle Street, Hobart, Tasmania.
Northern Zone Correspondent.—R. H. Kilby, VK7RK, 5 Galvin Street, Launceston.

FEDERAL

ACTION TAKEN ON AGENDA ITEMS

During the year 1950 Federal Executive took action on the forty-two agenda items and the twelve general business items arising from the Federal Convention held in the rooms of the Victorian Division of the Institute during Easter.

The results of discussions between Federal Executive and the Postmaster-General's Department on the relevant agenda items were published in the Federal notes in the December issue of "A.R."

Whilst we were not successful in obtaining the Department's agreement to all your requests, we did receive a very good hearing from them and we feel sure that every transmitting Amateur will appreciate the co-operation of the Department with respect to those of the agenda items on which they acceded to your requests.

The action taken on the balance of the aforementioned agenda and general business items are listed for your interest.

Agenda Items

Agenda Item 1: Published in "Amateur Radio," June, 1950.
A.I. 3: Overprint spares when called for.
A.I. 4: Awaiting reply from the I.A.R.U.
A.I. 5: Motion lost.
A.I. 6: Entered in Federal policy book; copy forwarded to N.Z.A.R.T.; copy filed for the Federal Contest Committee.
A.I. 7: As per agenda item 6.
A.I. 8: as per agenda item 6.
A.I. 9: Rules amended and included in rules for National Field Day Contest published in November "A.R."
A.I. 10: Awaiting reply from the I.A.R.U.
A.I. 11: Decision published in "A.R.," June, 1950, and the N.Z.A.R.T. informed.
A.I. 11a: Motion lost.
A.I. 12: Withdrawn by Queensland delegate at Convention.
A.I. 13: Motion lost.
A.I. 14: 1950 R.D. Rules conformed to this item.
A.I. 15: Rules published in June "A.R." Divisions advised to fully publicise over Divisional Stations and at meetings. Rules amended as per item 9. Entered in Federal policy book.
A.I. 16: Awaiting reply from the I.A.R.U.
A.I. 17: Action complete at Convention.
A.I. 18: Entered in Federal policy book.

SILENT KEY

VK3ET

It is with deep regret that we record the passing of Herman Asmus, VK3ET, on 21st December.

A.I. 19: Victorian Division advised.
A.I. 20: Victorian Division advised.
A.I. 21: Withdrawn by Federal Executive.
A.I. 21a: To be included as agenda item for 1951 Convention.
A.I. 22: Published in September "A.R." for vote by Divisions.
A.I. 22a: Divisions late forwarding specimen forms. Specimen form being drafted at present time.
A.I. 22b: Final draft being prepared at present time.
A.I. 22c: Entered in Federal policy book. Note taken of VK6 comments for discussion at later date.
A.I. 23: Published in September and October "A.R." Vote by Federal Councillors yet to be taken.
A.I. 24: Copy of minutes forwarded each meeting.
A.I. 25: Matter still under discussion.
A.I. 26: Motion lost.

W.I.A. ACTIVITIES CALENDAR

Feb. 3-4: B.E.R.U. Contest—Phone.
Feb. 9-11: 17th A.R.R.L. Contest—C.W.
Feb. 16-18: 17th A.R.R.L. Contest—Phone.
Feb. 24-25: B.E.R.U. Contest—C.W.
Feb. 28: Convention Par-Capita due with F.E.; and of Fiscal Year of Divisions.
March 3-4: B.E.R.U. Contest—C.W.
Mar. 9-11: 17th A.R.R.L. Contest—C.W.
Mar. 16-18: 17th A.R.R.L. Contest—Phone.

A.I. 34: Meeting arranged with Australian Broadcasting Control Board, 14th December, 1950. Assurance given that when manufacturers submit specifications of proposed l.f. channels for television receivers that the Amateur point of view will be given every consideration. Federal Executive at present contacting the R.M.A.
A.I. 37: Motion lost.
A.I. 38: Item withdrawn by Victorian delegate.
A.I. 39: Entered in Federal policy book. Published in June "A.R."
A.I. 40: Federal Executive discussing proposed emergency signals at present time. Request for suggestions in December "A.R." brought reply from only one Division. Decisions will be published in early issue of the magazine.
A.I. 41: Publicised in June and July "A.R."
A.I. 42: Decision published in July "A.R."

General Business Items

General Business Item 1: Published in September and October "A.R." Vote of Federal Councillors yet to be taken.
G.B.I. 2: Discussed and determined at Convention.
G.B.I. 3: Copies complete with amendments arising out of 1950 Convention forwarded to each Federal Councillor.
G.B.I. 4: Motion withdrawn.
G.B.I. 5: Discussed at Convention.
G.B.I. 6: All Divisions signalled. N.S.W., Victoria and Tasmania only States who have formed committees to date.
G.B.I. 7: N.Z.A.B.T. reports results not available due to Contest Committee changing operatives and details of results being lost.
G.B.I. 8: Published in "A.R."
G.B.I. 9: Entered in Federal policy book and applied to all Federal Contest rules.
G.B.I. 10: VK2 rules submitted by N.S.W. Division amended to conform with Federal policy arising out of agenda items and published in December "A.R.," 1950. N.S.W. Contest Committee running contest on behalf of Federal Executive for 1951.
G.B.I. 11: R.S.G.B. advised to represent the W.I.A. at short notice. Results of convention published in R.S.G.B. Bulletin. Divisional Councillors requested to convey findings to members where applicable to VK interests.
G.B.I. 12: No action required. Councillors in possession of copies of Federal Convention minutes.

CONSULT YOUR DIVISIONAL COUNCILLOR

Federal Executive desire to stress to members the importance of speaking through their Divisional Councillor to Federal Executive on matters concerning requests to the Postmaster-General's Department. Of recent date it has been brought to the notice of Federal Executive that members have written direct to the Department, thereby embarassing relationships between the Department and the Wireless Institute as a whole. Please play the game!

FORWARDING ADDRESS FOR CERTIFICATES

To avoid the necessary delay involved in forwarding cards claiming DX C.C. and W.A.S. 50 Mc., members are again requested to forward their verification cards DIRECT to the Federal DX O.C. Manager, G. I. Morris, Esq., 50 Eighth Street, Perkdale, Victoria.

R.A.A.F. ACTIVE RESERVE

In the January issue of "A.R.," Federal Executive published details of the R.A.A.F. Active Reserve for the interest of ex-service Amateurs and Amateurs generally, who may be interested in joining this branch of the services. Radio and electronic equipment plays a major part in modern defence, hence it is in this field that the licenced Amateur or interested newcomer can take an active part in the event of a national emergency.

We hope—everybody hopes—there will never be another national emergency, but at the same time we must be prepared to take our part if such an event did take place. In this regard, we, as a body of technically trained men in the electronic field, could render immediate national assistance—more so if we were familiar with the type of equipment used for defence. The R.A.A.F. have offered us this opportunity in the formation of an "Active Reserve" which makes it possible for us to study the maintenance and operation of this modern defence equipment under actual operating conditions, and further, as members of the Royal Australian Air Force.

We are not called upon to enlist full-time in the Service, although we can if we would like to choose this mode of living as a career. We are not even obliged to attend for training for any definite period; we can attend the appropriate Air Force establishment when we have a few spare hours, days, or weeks available to us. We can expect to be paid for the time we spend under training up to, and including, 28 days, at the normal R.A.A.F. rates of pay. If, for our own interest, we would like to spend time there in excess of the 28 paid days we can do so without pay—for instance, odd week-ends when we may have no other arrangements to fulfil.

We must not lose sight of the fact, too, that we are not obliged to train ourselves in the electronic field if we do not desire to do so; under the R.A.A.F. Active Reserve scheme we can train ourselves in any other field encompassed by the activities of the Royal Australian Air Force. This means we can apply our normal daily work knowledge under Service conditions, if we feel that way inclined.

If a national emergency occurred many of us would be called up for training anyway, so let us give due consideration to this opportunity and train ourselves for an immediate appointment in the R.A.A.F. where we can use our technical knowledge to the best advantage of our country if necessary.

Further and more complete details of the Active Reserve can be obtained from the following staff officers in charge of Reserve Training:—

Squadron Leader Foote, Staff Officer, Radio, North Eastern Area Hqrs., TOWNSVILLE, QLD.
Squadron Leader C. Steel, Staff Officer, Radio, Southern Area Hqrs., Albert Park Barracks, MELBOURNE, S.C.3.
Squadron Leader S. J. Nichol, A.T.C., HOBART, TASMANIA.
Flight Lieutenant R. J. Shadforth, Staff Officer, Radio, Western Area Hqrs., PEARCE, W.A.
Flight Lieutenant A. F. Crilley, Staff Officer, Radio, Eastern Area Hqrs., PENRITH, N.S.W.
Flight Lieutenant B. B. Cocks, No. 34 Squadron, MALLALA, S.A.

These officers will be only too pleased to assist members of the Wireless Institute of Australia in obtaining further details of this Active Reserve scheme. Any members who may have made up their minds to join the Reserve can approach the following recruiting offices for enlistment:—

New South Wales: R.A.A.F. Recruiting Officer, Room 9, Floor 6, Dymock's Building, 428 George St., Sydney. Phone: MA 6041.
Victoria: R.A.A.F. Recruiting Officer, Reliance House, 301-311 Flinders Lane, Melbourne, C.1. Phone: MB 3018.
Queensland: R.A.A.F. Recruiting Officer, Scottish Union House, 127 Eagle St., Brisbane. Phone: B 8277.
South Australia: R.A.A.F. Recruiting Officer, Cresco Buildings, North Terrace, Adelaide. Phone: Central 7787.
Western Australia: R.A.A.F. Recruiting Officer, A.N.A. House, St. George's Terrace, Perth. Phone: B 7259.
Tasmania: R.A.A.F. Recruiting Officer, Anglesea Barracks, Davey St., Hobart. Phone: Hobart 7153.

You are under no obligation to enlist so if you are interested in the possibilities of the knowledge you can gain do not hesitate to approach the Recruiting Officer in your State and have a friendly chat with him.

Remember the Boy Scouts' Motto: "Be Prepared."

LIST OF AMATEUR RADIO STATIONS IN THE PHILIPPINES AS AT 1st MAY, 1950

The Secretary (Elpidio G. De Castro) of the Philippine Amateur Radio Association, 931 R. Hidalgo Street, Quiapo, Manila, has forwarded the following list of DU stations licenced by the Department of Commerce and Industry, Radio Control Division, Manila.

DU1AL—Alejandro Legarda, 181 San Rafael St., San Miguel, Manila.
DU1AP—Antonio Pertierra, Nasugbu, Batangas.
DU1AQ—Victor V. Palenzuela, 418 Santa Mesa Boulevard, Manila.
DU1AS—Alfredo Santos, Nasugbu, Batangas.
DU1AW—Oregorio S. Orbeta, 1370 Int. 1 San Andres St., Malate, Manila.
DU1CE—Eliodoro M. Claro, 202 Requesens, Sta. Cruz, Manila.
DU1CIT—Tranquilino Navarro (Trustee), 644 P. Paredes, Manila.
DU1DO—Pedro A. Aguinaldo, Jr., 2857 Oroquieta Street, Manila.
DU1DR—S. Hilario Escudero, 339 Vision, Sta. Cruz, Manila.
DU1FC—Fred A. Carino, 1496 Pepin Street, Sampaloc, Manila.
DU1FH—Luis A. Fernandez, 1 First Street, New Manila, Quezon City.
DU1FIT—Arturo del Pan (Trustee), F.E.A.T.I. Institute of Technology, Paterno Building, Manila.
DU1FM—Felix Martinez, Tugatog, Malabon, Rizal.
DU1GT—Gregorio Trinidad, 50 Park Avenue, Rizal City.
DU1JH—Juan A. Herrera, Jr., 25 Hyacinth St., Quezon City.

DU1JI—Jorge R. Illenberger, 6 Domingo Santiago Street, Sampaloc, Manila.
DU1JS—Joaquin Santarromana, 36 Bernabe St., Rizal City.
DU1MC—Miguel J. A. Contreras, Binakayan, Kawit, Cavite.
DU1NL—Nunilon Lim, 2396 Herran St., Manila.
DU1RTI—Elpidio G. De Castro, 931 R. Hidalgo Street, Manila.
DU1TK—Teodoro Kalaw, Jr., 54 Valenzuela St., San Juan, Rizal.
DU1TP—Antonio S. de la Paz, Bo. Kapasigna, Pasig, Rizal.
DU1VP—Venancio Pineda, 37 Blumentritt St., Mandaluyong, Rizal.
DU1VVS—Jesus F. Escalante. 136 P. Burgos St., Cavite City.
DU1WP—Wenceslao Pangan, Central Azucarera Don Pedro, Nasugbu, Batangas.
DU3AL—Dr. Alejandro Legarda, Evangelista Apartments, Baguio, Mountain Province.
DU6ORE—Delfin Arbiz (Trustee), Central Radio & Electronic Sch., Plazoleta Gay, Iloilo City.
DU6DA—Dionisio Arguelles, Jr., Corner Hervas & Zamora Sts., Plaza Libertad, Iloilo City.
DU6IV—Ismael Vito, Corner Zamora & Hervas Sts., Iloilo City.
DU6JI—Julio Illenberger, Southern Institute and Radio Electronics, P.O. Box 392, Iloilo
DU7AHS—Gaudioso D. Ocol (Trustee), Abellana High School, Cebu City.
DU7AJ—Antonio Jayme, 43 Lacson St., Bacolod City.
DU7CIT—Eulogio C. Bonsukan (Trustee), Cebu Institute of Technology, Cebu City.
DU7EA—Eliseo L. Araneta, Silliman University, Dumaguete City.
DU7EC—Enrique del Castillo, 89 San Sebastian St., Bacolod City.
DU7ER—Enrique Rodriguez, Corner P. del Rosario and Pelaez Sts., Cebu City.
DU7IM—Ignacio Montenegro, Bais, Oriental Negros.
DU9JO—Justino Ongchua, Villaeron St., Cotabato, Cotabato.

CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."

FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

The address of the Israel Amateur Radio Club is Box 4099, Tel Aviv, Israel.

Jack Elliott, ZL3CC, advises that the itinerary of his proposed trip to Australia in 1951 is now taking shape and he expects to arrive here about March next. It is many years since Jack last visited this country and old friends will be glad to meet him again. Jack is extremely active on 14 Mc. c.w.

Max Rieper, VK9MR, is again back on the air with a temporary rig after an absence of a few weeks due to the continued breaking down of power trannies. A new tranny for the 610 is expected shortly and Max hopes for much longer life from this one. During the period off the air, Max has re-built his SX28.

The QTH of ZC4TF is 401216 Sgt. Tyler, F. W., 2 Wireless Regiment, Royal Signals, M.E.L.F.S.

Victorian Hams were shocked to learn of the sudden death of Herman Asmus, VK3ET, on 21st December. Colleagues at the C.T.O. Melbourne were deeply shocked at Herman's decease as he was on duty up to seven hours before his death. Few Hams were possessed of the talents and ability that Herman displayed. Among his many qualifications were those of a first-class photographer in all its ramifications, a telegraphist of outstanding ability, a deep knowledge of radio, and in his younger days, a tennis player well above the average. In his early life. Herman spent many years in China and travelled extensively in that country. Amateur Radio is the poorer by his passing.

W.A.C. and W.B.E. recommendations made during 1950 were as follows: W.B.E.—2WD, 4RW and 5RX; W.A.C.—C.W.: 2TH, 2ANO, 2VW, 3ARV, 5PS, 5XK, 6KU; Phone: 2AGD, 2AMV, 2TH, 3AGV, 3ADF, 4FJ, 4ZB, 5MS, 5PS, 6AS, 6EL and 6ND.

The FK8 gang have decided to establish a QSL Bureau for inward cards with address as Box 104, Noumea, New Caledonia.

Andre Baillet, FW8AA, of Wallis Islands, has scarcely found time as yet for Ham Radio, his only contact so far being on 7 Mc. with FK8AC. Possibly after the loneliness of the tropic islands overtakes Andre he will become more active.

Eric Trebilcock, B.E.R.S.195, with his usual bunch of interesting news, corrects the QTH of VR1C as published in these notes to E. J. Victor, U.S.C.G.L.T.S., Unit 84, Navy 824, F.P.O., San Francisco, Calif. Eric claims he has heard 218 countries with 190 of them confirmed. Latest confirmations received are OY3IGO and AO4YN, the latter after four years. Nice ones heard during December in the early mornings are VT1DF Kuwait, and ZS7D.

A circular letter dated 7th December, 1950, is to hand from the C.A.V.—the national society of the Czechoslovakian Amateurs—giving reasons for the withdrawal of that body from membership in the I.A.R.U. According to the circular the C.A.V. forwarded in July, 1950, an appeal to the I.A.R.U. requesting a vote to be taken by all member societies as to whether they would associate themselves with the Stockholm Peace Appeal of the World Congress of Partisans of Peace. The appeal was rejected by the I.A.R.U. This is the main reason for the withdrawal of the C.A.V. from the I.A.R.U.

The new address of the Eire QSL Bureau is 97 St. Stephens Green, Dublin, Republic of Ireland.

A few cards from VK1RF have come to hand. This shows his home QTH as being: R. J. Frost, 3 Nevorie Crescent, Maroubra, N.S.W.

NEW SOUTH WALES

PROGRAMME FOR NORTH COAST ZONE EASTER CONVENTION

Friday, 23rd March, 1951

Registration at "Do Me" all day.

Hotel Bookings: Deposit £1/10/- per person, to be forwarded with written application to Ocean View Hotel. This accommodation is reserved for Hams who are bringing their wives.

Shacks: Available for bunking purposes only. Bring your own blankets. All meals to be obtained in the town refreshment rooms. If you have a caravan or camp gear, bring it along and insure a good holiday.

Saturday, 24th March, 1951

10 a.m. to 1 p.m.: Register at the "Do Me" and receive Lucky Numbers. Registration Fee, 10/-. You can register on Friday and so help the committee. Ladies' lucky number prize, beautiful hand-crocheted Duchess Set, donated by John Hall. Gent's lucky number prize, 500 QSL Cards, donated by Ern Ashley.

2 p.m.: General Rag-Chew and introductions.

2.30 p.m.: Test Emission of 18 watter (bring your own receiver).

3 p.m. to 6 p.m.: O. Challender Remembrance Trophy (cup, value £20). 1st prize, replica of cup (donated by the W.I.A., N.S.W. Division) and £2 cash, donated by Dr. Hewitt. 2nd prize, Scope Solder Iron, donated by H. Powell.

Contest Conditions: (1) Obtain P.M.O. permission to operate portable. (2) Transmit within 8 mile radius of Urunga. (3) No power limit. (4) 40 metre band only. (5) Power must not be drawn from town supply. (6) Power input handicap.

Saturday Night: Picture entertainment, cards, dancing and fishing as you so desire. A transmitter will be on the air to make contact with the gang. Fishing Contest starts at 6 p.m. and finishes at 9 a.m. on Sunday. Special prize of £6 for catching "Big Sam."

Sunday, 25th March, 1951

9.30 a.m.: World'a champion yabbi catching competition. Launch parties to leave the "Wy Worrie" shack promptly for the yabbi grounds. 1st prize, cup donated by Hammond and Wheatley. Continue launch trip and return at noon.

1.45 p.m.: 144 Mc. hidden transmitter competition. Trophy, silver cup, value £15, donated by Gleeson Bros. 1st Prize, £5 cash donated by Norm Moody, and replica of cup, donated by W.I.A. (N.S.W. Division). 2nd prize, £1/1/- donated by Hart Wall. Transmitter will be hidden within three miles of Urunga.

2.30 p.m.: Ladies to assemble at "Do Me" shack for special competitions and prizes and to meet Mr. and Mrs. Percy Sara and family and their world renowned quads at 4.30 p.m.

3 to 4 p.m.: "Urunga Scramble" competition. Any gear, any band, any power; to work the most stations within the hour. 1st Prize, 500 QSL Cards donated by E. Ashley. 2nd prize, 807.

7.30 p.m.: School of Arts Hall. (a) Welcome by Bellingen Shire President, Mr. Mark Goldstein, supported by Mr. Chas. Eddy, Pres. Urunga Progress Assn. (b) Presentation of prizes. (c) Movie films by Mr. T. Hamey. (d) Concert presented by Amateurs. Bring your music and instruments.

EASTERN SUBURBS

2AYE put in a long day on Christmas Day, exchanging festive greetings far and wide on 40 phone. If any other zone possesses a member with a fraction of the energy possessed by Dave, this scribe has yet to hear him in action. 2YF heard using screen grid modulation with good results on 20. 2AZH has returned to 20 after an absence of some weeks and is putting out very nice quality speech. Haven't heard your cobber, 2HP, for some time OM.

Heard a funny one about that "Wah Wah" Asiatic phone that moves about inside 20. A certain well known ZL, who is engineer in charge of a big radio transmitting establishment, got a bit fed up with the encroachment of the "Wah Wah" department on Amateur territory. He put the biggest of his carriers on 20 and gradually edged it up on "Wah Wah and Co." The latter shifted a bit after vainly trying to work through the very solid beat—and the ZL outfit followed. Another move, and the ZL followed again. And so the shemozzle continued until friend ZL had shouldered the interlopers outside the band. The episode is vouched for by 2AGW who has just been over in ZL. Nice work, but the crazy laundry department is back inside the band again! By the way, for the benefit of those who don't know, ZLs are now permitted phone from 14150 to 14400 Kc. Heard also among the commercial interlopers on 20 a couple of Russians signing RJM and RZL, with notes like a snarling wolf or something.

For the benefit of those who like working Os on 20 phone, Ted Ironmonger (ex-G8PO) is on the air with a radio club station in the north of G-land, signing G3GZO. H.M.S. "Ariel" is the address. A visitor to the writer's station was 3EE, well known 20 mx. DX phone man. In a car jaunt to Bankstown, Cliff was quite disturbed that he didn't spot a solitary Amateur beam array. He reckons we all use underground beams in N.S.W. 2KT, who until recently lived in Waverley, is now heard from a western suburbs location. Lay Cranch, 2XC, ex-3LW, making plans to get back on the air somewhere in the Watson's Bay area. After having stressed that 2AIG is an essentially c.w. station, Ray goes and breaks out with a gilt-edged phone transmission, emanating from a nice new crystal mike instead of the old P.H.G. carbon kind.

After a period of inactivity, 2ANH is back on 20 mx. phone, looking for DX, which of course, isn't too prolific just now. Another zonite to leave the area is 2ARE, who is now putting out a weak signal (over here) in the Castlecrag region. Heard 2ASE on 80 phone, amid the barrage of QRN.

Finally, an ultimatum. If, as is undoubtedly the case, zonites DO read the notes about their area, then they would surely not wish to see them discontinued. Unless Amateurs in the area send along items of individual news, this kind of thing will simply peter out. If you want to keep the ball rolling, then drop a few lines about things to the zone correspondent at the address given. Meanwhile, all the best for 1951, and may our Amateur activities continue in a tranquil world.

VALE VK2ZN

The late W. M. Cottrell ("Bill") was one of the best experimenters and friends that Amateur Radio has seen. He was always doing startling things and was free with valuable information when required by others, by which means he made a host of friends. His explanation of seemingly difficult problems was of the simplest nature, showing that he had a very good grasp of the fundamentals of his main hobby which eventually became his profession.

During the first World War (1917) he communicated over a distance of about one mile with a friend, using a buzzer and the aid of the water pipe system. Thinking that this might be of importance to the war effort they asked for permission to carry on with their experiments to this end. They were forbidden, as any form of secret communication was forbidden.

In the early 1920s, in conjunction with Ray Alsop at Coogee 2WE, speech was transmitted and received. Apart from a short period at New System Telephones, he and Ray Alsop worked together.

In 1924 from his own Amateur Station (OA2ZN) in Judd Street, Randwick, a programme of dance music was transmitted to the Randwick Town Hall for a Ball being held there. This was the first attempt at such a thing. Also about this time, along with Mr. Pike of Greenwich, American Amateurs were received on 300 metres (morse signals).

In 1926, again in conjunction with Ray Alsop, "Bill" assisted in building and maintaining the first broadcasting station in Sydney, i.e., 2BS, which after operating about a month became 2BL. This transmitter ran reliably on top of the Smith Weekly Building until it was replaced by a new transmitter at Coogee which incorporated the best ideas of the day. This latter transmitter was the one taken over by the P.M.G. Department when they acquired 2BL and 2FC.

During this long stay with 2BL, "Bill" was presented with a watch by Philips, of Eindhoven, Holland, for certain work carried out in conjunction with the short-wave transmitter PCJ.

Along with the above activities, "Bill" always found time for his Amateur activities and was one of the most constant Hams on the air and although he always used low power in the transmitter, he relied on a good aerial and receiver to achieve his results. This applied even in latter years, when he operated on the 50 Mc. band.

He was engineer in charge of b.c. station 2CH from commencement of operation until taken over by A.W.A. and later was transferred to Radio Centre, Pennant Hills, VIS, controlled by O.T.C. Transferred to O.T.C. Beam Services Ballan and remained there until his death in December. He was an active member of the Gladesville Radio Club, VK2ADY.

NORTH COAST AND TABLELANDS

2AGM at Byron Bay has just had five weeks in Brisbane Hospital, but was able to return home for Xmas; Clive lost no time in getting back on the air. 2RK active on 20, 40, 80. 2ASO still waiting for his v.f.o. 2LH, 2ADE, 2UC working all States on 6 metres. 2AEU hopes to make a comeback with a new rig in the new year. 2AFP too busy for Ham Radio. 2ASF just obtained a new D104, Col has to look after his laurels now as he has 100 watt opposition a few doors away—2AHH. Noel putting out a good signal. 2PA and 2SH not very active due to Xmas business rush. 2AEY now in his new house and modern Ham—an R max. signal. Bill with 2JC, 2BU, 2AOD, and 2APS spent Xmas and New Year at Urunga. They have been picking out spots to erect their gear for the 144 Mc. and 40 metre contest at the next Urunga Convention. 2DK spent Xmas in Sydney. 2WT still working the Gs the long way round on 20.—S9 signals on the rhombic. Russ hopes to visit Sydney in the New Year. 2APS and 2JO using No. 11 portable at Urunga. 2OE now at new QTH at Maclean. Nothing heard of the Grafton gang—fishing having No. 1 priority with them.

2WQ just returned from his holiday in Sydney. 2ARY has been on the sick list and is spending Xmas with his people out Yass way. 2XO reports good signals from VK3, 5 and 6 on 6 mx. at Raleigh. 2AJB has left Coff's Harbour and will soon be heard from Kyogle, his new QTH. The Coff's gang will miss Len. Programmes for the Urunga W.I.A. North Coast Convention will be off the press before the end of January, anyone requiring a copy please contact 2XO—it will be a great week-end—Easter 1951.

HUNTER BRANCH

Ham activity during the month has been fairly quiet due to the fact that a number of the boys have been holidaying and celebrating. The December meeting of the Branch was again well attended, State President 2YC, Secretary 2EO and Councillors 2VW and 2AYE made the trip from Sydney, although their stay was short they seemed to enjoy themselves. It is very pleasing to see the Council taking such an interest in the Hunter Branch doings. After general business, a number of very nice pieces of equipment built by the boys was on show. Included in the collection was a very f.b. v.f.o. built by 2ZC, complete midget xmitter by 2AXM and signal generator by 2XT. It has been said in the big smoke that the Hunter boys really do make nice equipment.

Sect. 2SF was one of the few active stations during the holidays; Varley had a great time on 40 phone with his portable. Nil heard of our Pres. 2CS, must be enjoying the holidays. 2AGD had a great holiday with old timer, 2BU, up north motoring. 2ZC left at beginning of month for holidays at Forster in the caravan of course, took along the portable. 2FP also away early in the new year, Ern was fishing at Lemon Tree. We have a couple of new stations on in the Branch; Bill, 2AXM, an ex-ZL, is putting out a very solid signal on 40 phone using 807, doublet antenna. Ivan Shearman, 2AIS, is also on and had his first QSOs on 144 working Newcastle stations and Cessnock too. Another new Ham is 2AFX, Harry McPhee who works at b.c. station with 2ZO and 2AHA. Harry also has joined up and has a small rig on 40 using 6A6-6L6. Fellows please give these new chaps a call.

2ASJ still puts out a solid signal on 40. 2XT was a very popular man during the festive season, but found time to have a few QSOs on 40 in between. 2PT still only on 144, what is wrong with the lower frequencies, Allan? 2SA was heard from the "big smoke" with a terrific signal during the holidays. 2ZT has changed to phone on 40. 2DZ giving 20 a fling with the new beam. 2PA was a visitor there recently. 2PQ mainly on 40. 2KG returned from a great holiday in Queensland; Ken may get the rig finished now. 2ANA went bush for a few days and finished up at Nyngan; met up with 2QA, give you two guesses what they did. 2CW been working through the holidays; Bill has a very fine signal from the exciter only.

The 6 mx. boys have been having a field day every day of late; the band has been open consistently and 2BZ, 2ADS, 2OS and 2AHA have been making the most of it. Never heard the VK6s as loud as they were on Boxing Day—just like the VK5s, S9 plus! The Ross Hull V.H.F. Contest is certainly receiving much attention. 2XY still having lots of fun on 2 and 40 mx. 2AGY has big plans for the future and we should have some big news from him soon. 2Cf had some long trips away recently, you should have a portable Gordon. Nil from 2LV, 2UF and 2NX. 2AAI flat out on 40, building and painting gear too. Think 2AFS got lost down Canberra way, may even have gone into Parliament. 2CN still very busy, but gets on 40 occasionally.

2ANG has been to a couple of meetings recently, so it looks as if Phil is getting interested again and may be on the air soon. 2FX is anxious to get going, but still busy with the house. Up Maitland way things are quiet except for 2XQ and 2DQ on 80 phone. 2ANL on 6 chasing DX. 2TY also working lots of 6 DX. Would like some news of 2JZ of Singleton. 2ANU and his QRP getting out well on 2, 6 and 40. We city blokes with AC power take off our hats to you Ken! I hate to think what we would work with a 6v. battery.

SOUTH COAST AND SOUTHERN

Activity during December was fairly good in this zone and a very prominent place is being taken by 2BQ, of Tumut. The call 2BQ was very well known many years ago and present holder is putting out a signal covering far and wide. 2APP seems to be settling into radio as I understand he has imported one of the famous "broken toenail" rotary beams. 2AEL active again from his new QTH at Young and the S meter here does another revolution further than it used to on his signal. 2AID and 2BW heard discussing 6 mx.—Stan no doubt by now has followed 2BW and constructed a grid dip meter. 2AOX active on 40 and he reckons 80 mx. offers good DX on occasions.

2TA, at Young, works 2WH on six, both are looking for 6 mx. contacts and have skeds at 1900-2000 daily. Haven't heard 2OW at Temora for donkeys' ages, guess hot wx has Gordon flat out on service work. 2ALS is on vacation at Manly (half his luck); every time I see him he has another Rx, latest is a weird type of dual-wave as used in the Army. No news of Monty 2JQ, guess he is QRL setting up the new home in Junee. My listening post, Reg George of Coota, is very thrilled about some s.w.l. cards he received lately. I guess without Reg's assistance, I just couldn't manage any notes at all. 2OY at Goulburn heard QSO 3ALS and Jack was very tickled to make QSO with the VK3 call, as his friend has the N.S.W. counterpart as it were.

2BO I see is listed as being in Goulburn, so no doubt we will hear more of him later. During December I visited Melbourne and met Dick Dowling at his place of work. Dick showed me that fair city from the highest spot in town. Met 3KR at Benalla and 3JK at Wang. For sale cheap, one only zone officer job. No previous experience needed to handle this, any offers?

COALFIELDS AND LAKES

2ANU is a proud man these days, having a "junior op.," congrats OM. 2ANU still putting out fine QRP sig on 80 Mc., trying mikes and fixing telephones long way round. 2VU been cleaning tanks and work has kept him quiet, been on 80 only of late. 2JZ is on holidays. 2KZ active on 10 and 6 and pleased to find his beams weathered a recent storm. 2KF can be found anywhere, mainly 10, 6 and 2 claim him. 2ALR has made a re-appearance after a long silence, 40 and 20 will be the bands for the while. 2PZ having a few QSOs at Cronulla. 2ADT been very active, and gave 50 Mc. DX contest a work out, was in a commanding position until the last few days when the power was cut off while a new line was being erected; nevertheless Jack may get there at the end; latest I heard, Jack had had over 270 Interstate and ZL contacts in the 50 Mc. openings. Heard 2AMU being called on 50. 2GA and 2KR are active on 6, but not heard here well, often hear 2RU working them. 2RU consistent on 50, too busy to work contest though. 2EH only on now and again from his batteries, hopes for AC soon. 2YL been working a few on 50 Mc. in the limited time, toying with ideas of a tower and living in hopes of getting a little more time in the near future. Both 2ADT and 2YL were favored by visit from 2AOA.

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VICTORIA

The January meeting of the Division was held at the rooms, 191 Queen St., Melbourne, on Wednesday, 10th January. The attendance was not large owing to the holidays and the very warm evening. In the absence of our President, Bill Treagear occupied the chair and declared the meeting opened at 2000 hours. The minutes of the previous meeting were read and received several items arising therefrom being again deferred to next meeting, as the mover of the motions was not present. Reports were given on the various sub-committees and the financial statement showed a good balance at the bank. Most important item of interest was the statement that the next Disposals hand-out will be held on Sunday, 11th February at Footscray.

In the general business it was decided that the Secretary and another member make enquiries from travel agencies and Government departments with a view of obtaining QSL cards for members. This is quite a good idea, and if it comes off should help to cut the cost of cards to members. Several members expressed their disappointment at the non-appearance of the QSL Manager but sickness and holidays upset the routine of the Manager. However, this position will be rectified at all future meetings. There being no further business the Chairman suggested that the meeting be closed and the boys have a general "natter" among themselves. The transmitter room was opened and members expressed their delight with the fine job that has been done on the equipment. The rooms were finally closed at 2300 hours. Next general meeting will be at the Radio School, Bowen St., Melbourne, on the first Wednesday in February.

The State Convention is scheduled to be held on 3rd and 4th February. The meeting place is at the V.R.I. Rooms, Flinders St., Melbourne, and a special request is made to ALL MEMBERS to be present as there are several items of urgency to be discussed. With the state of things now, it might be as well to act on the old proverb, "Unity is strength; United We Stand, Divided We Fall." How about the QRM on 20 and 40 mx. bands. So chaps, let's see you at this Convention.

3ARL has been an inmate of Heidelberg Hospital for some time, but is now on the road to recovery. 3YV was also an inmate of the above, but is now home again. These two members spent their Xmas in bed—and no radio. Welcome to the Division 3GM (Ballarat) and 3ABJ (Greensborough). Several beams and rigs were struck with lightning during the storms in January. 3AJI seeing the sights of VK5. 3DY sailed forth to VK4. 3GS spent Xmas at Emerald. 3JO after the trout at Eildon Weir. 3VA running batteries down on his portable rig at Torquay. Wonders will never cease, fancy 3ALQ on 40 mx.! 3AWW playing with super modulation and how. 3OO has a beautiful signal on 20 and Eric is working the DX, f.b. OM. 3NZ is in New Zealand on holidays.

SOUTH WESTERN ZONE

3AKG soon shifting to new location, hope to hear more of you soon Kev. 3AGU on 40 quite a lot lately; worked Gordon working mobile with 6 ft. centre loaded whip. 3KX not very active, but heard occasionally on 20 and 10 mx. 3YE is expecting a shift from Colac, let's hope it's for promotion, Vern. 3HG busy with harvest and not active. 3AGD not as active as usual, but then summer time is the busy time for the boys in the country.

3II has been experimenting with mousetraps and string to short the spark plug on his pump engine; had a wire running from the spark plug to the tank and when the water rose and touched the wire, the pump stopped. The only catch was the QRN in Ham Receiver. 3ALC been busy with farm and emergency network; hasn't got a rig on Ham Bands at moment.

On the 13th and 14th January there was a v.h.f. field day in the vicinity of Mt. Buangor; more about it next month. 3BW recently received from G-land a grid dip meter covering from b.c. band to about 300 Mc. 3AGU has received his W.A.C. Certificate. 3AMP shifting to St. Arnaud and will probably be a bit more active in the new location. 3RX been tearing about the country in a new car on a fishing expedition. 3NC still bowling over the DX on his QRP. 3AMH still hoping to get on 40 soon. Attention S.W. Zone members! Zone hook-up will be held in future on 80 mx. approx. 3.6 Mc. 3JA busy with harvest and cows.

3ABE has a 2 element 20 mx. beam up on his 30 ft. mast and pleased with results, has been working some DX using the beam. 3AJT active on 20 and went over to 6MK for his Xmas vacation. 3ALG put relays in the rig and finds operation OK; has worked a bit of DX on 40 mx. 3IC not active of late. 3WT has been tuning up his motor bike more than his rig lately. 3AKE finds 2 mx. a bit dead of a night just now. 3BU having contacts on the band and started to revamp his TA12D. 3AOL having a spot of trouble lately, but still puts out a S9 sig. 3AIC heard mostly on c.w. in the evenings.

GEELONG AMATEUR RADIO CLUB

Members of the Geelong Amateur Radio Club met to conduct their fortnightly meeting. The evening was in the hands of 3WT who gave an interesting talk on xtal grinding and his experiences in the art. He displayed several xtals he had ground to different frequencies, together with different varieties of holders. At the next meeting, which was the final one for 1950, a visitor was present; he was Mr. G. Burrows, 3AOP, who was nominated for membership. After the business, members enjoyed a Xmas Treat provided by the President of the Club, 3AJF. The Club re-opened on 3rd January, 1951, when everybody interested in short wave radio were made welcome.

EASTERN ZONE

The boys tell me there isn't any news this month, but I'm to do my best. 3QZ, who has erected a 6 mx. 4 element beam on his lawn, had a visit from 2TE, who is on a camping holiday. These beams drag 'em in! 5SB, ex-3CI, called on 3DI and 3PR, but unfortunately Ron wasn't home when Sid called.

This crack may have repercussions, but the owner of the poshest glamour wagon in the zone—no names mentioned—is alleged to be looking for a really reliable jalopy, like a T Ford! I recall this person making insulting remarks about the 3AHK Mercury a couple of Conventions ago, so this is poetic justice, or something! 3WE has foresaken the stage coach for the airways; he and the family flew to Melbourne and back at Xmas and Bill didn't need the paper bag either! Yallourn associate, Ken Elliot, sat for his A.O.C.P. in January—now awaiting the brown envelope.

The Sale Sub-Branch has a new member—Mrs. 3ABF having presented the OM with a son, both well. The December meeting of the Branch, due to the absence of many members on holidays, or laziness, developed into a general ragchew, enlivened by 3ABP's description of his trip per Lincoln bomber to ZL. Bud's tale of his visit to a type named Reg and the subsequent sampling of the home brew was a gem! We'd like to see a little more interest taken in the club after the holidays, so what about it, you back sliders?

3TH, 3RH and 3HK are still mad with the zeal on 6 mx. and now we're waiting for some to break out into the 144 rash—they say it's contagious—but 80 does me! Would like to hear from our Bairnsdale associates, so let's have some news, chaps.

CENTRAL WESTERN ZONE

Radio speaking we have never known the zone to be so quiet, and less newsy, so let us go back to the zone convention last September and recall that offer of the three miniature tubes for a 144 Mc. contact between the zone and Melbourne. The two 6AG5s and the 6AQ6 are here just waiting for someone to claim them, so what about it, you v.h.f. experts, if somebody does not win them soon your scribe might be tempted to put them in a new rx.

Since the enforced holiday of 3ARL, the air around Stawell has returned to its former country purity. Last heard of, Lin was doing nicely thank you and getting out of bed for the first time, by the time these notes reach print, we hope he will be back in Stawell again, and creating his usual electrical disturbances. 3DP suffered minor losses during a recent gale and is not happy about 300 ribbon; has been busy with harvest. Another one missing was 3HL, but as the harvest is now cleaned up, Allan will be on again as usual. 3YW has changed the 5.7 Mc. xtal filter to a 1.6 Mc. bandpass filter in the single-sideband tx. and finds it much less critical in adjustment, tests with 3DP give no carrier, and one sideband so what more can one want. 3AKP has been on holidays and visited one or two of the Geelong boys; Keith's 14 Mc. beam is still on the ground.

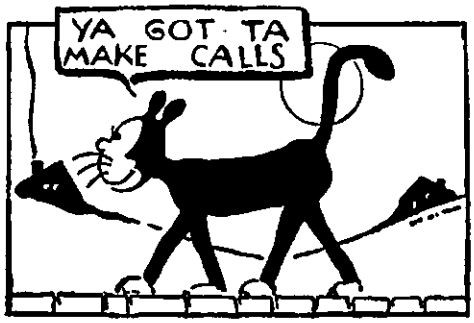
Over the holidays two charming visitors in the shape of Rex and Gwen (3VL and 3US) blew in for an hour or so. 3ATR now has a big set-up; Trev. runs 100 watts to an 833 and modulates it with 807s, a very nice signal too Trev., the secret of course is an a.c. generator. 3AKW, another of our very busy members, I believe is to be left in charge of one of our local b.c. stations. The year is well away now, so if you have made a resolution to be in the zone hook-up more frequently, don't forget it is the second Sunday of the month, time 10 a.m., frequency 7155 Kc. approx.

NORTH EASTERN ZONE

Zone hook-up was another absolute washout with 3YV the only Ham outside Shepparton to get here. Even 3UI was way down in the noise. Hear that 3UI now finds his call sign calibrated on the b.c. sets he services. Is this outrageous statement true Alan? Have located another Ham in Shepparton, 3AJO, Jack O'Halloran, late of Bendigo, Ballarat and Horsham. Jack hasn't been heard from Shepp. QTH although he has a Type 3 with him. Hope to hear you on zone hook-up at least Jack. Peter Williams, of Wangaratta passed everything except morse at October exam. 3APF has had a sojourn in bed, but glad to report that he is up and about again. Peter has been working ZLs on 6 mx. recently.

Young Mr. Brown, of Yea, has been very silent these days, would appreciate a letter on your doings feller. According to b.c.d. at this QTH, 3AT is taking family and 6 mx. gear on holidays to Adelaide. Nice way to have to gather news. Heard DX stations working 3UI on 20 mx. Visited 3ALE recently and Les has the back verandah fitted up even to a bed; has quite an amount of gear. Was in the process of finishing a 6 mx. beam which is to be erected in near future. Les using a long wire antenna (about 6 ft. long) on 6 and heard ZS using c.w. This claim is generally laughed at by the local inhabitants of the v.h.f. band, but never mind Les, "truth is stranger than fiction!"

3ACK knashing teeth over bad signal reports from 3KR. However as conditions improved so did John's signal reports. 3HZ working ZL on 6 mx., also a bit of 40 mx. work too. 3PE looking forlorn at having to walk now that he hasn't motor bike. 3AGG still working very hard at new QTH, hopes to get on 6 mx. in very near future. 3AGT having found his QTH again, heard on Sundays recently; rx. racked up so couldn't listen in Stan. 3FD very quiet these days, must be building that modulator eh Andy? Nothing heard of 3ACW either, how about a letter Chas.



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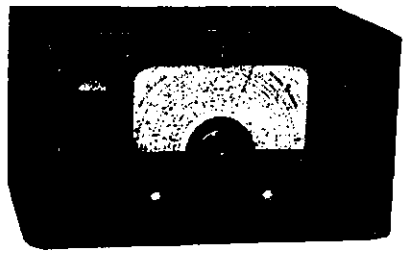

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QUEENSLAND

Being holiday time, it is only natural that your zone managers and sub-editor should also want a holiday so it will be difficult to find material for the Queensland notes this month—who cares anyhow?

The last monthly meeting saw one of the largest attendances we have had for many moons. No less than 46 members were there to hear what our Senior Radio Inspector had to say about the Advisory Committee. Mr. Conroy told us that the Advisory Committee was an attempt at allowing us to govern ourselves and if any of us should be reminded by the Committee that we are not "playing ball" on the Ham Bands he hoped, as pointed out in the Handbook, that we would take it in the right spirit. He did not want us to look upon it as a "pimping" organisation but rather, as the name implies, an "advisory organisation" set up purely for our common benefit. Mr. Conroy also stated that if the Advisory Committee was unable to efficiently carry out its duties, it would then become necessary for the P.M.G. Dept. to carry out the job which may be to the Amateurs' disadvantage. It was nice to hear the kind remarks made re the W.I.A. by Mr. Conroy at which stage he pointed out that he was aware of the aims of the Institute and its fellowship because he was its Queensland Secretary about twenty years ago.

A committee was then elected to organise the field day which should be a thing of the past by the time you get this mag.—what say you all start preparing for the next field day, now, so that you will be in a position to join in the fun instead of leaving it to the half dozen or so who seem to have the gear. It takes time and money so I am getting in early and making the suggestion—the rest is up to you.

4WF and 4WJ work hand- in hand with some of the DX. The other evening I was going down to see the old "Wiley Fox" in Snake Gully when I was nearly knocked over by a car which pulled up in a cloud of dust to disgorge the aforementioned gentleman himself—he didn't walk, but rather ran, helter skelter for his shack. By the time I had picked myself up and arrived, Bill was frantically re-assembling his modulator which was on the bench whilst Jack held on to a FN9. Eventually Bill made the contact, but the F69 must have thought Bill was terribly excited (kid he wasn't) if he judged by the way Bill was puffing and blowing. Let's hope the card comes to light after such a hectic time chaps. By the way, Bill, congrats on the f.b. rack and panel set-up, looks "all sort of commercial like."

4FP has taken a tip from the last "A.R." and now has a transmitter on 6 mx.; looks like the 20 mx. beam is soon to have company John. 4MD and 4FE have been playing around with 288 Mc. and have had numerous contacts over a six-mile range. On numerous occasions they find that one hears the other, but is unable to make himself heard at the other end. It's not receiver troubles either, as they seem to take it in turns for the above to occur.

To 4EM we pay special tribute for doing a splendid job which should more fully impress on the public and powers that be that Ham Radio has its merits in an emergency. As you know, we have had some trying floods recently and Emerald was in the thick of them. During the worst period two boat loads of men were tipped into the flooded river and had to cling to some trees, some for two days and nights. The R.A.A.F. sent three Lincolns up to search for these men and to drop food on various homesteads and at the request of the Police and R.A.A.F., permission was sought and granted for 4EM to operate on Aeradio frequencies to keep in communication with the planes. This saved many hours of flying and enabled the Police to exactly direct the aircraft over houses which required food. What is more important the plane crews were able to give exact directions as to the location of the two men who were originally stranded on an island in mid-stream and for whom the first boat load, which turned over, had been searching. 4EM has received a letter of praise and thanks from the R.A.A.F. for his mighty effort. Nice going and heartiest congratulations OM.

From Townsville we hear that there are three Hams in the one radio station up there. They are 4EL, 4DB and 4AD—what a happy family they must be. 4EL is using a BC348 as the i.f. stage from his converter and, what is more important, he now is able to use phone—nice 100—just as well because Eric was saying he now has the electronic bug working well, so much so that he is going to run me off next time he works me on c.w.—Eric didn't exactly say that, but I think he inferred it. We also believe 4EJ is getting tired of playing ships and is starting to make a comeback in Ham Radio.

CLARE'S CORNER

Holidays seem to be the order of the day this month and quite a few of the locals have pulled the big switch and headed for various holiday resorts, therefore the band has been particularly dead as far as VK4 is concerned. 4KS has combined both with a portable rig in the car and will be able to give a running commentary on the big ones that got away. Also you might try calling CQ to any 20 lb. schnapper Keith. Heard also that 4FN became portable when his car contacted a tram. Frank was QSYed some distance, but fortunately escaped without injury beyond probably a few rapid changes in frequency.

4TT has left his old QTH, packed all his gear and will soon be heading for VK2 land. Two thirty foot poles and about 30 odd feet of 300 ohm ribbon were left behind. Did you say you came from Scotland Tom? 4NF has received permission to use a tape recorder and his efforts have been very much appreciated by quite a number of locals who have had part of their transmissions played back to them. Noel can certainly be congratulated on doing a very fine job in letting us hear ourselves as others hear us. 4PX should be very pleased with the good quality phone reports he is getting; that new mike is certainly the goods Arthur. 4KV is another local Ham who has left Brisbane to take up residence in the South and we will probably be hearing from Jack in the very near future under a VK3 call sign.

Having forgotten to wish you a Merry Xmas in the last issue, I will take this opportunity of wishing you all a very happy, peaceful and prosperous new year and may the DX hounds have bigger and better DX and the rag chewers longer and brighter QSOs.—Clare.

DARLING DOWNS ZONE

Big news of the month has been the 50 Mc. openings which gave the v.h.f. boys a real Xmas present. On 10th December the band really turned it on with S9 signals from VK3, 5 and 7 for over six hours. Opening about 5 p.m. on Sunday, the dial was full of signals until 11 p.m. Since then there have been openings to VK3, 5, 7 and on Sunday morning, 24th Dec., to ZL. As was to be expected, 4XN, 4CU', 4KK and 4TY were right on the job and worked a great number of stations. 4TY is now a very enthusiastic 50 Mc. man! 4KK and 4CU continue to put nice 6 mx. sigs into Toowoomba.

For the benefit of stations who were transmitting during the "big opening" a list of stations heard by 4CG has been forwarded and is published in "Fifty Mc. And Above."

The 14 Mc. band has been in very poor shape over the past month. So much so that 4CG worked 4KS at 10 p.m. with S7 phone—distance 65 miles. This is the first occasion that this has happened in 20 years of operation—so make what you like of it. On 7 Mc. conditions haven't been much better what with broadcast stations and QRN it is almost impossible to use the band after dark. Nobody has ever told me yet who ever listens to this s.w. broadcasting because it certainly isn't entertaining even if you're stuck for somthing to do; it's probably the world's most expensive farce.

Forty still continues to be the "insanity" band and deserves a lot of attention from the Advisory Committee. It's not the signals but the "dill" stuff that comes out, and the public telephone business that goes on. Zone members are advised to read well the regulations re third party. 4IO is an example of a well-conducted Ham Station—likewise 4JC. 4LB, ex this zone, now with R.A.A.F. in Malaya and hopes to be on soon with VS call. Broke his f.b. rig taking it home by trailer to VK5; bad VK4 roads? Well, folks, here's hoping that by the time we read this screed, things in radio will have picked up a bit. Maybe the Ws will give us something to work shortly. Incidentally, 3.5 Mc. is crammed with Ws around 6 p.m. and VS7 was worked on 7 Hc. Yes, I guess it's not so bad yet.

— . . . —

SOUTH AUSTRALIA

There was no monthly general meeting for December, but in its place the VK5 Annual Xmas Social was held at the Burnside Council Supper Rooms and a good roll up of members (seventy to be exact, and six guests) thoroughly enjoyed the festive board and the floor show which followed. 5LW compered the show and did a remarkably fine job, in fact it is safe to say that he made the night the undoubted success that it was. The thanks of the Division are tendered to the bevy of beautiful XYLs who came along during the afternoon and very tastefully decorated the tables and gave us all a lesson in laying tables and sweeping floors, etc.

Among the guests were Mr. W. Govenlock and Mr. C. Tyrrell, of the I.R.E., Mr. L. Thompson, of the P.M.G's Department, Mr. F. Carter (ex-5GK), John Clifton (5HI) and last but not least, Mr. "Pop" Sheard who, by the way, is the genial morse code instructor for the Division. The toast of loyalty to the King was in the able hands of our worthy President, 5MD, that of the visitors was proposed by our Past President, 5AW; 5UL very briefly, but decidedly to the point, proposed the toast of the W.I.A., and Mr. L. Thompson in a humourous vein, responded on behalf of the visitors and stressed in all seriousness the amiable relations at present existing in VK5 between the Department and the Amateur. He also made reference to the splendid work that has been done by the Advisory Council, and reminded all members that this body has always been, and always will be, simply a buffer between the Department and the Ham.

5MD responded to the toast of the W.I.A. and reminded the younger chaps present that they should be prepared to serve on the Council and give the grey haired old jokers at the main table a chance to have a rest. This remark apparently tickled the fancy of all present as they seemed to think that it was aimed at the Vice-President, and loud and long was the hilarity, together with many a rude look from 5JK and his cohorts. Personally, I have pointed out in these notes that I am now hardened to the cruel barbs and insults hurled at me from this source, and will simply say that many a fine tune has been played on an old fiddle! Joking aside, the night was a huge success, and whilst there are some who incline to the opinion that it is almost impossible to enjoy oneself at a "dry" Xmas social, then this one definitely gave them the lie.

It is a remarkable thing but it would seem that quite a number of members do not realise that the VK5 Division subsidises the Xmas Social to the extent of 2/6, making the total cost per member 6/-. Two interesting points arise from this statement, one, that all the members who stayed away helped to pay for the other members who attended, and two, if it costs 6/- per head for a "dry" social, what would it cost for a "wet" social, and also, would all the members who do not drink, be prepared to pay the extra money that would be incurred. Incidentally, I feel that the time is ripe for a discussion on this controversial matter, which should be held at a general meeting, and if it is the wish of the majority for a "wet" Xmas Social, then a "wet" social it should be.

Rumour has it that an enthusiastic young member intends to take Doc Barbier at his word and contest the next elections for Council. This is good news and I can assure him that a hearty welcome awaits him if he succeeds. Whilst admitting that the present Council is doing an extra good job, it cannot be denied that new young blood in any organisation is always an asset, aside from the fact that the more new Council members there are, the less work there will be for the old Council members—Ho Hum.

Xmas has come and gone and the average Ham is settling down once again, but it can't be said that the bands are settling down at all, because general reports indicate that contacts with DX stations are very spasmodic. The bands open up for a night or so and then fade out for a week or more. Heard quite a number of VK5 stations calling a VR5 the other night on twenty, and as they were all on top of him I was not surprised to hear him come back and say that he could not tell who was calling him for the din. Out of the six or so stations calling him only one had the savvy to QSY slightly, and it goes without saying that this station clicked the next contact. There's no doubt about it, "an old dog for a hard road," and I am no going to tell you who the shrewd station was, but this I will tell you, he spends a lot of time sneering at me.

Everybody has been very busy down the South East way this month with their sesqui-centenary celebrations, and at the model club exhibition, held as part of the celebrations, 5MS and 5KU displayed their transmitters and are to be congratulated on the smart appearance of their rigs. 5TW has been heard on 40 and also on 10 mx. occasionally, but Tom is like the rest of us, still waiting for the bands to come back to normal. 5CH is managing to be heard on 40, 20 and 2 mx., but Claude is still finding plenty to do at the power station. 5FD is another one who is still very busy and finding no time for activity on the various bands. Personally, I think that John is just being cunning and will dash into it as soon as the bands have anything to offer.

5KB is doing a little on 40 and 20 mx., and I understand that Pete's modified 522 has impressed quite a few. 5CJ has unfortunately been on the air more than he wanted, I say unfortunately, because Col has been spending a good deal of his time at the base station of the Emergency Fire Services and they had a few fires, a few too many, as Col puts it. He had a pleasant surprise recently as he heard his first 6 mx. signals, mainly VK4 and VK2, but as he did not have a transmitter at the time, he had to kick himself around the shack and just listen to S9 signals for over twenty hours or so. 5LW is reported as being seen down at the Mount the other Sunday on a flying visit 'tis said. My correspondent says that it was good to see his cheery grin and of course I presume that he also had a few words to say as well. Ross, being a man of few words, I could be wrong, but I think I will take the risk.

5SL has returned from his honeymoon and is gradually settling down in his new QTH. Even on his honeymoon he could not get away from

radio, as the local p.a. system where he was stopping broke down and Laurie was commandeered to repair it. Fortunately for him he was able to fix the crystal detector or something and all was well. Whilst passing through Mt. Gambier he picked out a couple of likely looking aerial poles, but the bus driver put on such a soug and dance when Laurie suggested tying them on the bus, that the idea was abandoned for lack of support. (Get it, lack of support; oh, they are coming thick and fast now.) Anyway, the ham gear is slowly materialising from amoug the wedding gifts,, etc., and Patricia is just starting to realise what sort of a rival she will have to contend with for the rest of her life. I hate to keep alluding to it, but as yet nary a trace of wedding cake have I seen.

5HD and Charlie Hemer have been spending a few days with 5BC at the second best broadcasting station in VK5 (5RM), and poor Mrs. Lloyd went into temporary retirement because the one subject of conversation went on day by day, and she felt that if she heard the word radio any more, she might go nuts. Bill took up his crystal controlled converter with the result that Huchie has been seen at the emery wheel with a handful of crystals. 5XA was another visitor to Berri this month and Izurie tells me that he and Howard had quite a few minutes chat on a variety of subjects (all radio) although up till then, Howard had not paid any visits to any of the other boys. 5KW has been playing around with 6 mx. gear and after his experience with the high ten-sion the other night, he will be making quite sure that the switch is open before he delves into the mysteries of his transmitter; tch, tch, Harry.

5MA is another 6 mx. exponent, but he gets very sour when he can hear 5BC working the ZLs, but he can't find any on his receiver. Don't let him bluff you Fred, he used to be able to hear, and work, a lot of stations on 20 mx. that I could never find on my dial, when he was down in the city. I think that he has a couple of stages of audio parked behind his inner ear. Murray Nicholson did not quite make the grade at the last examination, and it goes without saying that the hurdle which brought him down was the code. Never mind Murray, better luck next time, if it is any help, I can tell you that after my 151st attempt at the code they gave me my ticket in sheer self preservation.

I am not going to mention any names, but a young XYL has accepted my invitation to write in and give me one or two details of something that annoys them about the OM. Now the bone of contention in this case is wood, yes just plain wood, and whilst most Hams associate wood with beams, poles, etc., most XYLs associate wood with cooking, and if there is no wood cut in the morning then there will be no food cooked in the evening. Need I say more? After all, a single Ham's idea of a hot meal may be fritz and mustard, but an XYL soon changes that. Personally, I always go out the front door to work so as not to see my wife chopping the wood. Go to it Skinny.

Authority has at long last been granted for the purchase of a modulated oscillator for the use of members, and the instrument should soon be available for use. I have had my application in for its use since last September and rather suspect that if this fact had not been known to the members of the Council, permission would have come along a lot earlier.

By the time that these notes are being read I will probably be in my new QTH, with cheers and hoorays coming from all the boys at Henley Beach, and jeers and catcalls from Rose Park. Just to be on the safe side, I would like to say that I have come at all the dodges to stop new QRM myself, and should I wake up one morning and find my poles down or the aerial wire missing, I will know just who to blame and the necessary action to take. 5JK and 5AW please note.

Very little news to report from the city boys this month, due probably to the festive season and also to the number who are on annual leave. The usual regulars have been heard working the usual regulars, but the bands have offered no inducement whatsoever.

Council this month chose the delegate and observer for the 1951 Easter Convention, and the honour goes to Gordon Bowen (5XU) as delegate and Federal Councillor, and John Bulling (5KX) as the observer. The only fault that I can find with this choice is that with John away over Easter, I will be liable for a little baby minding, to say nothing about some car cleaning.

I heard on 20 mx. a well known VK5 holding forth as to how he had cured all of his b.c.i. trouble with a new system of aerial coupling, and loud and long was his praise of himself upon his ingenuity. The whole effect was spoilt however, when his harmonic came into the shack and quite audibly said, "It's coming in on the other set now Dad, twice as loud." The forced laugh that came out of the said Ham's microphone as he heard this, would have done justice to Dracula or Frankenstein.

A certain VK5 who is playing back recordings on the air occasionally, apparently is not aware that permission has to be obtained for this purpose, and this paragraph is not intended as a complaint, but as a friendly tip-off.

The audio side of 5HI must be working first rate, because he was sitting almost behind me at the Xmas Social and long before I saw him, I recognised his voice. He seemed to be enjoying himself and there was a constant stream of visitors to his wheelchair throughout the evening.

— . . . —

TASMANIA

Activity during December and early January was notably quiet in comparison with other months. This is possibly due to the excellent weather and holidays causing several absentees in the ranks. Members visiting the mainland are 7BQ, 7SK, 7DA and 7BH. Max and Len intend travelling as far north as Queensland. Brian's activity is centred around Sydney.

Gratified to see general increase in the number of members present at our last two meetings, so things are definitely on the up and up. A lecture on the Borneo Campaign was presented by 7JB which created considerable interest in the manner in which radio played a leading part in this now major operation. Number of Class "C" Wavemeters were available for distribution and our thanks go to 7PA for his effort, which enabled these units to be purchased. News at last has been received of our success in the 1950 Remembrance Day Trophy and congratulations must be extended to all participants for their splendid effort.

Several Hams are scheduled for a change of QTH early this year, amongst those are 7RM, 7SK, and 7BH. Rupe seems happy with new location which will predominate the New Town area. The shack will consist of one of the main rooms of the house, quite a comparison to conditions which prevailed at the old location. 7SK on return from holidays, will move to Mt. Nelson. Happened to notice 7GJ in town, unfortunately (or fortunately) Jack's hobby has now turned to motor cars, but the bug will bite again shortly it is hoped.

Recently returned from a ten-day sojourn at Balcombe Sig. School is 7DA. Worked portable during that period with approximately 60 contacts. A stranger to many who has just arrived from service in the tropics is our old friend 9YY, wearing a tropic tan and looking fit, after an absence of roughly three years. Welcome Bill and trust you will remain with us in future. Considerable alterations are planned at 7KX together with a new band-switched transmitter for working down to ten, so it seems Don we can expect to hear you working DX in the near future. No news from 7KA of late. 7AF re-organising the 10 and 20 mx. beam with main alteration to the feed system. 7IJ heard on phone on twenty with f.b. modulation.

At the December meeting, 7AL was voted catering officer for the forthcoming annual dinner, with assistance of 7AF and 7SK. This function, it is hoped, will be a great success, so it would be appreciated if all members could make a point of keeping this evening free. From the North West Coast news is to hand of a new arrival to the 7AB household. Congrats Doug to you and the XYL not forgetting 7KB for his part in this happy event.

For those interested in 2 mx. 7MY is at present conducting tests with automatic transmissions. Hours of operation are announced on the 7WI broadcast each Sunday. Intention of becoming again active has been voiced by 7DW. Doug has not been heard for several years, so it's about time you brushed those cobwebs away and let's hear a signal from you.

A number of members have mentioned their intentions of forming teams to participate in the National Field Day Contest, which will have been conducted by the time these notes appear: 7LD, 7KX, 7RX and 7SD have formed one team, while another will consist of the following: 7JB, 7AL, 7DA and 7SJ. It is pleasing to note that this year greater interest is shown in the contest, which is an effective way of trying out portable gear, that may be required for some sudden emergency. It is hoped in the next notes, a description of gear used will be available for inclusion in "A.R."

NORTHERN ZONE

Although this makes the second issue for 1951, the meeting to be reported is the last for 1950. This departed from the usual proceedings and took the form of a social gathering, a dinner, at the Brisbane Hotel, Launceston. Almost all members of the zone were present and the accent being on informality, a most enjoyable evening was spent by all. From the commencing time of 6.30 p.m. until that sombre phrase "time gentlemen please" was sounded at 10 p.m., eating, drinking and nattering in various orders according to individual taste were indulged in and I for one look back on it as being an occasion right on top of its class. The Remembrance Day Trophy was on display and caused considerable interest.

Doings of the months have been mostly vacational our member to go farthest afield being 7BQ who took himself off to VK4 for a fortnight. During his absence a number of 6 mx. breaks have occurred and 7LZ has had the field much to himself here, his log on 6 mx. closely resembles a contest log on the lower frequencies and some very good work has been done. 7HY went all nautical for the holidays and spent the time cruising down the river; have not heard any signals signing portable 7HY so can only conclude that the fish were biting. 7RB and 7XW each in one of those jobs that take no thought of holidays so can only conclude that they both are carrying on as usual. Here my holidays are fast concluding, tomorrow sees the grind for daily bread on once more, but the radio side of things has received very scant attention; have kept a check on the daylight hours on ten, but might just as well have saved the light bill.

Have one or two prospective Hams in the zone and I for one will welcome them with open arms as maybe they will do something that I can write about. Everybody seems very sober and respectable these days, haven't had a juicy piece of scandal for many moons. So, the date in February is the 9th. See you then.

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CORRESPONDENCE

The opinions expressed in these letters are the individual opinions of the writer, and do not necessarily coincide with those of the publishers.

CHASING THAT DX

22 Pine St., Randwick.

Editor "A.R." Dear Sir,

A deplorable practice is lately becoming increasingly evident on the air, one which if allowed to continue, can only result in lessoning the enjoyment each of us gets from DX contacts. I refer to the practice of calling stations, particularly phone DX, on the same frequency. This is surely an indication of pure selfishness, a quality which is supposed not to exist in our ranks.

Surely it is just as effective to call a station at least 20 Kc. off his frequency and so give the fellow who does contact a chance to copy. After all, the DX station has a receiver which can be tuned across the band and after calling CQ would hardly be likely to listen only on his own frequency. So why not call the station off frequency and then QSY. This way each station has a chance.

—G. PATERSON, VK2AHJ.

HAMADS

9d. per line, minimum 2/-.

Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received by 8th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line.

Dealers' Advertisements not accepted in this column.

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FOR SALE.—AR8 re-built as Communication Rx. Provision for S meter. AC power supply, band spread, speaker, good cabinet, etc., In A1 condition. £17/10/-. L. W. Johnson, 17 Grovedale Road, Surrey Hills, Vic. (WF 2754).

SELL.—Complete station, all bands 80 thru 6. Tx rack and panel, 807 p.p., separate doublers, finals each band, v.f.o. controlled, fully metered; mod. 60w., 807 p.p. low level clipper filter; 902 complete 'scope; audio sig. gen.; s.w.r. and grid dip meters; Rx 23 tube double i.f. xtal filter; monitor phone/c.w.; large auto trans. switched line volts meter; all power supplies choke input; 2L 10 mx., 3L 20 mx. beams, prop. motor, selsyns; 2 x 45 ft. oregon masts; sundry extras, spares. What offers? Handel, 529 Homer St., Earlwood, N.S.W.

WANTED.—Coil Boxes AR7, any band; also Coil Acceptor Unit. E. M. Waddle, Dean St., Charters Towers, Qld.

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AMATEUR RADIO

MARCH 1951

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

FOR THE EXPERIMENTER & RADIO ENTHUSIAST

9D.

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EDITORIAL

★

Are We Satisfied With What We Have?

"Success in life consists of getting what you want and being satisfied with it."—Sir Wm. Osler.

Can we assume today that we have what we want from our hobby and are satisfied with it? Can any one of us say we have achieved the ultimate in equipment; achieved the transmitter we always wanted; the layout of our station as we always wanted it; the receiver, the aerial system, the hundred and one little "gadgets" and simple pieces of equipment which together makes the pursuit of our hobby so pleasant? It is considered that few of us have reached the stage of being satisfied with what we have, but—and it is a big "but"—we are always doing something about it from the technical aspect.

On the other hand, what of the Institute that has, for twenty-five years, fought our battles so that we could conduct our hobby under the conditions we do today? Are we satisfied that we have taken advantage of everything the Institute can give us? And if we are satisfied, are there not a lot of things we could do ourselves to assist others to reach the same stage of satisfaction?

It is considered there are! It is considered that with a hobby like ours, we could all help each other a lot more than we do. It is considered that this Institute can give us a lot more than we have permitted it to give us.

Why don't we let it give us more? Why don't we help it to give us more? Why don't we take more interest in its activities—its meetings, its conventions, its technical facilities, its organised contests, its administration?

Why is it that a few will always do our work for us and we will stand by and let them? Why? Why? Why? There are a thousand "why's" we could ask. But could we stop asking this question? Could we, instead, say we are doing this—we are doing that—we are doing something to assist the administration of the Institute? Could we, in the future, look back and say we did our "little bit" to assist our Institute, thereby helping others to reach the same stage of satisfaction we have ourselves apparently reached?

Can we say NOW that we are going to get together and support the Institute that has afforded our hobby so much? Can we take stock of ourselves and say we could set aside a little time to help our Institute, and in so doing, help ourselves and our fellow Amateur? Or . . .

Are we satisfied with what we have?

—FEDERAL EXECUTIVE.

The Contents . . .

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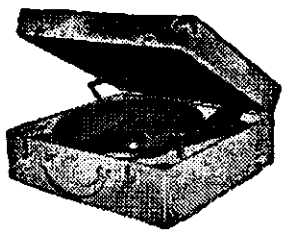

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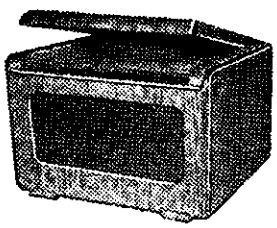

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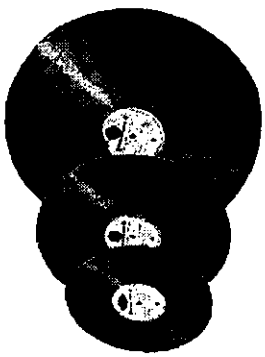

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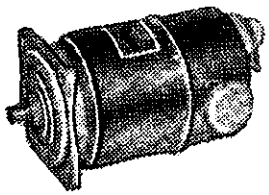

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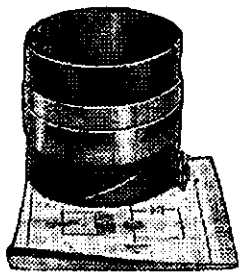

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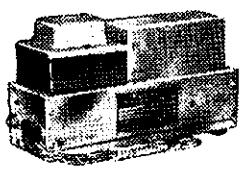

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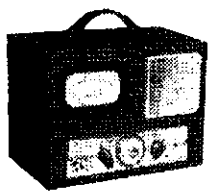

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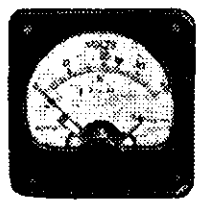

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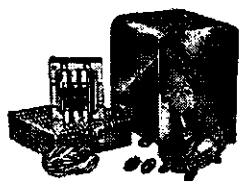

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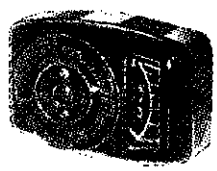

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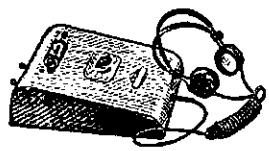

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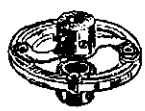

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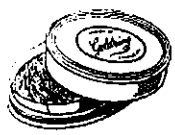

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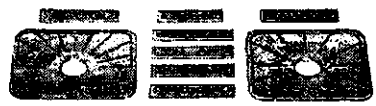

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MOBILE MODULATOR

In July, 1950, issue of "Amateur Radio," the cathode follower system of driving zero bias 807s in Class B was described. The main advantage was the saving in current consumed in the driver, and the use of an ordinary Class A transformer.

Here is the circuit of a Mobile Modulator from "Ham News," July-Aug., 1950, using this principle, which is capable of giving nearly 10 watts of audio, and using the cathode follower driver, but without the driver transformer.

This modulator was designed to modulate a final running at 300 volts and 60 Ma., with both modulator and r.f. section fed from a 300 volt 100 Ma. vibrator supply, operating from a 6 volt car battery.

This unit should prove ideal for that Emergency Rig as it is possible to build it in a 4" x 5" x 6" cabinet.

As can be seen above, the average plate current available for the modulator is 40 Ma., if the complete Emergency Rig is to operate from a 100 Ma. vibrator supply and the r.f. stage consumes 60 Ma. of that total.

In typical Amateur practice, where push-pull Class AB 6V6 tubes are used as modulators, this figure of 40 Ma. would barely provide **static** current for one of the modulator tubes. Also, considering, normal output transformer efficiencies, this 6V6 type of set-up would be hard pressed to provide **10** watts of audio **output.**

Other experimenters, striving for a low-drain modulator design, have gone to Class B modulators, realising that this type of operation gives the lowest static current possible. (For a given peak audio power output the peak d.c. plate current to the modulator stage is relatively fixed, regardless of the type of operation. However, when considering speech waveforms, this peak value of plate current is of secondary importance; the average value of d.c. plate current is relatively low compared to the peak value.)

For example, the 6N7 in Class B service is rated at about ten watts output, and the average plate current required is in the order of 35 to 40 Ma. The driver required for this 6N7 would usually consume another 10 or 15 Ma. This arrangement is a considerable improvement over the Class AB 6V6 approach, but falls seriously short of our 40 Ma. average current objective.

The problem was, therefore, to achieve further economy in both the modulator stage and the driver. The ideal Class B tube for this service was found where it was least likely to be suspected—in the miniature tube line.

Strange as it seems, the 12AU7 will give a peak speech output of well over ten watts and, stranger still, at a distortion level well under that accomplished by a Class B operated 6N7, despite the fact that the 6N7 was originally designed for zero bias Class B operation.

The static (resting) current of the 12AU7 in Class B with 300 volts on the plate is approximately 15 Ma.!

Further economies in both current and weight can be realised in the driver stage by employing a device already well known to readers of "A.R." By using a cathode coupled driver operated Class B no driver transformer is required and the driver itself adds only another 5 Ma. drain to the power supply.

The net effect of this design is a high-quality modulator (including a voltage amplifier stage drawing less than a Ma.) that has a static drain of approximately 20 Ma.

ELECTRICAL DETAILS

With reference to the circuit diagram, Fig. 1, it will be noted that the entire modulator is push-pull throughout. Inasmuch as the Class B stage and driver must be push-pull, it was deemed desirable to carry this through to the input circuit in the same fashion, to avoid a phase inverter and to simplify construction. Note that only three condensers and eight resistors are used in the entire unit.

A bias battery is specified in order to provide the proper grid bias voltage for the 12AU7 modulator and the 12AT7 driver. Under zero-signal conditions, the bias voltage from either pin 2 or 7 of the 12AU7 to ground will be 15 volts, and the voltage measured across either R7 or R8 (the bias for the 12AT7 driver) will be 7 to 8 volts, when a 22.5 volt bias battery is used.

Note that the cathode current for the 12AT7 driver flows through the bias battery, and therefore this battery actually supplies a current in the order of a few milliamperes. In other words, the current does not tend to charge the battery, as in the usual bias case, but instead, tends to discharge it. However, this current is so slight that normal shelf life may be expected from the battery. This battery has no drain on it during stand-by or complete off periods, as current is drawn from it only when high voltage is applied to the modulator.

The first 12AT7 tube acts as a push-pull voltage amplifier. Because carbon microphones have a wide variation in output voltage, this first stage was added so that adequate gain would be available regardless of the microphone used.

Voltage for the microphone is obtained from the car battery, and a single shielded lead is used to provide filament voltage and microphone voltage. This lead should be made of heavy wire to avoid ohmic loss due to the filament current, and it should be shielded to prevent undue noise pick-up.

Potentiometer R1 (actually connected as a rheostat) serves as a gain control. Because it can only change the microphone current a small amount, it does not have a wide range of control, but it is useful for adjusting the level when different people use the microphone.

If the microphone has too much gain, it will be necessary to increase the value of R1, or add a fixed resistance in series.

A phone-c.w. switch is provided which removes all high voltage from the modulator and shorts the secondary of the output transformer when the switch is in the c.w. position.

An external switch must be provided to turn the filament circuit on and off. With the circuit shown this switch will also shut off the mike current. Some microphones incorporate switch contacts which may be used to control a relay for power switching. There are many possible control schemes and the refinements of the control system are left to the individual.

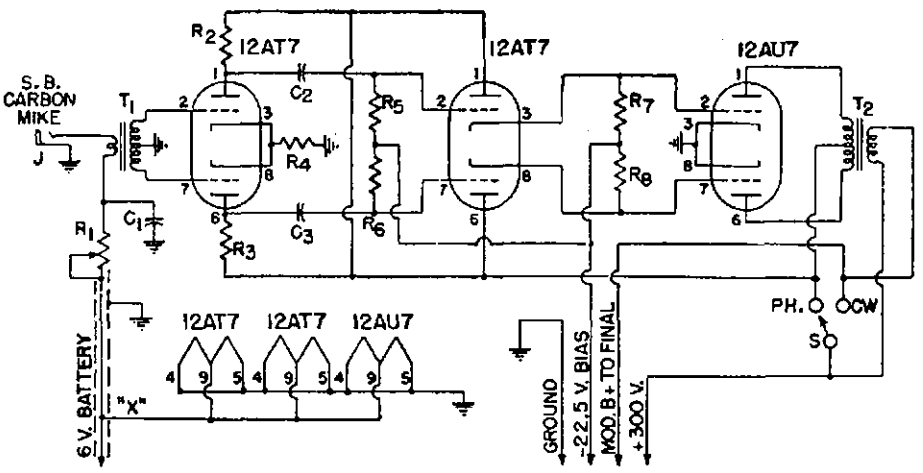


Fig. 1.—Circuit diagram of the Mobile Modulator.

C1—500 uF. 15 volt electrolytic.
C2, C3—1000 pF. 500 volt ceramic or mica.
J—Open circuit jack.
R1—250 ohm potentiometer.
R2, R3—0.1 megohm, ½ watt.
R4—2200 ohm, ½ watt.
R5, R6—0.47 megohm. ½ watt.
R7, R8—10,000 ohm, ½ watt.
S—S.P.D.T. toggle switch.
T1—S.B. mike to push-pull grids.
T2—Output transformer (see text).

(All resistors and capacitors ± 20% tolerance unless specified otherwise.)

CONSTRUCTIONAL DETAILS

The general nature of the mechanical work is shown in Fig. 2. All of the parts, with the exception of the switch, are mounted on a piece of flat metal measuring 4⅛" x 5⅛". The spacers which support this piece are 1¼" long.

Fig. 2 indicates how the parts are mounted on the flat chassis.

The shaft on resistor R1 is left long enough so that it projects through the front panel. The input jack is mounted on the chassis and a large hole cut in the front panel so that a mike plug can pass through. The switch is mounted on the front panel and the leads going to it are left a little long, so that the chassis can be removed easily from the front panel.

The front panel is one of the removable 5" x 6" sides of a standard 4" x 5" x 6" cabinet.

COMPONENTS PARTS

There are no critical components used in the Mobile Modulator and all parts may be plus or minus 20%, as indicated under circuit constants.

One part is worth discussing in more detail, however, and that is the output (modulation) transformer. Fundamentally, all that is required is a transformer with a primary plate to plate impedance of approximately 12,000 ohms and a secondary impedance of approximately 6,000 ohms. This latter figure assumes that the modulator will be used with an r.f. final where the plate voltage on the final is 300 volts and the final plate current is about 50 Ma.

The prime consideration in choosing an output transformer for the Mobile Modulator are size, weight, efficiency and cost. A designer's concern over size, weight and cost is obvious, although concern over efficiency might not be.

If a transformer has a loss of 3 db. (and this is not unusual) then one-half of the audio power is lost in the transformer. In other words, if 12 watts could be obtained out of the tubes in a modulator stage, then only six watts would be available out of the transformer. This means you have only a six, not a twelve watt modulator.

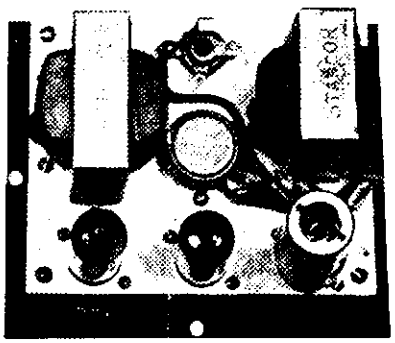


Fig 2.—Rear view of the uncased Mobile Modulator.

In Class B systems another important but frequently overlooked consideration is that of the design of the transformer itself. An improperly designed transformer can contribute a large amount of distortion to the output signal. While the efficiency depends upon the primary to secondary coupling, the distortion is controlled largely by the tightness of the coupling between the two halves of the primary winding.

Obviously, any transformer of the proper impedance and power rating will serve, within the limitations mentioned, as T2.

TESTING

There is very little that need be done when the unit is finished. As mentioned previously, it would be wise to check the bias values, and a meter reading of the resting current would also be advisable.

Do not attempt to test the modulator with signal input unless it is connected to the final, or unless a dummy load is used. A 5000 ohm, 10 watt resistor across the secondary of the output transformer will serve as a dummy load.

OTHER USES

Even though the Mobile Modulator has been designed for mobile service primarily, it will make an ideal modulator for emergency work. The power drain is small and the unit is compact and reliable.

This modulator may also be used in the home station if a change is made. Wire "X" should be disconnected from the hot lead so that the filaments may be energised by a 6.3 volt transformer. The hot lead can then go to a small 4.5 or 6 volt battery which will supply mike current.

Regardless of the use for which it is built, this high-quality little modulator should find many uses around the shack.

Mobile and Emergency Antenna

The antenna system about to be described ("Ham News," July-Aug., 1950) is, in theory, not new, but in the application end it seems to be all but unknown to the average Amateur. It is somewhat akin to the paper clip idea, being so simple yet so effective.

Antennae for low frequency mobile or emergency work normally fall in the category of pieces of wire less than a quarter-wave long. The big problem has been, and will be, how to make this short piece of wire look like a longer piece of wire.

This problem exists because normally it is easier to get efficient power transfer from final to antenna when the antenna length is an appreciable portion of a quarter-wavelength.

However, a point that most Amateurs do not fully appreciate is that, disregarding ohmic loss and directivity effects, one length of wire is as good as any other length of wire in radiating a given amount of power.

In other words, a one foot piece of wire would be just as effective on eighty metres as a one-hundred foot piece of wire if means were available to efficiently match its impedance.

No matter how you look at it, however, the piece of wire you are using for an antenna is the wire that serves as your radiator, so the problem becomes one of getting the most current into that piece of wire, because, other factors being equal, the more current in a radiator, the better the signal radiated.

This question of getting the most current into the wire is one involving impedance matching, and it has been discussed by practically every author of an article on mobile transmitters. Suffice it to say that the shorter the piece of wire (for a given frequency) the harder it is to get that antenna current to flow.

THE TANK COIL

At this point some of you are thinking that if this current is so important, why doesn't the final tank coil radiate, because it has just about as much current as any piece of wire in the rig? Quite true, it does radiate as some of you with t.v.i. may painfully recall.

It radiates, but not too efficiently, because the shape of the coil is not conducive to efficient radiation. But, here is an idea. Why bother trying to do a fancy matching job of getting voltage from the final tank into a network which then has to have another voltage which will produce our antenna current? Why not make the tank coil shape such that it will radiate?

This is exactly what has been done to make the antenna about to be described. In effect, a few turns of the final tank coil have been unrolled and straightened out to make a single large turn, or loop of wire. By getting this section of wire out of the tank coil, even though it is still part of the tank coil, we have caused it to become a relatively effective radiator.

THE LOOP

The best shape for this radiating piece of wire is a circular single-turn loop. Of course, this sort of antenna on, let us say the eighty metre band, is not as efficient as a properly matched half-wave antenna sixty feet in the air, but, on the other hand, it does do a very fine job of radiating. It has surprised many Hams who have tried it.

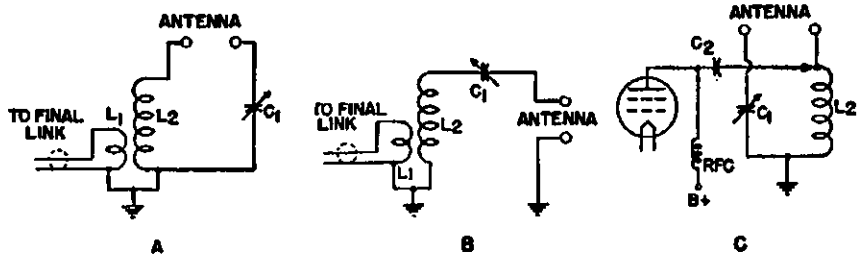


Fig. 3.—Circuit diagrams of the Mobile and Emergency Antenna.

C1—335 pF. variable.
C2—0.005uF. blocking condenser.
L1—two turns number 12 wire.
L2—eleven turns number 10 wire, 1½" in diameter, wound to cover two inches (approx. 2½ microhenrys).

PRACTICAL APPLICATIONS

The length of the wire in the loop is not at all critical except that the longer it is, the better (because the ratio of radiation resistance to ohmic loss is greater). Obviously, the larger diameter conductor used, the better. The shortest piece of wire used in tests was twelve feet of number 10. This means a loop with a diameter of about three feet, eight inches. The three circuits in Fig. 3 are designed to use any length of wire from twelve feet up to a quarter-wavelength. All data given is for 3.5 to 4 megacycle operation. The data would be similar for higher frequency operation if scaled down in wavelength.

Fig. 3C shows the practical method of using part of the tank coil as the antenna. In effect C1 is across the entire tank coil. This tapping arrangement is required in order to have control of the tube loading. To load more heavily, tap the coil and vice versa to load more lightly. Note that shunt feed is used so that no positive d.c. voltage is on the antenna.

The antenna network is wired as shown in Fig. 3A. In this case a coaxial line is run from the transmitter to the matching network. No tricky matching stunts are involved. The short piece of wire fastens to the two feed-through insulators, C1 is tuned to resonance, and you are on the air. This arrangement is ideal for emergency work where no permanent installation is desired.

The schematic in Fig. 3B is especially for use with mobile rigs. It is identical electrically to that of Fig. 3A, but the parts have been re-arranged. The practical way to use the circuit of Fig. 3B is to mount a ten or twelve foot whip antenna on the rear bumper and connect the upper antenna lead to the base of the whip.

The top end of the whip then connects to ground. This may be accomplished by bending the whip until the tip of it reaches the rain gutter or some other portion of the car body. As before, matching is no problem. Merely tune C1 to resonance.

CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."

While all of these circuits will resonate any length of wire from twelve feet on up, it is obvious that L2 has losses which should be kept to a minimum. Therefore, L2 should be made as low inductance as possible consistent with the length of antenna used and coupling necessary. In addition, large conductors and well-made connections will really pay off.

For radiators in the order of twelve feet long, use the constants specified, remembering that the smaller the wire used to wind L2, the less effective the antenna system will be. For appreciably longer radiators, reduce the inductance of L2 to as low a value as practical. If possible, wind L2 with copper tubing.

EFFECTIVENESS

It is difficult to state just how well an antenna works without taking a tremendous number of measurements. This has not been done, although a fair amount of experimental work has been completed.

For example, using a loop with twelve feet of wire, and the emergency rig on 80 metre c.w., W2FZW has been able to work stations in a radius of a couple of hundred miles quite satisfactorily.

One precaution is in order. There is a null perpendicular to the plane of the loop. That is, the loop radiates the least energy in the direction that you would see if you looked through the loop. This null is extremely sharp, and should not cause much trouble, since the rest of the pattern is quite broad.

"Simplicity In Four"

BY C. A. CULLINAN,* VK7XW

"Young fellers aren't like what they used to be in my time," said the Old Timer. "Why I was in a radio store the other day and there was a feller asking the bloke behind the counter for a condenser, No. 6841, Catalogue B, so I pipes up, asks him what sort of thing that was, and he says he doesn't know, but that's what the Yank radio book said.

"Crickey, I suppose that's what gave the R.I. the grey hairs for I bet this feller doesn't know one microfarad from another. He probably quoted catalogue numbers at him in the exam."

It is rather unfortunate that many magazine editors have adopted the policy of allowing their writers to describe the construction of transmitters and receivers by the name of a particular maker and his catalogue, and when it comes to getting a particular part, to find that it just can't be obtained.

This sort of thing is unfortunately more and more on the increase, and while the experienced Ham can soon devise something to take the place of "Whoosit's No. 5 left-handed resistor," the newcomer to the ranks of Amateur Radio may find himself stumped.

It was therefore with these factors in mind that this little transmitter was designed. All parts are available in Australia and New Zealand from reputable stores and none of it is from disposals items that may be plentiful in Melbourne or Sydney and non-existent elsewhere.

To the Amateur newcomer who is looking for a simple easily constructed transmitter which can be put together with the assurance that it will go with a minimum of fuss and to the old timer after a nice low powered job, this little transmitter can be recommended.

DETAILS OF CIRCUIT

Now let us see what it will do. With only four inexpensive valves, it will operate on four bands with one crystal and deliver from 10 to 25 watts, depending on the power supply used.

Basically it comprises a type 6V6 valve operating as a straight crystal oscillator in the 80 metre band and its output is always on that band. This is a simple straightforward crystal oscillator that keys beautifully, has low crystal current and above all is free of the bugs that frequently infest the more complicated types of oscillators.

A type 807 is employed as a final amplifier, with plug-in coils for each band. On 80 metres it is operated as a straight amplifier. Provision is made for modulation and for this purpose the screen resistor is shunted by a condenser to permit simultaneous plate and screen modulation.

For 40 metre operation, the 807 valve is operated as a doubler, the oscillator remaining on 80. To change from 80 to 40 it is only necessary to change the output coils and retune the final tank. The power output on 40 will not be as great as on 80, but the efficiency of the 807 is so high that the loss by using it as a doubler is not great enough to worry about.

In order to operate on 20 metres, a 6V6 is switched in between the oscillator and the final. This 6V6 is used as a quadrupler and on this band the 807 is operated as a straight amplifier.

For 10 metre work, the quadrupler is left in circuit and the 807 again becomes a doubler. It will be observed that the second 6V6 is triode connected and that the cathode circuit uses a 2.5 mhy. choke shunted by a small condenser. This combination makes the quadrupler sightly regenerative, but the stage is perfectly stable with no tendency towards self-oscillation as frequently occurs with complicated frequency multiplier stages. Thus we have a transmitter of three valves plus rectifier that gives operation on four bands with a minimum of coil changing, and other troubles, and is perfectly stable.

CONSTRUCTION

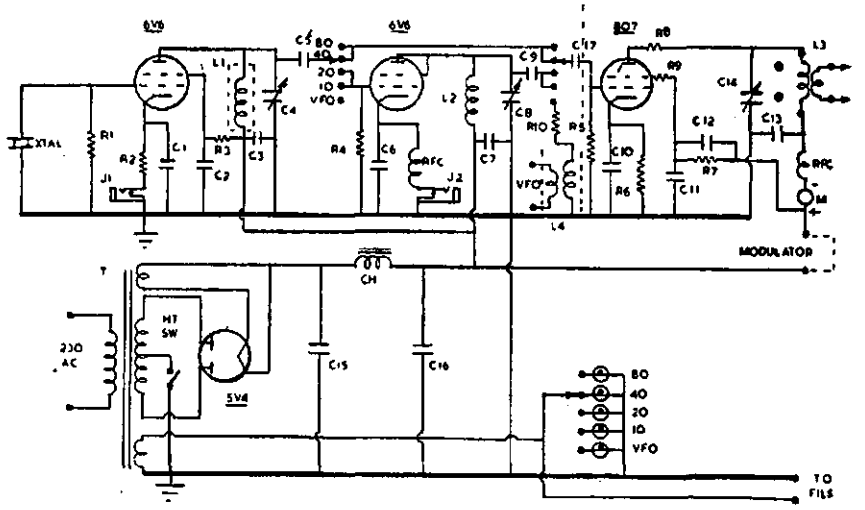
Now for some notes on construction. A chassis 11" x 7" x 3" will house the transmitter without the power supply. The three valve sockets can be placed in line and the crystal oscillator and final tank condensers mounted so that their shafts can be fitted with dials. The quadrupler tank condenser need not be extended to the front panel as it is set for the centre of the 20 metre band and left fixed in that position.

The switch is a standard receiver short wave switch. In our case each section has five contacts wired as shown. This is done so that a pilot light will show up which band is in operation. Strictly this is not necessary and a two pole switch can be used instead if the little bit of glamour of the pilot lights is not desired.

The oscillator plate coil is wound on a piece of 1" tubing and fitted inside a receiver coil can with spade lugs. The assembly is mounted on top of the chassis.

The 807 should be provided with a shield can around its lower portion; also a shield partition of aluminium was found necessary running from front to rear of the chassis on top and slightly higher than the 807 plate cap. This shield screens the whole of the final amplifier components above chassis from the remainder of the transmitter. This shield was found necessary in one model of this transmitter to get rid of a slight trace of instability in the final amplifier on 20 metres due to coupling back into the 6V6 quadrupler.

The quadrupler coil was wound on a piece of ¾" broom handle. It was close wound and allowed to spring after winding. Then it was stretched to the length indicated. This coil was mounted underneath the chassis right between the plate lug on the quadrupler socket and an insulated terminal lug mounted on the back drop of the chassis. Naturally the coil is self supporting. Its tank



C1, C2. C3, C7, C10, C11, C12—0.01 uF. mica condensers.
C4—100 pF. midget variable condenser.
C5, C9, C17—0.0002 uF. mica condenser.
C6—0.0001 uF. mica condenser.
C8—5 plate midget variable (25 pF.).
C13—0.005 uF. mica condenser.
C14—100 pF. variable transmitting type.
C15—8 uF. 600 volt electrolytic.
C16—16 uF. 600 volt electrolytic.
R1—25,000 ohm 1 w. carbon resistor.
R2, R6—250 ohm 3 w. w.w. resistors.
R3—50,000 ohm, 1 w. carbon resistor.
R4, R5—100,000 ohm, 1 w. carbon res.
R7—15,000 ohm, 3 w. w.w. resistor.
R8, R9—200 ohm, ½ w. carbon resistors.
R10—200 ohm, 1 w. carbon resistor.
M—0-150 Ma. DC meter.
CH—30 hy. 100 Ma. 100 ohm choke.
T—Power transformer, 385/385 v. 100 Ma., 5v. 2a., 6.3v. 2a., with static shield.
RFC—2.5 millihenry r.f. choke.
Sundries: two octal sockets, one five-pin ceramic valve socket, one six-pin ceramic socket, four six-pin 1½" coil formers, one short wave switch 3 bank 5 position, five pilot light assemblies, chassis to suit, two 6V6s, one 807, one 5U4 or 5Z3.

* 12 Montrose Place, Launceston, Tas.

condenser was mounted directly above on top of the chassis.

Coils for the final amplifier tank were wound on six-pin 1½" diameter formers to the sizes specified. The socket for these coils was mounted off the chassis by means of a pair of small stand-off insulators.

It is important that the two resistors, R8 and R9, be attached as close as possible to the 807.

TUNING UP

One of the attractive things about this transmitter is the ease with which it can be tuned up. A milliammeter should be plugged into the keying jack, J1, and with the transmitter turned on, the oscillator condenser is turned until the plate current dips. This is the point of oscillation. If it has been necessary to use a different gauge of wire in winding the oscillator coil, or a different size shield can, then it may be necessary to alter the number of turns slightly on the oscillator coil to make the stage oscillate. If possible, use a crystal which will multiply into the centre of the 20 metre band.

With oscillation obtained, the tank condenser for the final amplifier should be rotated to obtain a dip on the final plate meter. Make certain that the switch is in the 80 metre position and that an 80 metre coil is in the socket. With 350 volts on the plate and no load on the final, this stage will dip to about 15 Ma. with the screen resistor specified. Next break the h.t. and insert the 40 metre coil. With h.t. re-applied, it will be found that on again rotating the final tank condenser another plate current dip will take place. This will be about 20 Ma. The oscillator condenser should not have to be touched. It may happen that two dips will occur, one near full capacity and the other near minimum capacity. The latter should be checked with a wavemeter as it will probably be either the third or fourth harmonic of the oscillator frequency. Neither of these are required.

Next the 20 metre coil is put into place, again taking care to turn off the h.t. Apart from the danger of getting a shock, the practice of changing coils with the h.t. left on may damage the 807 for the screen is still connected to the h.t. supply.

The frequency selector switch is then turned to the 20 metre position and the final tank condenser rotated for the plate current dip. At this stage a wavemeter should be used to determine if the final amplifier is on 20 metres. If so the quadrupler tank condenser should now be adjusted, a milliammeter having been inserted in jack J2. Alternatively, the correct position can be found for the quadrupler tank condenser by turning it only and watching the final plate current meter for signs of a better dip. It is necessary in this stage to make certain that it is acting as a quadrupler, not a tripler. A wavemeter coupled loosely to L2 will soon determine this. If the stage is acting as a quadrupler, but will not tune properly it may be necessary to alter the tank coil slightly until the tank does tune. The values shown have proved successful in three transmitters, but stray capacities may alter things a little.

If the quadrupler is switched out of circuit by turning the switch to 80 metres it should be possible to obtain the 807 plate current dip on the fourth harmonic at the same position on the dial as 20 metre output is obtained when the quadrupler is switched in. In other words, the final amplifier tuning should be the same on 20 metres when the quadrupler is switched in and out. However, the amount of the final amplifier plate current dip will be greater when the quadrupler is in circuit, indicating greater efficiency in the 807. The dip should be about the same as was obtained when the transmitter was on 80 metres.

The next step is to replace the 20 metre coil with the one for 10 metres and with the quadrupler in circuit locate the 10 metre dip on the final plate current meter.

When all this has been done, it will be found that with the one crystal four bands can be covered with approximately the same output on each band.

No data has been given for the output link or coupling methods since this will depend to a great degree on the aerial system used and the antenna coupler employed if one is used. (A link coupled antenna tuner is very necessary when this rig is used on 40 metres, and is advisable for that matter on all bands, to prevent radiation of harmonics and sub-harmonics. Sub-harmonics are very prevalent when the final is used as a doubler, so play safe and link couple to an antenna tuner.—Tech. Ed.)

(Continued on Page 15)

DX NOTES BY VK4QL

I doubt if I can ever recollect 14 Mc. being so poor as has been experienced in North Queensland for January. At certain periods of the 24 hours I have known the band to be "off," but this last month it has been very poor for the whole period of the 24 hours, and there has been no change observed over the month, as has been observed other months. I have not had any information from anybody this month so am unable to comment on what has taken place in other States.

Usually, some sort of a signal can be heard round 6 a.m. on 14 Mc., but morning after morning the band has been absolutely dead, not even a commercial being audible. 28 Mc. has shown nothing to warrant staying on that band. However, every cloud has its silver lining, and 7 Mc. has turned it on this month up here. Even so, its behaviour has been erratic, S7 and S8 reports being received one day from Europe and the following day not able to raise any of them. South Africa has been the same, and the very early evenings, signals from U.S.A. showed the same "antics." There one night until 7 p.m., hopeless the next night. 3.5 Mc. has been far too noisy for attention.

Getting back to 7 Mc. again, the time for the DX has been between 6 and 7 a.m., and the great variety of stations will be seen from the listing. One morning a single CQ raised the following in succession: ON4FQ, F9HR, and W1BOR. Yes, it's quite right, east coast Ws have been worked the long way round on 7 Mc. Two new countries were added to my total on this band in ZS7D and MF4BAM. MP4BAM lived in VK for 11 years at Shepparton and Brisbane and apparently still knows his "Australian" as he used the phrase of "a fair cow" during the QSO. G6CJ and PY1AHL were heard on the band at 1830 EST. Unfortunately, with this band it's a bit hard to find a spot clear of commercial QRM. In the mornings, not being satisfied with being plumb in the middle of the c.w. band with an S9 sig., the Russian, RCIF, radiates S9 key clicks over the rest of it.

By the time you read these notes the following stations will have "pulled the big switch" for the last time, having returned to their homeland: VK1PG, VK1YG, VK1HV, VK9JC and AP5B. F8EX is reported to be operating from AR8, and possibly be there for some time. I heard AR8AB being worked by HB9 on 7 Mc., but could not locate the AR8. One day ZQ3FM appeared on the band (14 Mc.) but turned out to be a ship station in VK waters. Southern VK stations were heard working VT1AC one night but he could not be heard here. Let's hope he is on the level.

FZR7, who was recently operating in the band, has now returned to his former spot outside the band.

Reading an article the other day, it was stated by the F.C.C. that there are now almost 87,000 Hams in U.S.A., with 6,000 new licences issued in 1950.

On the 15th January, southern stations were heard working South Africans on 14 Mc. in the afternoon, but they were barely audible here.

Listings for the month are: 14 Mc.—3V8AJ, ZB1AJX, ZC4TF, ET3A (via A.R.R.L), AP2Z, OQ5CF, UO5KAA, AP5B, P5EQ (Box 496 Cochabamba), VO1VI, EQ3FM, UI8KAA, ZK2AA, KS4AI, KS4AC, ZS3K, TG9AD, FY7YC, FF8AC, ZK1AB, VP4TG.

At the risk of being boring I will list a fair percentage of the calls on 7 Mc., so you can see that they have been scattered, but except for two Gs, one F9 and the FY, all have been between 5.45 and 7 a.m.: FF8JC, FA9IO, FA9HS, FA8BG, FA8RJ, FA8ZZ, FA8JO, CN8MI, CN8AQ, CN8MZ, CR5AC, CR7CI, CR7BI, CR7IZ, ZS3U, ZS3K, ZS7D, VP6CDI, VS7NG, KP4KD, KP4HU, F9HR, F9NY, OK1CX, OH3OS, SM8VC (ship in West Indies), PY1AHL, UF6AC, ON4ZJ, ON4FQ, G6CJ, G6QB, G3HVG, HZ1KE, HB9EU, HB9LO, EA3HJ, EA5CV, UB5KAA, UB5KAO, UA3CR, UO5KAA, UC2KAB, ZE1JL, ZE3JL, MP4BAE, MP4BAM, VQ2GW, 4X4AO, 4X4BX, DL4TA, DL5BS, SP1CM, VE1BK, W1BTA, W1CPT, W1BOR, W1NW, W3GI, and a string of ZS1, 2, 5 and 6.

As I have no news from the gang this month at all, there is nothing else to add to these notes, so you only know what I have been up to.

● The thought for the month. "When a DX station makes a directional call, he usually means what he sends." A lot of power was wasted this month by VKs calling stations who were "CQ REF."

7 Mc. ACTIVITY BY VK5JE

7 Mc. conditions have been very patchy in VK5 and there has been spans of a week in which only one or two W stations have been audible at S4. They took a turn for the better on 28th January when KP4KD broke through at good strength along with a number of Ws who were S6 to S7. W1NW said he was working from a cellar; had a radiator going, was wearing mittens and ear muffs—a big contrast to this end where it was 85 degrees at 9 p.m.

Early morning DX is still good and a few mornings early rising at 5.30 a.m. netted the following: SM8VC on a ship off Azores en route for England (S7), OK1LD, F9HR, DL1FF, ON4QF, I1ADA, EA3GT (who sent card via air mail for 1st VK QSO), SM5AZC/I, DL6BZ, DL7AA. One morning at the end of January, the Wis, W3s and W8s were coming through at good strength up until 7 a.m. which shows that the old 7 Mc. band is still doing its stuff.

VK5FH was on a few mornings and got amongst the DX—was heard working KP4KD the long way round at 6.30 a.m.—a good effort.

The Europeans still remark on the scarcity of VK signals during the early morning sessions here and an effort by a few more of the boys may help to keep it still populated and maybe prevent it being completely swamped out with commercials.

Experiments are being conducted with a top loaded 40 feet vertical which should prove of interest to some of the boys who want a simple antenna to work on 7 Mc. and details will be given in a later issue.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3JD	1	155	VK4JP	8	114
VK3EE	10	148	VK3AWW	14	112
VK6RU	2	141	VK4WJ	17	104
VK3BZ	3	141	VK2ADT	13	102
VK6KW	4	140	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK6DD	6	126	VK3GG	18	100
VK3LN	11	125	VK3IG	5	100
VK4HR	12	122	VK3JE	7	100

CW

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK4DA	7	113
VK3FH	15	155	VK7LZ	17	112
VK2EO	2	152	VK5BO	33	111
VK3CN	1	151	VK3JE	21	108
VK4EL	9	150	VK4RC	18	107
VK2QL	5	141	VK2GW	16	107
VK3VW	4	140	VK3YD	27	105
VK3KB	10	138	VK5FH	31	105
VK6SA	28	136	VK3JI	25	104
VK4HR	8	131	VK2YC	34	103
VK6RU	18	128	VK4FJ	29	102
VK4RF	11	125	VK3APA	14	101
VK3EK	3	122	VK3NC	19	101
VK5RX	23	119	VK3CX	26	101
VK4DO	20	117	VK2OA	32	101
VK3UM	12	116	VK7RK	22	100
VK3XK	30	114	VK7LJ	24	100

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3JA	43	114
VK6RU	8	175	VK2ADT	14	113
VK3KX	1	167	VK4RC	21	110
VK4HR	7	167	VK3ZB	34	110
VK3HG	3	166	VK3HT	41	110
VK6KW	13	161	VK4WF	40	109
VK2DI	2	160	VK2ZC	25	108
VK3JE	12	154	VK2YL	11	106
VK4EL	10	150	VK3JI	33	105
VK4KS	24	149	VK3AWN	38	105
VK4DO	15	145	VK2VN	18	104
VK3MC	5	139	VK4UL	27	104
VK3OP	19	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK2ADE	26	133	VK2TI	37	103
VK2AHA	9	128	VK3HO	38	103
VK3LN	29	128	VK6DX	42	103
VK2AHM	20	125	VK7RK	31	102
VK2NS	16	123	VK4TY	35	102
VK4FJ	32	120	VK2ACX	6	100
VK7LZ	23	116	VK2TG	39	100
VK5FL	26	116			

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK4RY	2	2
VK2VW	9	2
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK2AEZ	10	1
VK5LC	1	
VK3HT	7	
VK2ABC	8	

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

MARCH, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

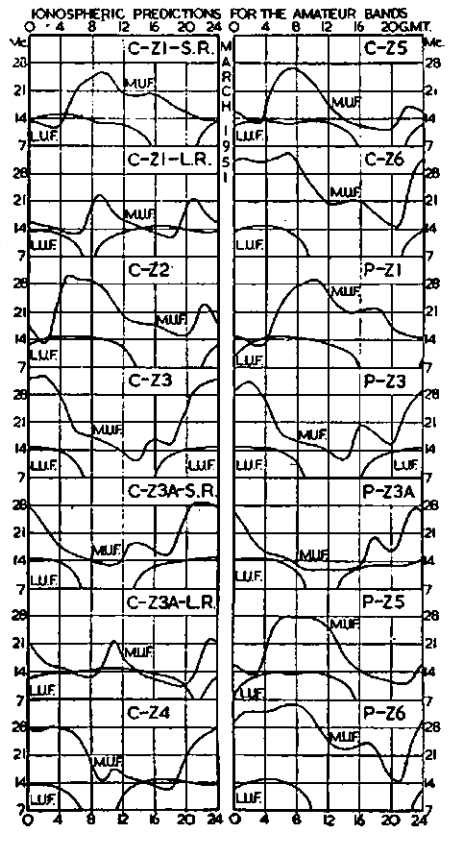
The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart

(Continued next page, column 1)



"Fireside Five"—With A Difference

BY STEVE GRIMSLEY,* VK3ASG

A 100 watt phone rig, a commercial communications receiver and a beam are just the things to have around for that serious work, but unfortunately take up far too much space when you want to operate from anywhere but the shack. That was the author's problem anyway, until he built up this little outfit—and all from parts on hand.

With only five tubes, plus rectifier, we have a receiver, modulator, crystal transmitter, and phone monitor. It can be built up on one small chassis and goes "like a bomb" on either 230 a.c. or 6 volt d.c. You can use it for emergency work, for the holiday house, in the car, or just park it in the bureau drawer in the lounge or on the bedside table.

It's just the thing for those freezing nights in winter, or for a standby Tx when you want to work on the main rig and keep those skeds. Just put up a random length of wire in the ceiling and bring the end out near the fireplace, and you're all set to put on your slippers and keep the XYL company for a change!

Let's look at the circuit. Not exactly original perhaps, but simple, economical, and pruned of all but essentials. By all means build a conventional a.c. power supply if you wish. Supply voltage should be about 250 at about 80 Ma. Antenna switching arrangement is left to individual requirements. The author uses an old knife-switch type lightning arrestor. The 6SH7 makes a beautiful regen. detector. It goes into oscillation smoothly, has a ton of punch, and has the added attraction of being readily available from disposals sources at a low price. A phone jack in the cathode of this tube (shorted in the "receive" position) is provided for monitoring phone quality. When transmitting, the short on the jack is removed, the h.t. removed from the tube, and half-wave rectification between the grid and cathode does the rest.

The audio section is quite normal. No gain control is provided for the modulator, merely load the final to about 30 Ma. (7½ watts) and don't scream into the mike and you will find full modulation will be automatic. A single "phone-c.w." switch is provided. This method is not advised with a higher plate voltage than 250 as a burned out switch is bound to result, especially with plate and screen modulation and the normal panel toggle switch.

A single four-pole two-position switch is used for "Send/Receive." The two sets of contacts farthest apart should be used for the voice coil and 6J7 grid switching to obviate feedback. This switch is labelled S1 in the diagram.

The method of adjustment of the transmitter is obvious, and after checking the p.a. grid drive for oscillator output, the 6C5 can be forgotten. Drive should be about 2 Ma. with about 180 to 200 volts to the 6C5.

To finish up, here are the coil details for 7 Mc.:—

Receiver: Grid, 16 turns of 22 enamel, ¾" long, 1" diameter; Reaction 8 turns, 28 enamel, close wound, ⅛" from L1.

Tank: 16 turns, 18 tinned copper, on 1½" former, spaced to length of 1½".

One more thing, to achieve utmost selectivity from receiver, operate right at point of reaction and adjust gain control to suit.

*46 Warrigal Rd., Surrey Hills, E.10, Vic.

PREDICTIONS

(Continued from previous page)

QUIZ

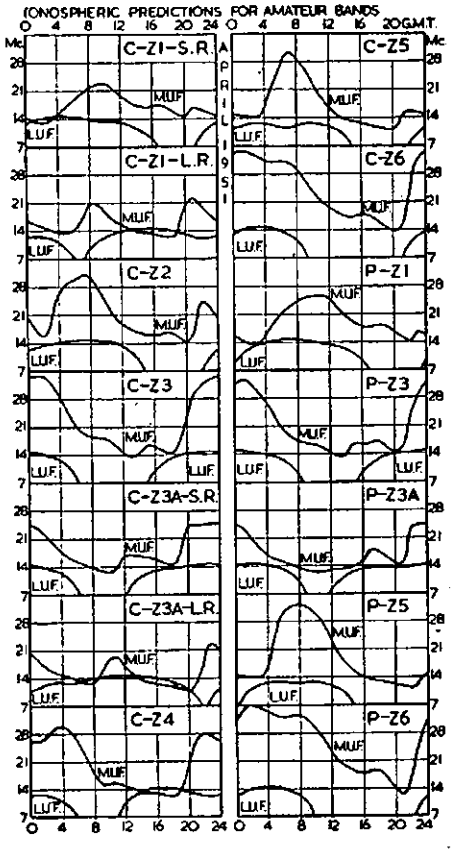
The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Perth-Manila circuit would be useful:—

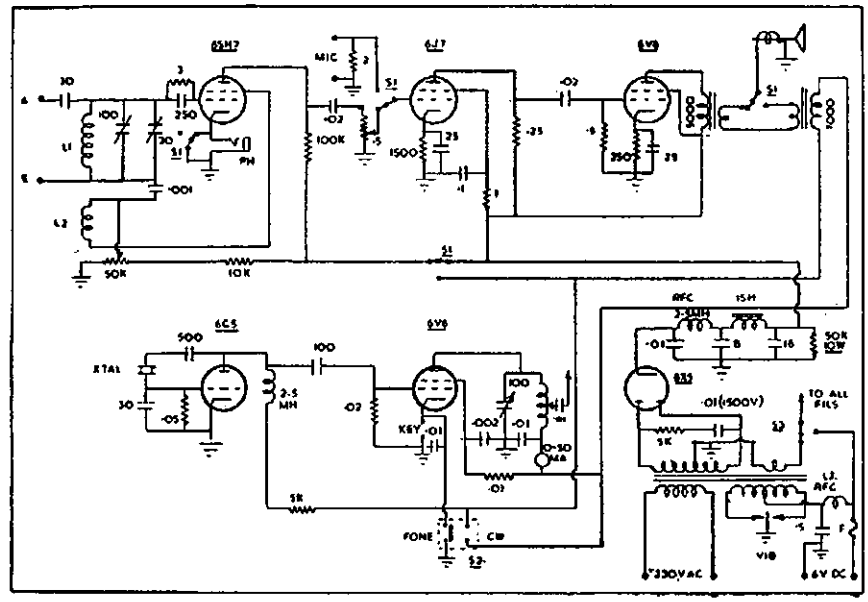
1. Were good conditions experienced on 7 Mc. for the period 1000 to 2200 hours G.M.T.?
2. Was the 14 Mc. band workable around 2100 hours G.M.T.?
3. Was the 28 Mc. band workable from midnight to 1000 hours G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the mouth.

APRIL, 1951

It is hoped in the future to be able to continue to give the predictions a month in advance. Commencing this month, we also publish the chart for April, 1951.





Schematic diagram of "Fireside Five."

Note.—S1 shown in "Receive" position.
S2 " " "Phone" "
S3 " " "A.C." "

MAGAZINE

By the time this issue is distributed two members of the Magazine Committee will have been married, Ian Sewell, VK3IK, and Alan Head, VK3AKZ. The two remaining single members of the Committee are now going crosseyed watching one another—who is next?

VK-ZL DX Contest Results, 1950

VK RESULTS

C.W. Section

Call	80	40	20	11	10	Total
VK2DG	—	493	2710	—	69	3272
VK2AHA	—	315	2402	80	149	2946
VK2ZC	—	370	1792	42	69	2273
VK2GW	—	178	1549	15	90	1832
VK2WD	—	—	804	—	—	804
VK2RA	—	456	—	—	—	456
VK2PV*						
VK3DQ	—	309	1056	—	—	1365
VK3XK	—	172	671	—	42	885
VK3PG	—	114	718	—	42	874
VK3PL	—	—	698	—	—	698
VK3RJ	—	—	466	—	15	481
VK3YF	—	—	340	—	—	340
VK3XB	—	—	180	—	30	210
VK3TX	—	—	186	—	—	186
VK3KS	—	—	134	—	—	134
VK3ET*						
VK4 Nil.						
VK5FH	—	370	1835	—	42	2247
VK5BO	—	—	1076	—	—	1076
VK5RX	—	—	688	—	—	688
VK5JE	—	303	—	—	—	303
VK5KO	30	196	—	—	—	226
VK6LJ	—	87	541	—	—	628
VK3XK/7	—	95	156	—	—	251
BERS195	—	677	2053	—	29	2759

* Denotes Check Log.

Certificates will be awarded to the highest scorer in each district as well as to the highest scorer on each band as follows:—

80 metres—VK5KO .... 30 points
40 „ VK2DG .. 493 „
20 „ VK2DG 2710 „
11 „ VK2AHA 80 „
10 „ VK2AHA 149 „

Phone Section

Call	20	10	Total
VK2DG	1335	218	1553
VK2AKV	530	—	530
VK3HW	1995	135	2130
VK3LN	1868	—	1868
VK4KS	1751	—	1751
VK5LC	—	221	221
VK6RU	1251	912	2163
VK6KW	1093	828	1921

Certificates will be awarded to the highest scorer in each district as well as to the highest scorer on each band—

20 metres—VK3HW 1995 points
10 „ VK6RU 912 „

ZL RESULTS

C.W. Section

Call	80	40	20	10	Total
ZL1MB	—	384	1590	75	2049
ZL1BY	83	447	1391	92	2013
ZL1AU	—	301	1172	29	1502
ZL1MQ	—	230	638	84	952
ZL1DV	—	—	750	—	750
ZL1QW	—	—	556	—	556
ZL1HD*					
ZL1HY*					
ZL2MM	—	499	—	—	499
ZL3OA	—	346	1656	—	2002
ZL3JA	—	224	774	15	1013
ZL3LL	—	627	—	—	627
ZL3CP	—	—	526	—	526
ZL4JA	—	—	1072	29	1101
ZL4KB*					

* Denotes Check Log.

Certificates will be awarded to the highest scorer in each district as well as to the highest scorer on each band—

80 metres—ZL1BY .... 83 points.
40 „ ZL3LL .... 627 „
20 „ ZL1MB 1590 „
10 „ ZL1BY .... 92 „

Phone Section

Call	20	10	Total
ZL1MQ	533	195	728
ZL1HY*			
ZL2GX	120	—	120
ZL3NQ	29	—	29
ZL4JA	457	84	541

* Denotes Check Log.

Certificates will be awarded to the highest scorer in each district as well as to the highest scorer on each band—

20 metres—ZL1MQ .... 533 points
10 „ ZL1MQ .... 195 „

OVERSEAS RESULTS

C.W. Section

Call	Score	Call	Score
CE3AG	622	OA4J	492
CN8EG	123	OE1CD	677
CT3AA	30	OH6NZ	395
CT1AL	44	OH3NU	139
DL1FF	1666	OK1VW	889
DL1KB	1115	OK1HI	770
DL1QT	901	PA0ZL	195
DL6BU	330	PY4IE	357
DL1EB	186	SM5PV	426
DL1FG	186	SM7QY	408
DL1YA/P	59	SM5CO	403
EA4CR	245	SM7MS	114
EA3CK	60	SM5LL	75
F9RO	327	SM5WL	59
F8TM	187	SM6AQR	29
F3CT	130	SP1JF	389
F9ND	74	VS6BW	117
F3TZ	59	VU2BK	533
G2AJ	1219	W2WZ	1012
G6XN	835	W2EWZ	207
G3COJ	755	W3HPK	821
G8DA	196	W3UV	116
G6AH	105	W3BIP	60
G3GPC	84	W3DLI	59
GM3EST	15	W4LZF	774
GW3ZV	944	W4POF	337
GW3FSP	520	W5QKZ	89
GW8BW	318	W5AWT	86
HA4SA	199	W6MVQ	2250
HB9BN	329	W6UZX	2062
I1BCB	250	W6AM	855
I1KN	445	W7BTH	185
I1ER	44	W8ZBC	102
JA2FM	722	W9AEH	1264
KH6DQ	1251	W9YDP	15
KL7SF	45	YU1CBC	279
KP4CC	817	ZS5U	598
KZ5CW	98	4X4CR	112
LA4K	45	9S4AX	100

Phone Section

Call	Score	Call	Score
CN8EG	74	PK1WW	249
DL1FF	73	PK4OO	213
EA4CK	170	PK4ZZ	73
EA2CK	57	SM5WL	29
F9RM	102	SM5APA	29
G6XN	451	VS1DZ	1041
GW3FSP	140	W6UZX	806
JA5RC	64	W6AM	15
KH6ADY	45	XZ2SY	786
OK1HI	164	YN4CB	192
OK1VW	111	ZS6JS	501
OK2SO	98	4X4CR	44
PA0BRG	15		

LISTENERS' SECTION

New Zealand—J. B. Holder, 648 points.
Australia—E. W. Trebilcock BERS195, 2759 points.
Switzerland—R. Dumas, HB9RSE, 422 points; E. Heritier, HB9RDX, 254 points.
Yugoslavia—Djuro Borosic, 128 points.
Germany—E. Kintuher, DEM1977, 189 points.
England—R. W. Thomas, BRS15822, 1138 points; W. L. Ely, BRS1535, 997 points; L. Shearlaw, BRS15846, 252 points.
Finland—Pentti Sare, 337 points.
Czechoslovakia—Joseph Foldyna, OK2-6024, 388 points.

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

144 Mc. CROSSES THE TASMAN

During a 50 Mc. contact on 21st January between VK2AH and ZL1AOX, VK2AH made a five-minute transmission on 144 Mc. which was copied by ZL1AOX. Unfortunately due to the 50 Mc. band folding, contact between the two stations was lost before ZL1AOX could make a 144 Mc. transmission.

Further interesting 144 Mc. news concerns the daily contacts over a period of two weeks on this band between VK3XA and VK7AB and VK7KB at 0715 hours. Signals have varied between strengths 4 and 0 plus. During the same period contacts have also been made in the evenings with less consistency.

On 15th February at 7.20 a.m., 144 Mc. signals were first heard in Ballarat by Ron Wilkinson who used a stacked 4 over 4 beam, they were Q5S8. He notified VK3GM who on listening at 7.45 heard VK7KB's sigs coming in at Q5 S9 plus calling CQ. Contact was made and signals remained the same until 8 a.m. when the power was cut off due to rationing. Ron then called on VK3SE who fitted his portable rig up at Ron's place and using his beam made contact at 8.15 until 8.30; signals were audible until 9.30 when they faded out. On the evening of the same day, VK7KB's signals were heard by VK3GM at 9.5 p.m. and contact again made; signals this time were just as loud, but subject to severe fading. After a short contact, VK8ZL was called in and made contact with VK7KB just before the signals faded out at 9.30 p.m. Conditions on Melbourne stations were about average and no special conditions seemed to exist on 50 Mc. Weather was fine and clear in the morning, and overcast and dull in the evening. Much of the credit for the above contact is due to Ron Wilkinson, of Ballarat, who has been listening every morning for signals from VK7 and immediately advised VK3GM on the morning they broke through. A careful watch had been kept previously but no trace of any signals heard.

50 Mc. ACTIVITY

NEW SOUTH WALES

On Sunday 21/1/51 there was an excellent opening of the band to ZL1, ZL2 and ZL3 and another on 28/1/51 but on the whole the DX seems to be on the wane and already there is talk of 578 Mc. activity. 2ARG has built up 50 Mc. portable gear which 2WH used while on holidays in Sydney. Hugo and 2AMV also operated portable from Bathurst during the National Field Day making Sydney contacts from the top of Mt. Panorama.

During an opening to VK5 on 20/1/51, VIS' 4th harmonic beating with 2QZ's signal was heard at Berry by 5MA. One gets used to this nuisance report in Sydney but it's a bit thick in VK5. 5MK may be making a trek to Sydney in March and hopes to call on some of the v.h.f. gang.

The Blue Mountains stations put solid signals into Sydney. 2FI having receiver trouble, is re-building when he's not busy taking the dog for a walk. I hear that 2LY is off to VK3. 2AET came onto the band with a pair of 807s in the final and was working ZLs a couple of days later. Another 144 Mc. identity, 2ABZ, has been attracted to the band, possibly by the DX. 2PU has been trying out carrier control modulation and making a good job of it. The method has allowed him to increase power somewhat. 2ABC is off on a car trip to VK5 hoping to visit some of the VK5s en route.

2AKK has his YL call CQ as Ham bait. He's using 40w. to an 829 and is operating "portable." 2AJR on 52 Mc. finds it somewhat lonely up there, but the rig and Rx have plug-in coils for 40, 20, 10 and 6, so doesn't rely on the v.h.f. bands for contacts.

At the January meeting of the v.h.f. section, b.c.i. from v.h.f. transmission was discussed and various experiences were related. The section has offered to give help in this matter if requested and 2QZ was sold the job of co-ordinating. Operating in a block of city flats has led to this difficulty in addition to ignition noise, lack of antenna space, sewing machines and the like.

2VW scored the first Sydney-Lismore contact on 50 Mc. when he worked 2UC. 2XO is reported to be opening up on the band so the year promises some interesting country contacts.

VICTORIA

The month of January held up fairly consistently for DX openings, especially for early in the month when we had very extensive E layers to work with. If anything, the real DX—1500 miles and up—was there in a greater number of openings than in previous years but the signal strengths were not up to previous years' peaks but in the main the contacts were usually R5 so that's what counts in a contact. The last contact with the VK6s was on the 16th January, but ZLs were worked up till the 24th.

Openings to VK2 and VK4 came nearly every day with fairly good openings to VK5 on the 3rd, 5th, 7th, 12th and again on the 22nd.

The daytime regulars missed a good VK7 opening one dinner time but it was unfortunate that they and Dick could not operate that day. It was one of those days when the juice was cut off in certain suburbs. 3AHK recently went on a tour on his holidays and returned home to find his 50 Mc. aerial blown up—sky-wards—and we can all look for Keith's usual good sigs upon repairs of same. The v.h.f. boys around Shepparton are very active; we are pleased to welcome 3ALE on 50 Mc. also 3AT and we must mention that 3HZ is also back on the job again. Together with 3UI at Tatura they have a good group of active v.h.f. boys. We also welcome the return of 3CI from VK5 land (5SB) and we all hope that it will not be long before Sid is pumping out sigs from Merbein at his new QTH.

SOUTH AUSTRALIA

The v.h.f. contest concluded with some extra good openings and the ZLs were in during the mornings and in the evenings, although hard to contact at night. On preliminary scores, the final is between 2ADT and 5QR with Reg a little in front. More activity is being shown in 144 and 288 Mc. recently and it is pleasing to see. All efforts to get 5RA (Darwin) cracking on 50 Mc. were met by a series of mishaps. Lack of power supply for the converter, then transformer trouble in the rig, valve trouble in the receivers, etc., all marred the good intentions. The wet season is hard on equipment. Some hours of listening only produced weak carriers. With the contest on and most beams turned east and west, no doubt it would be hard.

Stations heard in VK5 on 50 Mc. are: 5MD on 51.9 Mc., 5AX, 5MA, 5BC, 5RO, 5GF, 5JD, 5QR/5GL heard almost nightly on 50 and 144 Mc., and 5MK who is also testing on 288 Mc. using a pair of 7193s in transmitter.

WESTERN AUSTRALIA

It would appear that once again 7th January has written the finish to 50 Mc. DX for the metropolitan area. At 0900 that day, the band opened to VK5 for hall an hour when 6GB and 6AS worked 5QR and 5MK. 5KO was heard on c.w. and answered by both stations several times without any QSO resulting. Since then there has been no breakthrough from Perth.

6BO portable down at Bunbury continued the good work during January and all told, since the first opening back in December, has had some 96 QSOs from home and portable locations. Rollo also provided some good contacts for Perth stations during his sojourn in the south.

Both 6DW and 6WG from the country certainly had a grand time during the last two and a half months. Half way through January they were both up around the 150 QSO mark which is really good work. 6WG also had a very good opening to ZL, working several stations with signals around the S9 mark. 6HM in Kalgoorlie is apparently active again. Was heard being called by a VK5 one day, but no details to hand from Charlie. Likewise no news from 6MU in Merredin. 8GB is working on a new final using a pair of 807s designed for super modulation. As far as Perth is concerned the band seems to have lapsed into a semi-coma with the same half dozen regulars using four perfectly good megacycles of the radio spectrum. How about it chaps? This band should be populated.

6BO, who is now back in Perth, wishes to thank all those eastern States stations who took time off during the v.h.f. contest to work him whilst he was portable in Bunbury, knowing full well they could not score from the QSOs with him. That is typical of the friendly operating technique on six.

144 Mc. DOINGS OF THE MONTH

NEW SOUTH WALES

On 21/1/51 at about 2000 hours 2AH was working ZL1ADX on 50 Mc. and gave him a call on 144 Mc. phone. ZL1ADX came right back on 50 Mc. with a R5 S5 report on Alan's signals. Unfortunately a two-way contact could not be made on 144 Mc. Strangely enough, ZL1ADX's 144 Mc. beam was not directed towards Sydney when he heard 2AH and the signals were not heard next over with the beam lined up. Nice work Alan.

During an opening of the 50 Mc. band to VK5 on 20/1/51, 2HO set to and called 5QR on m.c.w. Signals were heard but were not positively identified.

We hear that 2ARF went marine portable on the National Field Day picnic. 2ATL and 2ACO are new stations on the band, but the 60 odd stations active during the contest are sadly depleted. It is hoped that news of the DX contacts will stimulate more interest. There was a very poor response to the request for logs for the contest. It was hoped to abstract the details of the gear used for a description of VK2 144 Mc. rigs, Rxs, antennae, etc. You can't hope to make progress if you don't know what the other chaps are doing.

VICTORIAN V.H.F. GROUP NOTES AND 144 Mc. MEGACYCLE NEWS

The group meeting night is the third Wednesday of every month when all interested in v.h.f. bands, 50 Mc. and above, are invited to attend. Sixteen members attended the January meeting and a cordial welcome was extended to a visitor, Chas. Robinson, ex-VK7KR, now VK3ACR. A general discussion on v.h.f. topics including reports by portable stations of their activities on 14th January, election of a committee to check field day logs, special v.h.f. c.c. certificate, and probable locations of stations for the February and March field days fully occupied the meeting.

Reports on the January field day from 3ABA (Mt. Macedon), 3FO (Yarrambat), and 3JO (Mt. Martha) all showed that there was much activity on 144 and 50 Mc., but apparently none on 288 and 576 Mc. It was pleasing to note that stations were spread over the whole 144 Mc. band and not all clustered at the low frequency end.

Three non-transmitting members, Messrs. Len Jackson, Jim Gibbons, and Ted Howell, were appointed to the committee for checking field day contest logs. Prizes will include an 832 donated by 3AUP, a 100TH and an 801, donors of which prefer to remain annonymous.

Please note this correction to the Rules as published in "A.R." last month. Rule 4.—Multipliers: 50 Mc., 1; 144 Mc., 1; 288 Mc., 2; 576 Mc., 3; 1215 Mc., and up 4. The points score for each band is multiplied by the multiplier for that particular band and the resultant scores are then added to give the total score. Thus, if a station worked on 50 and 144 Mc., the multipliers for which are 1 in each case, the final score will be the same as that obtained from the mileage/points scale. If he worked on 288, 576 and 10,000 Mc., he would multiply his score on 288 Mc. by 2, his score on 576 by 3, his score on 10,000 Mc. by 4 and then add the results of these multiplications. DO NOT add multipliers in the manner indicated last month.

The suggestion that a v.h.f. century club certificate be awarded to members who work, and produce QSLs to show they have worked, at least 100 stations on frequencies above 100 Mc. was very well received and the idea adopted as it was felt that activity on those bands would be thereby increased.

The next field day will be held on Sunday, 18th March. To date the following stations have indicated that they will be active: 3FO (Mt. Donna Buang), 3ABA/YS (Mt. Macedon), 3AKE/VF (Barrabool), 3ZL/GM (Mt. Buningyong), 3JO (Arthur's Seat), 3UI (Tatura, home location), 3ZL and 3AKE will also be on 288 and 576 Mc. respectively. Country stations may be able to help themselves to more contacts on field days by working out a system of beam directions and times of calling and notifying us in time to include them in these notes; the 8th of the month preceeding the proposed activity is the deadline. Listen to 3WI broadcasts for further particulars of field day activities. Conditions on 144 Mc. were extremely good on the evenings of 25th and 26th January. Signals from country stations being about 24 db stronger than normal. It would be interesting to know just what temperature and humidity inversions obtained on those evenings.

In view of the big possibilities of Interstate contacts on 144 Mc. band, how about the v.h.f. boys in each State hooking up on the 7 Mc. band once a week to chew the fat? What about getting together on approx. 7100 Kc. at say 0900 hours each Sunday from March 4? If anyone is able to suggest a better time or day, let us know because by the past happenings on two metres and adjacent bands recently, anything is likely to happen.

578 Mc. BAND—NEW SOUTH WALES

At the .VK2 Convention, a 578 Mc. hook-up in the city was demonstrated and the signals were S9 at both ends, despite several layers of ferro-concrete buildings between stations. 2ANF operated one station and about a hundred other Hams operated on this band for the first time at Federation House. 2FK's xtal control Tx on 578 Mc. was of great interest. An 8 Mc. crystal, two 6J6s and a 955 final—lighting a torch globe with the output. Though not strictly January news, there is to be a field day on 578 Mc. on about 15th April with 50 Mc. and 144 Mc. stations also active—more details later.

N.S.W. Division Jubilee Year Annual Dinner, Hamfest and Field Day

BY BILL MOORE, VK2HZ, AND DAVE EVANS, VK2AYE

The Annual Dinner, Hamfest and Field Day, which marked the celebration of the Jubilee Year and the fortieth anniversary of the Wireless Institute of Australia, New South Wales Division, will be long remembered as the most outstanding function of the Division for many years. Preparation of details was undertaken by the Council, ably assisted by a group of Past-Presidents who willingly submitted to co-option on the Committee, and in short order a programme was formulated and duties and details worked out and allocated.

TELEVISION DEMONSTRATION

The first item on the programme was timed for 8 p.m. on Friday, 26th January, with a television demonstration and lecture at the A.W.A. Works, Ashfield. Over 250 members and friends attended and many received an excellent first viewing of this new branch of radio science. The meeting was opened by Mr. Parkinson, A.W.A. Works Manager, who expressed his pleasure at having the members of the Institute as the guests of the Company and then turned over the conduct of the meeting to President Jim Corbin, 2YC. Jim proceeded to welcome members' guests and outlined some points of our history. Our photogenic President had the doubtful pleasure of addressing a very sparse audience for the majority of the guests were observing the proceedings in the television receivers which lined one side of the large cafeteria and which provided excellent definition and was ably supported by a first-class audio transmission. On the termination of his remarks, Jim turned the microphone over to Mr. Fleming, A.W.A. Staff Welfare Officer, who introduced our lecturer, Mr. W. Honner, of A.W.A. Research Laboratories.

Mr. Honner spoke at length on the general principles of television and was able to strike a style of delivery which made his address as interesting to our non-technical guests as it was to members. Of particular interest was the recounting of his experiences in television transmissions in various countries abroad; England, France and U.S.A. all came under discussion and a brief description of the types of programmes transmitted in each country gave members an opportunity to appreciate the fact why the 625 line was being adopted here. Television, Mr. Honner pointed out, would never completely succeed in displacing conventional radio in the affections of the people; it was a totally different type of entertainment and, due to the extremely high cost of programme production, it would never occupy lengthy transmission periods. Another difficulty was the fact that a television programme had to be rehearsed for six weeks before presentation, further, actors had to be word perfect as no script could be used and, once a programme was produced, it was the final show and no recording could be made for future use. Obviously, therefore, television called for a set of exacting standards from both actors and personnel and it would be a long time before the OM's dinner and the housework suffered through the addiction of the XYLs to the magic screen. The latter point was dealt with by Mr. Honner in humourous vein and indicated that the future may see a brood of television widowers replacing the many radio widows.

At the conclusion of Mt. Honner's lecture a demonstration of the various lenses was made, showing the systems used for "close-ups." Guests were invited to walk before the television camera and to observe themselves in a screen which had been placed adjacent to the stage. Practically all present availed themselves of the invitation—with not a few shocks. President Jim Corbin then proposed a vote of thanks to the A.W.A., coupling with it the names of Messrs. Horner (Asst. Gen. Manager), Parkinson, Honner and Fleming and the cafeteria staff who had sacrificed part of their holiday period to enable the Company to entertain us. The vote of thanks was ably seconded by 2RA and was carried by acclamation.

Guests were then invited to partake of an excellent buffet supper, the standard of which was fully in keeping with that of the entertainment and to which all did justice. The meeting concluded at 10.45 p.m.

The thanks of the Division are due to A.W.A. for their whole-hearted co-operation in providing a diversion of such outstanding quality. and, in particular, desires to thank those ladies and gentlemen who curtailed their holidays so that the Company could conduct the function.

GEAR ON VIEW

The second feature of the Hamfest was a gathering of the clan at Federation House at 2 p.m. on Saturday at which over eighty members attended for a demonstration of gear and a general "rag-chew." The meeting was opened by the President and, as the first item on the programme, 2IQ set himself up as a "sitting shot" for unorthodox questions regarding any angle of Amateur practise. Angus took all the honours as nobody succeeded in upsetting his equilibrium. He was followed by Cec Cronin who gave a remarkable demonstration on 576 Mc. and the rig, operated by 2RQ, maintained contact with 2KF who was moving around the city in a car, and with 2ANF who operated in a building in the city. The 576 Mc. gear, transmitter and receiver, was housed in the base of an ordinary telephone and will indicate the facility and ingenuity of Cec when confronted with problems of design and construction.

2ADT then demonstrated a turret switched receiver and gave lengthy descriptions to all interested. The receiver embraced all the most desirable attributes of communication receivers and was a remarkable piece of home-built equipment. Switching is accomplished from 144 Mc. through to 3.5 Mc. and the construction must have provided Jack with some solid headaches. [Methinks this Rx would be the makings of an excellent article for "A.R."—Ed.]

2ARH was next on the rostrum when he displayed and described a Grid Dip Oscillator and Antenna Scope. Ray's ability to hold the interest is well known and his remarks were well received. Final item was the serving of afternoon tea by members of the Divisional Council and their Tea Director, Joyce Jira, 2AMJ. This tea, being arranged by males, showed their lack of training since we had no teaspoons or tea towels, however, four spoons came to light from some angle and eventually all hands were sweetened up. Members then adjourned for a break before the start of the Annual Dinner.

ANNUAL DINNER

Members congregated in the Sky Ballroom of Federation House from 7 p.m. for sherry and savouries and a get-together while the President and members of Council welcomed our official guests who included:—

- Hon. T. L. Anthony, Postmaster General.
- Mr. J. J. Malone, Chairman, Overseas Telecommunication Commission (Australia).
- Professor Bailey, Professor of Experimental Physics, University of Sydney.
- Mr. T. Armstrong, Superintendent (Wireless) P.M.G., N.S.W.
- Mr. T. Court, President, Institute of Radio Engineers.
- Dr. F. Adcock, Inventor of the Adcock Direction-Finding Systems.

At 8 p.m. 150 members and guests took their seats for dinner. First toast of the evening was "The King" and was proposed by the President, Jim Corbin. The toast of "The Wireless Institute of Australia" was proposed by Mr. J. J. Malone, for many years Chief Radio Inspector and possessing a full and complete knowledge of Amateur Radio. Mr. Malone prefaced his speech by congratulating the Institute on its fortieth anniversary and reminding members that it was a matter for pride that they belonged to the oldest radio organisation in the world. He dealt with the pioneering of short waves by Amateurs in the early days of the science, the national value of the Radio Amateur to the Armed Forces in time of war, their support of the R.A.A.F. Wireless Reserve and their unstinted services to the community during any emergency. Mr. Malone concluded his speech with some humourous references to his dealings with Amateur Radio; one worth recounting was anent the XYL who wrote to him asking that the OM's license be revoked because he was neglecting his home obligations.

Jim Corbin, President, replied to Mr. Malone and said that Amateurs were still pioneering new bands and that the old enthusiasm was still prevalent. Already the Tasman had been bridged on 144 Mc. and Amateurs were constantly endeavouring to reach out further. He reiterated the constant desire of the Radio Amateur to contribute to the well-being of the community and mentioned that it was during the first forty-eight hours of any emergency that the assistance of the Amateur was most

necessary. In conclusion, Jim assured Mr. Malone that when a national call was made, the Radio Amateur would not be found wanting.

The toast of the "Postmaster General's Department" was ably rendered by 2JU, Divisional Councillor and Federal Councillor for this Division, who referred to the honour conferred on the Division by the presence of the Hon. T. L. Anthony, Postmaster General, at our Annual Dinner and ventured the hope that, now he had met us, he would be with us again in the future. John mentioned the cordial relations which had at all times been characteristic in the dealings of the Department with the Institute and recorded the appreciation of the Institute for the able and sympathetic attitude of officers of the Department when confronted with problems affecting the welfare of Amateur Radio.

In reply, the Hon. T. L. Anthony disconcerted members by stating that he was no stranger to radio. He was an operator in the 1914-18 war and mentioned events which transpired when on field operations in the desert with camel transportation. Claiming to know little of current practise, Mr. Anthony had little trouble in gaining the sympathy of the old-timers when he described the vicissitudes of tuning the old rotary spark gaps and the vicious "bites" they were liable to hand out. He referred to the pleasure he experienced that evening in making a personal contact with Radio Amateurs and remarked that he was pleased to see quite a large number of "mature" Amateurs in the gathering. He appealed to all members of the Institute to encourage young men to join our ranks and to adopt radio and television as a career as well as a technical hobby. Television had many applications in the defence field and it was the desire of the authorities that Australia should not be wanting in technicians in this new field of activitiy. At all times his Department would stand by with assistance and guidance and the Institute could rest assured of sympathetic consideration of any matter submitted.

Mr. Anthony conveyed the thanks of the Government and the Department to the Institute and its members for their outstandingly unselfish work during the Kempsey floods and other emergency operations.

As a diversion between speeches, members were entertained by Will Andrade, the well-known magician, and his equally well-known (though in other channels) assistant, 2OF. Jack submitted willingly to all illusions including that of losing his right hand, but was somewhat upset when, in the course of a trick wherein a paper cover was placed around his tie, the magician lost some of his instructions regarding the operation of the trick and, instead of cutting through the paper, leaving the tie intact, he scissored his way through the tie and left Jack only sufficient "tail" to make up a neat little bow-tie. Understood that Jack is now considering a "Budgie" hair-cut to go with the new bow-tie.

The function concluded shortly after 10 p.m. when a general "ear-bash" automatically came into operation. It was generally agreed that the dinner was a huge success and it would appear that a larger venue may be required next year.

FIELD DAY

The final effort, winding up the Hamfest, was the Field Day at Lane Cove National Park where about one hundred members and their families attended for an alfresco picnic outing while 2WI went "portable" in the National Field Day Contest. It was the intention of Council that the usual Sunday morning broadcast be made from the park, but technical faults developed in the rig and were not ironed out until 11.30 a.m. so the idea was discarded. In the Field Day operation 2WI succeeded in working all States and New Zealand. Quite a number of the gang arrived at the picnic ground with transmitters and, after getting the hang of things, left for pastures new where they had a reasonable chance of operating without interference from adjacent stations. Judging from the number of stations operating portable, it would seem that the National Field Day is regaining its popularity in this State and it is hoped that next year will see a still greater list of entries.

As a social gathering the Field Day was a success and rumour has it that our worthy President is already planning for a bigger and better show next year—with sports for the ladies and children. Towards sunset parties drifted away and when the writer left, the sole survivor was 2XU who was only then packing up his transmitter.

The Council desires to place on record its appreciation of the efforts of all members who co-operated so completely by their attendance at all functions and assured the success of the Hamfest.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: W. R. ORONOW (VK8WG); Federal Secretary: G. M. HULL (VK3ZS); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: J. Corbin, VK2YC.
Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
Divisional Sub-Editor: A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt, N.S.W.
Zone Correspondents: North Coast and Tablelands: J. M. Retallick, VK2XO, Raleigh; **Newcastle:** H. Whyte, VK2AHA, Vale St., Birmingham Gardens, Newcastle; **Coalfields & Lakes:** H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; **Western:** W. H. Stitt, VK2WH, Cumbijowa, Forbes; **South Coast and Southern:** R. H. Raynor, VK2DO, 42 Pettit St., Yass; **Western Suburbs:** A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt; **Eastern Suburbs:** D. B. Knock, VK2NO, 43 Yanko Ave., Waverley; **North Sydney:** L. D. Cuffe, VK2AM 779 Military Rd., Mosman; **St. George:** J. A. Ackermsg, VK2ALG, 32 Park Rd., Carlton; **South Sydney:** V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President: G. S. C. Semmens, VK3GS.
Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).
Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.
Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; **South Western:** K. O'Rorke, VK3AKR, Killigrew, Westmere; **North Eastern:** T. K. Tennant, 18 Harold St., Shepparton; **Far North Western:** M. Folie, VK3GZ, 101 Lemon Ave., Mildura; **Eastern:** H. O. Kellas, VK3AHK, Tinambra; **North Western:** C. Case, VK3ACE, Cummign Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 60 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0830 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.
Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.
Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.
Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK5PS, 483 Esplanade, Henley Beach.

WESTERN AUSTRALIA

President: R. W. S. Hugo, VK6KW.
Secretary: W. E. Coxon, VK6AG, 7 Howard St., Perth.
Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.
Meeting Night: Third Tuesday of each month.
Divisional Sub-Editor: Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President: J. Brown, VK7BJ.
Secretary: R. D. O'May, VK7OM, Box 371B, G.P.O., Hobart.
Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.
North Zone Correspondent: R. H. Kilby, VK7RK, 5 Galvin St., Launceston.

FEDERAL

21st ANNUAL FEDERAL CONVENTION

As members are no doubt aware, the 21st Annual Federal Convention is held this month in the Headquarters Division's Rooms in Queen Street, Melbourne, and, with a fairly large and comprehensive agenda to contend with, it is hoped that the discussions and determinations arising from the Convention will materially assist each and every member of the Institute to gain more pleasure from his hobby.

Your delegate will come to the Convention previously armed with the opinions of your Division's Council and his ability to convey those opinions and discuss them rationally is the reason he has been appointed to represent your State.

The determination arising from the Federal Convention can have far-reaching effects on each and every member regarding the operation of his station. It is therefore of paramount importance that you take an interest in the proceedings of the Convention, the minutes of which (and the subsequent action taken on them by Federal Executive) are published in the magazine during the year following the Convention; it is not sufficient that your delegate should travel many miles and sacrifice his Easter holidays to fight for your rights without your interest and support.

Any member is cordially invited to attend the Convention and it is hoped that some of you will turn up to listen to the proceedings with a view to not only having a clearer conception of how you obtain some of the privileges you have, but also in order that you can more fully appreciate the workings of the Institute as a whole.

It goes without saying, of course, that you are not expected to travel hundreds of miles just to attend the Federal Convention, but oft times members from other States are in Melbourne at the time of the Convention and it is some of these members we hope to see this year. There is no excuse for some Victorian members not to attend!

But if it is impossible for you to attend you can still assist the Institute and your fellow Amateur by interesting yourself in the proceedings of the Convention when they are published; discuss them intelligently with your Amateur friends, and if you consider that the determinations of your Council could have been improved on, make a note with a view to bringing the matter up for the following Convention the next year, or write to your Divisional Councillor and give him your comments, then if he considers that your comments are constructive he can submit them to your Council for action. Any new ideas, or constructive criticisms, can likewise be brought to the notice of your Divisional Councillor at any time during the year—that is what he is there for.

It appears that many members think that their own State Convention is the only means by which agenda items can be forwarded for action by the Federal Convention. This is wrong! You can make suggestions through your Divisional Councillor at any time during the year. You can air your complaints at any time through the same channel. If in the opinion of your Councillor your suggestion, complaint, or criticism is considered to be a Federal matter, he can forward same to Federal Executive for action. It is only with the smooth working of this system that you can obtain everything the Institute and your grand hobby can give you.

Federal Executive wish to thank all active officers and members of all Divisions for their support and co-operation over the past year, and trust that the interest of all members for the ensuing year will be such that the expenditure of Institute funds to hold he 1951 Convenion will not have been in vain.

SILENT KEY

VK5XO

It is with deep regret that we record the passing of Charlie Parlett, VK5XO, on the evening of 26th January, 1951.

W.I.A. ACTIVITIES CALENDAR

March 3-4: B.E.R.U. Contest—C.W.
Mar. 9-11: 17th A.R.R.L. Contest—C.W.
Mar. 16-18: 17th A.R.R.L. Contest—Phone.

1951 Federal Convention Time Table

Friday, 23rd March—2.30 to 6 p.m. and 7.30 to 10.30 p.m.
Saturday, 24th March—9 a.m. to 5 p.m.
Sunday, 25th March—2 to 5 p.m. and 6.30 to 10.30 p.m. (The evening session will be subject to general business requirements.)
Monday, 26th March—9 a.m. to 1 p.m.

SUCCESSFUL A.O.C.P. CANDIDATES

The following is a list of candidates who were successful at the examination for the Amateur Operator's Certificate of Proficiency held on Tuesday, 9th January, 1951:—

New South Wales

Ash, B., P.O. Box 61, Nyngan.
Clark, A. E., 280 Great North Road, Abbotsford.
Howie, J. A., 21 Gould Street, North Bondi.
Morgan, A. R., 128 Victoria Street, Ashfield.
Smith, A. J., 19 Blenheim Street, Enfield.
Watkins, N. R., c/o. P.O. Nevertire.

Victoria

Burrows, C. C., Deschamp Avenue, Lilydale.
Chapman, G. N., 147 Helen Street, Morwell.
Della-Pietra, J., 12 Rose Street, Bentleigh.

Queensland

Hope, J. T., Royal Pde., St. John's Wood, Ashgrove.
Langsdorf, K. J. H., Box 7 P.O., Nobby.
Lewis, J. R., Orchid St., Enossere, Brisbane.

South Australia

Lally, T. J., P.O. Box 99, Clare.
Padman, R. E., 4 Bernard St., Lower Mitcham.
Vivian, H. E., 68 Livingstone Avenue, Prospect.
Westley, J. F. B., 22 Glenunga Ave., Glenunga.
Whybin, R. K., Naval Department, Darwin, N.T.

Western Australia

Field, B. R. E., 11 Alexandra St., South Perth.
Turner, F. H., 74 Chelmsford Road, Mt. Lawley.

Tasmania

Armstrong, C. H. A., South Arm, Tasmania.

ADDITIONS, ALTERATIONS AND DELETIONS TO AMATEUR CALL SIGNS

December, 1950, and January, 1951

VKs— ADDITIONS

New South Wales

2FD—B. W. Thomas, 2 Havilah Av., Wahroonga.
2IS—I. A. Shearman, 182 Douglas St., Stockton.

(Continued on Page 15, Column 2)

"SIMPLICITY IN FOUR"

(Continued from Page 7)

It will be noticed that one position of the frequency switch is marked v.f.o. This position permits the transmitter to be v.f.o. operated on 40 with the 807 as a straight amplifier with a 40 metre Command transmitter as v.f.o.

The input circuit for the v.f.o. connection is not tuned and the resistor in the "high" side of the secondary is used to stop a case of instability in the 807 when the v.f.o. connections were switched in.

In one of these transmitters a second switch was used at the input to the first switch bank so that the v.f.o. drove the quadrupler as a doubler on 20 and a quadrupler on 10 metres.

Of course, an 80 metre v.f.o. can be connected in place of the crystal or a switch used to change from one to the other. Do not tune the secondary of the v.f.o. input transformer to avoid oscillation in the first 6V6.

POWER SUPPLY

The power supply shown is constructed from receiver type components which are not in short supply. If a higher voltage supply is available, up to say 500 volts, then greater power can be obtained, but it is advisable not to increase the crystal and quadrupler voltage above 350.

If modulation is desired, the secondary of the modulation transformer can be connected as shown. Do not connect it in the common B plus lead, and use a separate power supply for the modulator.

Using a simple aerial and the 350 volt power supply one of these transmitters has worked all States on 40 metre phone with ease.

COIL DATA

L1—45 turns of No. 26 B. & S. enamelled wire close wound on 1" former and mounted inside aluminium coil can 3" high by 1⅜" diameter.

L2—13 turns of No. 16 B. & S. enamelled wire 1" diameter and spaced to occupy 2" in length. Self supporting, see text.

L3—3.5 Mc.: 26 turns of No. 20 B. & S. enamelled wire wound on 1½" six pin former to occupy 2" of winding space.

7 Mc.: 14 turns of No. 20 B. & S. enamelled wire wound on 1½" six pin coil former, spaced to occupy 2".

14 Mc.: 9 turns of No. 16 B. & S. enamelled wire, wound on 1½" six pin coil former, spaced to occupy 1¾".

28 Mc.: 4½ turns of No. 16 B. & S. enamelled wire, wound on 1½" coil former, spaced to occupy 1½". Coupling link to be determined by trial. See text.

L4—Primary: 6 turns of No. 20 B. & S. enamelled wire, close wound at earthed end of secondary winding. Secondary: 30 turns of No. 26 B. & S. enamelled wire, close wound, coil former 1" diameter. L4 is placed inside an aluminium coil can, 3" high by 1⅜" diameter.

FEDERAL

(Continued from Page 14)

2MR—J. E. Stewart, Villa Rd., Waratah, Newcastle.
2PG—J. H. Gore, 12 Pearl St., Newtown.
2PJ—W. D. Taylor, 14 Forfar St., Stockdale.
2AAS—W. J. Storer, 17 Harrington St., Marrickville.
2ABR—A. W. Rushby, 50 Salisbury Rd., Guilford
2ACV—A. G. Mulcahy, 39 Ballast Point Rd., Birchgrove.
2ACZ—H. C. Edwards, "Sandyways," Myola Rd., Newport Beach.
2AHH—N. A. Hanson, Ryan Av., W. Kempsey.
2AKZ—C. D. Bennett, 28 Worrigee St., Nowra.
2APA—A. F. Ashby, 133 Croydon St., Lakemba.
2APH—E. A. Hayward, 33 Victoria St., Epping.
2AQF—J. H. L. Field, Fallonville, Denilliquin.
2AQL—N. J. Lipscombe, 10 Tingha St., Chatswood.
2ATA—P. A. Tavares, 14 Glebe St., Edgecliff.
2AXS—R. R. Smith, Cr. Gipp & Cobra Sts., Dubbo.
2AXY—R. J. Aspery, 126 Charles St., Ryde.

Victoria

3YQ—K. V. Roget, 43 Willow Gr., North Kew.
3AFH—H. F. Huon, 55A Maitland St., Glen Iris.
3AFP—J. H. Power, "The Shack," Seventh St., Merbein.
3AGW—A. G. Wilkey, 97 Wattletree Rd, Malvern
3AIM—R. I. McNabb, Newstead.
3ARI—R. H. Gordon, A22121 T/Sig. A. and G.R.S. R.A.A.F., Ballarat.
3AVC—J. E. Keating, 4 Grace St., Moonee Ponds
3AXC—R. I. Caporn, 12 Roosevelt Crt., East Brighton.

Queensland

4ET—A. E. Tonge, Cr. Lambert Rd. & Central Av., Indooripilly.
4NG—R. H. Greenwood, 12 Bishop St., Rockhampton.
4HW—H. J. Weatherley, East St., Clifton.
4XG—F. W. Lewis, Viminal Hill Cres., Seven Hills.

South Australia

5BW—B. C. W. Smith, 22 Jervois St., Torrensville.
5ED—E. D. L. Treharne, 4 Shannon St., Blair Athol.
5KF—M. R. Dow, 80 Alexandra St., Prospect.
5LZ—J. B. Ncale, 9 Deacon Av., Marleston.
5MZ—F. E. Bentley, 20 Neil Rd., Cowandilla, Adelaide.

Western Australia

6RD—H. R. Dowsett, 42 South St., Albany.
6XE—F. H. Doherty, "Annfield," Keymer St., Belmont.

Territories

1DC—D. J. Cheffins, Heard Island.
1JK—K. T. Johnson, Heard Island.
1NL—N. T. Lied, Heard Island.
1WO—W. H. Oldham, Heard Island.

South Australia

5WD—Cancelled.

Western Australia

6WJ—Cancelled, now operating under VK3AGW.

Tasmania

7NL—Cancelled, now operating under VK2AQL.

Territories

1PG—Cancelled.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Henri, F8RJ, mentions via VK3YL, that he has sent QSLs to over 50 VK2 stations but up to date has not received one card in reply. Stations owing Henri a card are requested to expedite same. Thanks for the greetings Austine. These are heartily reciprocated.

Heard on 14 Mc. c.w. between 1400-1500 GMT 22nd Jan., LX1JW, IS1CNQ, 4X4CJ, MP4BAF, SV0AG, YA2BF. Last named after one QSO with 4X4CJ closed down. Scores of other Europeans were audible at good strengths at same time.

4X4RE, Box 4099, Telaviv, Israel. PK5AA, Radio Station, Balikpapan, Borneo, Indonesia.

Heard Island replacements who left by the "Labuan" recently are: VK1NL, Nils Leid; VK1KJ, Kevin Jamieson; and VK1DC, Dave Cheels. All of these Hams have had extensive tuition at the hands of Leon Paul, VK3XO, and will not answer stations on their own frequency. They propose to use QLM, QHM, etc., extensively in an endeavour to impart long needed discipline to the selfish and ruthless stations. Stations bursting in or calling before a contact is completed will be blacklisted and not answered on that or any succeeding day. Cards for the above stations may be sent to Leon, at 340 Rathmines St., Fairfield, Vic., or to this Bureau. Complete logs will be preserved and all QSLs answered on return to Australia in 1952.

While on the subject of QSLs from Antarctica, if VK1VU has lost his logs or does not intend to QSL, it would be of great advantage if a public statement to this effect was made as overseas and local stations continue to send repeat cards to this Bureau. Letters from this Bureau to the published address in VK of VK1VU have not merited the courtesy of a reply nor have the letters been returned. This seems to indicate that they are being delivered. Some announcement as outlined above would save a lot of your QSL Managers' time and allay a great deal of heartburning amongst overseas stations who continue to clamor for a QSL. The good name of VK Hams is suffering considerably.

The Radio Club of Chile again brings under notice its W.A.C.E. Award. The award is made to any foreign Amateur who has worked one

station in each of the seven radio districts of Chile. Phone or c.w. contacts made on any Amateur band after 19th November, 1945, will count. The seven cards should be sent to the Radio Club de Chile, Box 761, Santiago, and will be returned by registered mail together with the certificate. No return postage need be enclosed.

It is stated that DL4FS will shortly be heard from Andorra (PX) and will be legit.

Don Dickinson, JA2DD, writes: "As I am going off the air this week after two years in Japan, I would like to have you pass on to the VK fellows my appreciation for all the pleasant contacts they have given me. Practically no day has passed without a contact (52 stations worked). I have gone through my card file and made up these duplicates in hopes that I can receive confirmation from the stations."

No response was received to the par seeking the VK QTH of ex-VR3A, Ron Garrett, who it is rumored is now in VK. Can anyone supply?

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NEW SOUTH WALES

The usual monthly meeting of the Division was held at Science House on Friday, 22nd December, 1950, being opened at 7.45 p.m. The month's accumulation of correspondence received the usual attention and a number of new members admitted to the membership. Visitors present were given a hearty welcome to the meeting by the President, Mr. J. Corbin, 2YC. A discussion on the various agenda items for the 1951 Federal Convention was then proceeded with and finalised to allow the showing of a number of amusing films.

The sympathy of the Division was extended to relatives and friends of the late Bill Cottrell, ex-VK2ZN. Bill was extremely well known, being one of the real pioneers in the art. He will be greatly missed by the members and all who knew him.

WESTERN SUBURBS

2OQ is still going strong on 20; has pruned his driven beam to the last degree and is working stuff the local DX men can't raise. 2AVT, nothing heard of Vince lately; how is the ASV on 144 Mc.? 2AMJ has been on 144, 40 and 20, but not on 10 metres as yet; has been working to improve the 20 metre beam of late. 2XH trying c.w. lately with excellent results. 2ADL must be stacking up the napkins instead of DX, nothing heard since the arrival of a new junior op. 2MJ and 2AJE were heard in cahoots regarding the virtues of Port Hacking recently. 2MJ and 2AJE just can't forget "Bucking Billy," the old steam train out that way. Who could? 2ATL working a few good ones on 20 metre phone. 2WB is heard infrequently but Arch uses his beam to good effects.

EASTERN SUBURBS

A highlight of the doings around this region has been the receipt of the promised 2AYE QSL card, in which design Dave has done a good job. The theme is fully Australian with aboriginal smoke signals drifting in the balmy air with the letters "CQ" in formation. Wonder if they sign "three by three" Dave? 2CE recently visited Woy Woy to show off a very compact 144 Mc. rig installed in the car. In a demonstration to interested parties, he called CQ and immediately found a taker—just across the road! 2CF has now completed the conversion of an ASV unit for use on 144 Mc.; has also acquired a new commercial Rx. 2AHQ doesn't seem to be heard at all these days, but I hear that Ted has been in poor health for some time. The gang in the area send wishes for a speedy recovery OM. 2BC heard pounding the brass with a consistent 599 signal. 2ASE seems to be always up to his eyes in some job or other and this time it has been the programme for this year's North Coast Zone Convention scheduled again for Urunga, f.b. job OM.

2AFZ has hopes of starting a 144 Mc. net in the Bondi-Waverley area (shades of pre-war 5 metres!). Stations known to be interested in 144 Mc. are VKs 2AX, 2AYE, 2TN, and 2FJ. There are doubtless others who would like to be in, but who need time to get gear built. The thought prompts this scribe to remark that it might be a good idea to foster v.h.f. nets as suggested in the editorial in "QST" for December. 2AIG just completed a new modulator and after 15 years or so on the key, has turned to phone operation for a holiday and relaxation; the quality is very good Ray. 2ZQ virtually rocked the gang by appearing on 40 metre phone, ostensibly to hold converse with cobbers in VK3. Back on 20 metre phone with good quality and sometimes a few unwanted little parasites to the low freq. side is 2HP. Puts in a lot of time checking with 2AZH. This area has a Amateur of note who has not been heard from as yet, but surely not thus for long? He is Dave Medley, now VK2AWM, Bondi, and latterly 5AE (Darwin) and 3MJ (Melbourne). For the benefit of those who don't know their v.h.f. history it was 3MJ who made the first Interstate QSO on 6 metres with 2NO four years ago.

Visited 2YC, W.I.A. N.S.W. President, and found Jim literally surrounded by a mass of incoming QSL cards replete with pretty pictures; somewhat like the DE cards we used to receive prior to the end of 1939—a kind of lifting of the curtain? The other evening a protracted discussion developed on 40 metre phone in which your reporter found himself in the midst willynilly. It was all over a simple question, but albeit one that nobody could give an immediate answer to at the moment. The question was, just which comprised the correct connections for the EF54 valve, otherwise the RL7—a somewhat better performer than the EF50, if that be possible. (See "A.R.," Nov., 1946, p.8—Ed.). Seems that somebody had been using a 6 metre converter employing an EF54 with anode and screen connections reversed, and getting results.

That ultimatum in the last issue of zone notes still stands—if you lads won't pass on the "gen" about things then the time will come when the lone pen must lapse. Latest activity at 2NO is the testing of a new experimental Amateur band Rx which is proving to be something outstanding. With two stages of 110 Kc. i.f. in the final channel the bandpass for phone is just about right, with selectivity such that the dial shows gaps between signals that overlap considerably in the usual channel 455 Kc. i.f. Rx. The crystal controlled converter input provides a revelation in stability and makes life a real joy for the c.w. DX addict. The tuner is a converted Command type Rx with adapted dial giving comfortably wide bandspread but with speedy coverage. Final set-up will cover all the Amateur DX bands.

NORTH COAST AND TABLELANDS

All roads lead to the Urunga Convention at Easter, March 24, 25 and 26. The Convention promises to be the best yet held in Australia. If you have not as yet received a programme and hetrodyne and would like one, contact 2XO. Cine-Sound cameramen will be here to make a news reel. If you have portable gear bring it along and make the newsreel a success. An additional trophy in the form of a cup has been donated by United Radio Distributors, for the Urunga Scramble Contest.

Wet weather stopped most of the coastal gang taking part in the National Field Day Contest, the only one active in the rain was 2RK. 2AJB now at Kyogle is active again and with 2ASO and his new v.f.o. The Richmond River gang have been quiet, no news from there although the town was in flood. 2LH has erected a 6 and 10 metre beam. 2NY reports conditions poor on all bands. 2GI heard testing his emergency gear on 40 and 80. 2ADN completed his new rig and using an AT5 as a v.f.o. 2CJ completed his new house and back on the air. Coff's Harbour gang not active, send me some news Jim. The Bellingen River gang were standing by during the flood rains and a No. 11 set and antenna were installed at the Bellingen Police Station in case of emergency.

The R.I. for the North Coast and Tablelands District, Mr. R. Brislan, advises that all Amateurs requiring special permission to operate portables, etc., within this zone should apply through the Armidale Wireless Branch.

2ARY has not been enjoying the best of health of late and is again in Yaralla. Associate member Percy Sara (father of the Quads) is watching the mail each day for the results of the last A.O.C.P. exam.; Percy hopes to have a call sign before the Urunga Convention —the best of luck Perc. 2XO had a number of visitors over Xmas including 2AEY, 2APS, 2JC, 2ADN, 2DG, 2AGD, 2BU, 5QI and the Bellingen gang and a good time was had by all. 2AFS and 2JC were active with portable gear at Urunga. 2DK also had visitors 2MM and 2CU —tests were carried out with a 9 watter between Coonamble and Narribri. 2CU had his truck stolen, it was later found stripped over a cliff in the Mountains. 2PA and 2ASF visited the big smoke over Xmas. 2JC has bought a week-ender at Urunga and has donated £1/1/- for the best name submitted for the shack at the Convention. All the best gang, CU at Urunga.

HUNTER BRANCH

The January meeting as usual was well attended, 32 members being present Visitors included 2AYE from Sydney who brought up the Urunga Convention Trophies for the Hunter boys to see, BERS195, Eric Trebilcock, of Civil Aviation Melbourne was also present. 2JZ was also down, try and do it again soon Alec. A very practical lecture was given by Frank Cross (2FX) on "Signal Tracing." Frank demonstrated his tracer and showed how intermittent faults could be definitely tracked down, a thing that most radio chaps overlook. The meeting wound up with the usual ragchew. It is anticipated that the February meeting will also be of interest especially for the 144 gang, as 2ADT and 2BZ are lined up to give an account of their 144 Mc. experiences.

President 2CS officially represented the Hunter Branch at the Divisional Hamfest held over Australia Day week-end. It was a pity Lionel didn't have the opportunity of addressing the gathering at the Dinner. Lionel went down with 2XT and had a good time. On the way back they operated portable from near the Boys' Home, Gosford, with Bill's Type A.

A crew from the Hunter Branch journeyed up to Mt. Sugarloaf for operation in the National Field Day. From what we know we should be up in the scoring. Party included 2AHA, 2AGD, 2ANA, 2IS, 2AXM, and 2PT. The latter made a hurried trip up with his XYL for a couple of hours. The gear consisted of v.f.o. and xtal, 807 final on 40, 20 and 6. Antenna 275 foot long wire and three element beam on 6. Unfortunately the 6 metre gear couldn't be used even after erecting the beaut. beam. Batteries gave out as it was, so they decided to concentrate on 20 and 40 which paid dividends. DX included VS7, KG6, W, ZL and VK districts on 20 and W, VE, ZL and VK on 40, one 589 report was received from a W on 40. A new motor cycle was found abandoned in the bush nearby and the word was passed back to the Police about it. If the XYLs could have seen the "Dagwood" sandwiches that were served up, they would have fainted—you wanted a big mouth or you didn't eat. All in all, a great time was had by those present.

2DZ, 2BZ, 2ADT and associate M. Nicholls were others that journeyed down to Sydney for the Hamfest—they spent a very pleasant week-end. 2BZ took his holidays at the end of January and has been quiet except for a few QSOs on 6 and 2. 2AFS visited Ballarat so we haven't had much news of him. 2FP hasn't done much to his new rig for weeks. A new arrival to the Ham ranks here is Bill Taylor (2PJ), of Stockton, using v.f.o., 807 final; congrats Bill, we hear plenty calling you on 40. Our Branch Secretary has been away up the North Coast on holidays in his car and had a great time. 2ZC didn't like work after his holidays; his portable was of great use, as when the rains came, Jim was able to do some operating. 2IS had a great time at Sugarloaf. Warning! Never ask him to cut a sapling, he will bring back a telegraph pole. His new modulator is doing well on 144, the 40 final is finished too. 2AMM on 144 with p.p. 7193s and a dipole, the c.r.o. is operating too. There is quite a net up here on 144 including 2MC with a 3 over 3, 2PT, 2CW, 2AGY, 2CN, 2BZ, 2ADT, 2UF, 2ADS and 2XY. 2XY has his new modulator on 144, active again on 20 c.w. as well as 40. 2AAI got a big thrill on 20 recently, he worked his first W—Ron could hardly talk. 2ARK will be on 144 soon, has the Rx going.

2AGY thinks the power restrictions may be the reason for the drop in his local noise level. If you want to know the condition of the northern roads ask 2CI, he will give you a hole to hole description. 2WP putting out a nice signal from Marks Point. 2KG has his gear well underway and hopes to be on soon, I think the junior op. may be hurrying Dad along. 2FX still busy at home.

During the recent floods in the Hunter Valley, the emergency network maintained frequent schedules. Stations participating included control station 2XQ, and 2TY, 2DG, 2VU, 2ANU, 2AKP, 2AHA. State Co-ordinator, 2HZ, also kept an eye on things. Although the net was not required officially, they stood by just in case. 2TY was a very tired man after the crisis was over, he was on duty at b.c. station for the whole period without sleep. It was good to see 2DG actively engaged in the net. Many thanks to 2ASJ for some notes; congrats Ron on that certificate from the Commissioner of Police for the work in the 1950 floods.

Recent visitors to 2ASJ were 4LS, his XYL and family, 4MR now 2MR, and 2RM from Duntroon. 2AXM getting good results from his RA10 Rx, phone quality good too. The old reliable 2ANA assisted greatly in the collecting of batteries and other gear for the Branch's National Field Day effort. Thanks a lot Norm and 2AGD. Would like some news from 2LV, 2WU, 2TE and 2PQ. 2AAM has only been heard on 40 for brief periods. 2AHA enjoyed the effort at Mt. Sugarloaf in the Contest. We know now exactly what is required for this portable business, we learnt a lot from the trip—so watch out for the Hunter gang in the next N.F.D.

COALFIELDS AND LAKES

No notes this month and thereby hangs a tale. Z.O. Harry Hawkins (2YL) duly wrote them and handed them on to be posted, but they didn't reach a box. It is generally the husband that carries the letters around, but not in this case! Enough said.

WESTERN ZONE

Trying to write notes about chaps who won't tell is like trying to get bias from a flat battery —you can't do it. Just once a month, one little item of news from each station in the zone and we would have a nice fat batch of notes. Over the air or through the post tell us what goes on and we'll be eternally grateful. Summertime conditions and the opening of the 50 Mc. band has stimulated activity out west and the following stations are active: 2AMR, Dubbo; 2AMV and 2WH, Forbes; 2JW and 2ALX, Orange; 2LZ and 2LY in the Blue Mountains. 2JW and 2ALX took portable 50 Mc. gear some of the way up 4,600 ft. Mt. Canobolas, and had no trouble in working Dubbo and Forbes. Heard 2ARG at Palm Beach at good strength, but no QSO. 2AMR and 2AMV have worked the North Coast under short skip conditions contacting 2ADE and 2UC. 2AMV and 2WH have got as far south as 2PN at Tumut

For the N.F.D., 2AMV and 2WH again journeyed to Mt. Panorama near Bathurst. Much able assistance there from locals 2NS and 2AGN, whose hospitality equals their excellence as ops; many thanks Trev and Grahame. Failure of a petrol driven 240v. alternator left us very short of h.t. supply and operation was restricted to short periods between battery charges. However, four of the six continents were worked on 14 Mc., and Sydney 50 Mc. stations worked at S8/9. Much fun and no sleep was had by all!

2ACU heard regularly on 7 Mc. phone. Rod has a new receiver that really is a receiver, but don't expect dbs over S9! Nice to hear accurate strength reporting, Rod. Nothing heard from 2QA for a long time; hope you still have your head above the Bogan, Jack. For complete silence the Parkes group of Hams win the cake. With four of them in the town and only 20 miles away, one would expect to hear something if only in the lost, stolen or strayed column. 2EI was the last one heard, using a new 90w. modulator too. The rumour that 2BT was drowned in the October flood is completely false. The truth is he has moved twenty miles up-stream to Eugowre.

From Dubbo the only stations I know to be active are 2XP on 7 Mc. and 2AMR on 7 and 50 Mc. Lot of watts been burned up trying to span the 100 miles Dubbo to Forbes on six, but no luck to date. Hotbed of v.h.f. is Wentworth Falls; dropped in to say hello to 2LZ, 2AFO and 2FI. No, there isn't a Ham antenna on those 200 ft. masts. In the Blue Mounts, 2EX is toying with the idea of settling on 10, works shifts so daylight radio work would suit. 2LY is migrating to VK3 and busy packing at the moment—we are sorry to loose you Stan. but wish you all the best in the new venture. 2HZ still no closer to finishing the shack, plenty of timber about—Stringy's 80 foot high—but no one will sell him any cut up. 2EF not active. 2OF seems to have a receiver going again, but is likely to take up work as a confedian. At the W.I.A. Convention he assisted the magician and we still don't know who put on the best turn!

SOUTH COAST AND SOUTHERN

What with between blackouts and test matches little time has been available to gather in notes. However, this month they mainly come from two sources, Geoff Page, of Tumut, and Reg George, of Cootamundra. First of all let me put your mind at rest Geoff, the report on your signals last month was meant to be a figure of speech, and not a technical report 2BQ is running 30 watts to an 807 but has plans to re-build shortly using band switching and 834s. A new station heard this month is 2AKY or is perhaps an old station I haven't heard before. Toby is located at Holbrook and is using an AT5 to good advantage. 2AID is active but fades out in darkness hours here.

2APP active on 40; Peter recently endowed with the name "Pedro the Pete," bestowed upon him by no other than 2GS! A new QRO rig is under way and nattering about the tuning of the beam is the order of the day when QSO 2BT. 2JQ active again after his change of QTH, Monty now at Junee running 37 watts to the old faithful 807. 2ALN on for a few minutes now and again working the 40 gang. 2AEL has a solid signal and is over his splatter problem. My "Listening Post" reports an excellent signal. 2PI and YF Heather had an f.b. QSO with 2AEL. The signal was a little hard Les, what about some oil in the carbon mike? Nice going with 23 countries on QRP Les. 2ON heard QSO 2WI during the N.F.D. How is the recording business Lindsay? 2DY on 7 Mc., believe 20 not so good; what about a new Rx. Eric your review of the A.W.A. t.v. on 40 was of great interest. 2PN has been on holidays, but 6 still Ross' main band; what about some news? 2AMD and 2AOX active down on the Coast both with good signals but they can't write letters with the news somehow.

2OY has both phase and amplitude modulation installed, but only uses one at a time. Reports show preference for plate modulation. Brother you and Sel do bash one another's ears! Where is your friend, 2AJP, these days? Haven't heard 2OJ for ages, believe he used the same antenna as myself for a long time. Don't believe I ever struck a better one, 50 feet aside but b.c.i. seemed to be worse with it, so I had to discard it. What were your impressions Noel? 2AKE can't find time to play Ham Radio, but visits 2NS. I'll bet the DX gets a lacing during the stay. A new station will be on shortly, that is when I get time to build a power supply for the AT5. Forget the call, but c.u.l. 2ALS installing new condensers in his SX28, also a new panel on his AT5. 2DO busy building new power supply for TA12D and hopes to have a yarn with gang soon. Thanks to Reg and Geoff for the notes.

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VICTORIA

EASTERN ZONE

All fairly quiet in the zone this month. 3SS and family on holidays at the Lakes—where do these blokes get the dough to go on holidays? 3BB, plus brand new Holden, also at the same resort; must be money as well as sawdust in sausages, Bert, my boy! Rex and Gwen now residing at Leongatha. Rex doing a spot of servicing as well as playing round on six with 3DI, 3TH, 3QZ and company. 3PR still living on cream cake. 3AEP conspicuous by his absence from the hook-up; where are you Kel? That battle-scarred veteran, 3VG, soldiering on at Seymour. 3ABF building up a 60 watt Tx—poor b.c.l's!

3ABP paid a flying visit to VK1—Macquarie Island—per Lincoln bomber recently; keep it up Bud, you'll make DX C.C. without firing a shot! 3ADA has us in the grip of the t.v. bug with his lectures at the Sub-Branch meetings. The Sale Branch meets on the third Tuesday of each month at the Mechanics.

3WE on the job again when the Omeo Hospital urgently needed oxygen and a bush fire cut the telephone lines between Omeo and Bairnsdale. Unable to raise a VK3, on 7002 Kc., Bill finally contacted a Newcastle VK2 who in turn passed Bill's message to the VK2 Police, requesting the oxygen to be sent from Melbourne by air. In the meantime the band opened up and a VK3 heard Bill and he contacted the authorities in Melbourne who had the juice sent from Bairnsdale by taxi. Nice going, William, we're proud of you!

SOUTH WESTERN ZONE

Very little news of zone members this month for two reasons—your usual scribe, 3AKR, is away in camp cramming his head full of Army radio procedure, and the zone hook-up on 80 metres was a washout as far as this end was concerned. However, Kevin promised you all some more news of the Mt. Buangor trip this month so here goes.

The results will be well known by now, and we congratulate 3RR and 3CR on their success. The excitement when we heard the 2 metre sigs from VK5 will be long remembered. The party consisted of 3RR, 3CR, 3AKR, 3BV, 3ALC, 3AGD, and associate member Tony Wilson. In four vehicles (necessary to carry all the radio gear, camping equipment, provisions and 813s), we approached the mountain on Saturday evening and after exploring all the tracks, eventually arriving just as it got dark.

By 1000 hours next morning all was ready, then the fun started. The alternator would not take the drain of the big rig, then the 300 ohm ribbon started to give trouble on the beam. While taking it down, unfortunately Ken's head got in the way. However, each problem was attacked with feverish activity and after Kevin and Tony had tinkered with the engine of the alternator and made it play ball, we fixed the beam and started again. This time all was well. The 40 metre link consisted of Type 3 Tx, Eddystone "640" Rx, windom ant., and many good contacts were made. We were very pleased to work 3LN portable VK5 at Henley Beach. All present voted the trip well worth while, and decided to try it again sometime. So now that we have the gen, results next time should be really something to write about.

3IC brushing the dust off an AT5. 3AIC working some DX on c.w. and experimenting with break-in. 3AOL bumped power to 50 watts, also hopes to get on 80 with low power soon. 3APL on 40 after long silence, has portable rig working very nicely. 3BU modifying TA12D, striking trouble but has hopes; Bill worked Melbourne on 144 Mc. during the week, with sigs from there coming in like locals. 3ALG has been QRL and had little time for radio the past month. 3VF and 3AKE complaining that 2 metres is dead at the moment, but 3BU heard them on the 26th. Nothing known of 3BW. 3ABE and 3AJT still operating on 20, the latter on 10 for a while recently. 3AGN either busy with bush fire net or re-building.

GEELONG AMATEUR RADIO CLUB

Members of the above Club met once again on 3rd January for their first meeting for 1951; although only a few members were present due to the fact of quite a few being away on holidays, some very important business was discussed. The night was an open night and the gang had a rag chew on their activities. At the next meeting quite a bunch of the chaps turned up including a couple of visitors. The lecturer for the evening was club member, Jack Beckingham, A.M.I.R.E., who lectured on aircraft v.h.f. transmitters including the SCR522 and the TR1143 and gave figures on their performance.

The next club night members organised another transmitter hunt. This is always popular with members so at 8.30 p.m. members set off to see whose loop would direct them to the hidden xmitter first. The xmitter was well hidden in a ditch parallel with the road which made it hard to find. The location was well planned and operated by 3AKE and 3WT who went as far as to put up a decoy antenna. First party to arrive at the location was 3SY, 3ABK, and 3ALG. They, however, were not fooled with the decoy and located the xmitter about 100 yards further on. Second to arrive were 3AJF, 3AOP, Keith Muller and Peter Cartwright quite some time after the winners.

NORTH EASTERN ZONE

3AT has new lazy H antenna for 40-20-10, good results on 20. Peter Williams, of Wangaratta, visited 3KR; Peter has very high hopes that he passed his morse test last exam, and is tied up with the intricacies of building stable v.f.o's. and freq. meter. 3KR now sounds like the B.B.C. with chimes coming in on the hour, depending of course whether the inter-com. is switched on or off. Zone Bendix freq. meter in continual use over Benalla way, so much so that I think the writing must be read off the dial. 3APF is on 2 metres.

3ACK yacht making instead of planes. 3XZ leaving this zone; Bob has been very inactive lately in the radio field. 5SB visited 3UI; both Sid and Alan, at Mt. Cooper, made several contacts on 6 and 2 including 3APF, 3AT and 3ALE. 3ALE now has plate modulation, sounds much better than previous so reports indicate. Les also has new rocks ground for 50 Mc. 3APF on a motor tour down Portland district and visited 3DW at Woodend. 3AJO has a Type A Mark III. in pieces. Jack will have to replace a fractured crystal before we hear him on. 3AT with the help of 3UI has a radio installed in his car. Now that 3AGG has an XYL, I can't even find him, let alone get a word in edgeways. Don't bite now, Marg. 2HZ on annual leave.

3YV is back with us again after a sojourn in hospital; the results not too successful, I'm told. 3KR contacting ex-zone member, 3DW, now at Woodend; best wishes from the zone Doug. 3FD in Melbourne. Andy's modulator is still in the parts tin. 3AGT has 6 metre gear about ready to go; Stan has also been fooling around with 288 Mc. gear. 3TF out with 3UI and 5SD on v.h.f. field day; called in on 3GD on way home. 3PW visited 3YV. 3KR still needing "S" meter in his crystal set. 3ABX now has XYL, how about a QSO with the gang one hook-up Vic? Most shacks were over the 100 degrees mark on hook-up. With all the hot air eminating from same, is it any wonder. Thanks Howard for your solicitations on my behalf, but in all fairness to 3ALE and 3KR I must say that they supplied the bulk of the notes this month.

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QUEENSLAND

Having lost or mislaid the original notes which were prepared for this column this month, I have had to rush around as quickly as 4RT works the DX to try and compile something to fill the space—fortunately the zone managers and Clare have forwarded plenty of news, so it doesn't really matter what goes in here at the beginning of the Queensland notes. There was such a poor attendance and apparently lack of interest in the election of officers that it was impossible to actually elect those who were nominated for the many posts. However, it was noted that few members other than the usual selection were prepared to shoulder the responsibility when put to the test and paid the honour of being nominated for a position.

For those of you who have so far taken this attitude, you are reminded that it is not only selfish, but is entirely unfair that a few should be obliged to carry your burdens year in and year out. If you have had no previous experience in any of the posts, you should jump at the opportunity to further your knowledge. After all we are only Amateurs anyhow. If we all held the same attitude that you do, the W.I.A., as far as Queensland is concerned, would soon cease to exist and before very long you

would be wondering why you had so many restrictions or loss of privileges that most likely you would be the first one to complain about lack of organisation. Therefore with these thoughts in mind, it is hoped that next time you are nominated you will accept without tendering some lame excuse of being too busy or some such thing. Remember that we in office could also find quite a lot to do besides helping you and our organisation.

CLARE'S CORNER

The band is livening up again as the local VK4 boys, who have been on holidays, are gradually appearing on the air again. Among those who have been away enjoying the beautiful Queensland sunshine while it lasted were 4FB, 4PN, and 4RT. 4FE is still on holidays, and is at present visiting VK2 land. Arthur is renewing old friendships he made while working as a VK1 on Heard Island, and might even find time to pay a short visit to VK3 land, if only to have a quick one with 3VD.

Heard 4YA in a three-way with 4VJ and 4RT the other evening with a very f.b. signal. Bill was operating from a temporary QTH using a three-element rotary beam. 4FB called Bill later from Redcliffe using five watts input, with a piece of wire strung out the caravan window but when Bill turned the beam on Redcliffe he lost Fred. Conditions are certainly screwy. Maybe 4KS could solve the mystery. Congratulations to 4FN on the arrival of another daughter. Another c.w. man who bobbed up on phone after eighteen months' absence was 4CF. We will probably hear a lot more from Gil judging from the f.b. phone reports he is getting. 4WD took advantage of the holidays to have a complete re-build (including aerial); Bill is now punching a hole in the ether with his new rig.

4ZB recently transferred to Brisbane from the north and is now operating from Northgate. Harry worked quite a bit of the DX while away, and is likely to work quite a lot down here. 4AH whose QTH is fairly close to Norman Creek, has fears that if this rain keeps up, he may become a fixed portable KH6. Let's hope not.

DARLING DOWNS ZONE

Highlight of zone activity for the month of January has been 50 Mc. stuff. Considering the number of active Hams in this area it must take the belt for percentage of 6 metre enthusiasts. As a matter of fact we go as far as saying that 4XN, 4KK and 4CU take the palm for being Queensland's most enthusiastic 6 metre men—honours even, gents, and this month they have reaped the harvest of VK and ZL openings.

Friends, Romans and countrymen, I humbly withdraw my nasty remarks re 50 Mc. You can definitely hear signals there—tremendous ones. 4TY got into one big opening during the contest. 4CG can now work 4CU (30 miles south) and 4KK (50 miles s.w.) at will. 4XN is a tougher proposition, but QSOs have been had. 4CG also worked 4BT in Brisbane. 4HR has been heard a number of times in Toowoomba. In just over a fortnight on the band, 4CG has worked VK2, 3, 4, 5, and 6, and ZL1 and 2—power 350 volts 100 Ma. to 807 and two element beam 15 feet high. 50 Mc. is so matter-of-fact with 4CU that he gets bored at working them!

On the other bands conditions have been very mediocre. 14 Mc. turns it on late at night, but not often. QRN and solar noise is high most of the time. 28 Mc. has "had it" for a few years it seems—nothing worth staying there for generally. 7 Mc. playing its usual summer tricks with fade-outs, etc. We have had to copy W.I.A. news on 3.5 Mc. on Sunday mornings, where the conditions are more "forty-ish."

4IG heard braving the solar storms on 20 for a few nights; worked his first DX and got that thrill that only first DX can give. No signs of 4SG or 4JC. Maybe it is holiday time in these hills. 4EG threatening to get on 6 for a flutter. 4CG's "beam" got him in? Heard 4CK on in Warwick. Likewise welcome re-appearance of 4CH. 4LS at Goondiwindi in the far southwest putting out nice stuff.

Still a lot—too much—of third party stuff going on, particularly on 40. Downs zone members are urged to read the message from our R.I. in a recent issue and thoroughly digest same. Then rest assured that the Department means business. Stick closely to the regs. and you won't get hit—keep up some of the silly business that goes on, and you'll be hit hard. Merely the "Gypsy's warning" blokes—but it's on. 73 and sleep well.

TOWNSVILLE ZONE

4EJ had a spell in hospital, recently took ill with pleurisy when over holidaying at the island; on c.w. occasionally, but not very active, lately. 4GD not active either, also been holidaying over at the island. 4BX heard with some nice phone, not very active. 4TU has been heard on 40 metre phone keeping skeds with VK3 and nice phone too. 4GF doesn't get much time these days but has also been heard on 40 metre phone and with 15 watts to an 807 sure puts out a nice signal. 4AD a new addition to the staff of the local national station, is busily engaged building a small transmitter, and was heard talking seriously about the merits of a "750" Rx, hi, hi.

4DB, after a lapse of a few months' studying, has got the fever again and has almost completed a "mighty atom" portable Tx with a single 807 in final, band switched for 7, 14 and 28 Mc.—a very compact job which will have a hefty kick; next notes no doubt will have some mention of the DX worked, etc., with this job. 4RW has been busy with alterations to his beam antenna and is still active on 14 Mc. phone, but like all of the rest of the gang, complains bitterly about the punk conditions. Yes it is true 4EL is on phone, has at last seen the light and put in a decent modulator, pair of 6L6s in Class AB1, and believe it or not he is more than satisfied as, after 18 years on c.w. looking for a YN, blow me down if he doesn't work one on phone the first week he was on phone. Still at it on c.w. with G5ZA, now up to 490 contacts!

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division for January was held at the meeting rooms in Waymouth Street where a very representative and very satisfied audience listened with rapt attention to a most interesting talk on "Helical Beams," delivered in fine style by John Bulling (5KX). The talk was a great success and the practical experiments, using a home-made helical beam complete with a fowl house gate as a reflector, fairly laid the boys in the aisles. The many and varied questions asked at the close of the talk were ample proof of the way that the talk went over, and John is to be congratulated on a fine night's entertainment. The vote of thanks was proposed by 5EA to which the audience responded in no mean manner.

There is no doubt of the apathy of the average member when general business comes on at the monthly meetings. "Smoko" follows the lecture, and when the meeting re-assembles, more than two-thirds of the audience have gone. Oh well, 'twas ever thus. In fact if I could sneak out myself without the President seeing me, I think I would give it a go.

Latest advice from England gives John Sheard the call sign G3GYO, although as yet no contacts with VK5 have been reported. A little bird tells me that one or two little bits and pieces have arrived for one or two of the boys from John. Some people have all the luck.

It has been rumoured lately that if prominent citizen 5BY could work as many countries as his reputed golf score now stands at, it would be necessary to change the name of the DX C.C. Rob Gurr (ex-5RG, now 2ARQ) came back to VK5 to get himself engaged; and I believe that 5FX was married last September, best wishes Phil and please excuse the lateness of the news.

The VK5 Advisory Council for 1951 comprises the following gentlemen: J. Sullivan (5JK), D. Whitburn (5BY), C. Tillbrook (5GL), L. Catford (5LC), H. Townsend (5HT) and F. Bourne (5BU). The Chairman will again be Mr. Len Thompson, of the P.M.G's. Department. As the year goes by, some of you will call them another name besides gentlemen perhaps, but don't forget that it is better that they "blister" you than to get one from the R.I.!

Quite a stir in the tea cup in VK5 this month when it was seen that a non-member of the W.I.A. was included in the DX C.C. List, and loud and long were the arguments for and against. My opinion, for what it is worth, is that whilst all Hams are equal in everything radio, it seems a little unfair that non-members should participate in something that is run by the W.I.A., possibly financed by the W.I.A., and certainly considered by most, rightly or wrongly, a distinction to be conferred only upon members of the W.I.A. I could have the wrong idea however, and if so someone will quick and lively tell me, but at least I am not alone in that idea.

Incidentally, I feel that some of my readers may think that expressions of opinion on my part are outside the normal duties of a scribe. By way of explanation I would like to point out that I simply express the majority opinion of VK5 which comes to my ears from devious parts. In other words, I simply act as a walking and talking, I repeat, a talking Gallup Poll. The Greeks had another word for it but we will skip that.

5KU returned from a three weeks' holiday at the seaside and has been heard on 7 and 14 Mc. c.w. 5TW had a quiet month, but Tom has managed to sneak in a few contacts on 28 and 7 Mc. just to keep his ear in. 5CH manages a few contacts on 144, 14 and 7 Mc.; Claude is house building and naturally that is a full time job on its own. 5MS is another who is home building and his activity is nil. 5KB tried very hard to hear and work the Grampians gang on 144 Mc. on the week-end of 13th-14th January. Peter had everything good, a good location, a good aerial, a good receiver, a good transmitter, but unfortunately no good signals; better luck next time. 5CJ has had a few contacts on 7 Mc., but being an operator at the base station of the Emergency Fire Service, it does not leave much time for Amateur Radio. Visitors at the "Mount" over the holiday season included 3ZO and XYL, 2OT, and 9RM. This Mount Gambler must have something to attract all the visitors that seem to gravitate there during the holidays.

Heard today that the Secretary of the VK5 Division, 5XU, has gone back to hospital again, and we are all very sorry to hear it. 5MD will again act as Secretary during "Shylock's" absence.

5GT seems to be one of the few able to hear and work the DX on 14 Mc. these days. He hasn't been on very long but is now up to fifteen countries on phone; nice work Ray. 5KW is another of the River boys to get going on 6 metres. 5MD has become a six metre fan these days and if all is to be believed is having a good time on that band. "Admiral" Kelly (5LW) was well to the fore with his ocean type boat at the Field Day, so I am told, but his naval hat resembled something between a scarecrow and an advertisement for a well known dry cleaning firm. Tut, tut, Admiral, where was your dignity?

5MA was a welcome visitor to the general meeting and met quite a number of chaps who were previously only call signs; very pleased to meet you Fred and by now you have heard from 5LR I hope. Have received a number of grizzles from the boys because they say that I am getting lazy and am only putting the call signs in these notes and leaving out the names. I deny it, I deny it, I cannot tell a lie, with his red pencil the Editor is doing it. Noticed 5BJ limping around the streets of Adelaide the other day. Don't know the cause, but was wondering if he did it the day that the fire broke out next to the A.B.C. studios. I believe that several of the gang broke one hundred yards in less than even time when they saw the smoke.

With these notes nearly ready to go to press, I am in the poor position of not being able to say much about the Field Day held on the 28th of this month. Joe McAllister usually comes to light with a complete list of the doings, but apparently he hasn't realised that these notes must be in the hands of the Editor no later than the eighth of the month. I was working myself, but 5TL gave me a ring and said that Joe McAllister was the first to arrive and was busily erecting the shelter as 5GF drove up with a pantechnicon loaded with gear, and it looked as if the day would be a huge success. A member who will be nameless, told me that as a field day it misfired, but as a social gathering it was a knockout. Well, there you are, that's all I know for the present, with a bit of luck I will know more in the next issue. Anyway, here's hoping.

I missed the notes from VK6 this month; could it be that my threat to call the police in regarding the alleged scandalous attack on me by the VK6 scribe has caused him to go into "smoke." Come home, OM, all is forgiven, signed "Pansy."

Just as I was poking out my delicate and refined tongue to stick down the envelope containing these notes, along came a letter from my spy from the River Districts to tell me that 5BC had been selected by the gang up there to send down the v.h.f. notes to my partner in crime, 5KL. The only one who has not been told of this move is Hughie himself, so possibly Clarrie will be waiting some time for the notes. Hughie has a new modulator, zero bias 807s, and if all can be believed it is doing a marvellous job. 5MA has also built a similar modulator, but as yet no suitable power supply for it has materialised. 5KW has moved to a new QTH with so many rooms that he could work on six bands and put a transmitter in each room. 5SL has been trying to tame a wild 807 and should be heard on the lower frequencies within the next five years or so. Hurry up OM, there might be no ten or twenty by then.

3AZJ has been domiciled in VK5 on business for a month or so and as he has been working in the same building as the best, etc., etc., he has been up to see the gang a few times. Seemed a very decent chap, although he did plead ignorance as to who was the scribe for VK5, a defect that he has promised to rectify at once. That will make two readers, my wife being the other one. 5WR has been heard on the air lately for the first time and seems very keen. Bill, you have a call sign that is Internationally famous, and with all respect to you, if you turn out half as good as the chap that had the call before you, you will have nothing

to fear. He was a true Ham if ever there was one.

Was talking to a certain Ham the other day and he said that no matter how careful the members were in voting for Council members there would always be a couple of "dillpots" who would get into the Council. This is quite understandable as the Council is supposed to be representative of the members, and therefore as there are clever members and "dillpot" members, it is only right that all classes should be represented. He looked very hard at me as he said the word "dillpot" but then I could have imagined it.

DARWIN AREA

Ted Fuller has now been allotted his call sign of VK5TF. 5IR, out at the R.A.A.F., is now on 20. 5IM, also of R.A.A.F., has not shown up on the bands yet. 5RA got on twenty before Christmas with a modest 60 watts c.w. and after a number of successful nightly skeds with 5KO over a period of about a week, his h.t. transformer gave up the ghost. Resumed operations next night with 18 watts, only to lose the feeders again in a big blow. On top of that the modulator developed an obscure fault, relay p.s. transformer burnt out, and receiver developed a number of faults.

5AS has at last been persuaded to go on another band besides 10 metre phone for a change, and has opened up on 20 metre c.w., with a co-ax fed dipole. 5GP is building some gear and looks like he might make the grade soon. 5EB is still wrestling with his obscure little antenna out at the Qantas hostel, but still seems to work plenty of DX on 10 and 20. 5EM has been temporarily transferred to Daly Waters and is consequently off the air. We're happy to say that 5BV is completely recovered (well almost) and out of hospital. He has a new 100 watt transmitter he intends keeping for 80, 40 and 20, so we expect to have a lot of competition up here soon. Noel Westmore, the local speedway championship winner of 1950, is taking out a ticket I believe. Morrie Olliver, well known local aviator and aircraft engineer up here, is also swotting for his ticket.

The December meeting took the form of a social gathering of Hams, members, and their wives and families out at the Ludmilla Hostel at Nightcliff, and a good time was had by all. The business of the meeting was conducted in record time. The classes for 1951 got away to a good start, with eight in attendance, and I believe the students at the last A.O.C.P. think they may have stood a chance of passing.

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WESTERN AUSTRALIA

The first meeting for 1951 took place in the Institute Rooms on 16th January before a fairly representative attendance. The evening was very sultry after an oppressive day and that probably affected, to some extent, the attendance. Apologies were received from 6AG who was abed with 'flu. 6RO acted as Secretary in Wally's absence. The meeting was fully taken up with discussion on items of a policy nature, and agenda items. Quite a few certificates were presented. W.A.C's. to 6KU, 6ND, 6DJ; DX C.C. to 6SA and 6DX; W.A.S. on 50 Mc. to 6DW, and finally certificates to State place getters in the 1950 R.D. Contest, namely 6RU, 6KW and 6DX. Our hearty congratulations to all those VK6 boys. The meeting closed about 11.5 p.m.

January 27-28 saw the stage set for the 1951 National Field Day, the main contestants being 6WI and 6HC/6WT. The former was operating from a partly completed house on the southern edge of the metropolitan area, whilst 6HC/6WT took to the hills in the vicinity of Darlington. Also operating were 6HL from his car and several 144 Mc. mobile stations. 6GB also went out with six metre portable gear, but struck battery trouble and had no contacts. Both 6WI and 6HC/6WT found conditions very poor and it was a real battle to get QSOs. 6WI had transmitters, receivers and antennae for all bands from 80 to 2 metres, whilst 6HC/6WT took gear for 40, 20 and 2. Gear loaned to 6WI came from 6RU, 6JS, 6BO and 6PW, whilst 6RU, 6KU and 6BO did the majority of the operating. Our thanks to those VK6s for making 6WI's entry in the N.F.D. possible.

PERSONALITIES

6HC and 6WT will be travelling overland to Melbourne and Sydney during March. They intend leaving Perth on Friday the 3rd and are taking their portable gear along that performed so well during the N.F.D. They will operate on 40, 20, 10 and 6 metres, from the one two-stage transmitter and will be looking for contacts with VK6 stations on the way over and back. Good trip and happy holiday, Dave and Lee.

8NL has been holidaying on Garden Island. Val doesn't believe in taking portable gear on holidays. Likes to get away from it all, which is a sound idea. Even left the portable b.c. set at home. Hope the fish liked your bait Val. 8AZ has at last finished his super transmitter, and was heard trying out 20 the other evening, with a very solid signal. Believe the antenna is only 10 feet high and very temporary, but once Harold rectifies that, there will be no holding him. 6WU in Wubin hasn't given the game away apparently, judging from the DX working him on 20. How's 10 up your way Ray?

6VM is now installed in a new QTH and has a beam on 20. Eric can be heard most evenings on that band with a nice signal. I understand 6PJ will be holidaying down at Esperance shortly and hopes to operate from the d.c. mains down there. How do all you chaps get your vacations in the good old summer time? Darned if I can. 6BS in Manmanning (one of our comparitively new members) has been putting out a very nice signal on 40 and is contemplating operating on the 6 metre band; good idea Basil. 6JP in Bibra Lake does a good job from a 32 volt plant. Are they going to give you any a.c. when South Fremantle opens OM?. 6GA is wandering the wasteland and at the moment is enjoying the scenery at Forrest, after a sojourn of two months at Kalgoorlie. Bill has sent for his Type 3, so we'll be hearing from Bill soon. Hope the broken fingers have mended OK.

6RS has been using his TA12D on 40, both c.w. and phone. Ron only needs South America for W.A.C. 40 metre c.w. For the present, cathode modulation is being used on the Bendix with quite good results. 6LM seems to be doing a lot of re-building. A new transmitter, modulator and receiver are on the programme, so Lionel will have his hands full for a while yet. 6XG has been very quiet lately. How's that receiver progressing George? No news from Geraldton lately. How about it 6WZ, what's cooking up there? Trust that quite a number of VK6s made a New Year's resolution to supply their Sub-Editor with Items of interest throughout 1951. If you didn't, how about making one now?

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TASMANIA

The Annual Portable Field Day held during the last week-end in January was a great success as far as this State was concerned. Several parties participated and the resultant scores were gratifying, considering conditions which have prevailed of late. Those active were 7WI, 7SR, and 7RX. The club station 7SR consisted of 7JB, 7AL, 7DA, and 7SJ. Also in attendance was 7PA who performed the role of cook for the occasion. Two aerials were in use, a long wire and a full wave for twenty with separate receiving antennae. Three transmitters were available, two only being used while the other remained a spare in case of break down. Bands used were 80, 40 and 20; several receivers were available, amongst those were a Philips No. 4 and a Eddystone "750." Countries worked were England, France, Austria, New Zealand, India, etc., which said a lot for the twelve watts used. The location was approximately twelve miles from Hobart at a sea-side spot called Penna; the weather was everything one desired.

7RX was located at Rokeby which is on the eastern shore of the Derwent and the party consisted of 7KX, 7RX, 7LD, 7BH and 7SD. Trouble was experienced in drive for the transmitter which was a three-stage "Clapp" v.f.o. driving into a converted 3BZ transmitter; receiver was a Eddystone "840" powered by a spare 3BZ vibrator supply. Phone only was used and the antennae were two vee beams on forty. Trouble in the form of hash from the vibrator supplies was a continual source of worry.

7OM and 7KA operated another station under the call of 7WI located at Richmond, but unfortunately operation was confined to Sunday only, even so, quite a good score resulted.

Chief item of business for the February meeting was preparations for the Annual Dinner, together with nominations for the seven Hobart councillors. Lecture for the evening was given by 7AJ on "Astronomical Telescopes" and their construction by Amateurs. A vote of thanks was given by 7BJ and the evening concluded at 10.30. Members are reminded that a competition will be run in conjunction with the Annual Dinner for the best piece of auxiliary equipment constructed by members. From reports received, the Annual Dinner will be a greater success than ever, so all members are asked to remember the date which is March 3.

NORTHERN ZONE

The New Year was off to a grand start with our January meeting and, allowing for those fortunate souls still holidaying, a really good attendance was had at the King's Hall on Friday 12th. At the conclusion of the business an interesting talk was given by 7XW on testing equipment used in b.c. station operation. Practical demonstration proved, as of course it always does, the most effective way of dispensing knowledge and we are grateful to Chris for the opportunity of viewing equipment that he normally keeps behind barred doors. Who could resist the vote of thanks proposed by 7BQ? Shortly after, negotiations were under way to have some of Len's components tested!

Activity still on the low end of the pendulum, one or two spasmodic openings on 6 metres have given occasional interest to 7LZ, but with the wane of sporadic E, Col has to decide which way to go, up or down, in frequency and with conditions on 20 such that even W is almost considered DX, it seems to me that the higher frequencies will be the aim, in fact I believe 144 Mc. is the next band to be attacked—at least on that band a beam becomes manageable. 7DB still house building, so not very active. Last dope from 7XW was on an all band, switched rig; as yet it hasn't melted the solder on my receiver, but still have hopes.

Reading the DX notes in "A.R." I cannot help but wonder what the heck it is that keeps DX signals out of VK7. After doing some steady listening over the last month and carefully perusing 4QL's notes for February I have come to the conclusion that we have only heard one thing in common consistently for the month and that is QRN. The first (phone) week-end of the B.E.R.U. Contest seemed to produce little interest here but here's hoping the c.w. week-ends find the bands in better shape.

March meeting once more sees the Annual Election of Officers and, as I warned you last year, please leave six-shooters and bows and arrows at home. Knuckle-dusters should be quite sufficient—the date is the 9th.

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CORRESPONDENCE

The opinions expressed in these letters are the individual opinions of the writer, and do not necessarily coincide with those of the publishers.

CORRECTION

[The following letter was received by the Queensland Division of the W.I.A. who have requested same to be published.—Ed.]

No. 1 (B) Squadron R.A.A.F.,
Tengah, Singapore.

Sec., W.I.A. Qld. Div., Sir,

It would be appreciated if you would make a mention in your notes for the next issue of "A.R." that VK4LB is a member of the W.I.A. quite contrary to what appears on page 9 of the January issue of "A.R." as I have been a member of the W.I.A. for some considerable number of years in the VK3 Division . . .

If it would be of any interest to the magazine "A.R.," I will be operating from here very soon with the call sign VS1DO, and will be looking for VK contacts.

Trusting this small matter can be rectified,
—L. BAKER

P.S.—Current receipt number 8323 dated 3/4/50 is still held.

HAMADS

9d. per line, minimum 2/-.

Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received by 8th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line. Dealers' advertisements not accepted in this column.

FOR SALE.—Eddystone "640," condition as new. K. Echberg, 17 Venn St., Peppermint Grove, W.A.

FOR SALE.—133B Freq. Control Unit 2-20 Mc. and Power P., Receiver FM Adap. and Q5'er. Inspection and particulars from A. Thompson, 12 Rose St., W. Brunswick, N.10, Vic.

SELL bound volumes "Amateur Radio," 1946, '47, '48, and '49. 1950 unbound. J. W. Kennedy, 62 Dent St., Glen Iris, Vic.

WANTED.—Power Supplies and Cables for FS6. Lang, Titanga, Lismore, Victoria.

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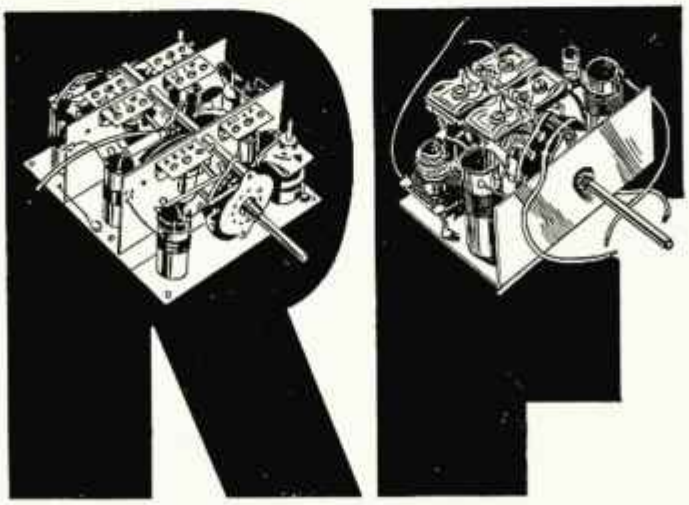
R.F. Dual Wave Assembly. Permeability Iron-cored both B/C and S/W Coils, 7-22 Mc. S/W, 550-1600 Kc. B/C band. Special cadmium sub-chassis with A.W.A. Air Trimmers. Fixed Mica B/C and S/W Padders fitted. All assemblies pre-aligned on special tester before leaving factory. All Coils treated with Trolitul. A.V.C. resistors and condensers, de-coupling resistor in R.F. stage. Easy and comprehensive colour code and aligning instruction sheet supplied.



★ KI KIT

A Dual Wave Assembly incorporating permeability tuned Aerial and Oscillator Coils for B/C (550-1600 Kc.) and S/W (7-22 Mc.). Trimmers and Padder (fixed) Condensers fitted. Iron Core adjustment is made from above chassis (the Trimmers from beneath). Suitable for "H" and A.W.A. gang. Measurements: 2½ in. long, 3¼ in. wide, 1⅞ in. high. Available for Converters 6J8, 6A8, ECH35, EK2, 1C6. "Oak" type Switch built in with 3 in. long by ¼ in. shaft.

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APRIL
1951

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA

Amateur Radio

For the Experimenter
Radio Enthusiast

9D.

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AMATEUR RADIO

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Law Court Chambers, 191 Queen Street,
Melbourne, C.1

EDITORIAL

★

As you read this editorial the 21st Annual Federal Convention of the Institute, held over the Easter holidays, has come to an end and with it the completion of a year's work by the Federal Council on your behalf.

During the year much has been done to better Amateur Radio as a whole, a condition for which Federal Council is always working and striving while you continue to enjoy your hobby.

Little can be achieved, however, without the co-operation of the Divisional officers and members, and the fact that your support has been given is self evident in many respects, though, like any other organisation, there unfortunately are members who are prepared to sit by and let others do the work whilst they contribute little.

Today, as is only too evident, some commercial and foreign interests are using our bands without let or hinderence, and this constitutes an encroachment which will gradually engulf us if we are not united in strength, and capable of developing a policy to effectively combat this interference.

To be united in strength indicates we must ALL do our share in increasing the power of tenure which we hold over our frequency bands by International agreement — an agreement brought about by the very fact that the Amateurs pioneered the shortwave bands which today give to the world its rapid communication facilities, and by right of such work they were awarded a "voice" at International Conferences to preserve their hard won ground.

For two decades or more they have preserved these privileges against what could have been overwhelming forces, had they not united to combat the influences that would take away their rights.

Within our own Institute—and indeed in all other kindred societies throughout the world—the Amateur must unite to preserve his identity. In Australia we are in the fortunate position of having a Government Department that appreciates the value of the Amateur in the general field of electronics, particularly in times of war and peace, and in many other allied technical communal facilities. As a body we are recognised, and should so continue to be recognised, to obviate any possibility of losing our identity, and thereby perhaps, our rights. Therefore, we must unite and expand at the same time.

United in policy means we must ALL work for the same thing—our very much prized and privileged hobby. Our policy must be to expand; and to do this we must have membership, for with expanded membership we can have a greater influence to protect our interests. If we cannot speak as a body we will not be heard, therefore we must all encourage new members. We must constantly drive home to the Amateur who is not a member that his voice will not be heard, that irrespective of personal prejudices and feelings regarding what the Institute can give him he **should** be a member. The future is precarious and one powerful "voice" is going to do a lot more than hundreds of wandering echoes.

If you think we are fooling or talking idly then take time off to listen on the bands, and note the trends of international events!

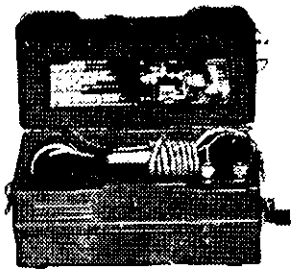
If you want your hobby to continue strongly, we recommend you to be guided by what we say. Your Federal Council for the next year is going to work hard and strive for you again. Do all you can to encourage them and so make their work effective.

—FEDERAL EXECUTIVE.

The Contents . . .

Homecrafts PTY. LTD.

LARGEST STOCKS GREATEST BARGAINS



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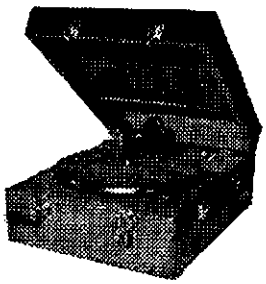
English Army Telephones, generator type with bell; no batteries required. Five mile range. As illustrated, complete, only £4/7/6.



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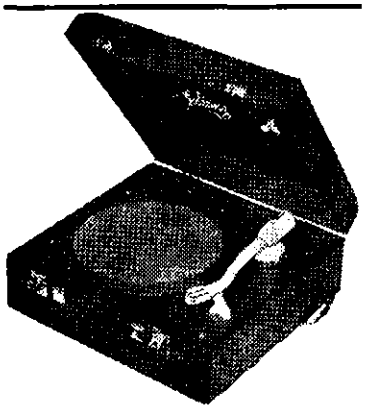
Accoustic type portable gramophone with double spring motor in leatherette covered carrying case. £16/10/- including Sales Tax. £3/10/- dep., 5/- weekly.



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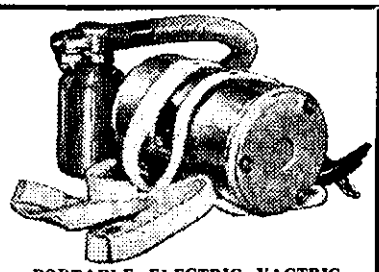

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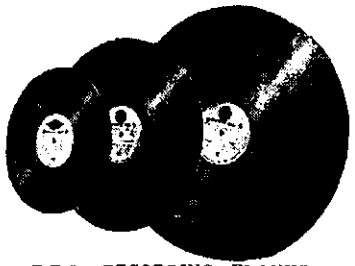

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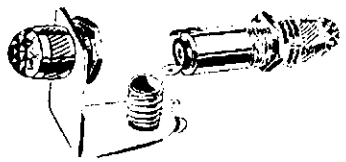
High grade Recording Discs with highest quality aluminium base. Available in three sizes, as illustrated. 8 inch, 5/2; 10 inch, 6/6; 12 inch, 8/6; 16 inch, 13/6.



WARNING AND PILOT LIGHT ASSEMBLIES

E.M.A. Type F (faceted) Jewels, wide vision type with nut and spacer for ½ in. hole mounting, 1/9 each. With back loading pilot light assembly, 3/9 each. Front loading type, 6/- each. Colors: Red and Green. Finish: Nickel plated. Type FM Midget Type ¼ in. diameter with nut and spacer, 1/8.

TORCH BARGAIN

Five Cell Focussing Torches. All chrome finish, as illustrated. Case with globe; 1,500 foot beam. Only 22/6. Batteries 4/9 extra.

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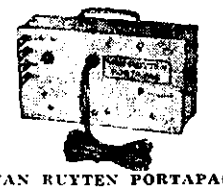
Beautiful walnut piano finish standard model, £13/19/6. Model with deep well for a Record Changer, £14/7/-. Also available in blonde finish. Standard model £16/9/6; model with deep well for a Record Changer, £16/17/-. Please add 10 per cent. surcharge for increased Sales Tax. Country and Interstate clients add 15/- packing charge.



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Any ordinary battery portable can be operated from the 230 volt mains. Price, as illustrated, £10/5/-.

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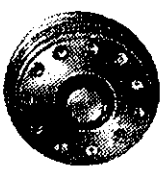
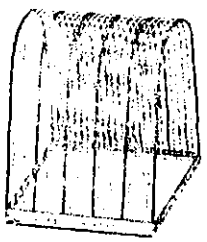
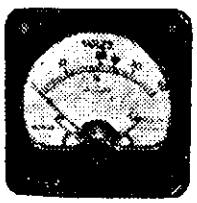


6BP1 CATHODE RAY TUBE SOCKETS

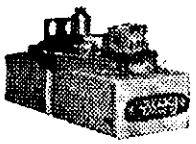
Moulded 11-pin sockets with silver plated contacts. As illustrated, 9/6.



The new Improved Gramo. Record Rack. Holds 25 10 in. or 12 in. records. Complete with index card and gummed identification numbers for records. Price, as illustrated, 22/6. Model to hold 50 records 33/-.



English Moving Coil Meters. 2 inch scale. 200 ohms per volt. Two models available, 0-20 and 0-40 volt. Ideal for home lighting plants. Originally cost 70/-, cut to only 19/11. ALSO Thermo Coupled Ammeters complete with Thermo Couple 0-2.5 amp. or 3 amp. only 19/11.



"Radio and Hobbies" Car Radio Kit as described in May, 1949, issue of "Radio & Hobbies." Homecrafts offer this kit complete to the last nut and bolt. Price, as illustrated, 22 Gns., including Sales Tax.

Brand new genuine Kingsley 455 Kc. I.F. Transformers. As illustrated, cut to only 7/11.

290 LONSDALE STREET, MELBOURNE — Central 4311

EMERGENCY-PORTABLE RIG

Fifteen Watt 80 Metre Transmitter Designed For Emergency, Portable Or Mobile Use

Several features of any portable or emergency rig are almost mandatory. These are small size and low over-all drain. Other no less desirable features are a self-contained variable frequency oscillator and a final tube capable of as high an output power as is consistent with the primary power source.

It is also desirable that the transmitter be simple and use as few parts as possible, so that servicing is easy and the parts replacement problem simple.

Insofar as possible, all of the above points have been considered in the design of the Emergency-Portable Rig.

Following on the Modulator and Antenna System described in the last issue, we now publish, from "Ham News," March-April, 1950, the RF portion to complete the emergency-portable station.

This 15 watt rig of three tubes —one a voltage regulator—has a self contained v.f.o., is compact and light in weight. The Modulator, mentioned above, together with the E-P Rig can be powered by a 100 Ma. vibrator power snpply.

ELECTRICAL DETAILS

Refer to the circuit diagram, Fig. 2. The transmitter consists of a 6AK6 v.f.o. and a 2E26 final. A voltage regulator tube is also included.

The oscillator operates on the 160 metre band. Some measure of isolation is achieved by doing this, and ample power output is obtained to drive the final, even though the oscillator is doubling.

The 6AK6 tube was chosen for the oscillator because of several desirable features. This tube has a separate suppressor which may be connected directly to ground. If the suppressor grid were connected internally to the cathode, as is true with most miniature pentodes, extra coupling between the grid and plate circuits would exist which would materially affect the grid-plate isolation. This coupling is easily avoided by using a tube with a separate suppressor grid.

Further, the 6AK6 is a well-shielded tube and will handle a fair amount of power—at least sufficient power output is obtainable to drive most low-power pentodes or beam-power tubes.

The choice of the tube for the final stage was a little more difficult to make. Many things had to be considered, such as cost, size, availability and performance. Perhaps the one thing that decided in favor of the 2E26 was the ease with which this tube can be made to operate properly.

Compared to receiving tubes, such as the 6V6, the 2E26 has a low grid to plate capacity. This means that the circuit need not be tricky in order to avoid undesirable touchiness. From this standpoint the 2E26 is well worth the small extra cost involved.

The plate circuit of the final may seem unduly cluttered until you realise that an antenna matching network has been included in the design. This is the usual sort of pi coupling arrangement which in this case has been designed for fifty ohm output.

Use of a coupler of this sort tends to eliminate spurious radiations and brings to a minimum the possibility of producing interference.

The pi network shown is not tunable in the normal sense of the word. Coil L3 is actually the plate tank coil for the 2E26 stage. Tuning procedure will be explained later. As shown the output matches directly to 52 ohm co-axial cable which in turn must be matched to the antenna.

Other types of coupling, such as link coupling, could be employed. For example, to use link coupling, merely eliminate C11 and R3 and connect the right-hand end of coil L3 to ground. The link is then placed around the ground end of the plate coil L3.

VOLTAGE REGULATION

A great deal of care was taken, design-wise, to ensure that the oscillator would give a clean keyed signal. There is no excuse for a chirpy signal, even from a rig designed primarily for emergency use. This dictated the use of a voltage regulator tube which provides 150 volts to the oscillator and the screen of the final. The additional current drain is still within our prescribed limits.

SLUG TUNING

Iron slug tuning coils are a perfect solution for interstage and final tuning elements in the E-P Rig. At the power levels encountered there is no loss problem and the tuning range achievable is more than adequate.

Variable condensers might allow slightly higher Q circuits to be obtained. However, the slight betterment of performance which might be obtained in this manner would not justify the extra cost and the extra space which would have to be made available.

In a transmitter of this sort rapid frequency changing from one end of the band to the other is not necessary, although it is possible, using slug tuning, to move a hundred kilocycles or so without retuning the coils.

For large changes in frequency it will be necessary to adjust L2 and L3 to resonance.

E.C.O. VERSUS "CLAPP"

The excellence and popularity of the "Clapp" oscillator circuit might lead some people to ask why it was not employed in the Emergency-Portable Rig. This circuit was seriously considered, but several reasons caused it to be discarded in favor of the e.c.o. circuit.

In order to take full advantage of the "Clapp" oscillator circuit it is necessary to use a high Q, high inductance coil in the grid circuit. For operation on 160 metres this sort of coil becomes unwieldly and large. To do the job properly would require a coil approximately two inches in diameter and two inches long—that is, a so-called fifty watt coil. This is obviously impractical in a four by five by six inch cabinet.

Other considerations make the e.c.o. circuit ultimately practical. It is relatively tolerant of changes of the circuit components. It is a simple circuit with which most Amateurs are familiar—no slight consideration if true emergency work has to be done.

These and other factors led to the choice of the electron-coupled circuit for use as the v.f.o.

CONSTRUCTIONAL DETAILS

The entire transmitter is housed in a four by five by six inch utility box. One of the removable sides serves as the front panel. It will be necessary to bend a chassis out of one-sixteenth inch aluminium or sheet metal. The top of the chassis measures 5½ inches by 3 inches. One flange is bent down 1¼ inches and the other is bent down one-half inch.

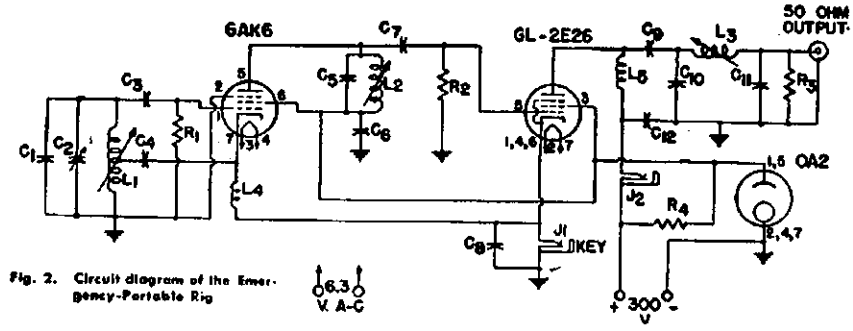


Fig. 2. Circuit diagram of the Emergency-Portable Rig

C1—400 pF. silver mica.
C2—100 pF. variable.
C3, C5, C10—100 pF. silver mica.
C4, C6, C12—0.002 uF. 500 volt.
C7, C11—100 pF. mica.
C8—0.005 uF. 500 volt.
C9—0.001 uF. mica.

J1, J2—Closed circuit jack.
L1, L2, L3—38 turns No. 26 enamel wire on ½ inch diameter coil former.
L4, L5—2.5 millihenry r.f. choke.
R1—0.1 meg., ½ watt.
R2—20,000 ohm, ½ watt.
R3—5,000 ohm, ½ watt.
R4—5,000 ohm, 5 watt.

The one-half inch flange mounts against the front panel at a height which allows the rear flange to extend down so that it is in line with the bottom edge of the front panel.

The dial mounts on the upper left portion of the front panel. The co-axial connector for the 50 ohm output is at the upper right and the two jacks are mounted at the bottom, one at the left and the other at the right. A rubber grommet is placed in the lower right-hand corner of the front panel. The two filament leads and the two 300 volt leads are cabled and run through this grommet.

Fig. 3 gives the details of parts mounting. Note that coils L1 and L2 are mounted under the chassis and coil L3 is mounted at the back of the 2E26 on top of the chassis. Components mounted above chassis, aside from the tubes, are C2, L3, L5, C9, C10, C11 and R3.

As is evident it will be necessary to remove part of the flange on the box in order to clear parts mounted on the chassis. It is also necessary to drill two holes in the other removable side for tuning L1 and L2 and a hole must be drilled in the bottom of the box so that L3 may be tuned.

One particular point of interest in the wiring can be seen clearly in Fig. 3. Co-axial cable (small size) is used to make the connection between the top of coil L1 and the stator of C2. The co-ax is grounded at the point where it comes through the chassis. The inner conductor connects to the stator of C2.

If ordinary, unshielded wire were used for this connection, mechanical shock would cause the wire to move and the result would be a minor variation in the stator to ground capacity of C2. Using co-ax permits thorough shielding and gives a minimum frequency change due to the connection being moved.

Component part placement is not critical. As a matter of fact, the mechanical layout shown in the photograph could probably be improved if the 6AK6 and the OA2 were interchanged in position, so that the 6AK6 was between the 2E26 and the OA2.

CRITICAL COMPONENTS

For best operation of the circuit, C1, C2, C5, C7, C10 and C11 should be as close as possible to the specified value. Silvered-mica condensers are recommended for C1, C3, C5, C10 and C11. The remainder of the condensers are used for blocking or by-passing purposes and are not critical although the values specified should be used if possible. The ceramic high-capacity condensers will save space if employed as C4, C6, C8, C9 and C12.

The thirty-eight turns of wire specified for coils L1, L2 and L3 should just fill the coil form with a one-layer winding. No pruning of coils should be necessary if the layout shown is followed.

Resistor R4 should be of a value which will not allow more than 30 Ma. through the OA2 or VR/150 tube when the keying jack is open.

V.F.O. COVERAGE

Any small 100 pF. condenser should serve for the oscillator grid tuning condenser. If the oscillator frequency is set at 3.5 megacycles with C2 at maximum capacity, the frequency will be 3910 kilocycles when C2 is tuned to minimum capacity.

This slightly restricted tuning range can be used to advantage, however. If the bottom end of the range is set at approximately 3500 kilocycles, then the top of the range wil be just outside the high frequency end of the band. In this way you will be fairly certain to stay inside the band under all conditions. Remember, there may be no frequency standard available in an emergency.

TUNE-UP ADJUSTMENTS

Remove the E-P Rig from its case and remove the 2E26 tube. Apply filament and plate voltage. Adjust L1 until the 6AK6 is oscillating at the proper frequency. Tune L2 to resonance by a pick-up loop and a flashlight bulb, or a neon bulb. A meter plugged into the keying jack should read a current of approximately fifteen mils.

Replace the 2E26 in its socket. Short the 50 ohm output connector. (This effectively causes the final to be completely unloaded.) Apply plate voltage and tune L3 to resonance by noting the dip in plate current.

The rig should now be tuned to the frequency of the e.c.o. Open the keying jack and measure the current flowing through the OA2. This should not exceed 30 mils. Adjust R4 if it does. Close the key. The OA2 current should be five mils or greater. As a double check on this, make certain that the voltage on the 2E26 screen is 150 volts.

Remove the short from the 50 ohm output connector, place a matched 50 ohm feeder on the output jack, and you are on the air.

— • • • —

CLEANING LITZ WIRE

It is important when using Litz wire, that none of the fine individual strands be broken when making a connection and that each strand be cleaned of enamel so that is may be soldered.

The quickest and easiest method to accomplish this is to heat the end of the wire red hot and then plunge the red hot end into an alcohol bath. This method is superior to using fine sandpaper as there is practically no risk of breaking wires and they are cleaned and ready for solder.—"QST" Jan., 1951.

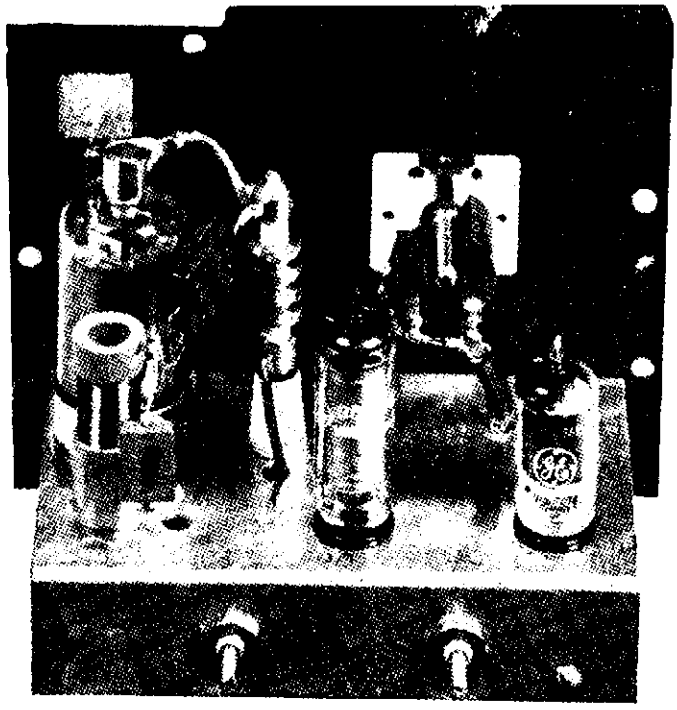


Fig. 3.—Rear view of the Emergency-Portable Rig. Note the two slug-tuned coils mounted on the rear apron. Coil L2 is on the left; coil L1 is on the right.

A.O.C.P. CLASS

The Victorian Division A.O.C.P. Class will commence on Thursday, 12th April, 1951. Morse and Regulations are held on Monday and Theory on Thursday evenings from 8 to 10 p.m. Persons desirous of being enrolled should communicate with the Secretary W.I.A., Victorian Division, 191 Queen Street, Melbourne (Phone FJ 6997 from 10 a.m. to 4 p.m.), or the Class Manager on either of the above evenings.

A Simple Modulation Monitor

BY C. A. CULLINAN,* VK7XW

Amateurs who visit the transmitting station of broadcasting station 7EX always express intense interest in the continuously operating modulation monitor.

This rather intricate instrument enables the station engineers to have available, all the time, a meter which reads the modulation percentage of the station, together with a warning lamp which will light up whenever any predetermined modulation percentage is reached.

In the United States all broadcasting stations must use a modulation monitor of this type and it has to meet very stringent specifications. Here in Australia, all the better stations use such monitors and a visit to one of them will amply repay any Ham who is interested in the matter of his modulation.

The meter normally used consists of a linear diode driving a vacuum tube voltmeter having special characteristics to indicate peaks of modulation rapidly. Means are provided to enable both positive and negative peaks to be measured to determine the symetry of modulation of the transmitter.

The linear diode also feeds a thyratron tube which in turn controls a brilliant lamp. A control, calibrated in percent modulation, is provided to adjust the point of which the thyratron will fire so the lamp can be made to flash at any desired modulation percentage.

Such a modulation meter is a rather expensive item for the Ham to construct, whilst its calibration can prove a difficult job. However, with the recent release of stocks of British and A.W.A. crystal diodes in Australia the situation has rapidly changed where the Ham is concerned.

Now, with a handful of parts, he can easily construct a suitable modulation monitor at reasonable cost and little difficulty.

The circuit diagram shows that the meter consists of two crystal diodes, the first of which is used to rectify the carrier. The second diode is fed via a reversed 3-1 interstage audio frequency transformer and rectifies the audio envelope to provide current to operate the indicating meter. The condenser across the secondary of the transformer stores audio energy to enable the meter to read average modulation rather than peak.

● The switch enables the modulation monitor to read either positive or negative modulation as well as the reference carrier level on the one milliammeter.

For those millionaires who want to do the job the expensive way, a separate meter can be used for carrier reference as the broadcasters do it.

The meter should be one with a fast action, otherwise it will be too slow and permit a far greater modulation percentage in the transmitter than appears apparent. In this regard some experimenting with the condenser across the output of the audio frequency transformer may be in order.

* 12 Montrose Place, Launceston, Tas.

CALIBRATION

Calibration is frequently the bug-bear of most constructors of home-made test equipment, but in this case every endeavour has been made to simplify calibration as much as possible.

(a) Divide the meter scale into five equal parts, then sub-divide each of the first (left-hand) four major parts into five equal parts. A long line is drawn through the major divisions and marked as shown. Note that the 100% position is also marked "set carrier." Here at VK7XW a Triplett model 321 0-1 d.c. milliammeter was used with the major scale divisions at 0.2, 0.4, 0.6, 0.8, and 1.0 on the original meter scale. This meter has an internal resistance of 33 ohms and the purpose of resistor R2 is to enable the above scale to read correctly.

Actually any other 0-1 Ma. meter can be used if R2 is properly adjusted. R2 is a screwdriver adjusted potentiometer.

(b) With the switch in the "carrier" position, tune in your transmitter without modulation and adjust the coupling to the transmitter so that the milliammeter reads 100 ("set carrier"). This establishes a reference level which must always be used or the rest of the monitor will give incorrect results.

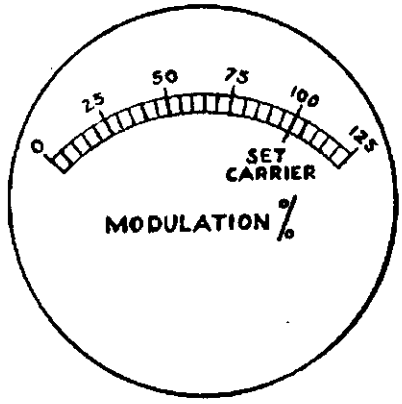
Next switch over to "positive" and apply tone to the transmitter. Use a scope to determine 100% modulation, then adjust R2 so that the milliammeter reads 100. Re-adjust the "set carrier" if necessary. The modulation monitor is now calibrated and will read correctly on all points provided the "set carrier" reference is always maintained.

It may be found that the carrier reference has changed when R2 is adjusted, in which case the transmitter coupling must be re-adjusted to give the correct carrier reference.

If the transmitter is reasonably linear and does not suffer from carrier shift, caused by poor power supply regulation, etc., it is possible to calibrate the meter without a scope.

To do this, set the "carrier" reference as before without modulation, then gradually apply a single tone. At the point of 100% modulation the milliammeter (in "carrier" position) will change. Now switch to positive modulation and see if the meter reads 100%. If not alter R2, also re-checking the carrier level until the meter kick corresponds with 100% modulation on the meter.

However, this method will not be exact if the meter in the "carrier" reference position changes for any reason than reaching 100% modulation of the transmitter.



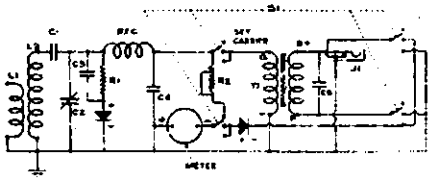
Meter Scale

The monitor should normally be used in the negative position.

If it is found that there is a discrepancy, after calibration is completed, between positive and negative, this will usually indicate a symmetrical modulation—a condition which should be corrected in the transmitter.

In use, in the Ham shack, care must be taken to learn to use the monitor correctly because the percentage of modulation, as read on speech, will be different to that obtained on tone. In general it can be assumed that a reading of 75% will be equivalent to an actual 100%. This is because of the dynamic characteristics of the meter movement will not permit instantaneous readings, and in any case if the meter could do this then the eye could not follow the pointer. It is for this latter reason that the F.C.C. in U.S.A. will not permit the use of cathode ray oscillographs for continuous modulation monitoring in broadcast stations.

Now that you have read this, if you haven't already seen one in action, take a trip to your nearest broadcast station and find out if they have a modulation monitor. If so, see it in action and you will soon want one like this, for yourself.



Note reversed connection of audio transformer, also headphone jack for audible monitoring. This cuts out the meter on percentage readings.

C1—0.001 uF. mica condenser.
C2—50 pF. variable condenser.
C3—10 pF. mica condenser.
C4—0.0003 uF. mica condenser.
C5—0.02 uF. 200 volt paper condenser.
J1—Single circuit closed jack.
M—0-1 Ma. d.c. milliammeter.
R1—1000 ohms ½ watt carbon resistor.
R2—15000 ohm w.w. potentiometer.
RFC—2.5 mhy. r.f. choke.
Rectifiers—each 1N34 or GEX44 crystal diodes.
S1—4 pole 3 position wafer switch.
T1—3-1 audio frequency transformer.

Coil Data:

	L1	L2	
80 metre	6 t.	35 turns	22 B/S enamel.
40 „	4 t.	15 „	20 „ „
20 „	3 t.	7 „	16 „ „
10 „	2 t.	4 „	16 „ „

All coils wound on 1½" formers with L1 at ground end of L2. Also, all coils are close wound except the 10 metre which is spaced to one inch.

Metering Transmitters

Here is a tip applicable to those 0-1.5 ampere (American made) RF Meters, where use for RF purposes is not required. Some quantity of these has been available from disposals.

A reasonably small diameter meter case (2-3/16") and a robust movement with adequate damping, makes it worthwhile converting for measurement of DC in transmitters. The unit is basically a moving coil type with an internal thermocouple. The full scale deflection of the movement varies somewhat from meter to meter, being about 12 to 15 Ma.

The meter is gently withdrawn from the case, then the scale plate is unscrewed and put aside. This gives access to the thermocouple which is removed, without disconnecting the two insulated leads. These leads are then bared back a little and soldered one to each terminal plate, thus connecting the moving coil to the terminals.

The original calibrations and any unrequired printing are carefully removed from the scale plate using a razor blade and rubber. With care, the white background will not be unduly damaged. Any suitable calibration may now be applied with Indian ink and drawing instruments.

After re-assembly, an external shunt (or shunts) is made and adjusted to suit the calibration, using some type of standard meter for checking purposes.

As examples, three of these RF meters have been modified for the home transmitter: 0-20 Ma., 0-300 Ma., and the third as a switched multi-range unit for the low power stages.—VK3ABA, 60 Shannon St., Box Hill Nth., E.12, Victoria.

SUBSCRIPTIONS

● Please pay your Subscriptions PROMPTLY when due. Failure to do so may result in the loss of valuable issues of "Amateur Radio." High costs of production make it necessary to limit the number of extra copies printed each month.

PCJ, HOLLAND, CHANGES PROGRAMME SCHEDULE

We have received from Philips Electrical Industries of Australia Pty. Ltd. notification of a change in the programme schedules of Station PCJ, Holland, for the East and the Pacific Area as from 1st March.

Special Pacific Area programmes from this station are now being transmitted on Sundays only (instead of Sunday, Wednesday and Tuesday as previously) from 10.30-12.00 GMT, on 13, 16, 19 and 49 metres.

ABSTRACTS FROM OVERSEAS MAGAZINES

R.S.G.B. "BULLETIN," SEPTEMBER, 1950

Page 86: **"Panoramic Reception, Part I., Fundamentals."**—Excellent introduction to this subject by G2FJD. The author traces the history, application and fundamental considerations of the system.

Page 94: **"Etching of Quartz Crystals."**—Contains full details of an alternative frequency-shifting system which is comparatively little known and which possesses many important advantages.

R.S.G.B. "BULLETIN," OCTOBER, 1950

Page 126: **"Panoramic Reception, Part II."**—Continuation from Sept. issue. A circuit of a Panoramic Converter for the 144-146 Mc. band being fully described and circuit diagrams discussed.

Page 130: **"Further Notes on T.V.I."**—Transmitter design; interferences from fundamental radiation and causes of same discussed.

Page 135: **"Beam Tetrodes used as R.F. Amplifiers."**—Covers neutralisation of beam tetrodes and the use of the cathode follower.

R.S.G.B. "BULLETIN," NOVEMBER, 1950

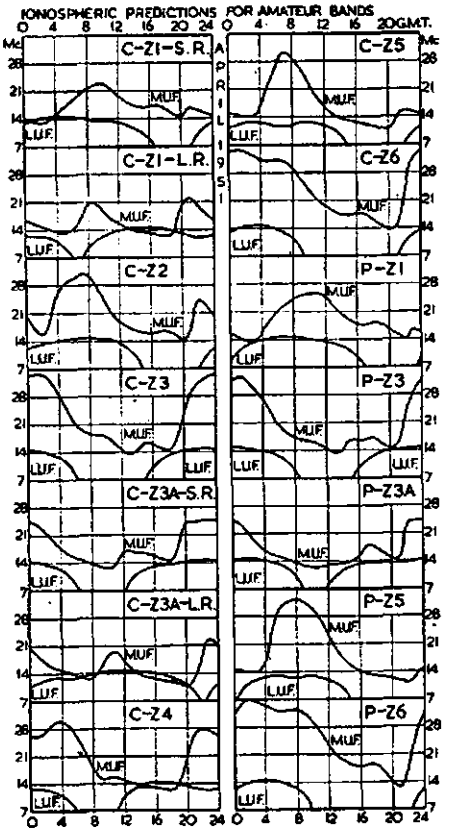
Page 160: **"Filters for Speech Clipping."**—Practical explanation of how to design and build suitable efficient low-pass filters, as well as full information on the results which may be expected.

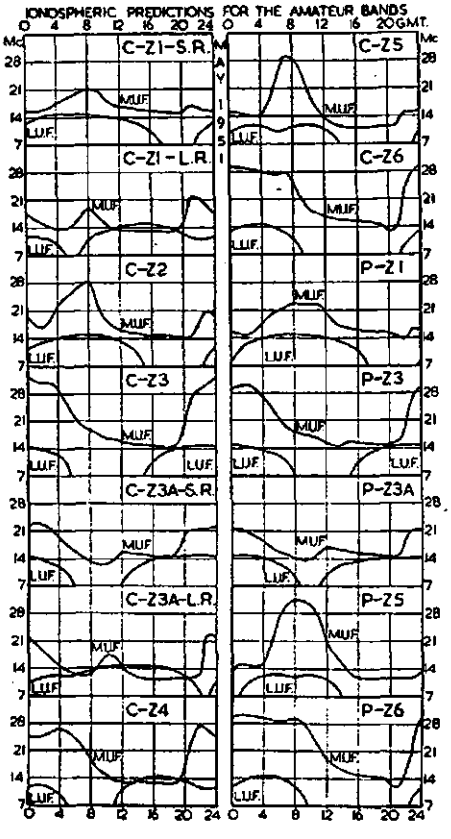
Page 166: **"All-Band Grip Dip Oscillator."**—Constructional article. Full details, circuit diagrams and photographs.

— . . . —

DOUBLE CHANGE SUPERHETS

If considering a crystal controlled oscillator for the second mixer, I suggest 2333.3 Kc., with the i.f. frequencies 1868.3 Kc. and 455 Kc. Multiples of the third harmonic of this crystal will give band edge markers at 7, 14, 28 Mc. Commercial 1900 Kc. i.f. transformers will tune to 1868 Kc. with ease—VK6EC.





IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

APRIL, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra-San Francisco circuit would be useful:

1. Were good conditions experienced on 7 Mc. for the period 0600 to 1500 hours G.M.T.?
2. Was the 14 Mc. band workable between 1200 and 1800 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.

ALTERATIONS AND DELETIONS TO AMATEUR CALL SIGNS

December, 1950, and January, 1951

VKs— ALTERATIONS

New South Wales

2CJ—8th Ave., Sawtell.
2EL—c/o. Mr. A. I. K. Clarke, 78 Fricourt Ave., Earlwood.
2FX—68 Carrington St., Mayfield East.
2FZ—35 Wentworth St., Lakemba.
2IZ—64-65 Hume Highway, Yagoona.
2JQ—The Rectory, Junee.
2MJ—16 Albert St., Leichhardt.
2QW—Lot 210 Bowden Boulevarde, Yagoona.
2VM—3 Abbott Rd., Artarmon.
2WI—26 Wilson St., Maroubra.
2AAR—c/o. Depart. of Civil Aviation, Coffs Harbour (Gvt. Aerodrome).
2AAS—17 Brook St., Muswellbrook.
2ACO—2 Walton Cres., Abbotsford.
2AEY—115 Commerce St., Taree.
2AOB—Sherlock Ave., Panania.
2ATP—13 Havilah St., Chatswood.
2RZ—21 Alleyne Ave., North Narrabeen.

Victoria

3CO—50 Garden Vale Rd., South Caulfield.
3DS—106 Cardigan St., Ballarat.
3NC—Flagstaff Hill, Casterton.
3NG—15 Como Ave., South Yarra.
3NW—4 Kenilworth Gr., Glen Iris.
3PB—7 James St., Box Hill.
3PL—236 Bluff Rd., Sandringham.
3QK—Churchill Island, Newhaven.
3SD—4 Wyuna St., West Brunswick.
3SM—28 Reynolds Pde., Pascoe Vale South.
3UJ—Lilydale Rd., Ringwood East.
3US—15 Hassett St., Leongatha.
3VL—15 Hassett St., Leongatha.
3YE—115A Bambra Rd., Caulfield.
3AJO—108 Nixon St., Shepparton.
3AKA—42 George St., Oakleigh.
3ANM—15 White St., Coburg.
3ANW—4 Kenilworth Gr., Glen Iris.
3AOK—397 Dandenong Rd., Malvern.
3ASC—59 Begonia Rd., Gardenvale, S.4.
3AWN—34 Park St., Parkville.

Queensland

4EF—15 Griffen St., Mackay.
4EL—Radio Station, Clevedon, via Townsville.
4ES—49 Gerler St., Rainworth.
4GE—Flemington St., Kendra.
4KO—99 Brisbane Rd., Booval.
4PO—Old Cleveland Rd., Belmont.
4XG—McCormack Ave., Oakleigh.

South Australia

5FD—Amor St., Mount Gambier.
5FL—15 Denning St., Hawthorn.
5KL—28 Turnbull Rd., Enfield Heights.
5LK—147 Napier Ter., Westbourne Park.
5LX—147 Napier Ter., Westbourne Park.
5NB—328 Brighton Rd., Hove.

Western Australia

6VM—22 Cross St., Swanbourne.

Tasmania

7JT—33 Ashwater Cres., Penguin.

VKs— DELETIONS

New South Wales

2IA—Cancelled.
2AJS—Cancelled.

Victoria

3RF—Cancelled.
3WL—Cancelled.
3XE—Cancelled. Operating under VK6XE approx. 2 years; VK3XE reserved for return as requested.
3AFQ—Cancelled, now operating under VK5ED.
3AGM—Cancelled.

Queensland

4HC—Cancelled.
4KJ—Cancelled.
4KV—Cancelled, now operating under VK3AVC.
4LB—Cancelled.
4MR—Cancelled, now operating under VK2MR.
4MU—Cancelled.
4RI—Cancelled, now operating under VK3ARI.

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

These brief notes are indicative of the restricted activity on the v.h.f. bands, particularly 50 Mc. now that the DX season has passed. We can only assume that the lack of activity is brought about by intensive overhaul and rebuilding programmes by the 50 Mc. devotees.

Friends of VK3ACL will be very sorry to learn of his sudden illness. Eric was admitted to the Mornington Hospital about a month ago after a heart attack, but is now convalescing at home and is reported to be coming along nicely. We sincerely hope that it will not be long before Eric's cheery voice is heard once more on 50 Mc.

50 Mc. ACTIVITY

NEW SOUTH WALES

With the passing of the DX this band has become very quiet. It seems to be the time for pulling down beams and scraping off the barnacles. 2XX found his folded dipole driven element had open-circuited and 2AH was surprised at the amount of oxidation which can occur in three years or so.

2ANU, of Muswellbrook, has been able to go QRO to 8-9 watts now that he has a 32v. house-lighting plant and has been worked in Sydney. 2AET has a three element beam which can be rotated by leaning out the window. Rix's signal has come up more than somewhat. 2JH, of Croydon, came onto the band with c.w., but was soon modulating the 35T final. 2LG is still using the 28 Mc. beam on this band. 2QZ has his folded dipole on a stick and swings it out over the street; there has been an increase in the signal reports in and out. 2MQ is building a new modulator. He has had trouble with impure polystyrene in the final's neutralising condensers.

2ARH at last has a beam functioning, though is inclined to work off the back of it. 2AH back from holidays, works this band with a dipole at the moment. 2YR has been grinding 900 Kc. crystals down to 1002 Kc. or so. 2JU has 50 ft. masts up and will be putting up an array directed towards Canberra. 2ABC was heard working 2GU with good signals at both ends.

144 Mc. DOINGS OF THE MONTH

NEW SOUTH WALES

Two new signals on the band are from 2ATL and 2ACO. 2YR has struck b.c.l. trouble and can't work this band in the evening with the beam pointed north. 2NP is replacing the super regen. Rx with a double conversion superhet built on the 522 Rx chassis. 2QZ is doing much the same and has almost finished 2 metre Tx with 6V6, 6V6, QEO4/10 832A line up.

In a prominent position in 2AH's shack is a card from ZL1ADX who heard his 144 Mc. signal last month. Alan's converter with p.p. pentode r.f. stage, p.p. mixer and p.p. oscillator is certainly a fitting input for the 32 element beam. 2XV likes the 12AT7 as mixer-oscillator and is going to try another one as a cascode amplifier. 2ANF has a cascode going and is very well pleased with it. John is sharpening his pencils to take over these notes in April.

2ABC, back from a holiday in VK5 and VK3, has been busy teeing up a pack of VK2 144 Mc. stations for an attempt to make Interstate contacts in the small hours in mid-March.

VICTORIAN V.H.F. GROUP NOTES

Please note the Group meeting night—the third Wednesday every month and, if interested in v.h.f. work, do your best to attend. At the February meeting, 16 members including visitors 7RL and Magazine Technical Editor (3VZ) spent a very interesting and informative night. There were no field day reports due to the washout on 18th February, but an interesting discussion took place concerning articles for publication in "Amateur Radio." Many group members felt that publication of technical articles on how to build v.h.f. equipment using tubes and parts readily obtainable in Australia would go a long way towards encouraging more activity on the v.h.f. bands.

The slogan, "Populate or Perish," can well be applied to these bands. For his part, the Technical Editor explained that he was only too willing to receive such articles and that he would publish same. There is a wide field to be covered: different types of transmitters, different types of receivers and converters, modulation, a.m. and f.m., frequency measuring and test equipment, antennae, etc., etc. Many group members are doing what they can along these lines and it is hoped that v.h.f. men in other States will also contribute such articles.

Two samples of equipment that could well form the subject of an excellent article were displayed by 3XA. They were the exciter units for his 50 Mc. and 144 Mc. transmitter using 6J6s and 832s. There are many TR1143As about and many modifications must have been made by various Hams, so that a number of articles on modifications to this rig, published in much the same manner as were the Type 3 Mark 2 modifications, would be of great value to many who are as yet uncertain as to the best way to make such modifications, due to a general dearth of information about this rig. It was also suggested that reprints of articles from overseas magazines was another way in which the lack of supply of articles may be overcome. Many members read many different magazines, so if you think that a particular article would look well in our magazine, shoot it along, you might be the only one who has seen it.

The next field day will be on Sunday, 15th April, the contest commencing at 1200 hours and ending at 1700 hours. Stations who have notified that they will be portable are 3FO, Arthur's Seat; 3ABA/YS, Mt. Macedon; 3JO/OJ, Donna-Buang; 3ZL/GM, Mt. Buninyong; 3AKE/VF, Barrabool, while 3UI at Tatura and 3APF, 3AT, 3HZ all at Shepparton will be looking for contacts on 50 and 144 Mc. 3ZL and 3AKE will also have 288 and 576 Mc. gear and will be anxious for contacts on these bands.

Any other stations intending to operate portable on 15th April are asked to pass on such information so that it may be included in the 3WI broadcasts. It has also been suggested that any last-minute news of portable activity could be passed along on 7.1 Mc. at 0800 hours, 3AJI will be pleased to collect same and will pass it on for inclusion in the broadcast. Country stations are asked to pass on details of transmitting and/or listening times, not only for field days, but for any other times which may be convenient, so that their zone representative can send them on to 3WI after the Sunday broadcast.

Power blackouts in VK7 have thwarted the efforts of 7KB, 7AB and 3XA to keep daily skeds on 144 Mc., conditions also do not appear to have been so good since the break in the weather. 7PF is now in Melbourne and may be here permanently. Welcome, Peter, and let us hope we can soon hear your voice on the air.

Note.—Don't forget to send in your field day logs.

SOUTH AUSTRALIA

Activity mainly centred on 144 Mc. for the past month although activity has not waned on 50 Mc. Had a letter from 5BC with news of activity in the River districts ("Pansy" Parsons note what advertising will do!). 144 Mc. gang will concentrate on suggested tests by VK2 and VK3 during March. Early mornings is the best time to try for 144 Mc. DX as experience from D.C.A. frequencies around 120 Mc. have shown. One morning recently, 5 x 5 contacts between Adelaide, Melbourne and Nhill ground to ground continued up to 10.30 a.m. The early morning cannot be stressed too much and concentrated on. Best days are when the conversion is down low, this must create a duct in which the signals travel. The best times that the above occurs is between midnight and dawn onwards, all efforts should be made then.

Those who thought the 50 Mc. DX waned at the end of January must have missed out on some good openings. 5BC reports ZL2s on 1st February and 5JD QSOed ZL2BJ on 14th February who reported he had been listening to 5BC and 5MA ragchewing for the last hour.

5MD has his ground plane outdoors and signal is much healthier. Rumours of building crystal converter. 5JD's recent lecture on 144 Mc. at W.I.A. meeting should give fillup to v.h.f. activity. Practical demonstration was perfect ending to an interesting lecture. Well done Jack. 5BC since v.h.f. contest now has 80 watts to a 834 with zero bias 807 modulators. 5MA is using converted 1133 at present, but a new chassis has appeared so more will be heard from Fred later. Reports of a female voice background in your phone, words such as preserving, garden, washing, pulling fuses. Hard to catch but Fred answers Yes Dear. He worked 5GF when at Mt. Barker.

5KW using 815 and 40 watts input to a dipole.

5FM heard remarking on 50 Mc. he had had the band because of too much noise. It's marvellous how much is in some receivers. Noise limiters do help. 5AX been QSO 5KL on 50 Mc. and also testing with 5QR on 144 Mc. 5FY also resident in Gawler with 5AX works on 144 Mc. Has been heard in Adelaide, but Tx too unstable to copy on anything but a super regen. Ron is using a CV6 super regen. Rx and 6J6 Tx. 5RO QRP on 50 Mc. using 6J6 with 2 watts input. Just shows that because you can't get 100 watts that the enthusiasm needn't lack. 5RA—no further information re activity. 5RD not heard on of late. Waiting to move into new home shortly. 2AT, QTH Broken Hill, reports hearing 5BC. Possibly ground wave, but unable to QSO; using 832 final.

576 Mc. BAND—NEW SOUTH WALES

After a long period of inactivity there have been signals around Sydney on this band. 2HO is the latest convert and has at last worked 2ANF. 2WJ and 2ABH run skeds and are busy getting 2AJZ going. On 15th April there is to be a general v.h.f. field day with bonus points for 576 Mc. contacts. The final arrangements will be made and locations allotted at the v.h.f. section meeting at Science House on 6th April and details will be given over 2WI on 8th April. It looks as though there will be at least eight parties with 576 Mc. portable gear. The s.w. corner gang will be equipped with gear for 50, 144, 288 and 576 Mc. bands and are going to make a week-end jaunt to a high spot. Field day arrangements are in charge of 2ANF, 2WJ and 2YM.

2ANF is experimenting with a crystal diode mixer and hopes to build up a simple converter for the band. Several ASB7s are in circulation around the suburbs and it must be rather hard to let them go.

Acknowledgments to VKs 2QZ, 3JO and 5KL for the above material.

DX NOTES BY VK4QL

February produced even worse conditions than the previous month. 14 Mc. was practically useless up here, either for DX or Interstate working. DX usually very weak, if there at all, and Interstate stations would disappear while you listened to them. The only reasonable opening observed here was on 17th February, for a period from 0630-0800 G.M.T., when AR8AB, ZD4AB; 4X4RE, ZB1BE, DL1FK were worked. On the morning of 8th February round 2100 G.M.T. some good DX was heard but very weakly and not workable. They were VP5BL, KG4AO, ZD4AE, and CR5AF.

28 Mc. opened slightly for the first day of the W/VE Contest, west coast stations being workable for an hour or so, but they were very unstable.

7 Mc. has shown it can be as erratic as the others. One day in the early morning, the band would be OK for DX, the following possibly nothing there. On the 22nd and 27th, the band was full of Gs, and they were causing plenty of QRM on the band. It was only for a short time from 2030-2100 G.M.T. HP1TI mobile marine was worked one morning when he was 750 miles west of the Azores. VQ3CF has been putting a good consistent signal the latter part of the month.

The first day of the W/VE Contest (c.w.) produced fairly good conditions on 7 and 3.5 Mc., but the following night it was very poor. This was also noted by ZL1BY, who worked all W districts on the four bands. Quite a fair performance, with over 600 contacts.

Conditions for the first week-end of the B.E.R.U. Test were erratic and on the lower bands very noisy here. A peculiar effect was noticed on 7 Mc. around 0900 G.M.T., when only ZL and VK signals could be heard, but they were fuzzy and indistinct. Suddenly, it all cleared up and the VE stations and VP6CDI came through with good clean signals. 28 Mc. was practically useless, only one ZL, one VK3z and VS1 being worked. The VS1 called 2RA, but Ray did not hear him I found out later. 14 Mc. showed very erratic behaviour. VK and ZL signals being in and out throughout the day. I replied to a number of ZL CQs, but they did not hear me or anybody else.

On 28 Mc., during the first day of the W/VE Contest, at the same period of the day, the following prefixes were heard, VK2, VK3, VK4, VE, W, JA, KH6, KG6 and ZL. This gives some idea of the way that band was behaving.

I have received no news from the gang this month, so once again, the notes consist of my own observations. It's not very heartening to try and make these of general interest.

Although conditions have been poor and only a few new countries added to the list, 12 new confirmations were received, the pickings being: CR7AD, HR1DF, UC2KAB, ZM6AK, 4X4CR, PJ1UF, UB5KAA, ZK2AA, PZ1AL. Others which may interest somebody waiting to see a QSL from them, were: VR1C, FF8JC, KC6WC, VP9TT and YU3FLA. One disturbing angle on QSLs is the propaganda appearing on some of the OK QSLs these days. One feels like putting them in the w.p.b.

14 Mc. listings for the month are not plentiful, nor were the signals strong, and a good few got away. EA8BC, CR4AF, CR5AF, FM7WF, YS1O, VP5BL, KG4AO, ZD4AE, FO8AG, CP5EK, LX1AS, AR8AB, ZD4AB, 9S4AX, MI3AB (31 via Molise, Asmara), UM6KAA, AP2Z, MP4KW, ZB1CH, ZB1BE and ZB1AJX. On 7 Mc. the following prefixes were heard, again mainly 2000-2100 G.M.T.: ZS3, VQ2, VQ3, VQ4, ZE1, DL, HB9, CR5, OK, I1, VS7, VE1BV at 2030 G.M.M., HP1TI/m.m.; SP, FA9, G, GM, GW, PA, YU, KP6, CN8, 4X4, MP4, VP6, UB5, UA0, UA1, UA4, ON.

Quite a few new VK calls appeared on the band this month, they also apparently finding 14 Mc. too cold. Would like a few scores on countries worked on the lower bands, to see what cooks. Here, have now raised the 7 Mc. score to 42 countries. 5KO, what about your score on 3.5 Mc. OM? My activities on 7 Mc. look like receiving a severe jolt on present indications. I have been receiving interference at odd times from the local Coastal Radio Station, V1T. Measured him as 7000.5 Kc., and the local Radio Inspector tells me that they are allotted the frequency of 7000 Kc. and increased activity is anticipated. You can well imagine what happens to the l.f. end of 7 Mc. when the high powered m.c.w. comes on the air.

3YP has now amassed the fine total of 211 countries, the latest being trapped are EA8, EA9, VT1AC. Some of the VKs apparently have also been working VT1AB on phone. 2ANN snapped up FQ8AE for a new one, whilst 4FJ has been trying to get one more Empire station for his Empire DX C.C. Was heard chasing VQ3CF and VP6CDI on 7 Mc. with negative results. 4RW, when last heard, had reached the 99 goal, and was ready to fall off the fence into the DX C.C. enclosure. Maybe he has fallen ere this. 2AGU has 143 countries chalked up.

The racket of one station doing most of the transmitting and receiving for a third party to "claim" a new country, was heard amongst some of the phone boys this month, even to the extent that they would despatch the third party's QSL. The third party took very little part in the QSO, as the DX station could not read him. It's one way to make DX C.C. anyhow I guess.

Conditions for April should show an improvement on 14 Mc. between 0630-1000 G.M.T., but little else can be expected here of any stability.

● The thought for the month. "If you are going to enter a DX Contest, check up on the rules first." Some VKs, according to their serial numbers, were using a KW in the W/VE Contest, whilst another started the B.E.R.U. Contest at 1700 local time instead of 1700 G.M.T.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3JD	1	155	VK4JP	8	114
VK3EE	10	154	VK3AWW	14	112
VK6RU	2	145	VK4WJ	17	104
VK6KW	4	145	VK2ADT	13	102
VK3BZ	3	141	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK4HR	12	129	VK3GG	18	100
VK6DD	6	126	VK3IG	5	100
VK3LN	11	125	VK3JE	7	100

CW

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK4DA	7	113
VK3FH	15	155	VK7LZ	17	112
VK2EO	2	152	VK5BO	33	111
VK3CN	1	151	VK3JE	21	108
VK4EL	9	150	VK4RC	18	107
VK2QL	5	141	VK2GW	16	107
VK3VW	4	140	VK3YD	27	105
VK3KB	10	138	VK5FH	31	105
VK6SA	28	138	VK3J1	25	104
VK4HR	8	135	VK2YC	34	103
VK6RU	18	129	VK4FJ	29	102
VK4RF	11	125	VK3APA	14	101
VK3EK	3	122	VK3NC	19	101
VK5RX	23	119	VK3CX	26	101
VK4DO	20	117	VK2OA	32	101
VK3UM	12	116	VK7RK	22	100
VK3XK	30	114	VK7LJ	24	100

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK5FL	26	116
VK6RU	8	176	VK3JA	43	114
VK4HR	7	173	VK2ADT	14	113
VK3HG	3	171	VK4RC	21	110
VK3KX	1	167	VK3ZB	34	110
VK6KW	13	165	VK4WF	40	109
VK2DI	2	160	VK2ZC	25	108
VK3JE	12	154	VK2YL	11	106
VK4EL	10	150	VK3JI	33	105
VK4KS	24	149	VK3AWN	36	105
VK4DO	15	145	VK2VN	18	104
VK3MC	5	139	VK4UL	27	104
VK3OP	19	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK2ADE	28	133	VK2TI	37	103
VK2AHA	9	128	VK3HO	38	103
VK3LN	29	128	VK6DX	43	103
VK2AHM	20	125	VK7RK	31	102
VK2NS	16	123	VK4TY	35	102
VK4FJ	32	120	VK2ACX	6	100
VK3HT	41	117	VK2TG	39	100
VK7LZ	23	116			

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK4RY	2	2
VK2VW	9	2
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK2AEZ	10	1
VK5LC	1	
VK3HT	7	
VK2ABC	8	

CUTTING POLYSTYRENE ROD

When cutting polystyrene rod or tubing into short lengths, as for feeder spreaders, the usual method of hack-sawing leaves a rough edge. Further, the sawing must proceed at a snail's pace or the polystyrene will melt, gumming up the saw blade.

Next time try an ordinary tubing cutter, the kind with a circular blade that rolls around the tubing. It will cut either rod or tubing in a fraction of the time required for sawing, and will leave a much neater cut end. If an extra smooth end is desired, the raw cut end may be "fire polished" in the manner of glass tubing by pressing it briefly against the barrel of a hot soldering iron.—"QST," Jan., 1951.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: W. B. GRONOW (VK8WG); Federal Secretary: G. M. HULL (VK8ZS); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: J. Corbin, VK2YC.
Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
Divisional Sub-Editor: A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt, N.S.W.
Zone Correspondents: North Coast and Tablelands: J. M. Retallick, VK2XO, Raleigh; Newcastle: H. Whyte, VK2AHA, Vale St., Birmingham Gardens, Newcastle; Coalfields & Lakes: H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cumbijowa, Forbes; South Coast and Southern: R. H. Rayner, VK2DO, 42 Pettit St., Yass; Western Suburbs: A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt; Eastern Suburbs: D. B. Knock, VK2NO, 43 Yanko Ave., Waverley; North Sydney: L. D. Cuffe, VK2AM 779 Military Rd., Mosman; St. George: J. A. Ackerman, VK2ALG, 32 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President: G. S. C. Semmens, VK3GS.
Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).
Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.
Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, c/o. Victory Theatre, Tatura; Far North West.: M. Folie, VK3GZ, 101 Lemon Ave., Mildura; Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.
Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.
Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.
Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: R. W. S. Hugo, VK6KW.
Secretary: W. E. Coxon, VK6AG, 7 Howard St., Perth.
Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.
Meeting Night: Third Tuesday of each month.
Divisional Sub-Editor: Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President: J. Brown, VK7BJ.
Secretary: R. D. O'May, VK7OM, Box 371B, G.P.O., Hobart.
Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.
North Zone Correspondent: R. H. Kilby, VK7RK, 5 Galvin St., Launceston.

FEDERAL

1950 VK-ZL DX CONTEST

Due to the laudible desire on the part of the N.Z.A.R.T. Contest Manager, Jock White, ZL2GX, to have the 1950 results of the VK-ZL International DX Contest out on time, Jock was unable to find time to write comments on the Contest to publish with the results. However, he has now forwarded his comments with an apology for their lateness, together with a few late entries. He reports as follows:—

"Possibly there are a few who are awaiting some comment from me about the Contest—I wonder? After perusing the results I am sure all will realise that the number of logs received this year less than for the other two post-war contests." (The two contests refers to those conducted by the N.Z.A.R.T.—Fed. Sec.) "This I know can be put down to the almost impossible conditions prevailing on most bands. In view of this, the scores of the winning competitors are all the more creditable and reflect nighly the operating ability, tenacity of purpose of the operators as well as the efficiency of their equipment. Many of the overseas logs had postscripts apologising for the poor score and explaining that VK-ZL signals were simply not audible and very conspicuous by their absence.

"With so few logs from overseas, the matter of checking becomes difficult and one has to rely to a great extent on the integrity of the competitor. I had no reason to doubt any entry—in fact the contrary was the case because several competitors had duplicate QSOs and these were suitably marked and no points claimed. I would, however, make a plea for neater logs. Cross checking is a difficult and laborious task which can be made much easier if care is taken in writing up the log." (If the Federal Convention adopts F.E's. proposal for a standard log sheet for contest use it is hoped this difficulty, known only too well to F.E. too, will be overcome.—Fed. Sec.) "Many were beautifully done. Perhaps it is unfair to mention individuals, but the logs of VKs 2DG, 6RU and 6KW come to mind as being perfect. Thanks chaps! I would also suggest a uniform size of log paper, the ideal being quarto.

"Contacts made with two overseas stations were deleted from logs. These stations were YA2B and 9AA as there was grave doubts as to their legitimacy.

"This year the top score went to VK with the top ZL scores several places 'down'. It looks as if, in spite of previous protests to the contrary, that VK has the better DX conditions. In several cases scores were very close, e.g., VK6RU and VK3HW; ZL1MB and ZL1BY, but the most careful log checks did not upset the placings.

"All certificates were posted before the end of January. This was rather a herculean task and I trust that no omissions, etc., were made even with the cross checking of certificates and address labels! But if so I would be pleased to make any rectifications.

"In conclusion I would add that, by their comments, the overseas gang are awaiting with anticipation the 1951 Contest so here's hoping that conditions will be a little more kind."

—Jock White, ZL2GX, Contest Manager.

Late Entries

The following late entries were received.
C.W.: OH2TM 209 pts., DL1XF 642 pts., PY2NX 220 pts., LA5Q, 45 pts., OK1BM 205 pts.
Phone: PY2NX 149 points.
Listeners: OE335 935 pts., OE323 876 pts., OE196 822 pts., OE224 280 pts., OE369 243 pts., OE150 130 pts., HA272RS 385 pts.

ALTERATIONS TO DANISH REGULATIONS

A letter of interest to readers of "Amateur Radio" has been received from OZ2R, Chairman of the Experimenting Danish Radio Amateurs, indicating minor, though important, changes to the regulations under which the Danish Amateurs are working as from 1st January, 1951.

It is pointed out that some of the new frequency bands are only of a temporary nature put at the disposal of the Danish Amateurs until the Atlantic City plan of 1947 comes into force, but the band limits are to the greatest extent possible in agreement with those agreed upon for Region 1 at the Paris Amateur Congress held in May, 1950.

The Danish frequency bands are:—

"Small" Licence (8 w.p.m.): Telegraphy—3500-3600 Kc., 3800-3940 Kc., 144.0-146.0 Mc. Telephony—3600-3630 Kc., 3690-3800 Kc., 3800-3940 Kc., 144.0-146.0 Mc.

"Ordinary" Licence (12 w.p.m.): Telegraphy—3500-3600 Kc., 3800-3940 Kc. (temporary), 7000-7100 Kc.; 7100-7200 Kc. (temporary), 14000-14350 Kc., 14350-14400 Kc. (temporary), 28000-29700 Kc., 144.0-146.0 Mc.; Telephony—3800-3630 Kc., 3690-3800 Kc., 3800-3940 Kc. (temporary), 7050-7100 Kc., 7100-7195 Kc. (temporary), 14125-14350 Kc., 14350-14395 Kc. (temporary), 28200-29695 Kc., 144.0-146.0 Mc.

Input Limits: 50 watts for telephony and modulated telegraphy. 100 watts for unmodulated telegraphy.

Portable Transmitters: Within Danish territory only on 144-146 Mc. On other bands only on special permit.

Frequency Modulation: Permitted on 144-146 Mc., maximum frequency deviation plus or minus 30 Kc. All telephony bands are open to narrow-band frequency modulation with maximum frequency deviation plus or minus 4 Kc.

Third Party Traffic: Not permitted.

Licence Examinations: Morse code 8 w.p.m. or 12 w.p.m. Technical verbal examination on decent knowledge of electro, radio and traffic technique especially applying to radia amateurism.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

According to VK1RF the ionospheric recorder at Macquarie Island causes intense QRM. The recorder which makes a sweep every ten minutes blots out everything on the HRO for two minutes. The Tx used by VK1RF uses 75 watts. Personnel at Macquarie Island expect to be relieved during April.

Cards returned from the R.E.F. indicate that FL8AC and FL8AM allegedly in French Somaliland are both phoneys as is FI8BK.

The manager of the R.C.A. QSL Bureau, Box 126 San Remo (Ilwoh), forwards some attractive printed matter on the delights of that locality. The brochure lists events ranging from pigeon shooting through to philatelic exhibitions scheduled to take place from December, 1950, to April, 1951. Visitors with the coin to concentrate on the Riviera certainly will enjoy a comprehensive range of events.

Felix Franchette, FK8AC, expects to visit Australia from 2nd April to 20th April, spending the first half of this period in Sydney and the last half in Melbourne. Anyone interested in meeting Felix should contact this Bureau for a suitable time and date.

Nothing further has been heard from Jack Elliott, Z13CC, regarding his proposed visit to Australia. This was originally scheduled to take place during April, 1951.

Writer's ego was rudely shattered during the recent B.E.R.U. Contest, as had oft made claim to ability to make sense out of any sort of morse. During said contest writer heard station signing KD3BZL calling CQ B.E.R.U. on many occasions but did not answer him as was sus-

picious of his bonafides. Mistrust was allayed, however, by hearing several old and knowledgable G stations working him. Finally called and worked him under said call sign. Later telephoned the cunning fox whose den is at 50 Eighth Street, Parkdale, for the low down on the location of KD. Morrie's reply was immediate and to the point. Said he, "I thought you were an operator. Yet you read YI as KD." Am now thinking of going phone—but not thinking very hard.

Cards from 9S4AX are now coming to hand via the D.A.R.C.

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NEW SOUTH WALES

EASTERN SUBURBS

2AJG has not been heard lately with his familiar c.w. clip at the l.f. end of 20 or 40. The reason, says he, is that he is a bit browned off —is no longer interested in Amateur Radio. Maybe, and maybe not OM. Those germs are virulent—look at the really old hands who've thrown in the towel and then come back for more punishment. Visitors to this correspondent's shack, inclusive of course of the ever-faithful ZL1OF, have been 2ZQ and 2DO. Condolences are offered to 2TI on the loss recently of his father. Still getting around here and there and everywhere—a bit like the elusive Pimpernel—is 2AYE. One never knows where that bloke will bob up next; at what station in what country town. Heard him lately extolling the virtues of Wollongong from 2DY.

Reference is made in Feb., 1951, "A.R.," in the obituary to our late cobber Bill Cottrell, to the effect that he was "OA2ZN" in 1924. The call sign at that period would have been under the "A" prefix. It wasn't until 1927 that Australians used the "OA" prefix, which was finally changed to our present "VK." An interesting point about the "OA" period was that the prefixes were used together with the "called" country's prefix in lieu of the separative "DE" (I'm talking of c.w. of course—phone DX was a rarity then). Thus "6AM NUOA 2JR," meaning that Australian 2JR was calling American 6AM, and vice versa, "2OD EGOA 2CM" indicated that Australian 2CM was calling British 2OD. The idea had much to commend it, and A.R.R.L. tried to get the Washington Conference to adopt the scheme, but it wasn't approved—so we pop in with our "DE" ever since.

2KH has been heard once or twice with good phone at the h.f. end of 20. 2AZH is having fun with amplifiers these days, in between running his own station and chasing a few "bugs" for 2HP; Bruce is pleased with a "Leak" amplifier he built recently, to a "Wireless World" (England) design. The recently built crystal front end receiver at 2NO is getting a fair amount of use (How about an article on same, Don?—Ed.) and is streets ahead of anything yet used at that station. So much so that a spot of c.w. DX has been indulged in, with signal stability a real pleasure. Once again—a final request, plus ultimatum. The writer of these lines is a busy man in directions other than Amateur Radio. Response to appeal for notes of personal doings in the area has, with one exception, brought zero result. Don't say that you haven't been warned.

Sorry to see that announcement in February "A.R." about the sudden passing of Hermann Asmus, VK3ET. Once again, Australian Amateur Radio suffers the loss of a fine type—a telegraphist without a peer—and a most likeable gentleman. He had visited the writer's station on a few occasions. Like the late VK2ZN, Hermann was a highly experienced photographer.

HUNTER BRANCH

As usual the last meeting of the Hunter Branch was very well attended. The major part of the night was taken up by a very interesting talk on the v.h.f's. given by 2BZ and 2ADT. 2CS has a BC348, busily engaged "hotting" it up. Secretary 2SF hasn't been too active of late. Ham Radio was the subject of a lecture presented by 2XQ at a Mayfield Rotary meeting during February. 2MC having fun on 2 but finds the 3 over 3 a bit of a mystery. 2UY installing mobile gear in the course of his daily toil, has 2NX working with him these days; Shorty should have his 1st class commercial ticket by the time these notes appear. 2AHA and 2XY putting the final touches on the code. 2FP fed up with the rotten conditions on 28 and losing interest. 2AFS still away. 2VJ last heard of from Kempsey, working up there and operating from 2AHA's shack. 2PQ only heard on 40 with that hefty signal. 2ZC still not settled down after his great holiday. 2AAI also at Waratah has been getting out nicely on 20 phone despite poor conditions. 2AWD makes the meetings more frequently nowadays and is much more active on 40. 2BZ not as keen as he used to be, but is on 6 and 2 at times. 2XT has nice pipe beam underway. 2XY been busy getting gear squared up for Urunga. 2AGD nearly finished his complete station, the v.f.o. was the last item. 2CN given low frequencies away for 144, had some trouble with 144 rig but OK now. 2ANA has made a comeback on 20 with a new F/D using open wire line. 2AXM has little rig perking well and having fun on 40. 2CW is a 144 man now. Harry McPhee, at Mayfield, is battling very hard on one xtal frequency, gets out well but finds it hard to make contacts; a v.f.o. is underway. 2AGY busy with the new home.

Over Stockton way 2ASJ is the most active. Recently Ron was able to help a VK3 arrange for urgently required oxygen to be sent to a country hospital 2IS very active on 40 with QRP. 2PJ also active on 40 phone. 2ADS gradually getting organised at Birmingham Gardens and has a big h.t. tranny now, won't be long before he blows holes in the ether. 2OS been having lots of feed-back troubles, but things under control now. 2TE had a great holiday in VK3 recently and gets his share of DX on 20. Believe 2SA will be leaving Newcastle soon, which is bad news. 2DZ is still glued to 20 phone.

Up Maitland way 2XQ has his high-power modulator going on 20 and 10. 2DG is very pleased with his new receiver; the Branch would like to have all the dope on it in the form of a lecture. 2AKP snowed under with work and not on the air much. 2TY been sick of late—lost his voice. 2ANU has a lighting plant installed and will be on higher power. 2ANL must be QRL. 2AHA been busy lately getting the portable fixed up for Urunga, will spend his holidays up there so next month's notes will be written by ASJ (I hope). At New Lambton 2ZT works plenty on 40 phone; 2KG has minor power supply almost complete plus v.f.o. and Rx.

COALFIELDS AND LAKES

Must apologise for missing out on the notes last month. Had written them but found they were still in Cessnock when they should have been in Melbourne! 2VU has not been quite so active due to turning carpenter, building cupboards; has been heard back on 6 this week and had a couple of weeks' holiday recently. No news of 2JZ, 2TY or 2YO. 2KF has been heard on 28 Mc. talking of building more gear. Bob believes in giving things a go and will try everything on hand before reverting to new equipment. No news of 2KZ for quite a while, but believe he has been busy with the paint brush on the house. 2ALR has been on a few times and intends putting up a new antenna for 7 and 14 Mc.

2PZ has a receiver with a string of r.f. stages, a few features in tuning and bandspread too, it shows promise. 2ADT can be found on 2, 6, 20 and 40; even worked an EA on 14 phone, a YL too. 6 metres has gone back into its shell, though conditions between the Coalfields and Sydney have been very good on some nights. Jack made trip to Sydney for the Convention to display the turret switched receiver —now they want him to take it to Urunga at Easter. Just as well it's nice and solid. If you work Jack ask him about a really good two band antenna, results were really interesting.

Am afraid I haven't much news from the Lakes area, in fact 2RU and 2KR are the only stations heard. Others must be active, so how about some news? 2YL having mike trouble, the old faithful D104 has "had it." Not on much but will rejuvenate the antenna set up soon.

WESTERN ZONE

Learn with regret that 2LY is leaving Katoomba to become a VK3; had a pleasant farewell contact from 2HZ's shack. Dubbo's newest Ham is Bob, 2AXS, running 60 watts with a Command v.f.o., and has nice signal on 7 Mc. 2AMV getting portable gear ready for Urunga.

2BT on the air again from his new location at Eugowra; antenna problem was solved by reaching out the window and clipping on to the neighbour's b.c.l. skywire. 2JW and 2ALX, of Orange, are planning another mountaineering trip to top of 4,000 ft. Mt. Canobalas; Norm and Don will have 50 and 144 Mc. gear, so v.h.f. men take note. 2EI is apparently the only Parkes Ham active; heard occasionally on 7 Mc. phone. 2NS heard more often on 14 Mc. than 7 Mc. and still picking up a rare one; Ham Radio has been pushed somewhat into the background by the new lathe.

2ACU has been suffering badly with "blackout" trouble during the month. Latest version of "taking coal to Newcastle" is Rod buying ice. Do you think we should take some "Ham" to Urunga, Rod? 2WH has been struggling to get going on 144 Mc. between fishing trips. What with supers that won't regen and fish that do not know the Game Fish Association rules, it hasn't been a successful month. 2ACP is busy teaching a budding Ham in Katoomba the code. 2EX still thinking of re-building but no action yet. 2HZ not very active, has done a little building but not much to be seen yet. Things on the Mountains are rather quiet; 2SS. Lawson, been active on 14 Mc.

SOUTH COAST AND SOUTHERN

Although conditions have been very poor this month, something new occurred to add a little more interest to this hobby of ours. 2AKY reports that he made contact between his QTH (Holbrook) and Adelaide on 122.9 Mc. This, I believe, would be a record for two-way reception of signals between ground stations in VK land. Distance covered was 600 miles and signals were S6/7 and perfectly readable.

Conditions on 40 at night are a dead loss and the only signal of any strength is the Asiatic on 7137 Kc. 2AKY has broken the ice as regards DX, he has QSOed W2ZGF on forty to open his account. What with 600 miles on 122.9 Mc. and W on forty, Toby is going places.

2ALS has taken unto himself a Bendix TA12D; a spot of conversion before she goes on the air. 2TC heard on 80 CQing but did not hear any replies. 2ON on c.w. and phone, has nice fist on key and his n.b.f.m. sounds f.b. We hope to have a new station and also another member for the W.I.A. within the next fortnight. No news from my listening post at Coota this month, guess Rex is QRL with film squirting job. 2APP active but struck snag in hum trouble; believe modulator to be run from accumulator for filaments. 2AID was contacted for a few minutes by 2AKW, but conditions were bad and signals not very stable. Two new stations listed as being in this zone, 2AKZ at Nowra and 2AQF at Dennilquin; no news as to their activity. The Nymph of Nyngan has at long last to suffer from QRM from another Ham at Nyngan. 2DO had QSO with 4DO on 20 on 7/3/51, this was one day short of 17 years when these stations first contacted.

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VICTORIA

The March monthly meeting of the Division was held at the usual place, the Melbourne Technical College, Bowen Street, Melbourne, on Wednesday, 7th. The President, 3GS, occupied the chair and there were approximately 150 members present—which was pleasing to see. A visitor, one 7PF, was given a hearty welcome to the meeting by the President and members. The agenda item for the evening was a lecture plus a colour film, presented by our class instructor, Dave Medhurst, of the Melbourne University. Dave came along armed with amplifiers and a 12 inch c.r.o. to show the members just how one's heart works—in other words the apparatus was the Electric Cardograph. Dave introduced the lecture with a colour film showing, and explaining, the action of the human heart. At the conclusion of the film, three human guinea pigs came forward to have their "tickers" give a visual scene on the c.r.o. There was great sighs of relief when Dave gave them the all clear. The lecture was most instructive, and Dave has the happy knack of making the subject very clear to the audience. The President, on behalf of the members, expressed his appreciation of the fine talk and asked the members to carry the appreciation with acclamation.

The business side of the meeting was the promotion of the Editor of the magazine, Tom Hogan, to Life Membership of the Division. This was moved by the President, and seconded by the Chairman of Council, Dick Dowling, and supported by Jack Duncan. More members came forward and gave their names for the roster to work VK3WI. This will now enable the Council to have a steady stream of "announcers" and operators for the station. The meeting closed at 2235 hours.

By the time these notes are read the Federal Convention will have come and gone. A full report will appear in a future issue of the magazine, also our Division's annual meeting will have been held.

We are very sorry to hear that 3BH's wife was taken to hospital. 3ACL, of Red Hill, was an inmate of Mornington Hospital. Our Administrative Secretary, Mrs. May, was away from the office with the "wog" for a few days. That bundle of energy, 3ARL, should be back at work by now, we have certainly heard him on the 40 metre band. 3WQ has been QRL in VK2 with "show business."

NORTH EASTERN ZONE

3HZ, back from holidays, contacted 3AJO who is using a Type A now; must have you on the hook-up Jack, I mean John (YL please note). 3APF building new modulator, heard back on 40 recently. 3GD would like the re-appearance of the "Old Man," George thinks his comments were very constructive and designed to help Amateur Radio; still on batteries and pet beef is v.f.o's. on 20 metres. 3ACK in throes of building radio controlled plane, according to local paper (yes he hit the headlines). 3AT visited 5SD and 5KO whilst in VK8 land, the latter being an R.I., showed Alec over the frequency measuring station, Alec being suitably impressed with all he was shown. Alec is experimenting with s.s.s.c.

3KR visiting someone in Shepp., wasn't yours truly. 3UJ has another 2 metre crystal controlled converter. Ron Gibb up Wang. way still looking for wavemeter so that he can obtain

call sign. 3FD still without modulator. 3ACK partly on deck from 3HZ. 3APF in Melbourne. 3ALE also in land of missing along with 3AGT. 3JK heard on hook-up. 3ALE is awaiting modulation tranny. 3YV still eminating goodwill cheer, etc., from Wang.; you have something to winge about Howard. Bert Brown, associate from Yea, gives you boys flattering reports according to letters I have received. Bert slightly unhappy since getting hand caught in bottling machine at work, then being nearly bowled by lightning all in the one week.. You boys may receive hand painted SWL Cards one of these days "if" your lucky.

In closing, the zone correspondent's new QTH is care of the Victory Theatre, Tatura.

CENTRAL WESTERN ZONE

One of the disadvantages of country life is the continuous ebb and flow of population. Since our last notes 3TZ has departed from Stawell to Melbourne and 3AKP is departing to Horsham. 3TA has a crystal controlled converter ready for 144, so we hope something will be done about that Melbourne to zone two way contact on 144, and the three miniature tubes handed over to a permanent owner.

During the month our ex-member 3AJO popped in for probably the last time. John is on the air now from Shepparton using a Type A. He is also getting married soon (poor chap). 3DP busy on an s.s.b. Tx on 7 Mc. but is suffering from lack of output. 3ARM after a long absence, on 3.5 Mc. and putting out quite a nice signal; has changed the antenna to an end-fed 80 metre zepp which works out OK on 40 also.

3XU rebuilt Tx with a band-switched exciter and an 813 in the final with 100 watts modulated by a pair of 807s in AB2; Gordon puts out a beautifully modulated signal and is a pleasure to work. 3ARL is now home again, and busily engaged in his favourite sport. Anyway it is nice to see and hear him about again after his long absence. 3YW is now looking for contacts on 3.5 Mc. s.s.s.c., present frequency is about 3554 Kc. and the transmitter, which uses a crystal band-pass filter on 1600 Kc. for sideband suppression, runs to 35 watts input on peaks to a single 830B in class B.

As a reminder to all zone members, and other interested parties, the preliminary date for our next Convention is Sunday, 23rd September, and the place Ararat. Also don't forget there is a zone hook-up on 7150 Kc. (approx.) at 1000 hours on the second Sunday of the month.

For the first time since our Magazine returned to print an active member of the Magazine Committee has taken unto himself a wife. Pictured above is your Circulation Manager, Ian Sewell (VK3IK), and his charming bride, Lynette. With her assistance we are sure the circulation will be absolutely correct in future.

SOUTH WESTERN ZONE

Your scribe has been fairly inactive this month and apparently there has not been very much activity in the zone generally, not much to my knowledge anyway. 3AGV went Interstate on the 12th and headed for the Blue Mountains in VK2. He took his Type 3 with him. 3AGE still active on 40 and 80 when time permits, though the picture operating keeps him busy at nights and on Saturday afternoons. 3AGD is building himself a new shack. Haven't heard much of 3II this month except on the emergency net. 3ADN very quiet of late, XYL must have put the axe through the rig.

I would like to bring to the notice of all South Western Zone members that there is still a zone hook-up on 80 metres at 2100 the first Sunday of every month. Last hook-up (4/3/51) was a total washout as such; not because static was bad, but because a lot apparently did not try and get on.

3VF is leaving the district and going back to Melbourne. The Geelong gang will be sorry to lose him. 3AIC has built up a two stage rig using 3S4s with the idea of taking it portable. 3IC playing about with an AT5 and has built up a new power supply for it, also has altered his relay system. 3BU shortly putting up poles at shack at Barwon Heads. 3ALG has his TA12D (30 watts) perking and running. 3AJF and 3APG were heard on the band during the month, 3AJF was using a RC16B. 3BW also heard on 40 metres using his Type 3. 3AJT and 3ABE working phone DX on 20 metres. 3AOL having trouble with his Rx and modulator.

GEELONG AMATEUR RADIO CLUB

There was a good attendance of members at the new club rooms, where 3BU provided the syllabus for the evening, films, which included 3BW erecting his rotary beam. At the next meeting 16 members were present, the President again presided over the meeting. The new club rooms are more comfortable than the previous ones. The lecturer on this occasion was 3SY whose subject was "Speech Equipment" as applied to broadcast transmitters, a lecture which proved most interesting to members. Jack certainly knew his subject.

Recently the boys got together and pulled down the doublet antenna in adverse weather conditions and erected it at the new location. For intending members, the location is two doors up the hill from the Post Office in Gheringhap Street in a room at the back of the building.

EASTERN ZONE

The chief item of interest this month is that after a hook-up lasting 3¼ hours, we decided that the next Eastern Zone Convention will be held at Warragul, on the 3rd and 4th of November, 1951. 3AMV is doing the necessary arranging—the poor chap doesn't know what he has let himself in for, hi!

Sale Radio Club's April meeting will be held on Tuesday, 17th April, at Maffra, at the QTH of 3SS. Club President, 3ABF, has invested in some large trannies, etc., for the new rig. 3ABP active on 40 phone between flights. 3AFG not heard lately. 3AJA pounding the brass, also on 40. Wealthy sheep man, 3IO, busy counting the takings—that'll make him bite! 3QZ and 4PR handled some emergency traffic for the "Glory Without Power" boys—S.E.C. to you!—when phone and power lines were out during February storms.

3PR claims he is not receiving sufficient publicity in these notes—some people are never satisfied! 3TH left his tractor out one night and in the morning it had disappeared, except for the top of the exhaust pipe—the result of a cloud burst up the river. 3RH, 3VL, 3US, 3DI and 3TH with occasional assistance from 3QZ, active on 50 Mc. 3HK on the hook-up with f.m. No sign of 3AEP for ages. 3ALA's Rx is on the ice, stay home from the movies and fix it, Teddy!

3SS expects his new assistant to arrive from England about 1st April: Keith's new shop almost completed now. 3WE coasting awhile. 3GO should be on the air again soon—when he moves into new quarters. New Ham here is 3ASE at East Sale drome. 3ZJ announcing at regional 3GI. There are now four Hams there, 3GO, 3LY. 3VG and 3ZJ—must be nearly a record.

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QUEENSLAND

It was with deep and sincere regret that we heard of the decease of student member Ken Collins who, until his untimely passing, had not only been making good progress in the attainment of his transmitting licence, but was also very active as a registered short-wave listener in which capacity Ken received cards from Hams throughout the world. As many of you are aware, Ken's death can be attributed to the extensive war injuries he sustained whilst serving in the Navy during World War

Two. It can thus be said that he gave his life for his and our country as surely had he died on the battlefield.

On Sunday, 25th February, although expected, we were somewhat shocked to hear Frank Nolan announce over 4WI that he would be unable to further carry on as our station manager because of ill-health. After four years at the job, Frank is not to be blamed for wanting a rest anyhow. Thank you, Frank, for a grand effort and we are certainly going to miss your pleasant voice each Sunday. Henceforth if you want words with "Funny Noises" on the air you will have to contact him under his own call.

I doubt if there is one of you who has not heard of G8PO (Lieut. Commdr. Ted Ironmonger) and his famous beam antenna. Well I guess you can now be excused if you call it the G3GZO beam because that is the call sign he now uses. Heard him coming through in fine style about 11 p.m. E.S.T. on what is believed to be his initial contact with VK since his return to England from Australia where he was using the call of VK3WU.

4NC has been smiting with hammer and nail (if he visits you make sure you have the palings left on your fence) and any tick of the clock we should hear him working the DX on a three element beam. It is rumoured Charlie is going to direct it on Bundaberg but of course I think his XYL, Billie, may have something to say in the matter.

4KS (ably assisted by chief cook 4YA and chief announcer 4WD) were going hot and strong in the field day contest. Did I say hot and strong Bill? 4FP (not so ably assisted by 4CC—that's me fellas) was also doing well despite the inclemency of the weather. We have decided to borrow the services of my good friend Wally Blizzard (president of a local archery club) to ensure that in the next contest we have an antenna higher than fifteen feet—they were such high trees too. In addition, Wally may prove useful should any of our competitors decide to use a balloon to support theirs. I warn you he is a crack shot!

It was like listening to the re-union of two long lost brothers to hear 4YA and 3ND contact each other for the first time after Bill's many years of inactivity. Brother, did they ear-bash each other? Nevertheless many of us got just as great a kick out of it as those two gentlemen did. Must tell you that when I was listening to Bill (4YA) one evening my young daughter said, "Gee, Dad, have you got a South American there? He sounds foreign." Guess you know Bill is a Scotsman.

4CI has recently returned from a three weeks' trip to Sydney, during which time he had a portable rig in operation. 4PX has installed an 813 in the final. If you want to know how to cure the parasites—pardon—Arthur should know all the answers by now. 4PD found that his beam required some new timber urgently so decided to use his 40 metre poles. To his amazement, and ours, he finds that the 40 metre antenna works nicely when strung up between the two side fences with the feeders on the ground.

CLARE'S CORNER

How about some of you VK4 boys doing something unusual on the band instead of just switching on, calling CQ, working a station or two, and then pulling the big switch. It would give me something to write about. The way things are at present I've got to do a lot of listening for very little news.

Even 4AH has been very quiet of late, maybe he really did float off during the recent flood rains, and we'll be hearing from him from some remote Pacific island in the near future. 4MD is another one who is rarely heard these days; also 4WG. Still absent from Brisbane is 4UX who is operating from his temporary QTH at Longreach. 4FE has just returned from a brief visit to the south and is now eagerly looking forward to resuming work again, hi!

4NF has not been heard very much of late, maybe he's busy pacing the floor, or could it be 4FJ's new three element beam on 20 metres? 4HD playing a lone hand on 28 Mc., hoping for the band to open up, also notice his absence from the 40 metre hook-up on Sundays. 4RT and 4HR still searching the ether for that elusive DX. 4FJ, who incidentally is doing very well with his new 20 metre three element beam, has the honour of being the first VK4 to claim the certificate of the Far East Amateur Radio League; congratulations Roy. 4PR is well on the way to his second DX C.C. Heard Jim working his 184th country recently.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held at the usual meeting rooms to a capacity audience and the lecturer for the evening was 5JD and his subject was "144 Megacycles." Jack made no secret of the fact that as far as he was concerned he was there purely and simply for the purpose of selling this band of frequencies to all and sundry, and as far as I am concerned he succeeded in doing so in a manner far beyond his wildest hopes. The most striking part of the lecture, or should I say the selling campaign, was the practical demonstration at the conclusion of the talk, of the possibilities of this band. Jack staged a first-class contact with 5GF who was operating mobile in the vicinity and later with 5GL, who accidentally happened to be listening at the time. It definitely proved just what can be done with low power and the minimum of equipment, and some of the "gasbags" present who inhabit 20 metres at night holding forth with inane chatter could well take Jack's sales talk to heart. Jack had put a lot of work and thought into the preparation of his lecture and the appreciative applause which greeted the vote of thanks proposed by 5KX was a good indication of the success of the lecture. Jack said in reply that he would like to thank the v.h.f. gang who had helped him put it over, and he stressed the fact that if anyone was interested in coming on 144 they could count on the assistance of the boys who inhabit that band.

Quite a lot of discussion took place on the question of a "wet" or "dry" Xmas social, and the matter was deferred to a future date.

I have it on the best of authority that my old friend 5LL has given Ham Radio away. I believe that he has let his licence lapse, and if this be true, then I am very sorry to hear it because 5LL and the early days on 20 are synonymous, and I, in common with many of the old timers, retain many nostalgic memories of those days when a Ham was judged not by the imposing array of gear that he possessed, but simply by the fact that he had enough commonsense to get on the air and become one of the gang. I hope that I have been misinformed Luke.

I am at last one of the residents of the posh suburb of Rose Park and I do not expect to be on the air for some time. Incidentally, this Rose Park suburb is not such a bad place, but they are somewhat peculiar people, would you believe me, they use their forks to eat with and they looked very pained if one stirs one's tea with one's finger. I would be the first one to admit that green peas are extremely difficult to balance on one's knife, but long practice at Henley Beach has made me almost a genius at balancing peas. Such is fate, all my years of concentration gone by the board.

Our Secretary, 5XU, is now back in circulation after his sojourn in hospital, and although he is not yet quite one hundred per cent., providing that he looks after himself, he will be okay. He and 5KX will be off to the Convention shortly, both prepared to do battle for VK5 on any controversial subject that might arise.

5MS is still very busy on the new home but at least he has found time to straighten out the beam and return it to its previous workmanlike look. Stewart only needs one more transformer to complete his new transmitter. 5KU seems to divide his attention equally between gliding and Amateur Radio, though he manages to do quite a bit of c.w. on 20 and 40 metres. 5FD is another one who is back in circulation again but is also very busy with house-building and providing all goes well with this project, John expects to be active again on the air in about two months. 5TW has been informed that he will have the a.c. connected before the end of February, and with this in view Tom has been getting all his power supplies ready.

5KB has had a fairly quiet month and only hears the local two metre signals, however Peter has been seen with a hefty looking transformer and it appears from this that a new power supply is in the offing. 5CH is yet another Mount Gambierite to be house-building, although he finds time to keep his skeds on 2. In his spare time he also is building a c.r.o. and although my spy makes no mention of it, I will bet that Claude is spending a little time at the power station also. 5CJ is heard now and again on 40 and 2 metres, but Colin at the moment of writing is not entirely himself, because the XYL and harmonic are away on holidays and he realises now just how necessary they are to home sweet home. It is a funny thing, but the average man can hardly hide his feelings when the XYL mentions that she would like to go away for a holiday, and 24 hours after she has gone away he is mentally deciding which would be the easiest way out, the river or the railway bridge. Such is life.

5BY has been singing the praises to all and sundry of his new aerial, and if all is to be believed it is worth praising. However, his morale must have been severely dented when it proved so allergic to that VS7 signal the other night, especially when a peanut whistle signal belonging to 5MD managed to sneak the VS7 from under Dougal's nose. My old sparring partner, 5BZ, is on his way to the higher regions, to wit, six metres, and although he is having a little trouble in finding his way about as yet, there is no truth in the rumour that the mysterious explosion that rocked the northern suburbs the other night had any connection with his signals.

More than the required number of nominations for the VK3 Council have been received and therefore a ballot will be necessary. This is all to the good and should provide quite a lot of excitement in the process. I shall be very busy with my election campaign as you read this, judging at baby shows, laying foundation stones (quite a strain to me incidentally), and of course kissing the winning babies, but anyway may the best men win and all that jolly stuff.

5TL, our genial Treasurer, is at the moment holidaying in VK4, just where I am not In a position to say, but I can assure you that he did not travel up there on "rattling salvation," as his motor bike is known. The gang in VK4 would get quite a shock if Tom rode up in his usual riding costume, because they would be pardoned if they thought that he was passing through to Heard Island. He is a cold little body is our Tom!

The VK5 station that came on 20 the other night saying "Yoo hoo, yoo hoo, calling CQ, anybody will do," might remember that such antics can be pardoned in a youth, fresh on the air, but coming from an older person with years of experience, it cannot be pardoned and can only be classed as the first signs of senile decay. Get it?

In view of the somewhat damaging publicity to Ham Radio that has been given in the local press this last month, there have been quite a few members who have expressed the opinion that some official reply should have been written by the Council of the VK5 Division to the paper concerned. I must admit that at first I felt the same way, but the President's reply to such a question submitted to him by 5LG at the general meeting, soon convinced me that it was the right angle to take. "Doc" said that the best way to treat such publicity was to ignore it and thus it would die a natural death, but if a newspaper controversy was entered into, it only served to keep it alive and possibly draw the attention of a lot of people that did not see the original reference. You know, as much as I dislike this Barbier, I must admit that he seems to have all the answers at the right time.

Once again it is time for the yearly subscription to be forgotten, and once again it is time for the magazine to cease being delivered to those who forget. It grieves me to say that once again it is time for those who forget, to ring up the Treasurer and put on a moan that they have not received their magazine, and in logical sequence it is time for the Treasurer to remind them that the magazine ceases to arrive when the subscription lapses. I could go on with this sort of rot indefinitely, so what about renewing your subscription OM.

Activity in the Berri area this month has been more concerned with fruit preserving than with Ham Radio as the fruit season is in full swing. 5BC has begun crystal grinding in real earnest for his new 6 metre converter and has been very successful to date. The lower frequencies have been neglected while this project has been in progress, so much so that mice-nests and cobwebs are appearing in the low frequency transmitter. Tut, tut, Otto!

5MA has taken delivery of a new power transformer, the likes of which has never been seen outside of the most powerful broadcasting station in the State (5RM, of course). Now how did that one get in my notes, and the worst part of a statement like that, is the fact that I can't deny it. Anyway to get back to Fred's transformer, he has almost to build a special shack to house it and it would appear that a few more ergs are about to emanate from Fred's QTH. He has just finished a new 6 metre transmitter which appears to be the goods, but one thing is worrying him, and that is that a lamp in the absorption loop still burns even with the drive off! My, my.

5KW seems to do nothing but pack and unpack his worldly goods from house to house. Harry is moving into a brand new house which is only about two hundred yards from 5MA, so the fun will be on now. Couldn't you have blown it up Fred, before he arrived. 5SL has re-built his transmitter for the fourth and last time (he hopes) and it would appear that his flock of parasitics is at last on the wing. Incidentally, I take a very suspicious view of his closing remarks in his letter containing these notes, to wit, that he hears that I may be coming up that way doing a spot of relief duty and that I can expect a very interesting time. Thank you very much, but may I coyly ask, just how interesting?

The boys up at Berri had a visit from 2ABC at their last meeting night and he was made very welcome. Fred passed along a few ideas on antenna arrays that the VK2 boys are using and set the local boys' minds working on a new antenna. Another visitor to the shack of 5BC was 2OT from Broken Hill and they arranged

some schedules for 6 metres, but as yet there is nothing doing both ways. 5BC can be heard in Broken Hill, but 2OT has yet to break through.

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WESTERN AUSTRALIA

The February meeting was held in the Institute rooms, Padbury House, on the 20th. The attendance was average, but could have been a lot better. The weather no doubt kept many away, it being very hot and oppressive after a particularly humid day. However, we were all pleased to see three visitors present, namely, 6MU (Merredin), 6DW (Bruce Rock), and 3HG from the Western District of Victoria. The latter had only arrived in VK6 the previous day by Interstate boat, and planned to stay three or four weeks. By the time these notes are printed, 3HG will be back home, but we all trust you thoroughly enjoyed your holiday OM, and hope to hear from you on the air.

6DW has also been on holidays; giving six metres a rest. I believe Don did extra well in the Ross A. Hull V.H.F. Contest, and it wouldn't surprise me at all if one of the prizes comes to VK6 again this year.

The meeting was the closing time for nominations for the 1951 Council, but according to the Secretary only nine were received, a very poor return indeed from 143 papers distributed. It is to be hoped that the ballot papers receive more attention from members.

Commercial interference in Amateur bands came up for a good deal of discussion once again, 7 megacycles of course being the main bone of contention. I can quite understand 6LU's feelings on this subject but much as I hate to admit it, I'm afraid ours is a voice in the wilderness, with as much chance of being heard as a 25 watt amateur signal underneath some of those high power b.c. stations on 7 Mc.

6MU had, unfortunately, overlooked the closing date for his agenda items, but had some up to the minute comments to make regarding certain problems coming before the Division lately. 6JW was also able to assist in this respect, and it shouldn't be long before members know one way or the other where they stand regarding certain conditions under which they operate.

6AG gave his postponed lecture on "Use of C.R.O. in Design of A.F. Amplifiers." Unfortunately the subject of the lecture had to be changed at the last moment, because the amplifier under construction was not available. I think Wally left it home at Darlington. However a good radio man is always resourceful and from out of nowhere Wally produced a vibrator power pack and sundry vibrators, good, bad, and indifferent. These were all tested using the c.r. tube, the results of each test being quite noticeable. From there the lecture became a general discussion of different c.r. tubes, their merits and de-merits, etc. Various members joined in the discussion and it becamc quite interesting. I'm sure no one missed that audio amplifier of yours Wally.

After the usual ragchew the meeting closed about 10.40 p.m. The next meeting (March) is the Annual General Meeting and 'ere these notes appear in print the new Council will be in office, all set with their new brooms and ready to sweep clean. To the incoming Council, whoever they may be, here's the very best of wishes for 1951-52, and a most successful year in office.

PERSONALITIES

I am indebted to 6WZ, of Geraldton, for the following items of news concerning the gang up there; thanks Harry. From Geraldton comes a thin trickle of news to the effect that Ham Radio there is almost at a standstill. 6EL is engaged in building a "ute" body for his new Morris and never goes on the air. 6CN who is still waiting for a.c., is now almost around to the point of doing something desperate (a couple of 1T4s in p.p. with 45 volts h.t.!) just to find out what this Ham Radio is all about once again; is about 18 months since Cyril last sent out a signal. 6BJ amazed everyone (including himself) by coming on the 7 Mc. band a Sunday or two ago—only stayed for one QSO —then had to chop some wood; very shortly he is about to descend into the same street as 6WZ. The latter station is the only one in Geraldton making any sort of noise at all—and that's an average of about one QSO per week on the 7 Mc. band. Harry has just given away three stages of 1900 Kc. i.f. for a "double convergin" effort. He says everything seems to be "convergin" at the centre of the 7 Mc. band—joeys, shrieks, snorts and Asiatic b.c. stations. 6RT who more or less belongs to the "Geraldton Zone"—there being no "Cue Zone" —is included herewith as having spent his annual holidays at the northern port and having spent some time on visits to the 6WZ shack. Len is just as puzzled as Harry over the performance of the latter's receiver. 6RT has gone back to Cue with four UBL1s determined to lick those d.c. mains or else!

It is rumoured that 6RU did exceptionally well in the last VK-ZL Contest. Two comparative strangers turned up to the February meeting, 6IG whom we had not seen for at least a year, and 6GB who put in an appearance after a lengthy absence; how's the new six metre final progressing Jack? 6AP, whose job keeps him up till midnight, chases the DX in the small hours of the morning when nearly all other VKs are abed. I don't think there is a ZS who doesn't know Alf. 6HC and 6WT left on schedule for VK3 and VK2. They were heard from Norseman putting a very solid signal into Perth.

6GA has been worked from Forrest. I understand Bill will be seeing plenty of Forrest and vice-versa. What was to be a short relieving term had turned into a three year affair. Is that right Bill? Better get plenty of Ham gear up there OM and let's hear more from you.

If other VK6s are spending as much time on the air as what I am, then activity must be at an all time low. One QSO per fortnight is my average these days. Haven't we reached the bottom of that sunspot cycle yet?

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TASMANIA

There is very little of interest to report this month, band conditions have not been the best and apart from a few of the locals, conducting cross town QSOs, inactivity was prominent during the month of February. An apology must be made for the non-appearance of notes covering our annual institute dinner held at Hobart on 2nd March, full details will be included in the next issue.

From 7KX it is learnt the new transmitter is due for its first air test and from what can be gathered will be capable of between 80-100 watts. Parallel 807s are the final amplifiers. Don, during the last few weeks, has enjoyed the thrills and spills of speed boat racing, but has returned to radio, even with the new sales tax. Don is of the opinion radio is the cheapest hobby after all. Believe a beam is eminent at 7RX, the type planned is the two element type and, knowing Keith as we do, should perform well. Friendly rivalry between 7RM and 7RX regarding signal reports on 20 metres favoured Rupe in a recent check with a VK5, much to the delight of 7RM. Heard since his recent modulation trouble is 7LD and from his transmissions of late appears to have completely overcome the trouble.

Disappointed to hear prior to our general meeting that no members would be likely from the Launceston Zone. North Western Zone will be well represented by 7AB, 7KB, etc. Met our old friend 7EJ recently, still busy pursuing his source of income and as most know is resident at Opossum Bay. Ted up until now has not been active from the new QTH; plans are in hand for future improvement to the new rig, so in future more will be heard from this area. Heard 7CT in contact with 7WI one recent Sunday with reasonable strength, but was having local QRM troubles which made reception difficult; glad to hear you again Terry. Another country member seen in Hobart (collecting your wool cheque John?) was 7AG, seen visiting a radio store and appeared interested in a "750" Eddystone receiver. Trust we will see you at the dinner John.

News is to hand of the illness of 3ARL whom needs little introduction to VK7 Hams. Prior to his departure to the mainland the call was 7OL and was a very active member of this Division. Sorry to hear of your bad luck Lin and it is the hope of all that a speedy recovery will be made. From the north the most solid signal heard this month has been from 7MC, sounded f.b. except for a traceof hum on the transmission. 7JD now purchased a new microphone with good results and is active on 40 metres. Trouble in gaining sufficient grid drive to his 144 Mc. Tx is being experienced by 7MY, which has stopped temporarily the automatic transmissions being conducted during the recent few weeks. Seen in town since his return, looking fit, is 7SK. Believe his new hobby is photography and during his recent holiday managed to take some interesting shots especially of his host 2DX.

B.c.l. worries now being experienced by 7SD although with the aid of 7DH appears to have the matter well in hand. Bad luck Don, was surprised to hear 7CF in contact with 7WI and signals heard were S9. Must be the new location Charlie, trust we hear more from you in the future. 7GB heard also on 40 working DX on c.w. Ted is unfortunate in he does not enjoy the pleasure of attendance at our W.I.A. meetings owing to his nature of his employment. Visiting the mainland in the recent month is 7GA now comfortably installed in the new Sandy Bay home. 7RY engaged in the joys of home building, but still manages to enjoy a QSO during the week-ends.

NORTHERN ZONE

As each month goes by I continue to be amazed at our good fortune in being able to contact so many willing persons who are ready to provide entertainment and instruction for us at our meetings. We have had over the last year or so a great number of able lecturers on subjects as far apart as meteorology and recordings and embracing many aspects of radio, each evening providing its own specialised education and the whole adding up to something that would be a credit to an organisation much larger than our zone. Most of our members realise this, but to those of you who may not, I would suggest you just stop and think of what we have had and hope to get, try to visualise some of the work and preparation that has gone into those lectures and then appreciate the fact that this W.I.A. of ours is something really worth working for.

Our February meeting provided a somewhat unusual evening and one that must surely be recorded among the top liners. A film evening was arranged and after a good deal of last-minute headaches a most enjoyable selection of films obtained. Our most hearty thanks are due to Mr. Carl Crawford for so very willingly providing the projector and associated equipment and for giving up his time to show the films.

Movement once more seems to be in the air here and it seems as though every time someone gets itchy feet we lose a full member. This time its 7PF and Peter, after having joined D.C.A., has been transferred to VK3. Bad luck for the zone but we hope good luck for you Peter and the best wishes of all go with you. Now you'll be able to be the first to be on both ends of a VK3-VK7 144 Mc. QSO. 7DS is now also with the D.C.A. so now we really can feel safe when we travel the skyways.

Got a new country out of the mail box recently which made 90 per cent. on 140 countries worked, so that rather gives the lie to the idea that QSLing is outmoded. 7LZ happy with his 144 Mc. rig, will be using 7PF's "Lenfo" during Peter's absence. 7BQ also reasonably satisfied with his various v.h.f. rigs and judging from the rapidity with which he disposed of torch globes on 288 the other night I would say be should be. Seems as though the weather has been just right for that bug lately as even I have started a rig for 288 Mc.

A big blow recently accounted for at least two beams in the area, a 6 metre at 7BQ and a 144 Mc. once more at 7AM. As for the rest of the crowd, unless I turn Dorothy Dix I cannot write of their doings so it's time to remind you that the meeting in April is scheduled for Friday 13th and, as last year, a liberal supply of rabbits' feet will be obtainable at small cost.

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EDITORIAL

★

The story has been heard many times dealing with a situation wherein the largest diesel engine in the world had come to a stop, tying up a large factory. Expert engineers with all kinds of paraphernalia were called in, but they all failed to get the huge machine working again. Finally the frantic management heard of an obscure expert living across the other side of the continent. They called him up, offered him anything so long as he could help them start their engine, and even sent an aeroplane to bring him over. When he arrived, an inconspicuous little man in overalls, he was effusively greeted by the officials of the factory and escorted to the location of the engine. The engineer of the plant described the symptoms to the little man, to which he listened attentatively before asking, "Has anyone got a ballpeen hammer?" The hammer was produced and the little man climbed quickly up the various ladders leading to the top of the mammoth engine and disappeared into the top section of its structure. He was heard to strike a few rapid but powerful blows with the hammer. Then he re-appeared, climbed down the ladders and said, "Now try her." To the management's intense relief the great machine started instantly and ran perfectly. The officials wrung the little man's hand, praised his ability, and told him to send in his bill.

When the bill arrived a week or two later, it was for £1,000, which caused a mild explosion on the part of the financial manager of the factory, his previous worries and troubles with the engine quite forgotten. He called the little man up on the phone, told him he was a racketeer, that the bill was outrageous, that he would not accept the account unitemised, that his Company's policy was for any account above £100 to be itemised and he defied the little man to itemise this one. "Why," he said, "all you did was to go up there and hammer and that was not worth more than £1. If you can itemise that bill to amount to £1,000, I'll pay it; otherwise I won't!"

So the expert itemised his bill, and this is the way it read: For hammering, £1, for knowing where to hammer, £999, total £1,000.

History has it that the little man received payment. You have probably heard the story before, for it has been related many times all over the world. But the point of the story is that what made him an expert was that he knew precisely where to hammer. That took some knowing. That's what set him apart from the pseudo-experts who tried and failed. He didn't flounder nor did he try things blindly. He **understood** engines and saw clearly that the trouble could only be one thing so he went right there and fixed it immediately. That ability was the hallmark of the expert—knowing where to hammer.

It's the same way in radio. Most of us Amateurs don't know how to locate troubles quickly, nor how to engineer our apparatus properly in the first place—because we haven't acquired a really sound practical and theoretical understanding of radio. Or those of us who perhaps once did understand basic theory and were capable of sound engineering practice have not bothered to revise our knowledge because we have been too busy operating. We've always promised ourselves that some day we'd take time off to start again at the beginning and really digest that basic theory. Perhaps it's a good time to start if we want to keep up with our rapidly expanding scientific hobby. Time and tide waits for no man!

—FEDERAL EXECUTIVE.

The Contents . . .

A Simple Transmitter For The 50 Mc. Band

BY Q. N. PORTER,* VK3IM

Judging by the large number of cross-town QSOs that take place on the 7 and 14 Mc. bands, often under conditions of heavy interference and/or static, many of the active Amateurs are ignorant of the fact that we have a band 4 Mc. wide at 50 Mc., which is ideal for local work up to 50 miles or so, at any time, and with the better located stations having regular contacts at distances in excess of 100 miles.

There is also the added attraction of fairly regular DX contacts to various parts of VK and ZL over the summer months and occasionally at other times during the year.

All this makes six metres quite an ideal band and, added to this, the gear used is quite simple, being no more difficult to construct and get going than that for 28 Mc.

The transmitter to be described here is one that has been successfully used by the writer for about two years and is suitable for power inputs of between 10 and 25 watts, depending on the power supply and modulation equipment available.

As will be seen from the circuit diagram, the transmitter is a four-stage crystal controlled job and uses gear that is readily procurable, the tubes all being types obtainable very cheaply from disposals.

The first stage is an EF50 tritet c.o. using a crystal in the range 6.25 to 6.75 Mc., and doubling in the plate circuit to 12.5 Mc. The second stage uses another EF50 as a doubler from 12.5 to 25 Mc., and this drives a 6V6GT as a doubler from 25 to 50 Mc., which in turn drives an RK34 dual v.h.f. triode, or a pair of 7193s, as a straight final on 50 Mc.

The construction of the first three stages of the rig is quite straightforward and no difficulties should be encountered here. Of course all leads carrying r.f. should be kept as short as possible, and it is advisable to use mica condensers as r.f. by-passes, particularly on the 25 and 50 Mc. stages.

The coils for the c.o. and first doubler stages are wound with 18 s.w.g. wire on ⅜" diameter formers and this wire is heavy enough to allow the coils to be wired across their tuning condensers without any other support.

The plate coil of the 6V6GT doubler is air wound using 14 s.w.g. wire and is also connected directly across its tuning condenser.

If an RK34 is used as a final, it should be mounted horizontally, a small right angle bracket being made from aluminium to hold the socket. The grid coil is then air wound and connected between the appropriate socket pins, then the 3 to 30 pF. trimmer is wired in parallel with this coil using heavy wires to hold it in position; this form of construction proves quite satisfactory and, of course, gives the lowest losses.

The grid coil is link coupled to the plate coil of the 6V6GT doubler, and the links consist in the writer's case of two turns of Nylex insulated wire at each end of a 10 inch length of 300 ohm ribbon. The spacing between the turns of the doubler plate and p.a. grid coil is such that the links are gripped quite firmly in each coil and no further support is required. If the constructor is fussy, insulating blocks can be built up to hold swinging links at each end of the length of 300 ohm line.

The plate tuned circuit of the RK34 consists of a split stator condenser of approximately 20 pF. per section capacity, which was made by split stator-ing a 50 pF. midget condenser. The plate spacing was not increased, and no trouble with arcing has been experienced at up to 25 watts input, so any similar home-made condenser, or one of the Eddystone 25 pF. per section split stators should prove quite satisfactory here. Once again the coil is air wound with 14 s.w.g. wire, and connected between the fixed plates of the condenser. The plate caps of the tube are connected to the condenser by clips and short leads (about ½ inch long).

The neutralising condensers used are the small 2.5 pF. (max.) concentric cylinder Eddystone units, and are mounted on small aluminium brackets about half way along the length of the tube. Due to the length of the RK34, the leads to the neutralising condensers are necessarily rather long, but this seems to have no adverse effect on the performance.

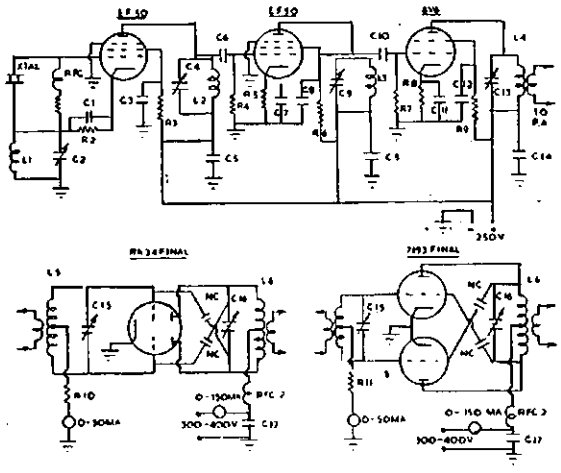
If a pair of 7193s is to be used as a final, the construction is necessarily somewhat different, as the 7193s have the grid and plate both connected to top caps. The tubes should be mounted vertically with the bases fairly close together, say ¼" between the two socket holes in the chassis. The sockets should be oriented so that the grid and plate caps of the two tubes are the same distance apart. This is done so the grid circuit may be mounted on one side of the tubes and the plate circuit on the other.

It is not wise to mount condensers, coils, etc., directly onto the grid clips as the strain may possibly break the glass, so the grid coil and condenser should be mounted on a piece of insulating material held near the grid clips by a bracket bolted to the chassis. The plate circuit is the same as in the case of the RK34. The neutralising condensers are mounted beside the tubes and, of course shorter leads are possible than with the RK34 final. However a difficulty arises if the Eddystone condensers used with the RK34 are used with the 7193s, as their grid to plate capacitance is 3.2 pF., while the maximum capacity of the condensers is 2.5 pF. In the writer's case this was overcome by connecting small condensers made from 1" by ½" copper tabs ½" apart across the contacts of the neutralising condensers. This adds another 1 pF. or so and allows neutralisation to be carried out. Of course a less clumsy method is to use a different type of condenser which will give the correct capacity.

ADJUSTMENTS

In the writer's case the only circuits which are permanently metered are the grid and plate of the final. Of course this may be varied and metering can be arranged for all stages if so desired; in any case, the plate and grid currents of the first three stages should be checked when the transmitter is first put in to operation.

At first h.t. should be applied only to the c.o., its plate and screen current should be approx. 12 Ma. with a slight dip at resonance. There should be enough r.f. present to light up a 6 volt 40 Ma. globe connected to a link to full brilliance and 1.5 to 2 Ma. grid current should flow through the next stage grid resistor. If the same size coils and condensers are used as in the writer's case, resonance should occur with the con-



PARTS LIST

R1, R4—50,000 ohms, ½ watt.
R2, R5—500 ohms, ½ watt.
R3, R6—10,000 ohms, ½ watt.
R7—100,000 ohms, ½ watt.
R8—300 ohms, ½ watt.
R9, R11—10,000 ohms, 1 watt.
R10—2,500 ohms, 2 watts.
C1, C3, C5, C7, C8—0.01 uF.
C2—100 pF. midget variable.
C4—50 pF. midget variable.
C6, C10—50 pF. mica.
C9, C13, C15—15 pF. mid. var.
C11, C12, C14—0.001 uF. mica.
C15—3-30 pF. trimmer.
C16—20 or 25 pF. per section split stator.
N.C.—Neutralis. cond. see text.
RFC1—2.5 mH. R.F. choke.
RFC2—30 turns 26 s.w.g. on ¼" former.

* 51 Pakington Street, Kew, Victoria.

denser approximately one-quarter in mesh.

The second EF50 should now have its h.t. applied and should be checked in the same manner. Its plate and screen current should be the same as before and the grid current flowing through the grid resistor of the 6V6GT should be approximately 1.5 Ma. In this case the writer's condenser is also about one-quarter in mesh.

The h.t. should be now applied to the 6V6GT, plate current here will be 40 to 50 Ma. dipping to about 25 Ma. which occurs with the condenser about one-third in mesh. There will be a large amount of r.f. present so be careful not to burn out the 40 Ma. bulb if it is still being used for checking.

If the constructor has struck no troubles, the exciter should now be working well and giving out plenty of r.f. on 50 Mc., but if any stage does not tune it may be necessary to remove or add on a turn or two. If a wide range absorption wave meter is available it is helpful in making sure a stage is not tripling when it should be doubling. It is a good idea in any case to make up an absorption meter for 50 Mc. for, if the last stage is on frequency you can be pretty sure that the right harmonics have been selected in the previous ones. Any local 50 Mc. operator will be ready to help in calibrating a wave meter, or if you live in the country it can be posted down to the V.H.F. Group in your State for calibration.

With the exciter operating satisfactorily, the links should be inserted into the 6V6GT plate coil and final grid coil and the final grid circuit tuned for maximum grid current. If the RK34 is being used this current should be approximately 20 Ma. and with the 7193s 8 to 10 Ma. Do not be frightened by these seemingly high currents, they are quite easily obtained and no difficulty should be encountered here. Some adjustment to the links may be necessary and the positions for best grid current are easily determined by experiment.

When the grid current is up to the correct value, the final should be neutralised by adjusting the condensers until there is no change in grid current when the plate tank is tuned through resonance, no plate voltage is on the p.a. at this stage of course. Once this has been achieved, voltage can be applied to the p.a.; the off-resonance current will be 80 to 120 Ma., depending whether 7193s or an RK34 is being used, and should dip to a value between 10 and 20 Ma. on resonance. This is assuming a plate voltage of about 300. The 7193s should not be loaded by the antenna to more than 60 Ma. and the RK34 to more than 80 Ma. The plate voltage can be higher than 300 and up to 400 has been used with both finals without causing the tubes any distress. This will allow inputs of up to 24 watts with the 7193s, and 32 watts with the RK34 to be used.

ALTERNATIVE TUBES

RL7s can be used in place of the EF50s to give identical results, although it must be remembered that the socket connections are different, the RL7 having several connections to the cathode.

1852s, 6SH7s, and even 6SK7s will probably give just as good results as the EF50s, although they have not been tried by the writer.

In place of 7193s a pair of CV6s or HY615s can be used, but they should not be used with a plate voltage of above 300 and should not be loaded to more than 15 watts input.

USE OF 8 Mc. CRYSTALS

If the only crystals available are in the 8.333 to 9 Mc. region the best plan is to omit the EF50 doubler and use the tritet as a tripler, giving output on 25 Mc. and then doubling in the 6V6GT as before.

COIL DETAILS

L1—14 turns 18 s.w.g. enamel on ⅜" diam. former, close wound.
L2—16 turns 18 s.w.g. enamel on ⅜" diam. former, spaced diameter of wire.
L3—Same as L2, but 8 turns only.
L4—4½ turns 14 s.w.g., 1" diam., 1" long, air wound.
L5—7 turns 14 s.w.g., 1" diam., 1" long, air wound.
L6—9 turns 14 s.w.g., 1" diam., 1¾" long, air wound.

What Is Its Inductance?

An Accurate and Cheap Inductance Bridge

BY E. E. CORNELIUS,* A.M.I.R.E. (VK6EC)

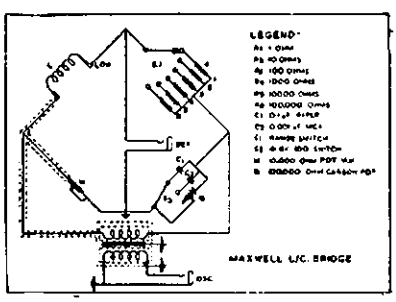
Most Amateurs, at one time or another, have been posed the problem in the title. Few of us have access to means of measuring inductance, and even more rarely is that means in the shack. The filters in a projected s.s.s.c. transmitter required several accurate inductors and capacitors. Means of measuring capacitance was available, but the inductors were beyond me.

Investigation of the possibilities of a bridge led to the decision to make one. The total cost, when finished, with all new parts, was less than £3. Since using it for the filters, it has been handy in a dozen ways. For example, a set of 12 coils, for a tuned v.t.v.m.—30 Kc. to 30 Mc. was made up, using the bridge. After assembly, only two needed further trimming, and these were existing coils put in unmodified, on the principle that they might be "near enough." The bridge saved hours on this job alone.

The accessories needed are a source of tone of about 1,000 cycles, and headphones. It will measure Q from 0 to 60 as accurately as you know your frequency, and L as accurately as your standard capacitors and multipliers. Its range is:—

100 henries to 100 uH.—highly accurate.
100 uH. to 0.1 uH.—less accurately.

With the aid of an amplifier for your headphones, this latter range will be as accurate as the other, as the sensitivity of the bridge falls off at very low inductances. To give an example of its capabilities I have measured the inductance of a loop of wire 4" long.



The circuit needs no comment, but some comment on components may help.

COMPONENTS AND CALIBRATION

Multiplier Potentiometer (M).—A 10,000 ohm Marquis MDC7 wire wound pot. was found most suitable, and the scale can be precalibrated 0-10 with an ohmmeter, such that:—

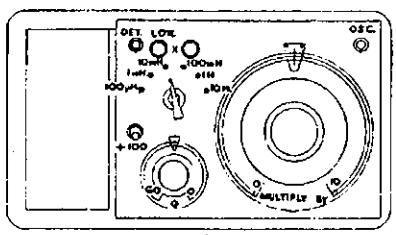
Resistance	=	100	ohms, dial reads	0.1
		1000	" " "	1.0
		2000	" " "	2.0
		10,000	" " "	10.0

The dial is direct drive, being a transcription disc cut to 6" diameter and fixed to an old 4" Emmco knob. Calibrated in white ink with a "Stylon" cursor.

Range Switch (R).—These resistors are 1, 10, 100, etc. ohms, carbon or wire wound, and the switch is calibrated so that:—

1	ohm	=	100 uH.
10	"	=	1 mH.
100	"	=	10 mH.
1,000	"	=	100 mH.
10,000	"	=	1 H.
100,000	"	=	10 H.

These are independent of frequency as L = CRM (Henries, Farads, Ohms) so that the inductance reading of the bridge is independent of frequency.



Q Potentiometer (Rq).—This is a standard 0.1 meg. carbon pot, logarithmic. This helps to spread the scale. It is calibrated at 1,000 cycles, such that:—

Q	R (ohms)	Q	R (ohms)
0.1	159	4.0	6370
0.2	318	5.0	7960
0.3	477	6.0	9560
0.4	637	7.0	11200
0.5	796	8.0	12700
0.6	956	9.0	14300
0.7	1120	10	15900
0.8	1270	20	31800
0.9	1430	30	47700
1.0	1590	40	63700
2.0	3180	50	79600
3.0	4770	60	95600

These readings are frequency dependent, as

$$Q = 2\pi fCsRq$$

where Cs is the standard capacitor, and Rq is the Q dial pot. resistance.

For frequencies other than 1,000 cycles, multiply Q by frequency in Kc. The pot. can be calibrated by ohmmeter as was the range pot.

Capacitor Standards (C).—The main standard is a 0.1 uF, paper capacitor, and on the ÷ 100 position, a 0.001 uF. mica is switched in its place.

N.B.—When on ÷ 100, divide all readings (Q as well) by 100. This reduces the Q range to 0-0.6, but at 1,000 cycles, and inductances less than 100 uH. the apparent Q, taking all bridge losses into account, is always less than unity.

Bridge Transformer.—For rough measurements no transformer is necessary, as long as the oscillator output is above earth, but the null is broad. Depending on the output characteristics of your source of tone, fairly large errors can be caused.

An old audio transformer is better than none, but the multiple shielded bridge transformer to be described is surprisingly easy to make, and almost completely eliminates errors, and makes the null sharp and definite.

Core.—Use that from an old audio transformer, about ¾" x ¾" leg section, but with a reasonably large window area. Usually speaker transformers have too small a window.

Primary.—2400 turns of 36 to 37 B. & S. enamel tapped at 600 and 1200 turns if desired. I have found that using the 2400 turn primary to 600 turn secondary was very satisfactory, but for oscillators of lower output impedance the lower ratios may be more satisfactory.

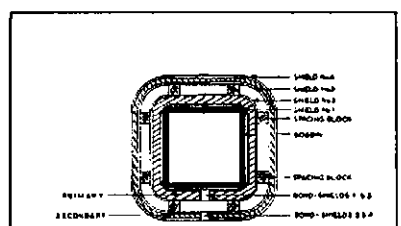
Secondary.—600 turns of 30 to 34 B. & S. enamel.

Shielding.—Four electrostatic shields of 3 thousand shim brass are fitted as will be described.

Construction.—Make a suitable bobbin for the core, and put in place the first shield, lapped over ⅛" with insulation between the lapped ends. Solder a strip of ⅛" wide shim to the shield on the opposite side to the lap, at one edge, and bring up and clamp over side wall of bobbin for the time being.

Wind on primary with taps if required. Insulate, and put on second shield with insulated lap as before, the lap being on the same side of the bobbin core. Connect these two shields together with the ⅛" strip brass, and bring out an insulated lead from the shields.

Wind a layer of insulation—Empire cloth—over the shielded primary assembly. Cut eight matches to the length between bobbin cheeks, and fix in position as spacers with adhesive tape as shown in the sketch. Place the third shield in position as for the first, remembering that insulated tap, solder shim strip as before, wind on secondary and insulate. Put on the fourth shield as for the second, bond to the third and bring out an insulated lead.



Insulate the outside of the whole assembly, and fit the core with lapped joints (no air gap). Fit into a metal can, steel preferred, and provide an earth connection to the can. Connect as shown in the circuit diagram; primary shield, one leg of input and can to earth, secondary shield to be connected to shielding of output lead as far as the "high" unknown terminal and the M potentiometer, and connected to the other lead to range switch and standards. Insulate this shield and do **not** earth. A transformer built as above is good from 100 cycles up, showing a loss of 2.7 db. at 100 cycles and 0.2 at 12 Kc.

(Continued on Page 6)

* c/o. Station 6WA, Wagin, Western Aus.

RC Filter for Speech Amplifier Clipper

BY G. PATERSON,* VK2AHJ

Here is a circuit with several applications—the one adopted by the writer being as a low pass filter following an amplifier clipper stage in a speech amplifier.

The circuit is known as a bridged T network and gives high attenuation at one frequency. Used in conjunction with a single section RC filter which gives progressive attenuation with increase in frequency, the result is quite sharp cut off and high attenuation above any chosen frequency.

The frequency at which the attenuation is highest is given by the formula:

$$F = \frac{1}{2\pi RC}$$

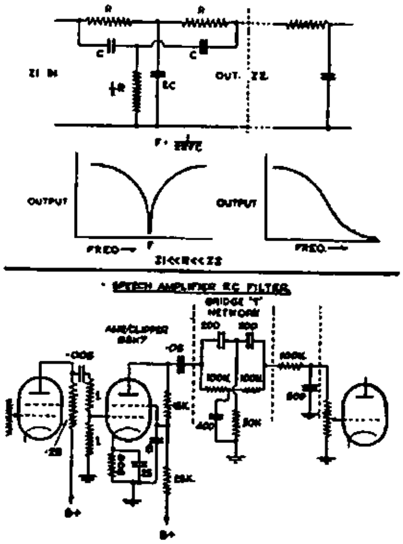
where F is in cycles, R is in ohms, and C is in farads.

It is important that the input impedance be small compared to R and that R be small compared to the terminal impedance. The accuracy of the components is not critical so that stock parts can be used with complete success.

The writer found that when F is 7 Kc. quite good quality resulted, but, depending on the microphone and speech characteristic, a much lower frequency could be chosen.

This circuit is much cheaper and easier to construct than a low pass LC filter and gives quite good results with simple parts.

The actual circuit used by the writer is shown. The 6SH7 is a conventional amplifier clipper stage. The value of R was chosen arbitrarily to suit the conditions mentioned previously.



* 212 Pine Street, Randwick, N.S.W.

WHAT IS ITS INDUCTANCE?

(Continued from Page 5)

Mechanical.—The bridge here is built into a wooden box 14½" x 9¼" x 6" deep overall with lid. The bridge compartment is completely lined with metal, as is the underside of the masonite panel. The sketch will be self-explanatory as to layout, but this is quite unimportant at 1,000 cycles.

For accuracy at very low inductances, leads from the terminals should be reasonably short. My bridge in the ÷ 100 position has a zero error of 0.8 uH. which can, of course, be deducted from the answer, without much error.

OPERATION

Connect unknown inductance to terminals, with the earthy end of the coil (if any) to the **low** terminal. Connect tone source to **osc.** jack at a level that gives from 0.1 to 1.0 volt across the bridge. Plug headphones into the **det.** jack. Set the range switch to the weakest signal, and rotate M dial for a broad null. Using the Q dial and the M dial progressively improve the null till there is no signal. There may be some second harmonic coming through, but it is easy to ignore, and balance out the fundamental. The setting of the range switch and M will give the inductance, and Q comes from the Q dial.

When using the ÷ 100 position the tone will be very faint, and a quiet room will be needed for a null to be found. But you can use an amplifier if it is worth while. After a few tries, you can obtain a balance in a few seconds.

By using a visual detector—magic eye—the bridge would be even more useful at higher frequencies, and switching of the arms and standards of the bridge would extend it to read capacitance and resistance also, if you so wished.

N.B.—When measuring iron cored inductances **without air gap**, the inductance is a measure of the voltage across it, and the error may be high. The Q also may be very low. Here you are dealing with initial permeability, which is very variable. So if you are making iron cored inductances where accuracy is required, make them with an air gap. Then your figures will mean something.

ACCURATE FREQUENCY TRANSMISSIONS FROM VK3WI

The next Accurate Frequency Transmission will take place on Thursday evening, 24th May, 1951, on the 3.5 Mc. band. Details of the operating procedure and times of operation will be found on page 5 of the February, 1951, issue of this magazine.

Problems With 807 and 813 Tubes

Running a fair sized transmitting station in the tropics is no picnic, and all sorts of peculiar things, some most unexpectedly at times, are encountered. However, one thing which may be tropical, but I doubt it, is the trouble we have been having with parasitics in 807 and 813 tubes. Quite a lot of trouble has been caused by the parasitics which suddenly appear.

One transmitter, which operates a few kilocycles outside the low frequency end of the 14 Mc. band, started me on the hersy hunt, as it used to develop parasitic clix which covered the 14 Mc. band. Quite often, by the way, the key clix were found to be emanating from Ham stations and not the local transmitters. The particular transmitter uses 807 as oscillator, mostly on crystal, and push-pull parallel 813s in the final.

The findings are passed on to Hams who use these tubes, as a matter of interest.

On any frequency at which it may be operating, the oscillator tube will suddenly develop parasitics. No change occurs in meter readings, so you get no indication from that source, that the parasitics are there. One particular night the parasitic decided to pick the frequency on which the N.S.W. Emergency Flood Network was operating and it was no mean signal that was radiated. Nowadays, all we do if a parasitic signal is reported, is change the oscillator (807) and the trouble no longer exists.

The parasitic clix were not so easy to track down. Retuning and checking of the transmitter had no effect. The clix were eventually traced to the 813 p.a. tubes themselves. Now all we do if parasitic clix appear is to change the four 813 tubes and the clix immediately go. Time is not available to test each 813 turn by turn, so the four are pulled out and all is well. One particular period of the hersy hunt, it was found that the clix would only clear up for about 14 days. This was overcome by putting another transmitter of the same type on the 13 Mc. frequency and now we are experiencing longer periods of freedom. Once again, meter readings gave no indication of trouble.

The moral is, if you use these tubes, be prepared for parasitics and parasitic clix to develop without any circuit changes, and take heed if somebody tells you they are there. My mind goes back not so long ago to a QSO with an old pal of mine I used to work frequently, VE8AW. One day I told him he had parasitic clix. He couldn't see it as he took pride in his signals. Anyhow, two days later he called me with a word of thanks, saying he had checked and found an 807 buffer had developed parasitics. He did not "stick his head in the sand" and say "it can't be me." It is possible for a new tube to show this tendency.

—VK4QL.

DX NOTES BY VK4QL

Reading "Amateur Radio" for March, I could not help but notice the number of members who try to gather some copy for the magazine each month, who were complaining about the lack of material, so they apparently are in the same boat as I am. Nobody is very keen to help. Once again most of this month's notes are from my own observations.

Was all set for a gloomy picture of the bands this month as far as North Queensland was concerned when, quite without warning, the higher frequency bands turned it on for Easter. A survey of the bands for the month shows—

3.5 Mc.: No clues and no reports. Static too severe. 7 Mc.: This band has fallen right away up here compared to previous months. Even North Americans are "out" in the evenings, and very little in the mornings, only the odd South African getting through. Very few days produced any good openings, but the odd good one turned up at times. ST2TC was worked, and 2NS hooked EA6AF, but he was on the way out then, and nothing more was heard. The outstanding 7 Mc. for the month was VQ3CF, who comes through every day, and has given many a VK a QSO. Is not using high power. For those who do not know it, he is using a T1154 aircraft transmitter, complete with its characteristic note. His antenna is a 60 ft. inverted L with 200 ft. top. He is also at the foot of a mountain, which may have some effect on his consistent signal, but it does not prevent him making W.A.C. fairly consistently also. The contact with ST2TC was very satisfactory from my point of view, as it gave me my 39th zone. Southern stations were heard working Europeans at times when not a sign of them here. Prefixes for the month on this band were: LU1, LU7, MP4, FK8, VQ2, VQ3, ST2, ZC6, ON, SM, DL, HB, VU, VS1, VS6, VS7, UA, UB, UF, ZS, ZS7, YU, ZE, G, GW, FO8, EA6, PA, F8, F9, R7, FF8, II.

14 Mc.: For the greater part of the month this band was hopeless in the late afternoon, early evening and from 6 a.m. What transpired between 11 p.m. and 6 a.m., I don't know, except for the B.E.R.U. Contest week-end, when it was poor. Fortunately, the band opened the Easter week-end and produced some good DX. On one morning CR6AC was worked again, but he was the only DX there. One other opening occurred on the morning of the 30th, when the band was full of Europeans. Quite a change. During Easter the band was very good in the late afternoons, and Easter Sunday appeared to be the peak, although I was not there for all the other days. On Easter Friday, ZD4AB was worked at 0730 G.M.T., when he said he had just come from 7 Mc., where he worked ZL2GH. Knowing the difficulty ZLs have with Africa, this, I think, is an outstanding effort. On the Sunday, FQ8AC and EA8AF were worked, on Monday ZS3K, and the Tuesday GC2FMV, but the opening had "had it" by the Tuesday. The month's new ones brought my total to 149. A change has occurred to this band over the month, as the Europeans have started to appear again in the late afternoons, in small numbers. The 14th March was a complete blackout.

Listings for the month on 14 Mc. are: CR5AC, VR4AB, 9S4AX, EA8BF, EA8AF, EA8BD, ZS8MK, PZ1QM, ZD4AE, ZD4AB, GC2FMV, FKS8AD (Vienna), FI3AG, ZB1BE, KJ6AI, HK6JH, MB9BJ, HS1AS, FQ8AC, AR8AB, IS1AHK, ZS3K, EK1DD, VR5GA. Again, Southern stations were working DX that was inaudible here.

28 Mc.: This band has been very erratic. In the B.E.R.U. Contest, it was impossible to work a ZL, yet the next week-end there were plenty there at good strength. I don't know how this band behaved during the Easter opening, but on Easter Monday round 1030 G.M.T., some strong European signals were heard, and during a QSO with DL3DP, he said Easter Friday had been good on this band. Ws have not been easy to work, and what signals did come through were very unstable. YS1O and XE1FE were also there. 4EL says he completed a W.A.C. on this band for Easter so the DX was around. On Easter Monday, a KH6 and F9 were heard on the band at the same time.

On the 29th, during a QSO with VE8AW, he said a display of the Northern Aurora was on, and some peculiar effects took place on the bands during the next few hours. 7 Mc. was useless, 28 Mc. had some Europeans which suddenly disappeared; on 14 Mc. the North Americans were coming through for the first time in any number. The following morning round 2000 G.M.T., the band was full of Europeans. This is quite a change to listening to a dead band round this time.

ZL1MB's score in the B.E.R.U. Contest was 2064 for 244 contacts. Had a crack at the Junior myself and had 150 contacts for 1536 points. Conditions were erratic and it looked as though I would go through the test without a G contact, but suddenly they appeared on 14 Mc. on the Sunday at 0700 G.M.T. and nine contacts were made. Believe a few stations were calling me on 3.5 which I never heard in the severe static. ZD4AB and ZD4AE were worked the last week-end of the Contest.

VK9GW has worked 96 countries, but had the misfortune to get some of his confirmations burned. Bad luck Geoff. My query on HC8GRC brought some info from ZL1QW. He contacted the HC8 on 7 Mc. just before they closed down, and sent his QSL by air mail on 1st May. On 22nd May, ZL1QW received from the ZL Bureau, the cards for the locals, they having been received in Wellington on 18th May. So—I apparently miss out on yet another needed QSL. ZL3CP also bemoans the fact of needed QSLs not arriving, he being in need of ones from TA3AA and FN8AD, which have been received here.

Eric, BERS195, helps me out with some dope on what has been appearing in VK3. He bemoans the fact that he has been unable to hear CR5AC. That seems general in VK3 from what I hear. Others seem to hear the VP8s, but I have been unable to dig 'em out. Eric did some listening in the B.E.R.U. Contest, and logged 534 stations. Has been hearing the DX on 7 Mc., to the tune of VQ4LB, KZ5AA, VS7PM, FA8ZZ, VE1BV, FN8BV, HZ1PC, ZS7D, GI6TK, OQ5DZ, MP4KW, VP6CDI, and on 14 Mc. VP8SD, VP6CDI, ZC4TF, VK1RB, ZK2AA, AP2Z, VR5GA. He has received a QSL from YN4CB.

Well that about winds the month up. Noted your comments with interest, 7RK, in March issue. What about dropping me a note of just what you do hear down there? It would help a good deal.

● The thought for the month. "Don't be a dog in the manger." When you miss out on a rare DX station, don't start a CQ on his frequency. Give the bloke a break who did get him.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3JD	1	155	VK4JP	8	114
VK3EE	10	154	VK3AWW	14	112
VK6RU	2	145	VK4WJ	17	104
VK6KW	4	145	VK2ADT	13	102
VK3BZ	3	141	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK4HR	12	139	VK3GG	18	100
VK6DD	6	126	VK3IG	5	100
VK3LN	11	125	VK3JE	7	100

CW

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	163	VK4DA	7	113
VK4EL	9	158	VK7LZ	17	112
VK3FH	15	155	VK5BO	33	116
VK2EO	2	152	VK3JE	21	108
VK3CN	1	151	VK4RC	18	107
VK6SA	26	150	VK2GW	16	107
VK2QL	5	141	VK3YD	27	105
VK3VW	4	140	VK5FH	31	105
VK3KB	10	138	VK3JI	25	104
VK4HR	8	135	VK2YC	34	103
VK6RU	18	129	VK3APA	14	101
VK4RF	11	125	VK3NC	19	101
VK3EK	3	122	VK3CX	28	101
VK5RX	23	119	VK2OA	32	101
VK4DO	20	117	VK7RK	22	100
VK3UM	12	116	VK7LJ	24	100
VK4FJ	29	115	VK2AEZ	35	100
VK3XK	30	114			

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3JA	43	114
VK6RU	8	178	VK2ADT	14	113
VK4HR	7	173	VK4RC	21	110
VK3HG	3	171	VK3ZB	34	110
VK3KX	1	167	VK4WF	40	109
VK6KW	13	165	VK2ZC	25	108
VK2DI	2	160	VK2YL	11	106
VK3JE	12	154	VK3JI	33	105
VK4EL	10	156	VK3AWN	38	105
VK4KS	24	149	VK2VN	18	104
VK4DO	15	145	VK4UL	27	104
VK3MC	5	139	VK2HZ	17	103
VK3OP	19	137	VK7KB	30	103
VK6DD	22	136	VK2TI	37	103
VK4FJ	32	135	VK3HO	36	103
VK2ADE	26	133	VK6DX	42	103
VK2AHA	9	128	VK7RK	31	102
VK3LN	29	128	VK4TY	35	102
VK2AHM	20	125	VK2ACX	6	100
VK2NS	16	123	VK2TG	39	100
VK3HT	41	117	VK8PJ	44	100
VK7LZ	23	116	VK3AWW	45	100
VK5FL	28	116			

VK5JE REPORTS THE FOLLOWING ACTIVITY ON 7 Mc.

Conditions continue to be very patchy and night time signals are mostly weak with very little DX apart from ZK, FK, and a few others. However, YS1O in San Salvador popped up on the 23rd of March at 9.45 p.m. on a frequency of about 7030 Kc. He gave his QTH as Box 329, San Salvador City. He was also heard working VK2NS and VK2OY.

The writer has been chasing W.A.S. on 7 Mc. for the past four years and after a long wait Vermont, Rhode Island and New Hampshire were worked within a week leaving three more States to go, viz., Utah, Wyoming and North Dakota—these States are hard enough to hear.

Morning listening on the 7 Mc. band resulted in a number of QSOs, but even over there the band reveals a number of "regulars" in HB9EU, F9HR, SM5WI, DL7AA. New ones worked were EI6G, HZ1HZ (Mecca, 7002 Kc.), FA8DA and VS3CF. Others were I1AIJ, I1XK, DL3JV (1st VK 7 Mc. QSO), whilst W1BOR, W2DKF and W3ORU were worked the long way around and were audible until 7.30 a.m. S.A. time. No South Americans heard this year, but with the Central Americans breaking through, they could pop up any time.

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

DOINGS ON THE 50 Mc. BAND IN NEW SOUTH WALES

This band has been very quiet with an occasional country contact with 2GU and 2RU and odd bits of cross-band nattering. Even the Sunday night gang is dwindling with only four or five stations contacting 2WI after the broadcast. Populate the bands!

2ANK is back after a year's absence and is the furtherest south v.h.f. station in the Sydney area. Mat's beam has frozen up, but fortunately points north. He went marine portable during the month but no reports of contacts have come to hand.

2AH has "given away Ham Radio" again but the betting is that he'll be back. 2MQ had the rain in on the modulator and was forced to do a re-build ahead of schedule. Bill likes to watch the pretty lights in the m.v. tubes when he speaks. He has a couple of xtal converts coming along for 6 and 10. 2ANF has acquired a 30 ft. telegraph pole for beam purposes.

The V.H.F. Section put on a show of gear at the March general meeting of the Institute and many fine items of equipment were brought along. A baby 50 Mc. xtal rig—9003, 9003, two 9003s—of 2ADW was demonstrated under working conditions. A helical antenna and a cavity resonator resembling a gas meter were other items of note. We did hear one low frequency type remark that the 829 went so nicely on 3.5 Mc.!

An opening between the north of N.S.W. and VK3 occurred on 30th March. No Interstate signals were heard in the Sydney area. We believe someone won the 50 Mc. DX Contest!

NEW SOUTH WALES 144 Mc. ACTIVITY

This is the popular band at the moment and new stations are still appearing there. 2ATT and 2AZK are new calls on the band. 2QZ has a 144 Mc. receiver going at last and is hearing some of the stations reported in these notes during the past year.

2XG has 3 over 3 up 40 ft. in the air with a hefty signal in the city. 2DF now relays the Sunday night broadcasts from 2WI with horizontal polarisation and has a much greater coverage. 2ACP at Katoomba has a mod. osc. on the band and has worked Sydney. 2KS is using a three stage m.o.p.a. 9JC portable was working under difficulties from Oyster Bay. 2YR worked through to Newcastle.

Halo antennae for mobile and portable work are in favour again and are also being put up around the town for band-watching.

2YM, 2VW, 2ANF, 2MQ and 2QZ are talking low-frequency transmitters—to keep in touch with the Interstate v.h.f. gang during the winter. 2XK is confined to 144 Mc. as the power transformer for the 50 Mc. final went up.

No signals were heard from VK3 or VK5 during the attempt to work Interstate on this band during mid-March in the small hours. 2MQ made himself comfortable with automatic sending and a band-watch tuning device and did not go to sleep. 2AH did.

Openings late at night would possibly go unnoticed here as the v.h.f. gang seem to be early to beds—except the night owls, 2ANF and 2XX who are always ready for a yarn near midnight.

VICTORIAN V.H.F. GROUP NOTES AND 144 Mc. NEWS

The next meeting is on 18th May, so make a note to attend and hear Mr. Ashton, of the Weather Bureau, deliver what is bound to be an interesting talk on weather charts, temperature inversions and humidity gradients, etc. It is believed that abnormal weather conditions are responsible to a large extent for the more distant contacts made from time to time, notably on 144 Mc. and if it is possible to know just when these conditions exist, it may also be possible to ensure that full advantage is taken of the opportunities for working DX on these bands. Mr. Ashton has also promised to tell us something about Sporadic E, so that a most interesting evening is assured.

The March meeting, attended by 16 members and visitors, was spent in a general discussion of v.h.f. matters with emphasis on field days. Reports on the March field day were given by various stations participating and it was seen that a total of 30 stations were active on both 144 Mc. and 50 Mc. However, the news of the field day activities was overshadowed by the break-through to VK7 on the evening of Saturday, 17th March. VK7KB and 7AB, both at Burnie, on the north coast, worked several Melbourne stations on 144 Mc., sigs being at excellent strengths. 3AUP made an auspicious entry to 144 Mc. by working to VK7 on his first QSO. Conditions conducive to working between VK2 and VK3 and VK5 had been predicted for three or four nights preceding this date, but no reports of contacts have come to hand. The fact that these conditions had been predicted created considerable discussion, and, as the good conditions to VK7 tended to confirm these predictions, the hope that similar future predictions would be made was widely expressed.

Our two visitors, 7PF and 2LY, need no introduction for both have made names for themselves by their activities on v.h.f. bands. As they are both likely to remain in VK3 we shall get to know them even better and are looking forward to hearing them on the bands in the near future. From VK5 we are also gaining another well known v.h.f. Ham, to wit VK5SB, ex-VK3CI. Sid is taking up his old call again and will make yet another station in northern Victoria active on both 50 and 144 Mc. Other stations in this area are 3UI, 3APF, 3AT, 3ALE, and 3HZ. All are active on 50 Mc., and some on 144 Mc., but contacts outside the district are scarce. They are also active on the d.c. bands, 3.5 and 7 Mc., and would be pleased to get any calls from others interested in v.h.f. activities.

Some new calls on 144 Mc. within recent weeks: 3AUP, 3KF, 3RZ, 3AUX, 3ZW, but there is a dearth of news here about activities on 50 Mc., 288 Mc. and 576 Mc. though I am told that about six stations may be heard on 576 Mc. at various times.

576 Mc. BAND—NEW SOUTH WALES

At the March meeting of the V.H.F. Section details of the April field day contest were discussed and about 14 stations are expected to be out on 15th April. Bonus points are to be given for 576 Mc. contacts but all bands will be in use. There has been much building of RL18 rigs and the day should be a good one. At this meeting too, election of officers of the section for the year took place. 2QZ was elected President, 2YM and 2ANF Vice-Presidents, associate Cec. Cronin Secretary, and 2ANF Publicity Officer. This means that this is the last edition of the 2QZ notes. I hope the v.h.f. gang will rally round and pass on the dope to John for his monthly notes. I must add that John has supplied most of the doings on 144 Mc. during this past year.

MISCELLANEOUS NEWS FROM SOUTH AUS.

The trip to Mt. Barker with 144 Mc. gear by 5GF, 5QR, 5JD, etc., was not a complete success in that no QSO outside the State took place, but otherwise the trip was enjoyable to all who went. 5BC was worked at Renmark and sundry other contacts. All were amazed at the accuracy of 5GF as a rifle shot. A knife was used to anchor a guyrope in a tall tree. When dismantling time came, the knife refused to come out by tugging the rope. I believe this is true. Max fired one shot, hit the knife and dislodged it. You can prove it by looking at 5JD's knife.

Most activity has swung to 288 Mc. where the following calls have been heard: 5ZR, 5MK, 5JW, 5MX, 5RO, 5RR, 5KE, 5CT, 5BT, 6RV, 5JH and 5GF. Equipment is mostly rushboxes and mod. osc. 5GL has a xtal converter working and 5QR has promised to supply a xtal controlled signal. With all this activity nightly, little is heard on 50 and 144 Mc.

5BC is coming through on 50 Mc. in the city with good strength these past few weeks. The Darwin beacon is audible and might suggest that from now on would be best for 5RA to be active and a possible contact with the south. Nil heard from you Ray?

ABSTRACTS FROM OVERSEAS MAGAZINES

CONDUCTED BY L. B. FISHER, VK3AFF

"SHORT WAVE NEWS," DECEMBER, 1950

Page 252: "A Low Power Phone Tx."—Description of 6-10 watts two stage Rig—6V6G as c.o. and 6L6G for the modulator. Simple compact little Tx with portable applications.

Page 256: "Practical Audio Filters," Part 1.—Full details and description of suitable single section low pass filter for phone. Fixed rejector type. Author claims capable of giving a degree of selectivity comparable to that of an expensive crystal filter for quite a small outlay.

"SHORT WAVE NEWS," JANUARY, 1951

Page 282: "160 and 80 Metre V.F.O."—Circuit 6N7 as a Franklin Oscillator coupled to a 6AB7 r.f. pentode which acts as an untuned buffer amplifier. Full description and suggested layout.

Page 286: "Practical Audio Filters," Part 11.—Further constructional details; winding data, etc., for double section low pass filters.

Page 290: "An AC O-V-2."—A t.r.f. design for use as a standby receiver. Circuit—6J5 leaky grid det. resistance capacity coupled to a 6J5 as a.f. amplifier; this in turn feeding 6V6 output. Plug-in coils. Coverage 30 Mc. to 10.5 Kc. Interest to s.w.l's.

R.S.G.B. "BULLETIN," JANUARY, 1851

Page 246: "A Switched Wideband Exciter," Part I.—General description and design. Practical layout of an up-to-the-minute exciter unit capable of providing a useful r.f. output in all Amateur bands between 3.5 and 28 Mc. Separate inter-stage couplers on 3.5, 7, 14, 21 and 28 Mc. Tubes used: four 6L6 metal and one 6D1. Complete unit with power supply (5U4G).

Page 250: "A Compact 7 Mc. V.F.O. Unit."—Modified Clapp circuit using a 6SH7 Clapp and a 6SH7 cathode follower isolator. Tuning is accomplished by a variable condenser in parallel with one of the fixed "tapping" capacitances. Low output, but should appeal for QRP rig. Midget chassis layout—3⅛" x 5¼".

Page 253: "Tracing Parasitic Oscillation."—Detailed account of the symptons noted and tests carried out on a Class C r.f. power amplifier stage using an 829B. Well worth reading.

Page 254: "Telephony Transmitter Performance."—Simple explanation of the recommendations made at the I.A.R.U. Congress, Paris, 1950. Covers Tx modulation faults and method of measuring filter performance, in connection with proposal to limit the a.f. band-width.

"CQ," JANUARY, 1951

Page 11: "Powerful Portable Pint."—An eight tube 25-watt a.m. Tx and an 11 tube double-conversion superhet Rx and suitable a.c. power supply. Tx circuit: 6C4 c.o., 6C4 doubler, and pair p.p. 6AQ5 in p.a. final. Mod.: pair 6AQ5s driven by a 6C4 and a 9001 mic. amp. Rx line-up: 6BH6 r.f., 6BA7 mixer, 6C4 e.c.o., 6BJ6 i.f. on 1600 Kc., 6BE6 second mixer, two 6BJ6 i.f. amp. on 262 Kc., 6AL5 second det., a.v.c. and auto. noise limiter, 6AQ6 first audio and a 6AK6 output. A 6C4 is used as the b.f.o. tube. Power supply: 12 100 Ma. Selenium rectifiers in a bridge circuit giving 300 volts at 200 Ma. for Tx and 150 volts for the Rx. All housed in a standard 6" x 7" x 12" metal carrying case. Designed for 10 and 20 metre bands. Quite a gadget!

Page 16: "A New System for Perfect Keying."—A design for an all-electronic differential keyer. Standard vacuum-tube keyer which keys the amplifier circuits and the addition of a 6SN7 two-stage d.c. amplifier operating near cut-off conditions and a 6Y6 as the oscillator-keyer tube. Full description and circuit diagrams. Will appeal to the c.w. gang.

Page 20: "High Efficiency Loading Coil For Mobile Antennae."—Sound data on mobile antennae. Loading coil described suitable for use with "whip" antenna on 75 metres. Of interest for 80 metre mobile work.

Page 30: "Power and Resistance Ratings of Incandescent Light Bulbs."—Characteristics of the more popular size lamp bulbs determined for all values of power dissipation within their ratings. Useful information for that "dummy" load.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK4RY	2	2
VK2VW	9	2
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK5LC	1	
VK2ABC	8	

CORRECTION

Your attention is drawn to a correction in the article "A Simple Modulation Monitor," page 5, of the April issue. The fourth line in the paragraph under the meter scale drawing should read: "usually indicate asymmetrical modulation," i.e., non-symmetrical.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

MAY, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

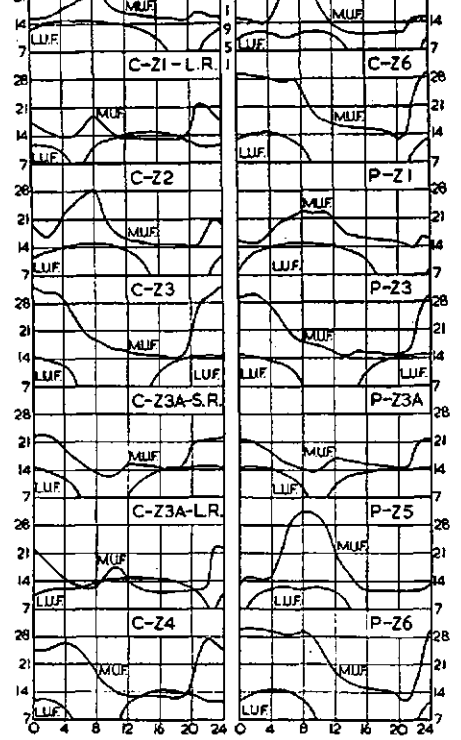
Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

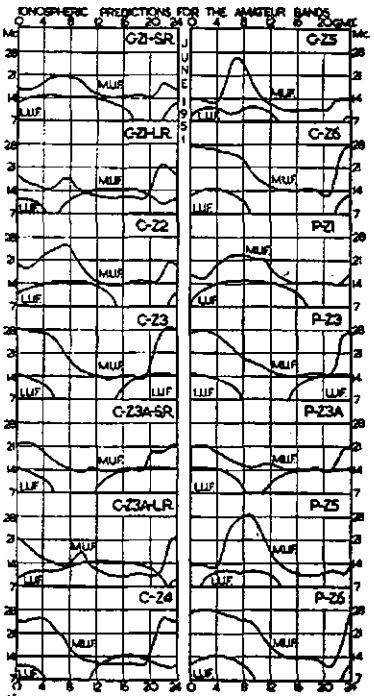


QUIZ

The Prediction Service welcomes comments on the accuracy of its predictions. In particular, answers to the following questions on the Canberra-San Francisco circuit would be useful:

1. Were good conditions experienced on 7 Mc. for the period 0600 to 1500 hours G.M.T.?
2. Was the 14 Mc. band workable between 1200 and 1800 hours G.M.T.?
3. Was the 28 Mc. band workable for several hours around midnight G.M.T.?

Answers to the Quiz should be sent to the W.I.A. and should, if possible, refer to consistent results obtained on the majority of days in the month.



ADDITIONS AND ALTERATIONS TO AMATEUR CALL SIGNS

February and March, 1951

ADDITIONS

VK— **New South Wales**

2GL—J. A. Ellis, 106 Laurel Ave., Lismore.
2WO—H. A. Perkins, 21 Stratford St., Cammeray.
2YG—L. J. McGarrigle, Princes Highway, Engadine.
2ABT—V. B. Ash, Bogan St., Nyngan.
2AHK—A. E. Clark, 280A Great North Rd., Abbotsford.
2AJY—W. C. R. Robbie, 11 Cove St., Birchgrove.
2ANE—Eastern Command Signal Squadron Amateur Club, Middle Head, N.S.W.
2AOT—C. W. Brackam, 15 Rickard Ave., Bondi.
2AOV—J. Bell, Bell's Road, Dundas.
2APC—E. W. Nowill, 100 Crinan St., Hurlstone Park.
2ASV—H. J. May, 38 Anglo St., Chatswood.
2AYH—J. A. Howie, 21 Gould St., North Bondi.

Victoria

3BL—W. T. Lucas, 1102 Howitt St., Wendouree.
3CI—S. Bryant, P.O. Box 49, Merbein.
3FX—J. K. McCarthy, Serpells Rd., Templestowe.
3ABV—P. D. Frith, 10 Kinsale Cres., Box Hill North.
3ACJ—V. P. O'Brien, 16 Tanner Ave., Nth. Kew.
3AGF—G. N. Chapman, 147 Helen St., Morwell.
3AJB—J. N. Marr, 8 Golden Ave., Chelsea.
3AMJ—I. L. Arblaster, Gov. Aerodrome, Mildura
3ARN—F. Ward, R.A.A.F. Station, Laverton.
3ASE—L. A. C. Anderson, R.A.A.F. Station, East Sale, Victoria.

Queensland

4BE—A. F. W. Taylor, 8 Lilac Court, Wickham St., Townsville.
4DL—J. A. Atkinson, Cr. Meade & Western Sts., Wandal, Rockhampton.
4DR—L. G. England, 71 Digger St., Cairns.
4KE—R. L. Sbilton, Henry St., Cloncurry.

South Australia

5DJ—K. V. O'Rourke, 130 Goodwood Road, Adelaide.
5EK—J. S. R. Price, 11 Mile Transmitting Station, R.A.A.F., Darwin.
5SA—R. de P. L. Mitchell, Nightcliff, Darwin.
5WY—J. F. Westley, 22 Glenunga Av., Glenunga.

Western Australia

6RE—R. F. Carville, Kingsmill St., Port Hedland.

Tasmania

7GM—A. G. Kirmsse, Flat 5, 10 Frederick St., Launceston.
7SA—C. H. A. Armstrong, South Arm, Tas.

ALTERATION

VK— **New South Wales**

2BT—Imperial Theatre, Broad St., Eugowra.
2CB—21 Hall Road, Hornsby.
2DN—72 Holden St., Ashfield, N.S.W.
2IX—40 Cragg St., Bankstown.
2JX—19 Gordon St., Eastwood.
2KK—c/o. Inverary House, Hume Highway, Liverpool.
2NN—2 John St., Cardiff, N.S.W.
2PJ—14 Forfar St., Stockton.
2YX—Concord Road, Strathfield, N.S.W.
2ZN—Mr. J. Brand, 32 Young St., Grenfell (Call Sign allotted in lieu of VK2ADX).
2AAH—4 Mont St., Strathfield, Sydney.
2ABR—20 Codnington St., Fairfield.
2ADA—4 Nullaburra Rd., Caringbah.
2AEB—59 Marquis St., Gunnedah.
2AFD—c/o. H. G. Palmer, Crown St., Woll'gong.
2AGO—31 Glenview St., Greenwich.
2AGR—28 Kepple Road, Ryde, N.S.W.
2AJB—McDougall St., Kyogle, N.S.W.
2AMO—Wrights Road, Kellyville, N.S.W.
2APA—"Aramel," Barrenjoy Rd., Palm Beach.
2ASP—256 Bromide St., Broken Hill.

Victoria

3DC—31 Walker St., Northcote.
3DM—31 Valentine Gr., Armadale, S.E.3.
3HD—6 Woods Ave., Mordialloc.
3KS—16 Byron St., Box Hill South.
3MK—Moonee St., Ascot Vale.
3OK—22 Teak St., South Caulfield.
3QR—88 Alexandra St., East St. Kilda.
3QV—9 James Ave., Highett.
3RD—20 Holland Rd., Blackburn, Vic.
3WB—119 Hawthorn Road, Caulfield.
3WZ—Holland Road, Blackburn.
3XB—16 Byron St., Box Hill South.
3XZ—"The Gums," Governors Road, Mordialloc.
3ZY—51 Staughton Road, Glen Iris.
3ZZ—94 Rutland Rd., Box Hill.
3AAK—5 Arthur Ave., Brighton Beach.
3ABG—75 Maribyrnong Rd., Ascot Vale.
3ACR—Ringwood Road, Boronia.
3ADH—13 Andersons Rd., Hawthorn East.
3ADQ—Grovedale.
3AEE—Lot 94, Acacia St., Glenroy.
3AKL—69 Albenca St., Mentone.
3AKP—16 Rose St., Horsham.
3ALZ—Buln Buln.
3AOB—Grahamvale, Vic.
3ASL—457 Upper Heidelberg Rd., Heidelberg.
3ASR—Royal Australian Corps of Signals, Amateur Radio Club, c/o. Signals Depot, Albert Road, South Melbourne.

Queensland

4AD—c/o. Radio Station 4QN Clevedon, North Queensland.
4AG—85 Oxlade Drive, New Farm, N.1.
4CJ—Radio Station 4RK, Gracemere.
4HH—Somers St., Nudgee.
4KR—71 Malcolmson St., North Mackay.
4RD—10 Glen Park St., Mackay North.
4TY—Mount Alford, via Boonah.
4XD—97 Wagner St., Oonoonba, Townsville.

South Australia

5AK—3 Gertrude St., Lockleys, S.A.
5FW—41 Coorara Ave., South Payneham.
5FX—11 Jordan St., Brayville,
5BK—27 Chapel St., Magill.
5JP—Dean St., Angaston, S.A.
5LO—R.A.A.F. Station, Mallala.
5LR—556 Brighton Road, Brighton.
5MF—10 Doonoon Ave., Hazelwood Park.
5PS—10 Victoria Ave., Rose Park, S.A.

Western Australia

6FL—34 Wickham St., East Perth, W.A.
6FW—16 Anstey Rd., Bassendean.
6KE—14 Glyde St., Mosman Park.
6PX—c/o. Public Works Department, Albany.
6XI—c/o. Broadcasting Station 6TZ, Waterloo.

Tasmania

7RM—Suncrest Ave., Lenah Valley.
7SK—534 Mt. Nelson Rd., Mt. Nelson, Hobart.
7WI—126 Strickland Ave., Hobart.

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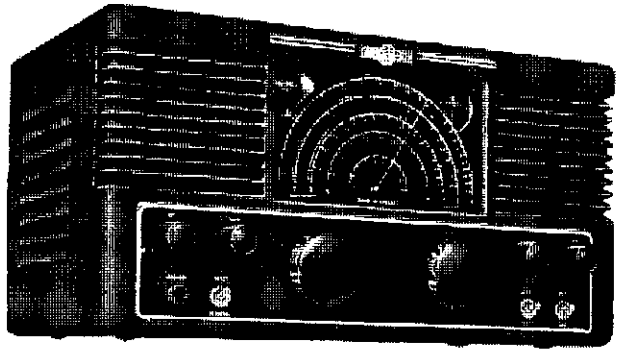

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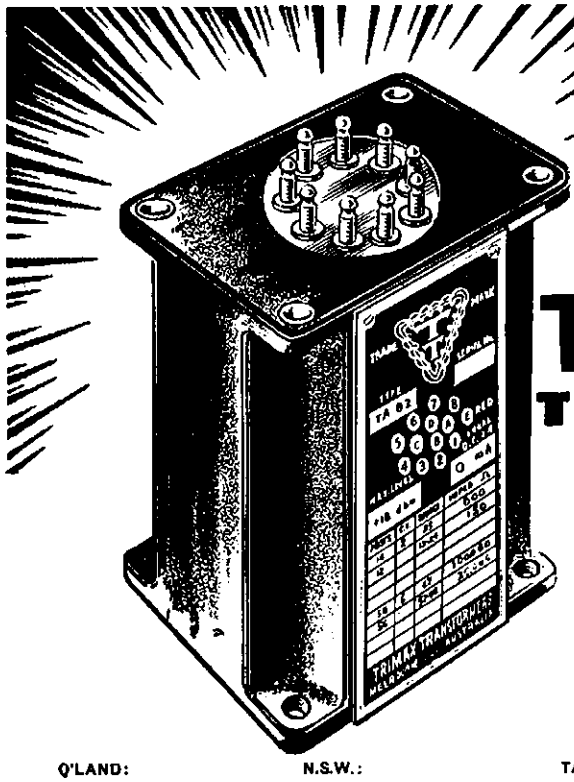

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President: J. Corbin, VK2YC.
Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
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Zone Correspondents: North Coast and Tablelands: J. M. Retallick, VK2XO, Raleigh; Newcastle: H. Whyte, VK2AHA, Vale St., Birmingham Gardens, Newcastle; Coalfields & Lakes: H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cumbijowa, Forbes; South Coast and Southern: R. H. Rayner, VK2DO, 42 Pettit St., Yass; Western Suburbs: A. C. Pearce, VK2AHB, 131A Balmain Rd., Leichhardt; Eastern Suburbs: D. B. Knock, VK2NO, 43 Yanko Ave., Waverley; North Sydney: L. D. Cuffe, VK2AM 779 Military Rd., Mosman; St. George: J. A. Ackerman, VK2ALG, 32 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President: G. S. C. Semmens, VK3GS.
Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).
Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.
Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, c/o. Victory Theatre, Tatura; Far North West.: M. Folie, VK3GZ, 101 Lemon Ave., Mildura; Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3588 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.
Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.
Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.
Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.
Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.
Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.
Meeting Night: Third Tuesday of each month.
Divisional Sub-Editor: Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President: J. Brown, VK7BJ.
Secretary: R. D. O'May, VK7OM, Box 371B, G.P.O., Hobart.
Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.
North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

FEDERAL

FEDERAL CONVENTION

The 1951 Annual Federal Convention came to a successful conclusion over the Easter holidays, everyone having enjoyed themselves and feeling happy that it was possible to attend to all the agenda and general business items with sufficient time to spare on the Monday morning to enable an open discussion to take place between the delegates on matters of mutual interest.

The delegates to the Convention were as follows:—

VK2: John Moyle (2JU) with his observer, Vaughan Wilson (2VW). John was a tower of strength in debate as usual, his logic gained by experience, and sound reasoning, adding greatly to the ease with which some "sticky" resolutions were passed. His observer, Vaughan, assisted him in no mean fashion, and we feel that Vaughan went away with a changed mind about Federal administration. We learned later that Vaughan suffered an attack of appendicitis and literally flew (per aircraft) back home where he felt safer in the care of his XYL. He has now recovered and hopes to have staved off the surgeon's knife. We all wish him well.

VK3: Col Gibson (3FO) with his observer, Dick Dyer (3DY). Dick took over the appointment of the VK3 delegate by proxy when Col. became ill and could not attend the Convention on the Sunday. However, Col was fortunately not incapacitated for long and is now back on the scene of activities.

VK4: John Thorley (4RT). This was John's first time to Melbourne, both as delegate and sightseer, and we know that John returned to Brisbane a happier man than he was when he arrived in the big strange city of Melbourne. Everyone liked this tall, quietly spoken man from the far north and it is hoped we shall be seeing him again next year.

VK5: Gordon Bowen (5XU) with his observer, John Bulling (5KX). Gordon was his usual amiable self and rather "rocked" the Convention by his surprising knowledge of balance sheets! His team-mate, John, did a good job as observer, returning no doubt with a clear understanding of what takes place at a Federal Convention.

VK6: George Moss (6GM). This old stalwart represented the VK6 Division as usual with great vigor, but in his quiet way was not backward in seconding a motion to see what it was all about if there was a chance of the motion lapsing for want of a seconder. George had a few extra days up his sleeve at his own expense and was seen around town quite a lot.

VK7: Bob O'May (7OM). This was Bob's first year as delegate to a Convention on behalf of VK7 and he appeared to be quite at home. Perhaps his experience as Divisional Secretary has given him that blase exterior!

F.E.: The Federal team consisted of four old timers—Bill Gronow (3WG), George Glover (3AG), George Manning (3XJ), and Perc Evans (3OZ). In addition to these four experienced Convention stalwarts, Max Hull (3ZS), the Secretary, was attending his first Convention in an official capacity, and Gordon Weynton (3XU), appointee elect to Federal Executive, sat in on proceedings and gave a helping hand to the passing of the Uniform Divisional Constitution.

One of the highlights of the Convention was the passing of the Uniform Divisional Constitution. This represents a great step forward for the Institute, and though it yet has to be ratified, high hopes are held for its adoption by all States. This is the culmination of five years' arduous work for which due thanks go to our old friend, 2JU, for a job well done.

As an aftermath of the Convention, the VK2 Division is really going to be busy this year with the responsibility of running contests on behalf of Federal Executive, and the organisation and preparation for the 22nd Annual Federal Convention to be held in Sydney next year, apart from their own domestic administration. We wish them success and pledge them our co-operation and support.

During the Convention proceedings refreshments were supplied by 3DY and the Victorian Division's President, Bert Semmens (3GS), the members being greatly appreciative of this hospitality, particularly on the Sunday when Melbourne elected to turn on a little summer heat for the Interstaters.

The Annual Dinner was held at the Federal Hotel where an excellent cuisine was enjoyed by all. Mr. J. Martin, Chief Inspector (Wireless) with two of his officers, Len Pearson and Frank Punch, were present, together with the Federal Traffic Manager (3ZC), the Federal DX C.C. Manager (3BZ), the Federal QSL Manager (3RJ), our Magazine Editor (3HX), the VK3 Division's President (3GS), in addition to the delegates.

Bill Gronow, whose ability as an orator is closely contested by Perc Evans, made mention during a toast to the visitors, the fact that the Federal QSL Manager, Ray Jones, had concluded 20 years of service in that office. We know that all members will join us in expressing to Ray our hearty thanks for the keenness and ability with which he has carried out a heavy task, and we congratulate Ray for his devotion to this service to members over such a long term.

The Remembrance Day Trophy was presented to the Tasmanian delegate by Mr. Martin who praised the VK7 Division on their success again last year and expressed his thoughts most deeply for those of our ranks who paid the supreme sacrifice in two world wars, adding his hope that there would always be a keen interest in this contest in particular.

The Tasmanian delegate, Bob O'May, thanked Mr. Martin and expressed his hope that a greater participation would be taken this year and every future year.

In conclusion we would like to express our thanks to everyone who assisted in making the 21st Annual Federal Convention the success any Convention deserves, and to convey to all members the fact that this year, we shall again be devoting our time and energy to Amateur Radio in general and this, the Wireless Institute of Australia, in particular.

And by the way, the account from the official shorthand writer who tots up 1/6 for every 72 words, was surprisingly considerate and caused a great sigh of relief!

—Federal Secretary, on behalf of Federal Executive.

PERMITS TO RECORD AND REPLAY

Permits have been granted to the following Amateur Wireless Station Licensees to record and replay transmissions from other Amateur Stations for the period ending 1/9/51:—

VK2AQQ—Mr. W. Turnbull, Cremorne.
VK2ARR—Mr. G. Conolly, Roseville.
VK3VM—Dr. E. Marks, Malvern.
VK3DH—Mr. I. Morgan, Hawthorn.
VK3BU—Mr. W. A. Brownbill, Geelong.
VK3HF—Mr. H. S. Fuller, Warrnambool.
VK3TA—Mr. B. V. Hardinge, Horsham.
VK3KE—Mr. T. K. Keenes, Bentleigh.
VK3YV—Mr. H. G. Wohlers, Wangaratta.
VK4NF—Mr. N. A. Berkman, Camp Hill, Brisbane.
VK5GL—Mr. C. Tilbrook, Colonel Light Gardens.
VK5KC—Mr. K. J. Cahill, Hillside, Adelaide.
VK5LK—Mr. F. Holsten, Unley Park.
VK5NG—Mr. G. W. McLean, Croydon Park Extension.
VK5JY—Mr. T. N. Combe, Crystal Brook.
VK6KW—Mr. R. W. S. Hugo, Subiaco.
VK6JS—Mr. J. Squires, Subiaco.
VK7AJ—Mr. A. W. Johnson, South Hobart.

FEDERAL QSL BUREAU

RAY JONES (VK3RJ), MANAGER

Topical QTHs: KC6WC, Bob, Civad 3054, F.P.O. San Francisco, Cal., U.S.A.; OA3C, Roberto, Box 24. Tango Maria, Peru; VT1AC, Doug Taylor, Box 54, Kuwait. Persian Gulf; ZM6AK, N. N. Walding. Box 177, Apia, W. Samoa.

C3FA, Lee, Taiwan Formosa, requests stations to await his card before replying and then to use the address given for direct QSL. The same applies to KJ6A1, Ben, but for the reason the QTH published in the callbook is incomplete.

VK9GB, Arch Barrie, care O.T.C., Rabaul, T.N.G., states that his cards have not yet arrived from the printers, but will definitely QSL.

QTH of ex-VR3A was supplied by VK2AGN as VK9RG, Ron Garrett, care Burns Philp Ltd., Rabaul, T.N.G. VK9GB also supplied it and added that Ron, in addition to being ex-VR3A, is also ex-ZL1OH and ZL1GS.

VK3YL writes to correct an error in these notes in the March issue relative to Henri F8RJ being despondent regarding the number of cards owed him by VK Hams. The par should have read FA8RJ. For the benefit of the VK stations with uneasy consciences his full QTH is FA8RJ. Henri Grossin, 16 Rue de la Paix, La Redoute, Algeria.

On a scarce card sent to VK3YP, ZM6AK gives a little dope on his layout. He is at Apia for three but 2½ years of that term has expired. Xmitter used is a commercial job feeding a Marconi grounded ant. Is temporarily off air awaiting replacement of a blown choke which blew up under the strain of heavy traffic during a recent air fatality there. States will QRX for any VK calls.

The S.S.A. is having a blitz on non-members by not handling their cards. The S.S.A. recently sent a questionnaire to most societies asking for info on the attitude adopted with cards for non-members. They also state that the alphabetical allotments to Swedish Amateurs are as follows: With SM prefix, AA to ZZ, AAA to AZZ, BAA to BZZ; and with SL prefix, AA to ZZ. They point out that any CA or EZZ is definitely unlicensed. In pursuance of their policy of not handling non-members' cards they inadvertently returned some with an incorrect rubber stamp endorsement, which read "Sorry OM. This station not registered in SM. Unlicensed or maybe mistake from log? etc." This in some cases indicated that the station to whom the card was addressed was unlicensed. What they intended to convey was that the addressee station was not a member of the S.S.A. They apologise and in future will endorse cards for non-members with the legend "Not member of S.S.A."

Additional stop press QTHs from old friend Eric BERS195:—IINU, Box 92, Trieste (requests all QSLs direct); FK8AJ, Box 105, Noumea, New Caledonia (newly licensed); VQ3CF, P.O. Moshi, Tanganyika; LB4UB is LA4UB aboard ship, QSL via N.R.R.L. or R.S.G.B.; DL8DAA is in Dresden, Soviet Zone, QSL via D.A.R.C.

Apropos VK1VU and par in these notes in March issue, Eric writes "VK1VU told me just a year ago that his log had been left behind and would be brought back this year." As the Labuan has just returned from Heard Island, maybe VK1VU now has his log and is busy on the job? If so this will make cheerful reading for some hundreds of DX stations. Can brother-in-law, VK3MM, lift the "iron curtain?"

Jack Elliott, ZL3CC, mentioned in these notes in the April issue, is due to arrive in Melbourne on 18th April. Jack will spend some time in VK6 prior to his return to ZL on 22nd May. He will endeavour to meet as many of the gang as time and circumstances permit.

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NEW SOUTH WALES

EAST, SYDNEY AND SOUTHERN SUBURBS

2AIG's massive rig—an 807 final running at a maximum of 40 watts and the whole caboodle fitted into an old Army dixie tin lid! Little encouragement comes locally for our s.s.s.c. exponents, such as 2CP and 2AC. However, the cult is surely spreading, for 6EC now holds regular confab with them on 20. Owing to an impasse in the way of no correspondent for the time being for the Southern Sydney Suburbs, this scribe will include that area in these notes, and can only say that in order to make a job of things, it is up to the gang there to supply some items of news, "scandal," or gen of any kind.

The N.S.W. Division v.h.f. section took charge of the lecture portion of the Division's general meeting on 16th March and produced natty creations of the v.h.f. experimenter. There were receivers and transmitters of all kinds, taking in 50, 144 and 585 Mc. and a working demonstration of cross-city working was given on 50 Mc. This enthusiasm of the v.h.f. section boys is infectious, and I feel that after that meeting, there will be an increase in recruits for v.h.f. in and around Sydney.

A prominent worker on v.h.f's. in the South is 2ABH who, however, may be heard on 40 phone. 2FJ has been heard from the microphone at 2AYE. Lacking none of his interest, Jack has been silent for some time owing to the necessity for other things taking priority.

Credit is due to Vaughan Wilson, 2VW, of Maroubra, who has for some time done the weekly Divisional broadcasts each Sunday. It takes a great deal of spadework to collate and put over the rapidly growing news interest of the Division, week by week, in addition to earning one's daily bread. Credit is due also to those country and local Amateurs who get busy for an hour or two on Sunday mornings and help by sending in stop press news.

There is quite a crowd to be heard at times on 80 and the ZLs are coming in very well. 2ASE had a long yarn on the band with ZL2ABE and VK4PT from 02.30 (yes, no error) until 04.00. Ern explains it away by saying that Bert couldn't sleep so wanted a gnatter—he is a sick man and a cot case for many years. 2AIG paid a recent visit to 2ASE and was mightily intrigued at the "Rogue's Gallery," comprised of groups of photos of 60 or so Amateurs on the wall, replete with XYLs, etc. The week-end before Easter saw a kind of miniature hamfest at 2ASE's shack. 3IK and his wife spent the Saturday and Sunday there, dropping in on their return from a honeymoon at Katoomba. 3WQ called in also for a couple of hours, and on the Sunday afternoon, 2AGA and his family called to meet the newly weds.

2TN is busily getting his 144 Mc. rig into action, but pops on to 40 now and then. 2NO seems to be a victim of blackouts just when keeping skeds. 2NO has also run into a spot of b.c.i. bother when using 40 phone. Next time you hear him on the band, he is likely to be using a new n.b.f.m. exciter outfit as the lesser of two evils.

NORTH COAST AND TABLELANDS

Zone Officer 2XO is on holidays enjoying a well earned rest after all his work for the Convention; will be doing a round trip out west and back to Sydney, visiting 2JC, 2ACU, 2WH on the way.

HUNTER BRANCH

The March meeting of the Hunter Branch was honoured by a visit from the State President, Jim Corbin, the object of which was to give the Branch members the opportunity of discussing motions to be submitted by N.S.W. Division at the Federal Convention.

Following this discussion was a lecture and demonstration by Harold Whyte (2AHA) with reference to the converting of a Bendix RA10 to a portable transceiver for a.c. and battery operation, the efficiency of which was proven at the Urunga Convention.

Members of the Hunter Branch who attended Urunga Convention were: 2ZC (and XYL), 2FP (and XYL), 2AHA, 2IS, 2XY, 2NX, 2UY, 2CN, 2ADT, 2VU, 2ASJ, and associate Bill Cross. All had a wonderful time and wish to express appreciation and thanks to VK2XO and his Committee for the arrangements made on their behalf.

2ZT active on 40 metres with much improved phone. 2WP working on 40 phone and c.w. with new v.f.o. Where is 2AAM? Nice to hear 2CN putting out an f.b. sig again on 40. Good to hear 2AGD on 40. 2PT and 2MC are active on 144, and still busy discussing standing wave ratios to 3 over 2 beams. New to the district is 2NN of Cardiff (ex-Narrabri). 2KY still putting reliable signals on 40; Nell is always helpful to the new Hams.

2XT made a welcome re-appearance on 40; congrats on arrival of junior op. Another to make an appearance on 40 phone is 2TY; let's hear more of you, Bob. 2ANA gets on the air when possible, but Norm QRL arranging his daughters' weddings. 2VU has been active on the 40 metre pre-breakfast and lunch sessions, and working the other Upper Hunter boys, 2JZ and 2ANU on high frequencies. 2UY back on the air after long absence. 2AFX has nice signal on 40 phone and c.w., has bad noise level to contend with; he is on xtal but building v.f.o. soon, and talking 144.

2XQ is keeping things going with the "Old Men" on 80. 2DG heard on 40, also on 20 phone and c.w. Nil of 2ANL on low frequency bands. 2AAI was all set to go to Urunga, but had bad luck in breaking his arm. 2CI busy on 40 and 80; Gordon puts out a very strong signal for 30 watts. The most active man in this one on 20 is 2DZ. There is a new Ham here—2AQS is the call and he is putting out f.b. c.w. signals on 40. Norm works with 2AGY who is not active since new QTH. No signal yet from 2MR. The boys are again indebted to 2AXM for helping them out with portable gear for Urunga.

The big news from Stockton is that 2AMM is back on the air. 2IS has special permission to go without spats and topper. 2PJ has just completed new v.f.o. and is very nice copy now; Bill has a new pole up, and is building freq. meter. Old timer 2AFA has his converted MN26 going f.b. again and reading mail on 40 and 20; hope Harry rakes up an extra bit of enthusiasm and puts sigs on the air soon. 2ASJ was very pleased to have a visit from 4GG, who was one of his early contacts. 2AFS has returned from VK3 land and is active on 10. All the boys extend sympathy to 2CW and 2AHA and their families in their recent bereavements.

COALFIELDS AND LAKES

Conditions in this area still very patchy, a few good periods mingled with many bad ones. Most activity seems to be the various Hams following 4GG's movement from shack to shack, every band from 80 to 6 being used; the "old horse" seems to have had a good holiday, last heard on his way back to VK4. Stations visited in this zone included 2VU, 2KQ, 2KR, 2RU, 2ADT, 2PZ, 2YL plus 2XQ and 2ASJ; met a few others 2GA, 2KF, and 2KZ. Two stations or should I say two Hams from this zone attended the Urunga do—2ADT and 2VU made the trip; ask 2VU what it is like being a passenger in a car driven by 2ADT, if he can't explain it—2BZ can. 2ANU mainly on 50 Mc. with his increased power, while 2VU shows up on 40 at times. 2TY heard working his 68th sked with KH6AFC, also heard working portable from Auburn. 2KF and 2KZ made the trip to Cessnock to meet 4GG. 2TX is on the high seas on the way to England now. 2RU active on 40 as well as 50.

2KR still making himself heard on 40. 2GA and 2KR made the trip to Urunga. 2KQ on 80 to make a call in the 4GG round-up. 2PZ assures me it won't be long now, cleaning up the shack and getting the modulator in order and painting the tower, so maybe Chris is really on his way. 2ADT still working most bands, took his receiver to Urunga for inspection. The only thing 2YL has done in the last few months was to half kill himself; was on top of a 30 ft. mast dismantling a 10 metre beam and succeeding in bumping a guy, the mast broke and 2YL made the 30 ft. drop. To add insult to injury the 3 by 3 mast landed across his knees, the boom speared his hat off just grazing his head. So if you see me walking with a limp you know the reason.

WESTERN ZONE

Thanks to 2OT of Broken Hill for news from the Silver City; Max operated portable in VK3 and VK5 over Xmas—visited 5BC and the result is that they are now running regular skeds on 50 Mc. The distance between the two is 100 miles. Max will soon be running 100 watts to three elements on 50 Mc. Explanation for the non-activity of the Broken Hill boys during the summer is the heat and humidity. Following Hams are located in Broken Hill: 2IW, 2AHD. 2AXL who is QRL business and rebuilding, 2VR operates 7 Mc. and is rebuilding too, 2RV mainly uses 7 Mc. but is no 28 with a beam, 2DQ and 2BY gone underground. 2AMX skeds ex-Broken Hill Ham Col now a VK4. 2AMY has left the Silver City, will soon be a VK5.

2AGN is back at Bathurst, built an electronic key. 2RN and 2IE are inactive. 2NS mainly on 7 and 14 working some nice DX on 7 too, the YS was a nice one. 2EI heard QSO ex-Parkesite Des Kelly from 5KN's shack; Des has 5DK as a call now, was in hospital but is better again. The Urunga Convention has come and gone, another magnificent success, a credit to the energetic N/C gang—congrats to the organisers. This zone was represented by 2ACU, Norm Moody from Coonamble, 2XP Rubbo and 2AMV Forbes. 2AMV won the Urunga Scramble by dint of hard work and the sacrifice of matrimonial peace—good work John. At Forbes the best signals from portable stations were 2WT/P and 2AMV/P. 2BT makes occasional appearance on 7 Mc., but still no proper transmitting antenna. 2WH was again extremely sorry to miss Urunga due to a slight car accident. Gone all portable and has the know-how from working so many of the portable boys at Urunga.

More news from Broken Hill: 2AHD is on 7 Mc., Fred has 80 watts to p.p. 807s, Rx BC348 and a MN26C as a Q5-er. On the mountains, 2ACP sent some news. He uses 7 and 14 Mc. phone and c.w. and will soon be on 144 Mc. with a rotary; Bill incidentally must be the oldest Ham in the zone—been active for 39 years! 2LY, who left for VK3, was back at Easter, we don't know what for, maybe some more gear, Stan has stacks of it. Was sighted by 2EX on a train. 2EX been working a little DX on 20 in the afternoon. 2HZ has the roof on the shack so there is a faint possibility that it may be occupied by Xmas if he keeps off the air at week-ends. 2AFO has a two element and worked 40 countries in three weeks on 20, putting out a terrific signal.

SOUTH COAST AND SOUTHERN

Many of the stations in this zone have been active on 20 and it has only been possible for me to hear DX stations calling them. 2APP who is re-building was called by DX on 20; busy making feeders for his rotary. 2BQ was also called by DX, no news of what Jeff is using. 2JQ active on 40 and is putting out a good signal; uses the old faithful gear and also the s.w.f. antenna. 2JC at Moneagle contacted his first W station on 80; Jim has forsaken the AT20 for a much less pretentious two stage xtal job, 8V6-807. 2OY and 2AJR heard one night, all attempts to break in were of little avail—so no news of them. 2ALS has new Tx, TA12D with about 75 watts, bandswitched for three bands; Cec worked his first G recently. A very well known Ham, also a good DX man, 2IA has sold all his gear and given Ham Radio away for good. Keith and YF Ann paid us a visit during the month and stopped in for a few hours. We wagered that Keith will be back again one of these days but he says "Finish"!

2GU was QSO a W station recently who has been trying for six years to contact a VK on 50 Mc. Says 1952 should bring good conditions for VKs on 50 to the Pacific and South America, but will offer nothing in the way of a possible W/VK contact. Had a contact with CM2AA who is making a trip to one of the islands in the Pacific. He is taking a portable along and hopes to contact 3,000 stations during his stay of a fortnight. Will be using the calls FG8AA and GF8AB. This news may be a little late as he will be operating from the middle of April. TA12D in operation at 2DO on three bands, mostly 20 with good results, also have a two stage pre-selector ahead of Hammarlund HQ129. Am building cubicle quad for 20 and hope to have it working soon.

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VICTORIA

The annual meeting of the Division was held at the Radio College, Bowen St., Melbourne, on 4th April. There were about 120 members present and included among those present was 6DX, Bill Barber. The President opened the meeting at 2015 hours. First business was the reading of the minutes of the last annual meeting and these were confirmed. Our President then presented his report and address on the Division's work through the year. This was a gem, and all members will receive a copy. A few extracts from the report would not go astray here. Bert paid tribute to the work performed by Dick Dowling and Bob Tozer for their work in connection with the Anniversary Dinner, also to the Secretary-Treasurer combination in looking after the finances of the Division. Mention was made of the fine work done on the v.h.f. bands by 3AKE, 3NW, 3XA, also of the work done on the lower frequencies by numerous members. The Gadsen trophy has been awarded to Len Jackson for his work on the "Lenfo" beam, likewise the Kinnear trophy was awarded to the Eastern Zone for their efforts. The report took about 17 minutes to deliver and upon conclusion 3ML moved that the report be received and this was ably supported by 3KN and carried with acclamation.

Reports were called for from the various groups. The Communication Chairman spoke on the activities of the group and a little discussion was made on the personal items that appear in the broadcasts. Interval was taken at 2100. Upon resumption, nominations for President were called for. 3AJI nominated the present President and was seconded by 3VZ; no further nominations being received, 3GS was duly elected to the chair amidst hearty applause. The retiring Vice-Presidents were re-elected, namely, Messrs. Tregear, Webber, Moncur, and Seedsman. Members of Council elected were Messrs. Dyer, Tozer, White, Ireland, Gibson, Dennis, Wiburd, Jackson. The Treasurer presented the balance sheet and after several questions were asked, the balance sheet was adopted; incidentally, all financial members will receive a copy. The remainder of the evening was taken up with a film show. The subjects were "The Magic Wire," a film dealing with the manufacture of electric cables. The other film was entitled "Stop." This dealt with bush fires, how they start, and the untold damage that is done. There being no further business, the meeting closed at 2230 hours.

MOORABBIN RADIO CLUB

The March meeting of the club was held on Friday the 15th at the Club Rooms, Nepean Highway, Moorabbin. There were a large number of members and visitors present. The President declared the meeting opened at 2000 hours with a welcome to VK8WT, Dave Crouch. The main item on the agenda was the presentation of films on the club's projector, with Len Jackson as the operator. The subject matter of the film was very nice. Although the projector had a few "gremlins" present, the show was enjoyed by all. The membership now stands at 40, which is very fine business. A nice relay was presented to the club by Stan Levings, and this was disposed of in the usual manner which netted a nice addition to the finances. The next meeting of the club will be held on 18th May when the agenda item will be a lecture on "Electronic Heating As Applied To Industry." Several applications have come in from overseas Hams, claiming honorary membership of the club.

NORTH EASTERN ZONE

3ACK has had a radio controlled plane in the air eleven times, however the twelfth flight was unsuccessful and the plane hit dirt, scattering a small radio receiver into its component parts. This has been re-built and further tests are taking place. Control frequency is in the vicinity of 27 Mc., but ask John for further details. 3ALE's XYL has presented him with a female harmonic; congrats to XYL, Les. 5SD visiting 3UI. Sid will operate from Mildura under his old call sign of 3CI. 3ACW on flying visit to Taree, hope mater is better now. From Avcnel another potential Ham, Doug by name, was heard from 3UI. Ron Gibb has now everything ready to go, only awaiting call sign; hear you next hook-up Ron?

Called in on 3AJO and interrupted what could have been a session on 40; notice you have the AR8 going John. 3AOB recently taken unto himself an XYL, now has a QTH some miles from Shepp., where I believe DX on 20 is the order of the day. Talking of QTHs, I hope by the time this reaches print I have one, or else Alan (3UI) will have to transmit smoke signals to the river bank where I undoubtedly will be domiciled.

Has been suggested that you fellows put on your thinking caps as regards the next zone convention re time, place, date, etc. However, Howard, I think a two-day convention is out as far as Shepp. is concerned; Saturday workers you know. Don't think it would suit Benalla either. 3AT has built new 2 metre converter, 3ALE playing around with power supplies.

CENTRAL WESTERN ZONE

Easter has come and gone, and this part of the world can now sink back and relax, however Easter Monday was brightened by a minor "Hamfest" in the shape of 5KO, 3ANC, 3UT, 3DP, 3HL, 3ARL, and 3YW. Many ears were bashed, and a good time was had by all. 3ANC and his XYL stayed over a few days and recovered from the effects of a trip to VK5.

Last month we mentioned the loss to the zone due to move around of population; this month we are pleased to report an addition to the family in 3AMP; Murray is quietly hiding in St. Arnaud, but we hope to hear more of him soon. 3DP is doing well with the single side band on 7 Mc., and 3YW also supplying

practice in receiver tuning on 3.5 Mc. There is no doubt that the average b.c.l. blames the Ham first, and checks up afterwards. 3HL has been accused of c.w. interference on the local b.c. station, but as Allan has not used the key for six months it makes it a little hard.

3DP has acquired a beaut rotary beam for 144, true it was meant for a ship and weighs a ton, but a little thing like that will not stop Jim, he has also taken over 3AKP's 50 ft. lump of tree, so Deep Lead sky-line should be changing considerably in the future. 3ARM has been heard a number of times of late on 3.5 with a good signal, Bob is still using the modified FS6. 3XU is off again on his many travels and is not heard very much, however Gordon certainly makes his presence felt when he does switch on. 3ARL is now back at work since his long break and is going along quietly.

EASTERN ZONE

We have decided to have a portable field week-end on Saturday and Sunday, 5th and 6th May. Full details will have been given per 3WI before you read this, so be in it.

3VG installed in his new house. 3GO is renovating his establishment—Ham Radio is out for a while. 3AFG and 3AEP among the missing. 3QZ on holidays at the Lakes. 3VL and 3HK portable at Easter. Sid, ex-5CI, now at Merbein using old call 3CI. 3LV is a regular on the Sunday hook-up—3HK too. 3DI another holiday maker, I don't know how they do it!

3PR has a couple of dents in his jalopy—he is now allergic to motor cycles. The bikes are alright, Ron, it's the galahs who ride 'em! 3WE playing snow men now, better oil up the relays for the winter, Bill! 3ABP is at school, learning to be an officer. Don't forget Bud, that we knew you when . . .! 3ABP taking it easy. 3SS still the champion—earbasher, I mean. 3AHK feeling the 20 metre DX urge—anybody got an HRO to give away?

GEELONG AMATEUR RADIO CLUB

On 16th March the above club organised for its members a field day in which a transmitter operated by 3AKE, 3SY and 3WT under the club's call, 3ATL, was hidden 20 miles away. So well was the Tx hidden that 3AKE and 3SY went for a walk and were lost for ¾ hour. Members failed to locate it in the specified time so the time period was extended. Two parties arrived in the vicinity of the Tx and decided to combine; they were John McConnell, 3SW and Peter Perkins.

After the hunt, a picnic dinner was enjoyed and the boys set off to hide again. This time it was located by most parties. The first of these being Dick Sughway, 3ABK.

The next meeting was attended by a large gathering of members who heard a lecture on "Modulation" by Peter Perkins. Another field night was arranged for the following meeting and this time the limit was five miles from the G.P.O. The honors went to 3AKE and Peter Perkins who located the Tx in 28 minutes.

FAR NORTH WESTERN ZONE

We must apologise for the lack of notes from this zone over the past few months. However, we will endeavour to forward notes regularly in the future. Since our last notes the main activity has been carried out by 3TI who has been keeping things going on 40. 3AUG has been rather inactive over the harvest season, but is now on 20 metres and manages to work a few Ws, JAs, etc.; Noel has a fine steel tower erected and is busy working out a beam to mount on top. The Ouyen gang haven't been heard in Mildura for a few weeks but I gather that 3FC has been rather busy with bowls. 3AFC comes through with a good sig from his TA12D. Jim Power, who recently received his ticket, hopes to have a signal on the band in the very near future.

Old timer Arch Newberry, from Red Cliffs, has applied for his call and will be mainly interested in v.h.f. activities. Ex-5CI has taken up residence in the district and seems to have stirred up interest in 2 metres. All the gang are now talking about this band and we have hopes of getting some gear operating on this band. 3SN who operated portable from here for a month or so last year is still with us but very inactive. 3MF is very busy chasing material for housing and has not been heard for months. We propose to have a get-together of the gang in the very near future. From what I hear we should have a good muster. 3GZ returned from Melbourne with a few stray bits and pieces for 2 metre gear and has hopes of getting something working on that band.

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QUEENSLAND

As most of you are aware, the Queensland Division recently held its 19th Annual Dinner. Realising that quite a number of country members were unable to get along, it is thought that rather than personal notes, we should this month present a copy of the then President's address.

Unfortunately no notes have been received from any of the country zone managers so it would appear that your Sub-Editor will have to make other arrangements re the gathering of country news, or perhaps I should not have accepted re-election if I am not prepared to take news over the air as at least one of the zone managers wanted and apparently expects me to do as I have not had one set of notes from him since I have been doing the job. I am hereby asking for several reliable news hounds to offer their services. I hope 4CG is not ill because, to date, he has been the only zone manager worthy of the name.

PRESIDENT'S REPORT

Getting back to the Dinner, the President, John Puckles, proposed the toast to the King and continued: "Gentlemen, I am happy to be in the position of welcoming guests, Mr. Conry, the Superintendent of Wireless; Mr. Paul Andrews, the Assistant Superintendent; Mr. Gipps, of the C.S.I.R.O.; and Mr. Pierce, of the Institute of Radio Engineers, as well as our visitors and you, my fellow members, to this our 19th Annual Dinner.

"This is, I believe, the occasion on which the President is called upon to exonerate himself and his fellow Councillors for their actions, or lack thereof, during the preceding 12 months. However, at this time I am pleased to be able to report that progress has been quite extensive particularly from a financial point of view and it is, I believe, the first occasion in the history of the Division that we have a healthy bank balance. The precise amount will be shown in the Treasurer's report, but I can assure you that as soon as our good friend Russ. Roberts can arrange to have a portion of King George Square fenced off, we will be in the position to at least pour in a solid foundation for a permanent H.Q. of our very own.

"Mr. Roberts has already offered us a piece of land ideally suited as far as the erection of a shack and antenna system is concerned, but unfortunately so far out of the city area that we would be faced with the added expense of a meeting place more accessible to all, so Council, hoping it would not be accused of looking a gift horse in the mouth, reluctantly decided against accepting his very kind offer. However, we are hopeful of something eventuating.

"Our student class got away to a fine start under the capable direction of Mr. Frank Lewis. The ranks were closed when 38 students threatened to overflow the classroom, but a number of these dropped by the wayside as the class progressed, leaving—I believe—10 now seriously engaged in study.

"I have been assured by those remaining students that the dropping away of the class has not been in any way due to dissatisfaction with the tuition. They go further and assure me that the tuition is everything that could be desired and if the student is capable of absorbing the work he could not fail to pass for his ticket, so apparently the majority of aspirants expect to have their A.O.C.P. served up on a (s)platter. It is unfortunate that a number of keen students probably had to be turned away to make room for these deadheads, so it seems to me that if the high standard of tuition could be continued, some form of stricter screening could be made of applicants.

"Poor support has, as usual, been given to the various contests during the year. The R.D. Contest had fair support but much better will be needed if ever this State is to win. The Field Day Contest was almost a washout as only four logs were sent in—all from the city. It would seem to me an ideal opportunity for the country members of the emergency net to try out their portable gear. The City-Country Contest was a fiasco although I think conditions could take a large share of the blame on that occasion.

"Rather more than 50 new members have enrolled during the past 12 month, exceeding the loss by a number, which apparently is impossible to ascertain, but which information I promise will be available in respect to the forthcoming 12 months. The membership now totals 214, comprising 112 city, and 102 country.

"The deaths of three members has been a blow to the Institute. The loss of Bob Campbell has left a void in our ranks and we miss his cheerful personality. We deeply regret also the loss of Eric Reilly (VK4ER) who was an active participant in the Sunday morning hook-up, and also Ken Collins who was a very keen student member.

"At this stage I would like to sincerely thank my fellow Councillors for the free ride I have had during my term of office. Each one has applied himself diligently to his job and although some have had to work harder due to the nature of the work, the concerted efforts have resulted in a smoothly working organisation. Our Treasurer, Jack Farrell (4WJ) produced 'QTC' and this, as well as handling the Secretary's work since the departure of 4TB, has certainly earned him a rest as President. Frank Nolan (4FN) has also shouldered rather more than his share of the burdens in handling the disposals gear, the Station Management, the technical directorship and the emergency network. This sort of work is appreciated more when a replacement is required and while the technical directorship is in the capable hands of Mr. Hansen (4SV), the station management is still up in the air, although a number of suggestions are being considered by Council.

"I am not going to waste time on that hardy annual which is rapidly becoming a noxious weed—the lack of enthusiasm when it comes to taking part in the affairs of the Institute. So far there are fortunately sufficient volunteers and if that should change I may be forced to vacate one of the hard chairs on the platform and occupy one of the sprung leather ones which you all seem to prefer. However, there is one way in which you could all help and that is by forwarding items of news occasionally to the Sub-Editor or the Station Manager. After all, they are not mind readers and we do not employ reporters, so it is up to you to at least do this small service for the Institute.

"The trophies given away were kindly donated by Chandlers, Tracksons and Mr. Joe Foster, and it is gratifying to see in what esteem the Institute is held by the trade in general. Our sincere thanks to these organisations for their generosity.

"In conclusion, gentlemen, I am grateful to all of you for the patience you have shown during my term of office and hope during the next 12 months as Secretary to get to know a lot of you much better. I thank you."

CLARE'S CORNER

The Brisbane DX Club is becoming quite popular of late, more and more DX stations are asking the question, "Are you a member of the Brisbane DX Club?" Nice to hear 4MD on the air again after a period of absence. 4KS is doing quite well with his nine watts and was heard in G land on one occasion. Congratulations to 4WJ on his two f.b. Sunday morning broadcasts from 4WI.

If any Ham wants to know anything about 813s, ask 4PX. 4FB has been on the air testing out his new low power portable rig. Anybody knowing the whereabouts of a JA0, please contact 4ZB.

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held on the 13th March at the Auditorium of a well known broadcasting station, and considering the business of the evening was the discussion of the Agenda for the forthcoming Convention, the attendance and the rapt attention given by those present, was very heartening to the members of the Council, who had given much thought to the recommendations submitted to the meeting. The various items were taken in turn, and much discussion took place on some of the more contentious items. After a smoke-oh of fifteen minutes, the auctioning of gear belonging to the late Charlie Parlett was taken over by that King of Auctioneers, or should I say "Tenderers," Dougall Whitburn, and what Whitburn couldn't sell just wouldn't matter.

One point was definitely settled at this meeting and that was the matter of the lecture being held first, or whether the business should take precedence. It was unanimously decided that the present system of holding the lectures first be continued, as has been the practice post-war.

To those of you who have persevered with these notes so far, it may or may not have been evident that they lack the master's touch, suffice is to say that vengeance is sweet and I have now the opportunity of getting even with my arch enemy, Parsons. For years now I have had to put up with insults, taunts and deviations from the truth, the opportunity is here and I take it in both hands. To those of you Interstate who have asked on many occasions, "What sort of man is this fellow who writes the VK5 notes?" I reply—5 feet 7 inches tall, fair complexion, grey hair, 178 lbs, an expanding waist line, no tattoo marks, no previous convictions and a heck of a sense of humour; radio engineer by profession and employed by the . . . well a B class station anyway. The devil of it is that I have to admit he's a nice guy and one with a natural flair for writing notes such as these, even if the Editor (big bad wolf Tom) does red pencil him at times. I did hear on good authority that brother-in-law Lance once put it all over him in a certain eating house. Upon being approached by 5PS he said in a loud voice for all and sundry to hear, "Go away, the last time I gave you five bob you never paid it back." Exit "Kanacka" with much blushes.

The ballot for the new Council for the forthcoming year, and the ballot for the wet or dry Christmas Social has gone to the members. It is now for them to decide on these two issues. Our Federal Councillor Gordon Bowen and Observer John Bulling returned from Melbourne after a strenuous time at the Easter Convention. They have much to report and their story will make interesting listening at the next meeting.

5BY heard on 20 with excellent phone emanating from the Type 3. The Pirie gang are going well according to the latest report received from 5CO. 5EN working lots of 20 metre DX with his beam. 5OD was seen crawling around the top of the tower after giving the beam a spring cleaning; his comments after dropping the hammer were "un-parsonable" if you know what I mean. 5WO still putting through a fine signal on 40 with a fist that is a pleasure to copy; made my mouth water the other hot day when he suggested a cold one, he's in the place where they dish them out too. Pleased to hear that 5VM had made good progress and was now home again after a spell in W.A.; a speedy recovery old son. 5LO from Mallala heard on 40 with a nice phone signal.

Two resignations from such old timers as 5LL who complains that things are not what they used to be (perhaps they are, Luke, it could be that we are getting older), and 5HR. I haven't a clue to the reason behind this one unless it was that Bill couldn't just get the results from the G8PO that another "tinny" VK5 did. "Dead Eye Dick" Laidler has gone holidaying to Brisbane way. 5AW still doing a great stick on the Institute broadcasts for this Division, reported to be playing around with "The Thing" which I hear is a gadget for sending lots of dits and dahs by a flick of the wrist—electronic key to you.

From the "Mount" comes news of 5FD who is still off the air owing to lack of power at his present location; to while away the leisure hours John is making a tape recorder in his spare time. 5KU successfully salvaged the radio gear off the wrecked freighter, "Corio;" has been on c.w. on 20 metres and is building up a modulator for a type of suppressed carrier screen modulation or something. 5MS has a nightly sked with G3AMM and usually gets through; now using 90 watts to an 813 and modulating it with 807s in Class B. 5KB on a three weeks' well earned holiday at present. 5TW now has the a.c. installed and has been feverishly making up transformers and power supplies for all his gear. 5CH a busy man at the local power station, still manages a weekly cohtact with 5CJ on 2 metres, and still home building; Claude is one of the busiest men I know, too bad he doesn't live near the city or he would be roped into the many and varied jobs that are always going in the Institute. 5CJ manages a few contacts on 40 and 2 metres, strained his ears listening on 144 Mc. during the week-end test, but couldn't hear a thing.

5RX, the "Certificate Man," is again on the trail of a new certificate, now chasing one for worked all South America or something; George is our stalwart QSL Manager and what a job that man does do, now has lists of financial members posted to him, so don't expect cards if you don't pay your subs fellows. 5DW reported to be on the way to the West in his car. 5MZ who used to be 5MK in the old days, heard working lots of Ws on 7 Mc., has a nice signal emanating from a Type 3. 5MX still putting a nice signal through on 20 phone and often heard working 2XH who was formerly 5XX. 5KX was heard cursing a big generator at the power station the other day when the darned thing decided to refuse to go; who minds the baby these days John, now that 5PS has transferred his affections to the gentleman with the Ford V Eight at Rose Park; if it's any help to you I'll clean the car, if you will call in and pick me up on Council and general meeting nights. 5JD reported to be looking for the two metre band; if anybody could put Jack on the track of it, it might save him untold worry and leave him bright enough to tackle the affairs of the Council.

Jim Georgeson, an old VK5, passed through the city recently on his way to and from Western Australia. Many of the old timers will remember Jim who tells me that he is in the pink and always on the lookout for a QSO with VK5s—his call is VK2AKU and a welcome is extended to visiting South Aussies should they be in Sydney. 5DH delving into the mysteries of radio telephony; hopes to have a modulator that will work very soon. 5GD not heard on much these days.

News is to hand of the week-end spent by the V.H.F. Group at Mt. Barker. Max Farmer, Reg Galle, Jack Coulter, Curly Blight and Joe McAllister comprised the party that braved a very cold night. With the amount of a.c. that was used to light up the Mountain like day, somebody should have thought of a radiator as a handy way to dissipate the juice. Jack Coulter was seen searching through the coals for the chops that he inadvertently dropped. Somebody thought he was looking for that elusive 144 Mc. Max fairly rocked the crowd with a magnificent piece of marksmanship. He clipped a piece of rope from the handle of a knife that had become stuck in a tree, with a shot from a 22 rifle. A suggestion was made that the V.H.F. Group challenge all comers to a shooting match. Wait till me cobber, "Dead Eye Dick," comes back from Brisbane, we will take that one up.

5AM was heard touring the suburbs at Easter with his mobile rig and what a nice signal that transmitter puts out The old Joe McAllister distinguished himself at the last Council meeting when to everybody's surprise he brought to light a supper that would have done justice to one of our big cafes.

Another visitor to VK5 was that menace from Kalgoorlie, Bill Barber. It is just as well we know 6DX, if he could puff as hard as he could blow he would have puffed himself into Melbourne and saved all that petrol, good old Bill. 5WF not heard on as much these days, don't suppose you have received any more of those Chinese—OK I'll skip it—but don't blame "Pansy," he didn't know that I was going to get this one back on you; this makes it even for the "Matron of the Hospital incident."

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WESTERN AUSTRALIA

The March and Annual General Meetings were held on Tuesday the 20th before a very good roll-up of members, no less than 56 being present An early start was made on the March meeting, and after the usual preliminaries, discussion got well under way on the two notices of motion to amend the constitution, as publicised in the bulletin and over 6WI. Both notices of motion were lost, in the first instance on the voting, and in the second because the requisite three-fourths majority was not obtained. Commendable interest was taken by the great majority of members in these notices of motion, and quite a number of country members voted by proxy. It was also to the credit of the various speakers and the Chairman at the meeting that the personal angle was kept practically right out of the discussion.

The March meeting had to be adjourned in order that the business of the Annual General Meeting could be dealt with, and the results of the ballot for the 1951 Council made known. Reports were heard from the various officers and the Treasurer tabled his balance sheet, together with a warning about steadily increasing costs, and the possibility of an increase in subs in the not too distant future.

The President (6KW) then gave a short report on the year's activities, thanked all Council members for their support during the past year, and also all VK6 members for their active in-

terest in the affairs of the Division. Our Secretary, Treasurer and QSL Manager came in for special mention for the splendid job they had done, and all present were thoroughly in accord with the President's remarks complimenting 6AG, 6RO and 6RU. By this time the scrutineers had completed their long job and the results of the poll were read to the meeting. A very good return of 97 ballot papers was received and resulted in the following officers being elected to the Council for 1951-52: 6AG, 6SA, 6GB, 6HL, 6GM, 6CM, 6RO, 6JW, and 6AS.

The Annual General Meeting then closed and the March meeting re-opened to discuss the Agenda items for the Easter Convention in Melbourne, with our Federal Councillor 6GM. Unfortunately the hour was then very late (about 11.30 p.m.) and most members had to wend their way bus and tramwards, with the result that the agenda items were discussed with only a few members present. During previous years it has been the practice to hold special meetings for the express purpose of discussing Convention items, but they were not usually well attended, and some satisfactory solution to this problem is needed next year.

I forgot to mention that during the course of the March meeting a new member in Mr. Barry Field was welcomed to the meeting and the Institute. We all hope that Barry's association with the VK6 Division is a long and happy one, and that it won't be too long before he gets on the air. I believe it is a case of getting sweet with the landlady before any poles, wires, etc., can be erected. I seem to remember 6FW having a similar trouble, and Frank finished up using a wire bedstead for an antenna to work the local stations.

The new Council has already met twice and reports considerable progress. Following are the office-bearers that have been elected to date:—President, John Campbell-Watson (6JW); Vice-Presidents: W. Coxon (6AG) and A. A. Smith (6AS); Secretary, H. Lang (6HL); Bulletin Editor, 6JW. Official broadcasts and "Amateur Radio" notes will be continued by yours truly (just couldn't wriggle out of it). 6RO announced that he will be unable to carry on as Treasurer due to increased studies for accountancy examinations, so at the moment we are looking for a Treasurer.

The Council placed on record its appreciation of the sterling services rendered the Institute by 6AG and 6RO in their capacity of Secretary and Treasurer respectively during their terms of office.

A very encouraging lecture and lecturette list has been drawn up by the Council and is already bearing fruit. The meetings during the coming year should hold plenty of interest for all members who are able to attend. It is also the intention of the Council to increase (as far as expenditure will allow) the scope of the bulletin so that country members can get a more extensive coverage of the Division's activities.

PERSONALITIES

It will come as a disappointment to many VK6 members to learn that 6AG has had to decline nomination for the position of President and of Secretary, due to increased work in the country that will keep him away from the city for a considerable time this coming year. Wally has become part of the tradition of this Division, being one of the pioneer names in radio in this State and one of the foundation members of the Wireless Institute. The measure of Wally's popularity can be seen in the last election for Council when he polled 91 votes out of a possible total of 93 (there were four invalid papers).

Was honoured to receive a visit from VK1PG last month. Hadn't seen John for nearly ten years and he looked remarkably fit after twelve months' sojourn on Heard Island, although he found the warm Perth weather a little trying. Hope to hear from you as 2PG soon John.

At last some news of the Kalgoorlie gang, received via 6GA at Forrest (wouldn't it?). 6AR seems to be domiciled up there now and is active on 14 Mc. 6HM likewise active once more and has been on 7 and 50 Mc. 6DX has been holidaying in Adelaide and has been heard over several VK5 stations.

6GB takes on the duties of V.H.F. Officer. Conditions must be bad on ten metres when 6CF deserts that band and operates on 20. 6CP heard on 40 recently. 6GU has shifted to Perth but his rig is still located at Melville and only when he visits there of a week-end can he put a signal on the air. 8LU is finding his v.f.o. a great asset in helping to dodge the commercial QRM on 7 Mc. of an evening. 6WT and 6HC arrived back in Perth safe and sound after their long trip overland to Melbourne and Sydney and return.

6SA was unfortunate in losing a sixty foot pole recently. 6RU is, I understand, carrying on as QSL Manager for the coming year. 6GM arrived back from the Convention in Melbourne on a Sunday evening, was at work bright and early the following morning, and at the Council meeting in the evening. George will give a full report at the next meeting.

TASMANIA

The Annual General Meeting took place at the Photographic Rooms, 174 Liverpool Street, on Saturday, 2nd March. Joe Brown, our President, took the chair and presented the annual report to members. 7LD and 7RX were elected scrutineers to check Council ballot papers while the following officers were elected for the ensuing year: 7LE was elected broadcast officer; 7OM filled the post of traffic manager. V.H.F. manager nominated was D. Fisher, and auditors are 7GR and 7LJ. The QSL post was retained by T. Allen with S. Excell as assistant. Bob Fulton to conduct slow morse transmissions and the publicity officer is the same as the previous year. A vote of thanks was passed to 7BJ for his unflagging enthusiasm and devotion as President during the past 12 months.

Councillors elected were: 7OM President, 7LE Secretary, 7BH Treasurer and 7MY, 7SJ, 7AJ, 7AF. The attendance at the meeting was disappointing in view of the importance of the occasion, no members were in attendance from the Northern Zone, which was surprising.

At the conclusion of the meeting members made their way to the "Australia" Cafe where the Annual Dinner was consumed with much gusto. Official visitors were Mr. P. E. L. Dunne, Superintendent of Wireless; Mr. G. Lason, Engineer's Branch, P.M.G's. Dept.; Mr. T. Wicks, O.T.C., and Mr. Newstead from the University of Tasmania. The success of the Dinner was due to the efforts of the Dinner Committee, which consisted of 7AL, 7AF and 7SK. Competition for the construction of equipment was won by 7LE and consisted of a well built test meter. Dinner concluded at 10 p.m. and on the Sunday a visit to the various Ham shacks was arranged for the country visitors.

Surprised to hear from 7RM that DX can now be worked from his new location at New Town. Another New Town member, 7RX, is busily engaged in the construction of a latticed beam. From present indications the finished job will be beyond reproach and should work well when finally completed. Another signal heard on after a considerable absence is 7EJ. 7SR heard on 40 during March working portable from Mona Vale with a reasonable signal. Several transmitters are available to this club, which are vibrator powered and the receiver is a Phillips No. 4. From an unofficial source a SX28 is due shortly which will be a great asset to those members of 7SR Sig. Club.

The April meeting was not at all well attended, which was disappointing. Business for the evening was the report by 7OM, our Federal Councillor, on the Convention which was held over the Easter period. Sounds as though Bob must have had a busy time during this period. Meeting concluded at 10 p.m. As mentioned, VK7AF has recommenced slow morse transmission on 80 metres, which provides good practice for our associate members and thanks must be extended to Bob for his efforts in this division of our activities.

NORTHERN ZONE

The 9th March was the big night for election of office-bearers for the ensuing year. 7RK was re-elected as Chairman by unanimous decision. 7LZ resigned the secretaryship for private reasons after guiding the zone most successfully for many years so 7AM was elected for this important office. Last year 7BQ did an outstanding job as Lecture Officer, rounding up all sorts of innocents to give lectures. However, 7BQ is off to Britain shortly (you should be good for half a dozen lectures at least on your return, Len), so 7DB was elected. The position of Zone Correspondent was wished on to yours truly (7XW).

The zone has recently suffered the loss of two of its very active members, 7NL and 7PF, the latter having gone to live in VK3. If Peter continues with his enthusiasm in VK3 I can see the R.D. trophy being collared by VK3 even yet. However, applications have been received from three prospective members and we look forward to seeing them at our meetings in the near future. Visitors through Launceston recently have included 3BI, 3ZA and 7AK over from Flinders Island.

Although conditions on 80 and 40 have not been the best in recent weeks, there has been plenty of activity in Northern Tasmania in various directions. 7LZ suddenly got busy on 144 Mc., then shot up to 288 Mc. working regularly with 7BQ who is still waiting for someone to come on to 576 Mc. With the compulsory power cut of 25 per cent. throughout Tasmania, 7RK is now believed to have reduced his monster five watt outfit down to 3.75 watts and still works DX. Haven't heard 7DS, out at Longford, for quite a while.

7MC has at last got over his hum problems, and is putting out nice phone on 40. Ern also has going a neat 144 Mc. rig using an overtone crystal oscillator, with direct n.b.f.m. on the crystal, final is an 832, so what about it you VK3s for some more Bass Strait contacts. 7XW is polishing off yet another transmitter, with lots of gadgets including controlled carrier. 7HY took a trip to Melbourne recently and appears to be too busy to do any operating at present. 7DB has almost completed building his house, hope the pole transformer right outside won't worry you Don. 7RK is another house-builder—you had better get the rig out of storage, Rex, before the moths or mice get at it.

Remember, chaps, zone meetings are on the second Friday of each month, and there is always something of interest. Come along and bring a visitor—we want more members; why 7XW might be provoked into telling how he is getting on with 25 per cent. hydro power reduction.

HAMADS

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Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received by 8th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line. Dealers' advertisements not accepted in this column.

FOR SALE.—P.A. on chassis with panel to fit AR7-type rack. Hilco filament transformer, otherwise American components: Bud split-stator, Johnsor socket, "B & W" plug-in coils (80-10 metres) with panel-controlled swinging link. Western Electric dial, National neut. conds., grid and plate meters, 35TG tube and two spares. Could be readily modified to use other tube or push-pull; £23. Type 3 Mark II. Transmitter 80-10 (ten) metres. Receiver chassis partly stripped but contains dial, i.f's., some tubes, etc., suitable for building new Rx, key leads, spares box included; £21. Tubes: TB35 (used a little), 25/- each; 813s new, 35/-; 15E used, 12/6 each. AR7 rack, 40/-; some 7 Mc. xtals (FT243 type), 28/6 each. Sound-powered telephones, two brand new with 200 feet new wire, £5/10/- the lot. Adrian Miller, Phone Croydon 508 or FA8971 (working hours).

FOR SALE.—Two Class B Modulation Transformers, ¼ kw. rating, vari-ratio. Suit 809, 811, TZ40, or similar Z.B. valves. Heavy units. Purchaser must collect. Accept £5 each. Don Knock, 43 Yanko Avenue, Waverley, Sydney.

SELL.—American "Janette" rotary converter, 32 volt DC input, 230 volt 50 cycle output, 250 watts capacity. John F. Anderson, Nullawarre, Victoria.

SELL complete station, 50w. Tx 80-20 metres, plate mod., complete with Franklin v.f.o., xtals, valves, G8PO aerial, BC342N, S meter, xtal filter, ceramic coil formers, h.v. variable and fixed condenser, meters. Details from F. Holmes, Yarra Junction, Victoria.

SELL "CQ" January to December, 1950. "QST" January to April, 1950. Offers in writing only, for any or all, close 31st May. Send no payment initially. Highest bidder advised. Eric Trebilcock, 184 Osborne Street, Williamstown, Victoria.

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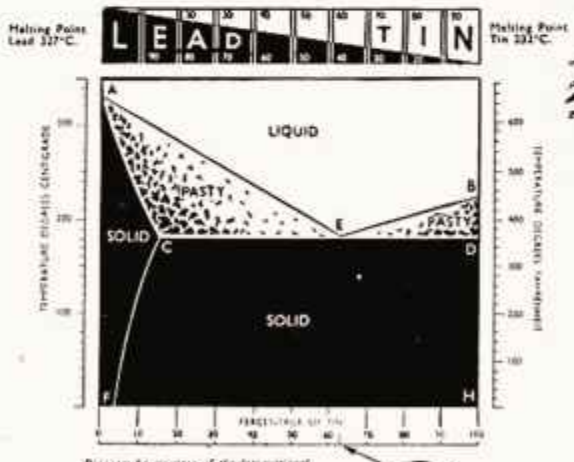

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EDITORIAL

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Are the Defence Services Taking Full Advantage of the Trained Personnel Available from the Ranks of the Amateurs?

Up to date, of the three Active Services—Navy, Army, and the Air Force—only the Air Force has submitted a scheme directly to our members and even that scheme does not appear to be receiving as much enthusiasm and push from official Service quarters as it merits.

Many of our members served in the radar and communications branches of other arms of the Services during both world wars, and many of them—particularly the younger generation from the 1939-45 war—are expressing their disappointment at the absence of plans for them in the event of a third world war.

In view of the fine war record the Amateur has rightly earned from his ability, so ably demonstrated in the past, to take over in the event of a National Emergency, the Services could have a resolute backbone of well trained personnel who would only require relatively short training to fit themselves into Service routine.

It is hoped that before long the "permanent careerist" attitude at present so evident in the Services will give way to a saner and more sober realisation of the true worth of the Amateur—his vast capacity for enthusiastic national service and his desire to take a keen interest in preparing for all eventualities.

Why should he have to search vainly for an avenue to offer his services which should eagerly be sought by not only the three main arms of the Services, but also by Civilian Defence Organisations?

America and England have long since taken advantage of this ready-made source of technical personnel for the various branches of their military and civil organisations. It is hoped that the powers-that-be in Australia will grasp this advantage before it is too late.

There will be no time to think about it afterwards!

—FEDERAL EXECUTIVE.

The Contents . . .

Simple Frequency Meter For Amateur Bands

BY DR. LEO H. McMAHON,* VK2AC

An accurate Frequency Meter is a very handy instrument to have besides being prescribed by the regulations. Until the advent of the BC221 and its variations and the disposals 100 Kc. crystals, frequency meters in this country, for the most part, were not very accurate nor reliable. Even now, the 221 is not available to many and 100 Kc. crystals have to be built into quite a bit of gear to make a good frequency meter. 100 Kc. crystals have bugs all of their own and are not the simple things to handle the books would have you think.

The main points about a frequency meter are that it must be stable, its calibration must be accurate and its re-set stability must be reliable. The latter point is of great importance. What is the use of a frequency meter that will be accurately calibrated at one temperature and tomorrow at a different temperature will be up to two kilocycles out on 14 Mc. That is well within the bounds of possibility.

A "Clapp" was built on 1.75 Mc., taking all precautions towards stability. Even so, the frequency measured at 14 Mc. at any one setting varied up to 2 Kc. at different temperatures. If anybody thinks that is unusual, let him listen to the v.f.o's. in common use. A shift of a kilocycle on 14 Mc. in each over is about the rule. Before anybody challenges that statement let him listen to a few v.f.o's. with a reliable stable meter before he is too rash in rushing to the defence of the common standard of stability.

We have all been impressed by the stability of the BC set. It will stay for days tuned to the one station. This stability would be very handy on the Amateur bands. One means of getting this stability is to use the old flextal system. That is a low frequency oscillator in conjunction with a high frequency crystal oscillator. That is the basis of the frequency meter here described.

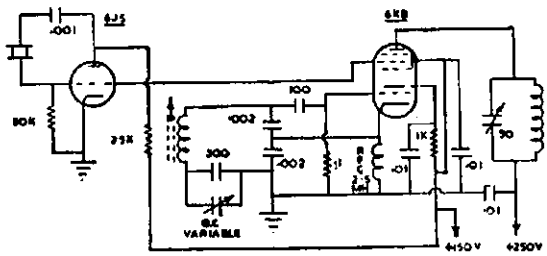
In this we haven't to bother about balanced modulators to balance out the crystal frequency. The writer has had experience with valve balanced modulators and does not like them. At the point of balance 50 cycle a.c. modulation on the remaining carrier is present. It has been suggested that the only solution is to use a d.c. filament supply. How? I ask you! However, that is another story. In this case we need not bother about such refinements. Moreover, the troubles that prohibit this unit being used as a control unit of a transmitter, namely the harmonics of the low frequency oscillator, can be turned to advantage to provide check points.

A 6J5 is used as a Pierce oscillator on 6375 Kc. and a 6K8 oscillator and mixer to give output on 7000 to 7200 Kc. It may be preferable to use the 6J5 as the v.f.o. but the aim was to do it all with one tube. An attempt to make a Pierce oscillator, using the screen of the 6K8, failed because it was not reliable enough. Maybe it could be done with a tuned circuit in the screen. The lazy way was used, hence a separate oscillator.

The v.f.o. is a "Clapp" type covering 625 Kc. to 825 Kc. This combination was used because the parts were on hand. Any combination to suit what you have can be worked out. The v.f.o. frequency is lower than that used in BC sets using 455 Kc., even when tuned to 550 Kc.

No great pains were taken with the v.f.o. but its stability is very good. It gives a variation in re-set stability on 7 Mc. of about 200 cycles. That is as would be expected. If used as the controlling oscillator, that 200 cycle variation, when multiplied to 7 Mc., would represent a variation of about 2 Kc. and which as you will agree is quite an amount.

As with any frequency meter the condenser and dial mechanism is of great importance. Look at them in the 221. The condenser the author uses is a standard b.c. condenser in conjunction with a standard aerial coil. The degree of accuracy to which you can read the meter depends on the dial. The better



the dial, the better the result. With even the simplest dials, it is easy to measure to 1 Kc. on 7 Mc.

In the v.f.o. 0.002 uF. condensers are used to increase the tuning range. With the "Clapp" v.f.o. the available tuning capacity is the resultant of the three condensers in series. If 0.001 uF. is used and a 500 pF. variable to make the arithmetic easy, the maximum capacity is 250 pF. If you increase to 0.002 uF. then you get up to 333 pF.

With the increased capacity the tube effects are lessened. When using a 6AC7 in a "Clapp" circuit and 0.001 uF. condensers, you may get a squeezing effect as you increase the tuning capacity. The cure for this is to increase the capacities to 0.002 uF. and so more loosely couple the tube.

Some may be worried about using an oscillator in the b.c. range. However all b.c. sets do it and cross all b.c. stations higher than about 1,000 Kc. If you don't believe it drive a car around using a car radio—see how many heterodynes you can pick up on the high frequency stations. Another point about the v.f.o. is that you can use the b.c. stations as frequency measuring points.

The construction is quite simple. The valves used were those on hand. Use reasonable care with the v.f.o. and you will get stable results. The output on 7 Mc. across the coil is about 3 volts. The method of coupling to the receiver has to be found experimentally. If sufficient output cannot be had at 14 or 28 Mc. you may add an r.f. amplifier or doubler, but remember you are using this as a frequency meter not as a driver. You have only to hear it not see it.

The calibration of the unit may be done against any standard. The b.c. stations can be used as check points and it is often handy to increase the tuning range of the v.f.o. slightly to take in an extra b.c. station or two. Otherwise the unit must be calibrated from some known standard. It should not be too difficult to get the use of some standard to check against for the short time needed for the calibration.

Besides the desired frequency for the unit you can also hear the harmonics of the v.f.o. as they fall in the band in question. At certain points these harmonics beat against the output frequency and give you check points. These check points can be calculated beforehand.

Take the writer's case where a crystal on 6375 Kc. is used. The formula being $6375 + x = xy$, where 6375 is the crystal frequency, x is the v.f.o. frequency, and y is the number of the harmonic. In this example "y" has the values of 9, 10 and 11. This gives check points at 7012.5 Kc., 7083⅓ Kc. and and 7171⅞ Kc. respectively. Together with two Sydney b.c. stations, this gives five check points in the 40 metre band.

The harmonics are much weaker than the output frequency, some 30 db, and they also tune much more rapidly.

All told, this is quite a simple frequency meter to get going. It does not cover the 80 metre band, but it does not take much ingenuity to see how it could be used to cover this band. This meter is recommended as a very simple means of getting an accurate frequency meter with the minimum of trouble and engineering difficulties.

The plate coil of the 6K8 mixer contains 25 turns wound on ¾" diameter former with 28 gauge enamel.

* 32 Harbourne Rd., Kingsford, Sydney.

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PHILIPS TO SUPPLY NEW A.B.C. TRANSMITTERS

Transmitters for additional A.B.C. stations in country areas throughout Australia have been ordered from Philips Electrical Industries of Australia Pty. Limited.

A total of 12 dual broadcast transmitters is involved, each with an output of 200 watts. It is anticipated that delivery of the complete 12 units will be made early next year, but that at least two will be delivered towards the end of this year.

Twenty-First Annual Federal Convention of W.I.A.

Federal Executive's Annual Report

PRESIDENT'S REPORT

The activities of the Institute have been maintained very satisfactorily throughout the year by all Divisions, and the Federal Council is indeed grateful to all Divisional Officers for their loyal support in their various departments.

Membership throughout the Divisions has been maintained satisfactorily, and the financial stability of the Institute, as a whole, is very sound.

In the Federal sphere, your Executive has been able to carry out the majority of the directives laid down for its attention at last year's Convention. It is felt that you will realise that the Institute's progress as a whole is due, in no small measure, to the policy laid down at each annual Convention, and consequently, the decisions reached at these conferences are of prime importance to the welfare of all members.

Your Executive has continued to maintain cordial relations with the officers of the P.M.G's. Department, and it is desired to remind members that the very friendly contact thus established has done much to facilitate favourable decisions on matters affecting Amateurs throughout the Commonwealth.

Your Executive has also maintained close contact with the I.A.R.U. during the year, and items of International interest resulting from our discussions, have been published in "Amateur Radio" from time to time.

It is felt that all members will wish to join with your Executive in extending congratulations to the Editor and staff of "Amateur Radio" for their successful and untiring efforts in the production of an interesting and valuable contribution to the life of the Institute. Our thanks are also extended to the Victorian Division for its financial support in this venture.

Congratulations are also extended to those Amateurs who rendered public service during emergency conditions, when normal means of communication were interrupted. The development of suitable equipment for this purpose presents an opportunity for considerable experimentation and originality.

The Treasurer's statement shows the present satisfactory state of Federal finances and our Treasurer is to be congratulated for his careful handling of the very considerable amount of work involved.

The work of the Federal Secretary is deserving of special mention, and he is due to be thanked for the vast amount of effort expended by him in carrying out the duties of an honorary official which occupies so much of his leisure hours.

The Federal Publicity Officer, the Federal QSL Bureau Manager, the Federal DX C.C. Manager and the Federal Traffic Manager have also done spendid work during the year, and our appreciation is extended to them.

The faithful work of the Federal Vice-President should not be overlooked, as he is a most reliable and conscientious member of the Executive.

It is hoped that the year now before us will offer us a further opportunity to enjoy to the full those facilities now available to us as Amateurs, and it behoves us to do our utmost as individual members to strengthen and support the Institute in its activities.

TREASURER'S REPORT

It is my pleasure and duty to present for your approval revenue statements and a balance sheet embodying the financial transactions of the Federal members for this year ending as at 28th February, 1951. This is an 11-month period, brought about by the fact that Easter occurs approximately two-three weeks earlier than usual.

The documents in your hands consist of the balance sheet, being a statement of our assets and liabilities; the statement of receipts and payments No. 1 and No. 2 accounts, and the statement of income and expenditure. These statements clearly define the financial position, and are rendered in detail as required by our Federal Constitution.

You will note that we now have two accounts with the Commonwealth Bank, No. 1 Account taking care of general receipts and expenditure, whilst No. 2 Account is devoted purely to Convention expenses. These two accounts are working smoothly, and satisfactorily cover our accounting needs.

I think that a perusal of the figures will indicate that economy has been observed, and the balance of £212/10/8 at the Bank against No. 1 Account shows a sound position. The balance and details attached are therefore submitted for your approval.

The budget for 1950 provides a reliable guide for our financial requirements for 1951, and on that experience I now submit Federal Executive's estimated budgeting for 1951.

QSL Bureau	£10	0	0
Printing and Stationery	10	0	0
Audit of Accounts	10	0	0
Trophies and Prizes	25	0	0
Convention Minutes	20	0	0
Petty Cash	15	0	0
Convention Dinner	20	0	0
Convention Expenses	150	0	0
Entertaining	10	0	0
Contingencies	20	0	0
	£290	0	0

At this point I wish to advise that due to an impending change of address to a nearby country district, it is necessary for me to leave the Federal Executive this year. Mr. George Manning has therefore been appointed my successor as Federal Treasurer, and I wish him well in his new responsibility.

Finally, I would like to thank the Federal President and his officers and also all Divisional officers for their splendid co-operation during my four years of office. If I can be of further service within the new limits of my available time, I shall be only too pleased to serve in any capacity for the benefit of the Wireless Institute of Australia and its members.

BALANCE SHEET AS AT 31st DEC., 1950

EQUITIES

Accumulated Fund				£321 5 7
				£321 5 7

ASSETS

Current Assets:—					
Cash at Bank	£187	8	11		
Certificates on hand	30	0	0		
Badges on hand at cost	5	16	8		
Stationery on hand	3	0	0		
				£228	5 7
Fixed Assets:—					
Eddystone S.W. Receiv.	£60	0	0		
Trophy Rememb. Day	35	0	0		
				95	0 0
				£321	5 7

Moved S.A., seconded W.A.: "That the report be received."—Carried.

Moved N.S.W., sec. W.A.: "That the fixed assets be written down by 50 per cent. in the next annual balance sheet."—Carried.

Moved Vic., sec. Qld.: "That the statement of assets and liabilities be received."—Carried.

FEDERAL QSL BUREAU

The Federal QSL Bureau functioned smoothly and efficiently for the period under review. No major difficulties were experienced and the co-operation received from the Federal Executive and particularly from the Federal Secretary was all that could be desired.

Cards handled totalled 45,466. This total is again a reduction on that for the previous year. Comparative totals are: 1947-48 (peak year), 71,868; 1948-49, 63,786; 1949-50, 56,822. Despite the increase in world Amateur population the steady decrease is attributable to the continued publicity given to the addresses of VK Divisional Bureaux, and to the greatly increased circulation of the International Call Book. Another contributing factor is the poor and irregular conditions which prevailed during the past eight months on the main International DX bands—14 and 28 Mc., especially for contacts with North America from whence emlnates a good percentage of QSL Bureau traffic.

Due to the decline in traffic, costs for the year were approximately £1 less than the previous year, despite a further increase in postage rates of approximately 10 per cent. from December, 1950. However, due to the postage increases of the past two years, the true basis of costs—that is, cost of handling per 100 cards —continued to rise. For the year under review this cost shows as 3.6 pence per 100 cards as compared with 3.3 pence in 1949-50, 2.37 pence in 1948-49, and 2.24 pence in 1947-48. Despatches to the Victorian Bureau were again passed by hand due to the continued good work of VK3XM and VK3OT. Their efforts in this regard represent a real financial saving.

All the Divisional Bureaux functioned well during the year, and, with the exception of the Queensland Division, all Divisional QSL Bureau personnel remained unchanged. In Queensland, the Inward Bureau was taken over by Jack Files, VK4JF, from Eric Lake, VK4EL, when the latter was transferred. The Outward Bureau for this Division was taken over by VK4RL, on the sad death of my old friend and reliable QSL officer, Bob Campbell, VK4RC, during the year.

W.A.C. and W.B.E. applications handled during the year totalled 16.

Items of interest to Divisional Managers and to Amateurs generally were published monthly in Federal QSL Bureau column in "Amateur Radio."

During the present year I will celebrate 20 years of continuous service as QSL Manager for the W.I.A. During this period upwards of half a million cards have passed through this Bureau.

Following is the balance sheet of the Bureau:

Receipts			
By Credit Balance from 1949-50	£0	7	9
,, Advances from Federal Executive	7	10	0
	£7	17	9
Expenditure			
To Postages on despatches to Divisional Bureaux, W.A.C. correspondence, surcharged mail, and general stationery	£6	15	9
,, Cash and Stamps on hand	1	2	0
	£7	17	9

TRAFFIC MANAGER'S REPORT

Twice weekly schedules have been satisfactorily maintained during the past twelve months with the Divisional Traffic Managers: VK2ARE, VK4AW, VK5JT, VK6SA, and VK7OM.

A total of 351 (377) contacts was made by the Federal Traffic Manager, VK3ZC, during the period.

It was pleasing to note that with the increase of inward messages to 27 (18) the Divisions seem to be again realising the value of this channel. Outward messages totalled 25 (27) to a total of 72 (66) addresses.

The figures in brackets are the comparative totals for the year 1949-50.

VK3ZA kindly deputised during periods when VK3ZC was not available.

In the 4½ years since this net first commenced its post-war operations on the 22nd October, 1946, VK3ZC has contacted Divisional traffic stations on a total of 1,640 occasions.

The senior out-station (in more ways than one), VK5JT, leads with 352 contacts, VK6SA with 298 contacts, VK2ARE with 284 contacts, VK7OM with 204 contacts, while VK4AW has 76 contacts to his credit since taking over from VK4AG whose total was 99 contacts.

FEDERAL DX C.C. MANAGER'S REPORT

I took over the job of DX C.C. Manager during September, 1950, and I present herewith a brief report on the activities of the DX Century Club, and the W.A.S. 50 Mc., during the past year.

Firstly the DX Century Club. The following new members were listed for the year ending 31st December, 1950: Phone 7, making a total of 18; C.w. 14, making a total of 34; Open 13, making a total of 43. The total membership is now 93.

I sincerely hope that the "proposed standard DX record card" as presented as an appendix to the agenda of this Convention will be adopted. Its adoption, to my mind, will be of great benefit to the DX C.C. Committee and to applicants for membership. I suggest it be used in a manner similar to that used by the "CQ" Magazine Awards Committee in recording the W.A.Z. progress totals.

A number of members and applicants have been forwarding their cards without including the return registered postage. I have had this matter publicised in the magazine and over the official W.I.A. broadcast, and hope that in future members and applicants will include postage, thereby saving the Institute considerable expense over the year and considerable inconvenience to the Committee.

Secondly, W.A.S. 50 Mc. The checking of cards and the issue of certificates has proceeded smoothly over the year, ten applicants having qualified for this award. A special gold star has been issued to each applicant claiming an additional country worked on this band.

During the year regular schedules were kept with W1DX of the A.R.R.L. though poor conditions on the DX bands have prevented contacts at the schedule times over the past few weeks.

Schedules are also being arranged with the R.S.G.B. and the N.Z.A.R.T. These contacts

are mainly for the purpose of checking alterations to the DX lists and the record of doubtful DX stations, etc.

This report is brief, but I trust I have given the Convention some useful information on how this section of the Federal organisation is functioning and progressing.

Moved Tas., sec. Vic.: "That the reports as read be received.—Carried.

Moved W.A., sec. Qld.: "That a letter of appreciation be sent to Mr. R. E. Jones, VK3RJ, Federal QSL Manager, from this Convention and Federal Council for his twenty years of service to the W.I.A."—Carried.

Moved F.E., sec. S.A.: "That a letter be sent to Mr. J. Dobbyn, our old friend in the P.M.G's. Department. He had an unfortunate accident recently and has been in the hospital for some weeks. We might express our regrets at his having met with the accident."—Carried.

Moved Vic., sec. W.A.: "That the minutes of the Twentieth Annual Federal Convention be adopted."—Carried.

Minutes of the Convention

AGENDA ITEMS

1. Moved N.S.W., sec. S.A.: "That in view of the increased cost of postage, the matter of a uniform charge for the handling of both internal and external QSL cards be discussed and determined." After discussion, it was agreed that the policy book covered the situation.—Carried.

2. Moved N.S.W., sec. W.A.: "That at the conclusion of the Convention business, an open session be declared for an exchange of views between delegates on matters concerning Amateur Radio."—Carried.

3. Moved N.S.W., sec. Tas.: "That the Convention should sit on Easter Sunday if there is any business unfinished at the conclusion of the Saturday session."—Carried.

4. Moved Vic., sec. W.A.: "That the co-operation of other States be sought in making greater use of the higher frequency ends of the six and two metre bands."—Carried.

5. This item was withdrawn by the Queensland delegate in view of action already taken by Federal Executive.

6. Moved S.A., sec. W.A.: "That the Convention in future be held every second year, the next in 1953."—Lost.

7. Moved S.A., sec. Vic.: "That the matter of electrical interference elimination be pressed by Federal Executive with the Postmaster General's Department with a view to having some uniform law passed as in the United Kingdom to suppress such interference with reception of radio signals."—Carried.

8. Moved W.A., sec. S.A.: "That Sydney be the venue of the 1952 Annual Federal Convention."—Carried.

9. Moved W.A., sec. S.A.: "That Federal Executive should clarify to the Federal Council assembled at the Convention the relationship of the Handbook for the Guidance of Amateur Operators with the Wireless Telegraphy Act."—Carried.

Federal Executive produced copies of the Wireless Telegraphy Act and Statutory Rules, and amplified the relationship between these documents and the Handbook for the Guidance of Operators' of Amateur Wireless Stations to the satisfaction of the assembly.

10. Moved W.A., sec. Vic.: "That any person eligible for membership in any grade residing in a Division can become a member of that Division only."—Carried.

11. Moved N.S.W., sec. S.A.: "That the location of Federal Executive for 1951-52 be in N.S.W."—Lost.

12. Moved F.E., sec. W.A.: "That the contents of the Institute's Policy Book be reviewed at each Convention to preserve continuity of Federal policy."—Carried.

12a. (Motion arising from review of Policy Book) Moved N.S.W., sec. F.E.: "That a recommendation be made by the South Australian Division to Federal Executive concerning the appropriate recipient of the W.A.S. Trophy."—Carried.

The Policy Book was read in its entirety and certain redundancies removed of which Federal Executive was to officially notify to Divisional Councillors in due course. The suggestion was agreed to that in future the Policy Book revision be No. 1 item on the agenda.

13. Moved F.E., sec. W.A.: "That Federal Executive receive details from time to time from all Divisions of any event of an historical nature regarding Amateur Radio, and that Federal Executive file these in chronological order to assist in the compilation of a 'History of Amateur Radio' at some future date."—Carried.

14. Moved F.E., sec. N.S.W.: "That the draft standard membership application form be adopted by all Divisions."—Carried.

15. Moved F.E., sec. Qld.: "That an emergency traffic signal be chosen from the following submitted signals to comply with agenda item 40 from the 1950 Convention, and that the signal so chosen be submitted to the P.M.G's. Department for approval and if approved given wide publicity throughout the Amateur licensees of the world." "EMTRAF" for phone use; "EMTRA" for c.w. use. "Distress Network Traffic" for phone; "DNT" for c.w.

Amendment, moved N.S.W., sec. S.A.: "That as an emergency traffic signal to comply with agenda item 40 from the 1950 Convention for phone use, "Emergency Traffic," and for telegraphy, "QRRR."—Carried.

The amendment became the motion and was carried.

16. Moved F.E., sec. Tas.: "That the derogatory publicity given Amateurs in the press during 1950 be discussed with a view to impressing every Division with the necessity to maintain control over the activities of its members by constant policing of their knowledge of the Regulations and good operating procedure."—Carried.

17. Federal Executive withdrew this item in favour of amendment.

Amendment, moved N.S.W., sec. Vic.: "That the Federal Executive prepare a plan for a wartime emergency network within the Institute if possible using portions of the 50, 144, 576, and possibly 28 Mc. bands with a view to having these frequencies retained for use of the network in time of war and that this plan should be discussed as soon as possible with the Postmaster General and the Director of Civil Defence."—Carried.

18. Moved W.A., sec. Tas.: "That the pages of 'Amateur Radio' be made more open for publication of letters over members' signatures dealing with matters of general interest to Amateur Radio."—Carried.

At this stage the Chairman adjourned the Convention to enable the Delegates to discuss with the Editor matters relative to the magazine.

19. Moved F.E., sec. W.A.: "That the Federal Executive be directed to take the necessary action to amend item 21 of the Federal Constitution of the Wireless Institute of Australia as amended 1947 by deleting the words 'within 60 days immediately preceding' and inserting in lieu thereof '60 days prior to'."—Carried.

20. Moved N.S.W., sec. S.A.: "That the uniform Divisional constitution be discussed with a view to the finalisation of the draft if possible."—Carried.

20a. Moved N.S.W., sec. S.A.: "That draft No. 2 of the Uniform Divisional Constitution be submitted to the Divisions for ratification by their members."—Carried.

21. Moved Qld.: "That Federal Executive be instructed to approach the P.M.G's. Department on the matter of frequency meters, pointing out that a properly constructed and calibrated absorption type meter is more useful and foolproof than the heterodyne meter owing to the fact that it gives a visual indication, is not subject to spurious responses, and is also much cheaper and more likely to be used properly."—The motion lapsed for want of a seconder.

22. The Queensland delegate withdrew this item in view of item 21 lapsing for want of a seconder.

23. The Queensland delegate withdrew this item in view of the factual explanation given by the Chairman.

24. Moved S.A., sec. Qld.: "That the matter of Commercial Stations in the Amateur Bands be discussed."—Carried.

This item was discussed and the Chairman gave the assembly assurance that every report sent in by the official Divisional listener was forwarded to the Wireless Branch of the Postmaster General's Department where a sizable file was already in evidence. He further indicated that little could be done by the Australian administration until such time as the Atlantic City findings came into force.

25. Moved W.A., sec. S.A.: "That the minimum age limit for the granting of the A.O.C.P. and the Amateur license be 16 years.—Carried.

26. Moved F.E., sec. S.A.: "That Federal Executive approach the P.M.G's. Department with a view to requesting that future A.O.C.P. examinations be conducted in the form of a 'quiz' as adopted in New Zealand."—Carried.

27. Moved Qld., sec. Vic.: "That an Australian award of international standing be established, the award to be called W.A.A.S.—meaning 'Worked All Australian States'."—Carried.

The Chairman indicated that with the acquiescence of the Queensland Division, Federal Executive would co-opt a sub-committee from that Division to formulate a detailed set of rules for submission to Federal Council.

28. Moved Tas., sec. W.A.: "That Tasmania be granted separate country status."—Lost.

29. Moved S.A., sec. W.A.: "That the DX C.C. be discussed."—Carried. A discussion took place.

30. Moved F.E., sec. Vic.: "That a standard DX C.C. form be adopted for use by each licensed Amateur claiming DX C.C., the form to be made available to applicants at a cost not exceeding sixpence (6d.) and that the DX C.C. rules as adopted at the 1950 Convention be amended to incorporate this form."—Carried.

31. Moved N.S.W.: "That Federal Executive be censured for its failure to run the Ross A. Hull Memorial Trophy V.H.F. Contest."—The motion lapsed for want of a seconder.

32. Moved N.S.W., sec. W.A.: "That the VK-ZL Contest for 1951 be conducted by the N.S.W. Division on behalf of Federal Executive, this Contest to be known as the VK-ZL 1951 Jubilee Contest."—Carried.

33. Moved N.S.W., sec. W.A.: "That Federal Executive co-opt the New South Wales Divisional Contest Committee to function as the Federal Contest Committee for the year 1951-52."—Carried.

34. The Queensland delegate withdrew this item in lieu of item 33.

35. The Queensland delegate withdrew this item in view of the explanation given by the Secretary regarding previous correspondence between the I.A.R.U. and the Federal Executive of the Wireless Institute of Australia with reference to this matter.

36. This item was withdrawn by the South Australian delegate in view of the discussion arising out of item 32.

37. Moved F.E., sec. W.A.: "That the request by the N.Z.A.R.T. that the W.I.A. include rules 7 and 8 of the 1950 VK-ZL Contest in place of rules 8, 9 and 10 as included in the standard set of rules submitted to the 1950 Convention by the New South Wales Division with a view to standardising the rules between the two societies in future."—Carried.

37a. Moved N.S.W., sec. Tas.: "That the revised rules for the VK-ZL International DX Contest be attached to the minutes of the twenty-first Annual Federal Convention as an appendix."—Carried.

38. Moved S.A., sec. Qld.: "That the Northern Territory be classed as a separate area for Contest purposes in Australia."—Carried.

39. Moved S.A., sec. W.A.: "That the rules for the V.H.F. Contest be discussed."—Carried. A discussion took place.

40. Moved F.E., sec. W.A.: "That the standard Contest Log Sheet be adopted for all Australian Contests and that no entry be accepted unless submitted on this form."—Carried.

41. Moved Tas., sec. W.A.: "That (a) The winning Division for the R.D. Trophy shall be decided by taking the average of the first six logs as at present and then adding to it a bonus arrived at by multiplying that average by the ratio of the valid logs submitted by that Division to the total of Amateur licensees in that Division at the time of the Contest. E.g., Total points equals:—

$$\text{Average Score} \left(1 \text{ plus } \frac{\text{Number of Logs}}{\text{Number of licensees in Division}} \right)$$

and (b) That the present scheme of graduated points for contacts between the various Divisions be retained."—Carried.

42. The South Australian delegate withdrew this item in view of item 41.

43. The Western Australian delegate withdrew this item in view of item 41.

44. Moved F.E., sec. W.A.: "That a special per capita levy of 6d. per member be made on Divisions to defray the cost of the purchase of a typewriter and filing cabinet for Federal Executive records and correspondence."

After discussing the position of Federal finance with the Convention assembly, the Chairman said, "Federal Executive will withdraw the request for a special per capita levy of 6d. per member if the Convention will agree to the purchase of this equipment and be prepared to submit to the Divisions another call for assistance at a later stage if necessary."—Agreed.

The motion as written was withdrawn.

GENERAL BUSINESS

All Divisions To Ratify.

1. Moved N.S.W., sec. W.A.: "That the policy concerning the R.A.A.F. Wireless Reserve or any substitute plan be discussed and determined."—Carried. The matter was discussed at length.

1a. Moved N.S.W., sec. W.A.: "That the policy of the Institute concerning co-operation with the Defence Forces be to encourage its members to actively participate in any official recruiting or defence plans."—Carried.

2. Moved N.S.W., sec. Vic.: "That Federal Executive investigate immediately the alleged imposition of 25 per cent. Sales Tax on Amateur transmitting equipment, and if necessary press to the highest possible authority for its removal."—Carried.

The Chairman gave an assurance that this matter would be taken up with the correct authority in the strongest possible terms within

(Continued on Page 7)

N.S.W. North Coast Zone Easter Convention At Urunga, 1951

REPORT* BY DAVE EVANS, VK2AYE

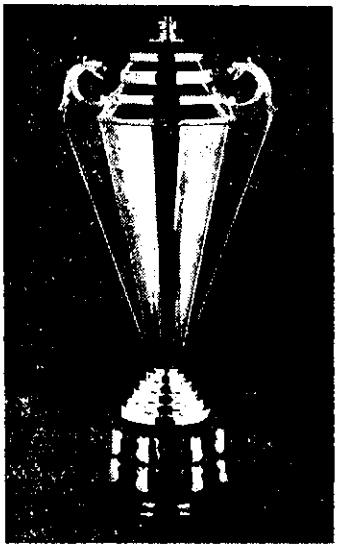
When a few Radio Amateurs of the North Coast Zone arranged a "get together" at Urunga three years ago, they little realised to what extent the idea would develop. The venture became an established annual event, and the Third Easter Convention at Urunga this year attracted over seventy-eight Amateurs from far and near.

By noon on Good Friday, fifty Amateurs had registered and, when the list was closed, seventy-eight had completed the formality of registering. In this connection it should be remarked that a number of visitors did not register and anybody who attended and whose names do not appear in the list are requested to advise Hart 2JC so that the list may be completed for record purposes.

List of registrations is as follows: 2APS and XYL, 2AXZ, 2EA, 2ACU, 2ZM, 2AVG, 2AHA, 2XO and XYL, 2AOS, 2ADT, 2WQ, 2KR, 2PA and XYL, Mr. and Mrs. Honey, Colin Wall (associate), 2ASF, 2NX, 2AEY, harmonic David and J. Deller, 2WT and XYL, 2IS, B. Cross (associate), 3OF, 2IT, 2YM, 2FP and XYL, 2ARJ and XYL, 2AJT, 4JU, 2ZC and XYL, 2XN and XYL, 2ZI (O.I.C. Radio, Sydney Police), G. Gibson (Cinesound Cameraman), 2AAB, 2ARF, Percy Sara (associate), 2DK and XYL, J. Adkins (associate), 2AMV and XYL, J. Patterson (associate), 2XP, N. Moody (associate), 2VU, H. McAuley (associate), 2GA, 2AOA and XYL, 2JC and XYL, 4GG, 2CN, 2UV, 2XY, 2ASJ, 2YC, 2ABU and XYL, 2ASO, V. Webb (associate), 2AWG, 2AYE, 2AAP and XYL, 2UC, 2YU and XYL. Last minute cancellations included 2WH, and 2LH and XYL.

Friday was spent in a friendly get together fashion with much incidental rag-chewing—the focal points of interest being Crieff Retallick's famous "Do-Me" shack and Hart Wall's newly acquired "Yule Dhu" shack. By general consent and inclination the ladies and tea drinkers were ably entertained by Mrs. Wall at her home, the while the really thirsty souls slaked their dryness at the "Do-Me."

Those who had brought portable gear along for the contests were fully employed in testing and repairing the damages wrought by transportation and the gear was inspected by the chaps. The "Do-Me" shack, as Official Headquarters of the Convention, was a hive of activity and excitement. There was a constant buzz of conversation which increased in crescendo as each new arrival was greeted. Possibly the busiest bee in the hive was Colin Wall who had the job of Registrar—in the absence of our Official Recorder, Bob 2MM—and a glance at the list of visitors will confirm that for a single-man chore, Colin did a worthy job.



Challender Remembrance Trophy

Saturday maintained the promise of good weather and last minute touches to rigs were carried out. The main event set for Saturday was the Gerry Challender Remembrance Contest which covered portable field operation on 7 Mc. for three hours within eight miles of Urunga. Disparity in rigs was accounted for by a power input handicap. This event was won by Harold 2AHA with 140 points, closely followed by Jim 2ZC. It was particularly gratifying to see these two operators determine the home for the trophy since they were both closely associated with the late Gerry and they had made a joint decision that, if either of them won, then the replica of the trophy was to be presented to Gerry's father and mother. A fine gesture which was truly appreciated by Mr. and Mrs. Cowan. The trophy which is illustrated here was donated by friends of the late Gerry and it was found that, after the trophy had been purchased, a substantial amount of cash was on hand and this was forwarded to Gerry's widow, Mrs. Lorna Challender, and her sons, Barry and Terry.

Gleeson Trophy

The list of contributors to the Challender Remembrance Trophy is as follows: 2CM £10/0/6, 2DK £2/1/6, 2GU £1/0/10, 2ZX £1, 2XO £1, 2AER 10/-, 2YC 10/-, 2AEY 10/-, 2ASO 7/6, 2APS £1/1/-, 2HC 10/-, 2GI 10/-, 2SW 5/-, 4CZ £1, 2LH £1, 2AMV £2, 2PA £1, 2KZ 10/-, 2ADT 5/-, 2ASJ 10/-, 2BZ 2/-, 2AYE £1, 2CS 10/-, 2WT and Mrs. Watt £3/3/-, 2AWP £2/0/6, 2JC £1/1/-, 2ASE £1, 2ASF £1, 2DG 10/6, 2NS 10/-, 2TH 10/-, 4XP £1/10/4, 2AEJ £1, 2AWS £2/1/6, 2AAP £1, 2ARY 10/6, 2QQ £1/0/6, 2ARA 10/-, 2WH £2, 2ZC £1/1/-, 2YL 10/-, 2AHA 10/-, 2ANA 5/-, 2RA £2/2/-, 2XY 10/-, 2XQ 5/-, Assoc. John Adkins £1; total donations £53/14/8, add Guessing Comp. for 1,000 QSLs £16/7/-, making a grand total of £70/1/8. The cost of the Challender Trophy was £12/1/8, leaving a balance forwarded to Mrs. Challender of £58.

The replica of the trophy was presented to the Convention by the N.S.W. Division of the Institute.

Saturday evening saw the chaps assembled to wave our ladies off for a bus trip to Coffs Harbour where they were the guests of Jack 2ADN to a picture show. The group then settled down to an important and informative lecture by Sergt. Bert Glasscock (VK2ZI), of the N.S.W. Police Department, on the pros and cons of establishing an emergency network in which Amateurs could co-operate fully with the Police Department. Reference was made to various systems of control now under consideration by the Committee of various interests involved. It is hoped that, at an early date, a statement fully outlining their proposals will be made available to "A.R."

Bert's lecture was well received as it cleared up many points which had, up to this time, been rather mistily understood.

Mr. Ernie Crouch, Chief Engineer of 2NZ and 2GZ, gave a lecture on the new antenna at 2GZ (Inverell) which, it was hoped, would see the end of fading on signals from that station.

Jack 2ADT then described his turret-tuned receiver which tunes from 3.5 Mc. to 50 Mc. Jack went to some pains to point out the snags to be met and the way to overcome them.

On the return of the ladies from Coffs Harbour, refreshments and rag-chewing became the order of the evening and then commenced what must be voted the most successful show of the Convention—a truly "amateur" concert in which the ladies did a great part to maintain a high standard of entertainment until the "wee sma' hours."

Sunday morning was a very pleasant occasion when, with the co-operation of the owners of fifteen or more launches, we were treated to a cruise to the beauty spots of the Lower Bellinger including The Island. After lunch competitors lined up in readiness for the 144 Mc. hidden transmitter search. The Gleeson Trophy for this event was won by Harold 2AHA who ran the transmitter to earth in fifteen minutes. The replica of the trophy was donated by the N.S.W. Division.

While their men were madly chasing the hidden transmitter, the YFs and XYLs were taking risks with 2JC's atomic cocktails while they indulged in a dart throwing championship. This was won by Mrs. Macartney, XYL of 2DK. The "lucky number" was drawn and the recipients of the prizes were 2FP, Ernie and Mrs. Baker. In a voice recognition contest a number of well-known Amateur voices were run off a wire recorder and the winner of the event was Mrs. Russell Watt, XYL of 2WT.

At the "Do-Me" shack, Percy and Mrs. Sara with Mrs. Huegill, entertained the ladies with a special viewing of the world famous quads. This privilege was appreciated by our womenfolk and our thanks are due to Percy and Betty for their co-operation. As a matter of interest, Percy hopes to have his call sign soon, but it won't be VK2QUAD although the quads will be featured on his QSL.

The final contest of the Convention was the North Coast Scramble. Object: to work as many stations as possible within one hour; Conditions: any power input, any location, any frequency and no quarter given. John 2AMV, the winner of this event, made a good showing to prevent Harold 2AHA from getting a "hat trick" and carting all the trophies back to Newcastle.

Sunday evening was given over to the usual annual social evening at which we were the hosts of the townspeople of Urunga. The school of Arts was packed to capacity long before the time of starting and extra chairs were imported from adjacent halls to seat the late-comers. Our good friend, Associate Ted Hamey, again attended to the projection of a series of 16 m.m. films which were well received. After a spot of community singing, Ivan 2IS conducted the

United Radio Distributors Trophy

* From Notes supplied by Hart Wall, VK2JC, and article in the Bellingen "Courier-Sun" of 6th April, 1951.

"Amateur Hour by Amateurs" and it was so appreciated that Ivan has been appointed Official Concert Committee for the 1952 Convention.

Mr. M. Goldstein, President of the Shire Council, expressed the pleasure of the citizens of Urunga at having the company of the Radio Amateurs once again and assured us of a hearty welcome at all times. His remarks were endorsed by Mr. D. Foster, the Secretary of the Urunga Progress Association, in a happy little speech spiced with topical interests.

On behalf of the Council and members of the New South Wales Division, Mr. J. Corbin 2YC made a speech acknowledging the welcome and friendly relations which we enjoyed with the good folk of Urunga. Next event of the evening was the presentation of prizes by Convention Chairman Hart Wall 2JC and Convention Organiser Crieff Betallick 2XO. At the conclusion of the prize giving a hearty vote of thanks was accorded to Crieff for the hard work which he put into the arranging of the Convention and the hope was expressed that next year's Convention will be the biggest and best ever since Crieff has expressed a wish that the position of organiser for 1953 should be taken over by a younger man.

Full list of prize winners is given here: **Gerry Challender Remembrance Contest** (Challender Trophy).—1st: 2AHA, Harold Whyte, replica of trophy and £2 cash prize; 2nd: 2ZC, Jim Cowan scope iron. **144 Mc. Hidden Transmitter Search** (Gleeson Trophy).—1st: 2AHA, Harold Whyte, replica of trophy and £5 cash prize; 2nd: 2ZC, Jim Cowan. £1/1/-. **North Coast Scramble** (United Radio Distributors Trophy).—1st: 2AMV, John Meagher, replica of trophy and 500 QSL cards; 2nd: 2ZC, Jim Cowan, 807; Longest Distance worked: Harold Whyte, prize, packet of metal valves presented by Associate A. Nall. **Champion Dart Thrower:** Mrs. Macartney, pack of Canastra Cards. **Ladies' Lucky Number:** Mrs. Ern Baker, Duchess Set presented by Mr. John Hall. **Gent's Lucky Number:** Ern Baker, 2FP, 500 QSL cards. **Guessing weight of Bunch of Bananas:** John Walker, 2GA. **Ladies' Recognition of Voices:** Mrs. Russ. Watt, Pearl Necklace and Ear-rings. **Fishing Competition:** 1st, John Deller; 2nd, Colin Wall. **Name of 2JC's Shack:** Jim Robinson, 2ARJ, name "Yule Dhu." **Ear Bashers' Award 1950-51:** Dave Evans, 2AYE. **Longest Distance Travelled to Convention:** Frank O'Dwyer 3OF. **Guessing Competition for 1,000 QSL Cards:** 2AGD, George Lee.

The concert concluded at 10.30 p.m. to allow early travellers to get some much needed sleep before their long journey home the next day. Monday morning was occupied by a post-mortem meeting where many good ideas were passed along to Crieff, our Organiser, regarding improvements for next year's show. An outstanding suggestion was that we endeavour to charter a bus of the Interstate Tours type to bring Amateurs from Sydney and to pick up en route. If possible such a service may be extended to include VK3 and VK4, if sufficient inducement offers. Since the Convention Crieff (always on the ball) has contacted a Sydney Company who have expressed their willingness to co-operate fully and full details will be published in "A.R." as soon as possible.

It will be realised that Conventions of this nature take a tremendous amount of organising and to Crieff Retallick and his good wife all participants extend a really heartfelt vote of thanks for their selfless efforts, particularly in view of the fact that Crieff's health has been indifferent for some time past and the enormous expenditure of energy has not assisted him to maintain his usual perfect health. A debt of gratitude is also due to Perce Sara who has been Crieff's right-hand man before and during the Convention.

The Convention Committee desire to thank the following donors of trophies and prizes for the various events and, in doing so, also extend their thanks to all who assisted in any way to ensure the success and smooth-running of the Convention. **Gleeson Bros.**, trophy for 144 Mc. Hidden Transmitter Search; **United Radio Distributors Pty. Ltd.**, trophy for North Coast Scramble; **Friends of late Gerry Challender**, trophy for Portable Field Operation; **Ernie Ashley, 2ASE**, for printing the programme and heterodyne, for donation of QSL Cards and Pack of Canastra Cards; **Norm Moody**, for cash donation and acting as Official Photographer; **John Hall**, donation of Duchess Set (hand worked); **Dr. Hewitt**, cash donation for prize in Challender Contest; **Percy and Mrs. Sara**, Pearl Earrings and Necklace; **Harry Powell, 2AYP**, donation of Scope Iron; **Dave Evans, 2AYE**, donation of 1,000 QSLs for Guessing Competition in aid of Challender Trophy Fund; **Council and Members of N.S.W. Div. W.I.A.**, donation of replicas of all trophies; **Jack Green and his Mother**, for their help in the Sunday evening concert; **The Unknown Young Laddie**, for his entertaining session with the guitar and hill-billy songs; **Bob Wolf and Dan Foster**, for the use of their "shacks;" **Mr. and Mrs. Daley**, for the loan of their cottage; **"Chick" Macartney and Norm Moody**, for services as Transport Officers; **Jack Gerard, 2ADN**, host to our ladies at the Picture Night; **Ted Hamey**, for the bunches of bananas and putting on the 16 m.m. show; **Jim Downie**, for the "welcome" cards; **Nicholas Gleeson and Theo Cummings**, our genial hosts at the Ocean View Hotel, without whose co-operation the Convention could never be successful.

For the information of Sydney Amateurs, Messrs. John Martin Pty. Ltd. have the trophies on display in a special window show featuring Amateur Radio activities. A number of photographs taken at Urunga are also on display and copies may be obtained by those interested.

In conclusion, the Convention Committee desire to thank all who attended and ensured the success of the show and sincerely hope to meet them all again next Easter for Amateur Radio's Best and Brightest Show.

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FEDERAL CONVENTION

(Continued from Page 5)

seven days of the conclusion of the Convention, and that a copy of all correspondence would be forwarded to Federal Councillors.

3. Moved N.S.W., sec. Vic.: "That it be the policy of the Wireless Institute of Australia NOT to refuse any facilities granted by the Postmaster General."—Carried.

4. Moved N.S.W., sec. S.A.: "That the Federal Council consider the latest figures concerning 'Amateur Radio'."—Carried.

5. Moved F.E., sec. W.A.: "That Federal Executive be instructed to take the necessary action to amend Section 28 of the Federal Constitution by (a) Deleting the words 'the Headquarters' in lines 3 and 4 and inserting the word 'any' in lieu thereof, and (b) Deleting the words 'the Headquarters' in line 7 and inserting the word 'appropriate' in lieu thereof."—Carried.

6. Moved Vic., sec. W.A.: "That Federal Executive approach the Postmaster General's Department with a view to allowing mobile operation on a frequency of 29-30 Mc. as now allowed on the bands of 50 Mc. and above, such permission to be granted without applying to the Department."—The Victorian delegate withdrew this item with the agreement of his seconder in view of the explanation given by the Chairman.

7. Moved Qld., sec. Tas.: "That the P.M.G's. Department be approached with a view to permitting the postage rates on QSL cards as second-class mail matter (post card rates) so long as such cards bear only information concerning radio contacts referred to on the cards."—Carried.

8. Moved N.S.W., sec. Vic.: "That the P.M.G's. Department be asked to allocate the prefix VK8 to Amateurs resident in the Northern Territory."—Carried.

9. Moved F.E., sec. Vic.: "That Federal Executive be authorised to purchase a typewriter and a filing cabinet for Federal Executive records and correspondence, the cost to be met from No. 1 account."—Carried.

Ross Hull Memorial Trophy

Results of 50 Mc. Contest, 1951

Open Division

(1)	VK5QR	3380
(2)	VK2ADT	2851
(3)	VK5BC	2564

Individual State Winners

New South Wales—VK2ADT.
Victoria—VK3IM.
Queensland—VK4KK.
South Australia—VK5QR.
Western Australia—VK6DW.
Tasmania—VK7LZ.

New Zealand Winners

(1)	ZL2BJ	1117
(2)	ZL1WW	960
(3)	ZL2DS	420

DX NOTES BY VK4QL

Overall, April has been my worst month for DX. Stations in the south do not seem to have fared so badly, judging by the stations I have heard them working or calling. ZLs also seemed to be doing OK.

This month produced one of the greatest DX hunts that has been on for a long time, due to the efforts of CM9AA and KV4AA. CM9AA went over to Guadelope Island for approx.-mately 12 days to operate as FG7XA. KV4AA made an effort to tell all he could of the mission, with the result that after zero hour, hundreds of ears were listening for one thing, the call FG7XA. Nothing was heard on the band for a couple of days and one overseas station was heard to remark, "maybe he forgot his crystals." Even KV4AA heard nothing. However on the 17th, he apparently showed up and was worked by some of the VK gang; just who I do not know as I was not on that night. VK9GW worked him one morning round 2000 G.M.T., but there was no sign here. However, FG7XA appeared for a brief period on 24th, but the band suddenly gave out and he went with it. The following day he was audible from about 0630 G.M.T. and worked quite a few VK on c.w. and phone, although his phone signals were not audible here. From information heard on the band, there are apparently other stations signing the FG prefix. 2DG said he worked FG8IP.

The survey of the bands is not very satisfying this month. 3.5 Mc.—Haven't been on this band to any extent and any visits were of no DX value. 2DG worked OA4EL there one night round 0900 G.M.T.

7 Mc.—This band has fallen right away for DX and is confirmed by a contact with one or two DX stations that were worked in Europe and South Africa. W signals in the evenings have been very erratic and not consistent for two consecutive days. One evening G8CL was heard about 0730 G.M.T.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3JD	1	155	VK4JP	8	114
VK3EE	10	154	VK3AWW	14	112
VK6RU	2	147	VK4WJ	17	104
VK6KW	4	145	VK2ADT	13	102
VK3BZ	3	141	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK3LN	11	132	VK3GG	18	100
VK4HR	12	129	VK3IG	5	100
VK6DD	6	126	VK3JE	7	100

CW

CaU	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK3XK	30	114
VK3FH	15	160	VK4DA	7	113
VK4EL	9	158	VK7LZ	17	112
VK2EO	2	152	VK5BO	33	116
VK3CN	1	151	VK3JE	21	108
VK6SA	28	150	VK4RC	13	107
VK2QL	5	141	VK3YD	27	106
VK3VW	4	140	VK5FH	31	105
VK3KB	10	138	VK3JI	25	104
VK4HR	8	135	VK2YC	34	103
VK2GW	16	132	VK3APA	14	101
VK6RU	18	132	VK3NC	19	101
VK5RX	23	128	VK3CX	26	101
VK4RF	11	125	VK2OA	32	101
VK3EK	3	122	VK7RK	22	100
VK4DO	20	117	VK7LJ	24	100
VK3UM	12	116	VK2AEZ	35	100
VK4FJ	29	115			

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3JA	43	114
VK6RU	8	179	VK2ADT	14	113
VK4HR	7	173	VK4RC	21	110
VK3HG	3	171	VK3ZB	34	110
VK3KX	1	167	VK4WF	40	109
VK6KW	13	165	VK2ZC	25	108
VK2DI	2	160	VK2YL	11	106
VK3JE	12	154	VK3JI	33	105
VK4EL	10	158	VK3AWN	36	105
VK4KS	24	149	VK2VN	18	104
VK4DO	15	145	VK4UL	27	104
VK3MC	5	139	VK6PJ	44	104
VK3OP	19	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK3LN	29	135	VK2TI	37	103
VX4FJ	32	135	VK3HO	38	103
VK2ADE	28	133	VK6DX	42	103
VK2AHA	9	128	VK7RK	31	102
VK2AHM	20	125	VK4TY	35	102
VK2NS	16	123	VK2ACX	6	100
VK3HT	41	117	VK2TG	39	100
VK7LZ	23	116	VK3AWW	45	100
VK5FL	26	116			

Listings for the month are very few, even the usual VKs seem to have deserted this band. One or two ZS, ZS7D, CT1DJ, VQ2GW, DL4DN, 2DG hooked VS9AM and CT2BS, 3FH worked VP5BS and FG7XA.

14 Mc.—This band has been very patchy, at times high solar noise, but the Europeans have started to appear at the end of the month round 2030 G.M.T., but extremely erratic and hard to raise. On the 14th a minor opening appeared in the afternoon. One night a couple of stations were heard playing games with the commercial station in the band with the very chirpy and broad note. They were continually holding their bug on dits, and moving their v.f.o. back and forth over the commercial. A slice of luck happened with FB8ZZ one night. The band was in poor shape due to Solar noise, when FB8ZZ appeared. He disappeared again during the second over and was not heard again. Gave his QTH as Amsterdam Island. 4BG said 0600 to 0800 G.M.T. has been OK for Europe in Maryborough, then dead for a few hours, but improving round 2000 G.M.T.

2DG heard stations signing SL5CM and SL7APL, and their QTH was given as Island of Gottland, and apparently is not a new country, being part of Sweden. Talking of new prefixes, "QST" says 9S4 prefix is not a new country, so if you have chalked it up as one, it's bad luck.

Listings for the month here are: KX6BI (Navy 3234, F.P.O., 'Frisco), FG7XA, ZB1BS, ZB2L, CR9AF, FB8ZZ, VR1G, FY7YC, SU1AD (Cairo, QSL via A.R.R.L.), VP4LZ, LA8Q, HP1DI, TI4MAR, ZD4AE, VP6CDI, VP6CS, UG6WD, UP2KBC, EI9Y, YS1O, 9S4AL, EA8AF.

4BG worked/heard stations like EK1AO, MB9BJ, ZK1AB, PK6RC, KJ6AI, EA8AF, ZB1BS, VP6FO, VP6GJ, VP6SD, PY1GJ, ZC8UNJ, HS3L (which I think should be HH3L), VK1RB, and C3FA.

2DG lists PJ5RE, FG8IP, VP8AI, FC3CD, and FG7XA. 2ANN landed IINU/Trieste.

28 Mc.—Have very little on this band. Any time I have listened the band has been mostly poor, or only the usual Pacific stations coming through.

An interesting piece of information comes from KG6HU, on a matter I mentioned previously, as to certain restrictions on Amateur operation in the Pacific area by the U.S. authorities. Stations lying west of 170 degrees long. are not permitted to operate on 3.5 Mc. Stations west of KG6 are not permitted to operate on 7 Mc. This includes JA stations. All stations operating in the Pacific (U.S. bases) are registered by the U.S. Navy authorities.

2PG, ex-1PG is now operating again, and asks all who are anxiously waiting his QSL, not to panic. All is under control and QSL's will soon be on their way. These boys must have a colossal job making up the back log of cards. VK1HV has done his.

2ANN has now 98 countries confirmed; 2DG 162, the latest being ZS3X and YI3ECU. 3CX has just built up his with cards from KJ6AI, VP4CO, VQ2GW, AR8AB, UB5BK, VR1A, VR1F and VK1HV. New ones worked this month have brought my total worked to 151 with 99 confirmed, cards being from ZE3JO, YO2BC, ZS3K, CR7BC, 9S4AX and VK1HV.

Notes have been prepared a little early this month as I am having a spot of leave, so if any "gen" does arrive this month too late, it will be included next month.

My thanks to all those who have helped out this month with the material to make up some "gen".

● The thought for the month, is a suggestion that we all look at the T section of the RST code, and see that T9 means a pure note, not a rough one. Cheers till next month.

CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

JUNE, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

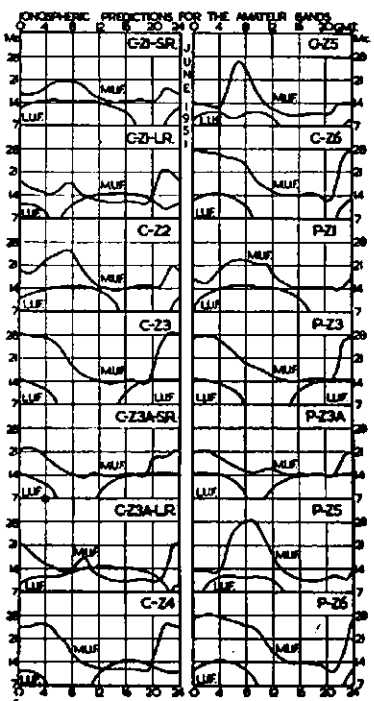
The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

The Prediction Service welcomes comments on the accuracy of its predictions. These should be forwarded through the W.I.A.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

50 Mc. news from the Darwin area comes in a letter from Bill Wright, VK5CN, who sends details of his plans for work on this band.

Bill is at present running his 6 metre transmitter in parallel with his 80, 40, 20 and 10 metre rigs and will continue to do so in addition to running automatic transmission using m.c.w. The transmitter runs 35 watts to an 807 and the two element beam is fixed on VK3. No receiving gear for 6 metres is at present available, but a crystal controlled converter is under construction and will be used in conjunction with an AR7 receiver. He has never operated on 6 before, so is a little in the dark as to what to expect from the band. The station frequency is 50.8 Mc. and will be heard signing VK5CN or VK5IR (who will take over operations when 5CN is not available).

For those interested in contacting Bill per letter, his full address is: A4420, L.A.C. Wright, A. W. H., Signals Section, R.A.A.F. Station, Darwin, N.T. Good luck Bill.

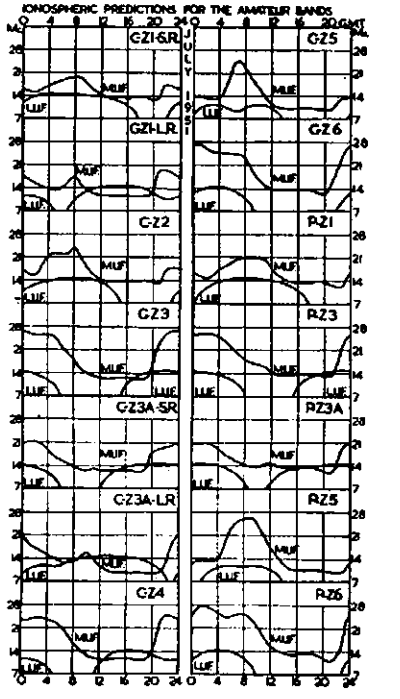
GENERAL N.S.W. V.H.F. NEWS

The V.H.F. Section meeting was held on the 6th April, being very well attended. Mr. Court Hean, of A.W.A., provided a most interesting lecture on V.H.F. and U.H.F. Antennae, using an epidiascope to illustrate the lecture. Mr. Hean explained the working of the Smith Chart Calculator which is used in conjunction with a measuring line to determine impedance and reactance in antenna design. He also stressed the importance of omni-directional arrays such as the turnstile and slot. At this meeting the recently elected officers took over and a vote of thanks was passed to the retiring officers.

On 15th April, the field day was held, the weather being as near perfect as could be desired. Thirteen stations took the field and operated on 50, 144 and 576 Mc., although most of the equipment for the latter band broke down and no contacts were made on 576 Mc.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK4RY	2	2
VK2VW	9	2
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK5LC	1	
VK2ABC	8	



144 Mc. proved the most popular band and was packed with signals all day. Three of the stations used crystal controlled rigs for their portable work, and if present indications are anything to go by there will be considerably more crystal rigs next time! Furthest afield was 2RQ who took most of the South West Corner gang with him to Saddleback Mt. near Kiama, about 90 miles south of Sydney. They took along a small petrol electric outfit which gave them 240 volts a.c.—sometimes! 2FK made a week-end jaunt of it and anchored somewhere in the Blue Mountains for the night, but could not work anyone during the Saturday evening.

The contest held during the field day proved popular being split into two rounds, so there was never any shortage of stations to be worked. Results of this Contest are:—1st, VK2AET 32 and VK2ARF 32; 2nd, VK2ADY 27.

The prize for the highest score consisted of a pair of RL18s and one 955—sufficient valves to make a start on 576 Mc. These items were donated by Cec Cronan, the V.H.F. Section Secretary.

50 Mc.—This band has been very quiet over the last month or two since the DX left us. 2RU reports the band open to VK5 on one occasion, but Major couldn't make himself heard and the band closed up again without any contacts being made. The beacons have been mostly absent but early in the month Perth was heard at S9 for three hours.

Most consistent station on 50 Mc. is 2QZ who has been writing these notes until this month. Bob may be heard any evening and rarely fails to contact anybody who may appear on the band. A new station is 2ABB, of Kingsford. Berry is putting out a very strong signal using 807s in the final. 2ARG has made a comeback, having done things to what he described as his "vile" beam rotating motor. Having heard the racket it used to make in Bob's receiver, one is inclined to agree with him!

2GA of Ettalong has been heard frequently of late and puts in a very fine signal considering the distance and difficult path. His near neighbour, 2KR, has also been heard but Cec is a very weak signal. Maybe when that beam goes up we may hear more of the "Yabbie Catcher."

2ANK has been trying out a half watt outfit running from dry batteries and gets out extremely well. Barry had the whole band looking out for him when he went mobile marine early in the month, but no contact was made as he didn't go! 2XX has been having more than his share of trouble lately, but Ted generally comes out on top. 2VW has moved up from his 50 Mc. point and may now be heard on about 50.2—no doubt this is to assist in populating the high end of the band!

144 Mc.—This band has been fairly active and a considerable amount of mobile work has been done of late. The Sydney area is fairly well suited to this type of work, particularly along the heights of the north side of the City. Stations heard mobile are 2FK, 2AZO, 2YM, 2ANF, 2ACH, 2ABZ and 2AQB.

More crystal controlled rigs are appearing for mobile work and a number of others are either under construction or projected. One popular combination is three 6J6s, running about 6 watts to the final 6J6, this little outfit gives a good account of itself.

The "Halo" antenna is also creating interest amongst portable and mobile stations. It has proved far superior to the dipole, particularly in poor locations. For those interested, dimensions are as follows: Diameter of loop 7 in., end plates 2¼ in. diameter approx. ½ in. apart. Main element is made from 3/8 in. o.d. tubing and the driven sections, spaced approx. 1 in. centre to centre from the main element, are made from 3/16 in. o.d. tubing. In appearance it is identical with the 50 Mc. version shown in the A.R.R.L. Handbook. The "Halo" is fed with 75 ohm twin lead.

2AJZ has acquired a complete 522. 2QZ has appeared on c.w. on the high end of the band and hopes to get a modulator going shortly; Bob is running an 832 in the final and using a beam which has to be brought in every time it rains. 2JY has now got phone going, plans to go crystal control. 2AZO and 2ANF have both built crystal rigs for portable work. 2MQ's Sunday morning 2WI relay directed at VK3, has been discontinued until conditions are more likely to favour a signal getting into VK3.

2BG has taken the matrimonial plunge and held a pre-wedding party which resembled a v.h.f. convention. The cake was appropriately topped with a scaled-down replica of Bruce's 50 and 144 Mc. beams.

576 Mc.—Despite the failure of the equipment during the field day interest still continues on this band. 2AJZ and 2WJ are on each evening working cross-band from 144 and 2ABH often joins in. The chaps down south seem to have given the band away which is a pity as they were doing some good work. 2XX now has a pair of RL18s going instead of one and his signal is improved accordingly. However Ted has found that his helical antenna is just about falling to pieces, the screen reflector having rusted badly.

VICTORIAN V.H.F. GROUP NOTES

Next Group meeting night is Wednesday, 20th June at the rooms, 191 Queen Street. Listen to 3WI broadcasts for details of any lecture, talk or demonstration that may be arranged and make a note to attend in any case, for an interesting evening is assured.

Twenty members at the April meeting gave their attention to the election of office-bearers for the next year, reports of field day activities, 3WI v.h.f. transmitters, the possibilities of tropospheric predictions being made available to the Group and snapped up about 30 odd disposals crystals. In addition, a letter was received from VK7MY giving details of an exciter for 144 Mc. for publication in "A.R." This was in response to our recent suggestion that publication of more technical articles on construction of v.h.f. gear may help to populate these bands.

Office-bearers elected for the next year are as follows: Chairman, 3JO; Secretary, 3ALK; Vice-Chairmen, 3FO, 3YS, 3AJI; Notes Writer, 3JO.

Reports on the April field day were given by 3FO, 3YS and 3JO. Activity generally was not so great as previously, though two new calls on 144 Mc., 3ADU and 3ANX, were heard and contacts were made on both 144 Mc. and 60 Mc. by some of the portable stations. Results of the Contest are not yet to hand but will be published next month. However, it is gratifying to note that a large number of logs has been received.

Lack of suitable power supplies is keeping the 3WI 50 and 144 Mc. transmitters off the air. 3ABA reported that the power tranny donated for the job won't deliver the goods on load. After discussion, a line of action was decided on and since three Group members are also Divisional Councillors, it is not too much to hope that this snag will soon be overcome.

The news that tropospheric predictions by the Federal Ionospheric and Tropospheric Service, already supplying ionospheric predictions to "A.R.," may soon be available to the Group was received with great interest, and as the appointment of an officer to handle these predictions is receiving the attention of Council, it should not be long before we have the opportunity to avail ourselves of this service.

All crystals were soon disposed of and the meeting closed after carrying a motion of thanks to the office-bearers of the last twelve months.

Stop Press.—The Field Day Contest winners are 3YS, portable section; 3EN, home section.

MISCELLANEOUS NEWS FROM SOUTH AUS.

Main interest is still concentrated on the 288 Mc. band and quite a lot of stations are active. 5QR has a crystal transmitter consisting of three stages using 6J6s and 832 final, with an eight element beam. 5GL has his xtal converter working nicely. 5JD heard testing small rig on 7 Mc. but still plugging v.h.f. Idea is to QSO country Hams on 7 Mc. and give them any gen to get them on 50 or above.

On a recent Sunday morning 5AX had an S9 signal in Adelaide on 50 Mc., but mod. was low. A new signal on 50 Mc. is 5ZY and states he is there to stay. 5LH is building portable gear for 144. 50 Mc. men should not lose sight of the fact that there will be some openings during the winter months and is just as well to have that gear ready and listen at odd times. 5QR reports improvement in signal strengths since changing from 300 ohm ribbon to 300 ohm open wire to feed the beams and not so prone to break.

Acknowledgments to VKs 2ANF, 3JO, 5KL and 5CN for the above material.

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FREQUENCY ALLOCATIONS

The following is a list of the bands available for use by the Amateur Service in Australia, followed by the types of emission allowed on those bands.

3.5 to	3.8 Mc.	—A1, 3, 3a, 6F3.
7.0 to	7.2 Mc.	—A1, 3, 3a, 6F3.
14.0 to	14.4 Mc.	—A1, 3, 3a, 6F3.
26.96 to	27.23 Mc.	—A1, 3, F.M.
28.0 to	30.0 Mc.	—A1, 3, 3a, 6F3.
50.0 to	54.0 Mc.	—A1, 2, 3, F.M.
144 to	148 Mc.	—A0, 1, 2, 3, F.M., Pulse.
288 to	296 Mc.	—A0, 1, 2, 3, F.M., Pulse.
576 to	585 Mc.	—A0, 1, 2, 3, F.M., Pulse.
1215 to	1300 Mc.	—A0, 1, 2, 3, F.M., Pulse.
2300 to	2450 Mc.	—A0, 1, 2, 3, F.M., Pulse.
5650 to	5850 Mc.	—A0, 1, 2, 3, F.M., Pulse.
10000 to	10500 Mc.	—A0, 1, 2, 3, F.M., Pulse.
21000 to	22000 Mc.	—A0, 1, 2, 3, F.M., Pulse.
30000 Mc. and higher		—A0, 1, 2, 3, F.M., Pulse.

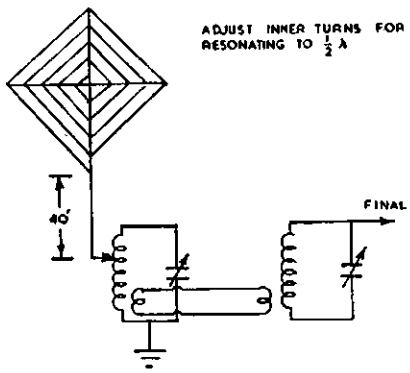
Compact 40 Metre Antenna

BY TED CAWTHRON,* VK5JE

The author has been experimenting with an antenna which may interest those Amateurs who, due to lack of space, may not be able to put up a half wave antenna for operation on 7 Mc. The writer was only able to put up one mast which was very close to a fence and which prevented a sloping antenna being used in a westerly direction, thus ruling out early morning European contacts. As the mast is 40 feet high, the idea was hit upon trying to make the antenna tune to a half wave in preference to a quarter wave due to the sandy nature of the surrounding terrain.

At the top of the 40 feet vertical a frame consisting of two crosspieces at right angles, each one four feet long, was attached. A number of "button" type insulators were screwed to the cross members, spaced about three inches apart, and the remaining portion of the antenna wound in the form of a spiral until the antenna resonated at a half wave of the desired frequency. Due to the inductive effect of the coil the full 26 feet or so may not be needed.

The procedure to tune the antenna is as follows: Link couple the final plate coil to the antenna coupler and tune the latter to resonance, being careful not to over-couple. Attach the antenna to the antenna coil and note how the tuning condenser has to be turned to effect resonance. If the condenser has to be reduced in value then the antenna is too long and vice versa.



Adjust the inner turns of the top loop until attaching the antenna to the antenna coupler does not affect its tuning. Due to various factors such as varying the link placement in the coils it may be a little bit tricky to get the adjustment right at first trial. Attaching an earth to one end of the antenna coupler may be advisable—the writer uses this method.

However, this antenna is only put forward as an idea and may be worth experimenting with. On 7 Mc., early morning European reports range from S7 to S5 and the DX quoted in the "DX Notes" have all been worked with it. On 14 Mc. during the B.E.R.U. Contest, when conditions were rather poor, VS6 (S9), VS1 (S7), ZS (S4), GW (S5), and VU (S6) were worked with the reports as shown.

On 3.5 Mc. the antenna failed to raise Ws during the A.R.R.L. Contest, but three S7 reports were received from ZL which was encouraging and further experiments are to be made on this band.

A few things to think about. See if the orientation of the frame is of any help. Keep the insulation good on the frame and the wires rigid or wet weather will cause erratic results. Turn a deaf ear to the XYL and others who say the outfit looks like a radar set-up on a battleship. Good hunting!

* 6 Leane Avenue, North Glenelg, S.A.

SUBSCRIPTIONS

● Please pay your Subscriptions PROMPTLY when due. Failure to do so may result in the loss of valuable issues of "Amateur Radio." High costs of production make it necessary to limit the number of extra copies printed each month.

FEDERAL, QSL, and DIVISIONAL NOTES

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Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6328).
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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. No frequency checks are available.

QUEENSLAND

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Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.
Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
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WESTERN AUSTRALIA

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Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.
Meeting Night: Third Tuesday of each month.
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TASMANIA

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North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

FEDERAL

INVITATION TO SEATTLE (U.S.A.) 1951 NATIONAL CONVENTION A.R.R.L.

An invitation to Australian Amateurs has been received from John Gruble, W7RT, General Chairman of the Seattle 1951 National Convention A.R.R.L., to be present during this Convention.

The Convention is to be held in Seattle, Washington, U.S.A., on July 27, 28 and 29, 1951, during which time Seattle is also celebrating its Centennial Year.

Any Australian Amateurs who may perchance be travelling in the States at this time and who would like to attend this Convention can contact John Gruble at 1921 Atlantic Street, Seattle 44, Washington, U.S.A.

Exhibits and tours of many kinds have been organised and guests will see the fastest speedboat in the world in action. Good luck to anyone who has the chance!

FOREIGN LANGUAGE NOT PERMITTED

A letter received recently from the President of a prominent French Amateur Society gave voice to the fact that a VK4 Amateur had been singled out for action by the W.I.A. for having conducted QSOs in French. If any such action did occur—and Federal Executive have not heard of it to date—it would presumably have come from the Amateur Advisory Committee or the Postmaster-General's Department.

However, whether the report is factual or otherwise, it does bring up the point of VK Amateurs conducting phone QSOs in a foreign language. For the information of all members we quote Part 2, Para. 32 of the "Handbook for the Guidance of Operators of Amateur Wireless Transmitting Stations," which reads as follows:—

"An Amateur Station Licensee may transmit in English and receive in any recognised languages plain language messages (i.e. not in cypher) relating to experiments or consisting of remarks of a personal nature which by reason of their unimportance would not normally be transmitted through the public communication systems."

The regulation clearly states you can receive in any recognised languages, but you can only transmit in English.

"Bon jour mon ami, Au revoir," may be overlooked, but attempts to conduct QSOs completely in a foreign language is contrary to the Regulations.

AMATEUR COMMUNICATIONS RESTRICTED BY CERTAIN COUNTRIES

For the interest of the DX boys the U.S. Department of State has provided the I.A.R.U. with the following information (to and including Oct. 13, 1950) concerning the limitation of Amateur communications by certain countries:—

Administrations which forbid radio communications between their Amateur Stations and Amateur Stations in other countries are:—Indonesia, Japan (excluding Amateur Stations of Allied Occupation Forces as authorised by the Supreme Commander, Allied Powers).

Administrations which forbid all Amateur Radio operation: Indo-China, Iran, Lebanon, Netherlands Antilles, Thailand.

The Administration in Austria permits the reception of foreign Amateur Station transmissions, but transmissions by Austrian Amateur Stations are strictly forbidden by the Allied control authorities in Austria.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Had the good fortune to QSO an old-timer at end of April. Said old-timer was John D. Olle, ex-VK2OZ. John also held VR and VP calls at one stage. Now Major Olle of the permanent army and on liaison duties in England, John was operating an army club transmitter under the call sign of G3DMZ on 14 Mc. at Christchurch, Hants. He informed me that his own call sign was G3HJO and that he expected to be in England until 1952. He stated he was keeping and doing well as was Bill Mitchell ex-VK3UM who was not active on the air from G. Seems only yesterday when I used to contact John on 7 Mc. at his home location of Ashfied, Sydney, but logs show that it was 1930.

Writes Mario Pereira, CR7AF, Box 264, Lourenco Marques, Portuguese, East Africa, under the date of March 20, 1951: "I will be grateful if you can get the QSL cards from the following OMs: VK1VU, 1FE, 1RA; VK2YL, 2ZH, 2SA, 2NS, 2TH; VK3CM, 3CZ, 3YP, 3CN, 3JA, 3FS, 3DQ, 3PL, 3BD; VK4RF, 4CG, 4HR; VK5JS; VK6IG, 6WR; VK9WL. If any of these Hams have not yet received my card I will be very pleased to send them a second one." While there are a few tough men listed above, there are also many honorable and reliable Hams listed and it would seem that there is something haywire with the P.O. or Bureau facilities in CR7.

The QSL Manager of the C.R.A.G., Box 12, Guatemala, advises that 20 cards were received for TG9FU, 10 of the cards were from VK. He states that the station named is a "black one" and has returned the cards. He also advises that TG9PB does not live in Guatemala and is also a pirate.

A fair sized batch of cards has just come to hand from MP4BAD, Trucial Oman, for contacts made during 1949!!! Ken Smethurst who ran the station has returned to England and has got busy catching up on arrears of QSLs.

Am indebted to Ron Mould, VK9FM, and to Arch Barrie, VK9GB, who both wrote and gave details of the doings and personnel located in Rabaul. Arch explains that for some unaccountable reason his cards have not yet arrived in Rabaul, but he will get busy on the QSLs as soon as the cards hit the deck. Photos of his layout show a neat rig with 6V6 xtal/v.f.o., 807 huffer/dblr., to parallel 807s with 100 watts. Rx is an AR7 not yet hotted up. Intends trying plate modulation shortly but until then is c.w. only. Arch held down the call signs of ZL1OH and ZL1GS when in his home town of Auckland. Ron informs me that there are three Hams at present in Rabaul, the third being Ron Garrett ex-VR3A now VK9RG, who is momentarily located at Kopopo about 32 miles from Rabaul, but shortly hopes to move in to Rabaul. Ron Mould has re-built rig to 6V6 osc., 6V6 dblr., to 829 and states that his YL is interested in the Ham game also. Arch is an O.T.C. operator; Ron Mould is with D.C.A., and Ron Garrett is with Burns Philp.

Felix Franchette, FK8AC, spent a pleasant holiday in Australia during April. Felix divided his time between Sydney and Melbourne and took in as many Ham visits as time, weather and business permitted. Felix, during a visit to VK3ABA, was delighted at being able to take part in 144 Mc. QSOs with VK3ZL and VK3GM, of Ballarat.

FG7XA Gaudeloupe has been on 14015 Kc. during first half of April. From W2CC comes the following interesting information regarding this rare country and station which has been contacted by many VKs. FG7XA is a CM station who is spending a vacation on Guadeloupe accompanied by his wife who is signing FG7XB from the same holiday location. KV4AA verifies this information.

Jack Elliott ZL3CC who spent six weeks' vacation in Australia during April-May, journeyed to VK6 during the early portion of his stay and whilst in Perth met over 20 of the W.A.

gang and enjoyed his stay there immensely. He spent a few days in Adelaide on the return trip to Melbourne where he put in the major portion of the remaining time. Jack, who looks as well as when here in 1931, is more keen on Amateur Radio than ever before.

Another interesting international visitor who called in during a 3-day stay in Melbourne during early May was Walter Schreur, G3DCU exG5CW. Walter may become a permanent resident in Australia and is heading initially for Sydney. With 25 watts and a rotary 8JK of solid aluminium, Walter has run up 163 countries. The total weight of his beam is under 8 lbs.

For those who are prepared to spend fourpence on a jolly good laugh and some food for thought, it is recommended they purchase the April 25 issue of "The Australian Woman's Mirror," turn to page 4 and read the article titled "I married five radios," by "Cora-Lynn." who certainly has her information straight and right from the grid. Who among our fraternity cannot see himself mirrored to some extent at least in her humorous article.

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NEW SOUTH WALES

EASTERN AND SOUTHERN SUBURBS

Ern 2ASE has designs on 20 and plans are being laid for a burst of r.f. there. 2ABD heard on 40 a lot lately, he and 2WH were in the same school at the same time and will soon meet in person for the first time. 2QG on 40 again after a few weeks' absence, doing a spot of yarning with 2AZH. 2AIG, still on 40 phone and c.w., planning to invade 20 as a result of a nice BC348 Rx with which he has been hearing DX he hasn't been accustomed to before, with the home-grown receiver.

2NO has a n.b.f.m. exciter unit with reactance modulator on a series tuned ("Clapp") v.f.o. working well on 40. A speech clipper to restore much of the apparent loss of audio experienced with f.m. is planned. This writer had a dekko at the newsreel shots of the North Coast Convention held at Urunga last Easter, and if that is much help to the hobby in showing the public how—may I be the alleged Simian's uncle. The impression I gained was that the cameraman was in a tearing hurry, or else he was mighty short of film, or else the boys had plied him with an 18 watter. There was a fleeting glimpse of Harold 2AHA on the d.f. job of hunting the hidden 144 Mc. Tx; a few cars sliding by with sundry sig-squirters atop, and impressions of that rare old roundsman from Raleigh, Crieff 2XO, engaged in his favourite pastime—Amateur Radio. It was all too short a "short". Fie on you "fillum people."

2CM is back in the famous hostelry after a well earned health trip around New Guinea. Charles, the very spirit of old-time Australian Amateur Radio, is as young in heart as ever, and his station today is one of the finest examples of modern practice one could encounter. Not bad at all for an old-timer who dropped out of the game for 22 years and then came up smiling for more.

I thought so. No sooner had that par about 2AJG appeared in print in these notes about him going off the air, than Laurie was heard back at it again. It's no use OM. 2GS has not so much time on the air as formerly. Owing to ill-health, he found it necessary to seek a career other than the skyways and now is no longer in Tokio one day, Darwin another, and London shortly after. His familiar accents are heard at times on 40, but he has forsaken 20 for the time being. 2JT seems to have "had" 20, has nice phone on 40. Active in the Western Suburbs is Ted Whiting, 2ACD, who uses nearly all the bands with enthusiasm. Ted will be recalled by VK2 Hams of 15 years or more standing as a keen s.w.l. He got his ticket last year and makes the most of it.

Far be it from this scribe to offer undue criticism of published alterations and deletions to Amateur Call Signs, but these lists seem somewhat amiss. A statement of call sign and address, minus the name of the licensee seems to be inadequate. It could be encouraging to would-be pirates to make use of other's call signs. A bald statement of call sign for deletion seems appropriate, but names with the list of alterations could be included with little extra effort (on the part of the P.M.G.). [This point of view has merit and the matter will be taken up with the Department as soon as possible.—Federal Secretary.]

Stations in the other States, and in country locations where home power is used, are asked by the harrassed community of Sydney Amateurs to bear with them. When they suddenly disappear in the middle of an over it isn't that they are being rude or snooty. They have no option. It is simply that the gentry in the creeking set-up, that tries to keep our homes lit and powered, have had to yank the big switches. It might be a good idea to form a QRP section of the Division, with equipment limited to 5 watts input. One can have lots of fun with 1.4 volt valves and dry cells.

NOTICE

TO ALL NEW SOUTH WALES MEMBERS AND READERS OF ZONE NOTES

The work of Divisional Sub-Editor for the compilation each month of appropriate reading material is no one-man job. He who undertakes such work is dependent to a large extent upon co-operation by fellow Amateurs throughout the State. It isn't enough merely to think that you would like to see some reference to some particular chit chat in these columns; it is necessary that you ACT upon that thought. The more ideas and items of individual interest that the Divisional Sub-Editor can secure from members, the better.

If you are an active Amateur; if you are an intending Amateur; if you are a short-wave listener; or if you merely know a transmitting Amateur or two—and have any news, technical or otherwise, of their doings, put your pen to paper and send in your journalistic effort. It won't be scorned or rejected!

If you type your effort, so much the better, but PLEASE type with double spaced lines. Send your news in at any old time you like, but if you want to be on the dot with "flash" news, then the Div. Sub-Editor needs it on his desk by the 20th of the month. The Divisional Sub-Editor for New South Wales is now Don B. Knock, VK2NO, and the address for mail is "Warilda," 48 Yanko Avenue, Waverley, Sydney.

Jack 2AJQ gets out nicely with 50 watts and a pair of 807s in parallel feeding a half wave Zepp on 40. Over to the west of Sydney, 2VP has been noticed back in the swim on 20 phone; Ron was evidently enjoying himself with a lot of QSOs after an absence of two years or more.

NORTH COAST AND TABLELANDS

The most improved phone in this zone is 2ASO, congrats Allan. It is pleasing to learn that Charlie Miller has returned to work after his operation for acute appendicitus. 2LH has a tall electric light pole erected near the shack with a 6 and 10 beam on top—no results reported as yet. Ted 2AEU has been playing with balloons, kites, and bows and arrows trying to get a halyard back on the 60 foot pole; Ted and Alf 2UC building turret tuned receivers. Alex 2TG using 5 element beam on 10 metres, 50 feet high, works DX like local contacts. Col 2ASF has left the zone and will soon be heard from Eden on the south coast. Bill 2AEY just completed a deluxe shack and 144 gear. Noel 2AHH reports good results with his extended double Zepp on 20 metres. 2JC, 2DK, 2GI, 2WQ, 2NY, 2ARY, 2XO, 2APS, 2EA, 2JK and 2AJT all building 144 gear to give the Hunter Branch some stiff opposition at the next Urunga Convention. 2WT still works plenty of DX on 20 with his rhombic. 2SR has staged a comeback and was heard on 40.

2EA, the most active station on the Clarence River, and Keith 2GI erecting vee beams and having S9 daylight contacts on 80 with 2XQ and works ZLs from 4 p.m. in the afternoon. 2AJB also erecting vee beams, Len having bad luck with sickness in the family. Norm 2AAP has left the zone and will soon be heard from Sydney. Carl 2CJ now on air from his new house and reports receiving conditions very good; Carl was bitten by a black snake—the snake died! 2JK and 2ADN having a holiday in VK4 land. 2ARY had a few days in Taree. 2XO returned from his holidays, met most of the Western and Newcastle gang on the trip. He has arranged for a motor coach to run from Sydney to the next Urunga Convention. A seven day trip staying overnight at Taree both ways. It will be a good holiday trip for the Sydney gang. Arrangements have also been made at great expense for a concert party from Newcastle to entertain the gang. The Dubbo and Forbes gang are coming over in force to find the hidden transmitter.

COALFIELDS AND LAKES

News is again rather scarce as it was in the previous month, and conditions are still poor. 14 Mc. in the evenings has produced a few Europeans and is the best DX band at the present time. One Sunday 28 Mc. did show some signs of life with Ws and a few South Americans coming through. Not much news of Ken 2ANU, with the end of 50 Mc. DX he is working a few locals on that band only. Geoff 2VU seems to be sticking to that band also, but still happy doing some chores around the house. Bob 2TY is keeping up his skeds with KH6 on 28 Mc., despite sometimes rather poor conditions. Nil from 2YO or 2KF this month. 2KZ still going strong, heard chasing Yanks on 28 Mc. phone; how is the new gear, and developments? Major 2RU mainly on 50 Mc., pretty QRL with business but heard talking of a turret tuner, so it looks like some more work!

Cec 2KR on 80, 40 and 144 and probably on 50 Mc. Suppose Cec and John 2GA will soon be organising for the Woy Woy Field Day. Jack 2KQ had trouble with his phone, fixed it up and then it went hay-wire again; 2KQ can be found on 80 and 6. 2PZ looking for best position for antenna poles, but rig not ready yet. Jack 2ADT for a change doing nothing unusual, even complaining of the poor conditions, says he can't get a contact on any band. 2YL on 20 working a few Europeans, managed an SP for a new country, 172 now up post-war.

HUNTER BRANCH

By way of a change the April meeting of the Branch took the form of a picture night. Several films on Radio were shown, and thanks must go to the Technical College for providing them and to Ron 2AAI, the operator, for showing them. A very practical lecture has been arranged for the May meeting, this will be given by Keith 2DG on his new receiver. Branch President 2CS, Secretary 2SF, Zone Correspondent 2AHA and 2XT attended the Annual General Meeting of the Division. A great time was had by all and we hope to do it more often. Congrats to the Council on being re-elected again—that certainly proves you did a good job on behalf of the members. Sec. 2SF has the final well on the way but still very busy. Lionel voiced the Branch's view in fine style at the Annual Meeting and is still experimenting with his BC348. Contest men were very pleased to learn that the Federal Government were backing the DX Contest this Jubilee year. This was due to the magnificent work done by Mr. Allan Fairhall, M.P., 2KB—so fellers make it a big event. 2ZC and 2AHA were interviewed on the ABC during April. The broadcast briefly covered the Urunga Contest and the co-operation between the Hams and various authorities in times of emergency. 2ASJ has been a little off colour, but is OK again; now has a Type 3 Mark II. for 80 and 40. 2XY building the modulator for Ron.

2XO and his good wife had a few days in Newcastle while en route back home. Crieff saw as many shacks as time would allow. 2PJ trying his first on c.w. with some good DX contacts. 2XY converting TA12 for Ham bands. Quite a few of the Hunter boys saw themselves in the Urunga film, those that missed out will be pleased to know that 2ASJ is arranging with Stockton Theatre manager for a showing of the complete film by courtesy of Jack 2ADN. 2IS just about has the 100 watt rig finished for 40. 2AMM has built a c.r.o., also on 20 c.w. lately. 2KG has the big Rx and v.f.o. perking well. 2AAI working Ws with his new antenna. 2DZ is glued to 20 phone and working his share of DX too. 2AQS, of Police Radio, doing fine on 40 c.w. with his 807.

Welcome to Edgar Stuart, 2MR ex-4MR, is well and truly settled in his new home at Waratah. At last 2WU popped up again on 20 chasing the DX with good results. 2AWD back on 40 and thinking of a v.f.o. Old George 2SO still plugging along on 40 c.w. Congrats to Shorty 2NX on getting his first class ticket. Bill 2CW is back on 40 phone, has given 144 away temporarily. 2AFS back on 10, while Ernie and his XYL are wearing out the AR88 on the low frequency bands for a while. Sorry to hear of the illness of 2AS and wish you a speedy recovery Nev. 2BZ has a three element beam on 6 and 144. 2ADS just about has the new shack completed. 2PQ putting out a solid signal on 80 recently. One of the keenest boys on Institute affairs is Bill 2XT, makes frequent visits to the big smoke. 2CI has been ill of late, but OK again; very keen on recorded music. 2AGD has v.f.o. completed, on 40 more often now. 2CN has a nice turret under way.

2LV made a comeback with good quality phone. 2AGY QRL and inactive. 2ANA has a new insert in the N80 mike and quality is even better now. Both Norm and Bill 2AKM have their RA10 Rx's converted for 20 metres. 2TE busy building new home, gets on 20 and 10 when able. 2PT also busy on building alterations. Up Maitland way 2XQ has just returned from a good holiday up the North West. 2AKP has a BC348 Rx and is very pleased with it. 2DG is on 40 a fair bit now these days. 2ANU heard on 6, signals still OK these cold nights on that band. 2TY still working all bands. 2JZ seems to be only on 10 and does well with the DX despite the poor conditions. The South Africans are getting through OK on 10 and quite workable.

WESTERN ZONE

Very little activity to report for the past month. Power cuts and cold shacks seem to have depopulated the Ham bands. 3.5 Mc. shows signs of livening up, conditions excellent lately, no QRN and plenty of room in the band. N.b.f.m. seems to be solving the b.c.i. troubles of a lot of Hams on this band. V.h.f. doings at an all-time low, and nothing very startling to report from the DX bands.

Welcome visitors to the Western Zone were Crieff 2XO and XYL Jean. Orange has new Ham, 2AWY, who is ex-4WY. Welcome to this zone OM. 2XP only station heard from Dubbo area at all regularly. 2AXS considering n.b.f.m. to beat the b.c.l. 2AMV at Forbes mainly on 10, makes a rare QSO on 7 Mc. 2WH been making the most of good conditions on 80 to swop fish tales with the coast-wise boys. 2ACU at Coonamble, putting out good signal on 7 Mc. and 3.5 Mc.

2LZ has moved into first part of the house and still busy building, all set up but not operating much. 2EX has a new car, so doing the proper thing and taking YF about. 2HZ received his W.A.Z. certificate recently, takes it out and admires it about once a week, still driving nails furiously. Doonside Jack 2OF not heard much, but the rotary is in a different position every time it's seen, so is possibly on 20—maybe it is just the wind. 2AGN will be going to sea again soon and maybe heard from the Persian Gulf.

SOUTH COAST AND SOUTHERN

Activity in this zone for the month has been good and at long last we have managed to get a few stations together on 40 phone on Sunday mornings. Our first hook-up included 2BQ, 2APP, 2OW, 2DY, 2AMD and 2DO. The hook-up covered most of the areas in the zone. Peter 2APP heard operating portable from Sydney using Command Tx and Rx, input of 4 watts; the home outfit is being made to work on all bands and a 42 foot tower is ready to accommodate both 10 and 20 beams. 2BQ is engaged in tennis competitions during week-ends but manages the 40 zone hook-up; you should contact W5VV of Texas Jeff—W5VV represented U.S.A. in the Davis Cup in 1930 and visited Australia in 1933.

Gordon 2OW now sports 35 countries on c.w. and has been bitten very badly by the DX bug; 22 countries in one week is the best effort so far. 2AMD running low power, 6 watts to an exciter stage of his 20 rig is used on 40; Howard previously operated under a G call. Notice two new calls in the call sign columns of "A.R."—2KK is in Liverpool and the other 2ZN would be remembered as 2ADX. 2AFD is also listed as being at Wollongong. No doubt Col 2ASF who recently left the North Coast will be heard from his new QTH at Eden. Toby 2AKY is experimenting with a Kollsman altimeter and has calibrated it to read mean sea level, is interested to see whether there is any tie up between band conditions and day-to-day variations of pressure.

2ALS changed cars again, QRL putting elbow grease and polish onto the job. Les 2PI sports 32 countries, but has not been active in the last few weeks. We learn that Jack 2QA, who held the position of Zone Officer in the North West, has retired from his position on the staff of the Elect. Dept. at Nyngan and will be leaving the town. Jack will spend a holiday at Tullamore and then visit many of the Hams down in southern N.S.W. His future QTH will be determined by his acceptance of a position that appeals to him—best of luck Jack. Every station taking part in the zone hook-up on Sunday mornings likes the idea. Everyone is welcome to join—time 1030, frequency about 7175 Kc.

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VICTORIA

SOUTH WESTERN ZONE CONVENTION

The South Western Zone Convention was held at Ballarat on 20th and 21st April. An excellent attendance of members and visitors resulted and all had a very pleasant time. Visitors first called at 3AMH for information and then visited some of the shacks. The first function was the Annual Meeting held at the R.S.L. Hall. The President 3ZU welcomed the visitors and everyone then gave their call sign, name and location.

Election of office-bearers resulted in the following: President, 3ASV; Vice-Presidents, 3AKE and 3ZU; Secretary and Treasurer, 3AMH; Committee, 3AGV, 3IC and 3AKR; Publicity Rep., 3AKR.

It was decided that the next Convention would be held at Warrnambool on 20th and 21st October. 3ZU is organising this so keep that week-end free chaps and let Frank know early if you are coming. The zone hook-up is still being held on 3.5 Mc., first Sunday in the month at 2100 hours.

The matter of the BC211 Frequency Meter was raised and it was stated that it was awaiting a 1 Kc. crystal and being held in Melbourne. 3AKR donated the necessary crystal and we expect a rush of applicants for the secretarial position at the next elections. 3KV donated a trophy to the value of £5 for the member best serving his zone. Further details of this trophy will be available in due course. We then heard a few comments from 3FO regarding the material for the Sunday broadcasts. However, Col has our sympathy in this matter and everyone should make an effort to let Col have some details of our doings for inclusion.

Those present at the meeting were: 3ASV, 3AKR, 3IC, 3ADN, 3AJR, 3HG, 3GM, 3BE, 3ZL, 3AKE, 3VL, 3US, 3HW, 3BI, 3GR, 3AGV, 3PS, 3ALM, 3AVK, 3DS, 3VA, 2AHS, 3GS, 3AIM, 3HK, 3AJI, 3RU, 3WQ, 3FO, 3KV, 3XD, 3AMB, 3ALW, 3RT, Ron Wilkinson, E. Giddings, B. Lyons, L. Jackson, R. Warren and Ted Howlett.

On Sunday 3ASV, 3BE and 3AMH took a Type 3 Mk. II. to Cambrian Hill and operated it for a hidden transmitter hunt. 3AKE and 3AGV were the only two cars to find the transmitter and both did a good job. The official Dinner was held on Sunday and 59 sat down to a very pleasant rag-chew and meal. In the afternoon another transmitter hunt was held and more cars were entered on this occasion. The transmitter was operated by 3ASV, 3RT, 3WN and 3AMH and hidden on the south-east shore of Lake Burrumbeet and a few natural hazards made detection difficult, namely an almost impassible road. 3AKR was the only entrant to find the transmitter and he might have been in the blitz-buggy if he had known what the country was like. Several chaps came very close to finding the transmitter but turned back when they saw the road, in fact one car had to be pushed out. 3AKE disgraced himself by misinterpreting a bearing and wandered off into the mulga.

John 3AGD has a junior op now, which makes Leigh 3II a grand-dad. 3ADN still heard occasionally on 80, but not very active. Congratulations are also due to one of our associates, Tony Wilson, of Glenthompson, for his engagement to a very nice lass from the big smoke. Don't let it put a stop to your c.w. practice Tony. No news from Warrnambool area this month, so what about it Frank? 3APG trying out a bit of s.s.s.c. on 40, also heard on 20. 3BU trying voice operated carrier, not quite right yet 3ALG has erected an 80 metre doublet. 3AJT bagging the DX on 20 metres; has almost re-built his modulator, is going to re-build the final.

3ABE gets on occasionally, heard working ZL2BE. 3WT put out a good signal on 40 on Anzac Day. 3ABK still silent, YL trouble I guess. 3IC has not been on much over the past month. - 3AOL built up a new final.

EASTERN ZONE

Our portable field week-end of May 5-6 proved a great success, judging from remarks on the Sunday night hook-up. Full details of final

scores are not available at the time of writing, but it appears to be a toss up between 3ALA and 3RH for top place. 3SS and 3ALA operated from Lakes Entrance, 3QZ from (I think) Tyers and the rest of the gang were scattered far and wide. 3SS has invented a new jaffle—the only ingredient omitted being soda bicarb.!

3PR had a visit from 3FO and 3DY. No sign of the Sale boys lately. 3ABP busy with a new Rx. 3AEP still missing. 3AGF putting out a good solid signal. 3BB another back slider. Very sorry to learn that Mrs. 3WE is in hospital, and we hope she will soon be quite well again. 3VL/US have moved into new residence in Leongatha. We hope that 3WQ will be able to arrange his holidays from VK5 to coincide with our zone convention in November. Good luck over there Charlie!

Finally, a reminder to all and sundry, that this zone holds the hook-up every Sunday night on 3650 Kc., so please, gentlemen, park your kilowatts some place else between 2000 and 2130 hours.

FAR NORTH WESTERN ZONE

This month has been marked by an increase in activity. Sunday mornings we hear 3TI, 3GZ, 3AFC and 2AHM pounding holes in the ether. Noel 3AUG very pleased with himself. The new 20 metre beam is a working concern and from all accounts is doing a sterling job. Understand that the DX is mounting up and good reports being received from W. Noel is now busy with the Rx so we should be hearing him on 40 metres soon. Chas 3TI very active building grid dip oscillators, frequency meters, and struggling with the Command Tx. Still Chas has been keeping in touch with 3WI on Sundays and passing on the news for the zone. Jim Power 3AJP, of Merbein, busy getting gear assembled and should be on the air very shortly.

No news from the Ouyen gang, guess Frank 3FC hard at it with the bowls. Fred 3AFC heard on occasionally, but must have bad Rx and doesn't answer calls from the Mildura gang. Harry 3MF tells me he is nearing the completion of his house reconstruction and will probably make a noise on the bands in the near future. 3GZ has the TA12D working on two bands with about ten watts input. Max also has acquired an SCR522 which will be operating on 2 metres in the very near future. 3CI, who was at Merbein for a few months, left the district as he was unable to find a suitable house.

CENTRAL WESTERN ZONE

The zone convention to be held at Ararat on Sunday, 16th September, is gradually taking shape. The main event will be a transmitter hunt in the afternoon on 3.5 Mc. A location is in mind which we hope will baffle the experts who sought the Tx at the Ballarat Convention. To those of you who missed at Ballarat, here is another chance to show your skill and give the Ballarat winners a licking. Our zone members who went to Ballarat seemed to think a carrier level indicator would be an advantage in the final stages.

During the month the zone was graced with the presence of 4GZ on his once-a-decade visit to Stawell; Esmond is a c.w. expert on 14 Mc. There is an old saying that the bigger they are, the further they fall; one 3ARL was last seen leaving 3YW's presence with the circuit of a reactance modulator, and the intention of swotting up on n.b.f.m. 3DP is working on a new receiver and has the intention of putting the s.s.b. transmitter on 14 Mc. I wonder why everybody hikes off to 14 Mc. with s.s.b. Heard our little friend 3XC after a long time; Willy is just the same and promises to get to Ararat complete with beard, nose and hat.

There still seems to be a large number of Hams who have never heard a single-sideband signal, and hence are in strife trying to receive it. The drill is this: A.v.c. off, r.f. gain back, centre the signal on the Rx dial, and then tune to zero beat with your local oscillator; to get clear speech you have to be within 10-15 cycles of the correct frequency, otherwise distortion results, although it is still readable up to about 100 cycles each side, also your local osc. must be stronger than the s.s.b. signal otherwise distortion through overmodulation occurs in the Rx. S.s.b. signals have high peak power; hence the direction to reduce the r.f. gain.

It is nice to know that our Zone President 3XU is progressing favourably after his serious accident and should be home before these notes appear. We all think of you Gordon, and look forward to hearing your cheery voice once more in the near future.

By the way, do you know there is a zone hook-up on Sunday, 10th June, 1000 hours, on approximately 7155 Kc.?

GEELONG AMATEUR RADIO CLUB

It was decided to cancel the meeting of the above club which was to have been held on 25th April owing to it falling on Anzac Day. The night, which was to have been an exhibition of equipment, will be held over till May. 3IC gave a talk on his BC348 receiver which he afterwards demonstrated.

NORTH EASTERN ZONE

Had a few notes somewhere but appear to have lost same, so will rely on my correspondent from Yea, "other members please note!" Firstly, 3KR and 3YV are out to gain recognition for marathon QSO; three hours to be exact! Peter Williams visited Ken and got the good oil. Ron Gibb now on under call sign of 3AQG; didn't hear you on the hook-up Ron.

Last hook-up was a marathon and I didn't hear the answer to my question Ken. No nearer to where the next convention is to be held. Albury seems to be out 3GD has nearly got his new QTH ready after a very long wait. 3CI has a new converter for 2 metres working; Sid is off to Nagamble to live and Seymour to work. Haven't heard 3ACK on recently, where are you John?

Now fellows, if you want to work free from static, heterodynes, noise, etc., I advise you to migrate to 6 and 2 metres for that local and not so local QSO. I have plenty of news that I have gleaned from these two bands, but under pain of expulsion I am not at liberty to divulge. So if you want to find out the latest news build yourself some gear and populate this very interesting trouble-free noiseless band.

3AGT awaiting xtal for 6 metres; hurry up Stan the boys may get tired of waiting. Andy 3FD still making excuses for no modulation, must be nearly twelve months since the plant went in Andy. I am beginning to be able to read your c.w. so either your sending is improved or maybe it's my receiving. Nothing from 3ACW, still gardening Chas?

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QUEENSLAND

This month we are fortunate, through the good effort of our Country Representative (4UX) to have some news from country centres so I take back in part anything I may have said re lack of country news in last month's issue. It is hoped that you country chaps will pass on any gossip to either your Country Representative or the Zone Manager, whose call sign appears next to the respective zone notes. If you work 4UX, I am sure he would be glad to tell you of the AC3 and 4X4 he worked. (Incidentally Claude is back in Brisbane now—enjoyed his Longreach sojourn very much.)

Now that Clare is working for a living, she is finding it increasingly difficult to listen on the Ham Bands to get news for her column. She has kindly offered her services as our Assistant Secretary which will be a great asset to our worthy over-worked Secretary. If we get larger crowds at our monthly meetings in future I will be suspecting that all the newcomers are not only interested in radio. Thanks Clare for a grand effort and let's hope you are able to pass on some juicy news to me from time to time. Her father, 4NC, also is a regular attendant at our meetings.

Bill 4WF has stolen a march on all the VK boys by getting the first certificate to be issued from Ecquador to VK for having worked all States in that Country. His impressive certificate is number two, the number one having been issued to a ZL. I think I hear a few teeth gnashing around the select suburb of Wavell Heights; congratulations Bill.

Although I was not at the last general meeting, 4FE was kind enough to call me to tell me that we had some distinguished visitors in the persons of 2AIO, 1HV and the XYL of 3XO are paying this sunny city a visit. VK1HV from Heard Island is on his way to Townsville where he will be heard under the call of 4HV. 3XO's XYL wishes to be remembered to all VK4s. That's all the Brisbane news and now for some country notes. But first I wish to rectify a mis-print in the last notes. It is 4YA who has 9 watts and not 4KS, as stated.

GYMPIE NEWS (FROM 4BZ)

4RA has built himself a new v.f.o. which works f.b. and, although following the slow but sure pattern, a new final is also on the way. 4XR was heard giving a VK3 a Spanish lesson on 7 Mc. At a later stage the VK3 was heard making good use of the lessons when working LUs and HCs, etc. 4XR's two element beam on 20 and folded dipole on 40 works f.b. 4LN has not been heard very much of late except that observers have noticed a three element beam pointing in various directions in Barry's yard; must be beaming anyhow, Barry.

4CR has been inactive except for a weekly sked with 2AMX; 'tis rumoured he is contemplating abandoning gold fossicking in favour of growing strawberries. 4DB is very slowly re-building a second-hand utility and may be able to get a new rig out of the proceeds, we said may be. 4KT has been inactive. 4HZ now has a converter for 10 metres and has been having fun and games with a xtal insert. Trying to tame the r.f. we believe, anyhow Jim is convinced there is nothing like a carbon mike for 20 and 10 metre operation—to date he has no new antennae this year.

BUNDABERG NEWS (FROM 4BJ)

4UK has decided to give the Nation the use of his valuable services—is joining the R.A.A.F. Nice work Frank. Most likely the next we hear of you will be under some rare DX call. Judging by the number of antennae around 4XJ's shack, he must be planting them for a living. 4HE has been inactive.

MARYBOROUGH ZONE (4BG)

Arch 4CB is rattling up new countries on 20 metre phone and works stations the local boys can't hear; his antenna is a 66 ft. vertical. 4AI playing with photography for a change, but heard at times on 14 Mc. c.w. Chasing countries on 14 Mc. c.w. is 4BG; Ron's beam blew down, and a folded dipole is doing a good job pending construction of a new beam. 4KG rarely heard, as he's building a boat. Gordon 4GH gets on to 7 Mc. when he gets the time, and is always in the W.I.A. hook-up. On 14 Mc., early morning operation is producing European contacts. W stations are back on during the afternoons, and after 2100 hours are dog piling as of yore.

CLARE'S CORNER

Have not heard 4NF on the air since the arrival of a second op.; has Cynthia given him the 866s as rattles Noel? 4HD, who has regular skeds with HC1FS in Ecquador, is at the moment experimenting with a Lazy H antenna; Max's ambition is to work all HCIs. As there is about thirty it would be quite an honour if you did Max. 4EL, usually a 20 metre c.w. man, heard working 10 metre phone of late.

4KS doing quite a bit of operating on c.w. lately; guess Keith can't find any new countries to work on phone. 4CF, who has recently acquired a motor bike (careful, Gil), contemplating erecting a vee beam. While operating portable from his caravan, 4FB had a number of nice contacts with 4VJ. Bill Wright, who you'll remember as 4TU on the R.A.A.F. station at Townsville, now operating under the call sign VK5CN from Darwin.

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SOUTH AUSTRALIA

The general meeting of the VK5 Division for April was held in the 5DN auditorium to a very representative gathering of members, and as the postal votes for Council members were to be counted, plus a wire recording of portion of the proceedings at the recent Convention to be played back, it was considered that there would be not enough time for a guest speaker to do justice to his subject. To assist any reader who may not be aware just what 5DN really is, I am happy to say that it is the first and foremost broadcasting station in the State, and also if you continue to read these notes in the future, you will see quite a number of references to such a fact, fate and the Editor being willing.

When the votes for Council of the VK5 Division were counted, it was found that no changes in last year's Council were necessary, and with all respect to all who may think otherwise, the voting can only be interpreted to mean that the sitting Council has the confidence of members. Speaking with my tongue in my cheek, I must say that I agree with such an interpretation, as the VK5 Division has had a very successful year, and naturally the credit goes to those who are responsible for its policy. The reason for my tongue being in my cheek is because I am on the Council, and self praise is no recommendation. Best wishes to the Council for 1951 and may they continue on with the good work.

The replay of the wire from Federal Executive was well received and all present seemed to take a genuine interest in the matters under discussion, in fact I was amazed at the unusual quietness that prevailed throughout the playback, and can only assume that the Amateur today is more alive to the benefits which accrue to him from these Conventions than was his brother of pre-war days. Whoever was responsible for the idea of sending a wire to each Division at the end of Convention time, should take a bow. The VK5 delegates to the Convention are to be congratulated on their efforts on our behalf and I think that all present were well satisfied with the outcome of the Convention, although there were one or two very controversial items that did not go our way. Still, we live to fight again and possibly next year we might sneak them through, even if it means buying a filing cabinet and a typewriter to assist us!

5FD has not been heard on as yet, but as John has bought himself a BC348 it should not be very long now. 5CH was not anxious to hand out any news this month because he wants to see just what the acting sub-editor had to say about him in last month's magazine; Claude has built himself a new modulator in his spare time. 5TW has now had all his gear changed over to a.c. and by now will be on the air. 5MS still continues to work any DX that might

be on 20 metres, but Stewart is still giving house-building first priority. 5KU has been heard on 20 metres, and from that it would appear that Erg's new modulator is a success.

5KB has just returned from holidays and it goes without saying that Peter will come on the air with renewed zest. 5CJ has been working on some of the bugs in his 2 metre gear, with great success I might mention, and Colin is now able to get around to that long promised construction of a coaxial antenna. What did you think of the new sub-editor Col? Did he pay you as much as I do? 5WO at Laura is running 20 watts to a Type 3; has an Eddystone 640, and a Zepp antenna, but very little DX, due to the competition from the 33000 mains, a flour mill bleacher across the road, and the rest of the things that are sent to try us. Austin tells me that a signal has to be S9 plus to even reach his Rx.

I had the pleasure recently of meeting the charming daughter of Hal 5AW and she endeared herself to me by saying that the passengers on the buses that pass my QTH were quite taken up with the view of me bending down whilst doing a little weeding in our front garden. I quietly told her that "there is a destiny that shapes our ends, rough-hew them as we will," but at the same time I intend to sit down in future when I do my weeding.

Arch 6XK writes to say that fifty per cent. of the Hams on Kangaroo Island have left that island for the mainland, which is only another way of saying that Arch has left and that Bert 5DR is the only one left behind. Inky 5WF was over that way on a business trip recently. Incidentally, I believe that there is a chance of Bert leaving the island as well, so if you want to work Kangaroo Island you had better hurry up.

Received a batch of notes from 5BT on v.h.f. doings which I forwarded to my partner in crime, Clarrie. The notes arrived somewhat late for this month as they were sent to my old QTH, but better late than never, and the only thing that I was sorry for was that they were v.h.f. notes and therefore I could not use them. Many thanks OM. Advice received from 5CN (ex-5BW) at Darwin tells us that he will be simultaneously transmitting on 6 and 20 metres and will welcome contacts with the gang down south and elsewhere.

The VK5 notes are becoming well known, as a letter from W land has been received which, besides saying several nice things about the notes, also wanted to know just who the person named "Doc" is. Well that makes it very difficult to answer. If I give my personal explanation as to just who "Doc" is, the Editor won't print it because of the law of libel. If I write just what the average member thinks of "Doc", the Editor still won't print it because there is not room enough in the magazine to print all the words of praise. Therefore I will compromise by saying that he has a very talented wife who is a marvel at rearing household pets. Her latest masterpiece has been to cross a turtle with a tortoise and now she is offering all and sundry a new pet, to wit, a tortle. She is trying to talk me into having one of these tortles, but so far I have resisted all her sales talk.

My heart-rending plea for some notes from the country brought along a very welcome letter from Brian 5CO, of Port Pirie. He tells me that Ham population of that town now consists of 5EN, 5OD, 5KS and 5CO, and also a few of the local lads interested. 5OD is using an Eddystone 640, a 100 watt transmitter, and a three element beam on 20 metres; Bob is well satisfied with the results. 5EN is using 100 watts to a three element beam and a 12 tube Rx; Ern does a fair bit of portable work with various types of rigs that he has knocked up. 5KS is temporarily off the air but has a new Tx nearly finished and also a 12 tube Rx to make adjustments to now and again. Ron spends most of his time with motor bikes, swimming, army parades, and several other sidelines which naturally does not leave much time for radio. 5CO two years ago did not know the difference between a resistor and a condenser, but due to his ambition and his cousin, 5WO of Laura, he made the grade. He works 20, 40, 80 metre c.w. and phone although his main interest is 288 Mc. Very pleased to meet you Brian, and many thanks for the welcome notes. Come again OM.

5CE is getting along pretty well on 20 metre phone and it would seem that Mac is permanently domiciled on that band. 5GY was heard to say on twenty that this band would do him, so it seems that the 40 metre boys and the commercials on that band will miss Nobby very much.

The voting on the wet or dry Xmas Social ended in a two vote win for the dry fraternity, and although it could be claimed that only a small number of members voted, nevertheless the wets had their opportunity, and the very debateable question is now settled for all time.

Jack Elliott (ZL3CC) arrived in Adelaide on 3rd May and spent some of his short time in the fair city of the south in visiting some of the boys in the various city and suburban districts. I unfortunately did not have the chance of meeting him, but reports reaching me indicated that he was a good scout. 5WR is the proud father of a bonny bouncing boy, and if half of what I heard him telling 5QI concerning the said harmonic is true, then the Ham fraternity is to gain a convert very early in life. 5JD has been co-opted to the Council as the v.h.f. representative, and all will agree that it is a good move. Jack and I sat next to each other at the last Council meeting, and billed and cooed all night. Of course this can't last, but it is nice to see the lion and the lamb lay down together sometimes. It goes without saying that I am the lamb.

Once again I am caught in a trap of my own making. I thought that if I could lure "Doc" Barbier into writing the notes for once during my holidays, he would make such a mess of it that he would have to hide his head in shame for the rest of his life. Well, you saw the result of my foul scheme, not only did he write more than I, but he also wrote in a style that caused me to writhe in pure unadulterated jealousy. To cap it all, his wife, who is known to us all as "Tortles," had the audacity to suggest that "Doc" was exaggerating when he described me as 5 feet 7 inches. What does she think I am, a man or a mouse. Now girls, come down off that table, I am quite harmless.

— • • • —

TASMANIA

The monthly meeting for this Division was held on 2nd May at the Photographic Society Rooms, Liverpool St., the business being general. A lecture ably given by "Doc" 7LL on "Electronics of the Brain" was warmly received and the subject created a great deal of interest. Several new membership applications were passed and from present indication a steady increase of new members have been maintained over the last few months.

Amateur bands during April showed a steady improvement, particularly 7 Mc. with some good DX becoming evident. Interstate contacts especially between VK3 and VK2 became prominent with some very solid signals. Newcomer to this band heard during the month was 7SA. Charlie Armstrong is another one of these fortunate chaps residing at our leading seaside resort Opossum Bay. Transmitter at present being used is a Type 3 Mk. II. although plans are well in hand for a 100 watter, which should be a great asset in our now over-crowded bands.

Another local member to quit the city for the country is 7MY, who will be located in the Sandford area and will not be as active as in the past. Alan unfortunately has not been enjoying the best of health of late, and we trust the new move will show a vast improvement in his general condition. A near neighbour is 7YY residing at Pipe Clay Lagoon. Just recently from New Guinea, Bill so far has not been active since returning to the home State. Now quite a stranger to many, 7NC was seen attending the last Institute meeting. Neville has not been active of late although, from the pile of QSL cards received, quite a lot of choice DX has been worked in recent months.

A loss to this Division will be the transfer of 7CM who has now been moved to Melbourne. Charlie, during the past seven years, has enjoyed the role of radio inspector for this State, and has helped greatly the fostering of goodwill throughout the Ham fraternity. Best of good wishes for the new position Charlie, and we trust we hear from you in the near future. Another member to "migrate to the mainland" will be 7JB who has not been active of late. Jack has been experiencing the worries of home building, although, from what can be gathered, a solid signal should soon be heard when the move is completed.

Recent adjunct to the shack of 7KA is a National NC200 which, although lacking bandspread, performs remarkably well. Alterations to the shack are well under way and a really fine station should be the result. Bands at present worked are 7 and 14 Mc. and the Tx runs approx. 80 watts. C.w. is used and Ken can be always heard working locals at 1800 hours each day. Another to succumb to c.w. which caused a surprise at first is 7SD who has been heard lately with f.b. signal. Don incidentally is a new member of the Sig. Radio 7SR.

Best buy for the month was that made by 7SK which comprised a 200 watt Tx complete with modulation, power supplies, etc. Max must intend opening up in opposition to some of the "foreigners" on 7 Mc.

A small quantity of disposal meters have been available, which was appreciated by all, and we trust further disposal equipment will be coming more readily available in the future. Number of locals are at present busily engaged in checking their gear in preparation for the forthcoming "R.D." Contest. Every effort will have to be made so as our previous success in this Contest can be maintained.

NORTHERN ZONE

For our last meeting Mr. Alf Jorgenson, the District Hydro Engineer, gave a most interesting lecture on the development of hydro-electricity in Launceston. Bad luck we couldn't hear the wire recording of the Easter Convention as it had to go to another State after Hobart had played it. 7RB was ready to play it back, but fate ordained otherwise.

It was with deep regret that members heard last month that 7BQ had given up Ham Radio to engage in the hobby of pole-sitting. Fortunately rumour was proved a lying jade. It was not 7BQ who sat on top of 7BQ's 40 metre antenna one night but an offsider who shinned up the pole to untangle a broken halyard.

7RB is still busy with house building but manages to take an active interest in zone matters, although his gear is now wrapped in cellophane and moth balls. Another who is inactive at present is 7HY; Henry has moved into a new house and that and his new shop are taking up a lot of time. Remember Henry the R.D. Contest is not far away.

Our new Secretary 7AM is still putting out a hefty signal on 144 Mc. Les is still waiting for someone to tell him how to rotate his beam in a simple manner. Welcome to 7GM who makes another member for the zone. Also the glad hand to associates Gordon Bonner and Graeme Nichols. We hope to see you regularly at the meetings chaps.

Most of the activity in this zone has been on 144 Mc. Every night at 7.15 7BQ, 7LZ, 7MC and 7AM run a network that rivals the ABC National network. They are always on the lookout for mainland contacts. 7MC now has his overtone oscillator working well, and 7LZ has conquered his converter. Henry Sullivan and Percy Crawford, two of our staunch associates, are still very much to the fore and take an active part in zone doings.

A Aegis Triple Wave Coil Assembly Type K3 covers BC Band (550-1600 Kc.) and SW Band 13-42 and 40-110 metres.

B Aegis Vibrator Units for every need. 6¼" x 3⅜" x 5⅛".

C Midget Broadcast Coil Assembly Unit Type K6. ⅞" x 1¾" x 1-5/16" high.

D Aegis Loop Aerials M17 or M17A on oval canvas bakelite formers. 7¼" x 5".

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F Aegis Intermediates—range of 27 types including 10.7 Megs. for FM.

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MELB.:	Lawrence and Hanson Electrical Pty. Ltd.; Replacement Parts Pty. Ltd.; Veails Electrical and Radio Pty. Ltd.; Homecrafts Pty. Ltd.; J. H. Magrath & Co.; John Martin Electrical and Radio Co.; Warburton Franki Ltd.; A. H. Gibson Elect. Pty. Ltd.; Motor Spares Ltd.; A. G. Healing Ltd.; Hartleys Ltd.; Aus. General Electric; Amal. Wireless A/asia Ltd.
SYD.:	John Martin Pty. Ltd.; Geo. Brown & Co. Pty. Ltd.; Fox & Macgillycuddy Ltd.; Aust. General Elect. Pty. Ltd.; Dominion Facters Pty. Ltd.; Homecrafts Pty. Ltd.; Radio Despatch Service; Davis Radio Co.; Elect. Parts Pty. Ltd.; Lawrence & Hanson Elect. Pty. Ltd. (Sydney and Newcastle); Martin D. Launay Pty. Ltd. (Sydney and Newcastle); Homecrafts (Newcastle); Bloch & Gerber Ltd.; Boyts Radio & Elect.
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JULY
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and Radio Enthusiast

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EDITORIAL

"Will The Suppression of Radio Interference Ever Come To Pass?"

For years and years successive Governments have toyed with the problem of standardising the railway gauges throughout the Commonwealth with a view to firstly, the great economic value of such a scheme, and secondly—but of an infinitely greater importance—the immeasurable advantage to the defence requirements of our country. However, this vitally necessary change is still unaccomplished. Had it been carried out years ago the cost to the Commonwealth would have been vastly less than the astronomical figure envisaged today.

This may appear to bear little relationship to our interests, which are confined to the field of radio transmission and reception and electronics generally, until one recalls that we have a similar problem to face in the ever increasing "man-made radio interference."

Prior to World War II. the authorities were only interested in the problem insofar as it affected the broadcast listener and/or the commercial communications circuits. During the war the problem was brought to the front again with the great concern given to it by the Defence Services. But in spite of this, and in spite of the fact that great strides were made in the science of radio transmission and reception over these years, no major "attack" was made on the problem of interference of a man-made nature—and nothing has been done since!

With due respect, the Wireless Branch of the Postmaster-General's Department has rendered valuable service to the public and the Services in the elimination of interference problems insofar as the limitations of existing legislation will permit them, beyond which authority they cannot be expected to act.

Today the problem is becoming more and more urgent with the rapid expansion of the electronic art encompassing highly specialised and sensitive high frequency equipment used both commercially and militarily, more sensitive domestic receivers, and—of great importance within the next few years—television. With the advent of television, will come interference problems hitherto unknown in this country and the responsible authorities are going to eventually face an irate public if steps are not taken now to eradicate man-made electrical interference.

But of paramount importance is the need for the elimination of such interference as part of our defence preparation because in time of war sites for defence installations cannot be chosen with a view to freedom from interference, but must be where circumstances may demand. The elimination of man-made interference may well prove to be a vital factor in defence should there be another world war, bearing in mind the knowledge we have of the sometimes unsurmountable interference communications had to contend with during the last war.

We say without fear of contradiction that present legislation is inadequate to deal with the problem and that the case demands immediate and courageous action by the Government. The problem must be attacked on the highest political level and the fact that the taxpayer will be involved insofar as he will have to bear the cost of the complete overhaul of the existing electrical undertakings should not deter legislators from initiating an immediate programme of action.

The time has arrived when we feel that nothing further will be achieved by increasing the pile of correspondence already on Government files—only concerted action by those vitally concerned with the elimination of this problem can give impetus to the required legislation.

—FEDERAL EXECUTIVE.

The Contents . . .

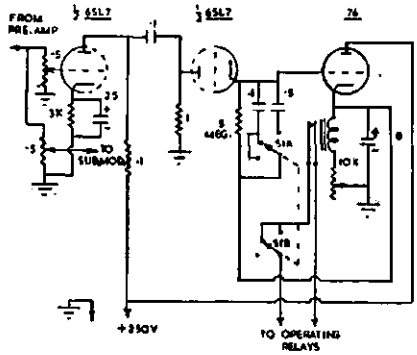
A System of Voice-Controlled Transmitter and Receiver Switching

BY A. J. VERTIGAN,* VK3WB

For rapid break-in and ease of operation it was considered that voice operation of the transmitter and receiver switching would have advantages. Many methods of operation can be devised, but the one to be described can be installed in any relay operated rig without major alterations.

Firstly it is necessary to have relay control of the oscillator, r.f. stages, modulator and antenna change-over. The receiver must also be connected to the system as well. In this case the h.t. feed to the i.f. and r.f. stages is relay controlled. Immediately the transmitter goes off the receiver comes on without any time delay. These relays are, for normal operation, controlled by a switch on the receiver panel. For voice control, another relay, the contacts of which are parallel to the switch is used.

The output of a crystal microphone feeds a two-stage pre-amplifier, consisting of a 6F5 and a 6C5. From this pre-amplifier the output feeds normally to the sub-modulator. It also feeds into one side of a 6SL7 triode through a gain control, which in fact becomes a sensitivity control. The second section of the 6SL7 is connected as a diode and connects through the coupling condenser to the grid of the control tube, type 76. A one megohm resistor is placed from the plate of the diode to ground to discharge the coupling condenser. The cathode of the control tube 76 has the relay operating coil and a 10,000 ohm variable bias resistor in series to ground and by-passed by an 8 uF. condenser.



The time constant components from the grid to the cathode of the 76 are most important. The resistor is 5 megs. A three position switch (S1A-B) is employed to switch the unit into operation and also to change the time constant condensers. The first position cuts the circuit through the relay contacts. The second position closes that circuit and switches the 0.1 uF. condenser across the grid of the 76. The third position replaces the 0.1 uF. with a 0.5 uF. condenser.

With the 0.1 uF. condenser in use, the relay holds closed during normal sentences, but opens immediately speech ceases. With the 0.5 uF. condenser the time lag is much longer. The first position is useful for rapid break-in work, and where such rapid work is not required the second condenser can be used.

The relay used is a small job from disposals and operates on a current of about 3 Ma. (from squelch circuit of 522 receiver).

The adjustment of the equipment is as follows: Set the plate current of the 76 so that the relay contacts are open and an increase of about 1 Ma. will close them. Open the sensitivity control so that normal speech about three inches from the microphone will close the relay. It will be found that adjusting the 10,000 ohm bias resistor will vary the time constant slightly, and this can be set for best operation consistent with the above remarks.

This system has been in operation only a short time and has created a certain amount of interest. The full advantages of voice operated switching can only be realised when two stations are using it in QSO. So, what about it, chaps?

* 78 Queens Road, Melbourne, Victoria.

"THE MATCH-MAKER"

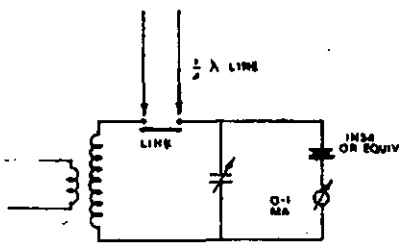
BY C. A. CULLINAN,* VK7XW

No, we are not running a matrimonial agency, so you can show this to the XYL without fear of being told to peel the spuds while she finds out how to marry off Matilda to that elusive Wilfred fellow.

In the design of many antenna systems it is necessary to use quarter wave lines and it frequently becomes difficult to know if a line cut to calculated length is really a quarter wave or a little bit either way. You may be going along quite OK until the Ham down the street starts getting better signal strength reports, then you become a "doubtful Thomas."

However, all is not lost, since this little "Match-Maker" will quickly enable you to adjust that doubtful line until it is a quarter wave, with an exactness that would please everyone except the blokes who have "Integral Calculers" for breakfast each morning instead of good old porridge.

Most Amateurs possess an absorption wavemeter, if not they can construct one quite easily, for this is the basis of the unit.



Reference to the circuit diagram shows that two terminals are placed in the tuned circuit and that a sensitive detector is included in the form of one of the crystal detectors and an 0-1 Ma. meter.

Operation of the device is simplicity itself. The terminals are shorted with a link, the wavemeter is coupled to the transmitter, which should be operating into a dummy load. Coupling can be either direct or via a link.

The wavemeter is accurately tuned to the transmitter with coupling adjusted to give a suitable deflection on the meter.

Next the section of line is attached to the wavemeter terminals, the link removed and the tuning of the wavemeter checked. Any variation in tuning shows that the line is **not** a quarter wave. If the line has originally been cut a bit on the long side it can now be easily pruned to the correct length.

Finality is reached when the tuning of the wavemeter is **exactly** the **same** with either the link or the line connected to the wavemeter.

The line must always be open at the far end as the principle of operation is based on the fact that a quarter wave line which is open-circuited at one end reflects a short circuit at the other end. Therefore if the line is exactly a quarter wave, it can take the place of the shorting link in the wavemeter tuned circuit without upsetting the tuning in the slightest. If you work carefully you will find that even a quarter of an inch snipped off the line will make a difference. So now you can go to it and check your quarter wave line sections easily and cheaply.

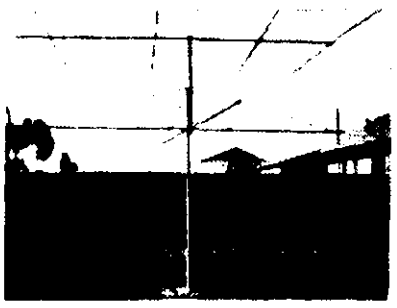
* 12 Montrose Place, Launceston, Tas.

Six Days A Week But Not On Washdays

During the last few months VK5KL's rotary clothes line, on which has been mounted a 50 Mc. four element beam, has become quite famous.

He moved into a new house and had the gear installed in the spare room and was all set to go except for an antenna.

At first a "Halo," loaned from VK5QR, was used, but hearing others working DX he decided to do something about it. The result is shown in the accompanying photograph.



Although only a few feet high, amazing results have been obtained, working VK2, 3, 4, 5, 6, 7 and ZL with only six watts input to the small transmitter—an 1852 and QQCO4/15 combination harmonic oscillator and p.a.

What happens on wash days?

The 300 ohm line, where it feeds the "T" match, is tapped into the poly and dural rod. The bolts are unscrewed and the feed line folded out of the way until the washing is dry, then reconnected.

Yes the neighbors are amazed to see the beam whizzing around above the clothes.

The drilling of a hole, brazing of a nut to the bottom section of piping, and the use of a winged nut to lock the rotating section will suffice for some months until a shack and tower are erected.

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● Please pay your Subscriptions PROMPTLY when due. Failure to do so may result in the loss of valuable issues of "Amateur Radio." High costs of production make it necessary to limit the number of extra copies printed each month.

ADJUSTMENT OF V.H.F. CONVERTER R.F. STAGE

Where a 144 Mc. 6J6 push-pull r.f. amplifier is employed in a converter similar to that described by G2IQ in "Short Wave Magazine," of July, 1950, and August, 1949, the grid dip oscillator may be used as follows for checking the neutralisation as well as for the purpose of checking the resonant frequency of the grid and plate circuits.

On coupling the g.d.o. to the r.f. amplifier grid coil it will most likely be found that two dips occur when tuning the g.d.o. over the range containing the 144 Mc. band. One dip may be more pronounced than the other. The weaker one is due to the effect of the plate tuned circuit reacting back via the unneutralised grid-plate capacity of the valve. The neutralisating condensers should be adjusted until only the resonance dip of the grid circuit remains. The grid coil may now be adjusted to frequency, checking in the normal manner with the g.d.o., and also the plate circuit brought on to frequency with the plate trimmer.

Final checking can be made with the converter switched on, receiving a station near the middle of the band and peaking the circuits for maximum reading on a signal strength indicator on the main receiver.—VK3ABA.

LIST OF COUNTRIES BY PREFIXES

AC3 .... Sikkim
AC4 .... Tibet
AG2 (MF2, IT) .... Trieste
AP .... Pakistan
AR8 .... Lebanon
C .... China
CE .... Chile
CM, CO .... Cuba
CN .... Morocco, French
CP .... Bolivia
CR4 .... Cape Verde Islands
CR5 .... Guinea, Portuguese
CR6 .... Angola
CR7 .... Mozambique
CR8, Goa (Portuguese India)
CR9 .... Macau
CR10 .... Timor, Portuguese
CT1 .... Portugal
CT2 .... Azores Islands
CT3 .... Madeira Islands
CX .... Uruguay
DL .... Germany
DU .... Philippine Islands
EA .... Spain
EA6 .... Balearic Islands
EA8 .... Canary Islands
EA8 .... Rio de Oro
EA9 .... Morocco Spanish
EI .... Eire
EK .... Tangier Zone
EL .... Liberia
EP, EQ .... Iran
ET .... Ethiopia
F .... France
FA .... Algeria
FB8 .... Madagascar
FB8 .... Kerguelen Islands
FB8 .... New Amsterdam Is.
FB8 .... Cormoro Island
FC .... Corsica
FD8 .... Togoland, French
FE8 .... Cameroons, French
FF8 .... French West Africa
FG8 .... Guadeloupe
FI8 .... French Indo-China
FK8 .... New Calendonia
FL8 (MD4) .... Somaliland, French
FM8 .... Martinique
FN .... French India
FO8 .... French Oceania (e.g. Tahiti)
FO8 .... Clipperton Island
FP8 .... Miquelon and St. Pierre Islands
FQ8, French Equator. Africa
FR8 .... Reunion Island
FT4 (3V8) .... Tunisia
FU8 .. New Hebrides, French
FY8 .... Guiana, French, and Inini
G .... England
GC .... Channel Islands
GD .... Isle of Man
GI .... Ireland, Northern
GM .... Scotland
GW .... Wales
HA .... Hungary
HB .... Switzerland
HC .... Ecuador
HC8 .... Galapagos
HE1 .... Liechtenstein
HH .... Haiti
HI .... Dominican Republic
HK .... Colombia
HL .... Korea
HP .... Panama
HR .... Honduras
HS .... Siam
HV .... Vatican City
HZ .... Saudi Arabia (Hejaz and Nejd)
I .... Italy
IS .... Sardinia
IT (AG2, MF2) .... Trieste
JA .... Japan
JT .... Mongolian Republic (Outer)
K (W) .... United States
KB6 .. Baker, Howeland and Am. Phoenix Islands
KC6 .... Caroline Islands
KC6 .. Palau (Pelew) Isls.
KG4 .... Guantenamo
KG6 .... Marianas Islands (Guam)
KG6 .... Bonin and Volcano Islands (Iwo Jima)
KH6 .... Hawaiian Islands
KJ6 .... Johnston Island
KL7 .... Alaska
KM6 .... Midway Island
KP4 .... Puerto Rico
KP6 .... Jarvis Island and Palmyra Group
KR6 .... Ryukyu Islands (Okinawa)
KS4 .... Swan Island
KS6 .... Samoa, American
KV4 .... Virgin Islands
KW6 .... Wake Islands
KX6 .... Marshall Islands
KZ5 .... Canal Zone
LA .... Norway
LU .... Argentina
LX .... Luxemburg
LZ .... Bulgaria
M1 .... San Marino
MB9 (OE) .... Austria
MCI (MD1, MD2, MT2) Libya
MD1 (MC1, MD2, MT2) Libya
MD2 (MCI, MD1, MT2) Libya
MD3 (MI6) .... Eritrea
MD4 (MS4) .... Somaliland, Italian
MD5 (SU) .... Egypt
MD6 (YI) .... Iraq
MD7 (ZC4) .... Cyprus
MF2 (AG2, IT) .... Trieste
MI6 (MD3) .... Eritrea
MP4 (VS9) .... Oman
MP4 .... Bahrein Island
MS4 (MD4) .... Somaliland, Italian
MT2 (MC1, MD1, MD2) Libyra
OA .... Peru
OE (MB9) .... Austria
OH .... Finland
OK .... Czechoslovakia
ON .... Belgium
OQ .... Belgian Congo
OX .... Greenland
OP .... Faeroes, The
OZ .... Denmark
PA .... Netherlands
PJ, Netherlands West Indies
PK .... Java
PK4 .... Sumatra
PK5 .... Borneo, Netherlands
PK6 .... Celebes and Molucca Islands
PK7 .... New Guinea, Netherlands
PX .... Andorra
PY .... Brazil
PZ .... Guiana, Netherlands (Surinam)
SM .... Sweden
SP .... Poland
ST .. Anglo-Egyptian Sudan
SU (MD5) .... Egypt
SV .... Greece
SV .... Crete
SV5 .... Dodecanese Islands (Rhodes)
TA .... Turkey
TF .... Iceland
TG .... Guatemala
TI .... Cocos Island
TI .... Costa Rica
TT .... Tannu Tuva
UA1 .... Franz Josef Land
UA1, 3, 4, 6, 7 .... European R.S.F.S.R.
UA9, 0 .. Asiatic R.S.F.S.R.
UB5 .... Ukraine
UC2 .... Bielorussia
UD6 .... Azerbaijan
UF6 .... Georgia
UG6 .... Armenia
UH8 .... Turkoman
UI8 .... Uzbek
UJ8 .... Tadzhik
UL7 .... Kazakh
UM8 .... Kirghiz
UNI .. Karelo-Finnish Republic
UO5 .... Moldavia
UP2 .... Lithuania
UQ2 .... Latvia
UR2 .... Estonia
VE .... Canada
VK .... Australia
VK1 .... Heard Island
VK1 .... Macquarie Island
VK9 .... New Guinea, Territory of.
VK9 .... Norfolk Island
VK9 .... Papua Territory
VO .... Newfoundland
VO6 .... Labrador
VP1 .... Honduras, British
VP2 .... Leeward Islands
VP2 .... Windward Islands
VP3 .... Guiana, British
VP4 .... Trinidad and Tobago
VP5 .... Cayman Islands
VP5 .... Jamaica
VP5 .... Turks and Caicos Is.
VP6 .... Barbados
VP7 .... Bahama Islands
VP8 .... Falkland Islands
VP8 .... South Georgia
VP8 .. South Orkney Islands
VP8 .. South Sandwich Is.
VP8 .... South Shetland Is.
VP9 .... Bermuda Islands
VQ1 .... Zanzibar
VQ2 .... Rhodesia, Northern
VQ3 .. Tanganyika Territory
VQ4 .... Kenya
VQ5 .... Uganda
VQ8 .... Somaliland, British
VQ8 .... Chagos Islands
VQ8 .... Mauritius
VQ9 .... Seychelles
VR1 .... Gilbert, Ellice, and Ocean Islands
VR2 .... Fiji Islands
VR3 .... Fanning Island (Christmas Island)
VR4 .... Solomon Islands
VR5 .... Tonga (Friendly) Is.
VR6 .... Pitcairn Island
VS1, VS2 .... Malaya
VS3 .. Borneo, British North
VS5 .... Brunei
VS5 .... Sarawak
VS6 .... Hong Kong
VS7 .... Ceylon
VS9 .. Aden and Socotra Is.
VS9 (MP4) .... Oman
VS9 .... Maldire Island
VT1 .... Kuwait
VU .... India
VU4 .... Laccadive Islands
VU5 .... Andaman and Nicobar Islands
VU7 .... Nepal
W (K) .... United States
XE .... Mexico
XZ .... Burma
YA .... Afghanistan
YI (MD6) .... Iraq
YJ .... New Hebrides, British
YK .... Syria
YN .... Nicaragua
YR .... Roumania
YS .... Salvador
YU .... Jugoslavia
YV .... Venezuela
ZA .... Albania
ZB1 .... Malta
ZB2 .... Gibraltar
ZC1 .... Transjordan
ZC2 .... Cocos (Keeling) Is.
ZC3 .... Christmas Island
ZC4 (MD7) .... Cyprus
ZC8 .... Palestine, Arab
ZD1 .... Sierre Leone
ZD2 .... Nigeria
ZD3 .... Gambia
ZD4 .... Gold Coast (British Togoland)
ZD6 .... Nyasaland
ZD7 .... St. Helena
ZD8 .... Ascension Island
ZD9 .... Tristan da Cunha and Gough Islands
ZE .... Rhodesia, Southern
ZK1 .... Cook Island
ZK2 .... Niue
ZL .... New Zealand
ZM .... Samoa, Western
ZP .... Paraguay
ZS .. Union of South Africa
ZS2 .. Marion Island (Prince Edward Island)
ZS3 .... Southwest Africa
ZS7 .... Swaziland
ZS8 .... Basutoland
ZS9 .... Bechuanaland
3A2 .... Menaco
3V8 (FT4) .... Tunisia
4X4 .... Israel
9S4 .... Saarland

Countries With No Allotted Prefixes

Aldabra Islands
Antarctica
Bhutan
Easter Island
Guinea, Spanish
Ifni
Jan Mayen Island
Principe and Sao Thome Is.
Tokelau (Union) Islands
Wrangel Islands
Yemen

AMATEUR CALL SIGNS

ADDITIONS, ALTERATIONS AND DELETIONS FOR MONTH OF APRIL, 1951

ADDITIONS

VK— **New South Wales**

2MZ—W. Cromie, 103 Oyster Bay Rd., Oyster Bay.
2ABP—R. G. Dunford, John St., Coonabarabran.
2AIR—A. J. Smith, 19 Blenheim St., Enfield.
2ALE—M. Strohfeldt, c/o. E. M. Alcock, Fernleigh Av., Burraneer Bay.
2ANI—D. H. Lee, Turriel Point Rd., Dolans Bay.
2ANY—J. M. Harrison, 1 Flat, 17 Merlin St., North Sydney.
2AOQ—D. F. Lloyd, 99 Grafton St., Bondi Junction.
2APE—N. R. Watkins, 7 Stirling St., Dubbo.
2API—M. C. W. Rich, 137 High St., Nth. Sydney.

Victoria

3RF—R. F. Miller, Buln Buln.
3ACX—D. H. Davis, 926 Station St., Box Hill.
3ADO—D. Clarke, 14 Mile End Rd., Carnegie.
3AFD—S. K. Weaver, 2 Riverview Rd., Essendon.
3AMI—M. Akram (Cpl.), R.A.A.F. Station, Ballarat.
3AQG—R. W. Gibb, "The Orchard," Robinawarrah, via Wangaratta.
3AXD—C. C. Burrows, Deschamp Av., Lilydale.

Queensland

4FK—V. F. Kenna, On board vessel "Quest," private address: Allen St., Hamilton.
4HV—H. Vause, 50 Mitchell St., North Ward, Townsville.
4LF—J. R. Lewis, Orchid St., Enoggera, Brisbane
4NQ—N. S. Piermont, c/o. Station 4GL, Longreach.
4OR—K. J. L. Langsdorf, Nobby.
4XL—J. T. Hope, Royal Parade, St. John's Wood, Ashgrove, Brisbane.

South Australia

5CN—A. W. H. Wright, Signals Section, R.A.A.F. Station, Darwin, N.T.
5DE—D. E. Sidler, Governor McDonald Hotel, Salisbury.
5DP—R. E. Padman. 4 Bernard St., Lower Mitcham.
5FO—H. E. Vivian, 68 Livingstone Av., Prospect.
5UA—Adelaide University Radio Club, University of Adelaide, Adelaide.
5VG—D. P. Gooding, 379 Henley Beach Rd., Lockleys, Adelaide.

Western Australia

6HK—D. E. Graham, 110 Edinboro St., Mount Hawthorn.
6UF—F. H. Turner, 74 Chelmsford Rd., Mt. Lawley.

Territories

9FK—R. C. Fawkes, Konedobu, Port Moresby, T.N.G.

ALTERATIONS

VK— **New South Wales**

2FH—Flat 6, "Wirraway," Fairlight Cres., Manly.
2IE—32 Rankin St., Bathurst.
2JD—"Blue Vista," Elizabeth Cres., Newport.
2RP—Lot 3, Pittwater Rd., North Ryde.
2XD—28 Bellevue Ave., West Ryde.
2AIW—3 Woorail Avenue, Kingsgrove.
2AKK—27 Cecil Street, Ryde.
2AND—78 Bridge Street, Lane Cove.

Victoria

3CW—27 Bath Street, Chelsea.
3GJ—177 Bay Street, Port Melbourne.
3GM—Paran Place, Glen Iris, S.E.6.
3MH—1122 Lydiard Street North, Ballarat.
3PX—32 Alma Street, St. Arnaud.
3TA—Natimuk Road, Horsham.
3TV—"Allandale House," Warrigal Rd., Holmesglen, via Ashburton.
3TY—31 Howard Street, Warrnambool.
3TZ—213 Bluff Road, Sandringham.
3VX—10 Maude Street, Carnegie.
3AAN—22 William Street, Glenroy.
3AJZ—1 Henry Street, Box Hill.
3AMC—42 Normanby Road, East Kew.
3AMP—17 Dundas Street, St. Arnaud.
3ANP—Green Street, Carisbrook.
3ARN—R.A.A.F. Station, Ballarat.
3ATA—"Portable," Natimuk Rd., Horsham.

Queensland

4AD—Radio Station 4QL, Longreach.
4GM—M.V. "Melbidir," c/o. Department of Native Affairs, Thursday Island.

South Australia

5KW—Worman Street, Berri.
5RV—12 Dunn Street, Semaphore.
5SL—6 Marshall Street, Berri.
5XK—233 Henley Beach Rd., Torrensville.

Western Australia

6AR—c/o. Department of Civil Aviation, Kalgoorlie.
6FC—Broadcasting Station 6NA, Narrogin.
6GA—c/o. Department of Civil Aviation, Forrest.
6GK—Karridale.
6WG—9 Victoria Street, Albany.

DELETIONS

VK— **New South Wales**

2EG—Cancelled.
2LA—Cancelled.
2LR—Cancelled.
2NQ—Cancelled. Now operating under 4NQ.
2VK—Cancelled.
2ABE—Cancelled.
2ACK—Cancelled.
2ACO—Cancelled.
2ADD—Cancelled. Now operating under 3ACX.
2AFH—Cancelled.
2AFW—Cancelled. Now operating under VK4BE.
2AGG—Cancelled.
2AMY—Cancelled. Now operating under 5DE.
2ARN—Cancelled.
2ARO—Cancelled.
2ASA—Cancelled.
2AVO—Cancelled. Now operating under VK5DJ.

Victoria

3DL—Cancelled.
3ER—Cancelled.
3ET—Cancelled.
3FK—Cancelled. Now operating under 9FK.
3LI—Cancelled.
3NV—Cancelled.
3OL—Cancelled.
3UF—Cancelled.
3AKZ—Cancelled. Call Sign reserved two years from 1/4/51.
3ALZ—Cancelled. Now operating under 3RF.
3AZN—Cancelled.

Queensland

4ER—Cancelled.
4FS—Cancelled.
4MS—Cancelled.
4OW—Cancelled.
4TU—Cancelled. Now operating under 5CN.
4UJ—Cancelled.
4VD—Cancelled.
4ZM—Cancelled. Now operating under 2ALE.

South Australia

5CF—Cancelled.
5HA—Cancelled.
5JR—Cancelled.
5LL—Cancelled.

Western Australia

6BL—Cancelled.
6AJ—Cancelled. Now operating under VK3AJB.
6XH—Cancelled. Now operating under VK2WO.

Tasmania

7PF—Cancelled. Now operating under VK3ABV.

Territories

1HV—Cancelled. Now operating under 4HV.
1YG—Cancelled. Now operating under VK2YG.
9DL—Cancelled. Now operating under 2ANI.
9JC—Cancelled. Now operating under 2MZ.
9NY—Cancelled.—Now operating under 2ANY.
9VX—Cancelled. Now operating under 2API.

AMENDED ADDRESS

In the April issue the address of VK3PL was incorrect. The full details are: VK3PL—John F. Isaac, 263 Bluff Road, Sandringham, Vic.

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ABSTRACTS FROM OVERSEAS MAGAZINES

"SHORT WAVE MAGAZINE," FEBRUARY, 1951

Page 790: **"Crystal Controlled V.H.F. Converter."**—A two metre converter. Circuit: 2 stages using a 12AT7 as r.f./mixer and another 12AT7 as l.f./osc., the crystal used is 7500 Kc. excited at 22.5 Mc. Input arranged for coupling to a balanced 300 ohm feeder. Full description, circuit and photographs.

Page 793: **"Screen Grid Keying Methods."**—Good practical discussion on various circuits and values. Importance of obtaining complete cut-off; control grid bias, and keying characteristics all covered with relevant circuit diagrams. Will be of considerable interest to the c.w. man.

Page 814: **"Calibration Checks on Two Metres"**—Using the BC221 (Bendix) Wavemeter. Check points provided by two strong beats at 3600 and 3625 Kc., with a weaker note at 3650 Kc. corresponding to 144, 145 and 146 Mc. respectively make excellent markers for the two metre band. Full check point data given in table form. Well worth noting.

"CQ," FEBRUARY, 1951

Page 17: **"Radio Wave Propagation," Part 3.**—Concluding a three-part article giving the authoritative low-down on why our high frequencies act as they do. Well written and illustrated. Offers suggestions as to how v.h.f. tropospheric "band openings" may be predicted.

Page 24: **"The Heteronull."**—A tuneable audio nulling amplifier for rejecting heterodynes. Circuit of a heterodyne eliminator operating in the audio frequency range which will be of value for phone work. Tubes used: 6J5, 6K6GT and 6J5. External power supply required; 300 volts B plus and 6.3 heaters.

Page 31: **"Up And At 'Em."**—Encouraging story of a simple vertical half-wave radiator. "Whip" type of construction, thirty-three and one-half feet in length. Full dope on methods of loading (coils) and tuning. Results obtained by author appear very satisfactory. Worth a trial. Used in conjunction with a counterpoise wire.

R.S.G.B. "BULLETIN," FEBRUARY, 1951

Page 286: **"A Switched Wide-Band Exciter," Part II.**—Details the construction, practical modification of the wide-band couplers and the operating conditions to be expected. Well illustrated with photographs and diagrams. Output approximately 3 watts of r.f. on 3.5, 7, 14, 21 and 28 Mc. bands, the output voltage is stated to be constant to within 10 per cent. without tuning adjustments.

Page 291: **"Combined Bias and Control Unit For Break-In Operation."**—Circuit described has been extracted from the American AN/ART 13 Control System and adapted to provide (1) p.a. bias, (2) relay keying of the b.a./f.d. stages of Tx and (3) operation of the relays which require to be "held" during transmission. Tubes: one 6C5 (control valve) and one 6X5 (bias supply). Relays provide automatic change-over, including receiver muting for break-in operation.

(Continued on Page 9)

DX NOTES BY VK4QL

I have very little to report this month, as I have been doing some personal DXing by having some leave and doing a fortnight's tour of the Atherton Tablelands-Cairns area. Was away from all Ham Radio and at times did not hear a b.c.l. set for days. The nearest approach to Ham Radio was the sight of somebody's beam in Cairns. In addition, a trip to Darwin and return, and, due to the short time available, very little on Ham Radio was discussed, altho' I was with 5IR all the time. So, all in all, my time for seeing what the bands were up to have been very limited. In addition, have been trying to make a new exciter, to end all exciters, do what it is intended to do. Fortunately have had quite a bit of assistance this month from the gang, so there is some material for me to work on. I am greatly indebted to the following: 2DG, 2OW, 2YL, 4BG, 7RK for their interesting information and assistance.

The band survey is as follows: 3.5 Mc.—This band has been very poor. Whenever I had a listen, it was hard work to read any of the ZLs that inhabit the band, altho' I was getting good reports from them. Have no news from anybody else on this band.

7 Mc.—This band has collapsed completely. It's rarely possible to hear a reasonable North American signal in the early evenings, never mind work one, and this month have not heard the southern stations working them either. Only one or two weak Europeans and South Africans have been heard in the early mornings or should I say late mornings. Some months ago I made mention of the commercial, RCIF, and his strong signal. Now he is very weak.

14 Mc.—This band is at a very low ebb, and what's more, I have found it almost impossible to work anything much at all. Heard a few good ones, but they all got away, so much so, that I did not work one new country for the month. Have always managed a few each month before. 4BG, who missed out last month's notes owing to their closing early, said the Europeans were coming through from 2000 to 2130 G.M.T., and was hearing the North Americans in the afternoon and after 1100 G.M.T. 7RK has found the best signals coming from VS6 in the evenings, with a few JAs, KL7, and KH6. In the afternoons he finds the usual run of Europeans combined with the Ws, but they have gone by 0900 G.M.T. 2OW is another Ham who has been "re-juvenated," and is very pleased with the DX he has been working and, the band considered, has been doing fairly well. Up here the odd European has been heard mingled with the Ws in the afternoons. After 1100 G.M.T., the odd W and Central American has been heard. In the mornings, round 2100 G.M.T., there have been a few Europeans, strength not good, and very hard to raise. One strange thing is that round this time, I have repeatedly heard signals from all continents at the same strength. Signals from KL7 have been the most consistent heard. On 27th, CT3AN was coming through at 0100 G.M.T., and on 28th, heard again at 0730 G.M.T.

28 Mc.—This band has been a washout here, the only things being heard when I listened were Pacific Island stations. 7RK said he found an opening for a short period on 20th when the ZS phones were quite good. FN8BA, who gave his QTH as Fort Bayard, Kwanchowan, was going one night, but after working a couple of the Pacific stations, QRT and was heard no more. Was quite a good signal here and at 7RK, so whether he was phoney remains to be seen. May be like the AC4 we heard recently. Sailor, VQ3CF, in a letter, says his QTH is a queer place for DX, and is surprised that he can work VK so easily on 7 Mc. (See notes in May issue.) He is situated right at the base of Kilimanjaro Mt. which sticks up for 19,600 ft and its base stretches for 30 or 40 miles.

W6KIP produced some interesting info during one of our QSOs. Possibly the best being the fact that LB5ZC (2OW note), is operating from Jan Mayen. He also said an increasing number of LZ stations are now appearing. The West coast Ws have been finding conditions good for Europe. A station signing W7IEY/KS6 is also supposed to be active, but I have not heard him being called. W6KIP has worked one we are all looking for in FR7ZA. A W6 has also worked a station signing UT1AB, but no QTH was given. EA0AB and EA0AC are heard in the States, and KG6HU has received a card from EA0AB.

The month's listings are: 2DG (14 Mc.)—PJ5TR, KJ6AP, IT1SEM, FM7WF, FG7XA. 2YL (14 Mc.)—YV5CZ, YV5EH, HK1DW, HK4FA, ZK1BC, TA3FAS, HZ1AB, PK5AA, VP5AR, VP5BH, SU1UW, ZM6AA, HR1BG, HH2WP, KM6AV, VP6FO; 7 Mc.—YU2DGI, VQ4CM, VQ3JTW, CT1LZ, ZS2EO; 28 Mc.—HR1KS, ZE2KN, ZS5JN, ZS6TE, ZS6CV, ZS5G. 2OW (14 Mc.)—FN8BA, 9S4AX, LB5ZC, EK1AO, MB9BJ, YS1O, HS1VR, HS1AS, LA, LX, UQ, GC, VP6. 4BG (14 Mc.)—CN8MB, CN8MZ, ZB2BI, KW6AG, YU3FMC, SV0AB, EA8BB, HP1LA, VR4AB, MI3US. 7RK (14 Mc.)—CN8MI, CN8MZ, KJ6AP, KW6AG, UJ8KAA. KP4OF, YS1O, PK5AA, KG4AO, SU1AD, FN8BA, SP1XA. 4QL (14 Mc.)—EA9AI, F9QV/FC, F9JD/FC, YS1O, 3A2AC, LX1AS, EK1AO, 9S4AR, 9S4AX, OQ5LL, FN8BA, YU2AI, C3AB, CP5EK, PJ5HM, PCH53A (Aruba), FF8BA (Box 741 Dakar), KX6AC, ZB2L, CT3AN, MI3SL, KB6AT.

My QSL's received, which have compensated somewhat for the poor conditions, are: ZS8MK, VQ3CF, 4X4BX, ZE3JQ, CP5EK, FF8JC, CR7CI, MP4KW, VP4TB, AP5B, 9S4AL, AR8AB, KC8WD, KW6AR, TA3GVU, TG9AD, ZD4AB, ZB1BE, OX3RG, GW3FSP, ST2TC. Quite a few are for the 7 Mc. band. The countries score—4WH 194/135, 2YL 172/141, 7LZ 150/135, 7RK 140/125, 4QL 152/113.

2AMB is very pleased with himself, having within the last few days worked HK5CR on 7 Mc. Has also received a second QSL from HC8GRC and I can't even get one.

Seeing a number of enquiries have been made as to what material, and how I would like it, for these notes, here is the gen:—(a) The overall conditions of all the bands for the month; (b) What has been worked or heard in the scarcer prefixes. (If I get both I can annotate what is heard and worked in future notes); (c) QSLs received which cause you to remark, "you beaut"; (d) Let me have the material here no later than the 28th of each month; (e) My QTH is Flt./Lt F. T. Hine, No. 10 (G.R.) Squadron, R.A.A.F., Garbutt, Townsville. (Postage: Id. ordinary, 4d. air mail.) Any suggestions as to what else, or changes, in the notes is also acceptable.

● The thought for the month is prompted by my own and others observations, lately, of the number of VKs who don't know or don't care that there is a "Gentlemen's Agreement" in operation in VK to keep 7000-7050, 14000-14100, 28000-28100 Kc. clear of all telephony transmissions. Cheers until next month.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3EE	10	158	VK3JE	7	123
VK3JD	1	155	VK4JP	8	114
VK6RU	2	147	VK3AWW	14	112
VK6KW	4	145	VK4WJ	17	104
VK3BZ	3	141	VK2ADT	13	102
VK4HR	12	140	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK3LN	11	132	VK3GG	18	100
VK8DD	8	128	VK3IG	5	100

CW

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK3UM	12	116
VK3FH	15	160	VK4FJ	29	115
VK4EL	9	158	VK3XK	30	114
VK2EO	2	152	VK4DA	7	113
VK3CN	1	151	VK7LZ	17	112
VK6SA	28	150	VK5BO	33	116
VK2QL	5	141	VK4RC	13	107
VK4HR	8	141	VK3YD	27	105
VK3VW	4	140	VK5FH	31	105
VK3KB	10	138	VK2YC	34	103
VK2GW	16	132	VK3APA	14	101
VK6RU	18	132	VK3NC	19	101
VK5RX	23	128	VK3CX	28	101
VK4RF	11	125	VK2OA	32	101
VK3JE	21	124	VK7RK	22	100
VK3EK	3	122	VK7LJ	24	100
VK4DO	20	119	VK2AEZ	35	100
VK3JI	25	118			

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK7LZ	23	116
VK4HR	7	182	VK3JA	43	114
VK3JE	12	180	VK2ADT	14	113
VK6RU	8	179	VK3VQ	46	112
VK3HG	3	171	VK4RC	21	110
VK3KX	1	167	VK3ZB	34	110
VK6KW	13	165	VK4WF	40	109
VK2DI	2	160	VK2ZC	25	108
VK4EL	10	158	VK2YL	11	106
VK4KS	24	149	VK3AWN	36	105
VK4DO	15	147	VK2VN	18	104
VK5FL	28	143	VK4UL	27	104
VK3MC	5	139	VK6PJ	44	104
VK3OP	19	137	VK2HZ	17	103
VK6DD	22	136	VK7KB	30	103
VK3LN	29	135	VK2TI	37	103
VK4FJ	32	135	VK3HO	38	103
VK2ADE	28	133	VK6DX	42	103
VK2AHA	9	128	VK7RK	31	102
VK2AHM	20	125	VK4TY	35	102
VK2NS	16	123	VK2ACX	6	100
VK3JI	33	119	VK2TG	39	100
VK3HT	41	117	VK3AWW	45	100

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

JULY, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

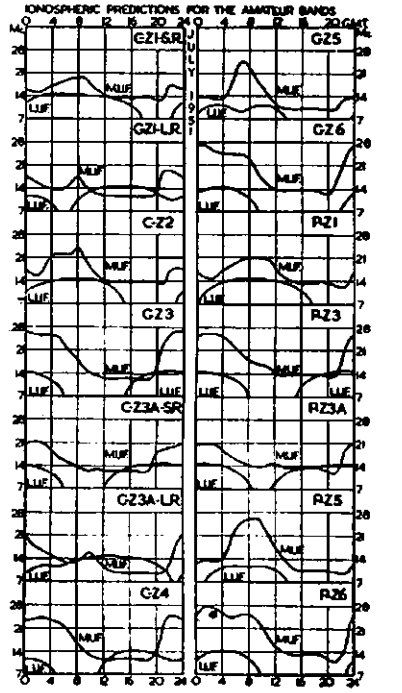
The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

The Prediction Service welcomes comments on the accuracy of its predictions. These should be forwarded through the W.I.A.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

A large gathering was present at the May meeting of the Victorian V.H.F. Group and enjoyed a very interesting talk by Mr. Ashton, of the Weather Bureau, whose command of his subject, together with his ability to impart his knowledge, combined to make our usually interesting meeting even more so. The influence of high and low pressure areas on the movements of air was explained, and it was seen that conditions in the atmosphere causing the refractive index to be favourable for DX working are much more likely to occur after a high pressure area has passed to the east, but before the influence of the following low pressure areas is felt than at other times.

This is borne out by the results of contacts on 144 Mc. between 3XA and 7KB; signal strengths being good when the centre of the "high" had passed over, and weak when the centre of the "low" had passed. Unfortunately, the weather map does not give a true and complete picture, nor is it possible to observe without the aid of instruments and other data just when conditions may be good, but the Weather Bureau welcomes enquiries, and should good conditions be suspected a phone call to them will enable verification of temperature inversions, etc., and their location to be obtained. Mr. Ashton has been booked to give a talk at an early general meeting.

The May V.H.F. meeting of the N.S.W. Division, held at Science House, was devoted to a lecture by Mr. C. A. Lucas, of Philips, who spoke on v.h.f. transmitting valves. Quite a number of interesting points emerged during the lecture and subsequent barrage of questions. The lecturer stated that the shelf life of transmitting valves was considered to be approximately five years! This news was received with considerable consternation by those who have been saving up choice valves, such as the 829, etc., and for some days after the meeting quite a few of the chaps were heard talking about running said valves for a while to clear up the gas. The lecture was well received by those present and a vote of thanks enthusiastically carried.

During general business, it was announced that Mr. Bill Bardin, 2ABZ, had donated a cup to be awarded for mobile work. Details of just how this cup shall be awarded will be decided at the June meeting.

The matter of a certificate for working 100 stations on the v.h.f. bands, as proposed by the Victorian V.H.F. Group was discussed and revealed that VK2 members agree with the scheme and will support any moves made in this direction.

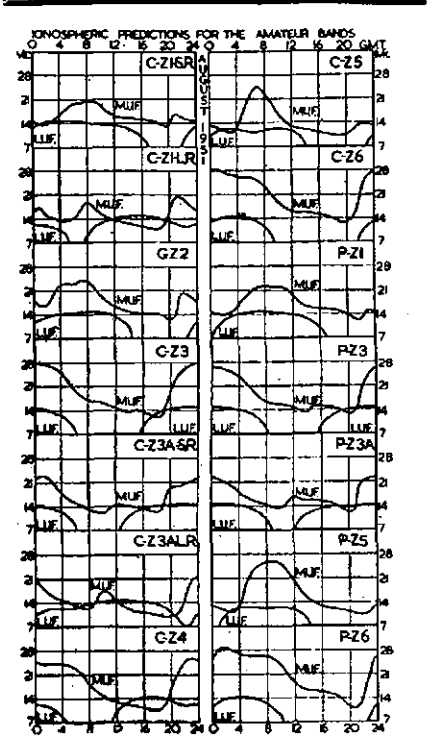
After a discussion on the recent field day, it was decided to hold a second one some time during the spring. This gives a nicely timed programme for the year, viz.: Summer, the Ross Hull Memorial Contest on 50 Mc.; Autumn, V.H.F. Field Day; Winter, 144 Mc. Contest; Spring, V.H.F. Field Day.

For the benefit of country members and others, the V.H.F. Section have announced their readiness to calibrate absorption wavemeters for any one of the v.h.f. bands. Anyone desiring to avail themselves of this service should contact the Secretary of the V.H.F. Section, 30 Noble Street, Hurstville, N.S.W.

The 1951 144 Mc. Contest is to be held on the following week-ends in July: 7-8, 14-15, and 21/22, and will follow closely the rules for last year. Details over 2WI. So it is time to polish up that gear and get ready for the fray. Sixty-three stations took part last year and it is hoped even more will enter this year.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	13	3
VK4RY	2	2
VK2VW	9	2
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK5LC	1	
VK2ABC	8	



50 Mc. ACTIVITY

New South Wales: This band has been very poor for the last few weeks, most of the old occupants having transferred their attentions to 144 Mc. 2ABD is a new station on the band who has created considerable interest with the phase modulated signal which certainly sounds good. Colin spent the first week of his 50 Mc. activities explaining how the p.m. works. 2YM has made a start on the six metre rig and proposes to use the 6J6/815 combination. 2RU is gathering his records and notes on 50 Mc. propagation and intends visiting Sydney for the July meeting of the V.H.F. Section. A speaker from the Radio Physics Laboratories will be giving a talk on v.h.f. propagation, with particular emphasis on the movement of sporadic "E" clouds.

The northern stations have been heard a little more frequently of late and 2WI recently contacted four of them following the Sunday evening broadcast. 2LS has found the band again after having lost it on his Rx.

South Australia: Activity on 288 Mc. has slackened off considerably during the month and quite a few are appearing back on 50 Mc. as well as a few new ones. Welcomed to 50 Mc. was 5XL, Clare, whose signal is real good here in the city and was heard the first night on, working 5GF and 5RT. Pleased to have you 5XL and hope you will encourage more country chaps on with your success. 5BZ is also a new signal on 50 Mc. and putting out a nice signal. 5MK heard back on 50, also 5RO, the latter nibbling at 80 metres as well.

The predicted winter openings have occurred and VK2 and VK7 were heard on 60 Mc. during the week-end of 2nd June. 5HD/5BC schedules are still kept. 5HD has been trying a 4 x 4, but had to lower it due to vibration annoying the next door neighbours. Bill has a very nice combined 50/144 Mc. xtal converter feeding a Command Rx. 5QR busy building a low freq. Rx to feed his xtal converters into. 5XA, Gawler, heard QSO 5QR on 50 Mc., signal seemed improved in strength. 5JD is away in VK3 on leave and defence course.

There has been no reports of activity on 144 Mc. so take it this band is getting by-passed at the moment. 5ZR has a good signal on 288 Mc. 5FM heard on 50 Mc., thought you were giving it away Pete? 5MD is quite a regular now. 5BC heard on c.w. QSO. 5HD has also QSOed 5XL.

Rules for a V.H.F. Contest are being drawn up and all enthusiasts are awaiting publication. Something new and ingenious is awaited instead of the usual sterotype rules of all contests of recent years.

144 Mc. DOINGS OF THE MONTH

New South Wales: Most interesting item this month is the report from 2YL that he heard a W station on 144 Mc. Harry was able to obtain the call sign of the station heard and the station being worked so has sent an airmail letter to the U.S.A. for verification.

144 Mc. continues to attract new stations and the list this month is as follows: 2AHP, 2AOK, 2ADQ, 2AMZ and 2AIG. 2AOK and 2AMZ have not yet been heard at this location but the others all put in fine signals. Both 2AHP and 2ADQ are using 522 transmitters and 2AIG is using a small portable job with 7193s in the final. Ray 2AIG reports that the Oriental gentleman, 2ASE, is preparing for an attack on 144 Mc.

2MQ been battling with a 522 Tx for 2BM and we report the battle successful. Mobile work is still creating interest, though the cold weather is hardly suitable for wandering around the countryside at night. 2NP was heard on a mobile expedition. 2ABZ also went mobile. 2YM and 2ANF worked mobile to mobile over a distance of 60 miles with halo aerials at each station. 2YM was proceeding towards Sydney from Mt. Gibraltar near Bowral, and 2ANF was at Pennant Hills. Sigs were S8-9 both ways. 2AWZ is now heard quite frequently.

Victoria: The next Group meeting is on Wednesday, 18th July, at which 3GU, Harry Chapman, will talk on his new binomial beam antenna. Chief item of general business at the May meeting was the announcement of the Field Day Contest results and the presentation of prizes to the winners. Contrary to these notes last month, only 13 stations returned logs, a very poor show considering the number of stations that were active. First three stations in each section were: portable—3YS, 128 points; 3GM, 124; 3FO, 89; and Home—3EN, 58; 3ED, 36; 3ACH, 28. Three tubes had been donated as prizes, namely a 100TH, 832 and 801. They were awarded as follows: 3YS, 832; 3EN, 100TH; and as a consolation prize for having put up such a good show in the portable section the 801 was awarded to 3GM.

Conditions on 144 Mc. during the first week in June were better than average and coincided with the slow moving eastwards of a high pressure area. 3UI at Tatura and 3APF at Shepparton worked into Melbourne; 3YS, 3IM and 3XA being worked, and 3DA and 3AKE being heard. 3UG at Rye now using a QQE06/40, 8 element "Lenfo" and about 70 watts. 3AAK using mod. osc., 3AAG using 522, 3LD using 522, while 3WY with keyed carrier and tone is the most recent arrival. Another Contest may be announced shortly; the prize, a pair 24Gs, the band 576 Mc. More details later.

576 MEGACYCLES

N.S.W.: Only item of news from this band is the report that 2DF and 2WJ are carrying out a test to determine what effect a change of polarisation has on the signals. 2DF has identical horizontal and vertical arrays and 2WJ is going to turn his array over to horizontal. To date no reports have been received of the results of the tests, but they should prove interesting. The popular multi-element arrays are unfortunately rather sharp owing to the large number of broadside elements, whereas if they were turned over to horizontal, the sharpness would decrease, the high directivity being then confined to the vertical plane to give a lower angle of radiation.

Acknowledgments to VKs 2ANF, 3JO, 5KL.

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Abstracts from Overseas Magazines

(Continued from Page 7)

"SHORT WAVE NEWS," FEBRUARY, 1951

Page 324: **"An EF54 Preselector."**—Straightforward circuit of a voltage amplifier. R.f. gain control is inserted in the cathode lead for improved stability. Should be a good aid to DX listening for a small outlay in parts.

Page 332: **"V.H.F. Aerials—Are We On The Right Track?"**—A presentation of known facts dealing with v.h.f. propagation. Examination of various factors relating to ionospheric conditions. Well illustrated by means of charts. The theory of the existence of the E layer having some effect on 144 Mc. signals discussed.

"SHORT WAVE NEWS," MARCH, 1951

Page 382: **"General Purpose Short Wave Receiver."**—Constructional article. Circuit line-up: r.f. amp., regen. det., audio amp. push-pull output pentodes and full wave rectifier. Tube line-up: EF92, EF91, EF91, EL91, EL91, and GZ32—all English types but substitute local or American equivalents probably available here. Interest to s.w.l's.

Page 370: **"A Useful Test Instrument."**—Circuit: An oscillator which may be modulated at will together with a one-valve amplifier built around an ex-govt. Impedance Matching Unit Type 145. Applications as wavemeter, signal generator, single tube audio amp. and signal tracer. Tubes: 1T4, 1T4, and 3S4. Full description and circuit—should be very valuable around the shack. External power supply required.

Page 374: **"L.T. From The Mains."**—Circuit: Full wave bridge selenium rectifier from 15 v. 2a. secondary winding of main trans. Large capacity (low voltage) smoothing condensers essential and home-constructed iron-cored choke. Useful for various battery receivers with drain up to 1.6 amps.

Remembrance Day Contest, 1951

The Remembrance Day Contest is an Australian annual contest to perpetuate the memory of those Australian Amateurs who gave their lives for their country during World War II. It is held on the week-end nearest to the 15th August in each year, the date on which hostilities ceased in the S.W.P.A.

A handsome Perpetual Trophy is awarded annually for competition between States, inscribed with the names of those who made the supreme sacrifice, and so perpetuating their memory throughout Amateur Radio in Australia. The name of the winning State each year is also inscribed on the Trophy.

RULES

1. The Contest will commence at 1800 hours E.A.S.T. on 11th August and continue through until 1759 hours on the 12th August. The period of operation of any station is limited to any twelve consecutive hours within the 24 hours set down.

2. The Contest is open to all Australian Amateurs, but only members of the W.I.A. are eligible for the awards.

3. The Contest is an open event—c.w., phone, or a combination of both may be used.

4. The Contest is an Interstate Contest, and Amateurs in each State will endeavour to contact Amateurs in all other States.

5. A station may be operated by more than one operator provided that a separate log is entered for each operator under his own call sign.

6. All existing Amateur Bands may be used, and all transmissions must conform with the Regulations as laid down in the P.M.G's. "Handbook For The Guidance Of Operators Of Amateur Wireless Stations." Any breaches of these will lead to the disqualification of the operator concerned.

7. The arrangements of schedules for contacts on other bands will not be permitted.

8. All stations entering the Contest will call "CQ RD" if using c.w., and "CQ Remembrance Day" if using phone.

9. A State competing for the Trophy must submit a minimum of six (6) logs from financial members before becoming eligible for contesting the Trophy.

10. Only one contact per station per band is permitted.

11. Serial numbers to be exchanged during the Contest will be as follows:—

(a) For c.w. the first three figures will be the RST (telegraphy) report, followed by the serial number of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact. If any contestant reaches 999 he will then commence 001 and continue 002, 003, 004, etc.

(b) For phone the first two figures will be the RS (telephony) report, followed by the serial number of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact. If any contestant reaches 999, he will then commence 001 and continue 002, 003, 004, etc.

A complete exchange of serial numbers must take place before any points may be claimed for the contact.

SCORING

12. In order that an equitable distribution of points for States with a large number of contestants compared to a State with fewer contestants may be determined, a sliding scale of points has been allotted as shown in the scoring table appended.

13. In addition to the points in the scoring table that may be scored by a contestant, a bonus of 25 points may be added to the total score for each State worked on 50 Mc. or above.

LOGS

14. The log submitted must show in the following order:—Date, time, band, emission, incoming signal's call sign and RST/No., my RST/No., time of QSO, points claimed. No log will be accepted unless laid out in this order!

15. A statement signed by the operator must be attached at the conclusion of the log stating that the Regulations (Rule 6) and these rules have been observed. Any logs departing from this form will automatically be disqualified.

16. All logs must be forwarded through the Contestant's Divisional Council (for membership checking) to reach the Federal Contest Committee, Box 1734, G.P.O., Sydney, on or before 4th September, 1951.

AWARDS

17. Attractive certificates will be awarded to the first, second and third highest in each State; there will be no outright winner for Australia. Where a large number of logs are received from any one State further certificates may be awarded at the discretion of the Contest Committee.

TROPHY

18. The State to which the Perpetual Trophy will be awarded shall be determined as follows: To the average of the top six (6) logs shall be added a bonus arrived at by multiplying this average by the ratio of valid logs submitted by that State to the total of Amateur Licensees in the Division at the time of the Contest.

Example, Total points equals—

$$\text{Average Score} \left(1 \text{ plus } \frac{\text{Number of Logs}}{\text{Number of licensees in Division}} \right)$$

19. The logs which will be accepted for the multiplier under Rule 18 shall show at least five (5) contacts in the Contest.

20. The Trophy shall be forwarded to the winning State in its container and will be held by that State for a period of twelve (12) months when the winner for the succeeding year is determined.

21. The Federal Contest Committee shall be the sole adjudicators, and their ruling will be binding in the case of any dispute.

SCORING TABLE

From \ To	VK2	VK3	VK4	VK5	VK6	VK7	VK9	Total
VK2	–	1	2	3	5	4	6	21
VK3	1	–	3	2	5	4	6	21
VK4	1	2	–	3	6	5	4	21
VK5	2	1	3	–	5	4	6	21
VK6	1	2	4	3	–	5	6	21
VK7	2	1	4	3	5	–	6	21
VK9	1	2	3	4	5	6	–	21

NOTE.—Read the table from left to right for points for the various States.

Examples:—

A VK2 scores 1 point for a VK3 contact.
2 " " " VK4 "
3 " " " VK5 "
A VK6 scores 1 " " " VK2 "
2 " " " VK3 "
4 " " " VK4 "

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: G. GLOVER (VK3AG); Federal Secretary: G. M. HULL (VK3ZS); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: J. Corbin, VK2YC.
Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
Divisional Sub-Editor: Don B. Knock, VK2NO, 43 Yanko Avenue, Waverley, Sydney.
Zone Correspondents: North Coast and Tablelands: J. M. Retallick, VK2XO, Raleigh; Newcastle: H. Whyte, VK2AHA, Vale St., Birmingham Gardens, Newcastle; Coalfields & Lakes: H. Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cumbilojowa, Forbes; South Coast and Southern: R. H. Rayner, VK2DO, 42 Pettit St., Yass; Western Suburbs: A. C. Fearce, VK2AHB, 131A Balmain Rd., Leichhardt; Eastern Suburbs: D. B. Knock, VK2NO, 43 Yanko Ave., Waverley; North Sydney: L. D. Cuffe, VK2AM 779 Military Rd., Mosman; St. George: J. A. Ackerman, VK2ALG, 32 Park Rd., Carlton; South Sydney: V. H. Wilson, VK2VW, Cr. Wilson St. and Marine Pde., Maroubra.

VICTORIA

President: G. S. C. Semmens, VK3GS.
Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).
Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.
Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, c/o. Victory Theatre, Tatura; Far North West.: M. Folie, VK3GZ, 101 Lemon Ave., Mildura: Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7085 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.
Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.
Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuram Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.
Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.
Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.
Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.
Meeting Night: Third Tuesday of each month.
Divisional Sub-Editor: Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President: J. Brown, VK7BJ.
Secretary: R. D. O'May, VK7OM, Box 371B G.P.O., Hobart.
Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.
North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

FEDERAL

WHISPERS!

Whispers are funny things; they are a form of communication that move around very silently and are reflected off more ears than our radio waves are reflected off layers of ionised atmosphere. Sometimes they never reach any specific point—other times they reach a point where they can utilise themselves to effect. But most times they become split and in the course of traversing their divergent paths become somewhat distorted.

This may all sound most peculiar, but it's a fact nevertheless, the point being that Federal Executive has received one or two of these divergent whispers. Having been received, mixed and detected, the audio component has been reproduced. And do you know what it said?

It said broadly, that the members of Federal Executive were an odd bunch of people—recluses from some ethereal world of their own not known to earthly people. Have you ever heard the like?

But it made us ponder just the same. Perhaps we have been too engrossed in the affairs of the Institute to notice that we were gradually becoming shrouded in the mists of officialdom! Or perhaps it has been thought that, being Federal Executive, we should not speak with the earthly people! Perhaps we have even been thought of as anybody but Amateurs! What a funny world.

Gentlemen, let us state right here and now, that, far from being mortals from some far removed world, we are composed of good old Australian flesh and blood—at least we claim so since we were mostly born and bred here. And let us hasten to add, most of us are even active Amateurs like yourselves, bitten with the same bug, coming up against the same technical problems, having the same fun and experience getting rid of them. Yes sir! We're normal earthly beings alright.

Admittedly we don't advertise ourselves over the air, so you can say we are secretive to that extent. But should we have to? Our names and call signs have been printed in the magazine scores of times; they're even in the call sign book with the correct address, believe it or not! Can you imagine how many times you must have read about us—or do you bother to read about us and our doings? Do you know that most of us can even find time to attend our Headquarters' Divisional meetings—just to sort of take an interest in what's going on down there?

But say, we hear all sorts of rumours that some of you Interstate boys periodically visit our picturesque metropolis! It's a lovely city you know—beautiful multi-element stacked arrays, great steel towers gracing the skyline even unto the country areas, long vee shaped wire arrangements that . . . excuse us please. We might appear fools to the multitude, but we can still appreciate a pretty picture.

Joking aside though, why not make our acquaintance some time boys? Surely you can't say that the blame is all on our side! If you do, then we must hasten to assure you that our shack doors—and our front doors—are open any time to newcomers and old-timers alike. You won't find us half the ethereal recluses that the whisper waves have distorted us into—in fact you'll find us just plain everyday Australian type of people ready to receive you with a firm handshake and the true Amateur-like hospitality. If you don't believe us look us up some time—

George Glover, VK3AG, 54 Watt Street, Box Hill (WX 3440).
Max Hull, VK3ZS, 22 Dryden Street, Canterbury (WF 7097).
George Manning, VK3XJ, 59 Type Street, Richmond (JA 5504).
Bill Gronow, VK3WG, 2 Anthony Street, Glen Iris (U 4285).
Gordon Weynton, VK3XU, c/o. Castlemaine Woollen Mills, Castlemaine.
Perc Evans, VK3OZ, 5 Howitt Street, Glen Iris (WM 4929).

Oh! And before we forget, we talk your language too! Yep! Whispers sure are funny things, but you can phase them out if you try.

THOSE CERTIFICATES

Due to a proponderance of administration to attend to these last few months, it has been a difficult task to check the 1951 National Field Day logs. However, these are all but completed and will be published in the August issue of "Amateur Radio."

It is also requested that patience be the virtue of those who were successful in gaining places in the V.H.F. Ross A. Hull Memorial Contest and are awaiting the issuance of certificates. Since great importance is attached to this Contest, Federal Executive desire that the certificate be of a higher standard. There being no certificate in existence at the time of the Contest, it was unanimously agreed that now was the time to commence a programme of "certificate improvement." Unfortunately, the times dictate a slow delivery on anything in the sphere of printing and hence the request for patience. It is thought that the reward will be worth waiting for.

Federal Executive are holding a sizeable stock of certificates awarded for various achievements, but plans have already been implemented to gradually replace these with a certificate of higher standard as the stocks become exhausted.

W.I.A. ACTIVITIES CALENDAR

July 8: R.S.G.B. Two Metre Field Day Contest.
August 11-12: Remembrance Day Contest.
October 13-14: VK-ZL Jubilee Contest (C.W. Section).
October 20-21: VK-ZL Jubilee Contest (Phone Section).

GOVERNMENT GRANT OF £250 FOR 1951 VK-ZL CONTEST

Confirmation has been received with relation to a Government grant of £250 to be spent on the 1951 VK-ZL Contest to celebrate Jubilee year. The rules of the Contest will be published in the August issue of the magazine under the heading "The 1951 VK-ZL Jubilee International DX Contest." Complete details of the Contest, together with the prizes, advertising and other awards, are at present being worked out by the Federal Contest Committee who have been co-opted from the New South Wales Division for the following year under the terms of the 1951 Convention.

The boys in New South Wales are really moving on this Contest and we can assure you fellows that it will be well worth entering for this year. The success of this year's Contest is important for two reasons, firstly, and most important, the advantage of having Government support for a W.I.A. Contest to celebrate the Jubilee, and secondly, this is the first time under existing administration that Federal Executive has co-opted a Committee outside of the Headquarters' Division. So give them all the support they rightly deserve fellows, and do your "bit" to make this year's Contest **an outstanding success.**

The W.I.A. are proud of the fact that this grant has been made available to them and thanks are due to the New South Wales Divisional Council who were responsible for obtaining it.

ZLs ON 40 METRE PHONE

Although neither the Postmaster-General's Department nor Federal Executive have been officially notified of the fact at the time of going to press that the ZLs are now licensed to operate phone on the 40 metre band, it is fairly evident, from reports heard on the air, that they have been granted this privilege within the gentlemen's agreement band from and including 7050 to 7200 Kc. This should prove a major event in encouraging greater population of this band.

REMEMBRANCE DAY CONTEST

The Remembrance Day Contest commences on 11th August and it is hoped to have a bigger and better participation this year. The Convention agreed to a change in scoring procedure with a view to encouraging the larger States, so F.E. does ask you all to "be in it" and make it another outstanding success for the year. Remember the thought behind it—Lest We Forget.

NEW COUNTRY

9S4 Saarland is now recognised as a separate country and can be added to your DX lists.

F.E.A.R.L. NEWS

The news bulletin of the Far East Amateur Radio League has been received by Federal Executive, together with the details and samples of two certificates available for DX proficiency. For VK stations to earn the awards, seven out of a possible nine JA districts are necessary for the W.A.J.A.D. (Worked All Japanese Amateur Districts) award, and any five JA stations are necessary for the W.F.J.S. (Worked Five Japan Stations) award. Any members desiring to claim these awards must forward the necessary cards to the QSL Manager, JA2HB, W. H. Cunniff, QSL Bureau, F.E.A.R.L., A.P.O. 500, San Francisco, California.

SILENT KEY

It is with deep regret that we record the passing of:—

VK2UF—Frank Tarrant, of Cooks Hill, Newcastle, N.S.W.

VK3UR—Vic. Smith, 350 Wellington Street, Collingwood, Vic.

ACCURATE FREQUENCY TRANSMISSION RESULTS

The following is the official results of the Accurate Frequency Transmission from VK3WI on 24th May on the 3.5 Mc. band.

Frequency		Error
3500	Kilocycles	—80 Cycles
3530	,,	—40 ,,
3560	,,	+10 ,,
3590	,,	+35 ,,
3620	,,	+30 ,,
3650	,,	—10 ,,
3680	,,	+20 ,,
3710	,,	+60 ,,
3740	,,	—10 ,,
3770	,,	+60 ,,
3800	,,	+20 ,,

— . . . —

NEW SOUTH WALES

EAST SYDNEY AND SOUTHERN SUBURBS

Walking along the road I blew into that grizzled old timer, Malcolm Perry, of early day Waverley Club fame—one of the pioneers. Mal is no longer active in the world of Amateur Radio, but takes a keen interest nevertheless in what the young fellas are doing.

Members of Waverley Club, 2BV, have been heard making cross-band tests with 2AFZ on 2 metres; not apparently, with much success.

Andy 2AX had an unusual accident; doing a job in his daily toil, Andy nearly dropped a Hallicrafter's Rx and in saving that from damage, cut his head rather badly. 2ABD figured recently in the reception of distress signals from a disabled 300 ton motor vessel off the North Eastern Coast. He is using a presently-popular system of n.b.f.m. and many of the gang are sitting up and taking notice of it. A new station in the Bondi area is Joe Howie, active on 40 and 20 phone with the call sign 2AYH.

Transmission was tested one night at 2NO's location when Cec Cronan, of v.h.f. fame, brought along his splendidly engineered 580 Mc. outfit. Although the only station worked was 2WJ, four miles distant, signals were S9 plus. 2NO would like to find the time to get going on the band and is hoping. Ivan 2TN is heard at intervals on 40 phone with a good transmission, but you need to keep back from that mike a bit OM, otherwise the granules seem to "zizz" a bit. 2ASE is very proud of his "rogues gallery;" a collection of photos and cards of Amateurs who have visited him.

Alf 2CE is braving the b.c.l's. on 40 phone, but like many other wise men, only uses the band "in between serials." He has a natty little 144 Mc. Tx-Rx in his car, using a 6C4-12A6 combination powered from the vibrator supply which delivers h.t. for the car's broadcast Rx. Wal 2SA told his harmonic that a pile of old magazines could be got rid of. Which would have been OK excepting that QST's back to 1926 went into the bonfire; sheer sacrilege says this scribe! A trio of OT's heard in Sunday morning confab on 40 were VK's 2SA, 2RF and 2NO; comparing notes on "them was the days." Visitors to the scribe's station have been Bob 2ST and Chas 2CH.

2NO is using successfully on 40 and 80 a phase modulation scheme described originally in "QST" for January, 1947, and in 1948 in the American "Radio and Television News", by W6EBT. It really works well as 2ABD demonstrated firstly, and minimises b.c.i. very considerably. In company with 2CM, 2NO has been holidaying in the north west of the State with Ray 2HC. Heard on 20 metre phone was Bill 2BC, that ardent brass pounder. Yes, it's true, but not from his own station, he was giving a helping hand to newcomer 2AYH, Joe Howie.

Tony 2IH heard with excellent transmission, believe he has taken on a new hobby—sailing boats. Phil 2PR puts out a nice signal on 40 phone. 2AGA has just about got settled down in his new QTH at Sylvania and will operate his rig in the garage by remote control. He is a real Ham, for that is his name—Tom Ham.

Pleased with his 40 metre soldier's dixie midget, Ray 2AIG has nearly completed another midget for 20 metres. The 813 and the tank coil on the top of the lid certainly looks very business-like. Ron 2WX will be moving into a new QTH very soon. Ted 2AHQ had a look at his rig the other day and threatened he would be on the air again very soon. On the evening of 26th May, a miniature hamfest was held at 2AX's, and those present were 2AX, 2ARR, 2RF, 2CE, 2CF, 2MB, 2ALB, 2ASE, 2WF and 2NO. The "spread" prepared so ably by Andy's XYL, Kay, was something to be remembered and highlights of the evening were provided by the indefatigable Graham 2ARR, armed with his never-to-be-forgotten wire recorder.

WESTERN SUBURBS

2ACD is Secretary and Publicity Officer for the Experimental Radio Society of N.S.W. which now meets in Mitchell Street, Enfield, on alternate Thursday nights. On the other Thursday no meeting is conducted but the night is given over to the construction of club gear, which it is hoped to have on the air again very shortly. Unfortunately the Society has to vacate the premises by July, but is hoping to find other accommodation by that time.

2AHU off the air on constructional work at present. 2AAB just getting going on 7 and 14 with a new Tx, 100 watts coming up soon. 2AIR is new call from Enfield on 7 Mc., doing a good job with a Command Tx, but has been having modulation troubles. 2ALO, 28 Mc. addict, is getting good results with his beam. Jesse 2QC is still heard around the bands, mostly on 28 and 14 Mc. 2PX still pounding the key on the old stamping ground as usual, gets some good cards. 2MH now located at Strathfield and not on 10 these days, operates on 40 for locals these days.

2AHP, the chap with the big signal, hopes to get some kind of beam in the air in the near future. Harry 2OQ is getting fine results with his beam and 40 watts, has been troubled with water in the elements recently. Ben 2AJE is off the air owing to a present lack of enthusiasm. 2APT knocking the Ws off on the quota system, just one a night these days. 2NJ playing around with phase modulation and rotary folded dipole. 2XH also having a good time with the phase set up, with success.

SOUTH COAST AND SOUTHERN

The Sunday morning zone hook-up is slowly getting under way and last time had six stations in all parts of the zone. 2BQ, 2OW, 2AFP, 2ON, 2DY and 2DO were stations taking part. 2AKY at Holbrook took over whilst Z.O. was absent, Toby evidently tied down with C.A. work some week-ends and not able to make the hook-up every week-end. Lindsay 2ON has home-made tape recorder in action; c.r.o. also under way. 2OW has 813 to be used on 20 DX of which Gordon seems to be getting his share; has 53 countries contacted post-war. 2APP been away on holidays in Sydney and had a Command Tx and small Rx with him; made a few contacts under the 2APP/P call. Peter has big rig just about finished and should be soon on with 100 watts.

2AMD has phase modulation operating on all bands; Howard uses portion of his all-band rig for 40. 2DY on 80 using Army 101 with 15 watts input; Eric also using phase mod. and puts out nice signal. 3ML/P running 2 watts input and using t.r.f. Rx. (What, no Eddystone!) Visitors this month were Malcolm 2HT, who says Ham Radio is out; Mal has little time to spare and looks as if he means it. Other visitor was Bob 2XP, of Dubbo, who regularly visits Burrinjuck Dam to service the radio gear. Ross 2PN was heard on 40 whilst transmitting on 6. The reason: Geoff 2BQ was on 40 and Ross' 6 metre beam was directed at Geoff's antenna; Ross on six was modulating Geoff's signal! Cheap way to work two bands.

Don't forget 7175 Kc. at 1030 hours, Sundays, for the zone hook-up. This month your scribe has been converting a TA12D for four bands. Am following the article in "A.R." and judging from the work done to date, the author is to be congratulated for the story. I now appreciate the effort the author performed and a lot of credit is due to him.

NORTH COAST AND TABLELANDS

Not much news this month from the zone—the boys have been on holidays. 2DK spending a few weeks in Sydney on business. 2RK and 2JC spending holidays at Urunga. Hart now has a converter and Tx going on 6 and building 144 gear. 2RK has new 100 watt Tx nearly finished. 2ADN working plenty of DX on 20 with antenna full wave above ground. 2ARY back on air after about six months of sickness; Harry is now about OK and put on two stone in weight. 2AEY Taree Bill spending all his spare time in the bush fossicking (?) for gold. 2PA meeting all the gang along the coast on his business trips and plans to build a portable to keep in touch with them. 2AHH now on 80 and working plenty of ZLs. 2JK who has been in ill-health for some time is now almost OK again and will soon be home at Coffs. Jack is all for the v.h.f's. since his visit to 2LH and 2ADE.

2AJB and 2ASO active on 80 each night, also 2NY and 2TB at Grafton who are back on the air now it is too cold to fish at night. 2AAP now on from his Sydney QTH and puts a strong signal into the North Coast. 2OE and 2GH not very active. 2WT re-building his portable gear, he is ready for Urunga next year. No news of the Inverell gang, guess it is too cold out there. 2APS doing well on 20 with his new modulator on 20 metres.

HUNTER BRANCH

The Branch was honoured by a visit from President Wal Nye VK2XU of the new Council at the May meeting. As anticipated the meeting went off very well. Keith Rudkin 2DG gave an excellent lecture and demonstration on his new Rx. At the same meeting members decided to hold two meetings per year at Maitland for the benefit of boys in that area who can't make the Newcastle meetings. A very interesting and humorous "Pick-A-Box" Amateur Radio Quiz was the entertainment for the June meeting. Members drew their own two questions from the hat and if they succeeded in answering both questions they had an opportunity of picking a box—some of them contained good presents.

2CS made some interesting contacts on 10 the other day, Sydney and African QSOs. 2SF is doing a great job as Secretary of the Branch, made a trip to Sydney for the special general meeting in May. 2ASJ was tickled to work a YJ on 40 phone, the YJ being on c.w. Ron has the Type 3 working well. 2AMM on 80 working lots of ZLs and is getting worked up for this year's R.D. Contest. 2IS surprised at the DX on 10, will go down on 10 if the Tx works. The QRP merchant is 2PJ, been on 80 too. 2DG East Maitland heard chasing the 9S4 bloke on 20. 2XQ onto the DX too. 2NL heard testing on 20, so may be making a comeback. 2OS well again and back at work after his recent illness. 2VO also been putting out a solid signal on 40 c.w. The Upper Hunter boys had a get together at 2VU's shack. 2ANU, 2ADT and Geoff had fun with a grid dip oscillator. 2ANA had a spot of b.c.i. recently, the new mike is apparently too good. 2AXM working skeds with a North Queenslander on 20. 2NX and 2UY very QRL. Bill 2CW also flat out at work, but was home long enough to get tangled up with his 1,000 volt supply. "Death is so permanent," Bill! 2ZC only been on 20 and 80 at odd times.

2AAI is still getting out well on 20 phone, landed a VP6 the other night for a new one. Congrats to 2XY on getting engaged (no this is not a printer's error), all the best Nell. 2PQ has a new beam up, two elements on 20, and three on 10. 2TE has beaten a path over to ZL1RI's on 20. 2DZ still knocking 'em over on 20 phone. 2ADS is nice and cosy in his new shack now, so the beam may be going up higher very soon now. 2BZ only working cross-band—2 and 6. One of the Sydney boys, 2AZK, made some 2 metre contacts with 2XY and 2IS while in Newcastle recently. 2MR's phone is OK again now and had some early morning QSOs. 2AAM is working plenty of Europeans on 20. 2CN's phone is very nice howadays, and has the 20 beam tuned on the nose.

2AFS has some telephone b.c.i., but still works the nice ones on 10. 2FP threatens to come on 40, when Ern? 2FX been on holidays at Lake Macquarie chasing fish. 2KG has the new Rx working well on most bands. 2AHA took the portable to Karuah Port Stephens on a recent week-end, worked all States and VR2 on phone and ZL on c.w.—all with 5 watts. 2AFX has converter ahead of MN26. As from next month your notes will be written by Ron Stuart 2ASJ, so fellers please let Ron have all your doings and help make the job easier and more interesting for him. Thanks for putting up with me for the last couple of years, it has been very interesting, although I haven't yet found out where most of the gang keep their news—73, 2AHA.

COALFIELDS AND LAKES

Ken 2ANU as keen as ever, getting set up on 144 and built grid dip oscillator; believe Ken has heard 2BZ in Newcastle on 144 Mc. Geoff 2VU on 40 phone at times as well as 6. Had a local hamfest, 2ANU and 2ADT spending day with 2VU, all three visited 2JZ. Alex 2JZ on 10 phone, the beam on steel tower doing a good job. Bob 2TY works mainly on 10 phone, though worked a CT on 20 phone the other day. Bob doing fine with his KH6 skeds on 28 Mc. and has an impressive log—206 contacts with KH6KS and 123 with Hazel, his wife, KH6AFC—nice work Bob. 2YO is only on once in a while, what's wrong George? Another Bob, 2KF, has been toying with reactance type f.m. and last heard on 10, seemed to be on the right track. The writer wishes to acknowledge visit from Max 2KZ—glad to see you again—Max has plans for alterations and increase of power before Xmas. No activity from 2PZ or 2ALR yet.

VALE FRANK TARRANT

It is with deep regret we record the passing of another old-timer, Frank Tarrant, VK2UF, of Cook's Hill, Newcastle, on 7th May. Frank was licenced in 1933 and assisted a number of Amateurs in the Newcastle area to obtain their licences.

Post-war he was active on the v.h.f's., mainly on 144 Mc. A member of the Hunter Branch, the gang in the Coal City will miss Frank's characteristic whistle on 2, 6, and 10 metres.

Jack 2ADT still keeps skeds with 2BZ cross-band 50 to 144 Mc.. Jack also putting some time into n.b.f.m. with good results after initial headaches. Chas 2ARV active on 40 phone, nice too. Cec 2KR and John 2GA active on 144, 50 and 7. Major 2RU, mainly on 50, talking turret band switching. 2YL been a little more active than in the past, works all bands—80 to 6; waiting for news from States re confirmation or otherwise of a 2 metre signal from W6. Also had pleasure of a chat with old friend Eric Lake 4EL, been a long time since I raced for the train at Cooparoo Brisbane in '38 Eric!

WESTERN ZONE

Thanks to Max 2OT we again have some notes from the Silver City. Max is titivating his gear up so that it will look like a Collins 32V. The Rx uses out-board l.f's. From a 1.6 Mc. v.f.o. the Tx finishes with 807s. 2VR re-building and should finish with a nice rig, 811 in final. 2DQ also on the re-building and final effort should be impressive. Dud has a brainwave, sends out a form requesting news for the notes—an excellent idea. 2ASP is a new one in Broken Hill and is using portable QRP gear. 2RV still mainly on 10. 2IW not often active. 2AHD using 20 a little. 2AXL still inactive, seen but not heard. 2IM been licenced some time, but never been on the air—busy home building. 2NS very busy with new car, but takes enough time off to gloat over his FG7 card.

2AMR the most active Ham in Dubbo and has been heard in Forbes on 80, 40, 20, and 10. 2AMV the busiest in Forbes, John active all bands bar 80, "no phase modulation"; spends a bit of time on 6 calling Darwin, as he only needs the N.T. for his W.A.S. on that band. 2WH Forbes was very pleased to have Col 2ABD visit him, they discussed every subject bar radio and boats. 2BT still busy house building and not on the air. On the Blue Mts. silence reigns. 2SS in Lawson gives an occasional DX call. 2EX away on holidays. 2LZ still house building and 2HZ punches a key about once a week instead of nails.

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VICTORIA

The Victorian Division regret to announce that Charlie Quin (3WQ) has resigned from all official positions of the Victorian Division owing to his transfer, in his employment, to South Australia. We wish Charlie all the best in his new position. His new call sign is 5WQ and Charlie informs us that it will be a month or two before he will be on the air.

NORTH EASTERN ZONE

Andy has 32 volts on his shack, after twelve months with it running three yards from the shack, I am surprised. Andy, a modulator! Sid 3CI has a Mark 3, type unknown, kindly lent for the purpose by 3APF. Has an 80 metre aerial hooked to two trees conveniently situated some 40 feet up. Sid is in a d.c. area, so has his worries. Peter Williams will soon be heard on the air from Wodonga. 3AQG not heard, better hurry up and iron out those wogs, Ron. Zone Convention seems to be decided on in Shepparton. Will be able to make it from here.

3UI has a pupil for c.w., may make the next examination (he hopes). 3TH, President of the Eastern Zone, visited 3UI and 3CI. From remarks heard, there will be quite a few of the Eastern Zone at our Convention to be held in Shepparton on Sunday, 15th July; everybody welcome. 3UI and 3APF testing with 3CI on 6 and 2. On a long wire antenna (80 metres) signals were 5-5, 5-6. These reports augurs well for the beam Sid will soon be assembling. Sid also has the d.c. now connected and from all reports things are working out fine, however Tx is still being run off car batteries.

3ACK and 3KR discussing the merits and otherwise of radio controlled planes (model). John claims it costs him as much to run the model per hour as it costs him in flying lessons in a Tiger Moth. Take Ken's advice, John, stick to Ham Radio. 3KR also visited 3MH at Castlemaine. Your audio definitely sounds thin, Ken, not like your old self; put the bass back. 3AGT loves Ham Radio, even goes on the air with his dinner by his side, don't talk with your mouth full Stan. By the way, where is that 6 metre gear? Heard the new Benalla man putting in a whale of a signal; get him on the hook-up Ken.

SOUTH WESTERN ZONE

3AGD has at last got the portable power pack going (1½ c.w.t.) and now thinking up ways and means of building a new Tx around it. Both your scribe and 3AGD are busily wrecking all surplus gear, including 144 Mc. gear, to obtain the necessary components to complete tape recording equipment, so for the time being both are completely inactive on 144 Mc. Leigh 311 busy re-building his shack. 3AGV on 80 some while back with an ATR2B—putting out a fair sig. Vern is still in Colac although has

sent his Ham gear to Melbourne which will be his new QTH.

3VA operating new p.p. 807s rig on 40; also heard on 20. 3GR QSOed FK8AC on 40 phone. 3RU and 3GR away on a holiday tour and visited Hams in Birchip, Berriwillock, Swan Hill, Shepparton, Benalla and Wangaratta. 3CE at Berriwillock has a 80 foot lattice mast and Roy is keen to get the cobwebs out of the rig and get back into the battle again. 3BI heard having lots of fun on 80 metres. 3DS and 3ABI not on at present, too QRL with business. 3HW not on lately.

3MH is in his new home and is pushing out quite a nice signal on 40 and 20; new QTH is close to 3HW, so plenty QRM I guess. Bill 3AMH, our Secretary, away in VK2 on holidays. Conditions on 40 and 20 very patchy. Some DX available to the very patient ones. A good QSO is available to anyone contacting a Dutch boat, the operator using a special permit call of F0ABC on 20; Jan uses 35 watts and is putting in quite a good signal to VK. This zone hands out a welcome to Cedric 3QG who is now a resident of Ballarat; rig is a Type 3. Another new call sign in Ballarat is 3BL, has not been heard as yet, what about it OM. 3ASV and 3ALM seen replacing huge divots out Buninyong way on a recent morning. 3BE not heard very often, YL trouble we think. 3SE on occasionally using phone and c.w. 5CH met in Ballarat recently, was seen peering into a cafe window looking very hungry and was soon put on the right tram by 3GR. Thanks to all who made the trip to Ballarat and made the S.W. Zone Convention such a success.

3BU has been on 2 metres; Melbourne boys coming in rather well on 2 on his Rx. Bill has re-built his wire recorder and playing some of the boys' transmissions back to them. 3WT still gets on when he is not on his motor bike. The Geelong gang at last managed to get in the May S.W. Zone hook-up, hi. 3ABK has a transceiver going on 2, has a 3 element beam for that band. 3ABE also has a beam and 522 for 144 Mc. 3AKE has a new Rx for 144. 3ALG not so active during May. 3IC gets on for the Geelong hook-up of a Thursday night. 3AJF getting on a bit more often now the yacht is finished. 3AOL has a new final going. 3CM, 3AES, 3AGN, 3APG, 3SY and 3SW have been silent for some time.

CENTRAL WESTERN ZONE

A new call in these notes is 3AIM of Newstead, Bob at present is running about 15 watts input to a single 807, but has plans in hand to go QRO to 90 watts with a pair of 807s, modulated by another pair of 807s. When it is complete it should be a very nice example of the standard type of Amateur Tx. 3DP is also going QRO, is anxious as to the effect of the 1,000 volt motor-generator on the 807s. More work has been put into his new Rx finishing up with 50 Kc. i.f's. Jim is having some trouble with the 144 Mc. "Lenfo;" plenty of juice goes in, but nothing goes out.

During the last zone hook-up 3AKW mentioned a secret Tx, it turned out to be a 144 Mc. oscillator using linear tank circuits, at present it is operating on 146 Mc. and only requires an antenna to get into business. 3TA has his xtal converter going on 144 Mc., but how much DX (if any) Byron has heard to date we don't know. 3XC when last heard was busy experimenting with a Franklin oscillator. 3YW has completely revamped the n.b.f.m. Tx into an antenna tuning unit case. With a Rx in the bottom of the case, a portable outfit is available—the Tx is bandswitched.

3EF paid his annual visit to Stawell with the local leather-bashers; Bert QRL with work. When the new house is finished, Bert should have more time.

The zone convention to be held at Ararat on Sunday, 16th September, promises to live up to its usual high standard (no kidding) and for the main event—the Tx Hunt on 3.5 Mc.—a worth while prize is available, so polish up your d.f. ideas chaps, and make a good contest of it. I would sure hate to see the prize go to the experts of the other zones, but that is up to you entirely. We would suggest you look at the d.f. Rx and decide if you could carry it or if it would have to stay in the car; the difference may have quite a bearing on the result. Transmission quite likely will be on c.w., as voice operation could easily give the position away. For those interested in v.h.f. and who could arrange skeds, the hills surrounding Ararat offer good DX possibilities. Further details will be finalised over the zone hook-up, on 8th July at 10 a.m. on 7155 Kc. (approx.). See you then.

EASTERN ZONE

As I have missed out on a couple of zone nets this month, someone isn't getting his name in these notes. Anyhow, if I asked every Ham in the zone what he had been doing, the answer would be "nothing!" 3ALA had his second win in the portable contest, with 3RH and 3QZ filling the other places; nice work! 3ADA has been posted to VK5, and is with a R.A.A.F. survey unit in the centre. 3PR is to move to a new house soon, I heard him say so one day on 40. 3AKF was in Sale for some weeks on relief duty at a financial institution. 3QZ checking up on power quotas!

3SS has his new shop open and his junior op, David, has left school and is swinging a soldering iron for Pop! Keith recently paid a very hurried visit to 3PR and, being a Sunday, he was looking forward to a slice of the famous cream sponge. He was out of luck! Mrs. 3PR had manufactured the salubrious article and set it aside for the cream, etc., to set. Ron's dog, a very intelligent animal and obviously accustomed to the better things of life, sneaked in and scoffed the lot!

3VL/US not heard lately—said to be changing houses and working portable on 6. 3BB, another missing friend, still hasn't fixed the feeders. The May meeting of the Sale Sub-Branch was very interesting—3QZ's lecture on Radar and the C.R.O., being one of the best yet. They were a well behaved lot, and didn't pinch anything from me either! Apologies to the chaps I haven't mentioned and see you anon!

GEELONG AMATEUR RADIO CLUB

At the first meeting of the month Brian 3AOL gave a very interesting lecture on transformer winding, including power trannies and modulation transformers. From time to time he was asked questions which he readily answered.

Over 200 attended the Exhibition (24th May) which was rather encouraging. Three tressel tables were laid out the length of the hall on which over 30 pieces of equipment were displayed. Outstanding exhibits were a complete station of good workmanship by 3AJT.

3ABK had his motor bike fitted up with portable Tx and Rx including d.f. loop to show how he goes out on a field day, he also had a transceiver for 2 metres. 3BU had his wire recorder with which he had spent hours in building, with rather pleasing results and those present had their voices put on the wire and played back to them. 3ABE had a 2 metre Tx and Rx and a 3 element close-spaced beam. 3AKE and 3BW had v.h.f. gear.

A display of noise locating equipment was given by a representative of the S.E.C. Other equipment included crystal sets and many pieces of disposal equipment which had been converted for Amateur use. XYLs and YLs were busy and helped with the supper, 80 persons

partaking of same. During the evening 3ATL, the Club's Tx, was operating on 80 metres.

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QUEENSLAND

Owing to the splendid response of our country representatives to my appeal for notes from their respective zones, we have a wealth of news this month—thanks fellas.

As from Sunday, 27th May, all future 4WI broadcasts will emanate from the residence of 4WD. Bill has gone to considerable trouble and expense to provide a respectable shack for the two 4WI Tx's—thanks and good luck Bill. A newcomer is 4XL, Jim has been getting a great kick out of his rig on c.w. Not the sort of kick 4MD nearly got when he tried to swap the plate connections of his modulator over. Reminds me of a certain "Dutchy" Debraun, who should be known to most ex-R.A.A.F. sigs men, who tried the same thing only he shorted the condensers out with a pair of pliers in order to discharge them, but forgot to switch off the h.t. first. Those pliers resembled a biscuit minus a bite after that episode and "Dutchy" lost ten years of his life after the experience. For the record, it was an ATI Tx which was so mis-handled, no bleeder resistors those days.

4RT stole a march on all the locals recently when he was the first VK to work a C3JK who is in Formosa (Box 419, Tai Tea). 4PX has been busy making additions to his house, Arthur had to find some diversion in order to prevent him from biting his finger nails down to the elbows over the terrific QRM he has been experiencing from the factory near by. We are led to believe it is an arc welder, which brings up the old subject, why can't the users of arc welders be made to take measures to prevent such QRM, regardless of what frequency they are causing the trouble on. Wait till television is here, then perhaps the laws of the land may then be more rigid on that score.

4VJ has been filling in time between fishing trips by manufacturing a four element beam for 10 metres. 4HG has about 85 countries up on phone using only 25 watts and a two element beam. 4NC has commenced his long service leave (or rather part of it). We are led to believe that Charlie is going to spend the three months in fiddling with his beam; believe me, Charlie, you need every bit of that time. Don't be like the W who discovered his feeders looked more like spider-webs after having been up and down them trying to measure the standing wave ratio; also, you eventually reach a stage where a globe is a little brighter, or as he put it, "A little less dim."

BUNDABERG ZONE (4XJ)

4BJ is active in the mornings on 7 Mc. between 0700 and 0800 and the low power phone is getting out very nicely. 4CW operating early evenings on 7 Mc. phone with screen grid modulation which sounds f.b. 4HE at present not active, but very busy on a large re-building programme.

4UK has beam for 28 Mc. on his 35 ft. steel tower, but with plenty of work on hand in the shack is still inactive. 4XJ has a new interest—a 28 Mc. two element beam—and having plenty of phone contacts on that band; shift work certainly suits the band. No news of 4BB.

CLARE'S CORNER

The last Council meeting of the Queensland Division concluded with the resignation of 4FN from the position of Communications Manager and Treasurer. Frank is leaving VK4 land, and will, in the near future, be operating under a VK9 call. Best of luck to you and the family in your new QTH Frank.

4IM has done a spot of re-building—not the shack, the rig; it sounds f.b. too Mac. Welcome to 4IN, a new arrival from G-land; Fred is operating on 20 metres with very nice phone signals. 4ES heard on 20 metre phone the other evening after a long absence. 4WJ also back on the air again after three weeks' holiday down south; next holiday Jack, why not take a portable rig to Pitcairn Island. The quietly spoken man from the north was heard on the smarter end of Brisbane working a few new ones despite the tonsilitis.

GYMPIE (4HZ)

Reg 4RA has been inactive, still in re-building process. Barry 4LN has gone cold on Ham Radio—too QRL. Sid 4KT is another one who has been inactive; can't find time to build rig. Seems as though a sub-standard is on the way at Eric's 4XR as he recently received an expensive 100 Kc. xtal from England; some people are lucky because the total cost to Eric was 7/6. Dennis 4DP still trying to improve on utility in order to sell it to buy Ham gear. Jim 4HZ was visited by 4RA who actually snared a DL4PG on Jim's rig; it was the first European for Jim.

MARYBOROUGH (4GH, assisted by 4BG)

Hugh 4HE is busy on a complete re-build. It has been established that VK9XR is definitely a pirate. At times he uses VK9CR and at present is heard using a VK5 call. 4AI is making a new stub-tuned antenna 46 feet aside. 4GH got S9 plus on 7 Mc. phone from FK8. 4BG still knocks off a new one on 14 Mc. occasionally, but Arch 4CB is overhauling him. Arch has worked 60 countries on phone in six months, latest being a 3V8 which is Tunisia and not a new tube.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division for May was held in the 5DN auditorium (incidentally it is still the best broadcasting station in VK5) to a capacity house, and the guest speaker, Mr. Jack Ferry, gave a most practical and interesting talk on the merits and demerits of disc, wire, and tape recordings. Mr. Ferry has a most disarming and nonchalant manner in his lecturing, a manner that deceives nobody, because he only has to talk to an audience for a few moments to disclose that his nonchalance is only a cloak which hides a solid theoretical and practical knowledge of his subject. Nevertheless, this attitude is very refreshing in these days of Amateur Radio, when a Ham, more often than not, is judged more on his ability to spout pages and pages of formulae, or discourse for hours and hours on the bi-theorem of the tricofferous of the doo-flecorous rather than the ability to get on the air and stay there with a good signal. The unusually large number of questions fired at him by the audience at the conclusion of the talk, plus the clear and concise explanations from Mr. Ferry, spoke for itself as to the undoubted success of the evening. Les 5PN, in his usual sincere and convincing manner, proposed the vote of thanks and the manner in which it was received should have convinced the lecturer of the meeting's approval.

The hour being late, general business was kept to a minimum, and aside from practically clubbing Bob 5RT into accepting the v.h.f. trophy on behalf of VK5, if not for himself, there is nothing to report. I was intrigued to notice a large number of lads present among the audience, and from enquiries made, I am led to believe that they were present to join up in the A.O.C.P. classes, soon to commence. This is all to the good, as it is from the lads of today that the Hams of tomorrow are recruited, other Divisions' opinions on Associate members notwithstanding.

I have always been somewhat in awe of any recordings that I may have made in the line of duty, be they disc, wire, or tape, but after witnessing the free and easy manner of recording technique as demonstrated by Mr. Ferry, I decided to follow in his footsteps at the first opportunity. During the week I was detailed to a very important wire recording of a prominent citizen who was to leave the city immediately after the recording was completed. Normally I would have been very ill at ease until the recording was well under way, but not this time, with the true Jack Ferry manner I switched on the recorder, and under the awe-stricken gaze of my shift-mates, immediately started to make a few running adjustments to the speed, tension, etc., and any other hazardous things that I felt Mr. Ferry would attempt. When my period of suspension is over, and when I have picked up a little of my lost salary, I intend to check up and see just where the Jack Ferry manner broke down. At the moment, however, I prefer to draw a veil over the whole sad and painful proceedings. I have nothing further to say other than that my Chief's command of nautical language surprised even me.

Bill 5HD is the proud father of a bonny bouncing boy who answers to the name of Trevor John, and Uncle Hughie (5BC) seems almost as proud as Papa. Congratulations to both Bill and Mona. "Admiral Kelly" (5LW) with a rope around his middle, is busy making chairs these days and if all is to be believed it is quite a lucrative game. His reported assistant is Al 5MF, who, since changing his QTH, has been conspicuous by his absence from the air. It looks like a race between you and I Al, as to who gets on the air first. Incidentally "Admiral," have you disposed of the parasitic that the whole of "twenty" was discussing the other night.

Noticed Ross 5AJ at the meeting and would have liked to have shown him the improvement in my fallen chest since I have taken to gardening, but he left early. Ross is to give a talk on his travels to England and America at the next general meeting, so perhaps if I can sit in the front row he may notice the aforementioned improvement.

Visitors to my partly finished new shack are very interested to see in a solid gold frame, between my new W.A.C. certificates (very subtle) a letter from the Editor to me, written on his special hyacinth scented note paper in his own hand. In explanation, may I say that "Doc" 5MD once said to me, "If ever you are lucky enough to get a letter from Tom Hogan, then you can class yourself as a success, as that 'so and so' has never been known to write a letter in his life." Need I say more? I promise to keep to the point in the future Tom, but I could not miss that chance.

At this juncture I am supposed to give you the composition of the Council of the VK5 Division for 1951, but as I have given my word to that Ogre, the Editor, to keep to the point, I will simply refer you to the May notes in the magazine for 1950 and there you will see the said Council members. Simply add the name of Jack Coulter (5JD) as the v.h.f. representative, and there you are. How's that Tom. Alright, alright, keep on your velocepede.

5CH has remodelled his 2 metre gear and is very pleased with the results. Claude has also built a percentage modulation indicator which I believe tells the truth and nothing but the truth. Is that right Claude? 5MS still continues to work the G stations on 20 and is using a new xtal mike plus a c.r.o. modulation checker. Stuart is operating on 2 again. 5TW has all his gear working OK on a.c. now and has almost forgotten what being on d.c. was like. Tom has had some good contacts on 10 and 40.

5FD is at last on the air, but as yet his aerial is on the ground, although John has had quite a few QSOs. Look out for him when the poles go up. 5KU has been working both phone and c.w. on 20 and 40, but apparently Erg still has a leaning towards being up in the air instead of on the air. 5KB has had a very quiet time this month and I can only assume that Peter is still recovering from his vacation.

5CJ has had a few skeds on 40 and 2, but all of Col's time is taken up with trying to keep all movable objects out of his junior op's. reach. He is growing faster than the junk can be shifted and is almost awake to the fact that there are types of valves other than metal ones, and that they make more noise when he drops them on the floor. Wait until he gets around to the microphones Col.

5LS, from the Adelaide suburb of Springbank, was a recent visitor to Mount Gambier and took the opportunity of meeting most of the boys in the vicinity, and I must make it my business to see him and find out if it is true that it rains for nine months in the year at Mount Gambier and then the water drips off the trees for the other three months. Won't I be popular now!

Most of the regular ten metre boys have been telling me that this band is as dead as a doornail, but it seems strange that they can always be heard on Sundays knocking over some choice bits of DX around Africa way. Can it be that they have been talking to me with their tongue between their teeth or whatever it is that they do to scare anyone away?

5BC has been seen walking around with a huge grin and a satisfied look on his face which had all and sundry puzzled, but Hughie's secret came out with the magazine when it was seen that he secured third placing in the Ross Hull Memorial 50 Mc. Contest. Congrats OM. Strangely enough, when he was stuck at the contest all day and night long, his wife was inclined to be a bit shirty about Amateur Radio, but when the results came out she claimed that it was only the fact that she kept at him to stay at the Rx that made him so successful. These wives, bless them!

5MA has been away on holidays to his old haunts, to wit, Mt. Gambier, and Fred was noticed at the May general meeting looking fit and chirpy. He had a QRP portable Tx and Rx with him, and when his wife was not looking, a very weak signal appeared in the "mire" on forty, and quite a few contacts were totalled up. He called into Clare on the trip and was pleased to see that 5XL has at last a Tx on 6, which means that a path to Renmark on that band is established.

5KW is having considerable success with a "band-pass" Tx that has all sorts of gadgets attached to it. Harry believes in comfort and is doing his best to conduct his contacts before the fire, everything being automatic, including his automatic dash now and again out to the Tx to see what automatically breaks down automatically.

Murray Nicholson has passed the Amateur ticket and great were the celebrations thereof. No call sign as yet, but it won't be long now, and then another source of QRM will be born. What a joke this Amateur game is, one talks them into having a go at the ticket, one helps them all one can, and then one writes them up on the QRM list. Ho hum!

Visitors to the most powerful b.c. station in the State were well to the fore this month. Gordon 5XU and XYL, 5DF from Kadina, Jim 5KE all called in to 5RM and were shown the works, but Gordon's XYL put her foot in it by calling the station by the name that belongs to the b.c. station further down the river. She was gently but firmly removed outside to the car and left in misery with strict instructions not to return.

5SL is probably the busiest man in Berri at the moment. He has a motor car in pieces, a

washing machine in pieces, and several other articles in the process of being painted duck egg blue or what ever colour one paints those certain articles (it's alright Laurie, you can trust me not to give away your secret; oyster Parsons they call me), anyway if a washing machine is seen tearing down the streets of Berri at about sixty miles an hour going honk honk, you can take it for granted that somebody has made a slight technical error.

K. Duff (3IQ) passed through Adelaide enroute for Darwin this month, and as he was mobile he had quite a few contacts with the local boys. Believe that he was parked at a local caravan park for a few days, but did not get the chance to meet him.

Wyck 5WM is back from a vacation at Melbourne and brings news of several of the boys. Glad to know that Charlie 3BK is still in the pink, and hope that the XYL is on the road to recovery OM. Jack 3WR seemed to figure a lot in Wyck's tales, and incidentally Jack, that bed in the control room and the milkman and baker calling seems to have impressed him more than anything else. I have found him curled up behind the power cabinet several times lately so please don't tell him any of the inner workings again OM as he takes it too literally. Believe it or not, when I kicked him back to consciousness he dreamily said, "two pints please, and make it a square loaf."

Heard a VK5 station and a VK3 station both call a French station the other day. The French station came back to both, gave them each a fair report, and then crossed to the VK3 leaving the VK5 standing by. The VK3 called in several of his mates to work the F station, and made it a six-way contact with the VK5 still standing by. A splendid time was had by all, with the VK5 still standing by. They all lived happily ever afterwards and as far as I know the VK5 is still standing by. Wouldn't it!

— . . . —

WESTERN AUSTRALIA

Firstly I must apologise for the absence of notes in the last issue of "A.R." It so happened that I was away in the country on holidays, and although I made arrangements for the notes to be submitted, those arrangements must have fallen down. The May meeting was held in Padbury House on the 15th, with 6JW in the chair and another good roll-up of members. Noticed 6MO present. Alan was apparently on holidays from the magnetic observatory at Watheroo. A new member in 6UF was elected to the Division and welcomed to the meeting. 6DJ and 6LJ were elected to the Contest Committee, but another nomination is required. It was considered that three members would suffice for this committee. A good deal of discussion took place on the proposed unified constitution and our own Divisional one, but as this has all been covered adequately in bulletins to members and over 6WI, it need not be repeated here.

Two very excellent lectures were delivered, namely, "A Crystal Calibrator and Super-Selective Receiver," by 6SA, and "Rotary Beams —Their Design and Adjustment," by 6MK. I think that both Jim and Tom could be considered authorities on their respective subjects, and both lectures were received with considerable enthusiasm by the meeting. A precis of each lecture has been distributed to every member, and I understand these precis are being very well received, especially by country members.

A parcel of surplus radio gear from a city store was balloted for and I think every member present at the meeting received something to cart off home, even if it was only a short-wave coil or two. The meeting broke up about 11 p.m.

PERSONALITIES

6BO has been heard on ten metres lately, but hasn't deserted 6 by any means. Rollo is looking forward to the possibility of sporadic E openings around the shortest day of the year. Recently returned from the north west are 6HW and 6DJ. Both spent an enjoyable six weeks installing radio gear, fishing and sunbaking. 6KW and 6RO have recently joined the ranks of the "new car owners brigade" and are consequently finding less time for radio. 6PJ still working DX on 20 (when conditions permit).

6LG down in Albany continues to pour a relentless signal into Perth on 40. 6GA down from Forrest for just over a week. Bill managed to get round to some of the shacks in the short time at his disposal. See you in August OM. A new member in 6BR is preparing for 40 metre c.w. activity with a Command Tx. 6JW heard on 40 with QRP rig (six watts input).

Congratulations to 6DW for first placing for the State in the Ross Hull Memorial V.H.F. Contest; nice work Don. 6WM, of Kalgoorlie, heard quite often on 40 with a nice signal. Sorry I didn't get around to seeing you whilst up there recently Bill. 6DX getting ready to give 10 a thrashing, and is thinking of dabbling in n.b.f.m. Also has the material for a new three element beam on 20, so it looks like a busy time ahead of Bill.

With this issue of "A.R.," yours truly ceases to be the Sub-Editor for VK6. However, before closing down, I would like to thank 6WZ, 6WT and 6GA for supplying occasional items for the column. Also 6WH and 6JW for broadcasting the 6WI news bulletin for me on the few occasions that I was unable to do same. Thanks fellas for putting up with me for so long. Cheerio.

— . . . —

TASMANIA

Our June meeting was surprisingly well attended, possibly due to the fact that a quantity of very cheap radio gear was available and was welcome by all those present. A lecture was given by 7OM on "Book Binding" (not "finding" as some members thought) of copies of "Amateur Radio" into book form. Sounds easy the way Bob described the necessities required, so in future there should be no reason why members cannot have easy access to articles published in "A.R."

Heard working cross band one recent Sunday was 7LE and 7OM. Len was on 40 with an f.b. signal, incidentally, Len broadcasts the W.I.A. news simultaneously on 7 and 144 Mc. Future broadcasts will include 3.5 and the 7 Mc. transmission to be on single side band for the benefit of Northern members. 7EJ and 7SA active at Opossum Bay. Believe Charlie is having trouble with several orchards being in the way of his DX long wire antenna. Ted will soon be running high power.

Congratulations must be extended to 7AJ for his fine work with a home constructed tape recorder. A demonstration to several members proved that not only does it look good, but performs equally as well. May we suggest Athol you record the 10 o'clock news of a Sunday and say, if all are agreeable, re-play it early in the evening. This would benefit members who are unable to get out of bed in time for the morning broadcast. (Who said I only look after myself.)

Owing to unforseen circumstances 7JB will now be with us a little longer and is looking forward to the new gear expected at 7SR. Conspicuous by his absence has been 7BH who is reputed to be concentrating on 50 Mc. Another member to migrate to this band is 7KX using a converted T1143A Tx. Momentous day for 7RX was 2nd June, when the new beam was finally erected. 7RM, after wrestling with the 640, found 16 db which was gained from the i.f. channel; still want to sell it Rupe? Seen driving the latest addition to his large fleet of cars and trucks was our worthy friend 7SK, not active of late. Max now has assumed the life of a bloated plutocrat, suggest a "Rolls" next.

Welcome must be extended to a new member who has gained his seniority in the Institute, is Ellis Walker of Burnie, who will be a welcome addition to the North West Division. Pleasing to note solid signals from 7AB and 7BQ. Len we believe will shortly be leaving for England and we trust his travels will be enjoyed. 7SD still remains an ardent c.w. man, unfortunately Don had to make a big decision lately, either dispose of his radio gear or do without a new cupboard in his room; needless to say in one of the drawers now nestles a 640 Rx, which solved the problem. 7DA now an adapt photographer, found plenty of time to pursue his activities while waiting nearly a day for a brake down waggon to help him on the way to Swansea. 7LD retired from radio, apparently, as no signals have been heard for quite a while, what's baking Len.

Apologies to those chaps not mentioned, owing to shortage of available space, notes often are condensed, so cheers for the present.

NORTHERN ZONE

Welcome to 7GM who made his first appearance on 40 with f.b. sounding phone. However Gordon is investigating the possibilities of a better antenna as his location is a difficult one. Congratulations go out to 7LZ who won the Tasmanian Section of the Ross Hull Memorial Contest. Col has recently returned from holidays and is looking forward to more DX. 7HY, who moved into a new house some time ago, has not been active. Mrs. 7HY issued an edict: No Ham Radio in the living room or bathroom. Now Henry is glassing in the end of a verandah and should have a comfortable Ham shack there. After spending a long time on 144 Mc., 7AM has succumbed to the lure of 40 metre phone. Recent visitor to Launceston Ham shacks was 7CA who was recently transferred to southern Tasmania. 7RL is also another visiting the north.

7BQ has had shipping trouble and has had to postpone his trip to G-land. However, he has been busy with his 576 Mc. equipment and has the transmitter working well. However the Rx is not yet up to expectations and Len would like to hear from others who have been experimenting on this band. 7XW has been on holidays—a flying trip to VK3, returning with some gear for 7MC—then a brief trip to Hobart. The shack at 7MC has been a hive of activity. Ern is now working on a final for 144 Mc. (100 watts) and is also investigating the possibility of suppressor modulation for a portable 40 metre rig. Haven't heard much from 7RK, but guess Ray has his ear glued to the DX.

7RB still has the gear packed away, but did manage to finish off his super-dooper audio amplifier. This was demonstrated to Northern Zone gang with exceptionally good results. Remember chaps, the zone meeting is on the second Friday of each month and there is always something interesting, so roll up.

HAMADS

9d. per line, minimum 2/-.

Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received by 8th of the month, and remittance must accompany advertisement. Calculation of cost is based on an average of six words a line. Dealers' advertisements not accepted in this column.

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AUGUST
1951

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INSTITUTE OF
AUSTRALIA

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EDITORIAL

★

A.O.C.P. Examination by the Quiz Method?

The introduction in New Zealand of the "quiz" type of examination for candidates sitting for the Amateur Operator's Certificate of Proficiency is, in the opinion of those who have investigated it, a very fair system by which to judge a candidate's **ability** and **knowledge of his subjects.** As many of us know, the system was used to advantage in the Services and has also found favour in Educational Departments, both in this country and abroad.

The system, correctly designed and operated, not only conveys to the examiner the information he requires regarding a candidate's knowledge, but it substantially reduces the amount of correcting work involved in a written examination, and quickly indicates whether a candidate really knows his work even if he is unable to put it on paper in precise words.

Years ago when the science of wireless communication was in its infancy compared to the present high standard, a number of questions with two or three alternative questions was deemed sufficient to gauge a candidate's knowledge. But today the old system is inadequate to cover the phases of the art, included in the standard required for the A.O.C.P. Some candidates who, by circumstances of learning, happened to have studied closely the few subjects chosen by the examiner, fail despite a wider knowledge, because they concentrated their studies on subject matter not included in the examiner's questions.

In seven questions it is obviously impossible to cover the knowledge required by the candidate. From the candidate's point of view it is just as difficult for him to keep in his mind the full range of knowledge of transmission and reception as is required of him to sit for the A.O.C.P. Why then should he not have the opportunity to bring to his mind under the beneficial "quiz" method the correct answer to a given question? If he knows his work he will answer correctly. If he doesn't know his work he will answer incorrectly or he will guess. He may guess right—he may guess wrong—but the system correctly presented will leave little doubt in the mind of the examiner concerning the ability or otherwise of the candidate before him.

It is not intended to infer that A.O.C.P. candidates should be examined more sternly, but rather more justly; that the examination be such that he can convey to the examiner a more complete picture of the scope of his knowledge rather than be confined to a minority of questions which, circumstantially, may fail him despite his wider knowledge whilst another will pass, with less knowledge, the same questions.

Federal Executive has been instructed by Federal Council to press for the introduction of the system in Australia. To us the advantages are so readily apparent we are hopeful the system will find favour in official circles as it has done in New Zealand.

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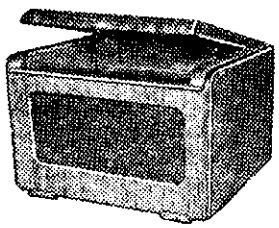

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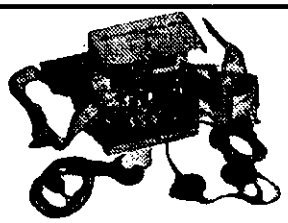

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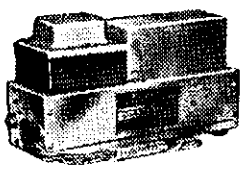

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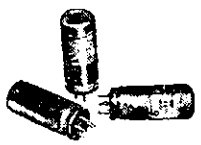

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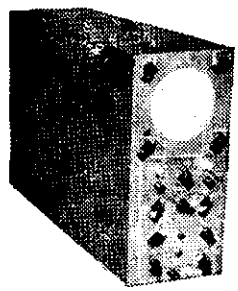

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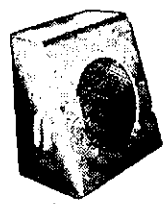

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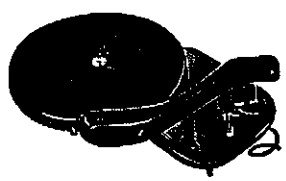

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HOW MUCH "C"?

BY R. M. WINCH*, VK2OA

How many capacitors have you taken out of disposals equipment and put on one side because you did not know their size? How many moulded mica capacitors with the markings rubbed off are there in your junk box? Are you wondering whether that little tuning capacitor is 100 pF., or perhaps only 75 pF.?

In other words, how often have you asked yourself, "How much C?" Practically every piece of equipment you have built, and will build, contains as many, if not more, capacitors as resistors and accuracy of C is just as improtant as accuracy of R. An ohm meter is regarded as an essential in every shack, yet C is guessed at or the manufacturer's markings are relied upon implicitly, merely because no means are at hand to make a measurement of C. Nevertheless, C is not very hard to measure.

There are several ways of measuring capacitance. It can be measured by applying a known voltage of a known frequency and measuring the resultant current flow. This actually measures the impedance of the capacitor, but for all practical purposes the accuracy is good enough. The disadvantages of this method make it unsuitable for general use in the Ham shack. Another method which gives good measurement accuracy is the bridge. However, a reasonably accurate capacitance bridge is quite an item of equipment in any man's language.

There is another method of measuring capacitance which can be made to give very good results with a minimum of gear and not much work. By connecting the unknown capacitor across a known inductor and measuring the resonant frequency of the combination with a grid dip meter, the value of the capacitor may be derived from a comparatively simple formula.

If you have not already built yourself a grid dip meter which has a wide range and is fairly accurately calibrated it is time you did so. You will have no idea just how useful an instrument it is until you have built—and used one.

However, the simple LC circuit shown in Fig. 1 is not very suitable for measuring a wide range of capacitance. With only one standard inductor the frequency range required to measure a useful range of capacitance is a little beyond the average grid dip meter. A simple calculation will show that a range of 10 pF. to 0.1 uF. would require a frequency range of 100 to 1. Again, it is necessary to know the inductance of our standard inductor rather accurately. We also need to know the self-capacitance of our standard inductor. These disadvantages can be overcome by a small re-arrangement of the circuit. Firstly, the low frequency end of our measuring range can be brought within practical limits by using a known capacitor in series with the capacitor under test. This limits the maximum amount of capacitance in circuit. The high frequency end can be similarly dealt with by shunting a capacitor across the standard inductor, thus setting a minimum to the amount of capacitance in circuit.

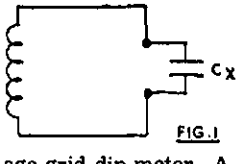


FIG. 1

These two modifications have further advantages which are not quite so obvious. The shunt capacitor can be adjusted to any convenient fraction of the series capacitor by a frequency ratio measurement. This makes it unnecessary to know the size of the inductor. The self-capacitance of the inductor has disappeared into the shunt capacitor and may be forgotten.

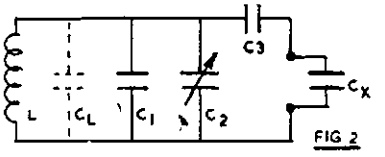


FIG 2

Fig. 2 is the circuit of a practical unit using these principles. L is a coil of convenient size (in the author's case, the oscillator coil from a defunct FS6). C_1 is the self-capacitance of L, C_1 is a fixed 100 pF. mica condenser, C_2 is a 3-30 pF. tubular trimmer (again from disposals), C_3 is 0.005 pF. $\pm 2\frac{1}{2}\%$, and C_x is the capacitor being measured. $C_1 + C_1 + C_2$ is adjusted to equal 125 pF.

When C_x has a capacitance of infinity (short circuit) the total capacitance in circuit is 5125 pF. When C_x is zero (open circuit) the total capacitance is 125 pF. If F is the resonant frequency when C_x is infinity, F_1 is the resonant frequency when C_x is zero, and F_x the resonant frequency when C_x is some value intermediate between infinity and zero, then—

$$F_1 = F\sqrt{\frac{125}{5125}}$$

and

$$F_x = F\sqrt{\frac{5125}{125 + \left(\frac{5000 \times C_x}{5000 + C_x}\right)}}$$

Since L, C_1, C_2 and C_3 are fixed, and permanent quantities, F_x may be calculated for various values of C_x and curves plotted so that C_x may be read off directly. The value of F should be chosen to suit the ranges of your grid dip meter. In the author's case the lower limit of one range on the grid dip meter is 870 Kc. so a value of 900 Kc. was chosen for F. This makes F_1 equal to 5762 Kc. and gives a useful range of from 0 pF. to 0.1 uF. with a minimum accuracy of 10%

The construction of the unit is not at all critical but a little care should be taken to make the wiring rigid. If a slug tuned inductor is used it is recommended that a locknut be placed on the slug adjusting screw so that it may be locked permanently in position after the final adjustment. In use, the normal coupling to the grid dip meter to give a discernible movement of the meter needle is necessary to obtain accurate measurements.

L and C_2 are adjusted as follows: Short out the C_x terminals and adjust L so that the resonant frequency is 900 Kc. Now open circuit C_x and adjust C_3 to give resonance at 5762 Kc. If the circuit will not resonate to 5762 Kc. at any setting of C_3 this indicates that C_1 has a value which is not close enough to 100 pF. It may be necessary to change C_1 if the highest resonant frequency is lower than 5762 Kc. If the resonant frequency with C_3 at maximum setting is higher than 5762 Kc. it will be necessary to change C_1 or else add another small condenser in parallel with C_1 to bring it closer to its normal value of 100 pF. Check again with C_x short circuited and if necessary readjust L. Re-check at 5762 Kc. and then you are ready to measure the capacitance of anything between a short piece of twin-lead and your grandmother's false teeth.

To save wear and tear on your slide rule, a table is appended which gives:—

Col. 1—Values of C_x.

Col 2—Corresponding values of $125 + \left(\frac{5000 \times C_x}{5000 + C_x}\right)$ in pF.

Col. 3—Resultant resonant frequency in Kc.

Infinity	5125	900
0.1 uF.	4887	921.3
0.9 uF.	4864	924
0.08 uF.	4832	927
0.07 uF.	4791	931
0.06 uF.	4741	936
0.05 uF.	4670	943
0.04 uF.	4570	953
0.03 uF.	4411	970
0.02 uF.	4125	1003
0.01 uF.	3459	1095
0.009 uF.	3341	1115
0.008 uF.	3201	1139
0.007 uF.	3042	1168
0.006 uF.	2850	1207
0.005 uF.	2625	1257
0.004 uF.	2347	1330
0.003 uF.	2000	1440
0.002 uF.	1524	1650
0.0015 uF.	1279	1801
0.001 uF.	958	2081
900 pF.	888	2162
800 pF.	815	2256
700 pF.	739	2370
600 pF.	661	2500
500 pF.	580	2675
400 pF.	495	2896
300 pF.	408	3189
200 pF.	317	3618
150 pF.	271	3914
100 pF.	223	4314
90 pF.	213	4415
80 pF.	203.7	4514
70 pF.	194	4636
60 pF.	184.3	4745
50 pF.	174.5	4878
40 pF.	164.7	5021
30 pF.	154.8	5180
20 pF.	144.9	5350
10 pF.	135	5545
0	125	5762

* 38 Boundary St., Parramatta, N.S.W.

Push Pull Cascode Crystal Converter

BY C. H. CASTLE,* VK5KL

ALWAYS on the look out for something better and to try anything new, we are striving for improvement each year. The author was more than satisfied with the line-up of RL37 grounded grid series plate tuned r.f., 9002 mixer, 9002 osc., and 9002 cathode follower combination of last year, but the introduction of crystal converters was very impressive and the advantages were so obvious that it was labelled as a must for the new converter and next DX season on 50 Mc.

As soon as the DX waned early in 1950, thoughts turned to designing a new front end; something that must include all the best advantages known.

The Points strived for were:—

- ★ High Signal to Noise Ratio.
- ★ Sensitivity.
- ★ Selectivity.
- ★ Stability of Oscillator.
- ★ Accurate Frequency Calibration.
- ★ Absence of Birdies.

One fault of tuning a converter with the oscillator near the signal frequency is that a highly accurate dial is unobtainable, however by using a converter with the osc. xtal controlled, no dial is needed on the converter itself and number one bug-bear ousted.

The converter osc. being fixed, one must use the receiver the converter is fed into, as the tunable intermediate frequency. Having a BC453B Command receiver available (tuning 3 to 6 Mc.), this was ideal for the job, and by choosing a 9.4 Mc. xtal and taking off the 5th harmonic, giving 47 Mc. for the converter osc., 50 to 53 Mc. is tuned by actually tuning 3 to 6 Mc. on the Command receiver.

The dial on the Command gives both good band spread and the accurate calibrations are easily converted to read as at 50 Mc. A signal on 50.2 will be tunable at 3.2 Mc. and a signal at 50.5 at 3.5 Mc., and so on. Here we have obtained three of our wanted ideals: stability, accurate frequency calibration, and selectivity due to the double conversion.

ABSENCE OF BIRDIES

These beats are caused in a lot of ways: Strong signals beating with your converter oscillator or the i.f. receiver oscillator, and beating at one or both i.f. frequencies; one oscillator harmonic beating with the other or even with the b.f.o. A lot can be traced to coupling of circuits via the power supply leads.

To eliminate the causes, the trouble was tackled from the start on the design board. Special condensers are used in series with all B positive and filament leads above ground. Connected as near as possible to the components and at the other end the lead goes away through the chassis. These condensers are made of pieces of brass plate 1¼" x ¾" and have a thin sheet of mica for the dialectric to the chassis. They keep down the inductance factor, and by-pass all r.f. getting back into the power supply, or coupling to other stages via the wiring.

Small insulating bushes were made from springback terminals. After passing through the chassis, all the filament and B positive wiring is outside of the compartments housing the r.f. components. If you still get beats, I suggest you try these series condensers, one in the B positive lead to the mixer oscillator circuit in your i.f. receiver, and also in the b.f.o. B positive lead.

LAYOUT

The chassis is 15" x 8" x 3½", made of 18 gauge copper. Large, no doubt, for the job, but then the special condensers take up some room and it is handy to be able to work in comfort. Space has not been sacrificed for efficiency. The signal enters one end and passes straight down the centre to the output. The xtal oscillator is the only stage out of line. All leads from the condensers are of copper foil 3/16" wide as also are the earthing leads.

The xtal oscillator section is entirely shielded and the link taken through a piece of tubing into the mixer compartment. A shield is run across the chassis and mounted so that it divides the four grid connections in each RL37 and to which they are soldered. This makes the earth connections short and also shields the input from the output circuit in the r.f. stage.

A small shield was also mounted to isolate the filament r.f. chokes of the RL37s from the 6J6 plate chokes where they run parallel to each other. All shields are of copper.

Now for the converter itself. Several months' work has gone into the design, layout and testing of each stage for maximum performance.

CRYSTAL OSCILLATOR

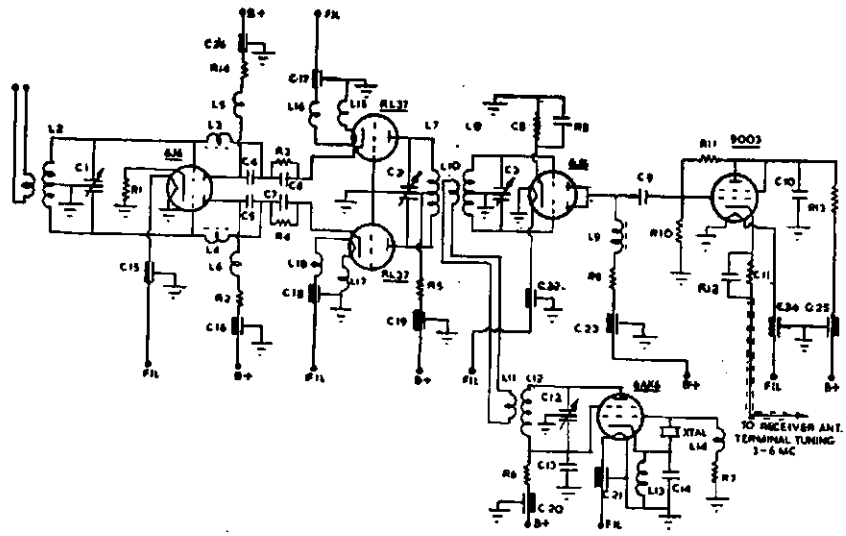
The circuit used is a 6AK6 tritet. After several weeks of testing harmonic oscillators of different varieties, this was chosen because of most reliability. Once output is obtained at 47 Mc., the circuit constants were varied until maximum output was obtained with the least plate voltage. The L to C ratios are the important factor. The output is link coupled to the mixer by a small two-turn link at the centre of the mixer coil and by a one-turn at the cold end of the oscillator plate coil.

MIXER

Tube chosen is the 6J6 because of the good signal to noise ratio obtained by using a push pull input to the grids and parallel plate output. This also tends to cancel out oscillator conversion noises, etc.

It is coupled to the cathode follower by a 1600 Kc. i.f. transformer which has had the padder condensers taken off and the two windings connected in series. This will then resonate around 4 Mc. and when placed in the circuit is broad enough to pass signals from 3 to 6 Mc.

(Continued on Page 6)



C1, 2, 3—15 pF. butterfly.
C4, 5—50 pF. silver mica.
C6, 7—0.001 uF. sil. mica.
C8, 10—0.0005 uF. mica.
C9—0.0001 uF. mica.
C11—0.001 uF. mica.
C12—8 pF. butterfly.
C13—0.01 uF. mica.
C14—3-30 pF. trimmer.
C15 to C26—Special condensers, see text.
R1—60 ohms.
R2, 5, 9, 12, 13, 14—1,000 ohms.
R3, 4—130 ohms.
R6—250 ohms.
R7—50,000 ohms.
R8—450 ohms.
R10—5,000 ohms.
R11—200,000 ohms.
L1—2 turns.
L2, 7, 8—12 turns, ½" dia. inside, 16 gauge.
L3, 4—24 turns, ½" dia. slug tuned.
L5, 6—18 turns, ¼" dia., 18 gauge.
L9—Revamped 1,600 Kc. i.f., see text.
L10, 11—2 turn link.
L12—11 turns, ½" dia. inside, 16 gauge.
L13—24 turns, ½" dia. slug tuned.
L14—2.5 mH. RFC.
LI5, 16, 17, 18—24 g. wire wound full length on 1 meg. 1 w. resistors.

* Rose Terrace, Wayville, South Aus.

Army VT Numbers and Commercial Numbers

VT No.	Commercial No.
VT1	WE203A*
VT2	WE 203B
VT3	*
VT4A	*
VT4B	211
VT4C	JAN 211
VT5	WE215A
VT6	212A*
VT7	WX12*
VT8	UV204*
VT10	*
VT11	*
VT12	*
VT13	*
VT14	*
VT16	*
VT17	860
VT18	*
VT19	861
VT20	*
VT21	*
VT22	204A
VT23	*
VT24	864
VT25	10
VT25A	10 Spec.
VT26	22
VT27	30
VT28	24, 24A
VT29	27
VT30	01A
VT31	31
VT32	*
VT33	33
VT34	207
VT35	35/51
VT36	36
VT37	37
VT39	869
VT39A	869A
VT40	40
VT41	851
VT42	872
VT42A	872A Spec.
VT43	845
VT44	32
VT45	45
VT46	866
VT46A	866A
VT47	47
VT48	41
VT49	39/44
VT50	50
VT51	841
VT52	45 Spec.
VT53	(VT42A)
VT54	34
VT55	865
VT56	56
VT57	57
VT58	58
VT60	859
VT62	801, 801A
VT63	46
VT64	800
VT65	6C5
VT65A	6C5G
VT66	6F6
VT66A	6F6G
VT67	30 Spec.
VT68	6B7
VT69	6D6
VT70	6F7
VT72	842
VT73	843
VT74	5Z4
VT75	75
VT76	76
VT77	77
VT78	78
VT80	80
VT83	83
VT84	84/6Z4
VT86	6K7
VT86A	6K7G
VT86B	6K7GT
VT87	6L7
VT87A	6L7G
VT88	6R7
VT88A	6R7G
VT88B	6R7GT
VT89	89
VT90	6H6
VT90A	6H6GT
VT91	6J7
VT91	6J7GT
VT92	6Q7
VT92A†	6Q7G
VT93	6B8
VT93A	6B8G
VT94	6J5
VT94A	6J5G
VT94B	6J5 Spec.
VT94C	6J5G Spec.
VT94D	6J5GT
VT95	2A3
VT96	6N7
VT96B	6N7 Spec.
VT97	5W4
VT98	6U5/6G5
VT99	6F8G
VT100	807
VT100A	807 Mod.
VT101	837
VT102	Cancelled
VT103	6SQ7
VT104	12SQ7
VT105	6SC7
VT106	803
VT107	6V6
VT107A	6V6GT
VT107B	6V6G
VT108	450TH
VT109	2051
VT111	5BP4/1802P4
VT112	6AC7/1852
VT114	5T4
VT115	6L6
VT115A	6L6G
VT116	6SJ7
VT116A	6SJ7GT
VT116B	6SJ7Y
VT117	6SK7
VT117A	6SK7GT
VT118	832
VT119	2X2/879
VT120	954
VT121	955
VT122	530
VT123	RCA A5586 superceded by VT128
VT124	1A5GT
VT125	1C5GT
VT126	6X5
VT126A	6X5G
VT126B	6X5GT
VT127	Spec. Tube
VT127A	Spec. Tube
VT128	1630 (A5588)
VT129	304TL
VT130	250TL
VT131	12SK7
VT132	12K8 Spec.
VT133	12SR7
VT134	12A6
VT135	12J5GT
VT135A	12J5
VT136	1625
VT137	1626
VT138	1629
VT139	VR150/30
VT140†	1628
VT141	531
VT142	WE39DY1
VT143	805
VT144	813
VT145	5Z3
VT146	1N5GT
VT147	1A7GT
VT148	1D8GT
VT149	3A8GT
VT150	6SA7
VT150A	6SA7GT
VT151	6A8G
VT151B	6A8GT
VT152	6K6GT
VT152A	6K6G
VT153	12C8 Spec.
VT154	814
VT155	Spec. Tube
VT156	Spec. Tube
VT157	Spec. Tube
VT158	Spec. Tube
VT159	Spec. Tube
VT160	Spec. Tube
VT161	12SA7
VT162	12SJ7
VT163	6C8G
VT164	1619
VT165	1624
VT166	371A
VT167	6K8
VT167A	6K8G
VT168A	6Y6G
VT169	12C8
VT170	1E5GP
VT171	1R5
VT171A	1R5 (loctal)
VT172	1S5
VT173	1T4
VT174	3S4
VT175	1613
VT176	6AB7/1853
VT177	1LH4
VT178	1LC6
VT179	1LN5
VT180†	3LF4
VT181	7Z4
VT182	3B7/1291
VT183	1R4/1294
VT184	VR90/30
VT185	3D6/1299
VT186	Spec. Tube
VT187	575A
VT188	7E6
VT189	7F7
VT190	7H7
VT191	316A
VT192	7A4
VT193	7C7
VT194	7J7
VT195	1005
VT196	6W5G
VT197A	5Y3GT/G
VT198A	6G6G
VT199	6SS7
VT200	VR105/30
VT201	25L6
VT201C	25L6GT
VT202	9002
VT203	9003
VT204	HK24G
VT205	6ST7
VT206A	5V4G
VT207	12AH7GT
VT208	7B8
VT209	12SG7
VT210	1S4
VT211	6SG7
VT212	958
VT213A	6L5G
VT214	12H6
VT215	6E5
VT216	816
VT217	811
VT218	100TH
VT219	*
VT220	250TH
VT221	3Q5GT
VT222	884
VT223	223
VT224	RK34
VT225	307A
VT226	3EP1/1806P1
VT227	7184
VT228	8012
VT229	6SL7GT
VT230	350A
VT231	6SN7GT
VT232	E1148
VT233	6SB7
VT234	HY114B
VT235	HY615
VT236	836
VT237	957
VT238	956
VT239	1LE3
VT240	710A
VT241	7E5/1201
VT243	7C4/12O3A
VT244	5U4G
VT245	2050
VT246	918
VT247	6AG7
VT248	1808P1
VT249	1006
VT250	EF50
VT251	441
VT252	923
VT254	304TH
VT255	705A
VT256	ZP486
VT257	K7
VT259	829
VT260	VR75/30
VT264	3Q4
VT266	1616
VT267	578
VT268	12SC7
VT269	717A
VT277	417
VT279	GY2
VT280†	C7063
VT281†	HY145ZT
VT282	ZG489
VT283†	QF206
VT284†	QF197
VT285†	QF200C
VT286	832A
VT287	815
VT288	12SH7
VT289	12SL7GT

* Obsolete.

† Indicates VT number cancelled.

THE JUBILEE RELAY

The Jubilee Relay Contest will take place during the month of September and should be a further means of making known Australia's Jubilee and the Jubilee VK-ZL DX Contest to be held during October.

Australian and New Zealand contestants will endeavour to send this message to as many foreign stations as possible:—

- **"Australia celebrates its Jubilee this year and invites you to join in the Jubilee VK-ZL DX Contest during October."**

Australian stations will add the signature W.I.A., and New Zealand stations N.Z.A.R.T.

RULES

1. The Contest will commence at 0001 hours G.M.T. on 1st September, 1951, and conclude at 2359 hours on 29th September, 1951.

2. Phone or c.w. may be used and all bands.

3. One point is gained for each contact and total points are obtained by multiplying total contacts by number of countries worked on each band.

4. Logs must be in the hands of the Contest Committee, Box 1734, G.P.O., Sydney, not later than 30th October, 1951. Logs should show: Date and time of contact, band, and station worked. A summary should be given showing final score.

5. A trophy will be awarded the highest scoring station in both Australia and New Zealand and Certificates to each District or State.

6. The decision of the W.I.A. Federal Contest Committee shall be final and binding.

7. From the above rules you will see that the Contest has been made very simple and should do much to publicise the main Contest, viz.: The Jubilee VK-ZL. Please send in your log irrespective of the number of contacts.

CRYSTAL CONVERTER

(Continued from Page 4)

THE CATHODE FOLLOWER

This was considered a necessary item and is excellent for changing from high impedance to low as required for the input to the Command receiver.

The resistor R11 was found to improve the output considerably.

THE R.F. STAGE

Last year's lesson showed that the aerial fed into a grounded grid r.f. stage was broad and inselective, in as much as strong signals at the i.f. frequency filtered through. It has been said that a grounded grid stage will perform better when driven, so much thought was given to this. Something in keeping with the 6J6 mixer was sought after.

One that seemed would do was the cascode circuit reputed to give good signal to noise ratio. But this was single ended. Wanting to keep everything symmetrical, the push pull cascode circuit as shown was developed. The plate circuit is inductively coupled to the mixer. Neutralisation of the 6J6 is obtained by using slug tuned inductances. Although not critical, when neutralised exactly the signal to noise ratio is improved.

The Aerial Coil.—A two-turn link at the centre of the input coil is used. At this stage two more points are gained. High signal to noise ratio and sensitivity.

In conclusion, the special condensers can be made as per page 46 "QST," September, 1948, but take a little longer to make.

The coils are best checked by a grid dip meter to set them correctly in the shortest time, especially the inductance neutralising coils.

The converter has been used on 50 Mc. during the past few months and has performed very nicely. With what has been found in practice and in light of a few articles from overseas, the full benefit of the circuit design does not show up at 50 Mc., but should be very beneficial and a great advantage at 144 Mc. It will be changed to this band later and results compared with other receivers on that band.

Fathers and Sons in Tragic Crash

VK7MC and Son, Athol, Killed

It is with deep regret that we learnt that VK7MC and his son, Athol, were killed in a car accident, together with Mr. S. V. Sydes and his son, on Sunday evening, 8th July.

The four people were killed when their car plunged over the St. Paul's River Bridge at Avoca and crashed on to rocks 30 feet below. They were Stanley Vale Sydes (about 41 years), Peel Street, Launceston; his son, Edward (14); Ernest Edward Cooper (about 45), VK7MC, 61 Balne Ter., Trevallyn, and his son Athol (17).

The accident occurred about 7 p.m. when they were returning to Launceston from Coles Bay, where they had been building a week-end shack.

It is believed that the car skidded on the bridge and got out of control. It plunged over the edge of the bridge and landed upside down a few feet from the edge of the water. The car was wrecked and a small trailer being towed by the car broke loose after the impact.

The two men were killed instantly. The boys were rushed to the Launceston General Hospital but they died shortly after admission.

RADIO OFFICIALS

Mr. Sydes was manager of radio station 7LA and Mr. Cooper (VK7MC) was the chief engineer at 7LA.

Mr. Sydes joined in 1930 and studied the technical branch of broadcasting. His tutor was the chief engineer (Mr. V. Brooker) and after three years he was awarded his technical certificate. When Mr. Brooker resigned as chief engineer in 1934, Mr. Sydes was given the appointment and held the position until 1945, when he was promoted to manager.

He took an active interest in the affairs of the Australian Federation of Commercial Broadcasting Stations and was secretary of the Tasmanian Branch. He was a member of the Launceston Rotary Club and assisted in the organisation of Courtesy Week held last month. He was also a former member of the Apex Club.

Mr. Sydes was a director of station 7QT Queenstown. His main hobby was amateur photography. He married Miss Judith McGladery, of Sydney, who was the first woman radio announcer employed by 7LA.

TECHNICAL EXPERT

Mr. Cooper was interested in all phases of radio from the time of his youth. He was employed by a Hobart firm in the mid-1920's to service radios and when the firm closed down, he moved to Launceston and went into business on his own.

His ability was recognised by the broadcasting stations and after working at 7HT Hobart and 7QT Queenstown as a technician, he accepted the position of chief engineer at 7LA.

Ern was an active 144 Mc. man in Launceston and was fairly active on 40 metre phone. He had been assisting Val Sydes in the building of a small seaside house at Coles Bay on the East Coast of Tasmania and in his spare time was building an 80/40 metre portable transmitter-receiver to take with him to this DX paradise, miles away from man-made noise.

Only the Friday before the tragedy, VK7XW was discussing with him the R.D. Contest in which he intended to take an active interest.

AMATEUR CALL SIGNS

ADDITIONS, ALTERATIONS AND DELETIONS FOR MONTH OF MAY, 1951

ADDITIONS

VK—

New South Wales

2LR—L. J. Turner, McDougall St., Kyogle.
2AFH—F. D. A. H. Hurley, Unit 279D, Housing Estate, Herne Bay.
2APJ—A. G. Simmonds, 16 Burraneer Bay Rd., Cronulla.
2ARM—R. J. Miller, 8 Tillock St., Haberfield.

Victoria

3YU—R. C. Smith, Esdale St., Blackburn.
3AFL—S. L. Skinner, 8 Fontaine St., Pascoe Vale
3ANG—N. F. Wilson, 155 Bridge St., Benalla.
3ANJ—L. E. Lawless, 12 Hall St., W. Brunswick.
3AVG—N. R. Miatt, 40 Albany Cr., Surrey Hills

Queensland

4GQ—R. J. Mitchell, Kell Mount. Rd., Woombye
4KJ—W. E. C. Sawyer, Coastal Radio Station VII, Thursday Island.

South Australia

5MG—W. C. Caldwell (Cpl.), Milpo, Darwin, N.T.
5TJ—T. J. Lally, P.O. Box 99, Clare, S.A.
5TP—A. E. Peppercorn, 8 Leslie Av., Blair Athol

Western Australia

6BR—B. R. E. Field, Alexander St., Sth. Perth.

Tasmania

7YH—F. W. Hand, George Town.
7OK—M. A. O'Keefe, Hut C7, Bronte Park.

Territories

IBS—W. J. Storer, Macquarie Island.
9CP—Rev. C. J. Patrick, Papitalai, Manus.
9WG—W. C. Gee, Administration Senior Officers' Mess, Port Moresby.

ALTERATIONS

VK—

New South Wales

2AZ—"Vaucluse," Hoxton Park Rd., Liverpool.
2IP—Lot 51, New Barrengay Rd., Avalon Beach.
2TL—5 Shadforth St., Mosman.
2YH—188 Stafford St., Penrith.
2ZM—22 William Rd., Herne Bay.
2AEQ—13 New St., Auburn.
2AGY—Compton St., North Lambton.
2AKK—5 Elston Ave., West Ryde.
2ALD—3 David Avenue, Caringbah.
2ANR—"Kia Ora," Yass Rd., R.M.B.200, Canberra, A.C.T.
2ANT—Aerodrome Rd., Forest Hill, via Wagga; postal address: Depart. of Civil Aviation, Box 114S, P.O. South Wagga.
2APM—Lot 57, Raleigh Ave., Caringbah.
2AVS—34 Moate Ave., Brighton-le-Sands.
2AVT—Miller Rd., Villawood, Sydney.

Victoria

3CI—High Street, Nagamble.
3JM—180 Ascot Vale Rd., Ascot Vale.
3OE—38 Barcelona St.,
3OQ—Theogen Crt., 52 Esplanade, Brighton, S.5.
3QG—1333a Gregory St., Ballarat.
3RB—Flat 5, 230 Toorak Rd., South Yarra.
3US—Koonwarra Rd., Leongatha South (Postal address: P. O. Box 126, Leongatha).
3VF—34 Vernon St., Croydon.
3VL—Koonwarra Rd., Leongatha South (Postal address: P. O. Box 126, Leongatha).
3VY—Ellesmere Pde., Rosanna.
3XV—26 Elora Rd., South Oakleigh.
3ZO—4 Parliament Place, East Melbourne.
3ADA—192 Buckley St., Essendon.
3AFG—45 Marley St., Sale.
3ATL—Rear of Congregational Church, Gheringhap St., Geelong.

Queensland

4AJ—214 Boundary Rd., West End, Brisbane.
4FC—Marina Parade, Ingham.
4MG—Olive Street, Killarney.
4RF—Coominya, Esk Line.
4WI—C/o. W. G. Dodd, 26 Paramount Ter., Morningside, Brisbane.

South Australia

5BM—23 Miller St., North Unley.
5NP—13 Grandview Gr., Toorak Gardens.

Western Australia

6GU—2 St. George's Terrace, Perth.
6LA—20 Canning Pde., Canning Bridge, W.A.
6RG—8 Parramatta Rd., Doubleview.

Tasmania

7SW—25 Bedford St., New Town.

DELETIONS

VK—

New South Wales

2MX—Cancelled.
2QJ—Cancelled, now operating under VK5TP.
2SZ—Cancelled.
2VS—Cancelled.
2AAS—Cancelled; now operating under VK1BS.
2AGJ—Cancelled; now operating under VK4GQ.
2AJB—Cancelled; now operating under VK2LR.
2AQM—Cancelled.
2ARD—Cancelled.

Victoria

3HQ—Cancelled.
3IB—Cancelled.
3IZ—Cancelled.
3KD—Cancelled.
3RA—Cancelled.
3YH—Cancelled; now operating under VK7YH.
3ALN—Cancelled.
3AQL—Cancelled.

Queensland

4PG—Cancelled.

South Australia

5HR—Cancelled.

Western Australia

6DD—Cancelled.
6NW—Cancelled; now operating under VK3ANG.
6RZ—Cancelled.

Tasmania

7AN—Cancelled; now operating under VK9WG.

Territories

9JP—Cancelled.
9MR—Cancelled.

T-TYPE VALVE SOCKETS

Those ex-R.N. or R.A.F. 9-pin valve sockets for EF50s and the like—they can be troublesome when stripped from ex-Service gear. Many of these sockets had been sprayed or bushed by people with a yen for "tropic proofing or bust." The result was that "goo" got all over the contact springs as well as the insulation material. Poor, or lack of contact and seized springs resulted from such treatment. The cure is to soak such sockets in lacquer thinner or Acetone, then dry out for a day or so, and all will be well, after scraping contact surfaces clean.—VK2NO.

Results of the 1951 National Field Day Contest

Despite the publicity given to this Contest the number of logs received was a very poor average of the Amateurs who, from time to time, express their interest in field work. Admittedly it was a hot summer this year—which may account for the low participation figures—but it is astounding that so little interest is evidenced in what should seemingly be a most attractive out-door Ham event.

However, it is at least pleasing to note a little more interest than for the 1950 Contest, and if this can be taken as a guide, it would seem that the National Field Day Contest may yet be a real "big time" show looked forward to year after year by hundreds instead of such a minority.

SCORES

Open Section

Call	Conts.	Bands	Contact Pts.	Bonus Pts.	Total
VK3ADB/2	44	3	176	150	326
VK6WI/P	39	5	137	150	287
VK7SR/4	47	2	214	100	214
VK2AMV/P/4	15	3	78	100	178
VK7WI/P/2	19	2	86	25	115
VK5JG/2	2	1	20	—	20

C.W. Section

Call	Conts.	Bands	Contact Pts.	Bonus Pts.	Total
VK4AP/P	37	2	173	175	348
VK3ADB/2	26	3	131	150	281
VK6HC/2	33	3	120	150	270
VK2AHA/5	30	2	116	125	241
VK7SR/3	19	2	91	75	166

Phone Section

Call	Conts.	Bands	Contact Pts.	Bonus Pts.	Total
VK3LN/2	47	2	154	25	179
VK3ALQ/3	41	3	140	25	165
VK4KS/3	55	3	123	25	148
VK7SR/4	28	2	123	25	148
VK4RL	25	2	89	50	139
VK7RX/5	43	2	133	—	133
VK3ADB/2	23	3	69	50	119

Check logs were received from VK5RR and VK5BJ, and Eric Trebilcock BERS 195.

The description of equipment used by each competitor makes very interesting reading, but unfortunately it is impossible to print the details herewith. The equipment used by the winner in each section is as follows:—

Open.—VK3ADB took the honours in this section, and is also to be commended on gaining second place in the c.w. section. VK3ADB is the portable call of J. G. DuFaur, VK3ADF, who was ably assisted by J. R. Richardson, VK3ZP

The portable station was located at the top of Mt. Eliza—approximately five miles from Frankston—and used a Type 3 Mk. II. on the 20, 40 and 80 metre bands, plate modulated with an external home-built modulator using a 6N7 in the output stage supplying 10 watts of audio power from a carbon microphone.

The power input to the final with the antenna connected was 20-25 watts. Antennae consisted of three long wire systems erected between trees, varying from 150 to 400 ft. in length, and 25 to 30 ft. in height.

Vibrator power supplies powered all the equipment, including a modified Hallicrafter SX25 Rx, powered from 6 volt accumulators.

Phone: VK3LN, Len Moncur, assisted by G. Dennis, VK3TF, carried off the first place in the Phone Section with a Type 3 Mk. II. using 8 watts input feeding alternatively two 40 metre half wave dipoles and a 20 metre half wave dipole. Their location was Kellor.

C.W.: VK4AP, A. Guildford, did a magnificent job of "breaking the tape" in the c.w. section with more bonus points than contact points. He was assisted with the erection of his station by a New Australian, Ernie Ballantyne, who is also an R.S.G.B. member.

A Bendix 221-D was used as a v.f.o. followed by 6SH7, 6SH7, 6V6 and 807 final running 15-18 watts with the antenna connected. The location was Lota—almost on the sea front about 15 miles from Brisbane.

A quite terrific supply of h.d. 6 volt and 12 volt batteries, 45 volt h.d. battery banks, 32 volt d.c. to 230 volt a.c. inverter, together with a 32 volt charger loaned by the courtesy of a local firm powered the rig into a 136 ft. single wire antenna end fed with tuned feeders.

As an indication of what can be done, VK4AP logged VS6, ZL2, SM5, W7, KH6, LU9 amongst other DX. A very fine effort for 37 contacts on two bands.

VK4KS and VK7SR ran abreast for third place in the phone section and each will receive a certificate.

Let's hope that next year bigger and better logs will be sent in. And don't forget, chaps, send in your log, however small the number of contacts.

— . . . —

HINT ON MEASURING AERIAL

Next time you borrow a tape to measure the wire for an antenna, drive several pegs in the ground—survey peg fashion—known distances apart, say 33 feet and 66 feet. This will obviate the necessity for borrowing the tape on future occasions as you will now have convenient datum points from which to measure the lengths of wire commonly used in Amateur band antennae.

Commonwealth Jubilee VK-ZL DX Contest

CONTEST RULES—OCTOBER, 1951

On the 1st January, 1901, Federation was proclaimed in Australia and this meant the conversion of Colonies into States and these States became part of a new Nation. This year, Australia is celebrating the Jubilee of this memorable occasion by many and varied ceremonies in all parts of the Commonwealth and the VK-ZL DX Contest will not be the least important event by any means.

The Commonwealth Government has honoured the Wireless Institute of Australia by the recognition of one of the World's leading Radio Contests by making available a monetary grant and it is the intention of the Institute to show its appreciation of this allocation by making the Jubilee VK-ZL DX Contest the best Contest to date and your co-operation and assistance is sought.

You can make this Contest a very successful one by entering either the c.w. or phone sections, or for that matter both, and by sending in your log irrespective of the number of contacts you have had.

The Contest is divided into three Sections, viz.: c.w., phone, and receiving. The c.w. section will commence at 0001 G.M.T., Saturday, 13th October, and will conclude at 1200 G.M.T., Sunday, 14th October. The phone section will commence 0001 G.M.T., Saturday, 20th October, and conclude at 1200 G.M.T., Sunday, 21st October. The receiving section covers both c.w. and telephony.

You may enter the open section, viz.: all bands in either phone or c.w. or any one band in either section. A separate log must be forwarded for all sections entered. Additional log sheets may be obtained from your Divisional Secretary.

Serial numbers must be exchanged during the Contest as follows:—**The first three figures will be the RST in the c.w. section followed by serial number of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one for each successive contact. In the phone section, the first two figures will be the RS report and then as in the c.w. section.**

The method of scoring is quite simple. One point is scored for each contact and the final score is obtained by multiplying the number of contacts by the number of countries or VK-ZL Districts worked on each band.

Logs must show in this order: **Date, time (G.M.T.), band, call of station worked, serial number sent and received, and new country or VK-ZL District worked.**

A cup will go to the highest scoring station in both Australia and New Zealand, whilst a plaque or medallion will go to the highest scoring stations in each State of Australia and District of New Zealand. Certificates will be presented to other place getters. This procedure will be adopted for all countries outside Australia. Each W District and British Isle Prefix will be regarded as separate countries. The Contest Committee reserve the right to decide the type and number of prizes or Certificates to be allocated. This will depend entirely upon the number of logs received from any particular country.

The New Zealand Association of Radio Transmitters are co-operating with the Wireless Institute of Australia in conducting this Contest.

Overseas logs should be received by the Chairman, Contest Committee, Box 1734, G.P.O., Sydney, Australia, not later than 31st January, 1952. VK-ZL logs should reach the Contest Committee not later than 30th November, 1951. Every contestant will receive a copy of the results, together with a QSL acknowledging his participation in this Jubilee DX Contest. **Remember, please send your log in irrespective of the number of contacts you have made.**

Here are the Rules in detail:—

Dates: (a) c.w. operation—second week-end in October, from 0001 G.M.T., Saturday, 13th October, to 1200 G.M.T., Sunday, 14th October. (b) Phone operation—third week-end in October, from 0001 G.M.T., Saturday, 20th October, to 1200 G.M.T., Sunday, 21st October.

Duration: (a) **VK and ZL stations** for contest purposes will limit their period of operation to any consecutive 24-hour period on each week-end within the times given above. Once an operator commences operation, the operator will not exceed 24 hours of operation reckoned from such commencing time.

(b) In other countries, stations may contact VK and ZL stations at any time within the periods shown above.

TRANSMITTING

1. There shall be three main sections to the Contest: (a) Transmitting c.w.; (b) Transmitting phone; (c) Receiving (phone and c.w.).

2. Contestants may compete in the open events (i.e. all bands) or on one or more individual bands by submitting a log for each individual band.

3. The Contest is open to all licensed transmitting Amateurs and receiving stations in any part of the world. No prior entry need be made. Marine mobile stations (if outside Australian and New Zealand territorial waters) may count as contacts, but not as multipliers.

4. C.w. will be used for the first week-end of the Contest and phone for the second week-end. Stations entering for both c.w. and phone sections must submit separate logs for both phone and c.w.

5. All Amateur frequency bands may be used. Cross-band operation will not be permitted.

6. Only one contact per band is permitted with any one station (for contest purposes).

7. Only one licensed Amateur is permitted **to operate any one station under the owner's call sign.** Should two or more operators operate any particular station, each will be considered a competitor and must submit a separate log under his own call sign.

8. Serial numbers to be exchanged during the Contest will be as follows:—

(a) For c.w. the first three figures will be the RST (telegraphy) report, followed by the serial number of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact. If any contestant reaches 999 he will then start 001 and continue 002, 003, 004, etc.

(b) For phone, the first two figures will be the RS (telephony) report, followed by the serial of the contact commencing with any number between 001 and 100 for the first contact and increasing in value by one (1) for each successive contact—five figures in all. If any contestant reaches 999, he will then start 001 and continue 002, 003, 004, etc.

9. **Scoring:** One point will be scored for each contact on a specific band with any overseas country (VK-ZL District for overseas stations). The final score will be obtained by multiplying the total contacts on each band by the total number of countries worked on each band.

The A.R.R.L. Official Countries List will be used except that in the case of the U.S.A., each call area shall be considered a country.

VK-ZL Districts are VK1, 2, 3, 4, 5, 6, 7, 9; and ZL1, 2, 3, 4.

10. **Logs:** (a) Logs must show in this order:— **Date, time (G.M.T.), band, call of station worked, serial number sent, serial number received, and new country or VK-ZL District worked.**

(b) A separate log must be submitted for each band for which an individual entry is intended. For the open section an all-band log is required.

Each log must show a summary as follows:— **The number of effective contacts, multiplier claimed and total points, together with a statement of call sign, name and address, whether phone or c.w., single band or all-band operation. Each page of the log must be numbered and signed by the contestant.**

The ruling of the Contest Committee of the W.I.A. will be final in the event of any dispute.

11. **Awards:** A cup will be awarded to the highest scoring stations in the open section in Australia and New Zealand. A medallion, plaque or certificate will go to the highest scoring stations outside Australia and New Zealand. The Committee reserve the right to determine the type and number of prizes to be allocated. This will depend entirely upon the number of logs received from any particular country. Every entrant will receive a copy of the final scores, together with a QSL acknowledging his participation.

12. Entries from overseas stations should be endorsed "**VK-ZL Contest,**" and should reach the Chairman, Contest Committee, Box 1734, G.P.O., Sydney, Australia, not later than 31st January, 1952. VK-ZL logs should reach the Contest Committee not later than 30th November, 1951.

RECEIVING SECTION

1. The rules for the receiving section are the same as for the transmitting section, but it is open to all members of any shortwave listeners' society in the world. No transmitting station is permitted to enter for the receiving section.

2. The Contest times and the logging of stations once on each band per week-end are as for the transmitting section. Logs will be in the same form as for the transmitting section.

3. To count for points, the call sign of the station being called, the strength and tone of the called station, together with the serial numbers sent by the calling station must be entered in the log. One point may be claimed for each entry complying with the above details.

4. It is not sufficient to log a station calling "CQ Contest."

5. VK receiving stations may log overseas stations and ZL stations. ZL receiving stations may log overseas stations and VK stations. Overseas receiving stations may log only VK and ZL stations.

6. Awards to be determined by the Contest Committee.

COPY OF LOG SHEET

Section C.W. Open .....Band. Call.....
Phone Open.....Band.

Australia's Jubilee Celebrations
Commonwealth Jubilee VK-ZL DX Cont., 1951

Organised by the Wireless Institute of Australia in association with the New Zealand Association of Radio Transmitters on behalf of **Commonwealth of Australia Jubilee Committee**

Band	VK-ZL Dist. Countries	Contacts	Points
3.5 Mc.			
7 Mc.			
14 Mc.			
27 Mc.			
28 Mc.			
Total			

Name .....
Address .....
.....

I hereby declare that my station was operated strictly in accordance with the Rules and spirit of this Contest and I agree that the decision of the Contest Committee shall be final and binding in all matters pertaining to the Contest.

Date..... Signed.....

Date Time	Band	Station Worked	Serial No. Sent	Rcvd.	Country-District	Points

DX NOTES BY VK4QL

As far as this QTH is concerned, one could almost say "What DX?" The bands have been in very poor shape here, and extremely erratic day to day. It has been well nigh impossible to conduct an Interstate QSO, as the station you were working would go out like a light, often finishing up with half copy of any "gen" for these notes. Have once again received valuable assistance from some of the gang, namely 2DG, 2OW, 3ABP, 3CX, 4GB, 7RK, ZL1CI and ZL1MB. What about a VK5 and VK6 being in the swim too? Some new prefixes on the band this month have set quite a few of us wondering where they are. The band survey for the month is as follows, with the stations worked shown as a *.

3.5 Mc.: This band has produced very little of note, all sigs being well down and of no use for a chat. As well as being weak, fading was evident. 2DG said K4USA is on 3700 Kc. around 0600-0700 G.M.T., and is readable at his QTH. 7RK found the band similar to this QTH.

7 Mc.: This band has produced a few startling surprises this month in various places. Up here the Ws have been hard to work at any period of the evening, for a good part of it, not even being audible, although some good KH6 sigs were heard. The band is showing possibilities in the mornings once again. A few Europeans have been heard weakly. One day at 2100 G.M.T., PY7EX was heard at fair strength, and although called by FA8RJ and myself, heard neither of us. Also heard between 2100-2200 G.M.T.: W1AAE, SU1FX (QSL via R.S.G.B.), VQ2AB*, YU1AFG, OQ5DZ; evenings produced VR4AA* and CM2FC.

2DG finds K4USA audible on 7130 Kc. looking for VKs. 7RK hears the Ws in the evenings with the odd VE7 and KL7. VS7NG was heard at 1330 G.M.T. This shows quite a difference between N.E. and S.E. VK. 5JE also heard a South American at round 2100 G.M.T. to the tune of LU8AE. 3ABP at Sale produces the most amazing information, with the news that on the 5th of the month, he heard, between 0001 and 0100 G.M.T., ZLs working, at S7, Ws and South Americans. The following day at the same time, VE7 and W6 were heard up to S6. On 7th the VE7 and W6 were a little weaker, but a VE1 and VK6 were heard. This certainly rocks the natives. ZL1CI said that VQ4s have been heard over there at S8 round 2100 G.M.T. Knowing the trouble ZL used to have with South Africans even on 14 Mc., it is strange.

14 Mc.: This band, as mentioned earlier, has been most erratic and unreliable, and is confirmed by remarks by stations worked. The only consistent sig here has been VE8AW and W7AH. VE8AW found the band most erratic, being unable to do much one day, and work the world the next. VK2 could be heard working stuff that was inaudible here. On the 15th at 2100 G.M.T., the band was full of South Americans. An idea of the band for Europe can be gauged from the fact that I only worked one European in the mornings here. On 10th, ZS2X was heard at 0715 and ZS2AT at 0830 G.M.T., whilst ZS6OW was worked at 0630 G.M.T. on 30th. On the 12th at 0745 G.M.T., the band collapsed completely. On the 4th, around 0700 G.M.T., the band had had it, and two beautiful sigs appeared on the band signing CR4AH and VP6SD. Both went through QSO after QSO for some time until they faded here. 4BG has found the DX good at times, but weak, hearing stations like UB5KA, UP2KV, FA8CR, HZ1AB, MD2JB, EK1DS, FF8AB, VP4TB, C3AC, FI3AG, VR4AB, SP1SJ.

2DG confirms the erratic band, but found the band better, especially between 0400-0800 G.M.T., and the Europeans from 1900-2200 G.M.T. He lists EK1AO*, HS1AS*, M1B*, KC6WC*, VP9AK*, VP4TB*, CR9AF*, VP3VN*, EA6AM*, EA9BA*, 9B3AA, FB8ZZ, FN8DA, XU6F, FI8TP, VP5BR (Cayman Is.). 3CX heard, when not trying to de-bug his rig, I1AHR/M1, 9S4AX, 3A2AC, JB2AT, 7B4QF, MP4BAF, HR1KS. 2OW still getting amongst it to the tune of KV4AA*, CT3AN, JB2AA, FKS8AL*, CR9AF*, XE1AC*, VR2CD*, KP4OF*, FA8DA*, VR4AB*, HP1BR*. 7RK finds that the Europeans on the long path go out round 0600 G.M.T., then the JA and KL7 appear until about 1300 G.M.T. His list, apart from the usual run of North Americans and Europeans, shows KR6CA, KX6AB, FI8TP, 9S4AX, TI2AC, FR7ZA* (Box 330, St. Denis, Reunion Is.), VR4AB. Ray heard another good effort by W8AM on the band the other day to the tune of an endless call "7B4QF—Blind—de W6AM." This bloke certainly tries every post as a winner.

My own listing for this band: FKS8AA, FKS8AL, MD2DW, 4X4GD at 10 a.m., CR4AH*, FF8AB, FF8JC, VP6SD*, KJ6AI, EK1PA, VP7NM, HS1VR*, ZK1BC, CR9AF*, IS1UIC, IS1AHK, C3CX*, C9CB*, YS1O, HR1DF, VP6CDI, EA9BA, XZ2EM*, VP5BL*, HL1BR, KB6AT, FI8RO*, XU8F*. I tried to get the score on himself from XU6F, but no dice; the QTH he gives not being much help, which is No. 13, Yik Yam St., Gr., Fl, Hong Kong.

28 Mc.: This band seems to be hopeless from all reports received. Any visits I made were fruitless.

By the way, the FKS8 prefix seems to have a few DXers tricked. It is the prefix used by Hams with the French forces in Austria, similar to the MB9, used by British forces.

3CX received QSLs from KJ6AI, PK5AA, HR1AT, HK4CF, FM7WF. What did you use for bait with PK5AA Alan? My own received were OX3RG, KW6AI, CO6NF, FM7WF, SP1CM, ZS8MK, ZS7D, ZB1AJX, CP5EK. This QSL business is hard to follow. Have now received two cards from FM7WF, OX3RG, ZS8MK and CP5EK, and I daresay there are some waiting their first from some of them.

April "QST" said that 9S4 is now being counted as a separate country, as is also Amsterdam Is. (FB8ZZ). So there looks like two more for the "books."

Eric B.E.R.S.195, also helps me out with the news he has received cards from VR1C, HI6EC, ZS7D, FY8AC, W0CMF/C3, bringing his confirmed total to 196. Heard EA9AP on 7 Mc. and heard SV1VS/MM on the same band at 2300 G.M.T., gave his QTH as North Atlantic, near the Canadian coast. Had a report to XU8SR returned with the envelope endorsed "firm extinct."

To date no change has been made in the Service concession postal rates, so the rates of postage to me in last month's issue still stands.

● Well, we wind up this month with the thought of "a fervent hope that the bands show a great improvement for the Remembrance Day and VK-ZL Jubilee Contests, which are fast approaching." Cheers.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3EE	10	158	VK3JE	7	123
VK3JD	1	155	VK4JP	8	114
VK6RU	2	147	VK3AWW	14	112
VK6KW	4	145	VK4WJ	17	104
VK3BZ	3	141	VK2ADT	13	102
VK4HR	12	140	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK3LN	11	132	VK6PJ	19	101
VK6DD	6	126	VK3GG	18	100
			VK3IG	5	100

CW

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	163	VK3UM	12	116
VK3FH	15	160	VK4FJ	29	115
VK4EL	9	158	VK3XK	30	114
VK2EO	2	152	VK4DA	7	113
VK3CN	1	151	VK3PL	38	113
VK6SA	28	150	VK7LZ	17	112
VK2QL	5	141	VK5BO	33	116
VK4HR	8	141	VK4QL	36	110
VK3VW	4	140	VK4RC	13	107
VK3KB	10	138	VK3YD	27	105
VK2GW	16	132	VK2YC	34	103
VK6RU	18	132	VK3HT	37	103
VK5FH	31	129	VK3APA	14	101
VK5RX	23	128	VK3NC	19	101
VK4RF	11	125	VK3CX	26	101
VK3JE	21	124	VK2OA	32	101
VK3EK	3	122	VK7RK	22	100
VK4DO	20	119	VK7LJ	24	100
VK3JI	25	118	VK2AEZ	35	100

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3AWW	45	115
VK4HR	7	182	VK3JA	43	114
VK3JE	12	180	VK2ADT	14	113
VK6RU	8	179	VK3VQ	46	112
VK3HG	3	171	VK3PG	47	111
VK3KX	1	167	VK4RC	21	110
VK6KW	13	165	VK3ZB	34	110
VK2DI	2	160	VK4WF	40	109
VK4EL	10	158	VK2ZC	25	108
VK4KS	24	149	VK2YL	11	106
VK4DO	15	147	VK3AWN	36	105
VK5FL	26	143	VK2VN	18	104
VK3MC	5	139	VK4UL	27	104
VK3OP	19	137	VK6PJ	44	104
VK6DD	22	136	VK2HZ	17	103
VK3LN	29	135	VK7KB	30	103
VK4FJ	32	135	VK2TI	37	103
VK2ADE	28	133	VK3HO	38	103
VK2AHA	9	128	VK6DX	42	103
VK2AHM	20	125	VK7RK	31	102
VK2NS	16	123	VK4TY	35	102
VK3HT	41	123	VK9GW*	48	102
VK3JI	33	119	VK2ACX	6	100
VK7LZ	23	116	VK2TG	39	100

* First VK9 in the DX C.C. Club.

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

AUGUST, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

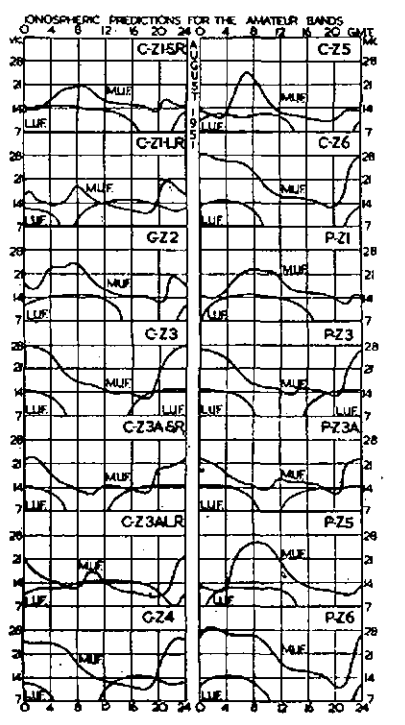
The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart

The Prediction Service welcomes comments on the accuracy of its predictions. These should be forwarded through the W.I.A.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

V.h.f. men were shocked to hear of the tragic death of 7MC and his son Athol in a car accident. It will be remembered that when contact between VK3 and VK7 was first established on 144 Mc., 7MC was one of the first stations on the job, and his untimely death will leave a gap in northern VK7 Hamdom that will be hard to fill. Our sympathies are extended to his family and relatives, and to the Hams of Launceston who have lost a friend.

GENERAL V.H.F. NEWS

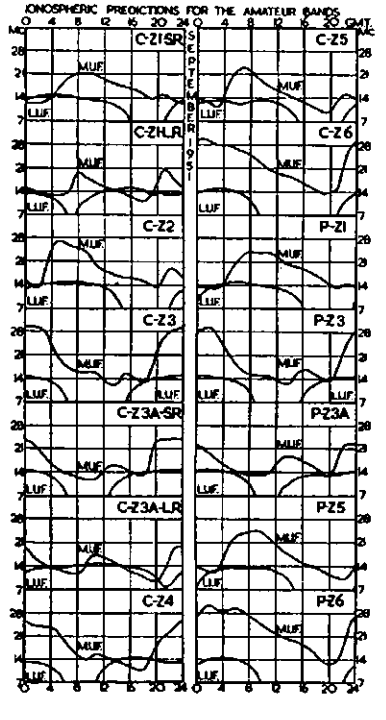
NEW SOUTH WALES

As the weeks pass, it begins to look as though the usual midwinter DX opening will not take place this year. So far the band hasn't even looked like being open and the beacons have been absent. Perhaps this accounts for the poor activity on the band. No new stations were noted this month, although three old ones reappeared after a long silence. These were 2AH. 2DV and 2ABZ. 2DV appears to have been having some bother with minor troubles since he got the rig going again—must be the rusty joints Snow.

V.h.f. activity this month has once again been concentrated on 144 Mc., 50 Mc. being very sparsely populated. Despite these conditions, an activity list for both bands disclosed that sixty-one stations were active for the month of June. This list was compiled by 2QZ and is as follows:— VKs 2AH, 2DF, 2CE, 2DV, 2FK, 2FD, 2GA, HO, 2HL, 2IO, 2JU, 2JY, 2KR, 2LG, 2LZ, 2LS, 2MZ, 2MQ, 2NP, 2PU, 2PD, 2PF, 2QZ, 2QW, 2RU, 2VW, 2VU, 2VL, 2WJ, 2WI, 2XG, 2XK, 2XX, 2YM, 2AFZ, 2AJR, 2ASK, 2ABB, 2ARG, 2ABD, 2ANF, 2ABZ, 2AQB, 2AJZ, 2ABO, 2AZO, 2AWZ, 2AHP, 2ADT, 2ADY, 2ANK, 2AKX, 2ARF, 2ANU, 2ABC, 2AET, 2AIG, 2AMG, 2KS, 2PB, 2ACP. Did we hear something about there being nobody on the v.h.f. bands?

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	13	3
VK4RY	2	2
VK2VW	2	2
VK5LC	1	1
VK8DW	2	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK2ABC	2	



The N.S.W. V.h.f. Group would be pleased to hear from country v.h.f. enthusiasts regarding who operates on v.h.f. in their district and what type of equipment is in use, the aim being to compile a directory of N.S.W. v.h.f. stations. So, if you do use any of the bands from 50 Mc. upwards, drop a line to the Secretary, V.h.f. Group, W.I.A., 30 Noble Street, Hurstville, N.S.W.

VICTORIA

The sympathies of Victorian v.h.f. men are extended to Peter 3APF upon the recent death of his mother. Peter is a well known 2 and 6 metre man.

Ex-2LY, Stan Skinner, has taken up residence in Ascot Vale, Melbourne, under the call sign of 3AFL, and is already operating on 50 Mc.; will soon be active on 144 and 576 Mc.

Another new call on 50 Mc. is 3JE who put in an appearance recently. We are glad to hear 3ACL's signal again after an absence of many months. Eric is well on the road to recovery from his recent serious illness, and now in the process of repairing his beam.

SOUTH AUSTRALIA

All v.h.f. men wish to congratulate Reg 5QR on winning the v.h.f. contest. A good effort Reg. The main topic of recent weeks has been the rules suggested by VK2 for the v.h.f. contest for next year. While on contests, we are informed that there is to be a VK5 Intra-state v.h.f. contest next year and some very good trophies are to be offered, some for the country man, so here is a chance to break in on the v.h.f. and prove that it is better than the lower frequencies for local work.

The offer to all country chaps re helping with getting them going on v.h.f. still stands. You will want to be in on this v.h.f. contest, so get started on your gear now. 5JD's suggestion re the round table QSO for Sunday nights has not been fully supported as yet, although there is quite a bit of activity at that time.

5AX is still heard after the W.I.A. session on 50 Mc. each Sunday. 5BC and 5HD are on 50 Mc. regularly each week. 5FM and 5MO started a QSO on 3.5 Mc. then 7 Mc., and finished up on 50 Mc.; heard to remark that v.h.f. was the best for local QSO. I have been telling you that for 15 years Pete. 5GA is dabbling with harmonic oscillators, using a 6A6. 5JD is back from VK3 and has cured the hum in the transmission, has good quality phone now. 5RO using flea power to a 6J6; good signal. 5GF also using QRP—0.15 watt—to a 6J6. 5MD has a good signal on 50 Mc. Welcome to 50 Mc. 5BY; only on c.w. but a good start. 5MK vacated 288 for 50 Mc.; has bad hum in modulator. 5GL, after being quiet for a few weeks, bobbed up with QRO and nice sig.

144 Mc. DOINGS OF THE MONTH

NEW SOUTH WALES

New stations on this band are 2VL and 2AFZ. 2VL is using 7193s and hopes to shortly make up a crystal controlled Tx using an 832 in the final. Quite a number of new stations are preparing to attack the two metre band for the contest. 2GA made the long trip from Woy Woy to Sydney and back to collect a 522 Tx which should be on the band before the contest starts. 2AYP has just got his P38 Rx going and hopes to have a 522 Tx going before the contest.

Mobile work is still occupying the attention of some of the stations on 144 Mc. Recently, 2ABO, 2HL, 2YM and 2ANF were all out on the one afternoon and, with the exception of 2YM who was not heard by the others, all met in person near the water tanks at Mobb's Hill, a favourite v.h.f. spot. 2ABO is using a xtal controlled rig with 832 in the final and clamp tube mod. 2XX has his mobile rig in action but is having modulator trouble.

2LS has a 522 Tx going and putting out a very strong signal on a dipole. Lionel hopes to put up a beam shortly and add the Rx section of the 522 in place of his present ASV Rx. 2HO had some excitement one morning when listening around the band. He heard a very weak m.c.w. signal on the low end of 144 Mc. which Roy read as a W1HD. A cable was sent to the U.S.A. to seek verification but at time of writing no news has been received. Being an old hand at c.w., Roy is not likely to have misread the call sign so hope is not yet abandoned. The previously reported reception of W signals on two metres was not verified as the station heard was being relayed by another station on ten metres at the same time.

2ARG has made a comeback on two and still putting out large slices of signal with his 522. Bob is hoping to hook on an 829B very shortly. 2MQ is re-building the final of his Tx using flat strip lines. This rig, using 828s in the final, is the one described some time ago in the pages of this magaine. 2ADY, the Gladesville Radio Club station, is being heard regularly on Sunday nights on both 2 and 8 working club members and others. The club is holding a contest to run during one Sunday of the main 144 Mc. contest so this year the 144 Mc. contest should be bigger than ever.

2QZ has finally tamed his new Tx. 2ANF is talking new beams and a new Tx. The North Coast boys are getting interested in 144 and 2XO reports intentions of a number of them to set up v.h.f. gear mainly for working amongst themselves. Such equipment should prove extremely valuable for the flood emergency nets, particularly for short distances where 144, or 50 Mc., could provide the certain and reliable conditions which the 7 Mc. band does not.

VICTORIAN V.H.F. GROUP NOTES

Next Group meeting is on Wednesday night, 15th August at the W.I.A. rooms. Details of the evening's activities have not yet been decided, but will be publicised over 3WI broadcasts. A large gathering at the June meeting heard an interesting talk by Sqn. Ldr. Hargraves backed by two films depicting anomalous propagation, and weather conditions likely to produce such anomalous propagation or ducting. The sound projector was loaned by Pastor Doug Nicholls who also brought along a colour film showing the life story of Albert Namatjira, the famous aboriginal artist. All pictures were well received by those present.

Sqn. Ldr. Hargraves in his address stated that frequencies above about 58 Mc. are not affected by ionospheric conditions but may be affected by tropospheric conditions. Ionospheric condition permitting DX on 50 Mc. and short skip conditions on lower frequencies, known as sporadic E, are quite unpredictable. The film on anomalous propagation showed how objects, normally outside the range of radar stations, suddenly appear on the c.r.o. screen and so render it useless for its normal purposes. The second film showed how the refractive index of the atmosphere under certain weather conditions causes sufficient binding of v.h.f. radiations to enable them to follow the earth's curvature and how the effect known as ducting can occur. It was interesting to note that the refracting layer could be as low as ten feet above the ground and that refracting layers occur more frequently at low altitudes than at heights necessary to produce ducting at 144 Mc. Hence it appears that higher frequencies may enable more frequent contacts with distant stations.

After the films, the meeting was opened for general business, which, fortunately, was soon disposed of, for the hour was late. Perhaps the most outstanding item was the revelation that a donation of a pair of 24Gs as a prize for a 576 Mc. contest had been made by 3XA about two years ago (acknowledged in these notes in May, 1949, issue) but had never been awarded and had remained in the instrument library until their presence was accidentally discovered recently. 3XA and 3JO were appointed to a committee to draw up rules governing a contest for 576 Mc. These will be printed in these notes next month, but, as it is likely that the contest will open on 1st September, all cobwebs, etc., should be removed from 576 Mc. rigs at once.

In the notes from VK2 last month it was noticed that the v.h.f. c.c. idea had met with their approval. To date, no claims for membership have been received here, but judging from remarks, it would seem that QSL cards, necessary for verification of contacts, are harder to get than actual contacts.

576 MEGACYCLES

NEW SOUTH WALES

As reported last month, tests were carried out with horizontal and vertical polarisation by 2WJ, 2AJZ and 2DF. 2WJ reports that the horizontal was superior and since the tests most of those operating on the band have changed to horizontal. However, it must be pointed out that the tests really did not prove anything as the horizontal beams were 24 element types, whereas the vertical beams were of the simple four over four type. 2DF had identical vertical and horizontal beams but the east coast chaps' beams were not the same and definitely favoured the horizontal types. The test was therefore unfairly biassed in favour of horizontal. However, as the 24 element beams give six stacks when used horizontally as against two when used vertically, horizontal polarisation should suit them better.

2QW is a new station on the band and has already contacted 2WJ and 2AJZ using a small transceiver with a lighthouse tube. He plans to get a pair of larger lighthouse tubes going for the Tx to run about 10 watts. 2AET, who won the RL18s in the recent field day contest, has put them to good use and now has a Tx and Rx going on the band. 2JU also has a neat Tx and Rx going and should do fairly well when he gets a beam up in the air.

Acknowledgments to VKs 2ANF, 3JO and 5KL for the above material.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: O. GLOVER (VK3AG); Federal Secretary: O. M. HULL (VK8ZS); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: Wal Nye, VK2XU.

Secretary: David H. Duff (VK2EO). Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor: Don B. Knock, VK2NO, 43 Yanko Avenue, Waverley, Sydney.

Zone Correspondents: North Coast and Tablelands: J. M. Betallick, VK2XO, Raleigh; Newcastle: Ron McD. Stuart, VK2ASJ, 98 Dunbar St., Stockton; Coalfields and Lakes: Harry Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cambijowa, Forbes; South Coast and Southern: Roy Raynor, VK2DO, 42 Pettit St., Yass; Eastern Suburbs: Don Knock, VK2NO, 42 Yanko Ave., Waverley; Northern Suburbs: Harry Powell, VK2AYP, Russell Av., Wahroonga; St. George: Chas. Coyle, VK2YK.

VICTORIA

President: G. S. C. Semmens, VK3GS.

Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).

Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.

Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.

Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, c/o. Victory Theatre, Tatura; Far North West.: M. Folie, VK3GZ, 101 Lemon Ave., Mildura; Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0830 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. and 146.5 Mc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.

Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.

Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.

Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.

Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.

Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.

Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.

Meeting Place: Padbury House, Cr. St. George's Ter. and King St., Perth.

Meeting Night: Third Tuesday of each month.

Divisional Sub-Editor: Alec A. Smith, VK6AS, 75 Weston St., Carlisle, Western Australia.

TASMANIA

President: R. O'May, VK7OM.

Secretary: L. W. Edwards, VK7LE, Box 371B, G.P.O., Hobart.

Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.

Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.

North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

FEDERAL

FEDERAL CONSTITUTION ALTERATIONS

Federal Executive, on behalf of the Federal Council of the W.I.A., hereby gives notice that it is intended to alter the Federal Constitution of the W.I.A. (as amended 1947).

Section 21 as follows: By deleting the words "within 60 days immediately preceding" and inserting in lieu thereof "60 days prior to."

Section 28 as follows: (a) Deleting the words "the Headquarters" in lines three and four, and inserting the word "any" in lieu thereof; and (b) deleting the words "the Headquarters" in line 7, and inserting the word "appropriate" in lieu thereof.

SLOW MORSE TRANSMISSIONS

The following transmissions from the official W.I.A. stations are given on 3,504 Kc. on the days and times shown below:—

Sunday—VK3WI, 2030 to 2100 hours E.A.S.T.
Monday—VK2WI, 2000 to 2030 hours E.A.S.T.
Tuesday—VK4WI, 1930 to 2000 hours E.A.S.T.
Wednesday—VK6WI, not operating at present.
Thursday—VK5WI, 1930 to 2000 hours E.A.S.T.
Friday—VK7WI, 2030 to 2100 hours E.A.S.T.

INTERFERENCE TO OFFICIAL BROADCASTS

With monotonous regularity, interference on the official WI broadcast channel frequency of 7196 Kc. still persists despite repeated requests that this channel be kept clear on Sunday mornings. Chaps, even if YOU are not interested in W.I.A. activities, please give those who ARE interested a chance to hear.

On one or two occasions recently, WI stations themselves have remained on the channel after cessation of the Divisional broadcast, thus interfering with the broadcast from the next official station on the schedule. When your Division has concluded its broadcast PLEASE be sure to change frequency to the Intra-state channel! In the Eastern States particularly, the broadcast is very often stronger in adjacent States than it is in the State in which the programme originates.

REMEMBRANCE DAT CONTEST

Just a reminder that the Remembrance Day Contest is scheduled for the week-end, 11th and 12th August, and contrary to rule one (1) as published in the July issue of "A.R.", the Contest is twenty-four hours' duration for any participant.

SILENT KEY

It is with deep regret that we record the passing of:—

VK4HF—Hal Fitzallen, June, 1951.

VK7MC—Ern Cooper, July, 1951.

Please take an interest in this most worthy Contest and send in your log even if you only have the bare minimum of six contacts required—it all helps the Contest Committee to check the scores and adds materially to the State score in competing for the trophy.

Federal Executive have printed special Contest Log Sheets which have already been forwarded to each Division for circulation to members. Divisions have been asked to see that a supply is forwarded to each Zone for further circulation. It is particularly requested that every participant forward his Log on this approved Log Sheet; if your friends can't get into the various centres for them you can see that they obtain some.

There is space for 40 contacts on each sheet, so don't take more than you and/or your friends require.

The Log Sheets have been supplied on a per capita basis; if any Division has too many please make arrangements to forward the surplus to a Division or zone requiring more than anticipated. Thank you gentlemen—and may the best State win!

W.I.A. ACTIVITIES CALENDAR

August 11-12: Remembrance Day Contest.

October 13-14: VK-ZL Jubilee Contest (C.W. Section).

October 20-21: VK-ZL Jubilee Contest (Phone Section).

GOOD NEWS

Members will be pleased to know that Gordon Weynton, VK3XU, Federal Vice-President, has recovered from severe injuries received some months ago when he was involved in a car accident.

Gordon has been heard back on the air in VK3 and is surely and steadily winning his way back to health and strength. We members of Federal Executive who have been more closely associated with Gordon know how seriously injured he was and the tremendous will to live that no doubt pulled him through.

Every Amateur will wish Gordon the best 73 and a rapid return to his normal daily duties.

TRAVELLING ABROAD

J. M. Dobbyn, of the P.M.G's. Department, and Sqn. Ldr. Ron Hargreaves (VK3AFR), have both left Australia for duties abroad in their respective spheres of duty. Federal Executive have given these gentlemen a letter of introduction to Amateur Societies abroad, should the opportunity present itself for them to attend overseas Societies' conventions or meetings, and they have expressed their pleasure and willingness to make personal contact with our overseas friends and bring back to us their impressions of Amateur Radio in other countries. We wish them a pleasant journey and a safe return to their native land.

FREQUENCY ALLOCATIONS

The following is a list of the bands available for use by the Amateur Service in Australia, followed by the types of emission allowed on those bands.

3.5	to	3.8 Mc.	A1, 3, 3a, 6F3.
7.0	to	7.2 Mc.	A1, 3, 3a, 6F3.
14.0	to	14.4 Mc.	A1, 3, 3a, 6F3.
26.96	to	27.23 Mc.	A1, 3, F.M.
28.0	to	30.0 Mc.	A1, 3, 3a, 6F3.
50.0	to	54.0 Mc.	A1, 2, 3, F.M.
144	to	148 Mc.	A0, 1, 2, 3, F.M., Pulse.
288	to	296 Mc.	A0, 1, 2, 3, F.M., Pulse.
576	to	585 Mc.	A0, 1, 2, 3, F.M., Pulse.
1215	to	1300 Mc.	A0, 1, 2, 3, F.M., Pulse.
2300	to	2450 Mc.	A0, 1, 2, 3, F.M., Pulse.
5650	to	5850 Mc.	A0, 1, 2, 3, F.M., Pulse.
10000	to	10500 Mc.	A0, 1, 2, 3, F.M., Pulse.
21000	to	22000 Mc.	A0, 1, 2, 3, F.M., Pulse.
30000 Mc. and higher			A0, 1, 2, 3, F.M., Pulse.

NEW SOUTH WALES

EASTERN AND SOUTHERN SUBURBS

Ern 2ASE says that he hasn't been on the air very much of late because of home jobs and getting ready for 144 Mc. with Andy 2AX egging him on in the latter direction. A welcome is extended to Joe 2AYH who is a new Amateur in the Bondi area. He started up on 20 and is now on 40 with a nice signal. Alf 2CE pops up now and again on 40 to discuss 144 Mc. with the Eastern Suburbs boys. Dave 2AYE is mostly occupied on 40, but will be on the other bands as soon as he gets the shack renovated. After talking about it for some time in pre-war days, Col 2ABD has broken out on v.h.f., and is on 6 metres. He talks of his doings there with 2WH and 2ACU. 2AIG Ray now operating on 144 Mc. Andy 2AX finds his location for 144 Mc. poor. Your Sub-Editor feels out in the cold about v.h.f's. these days, after having "lived" on 'em for long pre-war years, and is hoping to find time to break out any tick of the clock. Bruce 2AZH active on 40 with nice phone signal, is yearning to get to his new southern suburb location.

George 2AHJ also on 40 phone with a n.b.f.m. signal, using a reactance modulator set-up. Ivan 2TN is heard at intervals on 40 phone, usually at the week-ends. A gale snapped a dural top section of 2NO's mast. Radio dealer Horrie Oakes had bad luck in the morse exam. recently for his ticket. Keep plodding OM, you'll make it in the end as others of mature age have done. Latest about Bill 2BC is that he is likely to give c.w. away for a while and to break out on phone. Ted 2AHQ not heard for some time, recently had an arrival, a 4th harmonic. Jack 2EZ is heard at intervals on 20 phone and Jack 2FJ is said to be completing a new 20 metre beam for use at his new location somewhere up the coast. Most consistent VK2 from a southerly direction heard on 80 in the Sydney area seems to be Alan 2ACC, of Heathcote. His phone signal from his 80 metre folded dipole is about the same strength by day and by night, ample indication that the boys really should make daylight use of 80 for contacts covering up to 300 miles or so. Heard frequently on 40 phone these days is the old "Sugar Apple," Wal 2SA. 2JO is heard seeking and working the c.w. DX on 20; don't recall hearing him on any other band. Acknowledgment is made to 2ASE and 2AYE for assistance with news items.

NORTH COAST AND TABLELANDS ZONE

Clive 2AGM has staged a come back and working 80. 2LH working 20, 6 and 80. Doc's new 80 antenna has made a big difference. 2ASO building new v.f.o. 2ADE too busy for much hamming, but works 2LH nightly on 6. 2LR and 2AJB active on 40 and 80. 2PA active on all bands during the week-ends only; Peter reports good results with his long wire antenna 90 feet high at one end. 2SH active on 20, using G8PO. 2AWS Len will soon be on the air again and has two 65 feet electric light poles to erect for masts. 2AEY busy hunting gold dust. 2AHA building 50 and 144 gear. 2JC completed new 4 element beam and 50 Mc. gear to work Rod 2ACU (Coonamble) who has also built 6 and 144 gear—the country gang will soon all be on the v.h.f's. 2DK not very active due to shearing.

No word from any of the Inverell gang, what cooks boys? Sid 2APS not very active of late. 2OE not very active, no news from the Grafton gang. 2ARY putting out good phone, a new antenna too. 2CJ works plenty of ZLs on 40, it is pleasing to report that 2JK's health is again 100 per cent. 2ADN working plenty of DX on 20. 2ARJ Jim too busy for Ham Radio these days. 2DX working 20 only. 2APB Ken Brandford, a new Ham at Coff's, active on 20 and 40. 2AHK, late of Sydney, now on from Dorrigo 3,000 feet above sea level; Errol hopes to put up a vee beam and to get going on 144 Mc.

COALFIELDS AND LAKES

Again not much to report and bands generally quiet. The winter seems to frighten most of the gang from their shacks. Ken 2ANU now using crystal on 144, very nice signal too. Has had the XYL in hospital, all hope she is well again. Geoff 2VU not heard so much, on 6 mainly and playing around with grid dip osc. Nothing to report from 2JZ, 2YO or 2PZ. Bob 2TY sticking to 28 Mc., had a lucky escape from a serious eye injury in a recent gale, everything OK again. Another Bob 2KF doing his best to encourage an 803 to work on 28, a bit crazy there but OK on the other bands; Bob has f.b. phone these days. Max 2KZ another reliable 28 Mc. phone and despite adverse conditions still getting good contacts. Jack 2ADT mainly works 2BZ cross band 50-144, looks as if he will have to talk fast to keep 2BZ interested, the latter not so pleased with his new location. 2ADT also talks grid dip osc. and has made a multitester, also doing some rock grinding.

From near Wyong, Chas 2ARV is active on 40 phone, getting out well too. Major 2RU is the only active station in Gosford, on 6 mainly but can be heard working cross band 60-144 with the Woy Woy boys. Both Cec 2KR and John 2GA are going on 144 and 50, but not received well at the writer's QTH, but 2RU is satisfactory. 2YL playing with 144 final, altering a few antennae. Can't get yes or no to my hearing of W6FTN on 144, my logging checks OK, he was on 144, but was working cross-band to 28 Mc. and the W6 thinks a stray signal got into my 144 Mc. Rx. I am hoping 2HO's reception of a W1 on 144 Mc. receives a better fate.

HUNTER BRANCH

Harold 2AHA who has done yeoman service as Zone Correspondent for the Branch since its inception, has now relinquished the position. All are most grateful for the wonderful work he has done. 2ASJ cannot hope to emulate his efforts, but will do my very best. Harold is giving me a lot of help, and I would like to appeal to all Hams in this Branch to let us know what they are building or wrecking so that we can pass the news on to others.

In accordance with the decision made at the May meeting, the August meeting of the Hunter Branch will be held in Maitland. This will provide an opportunity for members further up the Hunter to attend and take an active part in proceedings. It is hoped that Hams in the area who are not yet members will join up, and we are also hoping many of the younger generation will become associates. The meeting will be held at the Technical College, Maitland, on Friday, 10th August, when we will be privileged to hear a lecture by the now famous Joe Reed 2JR. This will be something new in lecturing technique, the subject being "Stabilised Oscillators." Newcastle members who have no transport, and wish to go to Maitland, please contact our Secretary 2SF (Tel. B 1874) and he will endeavour to arrange this for you. We understand 2DZ is doing good work spreading the news around the Coalfields.

State President Wal Nye made time to call on 2AHA, 2ZC, 2FP and 2XQ during a flying business trip up this way.

2XY had holidays in June, hence the bad weather. A gale wrecked 2MR's mast, but Edgar soon got going again, and hopes to be on 20 soon. 2AAM celebrating arrival of baby daughter; congrats. Merv! 2WP QRT of late. Bill shifted QTH. 2PQ has new beam, Tom active

with dual purpose 40/80 antenna. Vice President 2AFS has moved to Williamtown, and is absent on 10. 2CW is working ZLs on 40 phone despite shift work; get QRT idea out of your head, Bill. Doing a fine job for Branch is 2AXM who is coaching Associates; also doing good business on RA10s. 2PT started shack building, soon be on the air.

Thanks to 2DG for some Maitland news. Keith is without mike, knocking over DX on 20 c.w., such as EK1, EA6/9. 2VO receiving help with new Rx from 2DG. Vic 2AKF has new shack in yard, says it's too cold this weather. 2ANL is quiet lately, no doubt Joe will be at Maitland meeting. 10 metres has been receiving attention from "Old Man of 80" 2XQ; some nice DX was result says John. 2TY was injured during recent gale, is working KH6s again. Geoff 2VU gone QRO on 6, and QSOed 2LZ. Hunter Branch members hit v.h.f. headlines recently, and we are proud of them. 2ANU of Muscle Creek has contacted 2LY of Katoomba on 144 Mc. over very bad terrain. 2AGD has new rig on 40, f.b. signal. 2CN put in a lot of work on 20 metre beam, and watched it anxiously during the gale. 2AHA been portable from Karuah and Speer's Point; just about completed painting job. 2BZ is QTH at the moment, Dave promises to have a very long wire on 40 soon. After his success on 20 phone, 2AAI is revamping his RA10. Old timer, 2AFA, has purchased a TA12D, looking for modulation gen. May be his neighbours, 2AGG and 2AES will get the urge again too.

2LV active again shortly; not so QRL with "harmonic" now. 2KG has new Rx perking up to 70 Mc., and Ken is reading mail on 40. 2NX, 2VG and 2UY have been given front page publicity in Newcastle papers; they were photographed working on ship's radar installation—the first fitted here. Nil of these three on Ham bands though. 20 DX man 2TE also absent of late. 2AWD is moving to "big smoke." 2AGY must still be QRL with new QTH, as nil of Fred on air. Secretary 2SF soon be on 40 c.w. with xtal control and 807 final. 2IS Ivan pleased with new freq. meter and monitor, spending holidays making shack ornate. 2PJ working ZLs on 40 phone and c.w. with only 5 watts, Bill also has rig on 20. Veteran 2AMM .heard on all bands (pansies permitting); William is working ZLs like steam. 2ASJ having 'excellent results with series screen modulated Type 3, thanks to very hard work and patience of 2XY. All members extend sincere sympathy to Norm 2ANA in the recent loss of his mother.

SOUTH COAST AND SOUTHERN

Although our Sunday morning hook-up is slowly gaining in strength it does not seem to be producing the notes I had hoped to gather. However we have learned that Ross 2PN has been in hospital; understand that Ross is home again and on the way to good health. Geoff 2BQ has a new rig on 20—pair of 834s. Gordon 2OW now boasts of 63 countries on 20; his list for one month included FN8, 9S4AX, LB5ZC, MB9BJ, YSIO, HS1AS, LX, UQ, and GC just to mention a few. 2EU has been down in Melbourne on holidays and usually contacts VK3 stations on Sunday mornings; on xtal at the moment, but a v.f.o. is under way. Two zone stations not heard for a long time were contacted. 2RM at Duntroon Military was not easily copied due to skip, but Jack 2OY had his usual nice signal but had no news of any interest. Don 2ASD of the south coast is on 40 and is operating from Wollongong Club Tx.

According to 2EU there is a new Ham at Corowa but no news as to call etc. Visitors this month were 2JQ who passed through town on the way back from Sydney. Cec 2ALS proudly displays new D104 mike of English origin; he is thinking of putting up a half wave for 80. 2OW, 2AMD, 2DY, 2AKY, 2BQ are all fairly reliable contacts each Sunday morning in the zone hook-up. Les 2PI also called on his way back from West Wyalong, said his Clapp had some drift, found some zero type condensers, so perhaps all is stable now. What with stock-taking and a spot of batching, I have been hard put to get this batch together. The Tx will be dusted for the R.D. Contest, the only one I am interested in.

WESTERN ZONE

Rod 2ACU is practically going on 50—Tx complete 800s in final and 50 Mc. converter is nearly finished. New Ham at Dubbo is 2APE who used an AT5/AR8, the only comment "no monkey business." 2II also of Dubbo has a new hobby gliding—so far is only in the building stage, not air borne yet. Very busy trying to get into the new home before Xmas. Freddie 2VZ far too QRL for Ham Radio. Tom 2AMR still the most active Amateur from Dubbo, heard often. 2ACT Bill is doing good work with his long wire on 14 Mc. 2SS, of Lawson, quite active and heard on 7 Mc. John 2AMV, of Forbes, has been bitten by the carpentry bug and doing all sorts of jobs around the house. Perhaps John has reformed or preparatory to the bug again biting. 2BT, of Eurgowra, has a SCR322 nearly going on 5, works 7 Mc. occasionally.

2EI, of Parkes, is consistent on 40 and 80, while his opposite 2IE threatens to make a comeback. On the latter score, 2NS says he has been threatening for two years. Trevor has been busy concreting around the house, painting it too. Now has his ninth sticker for the DX C.C. and 196 confirmed. Zone officer 2WH, although he supplied much of the information above, has been excused from contributing these notes as he was in Sydney for the Sheep Show. The weather was extremely wet as was the hospitality afforded by Colin 2ABD. Whether 2ABD's visit to 2WH's or vice-versa was the most pleasant remains to be proved—reactions however were similar. Hugo however has managed a few new countries since his return and admires nice QSLs from HE9LAA and MF2AA. 2EX, of Springwood, is sworn off until a new frequency meter is produced. 2LZ, of Wentworth Falls, has been hitting the news on 144, chalked up an over 100 miles contact with 2ANU in Muswellbrook. 2HZ works a few skeds week-ends, but otherwise not active, will chase the DX again about Xmas.

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VICTORIA

CENTRAL WESTERN ZONE

The main item of interest is the Zone Convention to be held at Ararat on Sunday, 16th September, commencing about 12 noon. The afternoon event—the Tx hunt on 3.5 Mc.—carries worthwhile prizes for the winner, three miniature tubes (6AG5s and 6AQ5) donated by 3PD; in addition 3XU has donted a special prize for the first zone station to find the Tx, so go to it chaps and don't let other zones run off with the spoils. 3XU has also donated a prize for the best piece of Ham-built equipment on display (no revamping disposals). Winner of this section to be determined by ballot of those present. 3ARL has donated a prize to be won by the winner of a brain warming competition. All in all we think a very enjoyable day will be spent by those who make the trip, so mark the date on the calendar and keep it free. A detailed programme will be included in next month's notes, and over VK3WI.

Our worthy President 3XU is back on the air again, and has been heard pounding away

on 14 Mc. c.w. Ken 3ANP has been mainly on c.w. of late and laments the fact he has not heard much of my n.b.f.m., he has also built up a v.f.o. using the "Franklin" circuit and finds it far superior to the "Clapp". Kevin 3IQ is on his way to Darwin per two model "T's".

Two visitors this month, 3TL from Kerang, on a week-end visit, and possibly the last of 3WQ (or should I say 5WQ), on his way with the family to VK5. We shall miss you Charlie, and will long remember you and your disposals efforts. VK5 has certainly gained something. 3AKW has the 144 Mc. Tx going, reception to date is 2 miles to a portable Rx in the car. Bill is putting a beam up so all should be well there before long. 3AKP is looking out for a tower. 3ARM (out west) has revamped the FS6 and now is rolling in on 3.5—don't forget the Convention Bob. Plans are in hand at 3YW's to put a 829 in the s.s.b. Tx. 3DP is still pegging away on 7 Mc. s.s.b., but is looking forward to getting on to 14 Mc., where apparently s.s.b. is not quite so on the nose—which brings me to the thought for today: "Are our Rx's keeping pace with advances in Tx's."

NORTH EASTER NZONE

By the time these notes reach print the Convention will be over and new officers elected including a new zone correspondent. 3YV donated a pair of 813s which will have been won by some successful person for the best piece of home-made equipment at the Convention. Zone hook-up was somewhat of a marathon lasting to 4 p.m. 3UI was on deck for the hook-up from 3CI's after travelling 35 miles on the back of a motor cycle in cold wet weather. 3CI having fun and games with rotary converters in a d.c. area, but the trouble is worth it Sid, R5 S9 plus now. Chas 3ACW is building an inter-com. set on his utility so that he can talk to his harmonics while he burbles along; 2 metre mobile gear also being built. Doing fine work on 20 metres so I hear.

3ACK playing acrobatics with R/C plane too close to ground; it did! 3FD working ZLs on 40 metres. 3GD now has new QTH, has left batteries for the a.c. 3AJO holidaying, I mean honeymooning, in VK4. 3AT has been presented with another female harmonic. Best wishes to XYL from zone members Alec. Your correspondent has a very new QTH but don't ask XYL about radio gear. Quite a taboo subject whilst settling in. 3AGG still busy with everything except radio. 3PE in the land of the lost, where are you Len?

SOUTH WESTERN ZONE

3AGD active with rig, harmonic and tape recorders. 3II has had his shack re-built and is finished in duck egg blue. 3BV filling little tin boxes up with resistors and condensers without a great deal of success; what about building me up a miniature Tx Ian. 3AGV in the zone hook-up on 80, used an ATR2B, f.b. sig. 3YE has now left Colac for Melbourne; hope to hear you soon Vern. 3ADN on 80 occasionally, does a lot of listening, and busy building new house. 3KX on zone hook-up from 3AGV's. Jack 3ASV is rebuilding, will be some time before he gets on the air. 3HG and 3JA fairly active on 80 and 40. Received some news from the Warrnambool area this month and at the time of writing it could not be found. Sorry Frank, I'll put it in my log next time. Bill 3BU works ZLs on 40. 3IC not active. 3AJT on 20, has mod. troubles. 3ALG is expecting a change of QTH shortly. 3ABE heard spasmodically on 20. 3AKE active on 144 Mc., the QQEO6/40 really peps things up.

3VA, 3GR and 3MH heard in QSO with ZLs on 40 phone. 3HW not active; 3BE also quiet. 3ASV and 3AMH building new rigs; stacks of audio available at 3AMH's, 100THs in p.p. mod. 5GF, 3UT and 3AJI visitors to Ballarat, also 2QI mobile marine. 3ALM delving into the mysteries of that ancient game, golf. FK8AB QSOed 3MH on 40 c.w., Mart had a visit from 3RE. 3RU tried hard to get rid of the QRM from 3GR by tipping the jalopy over; no serious damage so QRM as usual. 3YT catching a few on 10, what about trying 40 Alan.

GEELONG AMATEUR RADIO CLUB

The first meeting of the month took the form of a discussion on the previous Exhibition held by the Club after which members were transported by cars to the home of the President, Alf 3AJF, and were shown many pieces of equipment from 80 metres to 144 Mc. The next meeting was the Annual General Meeting. The election of officers resulted as follows: Mr. R. Heighway, 3ABK, President; Mr. P. Cartwright, Snr. Vice-President; Mr. Max Stock, Jnr. Vice-President; Mr. K. Muller, Secretary; Mr. Brian Lloyd, 3AOL, Treasurer; Mr. F. Freeman, 3ALG, Publicity Officer; Mr. R. Tucker, Librarian; Committee: Messrs. W. Brownbill 3BU, R. Wookey 3IC, P. Perkins, and J. Beckingham. Technical Advisory: A. Forster, W. Brownbill, E. Kosseck, and R. Heighway. It was decided at this meeting to hold all future meetings on a Wednesday night.

QUEENSLAND

It is with sincere regret that we record the passing of Hal Fitzallen (4HF) who lost his life in tragic circumstances in June. Especially do we offer our heartfelt sympathy to his mother who, to my knowledge, was dependent on Hal for her support. What a dreadful blow to us all. The Wireless Institute was represented at the funeral by our Secretary, John Pickles.

Speaking of John Pickles, that worthy gentleman has found time between his very tedious duties of Secretary to build up the major part of a 144 Mc. Tx. John has given me his valuable assistance on several occasions. He did a mighty job on my beam, and so far is the only person to have climbed right to the top. 4WF started to climb up one day, but I called him back when he started rocking the pole back and forth like a fishing rod. Bill told me it was child's play to climb wee sticks like that. He often climbs the 750 foot mast at work—they have a spell every 250 feet—Ugh!

I am led to believe that our country representative, 4UX, is to once more move to Longreach. I guess if it is a permanent move we will have to start looking for a new country representative. It will be difficult to find one so well suited to the job Claude.

By the time this appears in print 4FN should be in New Guinea and probably operating under a VK9 call. The country boys clubbed in and gave Frank a small token of their appreciation of services rendered. Frank should have a wonderful time working all the DX. The Queensland Division will be presenting him with an official gift also. I will suggest a thousand VK9 QSL cards, just to make sure we get one if we work him.

Somewhere around the shack are some notes from the country. If I can't find them I know the country correspondents are going to be sore—please forgive me and if located I will submit them for publication next month. Personally I am finding it increasingly difficult to get any time at the tpyewriter at work.

The number of ionospheric observation forms being returned is rather disappointing when you consider the total membership of the Queensland Division. For May, seven forms were returned, for June we have so far nine on hand. Of course it's still early in the month. 'Tis funny, but the city fellas don't seem to think they are in the scheme—I have been told that I have too much faith in human nature, I wonder?

CAIRNS AMATEUR FIELD DAY (From 4MH)

The outing proved to be a very successful and delightful one and the weather superb, though cold. Quite a collection of equipment was used and the Cairns Amateurs were well represented. Visitors through the day were two Amateurs from Atherton. The first call of the day brought an answer from the township of Nelson in New Zealand, followed by a call from New South Wales and other States. Mr. Frank Moody (4FM), the Honorary Technician for the Cairns Aerial Ambulance, stated that the test calls from 4MH (portable) were very successful and satisfactory. The advance party did great work in putting up antennae and when the main body arrived it was not long before operating commenced. Several students did great work by keeping the coffee and eats in constant supply.

The hidden Tx was worked by all, but not found, although 4DR was observed very close to it. Some of the residents of Kuranda showed keen interest and helped considerably. Cairns Amateurs taking part were 4AX, 4JW, 4DR, 4MH. We had the pleasure of meeting 4BP and 4GA, both of Atherton. The weekly news service from 4WI was received R5 S9 on both 7 and 14 Mc. At the conclusion of the field day all voted the day a complete success and finalised the day by a visit to the hydro electric scheme at Barron Falls.

CLARE'S CORNER

When 4ZB moves to his new QTH and another tower goes up on Wavell Heights, that suburb is going to look like a boom oil city. All within a stone's throw are the beams of 4WJ, 4WF, 4KP and 4CC. Looks like in the near future some form of traffic lights will be necessary to avoid the elements clashing. Looks as if the beam bug has also bitten Harold 4HB and another tower will soon be dotting the landscape.

Heard that 4AH is busy home building, which accounts for his inactivity of late. 4YA has his new rig (pair 807s in push pull) on the air; after ironing out the bugs, is now working the DX with the rest of them. The marathon of the month was a six-way with a W6. VKs 4RT, 4XA, 4KS, 4HB and 4HG participating. All received good reports and the W6 was tickled pink to work so many VK4s at the same time. Talking of Ws, congratulations to W8UZL on being the first W to receive the Brisbane DX Club certificate. (Wouldn't you if you had rhombics and 97 foot towers?—Sub-Ed.). 4HD in the Buderim Mts., will soon be heard on 20. Max is erecting a three element beam on that band, and hopes to be on soon.

SOUTH AUSTRALIA

The June general meeting of the VK5 Division was held in the wide and spacious auditorium of the first and foremost broadcasting station in the State, to a splendid gathering of the local boys who made it quite clear that they had come along for the express purpose of hearing just what the guest speaker, Dr. Ross Adey (5AJ, ex-G3I) had to say about his recent trip abroad. Ross described the various places that he visited with a wealth of detail, and surprised quite a number present when he told them of the rules and regulations which exist in England regarding the erection of beam aerials in any form or type, in fact it would appear that no type of aerial may be erected without first considering its effect upon the local surroundings from a beauty angle, to say nothing of the feelings of the various members of the local councils, etc.

Ross spoke rather scathingly concerning the seemingly dictatorial attitude of the British P.M.G's. Department toward the Radio Amateur and his own experience in that direction. He pointed out that disposals gear abounds in plenty in G and W lands, with prices very cheap in G, but in W the gear is about on par with prices in VK. His description of his flight to America in a luxury stratosphere liner (a converted B29 I am led to believe) was decidedly interesting, especially his amazement when, after several false starts due to obvious engine trouble, it was announced that "owing to the inclement weather, the flight was temporarily off." In commenting upon the real reason for his trip he said that England, in his opinion (and he should know), leads the world in the study of the brain, and he also described his visit to one of the largest hospitals in America together with a visit to Yale and Harvard Universities.

He also visited the A.R.R.L. headquarters and painted a living picture of his reception at W1AW by the charming female secretary to the big noise of the home of Amateur Radio. This radiant personality also escorted him to the A.R.R.L. transmitting centre and permitted him to feast his eyes on an array of aerials, beams, transmitters, etc., that have to be seen to be believed.

A few other points that Ross made were that the QRM in G land was terrific at times from the European Amateurs, that VK signals were received on the whole from the long way round better than from the short, thus avoiding the aforementioned QRM, and last but not least the fact that he brought home an AR88. The entertaining and interesting talk was brought to a close with a confession from Ross that with the terrific cold experienced in England, he fought a losing fight against wearing long underpants but finally gave in and was sorry that he had not done so earlier. I had intended to ask him if they were the old-fashoned type that had the square window at the back, but my natural modesty held me back. The usual vote of thanks was received with genuine applause and everybody agreed that a very pleasant evening had been spent.

During his talk about America, Ross showed a picture of Alcatraz and remarked that with all this open space, free from QRM and very suitable for beams, etc., it was a wonder that "Doc" 5MD did not apply for a transfer. Very subtle, very subtle, but "Doc's" reply was a gem, although as very few heard it, I cannot repeat it, although if I was asked politely I might condescend to repeat it.

Hall 5AW took copious notes of the talk for the official 5WI broadcast on Sunday morning, but a certain Ham whose XYL listened in to it is wondering if this is a good idea, as his wife kept on saying "you didn't tell me that Ross said that" until he began to wish that Hal would have a fit or collapse or something. The moral is, always check up on just what took place at the meeting before telling the XYL your version of the meeting!

I was very interested the other night to hear on the air, 20 metres to wit, the instructive lecture delivered by "Professor" Lance Catford 5LC to student (complete with dunces cap) Ross Kelly 5LW on how to construct a standing wave indicator. Nobody was more amazed than the "Professor" when Ross said in an awe-stricken voice, "the lamp nearest the aerial coupler glows very bright, but the other lamp must be burnt out because it does not even glow." I could almost hear in the distance the ghost voice of "Bongo Bongo", the KQ6, whose job it was to light the lamp in the lighthouse at nights, and blow it out each morning. Have you no conscience Ross?

In a QSO between "Doc" 5MD and "Pop" 5LD recently I heard "Doc" threaten to tell

me a few secrets concerning "Pop's" XYL if she was not more respectful toward him. Quite unabashed she said that if he was not more careful she would be the one to tell me a few tales about him. Muriel, do you realise that you are the answer to my prayers, just tell me a teeny weeny tale about him, in fact an iddly widdly tale will do quite nicely, just so I can expose that cad for the caddiest cad that he is, because I will never forgive him for christening me "Pansy." Can I count on you Muriel? Attagirl.

The XYL of John 5KX has not been enjoying the best of health at the time of writing and all hope that she is now quite OK. 5KB has not been very active on the air lately and rumour has it that Peter has been using his spare time to construct a sooper dooper radiogram. 5MS has had some good contacts with G land and John Sheard (ex-5JA), who, incidentally, hopes to be home in September, and it would appear that as Stuart has moved his gear in by the fire there will be no stopping him now.

5TW is hotting up the r.f. end of his AR7 with an RL7 or at least that is his intention. Tom has had quite a few contacts on 40, and has almost been converted to 2, so 'tis said. 5CH has been playing around with a "hi-fi" audio amplifier but Claude has found time to build a new modulator for his 2 metre gear. 5FD has almost completed his new home and as John is after the converter that he lent 5CJ, it would appear that he will be more active than he has been lately. 5KU has been heard a lot on 40, but "Erg" is finding it difficult to pick out a clear spot on that band since the ZLs bobbed up on phone. 5CJ has purchased the 522 belonging to 5KB and now has a good set-up on 2 metres. Col burnt out a power tranny in his main rig and is naturally quieter than usual, and it would appear that moisture was the cause of the trouble. Thanks for the notes Col, and hope the family are well.

I have been working on the front garden of the Parson's homestead all this month and as the local council workers have been regrading the street, we have had quite a tussle to see just who could lean on the shovel the longest without actually falling over. I struggled manfully but their years of experience told in the end, and I had to bow to a superior shovel leaner. Ross Kelly went past one day and shouted out at the top of his voice, "Stop leaning on that shovel, you look like a union man," much to the enjoyment of the council workers. I also think that he was responsible for all the council signs appearing overnight on my front fence, such as "slow down, men at work," "poison sprayed here," "detour, loose surface," etc.

The ways in which I receive information for these paragraphs are many and varied, but this month gave me another new way, to wit, a telegram from Berri addressed to me at the best broadcasting station in the State. For obvious reasons I will not mention the sender's name, but it went as follows: "Miracle at Berri, Sjoberg (5SL) operating on 40 metres, never thought live to see it.—Signed 'The old man of the river'." Who was it Laurie?

John 5BW has migrated to Broken Hill and will be found at the local broadcasting station, and will be heard with a VK2 call on the air. His unbounded enthusiasm will soon be directed toward various hobbies, and it is to be hoped that he has at last found his niche in the scheme of things. Best of luck John.

Federal Executive has written to the VK5 Division explaining the delay in the delivery of a further batch of certificates, and from the said letter it appears that they have been waiting for a new rubber stamp of the signature of the newly appointed President. In sheer desperation they have now stamped the certificates with the old rubber stamp, and recipients of the certificates will now know why they are signed with the old President's signature (of course he is young in years hi). As a common uneducated member of the radio fraternity I would have thought that the new President could have signed the certificates with a pen and ink in less than ten minutes. Possibly someone will "whisper" this to Federal Executive some day.

5KW has been very busy erecting a tower which only wants navigation lights on it to make it visible all over Australia. Ever so often, Harry can be seen perched on top of it, and only comes down when some broadcast listener tries to fasten an aerial on to it.

5MH has also erected a metal tower, although Fred intends to put a six metre beam on top very shortly. The recently built 6 metre Rx, after several tryouts, works like a charm, although the noise level is so low that it does not seem right. The trouble with some people is that they do not realise that they are such experts.

Murray Nicholson is building his Tx so as to be ready to take the air at short notice, and if all is to be believed he is doing a very creditable job of the wiring. No call sign as yet, but it is expected at any time.

5BC has been very inactive as far as Ham Radio is concerned, the reason being that he has had his car down giving it the annual overhaul. This does not bluff me howover, he is only waiting for the next contest to start to be well and truly in it. Hughie loves contests.

In these days of rising prices and shortage of money, it gives me great pleasure to draw members' attention to the strange fact disclosed at a recent Council meeting, to wit, that twenty years ago the VK5 Division was paying £200 per annum for its meeting rooms as against £18 per annum today. That rocks you, doesn't it.

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TASMANIA

The July meeting was well attended and the highlight of the evening was an auction sale, which was once again conducted by 7LE. A quantity of old stock radio components procured from a local warehouse was the material under offer. This not only was an added source of revenue, but provided some amusing incidents during the evening. A crystal pick-up secured by 7BJ for a few shillings proved, on checking, unserviceable, much to Joe's dismay, although a good samaritan came along out with a spare cartridge making our worthy friend happy once more. Due to the fact a number of members are unable to attend every meeting owing to shift work, etc., the gear offered was spread over two meetings, thus enabling everyone to have an equal chance.

Seen in attendance was 7DW which is his first appearance since returning home, minus the famous pipe. Busily engaged in re-building a BC348 is 7DW, now threatening a return to 20 and 40. Several members are intent in making tape recorders, those mainly interested are 7AF, 7AJ, 7KA and 7OM. Athol, as mentioned in previous notes, is still working on his unit and from every indication when cased, etc., this unit should be a pleasure to own.

Preparation for the forthcoming "R.D." Contest is well under way at 7KA with a new 100 watter and believe it or not Ken is adding modulation which will be powered with zero bias 807s. A new member, although an old Ham, to be welcomed to the Institute is 7HB who resides at Richmond and should shortly be heard on 40; Harold, an ex-marine operator, will use 15-20 watts for a start and will be xtal controlled; Rx, nearly completed, is a double conversion nine tube super.

Surprised to hear 7AJ on 40 lately, must be a while since Athol has worked any Ws, as he is losing his "Yankie" accent (pardon that one Athol, I just could not resist it). In a letter from 7CF, Charlie mentioned much hard work has caused some inactivity from his area although still listens to the news each Sunday. Believe is about to purchase a rig suitable for conversion to 144 Mc., which has been made available through the disposals section of the Institute.

The best DX for the month worked in the southern area must be credited to 7KA with a "DW4" being logged, which ultimately proved to be a W4. Sorry Ken, but I will agree band conditions were absolutely lousy, in fact I couldn't copy at all. Heard lately was 7LJ working DX on 20 metres. Lon has reached well over the 100 country mark and from his signals, should have no trouble in working the most elusive DX. With Tx's on 10, 20, 40 and 80, 7SK should prove a great asset as far as the contest is concerned; Max runs full power on all four bands and with one of the "cheap" AR88 Rx's, should net a good score which will help. Hope all the north, and particularly the north-western gang, will be available for the forthcoming contest. Trust 7KB has made full arrangements to obviate the ten minute break, which he had to make last year, and hopes to top the Tasmanian score once more.

7SD having trouble with his re-built rig and vows will re-build again if things don't right themselves. Temporarily, 144 Mc. transmissions have been terminated at 7MY owing to his departure to the bush. Talking of bush, two country members seen in town were 7EJ and 7AG, John was seen making enquiries regarding the new "750" Rx, which should be coming through shortly.

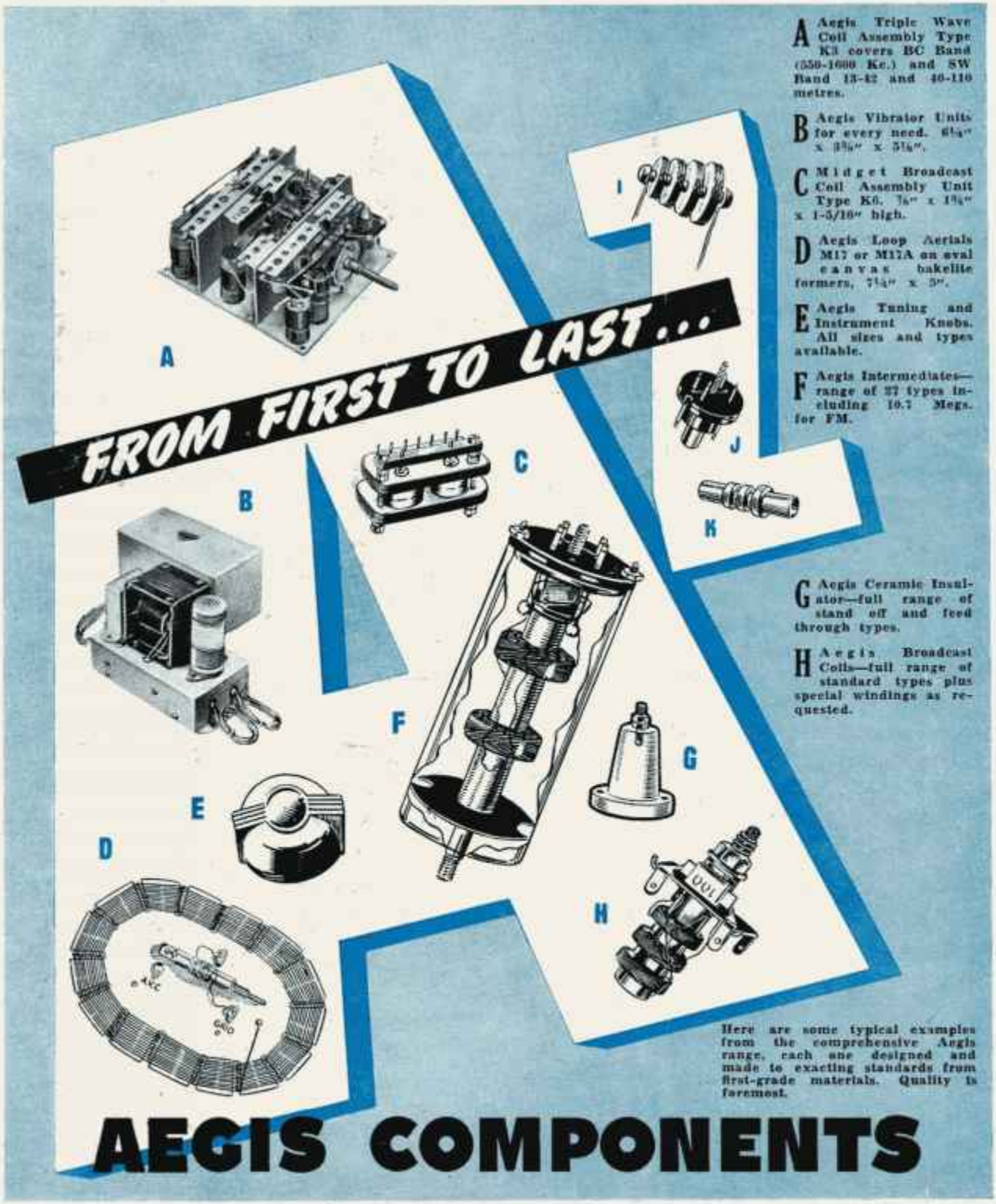
In closing, members are reminded that 11th August is the date for the Remembrance Day Contest, and it is the wish of the Institute to have a bigger and better participation from this Division. As the new scoring system was adopted mainly from recommendations from this State, every effort must be made so as a good score will result, so do the right thing even if you only can make a small score, it all adds up. Remember the thought behind it and let us make this an outstanding success.

NORTHERN ZONE

7RK is your scribe owing to 7XW being QRL. The June meeting saw quite a crowd at our very comfortable rooms in the quadrant. Fortunately, or rather I should say, by design, no lecture had been arranged as we had quite a lot of business left over from previous meetings. Seems a very sound idea to leave the less important matters when a lecture is scheduled and have one night set aside for business only, to clean up the loose ends. We thrive on controversy here, so an evening's business is always entertaining.

7LZ still pruning the 144 converter and well on the road to success; was very surprised to receive a QSL this week from OX3MG, worked in February, 1948, posted in 1949, received in 1951; you work it out, I can't. I'm still waiting for mine. 7AM on 144 consistently, but still working on the 7 Mc. rig. 7BQ also keeping the v.h.f's. alive as well as putting out the usual signal on 7 Mc. phone, Len's quality on 40 never varies and could be a good object lesson to some of the newer exponents of the game. 7HY well installed in the new QTH and getting the few kinks out of the 7 Mc. rig.

7DS gracing the city a few days ago, is busy swotting for exams, best of luck Bill; hope to hear and see you more often when those obstacles are cleared. 7DB still busy building the new QTH and will be a mighty pleased man when he sees his name in the change of address column. 7TE paid us a visit last meeting, could do with your company more often Bill. 7XW providing a bit of publicity for us by writing some technical articles for "A.R.," his last was entitled "The Match-Maker," and momentarily I wondered if that was the reason he was too busy to pen these notes this month. We have quite a band of associates here now all very keen and may I be permitted to repeat what I said here some many months ago, remember the associate membership is the stepping stone to full membership, so go to it boys. Here at 7RK things have been fairly quiet, temporarily gave 288 Mc. away when I found how much the p.p. 7193s drifted, so built a new b.c. set instead.



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SEPTEMBER
1951

Amateur Radio

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New Meters—0-1 Ma. full scale, square type ... 27/6

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AMATEUR RADIO

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EDITORIAL

★

Mr. J. M. Martin Retires

Our esteemed friend, Jack Martin, retires from office as Assistant Director General (Wireless) this month. It is fitting therefore that we should pay tribute to the man who has been a true friend to every law-abiding Amateur, and a kindly and tolerant judge whenever a transgressor has been apprehended.

Mr. Martin commenced his long association with the radio communication field in the United Kingdom in 1890 and served for some years as a marine operator before he was brought to Australia by the Commonwealth Government in 1912 in connection with the foundation of the Australian Coastal Radio Service.

After serving as officer-in-charge of various coastal stations throughout the Commonwealth, including VIM Melbourne when it was located in the Domain, Mr. Martin joined the staff of the Wireless Branch of the Postmaster-General's Department where he rose to his present position of Assistant Director General (Wireless).

Mr. Martin has played a leading part in the development of broadcasting and radio communication in Australia and on several occasions has represented the Commonwealth at important International Telecommunication Conferences. Throughout his official career, Mr. Martin has always proved a most able administrator and has earned the respect of all for his outstanding honesty of purpose.

Jack Martin has always been keenly interested in the welfare of Amateurs, and from the very inception of the Wireless Institute (Victoria) in 1910 has maintained a close liaison with this Institute—in fact Federal Executive knows of no other person more capable of writing the history of the Institute than Jack Martin; maybe we can induce him to undertake the task to wile away his leisure hours after his retirement!

Mr. Martin's farsightedness in recognising the true public worth of the Amateur, both in peace time and war, has won for him a place in the hearts of all. We take this opportunity of passing on to him the very best 73's. May his days of retirement be filled with happy memories of his associations with us and may he carry with him always the appreciation and esteem of the Amateurs of Australia.

FEDERAL EXECUTIVE.

The Contents . . .

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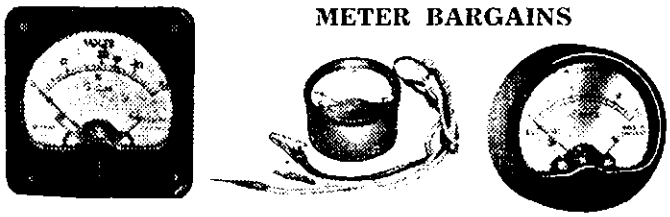

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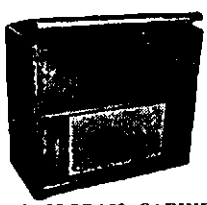

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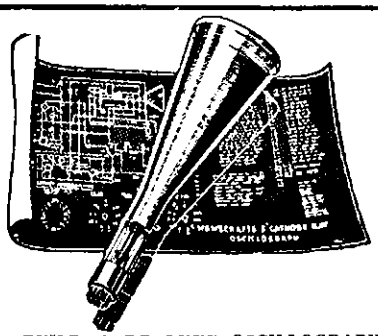

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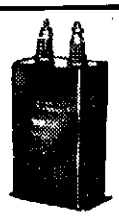

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2	,,	800	,, ,,	3/9
1	,,	1,500	,, ,,	5/11
0.25	,,	6,000	,, ,,	3/11
0.25	,,	400	,, ,,	2/9
0.25	,,	2,000	,, ,,	3/6
0.1	,,	6,000	,, ,,	2/11
0.02	,,	8,000	,, ,,	4/11
0.1	,,	600	,, ,,	1/11

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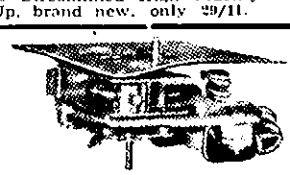

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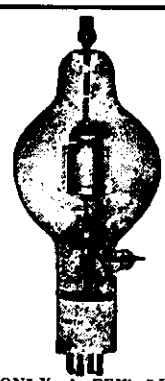

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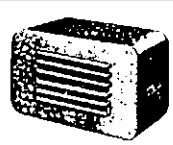

★ **NEW CAPITOL OVAL EXTENSION SPEAKER**

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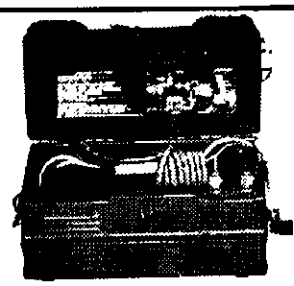

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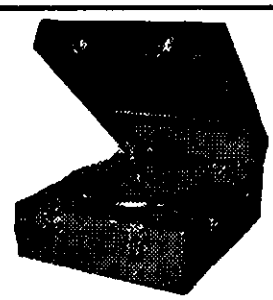


★ **PORTABLE GRAMOPHONE**

Acoustic type portable gramophone with double spring motor in leatherette covered carrying case. £11/19/6. Terms, £3/10/- deposit, 5/- weekly.

★ **BATTERY CHARGER KIT**

Kit of parts to build a 6 volt 4 amp. Battery Charger. Kit includes an English Selenium Rectifier, Transformer, black crackle finish metal case, two terminals, hook-up wire and circuit blue print instruction. Price, as illustrated, £4/10/-. 12 volt 2 amp. 5/- extra.

★ **I.F. BARGAIN**

Brand new iron cored 455 Kc. I.F. Transformers, as illustrated, cut to only 8/11.

290 LONSDALE STREET, MELBOURNE — Central 4311

"How's My Modulation O.M.?"

BY J. DUNCAN,* VK3VZ, AND LEN JACKSON†

● Every Amateur has heard the above question asked many times on our bands, and with it is the admittal that adequate means of knowing the depth of modulation does not exist at that station, therefore apart from the fact that the regulations are not being adhered to, the operator is not obtaining the maximum efficiency from his transmission because only by correctly modulating his carrier can he use his equipment to its best advantage.

With the installation of the new VK3WI in the Victorian Division's Rooms, and the fact that it would be operated by about twelve pairs of Amateurs on a roster system, a simple and effective means of indicating modulation depth was urgently required.

It fell to the writers to design and build a suitable indicator, which would be supplementary to the phone monitor which keeps an adequate check on speech quality.

It was felt that any modulation indicator which uses a meter would be too heavily damped in its movement to show the peaks which cause overmodulation and its attendant splatter, so a c.r.o. indicator was decided upon as it is instantaneous in its action.

Finally it was necessary to decide which modulation figure, trapezoidal or envelope, would be best. We came to the conclusion that both patterns had their respective advantages, and therefore decided to make either one available at the flick of a switch. After much experimenting, a simple indicator was built and is now giving very satisfactory operation at VK3WI.

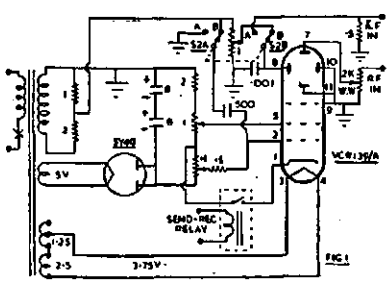


Fig. 1 shows the schematic diagram. P.T. is an old power transformer taken from the junk box, a relic of the days when filaments were 2.5 volts. By using one 2.5v. winding in series with half the second 2.5v. winding, 3.75 volts was available for the VCR139A c.r. tube. The 5 volt winding being used for the 5Y4G rectifier. The secondary was 385v. aside, and in our case only one half of the winding was used. However, if the intensity is not enough, use the 385v. windings in series. Two 8 uF. 600 volt electrolytic condensers are series connected, and the bleeder consists of a 2 meg. resistor and the focus and intensity pots.

Connections to the VCR139A are quite conventional, except for the 0.5 meg. resistor in series with the intensity control. A relay contact is provided in the cathode lead of the VCR139A to remove the trace and prevent the screen being damaged when receiving.

Two deflector plates and the No. 2 anode are tied together and grounded, whilst the r.f. is applied to the vertical plate via the 2,000 ohm wire wound potentiometer. It was found that carbon pots did not stand up to the r.f. and the wire wound worked excellently. In the case of VK3WI, a one-turn link is loosely coupled to the antenna tuning coil, although a single wire near the feeders serves quite well.

The horizontal sweep for the envelope pattern is obtained by using 50 cycles to the horizontal plate and blanking out the return trace by applying a negative pulse to the grid.

The a.c. 50 cycle voltage is picked off the junction of the 1 and 2 meg. resistors across the power transformer secondary, and applied to the 1 meg. potentiometer. When S2B is in position B, this voltage is applied to the horizontal plate of the c.r. tube. At the same time, S2A applies a.c. to the grid of the c.r.o. tube via the 500 pF. condenser, thereby blanking out the return trace. This gives a linear sweep over portion of the full a.c. cycle. If the 500 pF. capacity is too large, the intensity control will not function, so choose a value which will give normal operation of the intensity and focussing controls.

When switched to position A, S2A grounds this condenser, and the second switch section swings the horizontal plate to a terminal on the rear of the unit to receive audio from the modulator.

It is most important that the 0.001 uF. r.f. by-pass on the horizontal plate of the c.r. tube be located on the tube base, otherwise the r.f. envelope will not be vertical, but will tilt to one side due to r.f. leaking into the horizontal plate of the c.r. tube. Watch this point carefully.

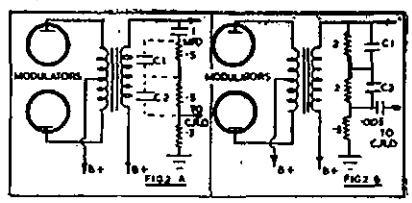
It will be noted that the horizontal gain control does not operate when the trapezoidal pattern is being viewed, this is not a mistake in the drawing, but was found necessary to avoid a variable audio phase shift as the potentiometer was varied, which brings us to a very important point with regard to the tapping of the audio from the modulator.

TAPPING OF AUDIO FROM THE MODULATOR

The following section of the description is treated rather fully, as much trouble was experienced here and reference to the standard textbooks failed to produce any help. This information is therefore furnished in the hope that it may benefit others who have experienced similar trouble.

The circuit first used for connection to the modulator was as shown in Fig. 2B, but without the condensers C1 and C2. The 0.005 uF. condenser was connected as shown, rather than as in Fig. 2A, to enable a condenser of lower voltage rating to be used. However, a correct pattern could not be obtained on the screen, the sides of the trapezoid figure being elliptical instead of straight. This type of pattern is shown in the A.R.R.L. Handbook as occurring when the audio voltage is taken from a stage in the modulator other than the final.

It was reasoned correctly that this was due to a phase shift in the audio coupling network, but the reason was at first a little obscure. The 0.005 uF. condenser was at first suspected, but increasing this to as large as 1 uF. made no difference. Next the circuit was altered to that shown in Fig. 2A, but again without C1 and C2. This is the circuit generally given in the text books. However, results were still the same.



The next point of attack was the 0.001 uF. r.f. by-pass on the horizontal plate of the c.r. tube. Here more promising results were obtained. This by-pass was gradually reduced in value, and each time an improvement in the pattern was obtained, although some small phase shift was obtained even with this by-pass eliminated altogether. Also, as the by-pass was reduced, the envelope pattern started to lean heavily to one side, and the smallest value that could be tolerated from this aspect was 0.0001 uF., which still gave a large phase shift on the trapezoid pattern. Therefore another line of attack was decided on.

If the by-pass from the horizontal plate to earth produced a phase shift, why not connect another condenser from the horizontal plate to the full modulator output, across the upper half of the resistance voltage divider, and thereby produce an equal and opposite phase shift, the two then cancelling?

This was tried with an immediate improvement in results. The circuit of Fig. 2A was first tried, the compensating condenser being split into two equal series condensers C1 and C2, since a single condenser of adequate voltage rating (2,000v.) was not available. With a little experiment in the values, the phase shift was completely eliminated. However, immediately the horizontal gain control was shifted, the phase shift re-appeared, so the circuit was changed, as mentioned earlier, to remove this control from the circuit on the trapezoid pattern.

The only point which still caused us worry now was the 0.005 uF. condenser. This was only of 1,200v. rating, which was not high enough for the circuit of Fig. 2A, with 1,000 volts d.c., on the line, and a 2,000v. condenser, the lowest rating acceptable, was not available. So

(Continued on Page 5)

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TELEVISION MADE EASY—Part 1

BY JOHN JARMAN,* VK3ADA

When television is established in Australia, will your rig interfere with television reception, Will you be able to prevent such interference? If a neighbour complains of such interference, will you be able to prove your rig "innocent," and help the complainant to locate the source of the trouble?

No matter how we attempt to answer these questions, we seem to always reach the same conclusion, namely, that some knewledge of the operating principles of television is essential to every Ham.

Fortunately, there are now many good courses of study, on this subject, now available in Australia; some by correspondence, and other in serial form in current magazines, so we need not be "left in the dark."

However, for the benefit of the Ham, who cannot conveniently undertake a full course of training, we shall endeavour, in this series of articles, to outline the general principles of television, in simple language, dealing only with the aspects of the subject that directly concern the Ham or, to be more exact, we shall cover only the main facts that one needs to know, in order to help prevent interference to television reception.

Fig. 1.
(a) Line of Picture.
(b) Corresponding Signal.

First of all how does a television set work? Well, as some of us have guessed, at the transmitting end there is a television camera, which takes photos continuously like a movie camera. This guess is quite correct and, furthermore, these photos, which are taken at the rate of 25 per second, are transmitted by radio in succession.

At the receiving end these photos are received and flashed on the screen of our television set in correct sequence and because of the persistence of vision, the illusion of movement is conveyed. In other words, we are actually watching a lot of snapshots, one after the other, but because our eyes can't keep up with the rapid changing of the pictures, we think that the objects in them are moving. The sound, of course, is conveyed in the same way as in ordinary broadcasting.

Now how can photos be transmitted by radio? Well now we're getting "fair-dinkum." Before reading the answer, try this simple experiment. Take an old photo (e.g. the YL that "done you wrong") and cut it into a number of fine horizontal strips. Now examine one of these strips; it should look like Fig. 1a, consisting of a series of light and dark strokes, placed end to end.

* A11426 L.A.C. Jarman, J.B., c/o. S./L. Garden, Box 1424H, G.P.O., Adelaide. John has recently been moved to VK5 and his new call sign is not available.

● It is with pleasure that we are able to give readers a series of articles on Television by 3ADA. The following is an outline of the programme:—

Part i. Introduction.
ii. How the Television Camera Works.
iii. What's in a Television Signal.
iv. What's in a Television Receiver.
v. Further Notes on Receivers.
vi. The Receiver Synchronisation Circuit.
vii. The "Carrier-Difference" System.
viii. Interference, and How the Ham Can Check It.
ix. Outline of Color Television.

Now place a number of these strips end to end. Our photo has now been transformed into nothing but a long series of light and dark strokes of varying length; yet, if we care to piece these strips together in their original order, we would have our photo again.

But what on earth has this got to do with television? Quite a lot. Just as we cut our photo into strips, and placed them end to end, the television camera splits each photo into 625 horizontal lines, and transmits them as a series of electrical impulses, something like dots and dashes. Commencing at the top left-hand corner of each photo, the camera "mechanism" converts the first line into a "burst" of pulsating d.c., as shown in Fig. 1b. Note that the brighter the portion of the strip, the higher will be the output of the camera. Study Fig. 1 carefully, before reading any further.

This process of converting a picture into electrical impulses in correct sequence is called "scanning," and the sequence is the same as reading a printed page. In other words, the camera scans each line from left to right, and

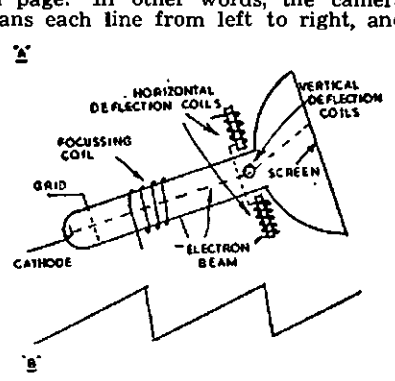


Fig. 2.
(a) Cathode Ray Tube.
(b) "Saw-Tooth" Current.

operates from the top of the picture downwards.

It is this output from the camera that modulates the transmitter, and which emerges from the receiver's detector, but how is it turned back into a picture? Well, just as we pieced the strips together to make up our orginal photo, the receiver, by means of a moving spot of light, reproduces each line, and reassembles them in their correct order, thus reproducing the original photo; but what am I saying! This is still "clear as mud!"

Now let's do a little more practical work. Take an electric torch, preferably of the focussing type, into a dark room and shine it on the distant wall. We see a spot of light. Now wave this torch to and fro, so that the spot moves horizontally across the wall. Now wave the torch very rapidly, still endeavouring to keep the movement horizontal. We now see not a spot, but a continuous line of light on the wall. Now what we're actually watching is still a rapidly moving spot, but it appears as a line for two reasons. Firstly, because the spot is tracing out the same path over and over again, and secondly, because its movement is so rapid that our eyes can't keep up with it.

Stretching the imagination a little, suppose the torch could be switched on and off quickly, while being waved. The "line" would no longer appear continuous, but broken, as shown in Fig. 1a.

But we have already shown that Fig. 1a represents a strip of the original picture!

Yeah man! We have actually figured out how a single line of our picture, after reaching the receiver as a stream of electrical impulses, can be converted back into a visible "strip of picture" by a moving beam of light; but how can a lot of these strips be re-assembled, to form the picture?

To answer this, let us review the operation of the cathode ray tube. Having focussed the beam of this tube to produce a fine bright spot of light on the screen, by passing a saw-tooth current through the appropriate deflection coils, we can make the spot move to and fro across the screen, and appear as a horizontal line.

If the current has the wave form shown in Fig. 2b, the spot will move comparatively slowly from left to right, then rapidly back to its starting point, and continue this movement as long as the current is flowing.

Now, through the other deflection coils, we shall pass a similar current at a lower frequency, which will tend to make the spot travel slowly from top to base of screen, and rapidly back again.

By passing both currents through their respective coils simultaneously we can make the spot trace out a zig-zag pattern, as in Fig. 3a. Just as the spot, produced on the wall by our torch, made a continuous line, the spot on our c.r.t. screen is producing a number of parallel lines.

Now consider the frequency of the current, which is causing the **horizontal** deflection of the beam. By increasing this, we can increase the number of lines on the screen, thereby bringing them closer together, until ultimately, the spaces between them will be so fine, that instead of lines, we shall see a rectangular patch of light on the screen, as shown in Fig. 3b.

Let us now vary the intensity of the spot (just as we tried to switch our torch on and off while waving it). This can be done quite easily by varying the voltage on the grid of our cathode ray tube.

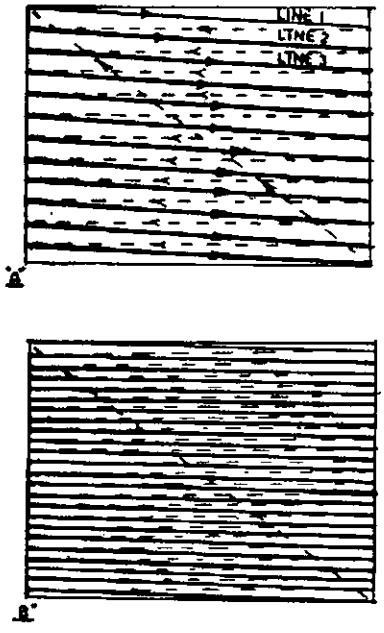


Fig. 3.

(a) Movement of Spot on Rx Screen.

(b) In each picture, spot traces out 625 lines. Only the "left-to-right" movements of spot are visible.

Each line on the screen will no longer appear continuous, but broken, as in Fig. 1a. Suppose we connect this grid to the output of our television receiver. This will be of the form shown in Fig. 1b and each increase in voltage will make the spot brighter, and each decrease, duller, so that the line on the screen will appear as in Fig. 1a. In other words, each line of the original picture can be reproduced on the receiver screen, by allowing the received signal to modulate a rapidly moving electron beam, as it traces out the line pattern, shown in Fig. 3.

Yes, we're beginning to see daylight. Those who are not familiar with the cathode ray tube may find it helpful to study its theory of operation from any suitable text book, since space won't permit it to be covered in this series.

To sum up, the television camera takes photos continuously, at the rate of 25 per second. Each of these photos is split into 625 horizontal lines. Each of these lines is transmitted as a stream of electrical impulses, corresponding to the light and dark parts of the picture.

In the receiver, a spot of light is made to trace out, on the screen, the same number of horizontal parallel lines as contained in the original picture.

By modulating the electron beam, which produces this spot, by the received television signal, we reproduce the original lines of the picture.

Note that what one actually looks at, on the television screen, is nothing more than a rapidly moving spot of light, but because it travels over the same paths 25 times per second, we think we are seeing a picture, composed of 625 horizontal lines, all very close together. In other words, television is entirely an optical illusion, utilising the "persistence of vision" which we have already seen to be the inability of our eyes to respond to rapidly changing pictures.

Fig. 4 shows the essential parts of a television receiver and to round off this "burst" here's a few technical tit-bits which will be dealt with in detail in later articles.

To keep picture steady on the screen, receiver must be synchronised with transmitter; that is, receiver must commence reproducing each line at the same instant that the transmitter commenced scanning the same line. Therefore each line is followed by a synchronising signal, and each complete picture, by a synchronising signal of a different type, to allow receiver to distinguish one from the other. The transmitter could be compared with a good sergeant-major, calling "left-right-left!" when it inserts the synchronising pulses in the transmission, and all receivers, tuned into the programme, like well-disciplined troops, keep "in step" with the camera.

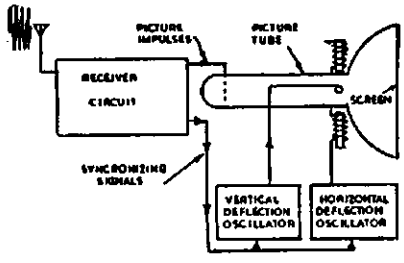


Fig. 4.—Basic Television Receiver.

All modern systems use "interlaced scanning," which simply means that each picture is scanned in two stages, instead of one. In the first stage, the camera scans all the odd lines, such as 1, 3, 5, etc., and in the second stage, all the even lines, 2, 4, 6, 8, thus completing the picture. The purpose is to double the picture frequency, to prevent flicker, without increasing the modulating frequency (which, by the way, extends from 50 cycles to 5 Mc.! as we'll learn later). Instead of transmitting 25 complete pictures per second, therefore, we handle 50 "half-pictures" as it were.

The proposed Australian system will use "negative modulation" which means that an increase in carried amplitude represents a decrease in picture brightness. The greater the amplitude, the darker the picture, as illustrated in Fig. 5.

The proposed carrier frequencies for use in Australia will extend from 180 to 204 Mc.

So much for the general outline of television. Still "clear as mud?" Don't be afraid to admit it, because this is how television theory strikes everybody at first, but believe it or not, after reading through this article several times, you'll find it's actually quite simple.

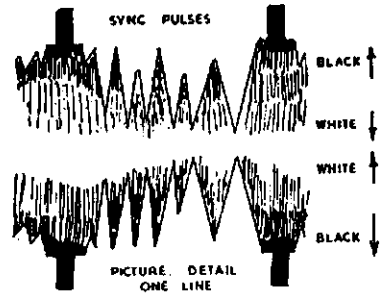


Fig. 5.
Modulation Pattern of Television Signal.

Furthermore, I would like to encourage the reader to submit all queries concerning television, by post, to VK3ADA at the given address. Replies will be promptly made out in duplicate, one copy submitted to this magazine, for publication, when space permits, so that fellow readers may benefit, and the other copy mailed to the inquirer direct. Don't be afraid to ask, because this is how we learn the most, and remember, what one fool can learn, so can another!

CUAGN next month.

"How's My Modulation O.M.?"

(Continued from Page 3)

the circuit was altered again to that of Fig. 2B, which requires only a rating on this condenser of 500v. min., and with some slight adjustment to the values of C1 and C2, everything worked perfectly. These condensers were made 0.0001 uF. each, and 1,000v. rating. Thus the two in series gave us 50 pF. at 2,000v.

If for any reason the values of the resistors in the voltage divider network are changed, then, of course, the condensers have to be changed accordingly. The condenser network, formed by C1 and C2 in series in the upper half, and the 0.001 uF. by-pass in the lower half, must have approximately the same ratio of reactances as the resistance ratio, it being realised that the lower half of the resistance network is formed by the 0.5 meg. input resistor to the indicator in parallel with the resistor in the lower half of the network.

Summarizing: Build the Modulation Indicator as shown. Wire in the modulator divider as shown in Fig. 2A or 2B, but without C1 or C2. Set the value of the resistor in the bottom end of this network to give a satisfactory horizontal deflection on the c.r. tube. Apply a sine wave to the speech amplifier (whistling steadily will do the trick), and observe the degree of ellipse on the trapezoidal pattern. If you are lucky and there is none leave everything as is, but if there is phase shift, try different values of C1 plus C2, until the phase shift is corrected.

AMATEUR CALL SIGNS

FOR MONTHS OF JUNE AND JULY, 1951

ADDITIONS

VK— **New South Wales**

2JS—R. W. Easterbrook, 9 Barkers Rd., Strathfield.
2LA—W. A. Stirling, 9 Vera Street, Corowa.
2ABE—R. A. J. Taylor, Boundary St., Bega.
2AFW—J. A. Hampel, 503 Radium St., Broken Hill.
VK2AWI—Wireless Institute of Australia, 10 Clarence Street, Sydney.

Victoria

3GP—R. C. Steele, Flat 4, 181 Brighton Road, Elwood.
3HQ—W. D. Iliffe, 85 Warrigal Road, Oakleigh.
3IB—A. C. Hawker, c/o. Broadcasting Station 3LK, Lubeck.
3IZ—P. D. Williams, 26 Batt Ave., Wodonga.
3ADT—J. J. Mount, 5 Cornell St., Camberwell.
3AFO—M. A. L. Collins, 18 Natimuk Rd., Horsham.
3AGK—G. E. Archibald, 28 Hilltop Av., Glen Iris
3AGZ—W. A. Faul, 67 Hare Street, Echuca.
3ALN—A. S. W. Taylor, Government Aerodrome, Mangalore.
3AWJ—D. J. Williams, 8 Scotia St., Preston, N.18

Queensland

4FT—J. A. Weddell, 188 Ekibin Rd., Annerley, Brisbane.
4LR—L. R. Newsome, 13 Sheriff St., Townsville.
4TN—A. Harris, 15 Turner St., Windsor, N.3, Brisbane.

South Australia

5AJ—W. R. Adey, 27 Rivers St., St. Peters, Adelaide.
5CF—M. T. Nicolson, 11 Riverside Ave., Berri.
5JB—M. G. White, 102 Raglan St., Harcourt Gardens.
5RG—R. S. Gurr, 21 Osmond St., St. Leonards, Glenelg.
5TG—F. H. Taylor, 11a Marlborough Av., Woodville Park, Kilkenny.
5TS—A. C. Styles, Hut T10, R.A.A.F. Station, Darwin, N.T.
5WQ—C. C. Quin, Freeling.

Western Australia

6AT—A. T. Hanson, 35, Joyce St., Scarborough, Perth.

Tasmania

7LX—K. J. Briggs, 18 Melbourne St., Launceston.
7WA—E. F. Walker, 43 Cunningham St., South Burnie.

Territories

9XK—S. R. Coleston, Lighthouse Depot. Samarai, T.N.G.

ALTERATIONS

VK— **New South Wales**

2BG—7 Wandeen Ave., Beecroft, Sydney.
2BW—196 Baylis Street, Wagga Wagga.
2ER—10 Meek Street, Kingsford.
2FE—Beaumont Road, Mount Ku-Ring-Gai.
2GY—45 Taren Road South, Caringbah.
2IL—4 Perkins St., West Ryde, Sydney.
2KL—Lot 26, Waldron Road, Chester Hill.
2MD—No. 2, The Drive, Concord West.
2SE—21 Cleone St., Guildford.
2TZ—145 Commonwealth St., Surrey Hills.
2UH—5 Towns Cres., Turner, Canberra, A.C.T.
2UK—33 Mario St., Towradgi, via Corrimal.
2WP—99 Emily Street, Marks Point.
2YQ—Edward Street, Barraba.
2AAG—"Elsnora," Main Rd., Mark's Point, N.2
2AAN—22 First Avenue, Eastwood.
2ADF—Stafford Street, Penrith.
2AHK—Paddy's Plains, North Dorrigo.
2AII—12 Covelee Circuit, Middle Cove, East Willoughby, Sydney.
2AJT—River Street, Ballina.
2AKV—R.M.B. 113, Kurrajong Heights.
2ALY—32 Beaconsfield Street, Newport.
2ANS—73 Boorara Avenue, Oatley.
2API—11 Sunshine Street, Manly Vale.
2ASF—Maining Street, Eden.
2AST—145 Lyons Road, Drummoyne.

Victoria

3CT—18 Harrison Street. Ringwood.
3JQ—O.T.C.A. Wireless Station, Fiskville, via Ballan.
3JT—"Linden Court," 20 Mason St., Hawthorn.
3NG—166 Como Parade, Mentone.
3NL—8 Bertram Street, Mordialloc.
3PR—81 McCartin Street, Leongatha.
3QK—415 St. Kilda Street, Elwood.
3RQ—Luckie Street, Nunawading.
3WR—C/o. Mission to Seamen, Beach Road, Port Melbourne.
3YG—21 Hughes Street, East Brighton.
3AAQ—Lake Street. Wendouree, Ballarat.
3ACM—Ballandella, via Rochester.
3AGG—5 Wyndham Street, Shepparton.
3ARG—57 Ewart Street, Malvern.
3ASG—2 Bardia Street, Ringwood.
3ASJ—King Street, Ararat.
3AXB—3 Maritana Court, Balwyn, E.8.
3AWL—21 Kerferd Road, Albert Park.

Queensland

4BJ—48 Lamb Street. Bundaberg.
4EW—Off Kerry Road, Archerfield, via Cooper's Plains.
4GB—Cr. Daisy and Davidson Sts., Wynnum, E.2.
4IN—103 Stoneleigh Street, Windsor.
4MC—Brown Pde., Oakleigh, via Ashgrove, Brisbane.
4ST—Dunbar Street, Woody Point.

South Australia

5FJ—15 Montacute Rd., Campbelltown, Adelaide
5GY—60 Kittel Street, Whyalla.
5LZ—79 Lynmouth Avenue, Brighton Park.
5PF—52 Hunter Crescent, Salisbury.
5QI—11 Old Beach Rd., Brighton, Adelaide.
5RR—33a Torren's Road, Kilkenny.

Western Australia

6CD—259 River View Ter., Mt. Pleasant, Perth.
6GD—Wharf Street, Queens Park.
6GK—138 Wittenoom Street, Collie.
6GU—15 Lilly Street, South Fremantle.
6OY—C/o. Radio Station 6NA, Narrogen.
6TP—20 Sasse Avenue, Mount Hawthorn.
6WI—C/o. G. W. Hayman, 5 Melville Street, Claremont.

Tasmania

7CL—2 Midwood Street. New Town.
7MA—Storeys Creek, via Avoca.
7NM—78 Dodgin Street, Wynyard.
7XL—John Street, East Devonport.

Territories

9AB—3 Mile, Rouna Rd., Port Moresby, T.N.G. (Postal: C/o. Dept. Civil Aviation, Port Moresby, T.N.G.)
9KT—C/o. Dist. Services, Port Moresby, T.N.G.

DELETIONS

VK— **New South Wales**

2LP—Cancelled.
2VE—Cancelled.
2WN—Cancelled.
2AJO—Cancelled.
2ALL—Cancelled.
2ARQ—Cancelled, now operating under VK5RG.
2AWE—Cancelled.
2AWV—Cancelled, now operat. under VK3ADT.
2AZI—Cancelled.

Victoria

3RM—Cancelled, now operating under VK2JS.
3WQ—Cancelled, now operating under VK5WQ.
3ADV—Cancelled.
3AER—Cancelled.
3AEV—Cancelled.
3ALF—Cancelled, now operating under VK6AT.
3ARC—Cancelled; now operating under VK2RC.

DX NOTES BY VK4QL

Had the notes completed and have received some further gen from two of the gang, so here we go again. These "late releases" confirm the deterioration of the bands during the month which is a general complaint. Up here, the only time when you could reliably expect to hear DX was on the 14 Mc. band between 0400 and 0630 G.M.T., but there was no guarantee that those periods would see it out. At the end of the month, the band was practically dead by 0630 G.M.T. Most nights, it was nearly waste of time to listen on this band, and 7 Mc. was little better. This band did not maintain the promise it showed last month, and has again fallen into the doldrums. The cold snap that hit the East coast also kept quite a few out of the shack during the hours of darkness. The only signal heard here one morning before breakfast was a KL7, and he was worked first call, yet I can't raise the Europeans when they are there. ZL2IQ said 7 Mc. was good on 29th, when he worked about six South Americans.

Survey of the bands is as follows, stations worked being shown *.

3.5 Mc.: Both 7RK and myself found this band the same. All signals well down and rather noisy. The only strong signals here were the VK2s on the North Coast. 5WO finds power noise too high for him to do much on this band.

7 Mc.: Not much to report in the way of consistency from anybody. 7RK hears N. Americans in the early evening, but here not even getting that, as they are well down in strength when they do get through, except for one night which produced strong signals, and the same was apparent in the States. The thing of note for this band has been the appearance of South Americans. 2DG worked LU8CD at 0630 G.M.T. and I worked LU7CD at 0800 G.M.T. 5JE heard a ZL work LU9VE and a VK3 work G5LI in the late afternoon, but could not hear either DX station. 7LZ worked G5LI at 0605 G.M.T., and said it's a matter of being round at the right time on this band. 5JE did work KP4CC, but 5WO said he is finding great difficulty in evenings to even work Ws. Outside the odd weak Europeans in the mornings, the listings here are VQ4BB, IS1FIC, YU1AFG, LU8YB, LU7CD*, LU4BH at 2130 G.M.T. 7RK and 7LZ: G5LI*, VR2BZ*, and VS7.

14 Mc.: This band has been very erratic and was in very bad shape by the end of the month. 3XU, who was doing OK early in the month, found it very poor. 7RK found the DX harder to raise this month. I noticed the band pick up between 11th and 19th, but from then a rapid deterioration took place, and after 0630 G.M.T. was useless. On the 18th, a high noise level existed everywhere, including overseas, which was apparently the beginning of the rot. Despite this, some signals from DX have been heard at unexpected times. SV0AB 0130 G.M.T., OQ5LL 0745, CO2OE 0230, ZD2DCP 0645, CT3AA 0330, VP4TB 0120, and VS7NG worked by 7RK at 0040. On the 28th, an S8 signal was coming through for two hours at 2300 G.M.T., from ZC4MF, yet despite many VK calls, was only hearing and working stations close to his own call area. VK7 can hear DX at night, although nothing outstanding, which is more than I can.

Listings are—2DG: CR9AW*, LZ1AA*, I1YCC/Trieste*, FF8JC*, EA9BA*, HL1AC*, VQ8CB* after two years' chase. 2ACX: 7B4QF*, 3A2AC*, FR7LA*, ZS3K*. 2OW: FA9VN*, EA7CA*, PK5AA*, 0S4AR, C3JK*, VP7NU, FR7ZA, XU6F, YN3AG. 3XU: YSIO*, 4X4DE*, HA5PC*, EA6AM*, MI3ZX*, ZB1BS*, ZB1BJ*, UB5DL*, KV4AQ*. 4BG: HC1FG, SPISJ, FI8RO, AC2RC, F9QV/FC, PX1A, YU3AD, CP5EQ. 5WO: FR7ZA*. 7RK/7LZ: ZM6AK, UB6DL, 4X4AT, MD2JB, HP1BR, PJ5FN, SP1XA, LX1AS, TT8CM, I1AHR/M1, PK5AA, 9S4AX, KS4AQ, YN1OC, XU6F. 4QL: MD2JB*, C3FA, SV0AB, IS1AHK, VP7NU, EA8BF*, OE13FM, VP5BJ, VP5BL*, 9S4AX, ZD2DCP*, I1AHR/M1, IS1FIC, OQ5LL, EK1DS, EK1AD, YN1OC*, YN3AG* (QSL via W3AG), LB2MB, VP4TR, ZC4NF, CT3AA.

28 Mc.: This band looks as though it has "had it" at the present time. Anytime I or 7RK listened, there was nothing worth worrying about.

ON4QF was operating the 7B4QF that some were lucky enough to fasten on to. He was operating from Andorra, as he said he was attempting to (see "A.R." notes for Jan.). He is now back in ON4 again, having been heard this month.

2ACX has now worked 216 countries, with 2DI close behind at 215. Arthur has sent 202 cards over to A.R.R.L. for DX C.C. Hope you don't lose 'em like I did registered and all. Have had my VK4 DX C.C. OK'd. FR7ZA appearing on the band has given those well up on countries a new one to chase, but to date he has not been heard here. 5WO is wondering whether the use of the figure 7 in his call makes him a possible "joey." No need to worry Austin, as there are a few French colonies using it, e.g.: FM7, FG7, FY7 and I have a QSL from FM7. 2OW had a few 5 a.m. sessions to try and get himself a South African, but all to no avail. Keep an eye on 7 Mc. Gordon. See my QSLs. ZL1BY worked EK1AO on 3.5 Mc. almost two years ago and has just received his QSL. Wonder how long a 14 Mc. one takes?

I was very pleased the other day on opening a letter from the A.R.R.L., to find in it a Certificate, telling me of my election to membership of the A-1 Operators Club. Had often wondered just what it was, and in case there are others in the same boat, here is the score. Membership is by nomination of existing members, and the Certificate bears the annotation, "Membership in the A-1 Operators Club represents adherance to the several principles of good operating: (1) careful keying and good voice operating practice, (2) correct procedure, (3) copying ability, (4) judgment and courtesy."

QSLs for the month are: OQ5LL, UO5KAA, KG4AD, FO8AC, KX6BI, FK8AD, FF8AC, VQ2GW. For 7 Mc.: VQ2GW, ZS5LZ, HA4SA, ZS6OS, 4X4BX, ZS6RB, ZS6XC, OK1SK, bringing confirmations to 119. My thanks to all who have supplied material for this month.

● The thought for the month: "Let your actions and operating on the air make you eligible for membership of the A-1 Operators Club. You never know who is listening."

Cheers until next month.—Flt./Lt. F. T. Hine, No. 10 (G.R.) Squadron, R.A.A.F., Townsville.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3EE	10	158	VK4JP	8	114
VK3JD	1	155	VK3AWW	14	112
VK6RU	2	147	VK4WJ	17	104
VK6KW	4	145	VK4DO	20	104
VK4HR	12	145	VK2ADT	13	102
VK3BZ	3	141	VK3AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK3LN	11	132	VK6PJ	19	101
VK6DD	6	128	VK3GG	18	100
VK3JE	7	123	VK3IG	5	100

CW

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK3JI	25	116
VK4EL	9	163	VK3UM	12	116
VK3FH	15	160	VK4FJ	29	115
VK2EO	2	152	VK3XK	30	114
VK3CN	1	151	VK4DA	7	113
VK6SA	28	150	VK3PL	38	113
VK4HR	8	148	VK7LZ	17	112
VK2QL	5	141	VK4QL	36	110
VK3VW	4	140	VK4RC	13	107
VK3KB	10	138	VK3YD	27	105
VK2GW	16	132	VK2YC	34	103
VK6RU	18	132	VK3HT	37	103
VK5FH	31	129	VK3APA	14	101
VK5BO	33	129	VK3NC	19	101
VK5RX	23	128	VK3CX	26	101
VK4RF	11	125	VK2OA	32	101
VK4DO	20	125	VK7RK	22	100
VK3JE	21	124	VK7LJ	24	100
VK3EK	3	122	VK2AEZ	35	100

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3AWW	45	115
VK4HR	7	187	VK3JA	43	114
VK3JE	12	180	VK2ADT	14	113
VK6RU	8	179	VK3VQ	46	112
VK3HG	3	171	VK3PG	47	111
VK3KX	1	167	VK4RC	21	110
VK6KW	13	165	VK3ZB	34	110
VK4EL	10	163	VK4WF	40	109
VK2DI	2	160	VK2ZC	25	108
VK4DO	15	151	VK2YL	11	106
VK4KS	24	149	VK3AWN	36	105
VK5FL	26	143	VK2VN	18	104
VK3MC	5	139	VK4UL	27	104
VK3OP	19	137	VK6PJ	44	104
VK6DD	22	136	VK2HZ	17	103
VK3LN	29	135	VK7KB	30	103
VK4FJ	32	135	VK2TI	37	103
VK2ADE	28	133	VK3HO	38	103
VK2AHA	9	128	VK6DX	42	103
VK2AHM	20	125	VK7RK	31	102
VK2NS	16	123	VK4TV	35	102
VK3HT	41	123	VK9GW	48	102
VK3JI	33	119	VK2ACX	6	100
VK7LZ	23	116	VK2TG	39	100
			VK3MM	49	111

IONOSPHERIC PREDICTIONS FOR THE AMATEUR BANDS

SEPTEMBER, 1951

The accompanying charts have been prepared by the Ionospheric Prediction Service of the Commonwealth Observatory. The first set of the series was published in the November, 1948, issue of this magazine, together with an article explaining the nature of the forecasts and how to use them. Nine of the charts, prefixed by the letter "C" for Canberra, refer to forecasts for the South-Eastern Australian States. The remainder, prefixed by the letter "P" for Perth, are for Western Australia.

The Canberra charts refer to the following world zones:—

Zone	Region	Terminal
1.	Western Europe	London
2.	Mediterranean	Cairo
3.	N.-West America	San Francisco
3a.	N.-East America	New York
4.	Central America	Barbados
5.	South Africa	Capetown
6.	Far East	Manila

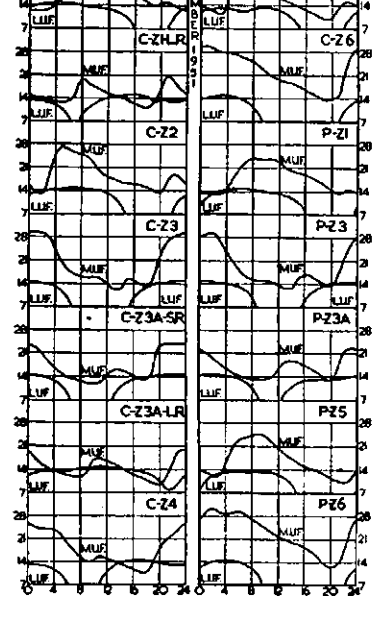
The forecasts have actually been prepared for point-to-point circuits between Canberra and the overseas terminals mentioned in the above table. It is, however, to be expected that the charts will provide an approximate indication of ionospheric conditions for all Amateur contacts from South Eastern Australia to the various world zones.

The Perth charts are similar to those based on Canberra. No forecasts are given from Perth to Zones Z2 and Z4 for the current months, as chart P-Z2 would be essentially similar to chart P-Z1, while chart P-Z4 might be unreliable due to auroral activity in high northern latitudes.

USE OF CHARTS

All that is necessary in using the charts is to select a time (G.M.T.) during which a specified Amateur band frequency is below the maximum usable frequency (m.u.f.) of the F region of the ionosphere but above the lowest useful frequency (l.u.f.) for the desired contact. In two cases, Zones 1 and 3a, it is necessary to consult both the short-route (S.R.) chart and the following long-route (L.R.) chart.

The Prediction Service welcomes comments on the accuracy of its predictions. These should be forwarded through the W.I.A.



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

NEW SOUTH WALES

This month interest has centred on 144 Mc. owing to the Contest which took the few remaining 50 Mc. stations to the higher band. No openings have been reported on 50 Mc., so for this month there will be no 50 Mc. news.

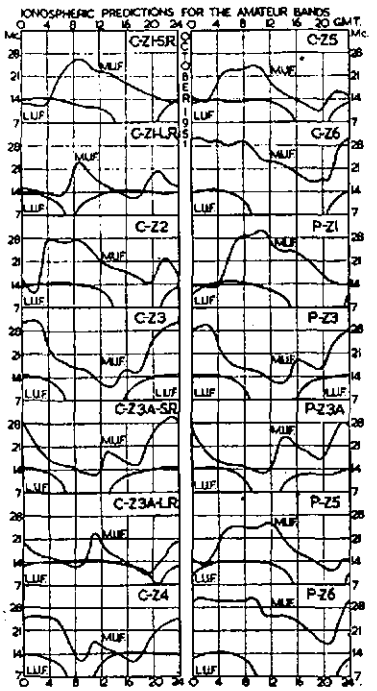
144 Mc. News: July has been a time of much activity on this band. First of all there was the Contest, followed by a week-end trip by 2HL from Sydney to Bathurst with frequent stops to work the Tx.

The Contest was extremely well supported—sixty-six stations taking part over the three week-ends. General trend of comment is that the Contest is too long and a few very interesting suggestions have been made regarding alterations for future Contests. Unlike last year's Contest, the last day was extremely busy—one contestant working 45 stations for the day. A pleasing feature of the Contest was the appearance of 2KR (Woy Woy) and 2GA (Ettalong). The latter, in his enthusiasm, came on before completing the job of setting up his 522 Tx and had to unsolder the feed line every time he went from transmit to receive. John is putting a good signal into Sydney considering the extremely difficult path to be covered. 2KR is still comparatively weak at this location, but the new three over three should improve matters. Cec is keeping daily skeds with 2ANF on 144 Mc. at 1315, so anyone around at that time should keep a look out for Cec.

2ADT made very few contacts as conditions were not so kind as they were last year. 2LZ managed to work 2ANU again and seems to receive signals from that direction with ease. Wollongong stations were said to be active during the Contest, but no trace of them was heard in Sydney.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	13	3
VK4RY	2	2
VK2VW	9	2
VK5LC	1	1
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK2ABC	8	



2HL created considerable interest with his trip to Bathurst and back, surveying the locations for a proposed field day with the Gladesville Club. Unfortunately Horrie's Tx was not playing the game although his Rx was quite a fair job. Leaving Sydney at 7.30 a.m. on the Saturday, 2HL proceeded to the Blue Mountains and at the same time 2ANF proceeded to Kurrajong. 2LZ, at Wentworth Falls, provided very welcome assistance in arranging the contacts, but unfortunately 2ANF and 2HL were unable to make contact over the difficult path from Mt. Boyce to Panorama Point at Kurrajong Heights. The main object of the test was to find out whether this path was workable.

Saturday night 2HL went to Mt. Panorama, Bathurst, taking Trevor 2NS as passenger. The idea was to contact Sydney stations over the mountains if possible. This path has been worked on 50 Mc. The only result of the test was cold feet! On the way home on Sunday, 2HL made contact with a number of Sydney stations from Mt. Boyce and then later during mobile work from the mountains home to Sydney.

2ANF had a very interesting trip to Kurrajong and worked 35 stations during the day—almost as good as the Contest!

New stations heard on 144 Mc. are 2FZ, 2QC, 2GA and 2ASE. A welcome is extended to all these stations and we hope they stay with us. A number of stations were out mobile during the month, particularly during the Contest. Those heard included 2FK, 2XU, 2ABO, 2ADY, 2AZO and 2RQ apart from the two mentioned previously.

A number of the country chaps are paying rather large sums for ASV receivers (AR301). Whilst it is good to see them taking an interest in the band, the general feeling amongst the Sydney chaps is that the old ASV receiver will do more harm than good. Certainly, its performance will not reach the standard required to work long distances over difficult country. A far better, far cheaper and more satisfactory idea is to make a small converter to go ahead of the normal station receiver. Many good circuits are featured in "QST" and other publications as well as the various handbooks. Those using triodes are to be preferred on account of their lower noise content.

The July meeting of the V.H.F. Group was well attended. Bill 2MQ brought along his new final using 826s on 144 Mc. and described the procedure in calculating the dimensions of the flat strip lines used in the linear tank circuit. Subsequent tests run on this tank showed a remarkable increase in efficiency over the older twin round lines as featured in his "A.R." article "100 Watts on 144 Mc."

It was announced at this meeting that the Sunday night 2WI broadcasts will in future take place at 7.30 p.m. which is one half an hour earlier than in the past. A committee was appointed to handle the proposed v.h.f. link to country districts and information regarding country v.h.f. stations. If you live in the country and have v.h.f. gear the V.H.F. Group wants to hear from you.

576 Mc. News: Great interest was shown in the trip made by 2RQ and the South West corner gang to Kurrajong Heights recently. They had a few contacts on 144 Mc. for the Contest and then concentrated on 576 Mc. Most of the Sydney stations with gear for the band were worked at excellent strength over the path of some 40 miles. Seeing the horizontal versus vertical is still in a state of flux, they wisely took a helix antenna which took care of both types of polarisation. The Rx in use was an ASB7, Tx a pair of RL18s. Power was supplied by the "donk," Cec's 300w. 240v. petrol elec. set.

2HO has succeeded in putting out a signal as far as 2XX at Sutherland and is considerably elated at the effort as Roy is way down at the bottom of a hollow. 2DF has two lighthouse tubes in a cavity resonator and his signal is reported as being very strong. 2JU and 2AWZ have been working both ways on 576 with good results and 2AET has started up with the RL18s he won on the last field day.

With all the new stations starting on 576, it is like 20 metres!

VICTORIAN 576 Mc. CONTEST RULES

1. Any licenced station may participate in this Contest, but prizes will be awarded to W.I.A. members only.

2. The period of the Contest will be from 1st Sept., 1951, to 30th Nov., 1951, inclusive.

3. Logs, showing date, time, station worked, location (home or portable), signal reports exchanged, distance, and points claimed, must be signed by the operator and returned to the Secretary of the Group not later than 7th December, 1951. Winners will be announced and prizes distributed at the December meeting.

4. Only one contact with any station on any one day will be counted for the purpose of this Contest unless either or both stations have changed their location, that is, from home to portable. However, an unlimited number of contacts with any one portable station and the station worked is increased by at least ten miles each time contact is made.

5. A portable station is defined as one which is operated at least ten miles away from the normal home location.

6. Points scored for each contact shall be in accordance with the following table, the distance being the air line distance between the two stations to the nearest mile.

Up to 15 miles						1	point
15 miles and	,,	,,	25	,,	....	2	,,
25 ,,	,,	,,	35	,,	....	3	,,
35 ,,	,,	,,	50	,,	....	5	,,
50 ,,	,,	above	.. ....	....	....	10	,,

7. Prizes will be awarded to the four highest scoring stations; the first prize being a pair of 24Gs.

VICTORIAN V.H.F. GROUP NOTES

Next Group meeting is on Wednesday, 19th September at the Rooms. Listen to 3WI broadcasts for details of the evening's activities. At the July meeting, Harry Chapman, 3GU, presented a very interesting and informative discourse on antennae. Figures of theoretical gain of stacked and series arrays showed that whilst for a given size of array, the gain in db. was approximately the same in both cases, more elements were needed in the series array. For example, an array of approximately 3 wavelengths dimensions has a gain of 9.8 db. when 7 elements are stacked with 0.625 wavelength spacing, but 13 elements spaced 0.25 wavelength are needed in the series array to achieve the same gain. Harry went on to explain the free space field patterns of various arrays and showed how, by employing the binomial method of feeding stacked arrays, it was possible to cancel unwanted lobes in the vertical direction with increased gain in the desired direction. As applied to a 3 element array the binomial feed requires that the centre element be fed with twice the value of current present in either top or bottom elements.

The lecture was rounded off by a demonstration of the back to front ratio of a two element close-spaced beam of the "Lenfo" type. The two elements, spaced one-eighth wavelength and mounted on dowelling so as to be easily rotated, were fed by an oscillator and, about four feet away, was the field strength meter which used an 0-1 Ma. meter and a 1N34 detector. The signal from the front of the beam was more than enough to give full scale deflection of the meter, but rotating the antenna caused the meter to fall to zero. Harry was getting very good results on 144 Mc. with three stacked elements with binomial feed and reflectors until it came to grief in a recent gale. He has plans for a more ambitious array of which we are bound to hear more later.

After the lecture, the rules for the 576 Mc. Contest were explained and after some discussion approved by the meeting.

3CI (Nagambie) is now receiving on 2 metres, but has no Tx as yet. Sid borrowed 3UI's 2 metre portable a few weeks back and had contacts with 3ABA (S7-9) and 3BW (scratchy), and also heard 3UG, 3AKE, and 3BD. Sid will be listening every Saturday night from 7-9 p.m. and will transmit on 3.7 Mc.

SOUTH AUSTRALIA

Main band of activity to report is on 288 Mc. where 29 stations are active. This band is occupied every night of the week and beams using up to 32 elements are in vogue. A full list of call signs is not available, but amongst them are 5RV, 5MX, 5JW, 5RO and 5ZL.

On 144 Mc. 5PH Wiliston using a unity coupled osc. to dipole has been heard by 5QR but could not hold him on the xtal converter. 5AX is going to try 288 Mc. in place of 144. His 50 Mc. signal has seemed to improve.

5JD has built a RL18 osc. for 288. On 50 Mc. 5ZY has good signal but only using 40 metre antenna. 5HD has 4 x 4 in action again and has a terrific signal; QSOed 5MA one night on c.w. 5QR is lamenting, has not seen any sign of contest trophy as yet, and eight months has elapsed. Trying Lamb noise silencer.

5WQ, Freeling, per 5JD on 7 Mc., is interested in getting going on 50 Mc. 5RT not heard since power supply failure. Still nil heard from chaps in Darwin re activities. Surely someone up there can drop a note to say what progress has been made and give frequencies, etc. How about it chaps?

5GF heard on occasionally working crossband 288-50 Mc. 5CU threatens to come back on 50 Mc., so far no sign of Cliff. 5GA has 6A6 working nicely now as a harmonic xtal osc.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: G. GLOVER (VK3AG); Federal Secretary: G. M. HULL (VK3ZS); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: John Moyle, VK2JU.

Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor: Don B. Knock, VK2NO, 43 Yanko Avenue, Waverley, Sydney.

Zone Correspondents: North Coast and Tablelands: Noel Hanson, VK2AHH, Ryan Ave., West Kempsey; **Newcastle:** Ron McD. Stuart, VK2ASJ, 98 Dunbar St., Stockton; **Coalfields and Lakes:** Harry Hawkins, VK2YL, 27 Comfort Ave., Cessnock; **Western:** W. H. Stitt, VK2WH, Cambijowa, Forbes; **South Coast and Southern:** Roy Raynor VK2DO, 42 Pettit St., Yass; **Eastern Suburbs:** Don Knock, VK2NO, 42 Yanko Ave., Waverley; **Northern Suburbs:** Harry Powell, VK2AYP, Russell Ave., Wahroonga; **St. George:** Chas. Coyle, VK2YK.

VICTORIA

President: G. S. C. Semmens, VK3GS.

Secretary: C. Dyer (VK3DY), 19 Collington Ave., Brighton (XA 6326).

Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.

Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.

Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; **South Western:** K. O'Rorke, VK3AKR, Killigrew, Westmere; **North Eastern:** T. X. Tennant, c/o. Victory Theatre, Tatura; **Far North West.:** M. Folie, VK3GZ, 101 Lemon Ave., Mildura; **Eastern:** H. O. Kellas, VK3AHK, Tinambra; **North Western:** C. Case, VK3ACE, Cummlgn Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3588 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. and 146.5 Mc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.

Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.

Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.

Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.

Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.

Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.

Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.

Meeting Place: Perth Technical College Annexe, Mounts Bay Road, Perth.

Meeting Night: Second Monday of each month.

TASMANIA

President: R. O'May, VK7OM.

Secretary: L. W. Edwards, VK7LE, Box 371B, G.P.O., Hobart.

Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.

Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St, Hobart, Tasmania.

North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

FEDERAL

CORRESPONDENTS REQUESTED

The Federal Secretary has received a letter from W8GEN which it is desired be published for any Australian Amateur who might be interested in corresponding with Miss Conen. It read as follows:—

2058 Evansdale Ave.,
Toledo 7, Ohio, U.S.A.

Dear Mr. Hull,

I am an Amateur Radio Operator and live in the U.S. A number of my classmates are writing to pen-pals in other countries, and being an Amateur Radio Operator I would like to acquire some pen-pals in other countries that are Amateur Radio Operators or are interested in Amateur Radio Operators or the American Radio Relay League concerning this, and they sent me a list of the countries in the I.A.R.U. and advised me to write to them.

I am 16 years old and will be a senior in high school this fall. At the present I am operating on the lower frequencies running low power, and I have not contacted any other countries as yet.

I wonder if you would know of any Amateur Radio Operators in Australia, from 16 to 25 years old, that would be interested in writing to me. I would greatly appreciate any information on this and hope to hear from you soon. Until then, the very best 73's and DX!

Sincerely yours,
(Signed) MISS CAROLYN CONEN.

Here's a real opportunity for some of you young 'uns to get in and work some dandy DX! Why, when I was your age I'd . . . . well, it doesn't matter, but take a tip from the old-timers.

FEDERAL CONSTITUTION ALTERATIONS

Federal Executive, on behalf of the Federal Council of the W.I.A., hereby gives notice that it is intended to alter the Federal Constitution of the W.I.A. (as amended 1947).

Section 21 as follows: By deleting the words "within 60 days immediately preceding" and inserting in lieu thereof "60 days prior to."

Section 28 as follows: (a) Deleting the words "the Headquarters" in lines three and four, and inserting the word "any" in lieu thereof; and (b) deleting the words "the Headquarters" in line 7, and inserting the word "appropriate" in lieu thereof.

SILENT KEY

It is with deep regret that we record the passing of:—

VK5NM—Mal Mayer, July, 1951.

N.F.D. CONTEST, 1951

Your attention is drawn to an error in the points allocation of the open section of the 1951 National Field Day Contest where VK7SR should have been shown as having gained a total of 314 points thus placing him in second position ahead of VK6WI. The log of VK7SR has been re-checked and proved to be correct as having gained second place.

Our apology to both gentlemen, and we trust VK6WI will appreciate that the mistake was purely an error in adding. Thanks!

— . . . —

NEW SOUTH WALES

EASTERN SUBURBS

City and suburban zone correspondents evidently prefer to remain silent, judging by the almost complete lack of response to editorial appeals; promises notwithstanding. If, therefore, little or nothing covering the big smoke and environs appears in "A.R.," this sub-editor disclaims responsibility.

Leo 2AC dropped in for a chat, during which he appealed for more co-operation in s.s.s.c. working. 'Twas ever thus, the pioneers never get the support they merit, but later in time Tom, Dick, and Harry will reap the benefit. 2AYE has "broken out" on 14 Mc., although the 7 Mc. first love keeps on dragging him back; Dave is erecting a centre-fed antenna for 3.5 Mc. 2YF heard testing with phase modulation on 14 Mc. DX with good results. Ivan 2TN has been struggling with a 144 Mc. rush-box and has run across a few blind spots in the tuning range. They vanished when the 7193 detector was replaced by an acorn triode; good for the acorn!

What of Tom 2XB? Active on 14 Mc. phone in this area a year ago, he seems to be completely silent. A welcome is extended to Roy Heimann, 2TH, who has opened a business in this area. Needless to say, Roy is planning to get on the air, and has a yen for v.h.f's., especially 144 Mc. An unexpected and welcome visitor blew into the writer's station on a recent Sunday evening; in company with Doug ZL1OF. He is Frank Robb, GI6TK, of Belfast, Northern Ireland. Frank, who is an inspecting radio engineer with Shorts (the Sunderland people), was on a special delivery trip in one of the new Plymouth Flying Boats acquired by Q.E.A. GI6TK is one of the early day DX men and his card graces most c.w. DX men's collection. He is particularly well known in VK on 28 Mc. phone. Wal 2SA dropped in for a yarn and threatened to break out on v.h.f.

W.I.A. ACTIVITIES CALENDAR

September 1-29: The Jubilee Relay.

October 13-14: VK-ZL Jubilee Contest (C.W. Section).

October 20-21: VK-ZL Jubilee Contest (Phone Section).

NORTHERN SUBURBS

Nobody sends any notes in from this (or any) area, so the scribe can but snatch fragments of overheard gen for the mill. Bert 2AGW, of Lindfield, is not often on his customary 20 metre phone stand these days, but when he is, he conjures Gs up out of a seemingly dead band. Morrie 2VN, now in his new QTH at Killara, is not yet active as he would like to be, but keeps a sked on a round table on Saturday nights at 1930 hours on 80 metre phone with 2HC, 2CM and 2XQ. Ray 2HC is staying in the vicinity of 2VN. One of the keenest in this area, and heard on several bands including 50 and 144 Mc., is Len 2DF. He favours n.b.f.m. on all bands and can always be relied upon to conduct a two-way test with v.h.f. aspirants.

Sorry to hear that leading v.h.f. engineer Cec Cronan has been on the sick list. His creation of a 576 Mc. superhet is a fine piece of work and the envy of sundry of us who perforce through lack of time (or energy) are not even at the squegger stage on the band.

A word of advice to would-be n.b.f.m'ers. Take care that you don't overdo things in the

way of deviation (audio) input to that phase, reactance, or other form of frequency modulator. This scribe blushes to realise recently that the spread from his p.m. outfit had got out of hand on 7 Mc. Instead of plus or minus 3 Kc., it was more like 80 Kc. With initial frequency at 1.7 Mc., the amount of deviation at 7 Mc. can be excessive unless checked carefully.

WESTERN SUBURBS

The Experimental Radio Society will be OK for new club rooms in the future, and while for the time being will remain at the Mitchell St. premises, at some indeterminate date, they will return to the old stand, Greenwood Hall; all by the way by the permission and blessing of the local Council. In the meantime, things are going along well and the club is running a building programme. There will be some gear to put on the air in the future. Meetings are on the alternate Thursdays, with the work night on the odd week.

2BF busy with A.O.C.P. class, but still has time to get on 40 occasionally. 2AAB usually found on 20 or 40, but plans to get on 10 and 6 in near future, also plans mobile operation. 2AMP busy building the Rx to end all Rx's. 2MH operating with small rig from difficult location, heard on 40. 2AGX has one switch operation of late, and trying to get the last ounce out of the new Rx.

2IV is another Ham who has recently been heard on 40; there is DX down there Roy. 2APT recently increased power, but has had trouble with beam. Keith 2NJ proves that rotary dipoles do really work, two S points increase from a VU. 2ALO's 20 metre beam coming up, given ten away for the time being. Not a sound out of 2DW from Warwick Farm. 2ACH has been busy nursing wife and himself back to health, all OK now. 2AHP's new tower can be seen from the train near Homebush, should sport a beam in the near future. Nice phone from 2APL, a new convert from the c.w. rank. 2ACD still thinking about rotary antennae. Acknowledgment to Ted Whiting, 2ACD, for the foregoing.

NORTH COAST AND TABLELANDS

It is with regret we have to announce the resignation of Crieff Rettalick from the position of Zone Officer for the above zone. Crieff 2XO has always been a tower of strength on the North Coast and an ardent worker for Amateur Radio. Crieff has not been the best of late and Amateurs throughout the State hope he will soon be on top again. They are all looking forward to another "Urunga Do." Noel Hanson 2AHH of West Kempsey is the new Zone Officer and he would appreciate the assistance of Amateurs in the zone—let Noel have the news. Noel contributes the following:

144 Mc. activity—2EA trying out 807s on that band, successfully operating 807s in parallel (triode connected), with 40 watts at 400v. In a long lines oscillator circuit, Keith passed on the news on 40. 2PA, 2AEY, 2WC, 2AWS, 2XO and 2AHH obtaining 301 Rx's for conversion to 144. There will soon be a net on the North Coast and we would like the city boys to look out for us when we get going.

Best wishes to 2TB and 2OE in the new business venture. 2APB working scores of ZLs using two element beam on 40. 2XO, 2WS, 2ASO, 2AHH and 2RK putting out solid signals on 80. 40 is now holding up until 6.30 p.m. for contacts to Sydney. 2AHH expecting TA12D modulator unit to arrive from Sydney for use with present Tx to provide 100 watt input for flood emergencies. The North Coast gang acknowledge the help from Dave 2AYE in procuring gear.

Rex 2VG spent holiday at Nambucca and worked many N/C boys. Harry 2ARY puts an S9 plus signal into the "Home to Lunch" session. 2ARV from Wyong trespassing on the North Coast Zone at Musswellbrook, hope to hear him working portable. Some N/C boys will be active in the R/D Contest and have issued a challenge to the Hunter Branch on the highest individual score. The prize—a burnt out 807. Ted 2AVG of Northbridge worked many N/C boys on his mobile rig while on his way to visit Rod 2ACU.

HUNTER BRANCH

Reducing QRM was the main argument used by Dr. Leo McMahon 2AC in stressing the advantages of s.s.s.c. at the lecture given to the July meeting of Hunter Branch, held at Newcastle Technical College. Orme Cooper 2CP was to have assisted, but, owing to Illness, was unable to attend. Branch President 2CS, in thanking Leo for an interesting lecture, asked that the Branch's wishes for speedy recovery be conveyed to Orme.

Early in July our President and members were invited by Newcastle Branch of I.R.E. to attend a preview of the film "Destination Moon." Some of the Coalfield chaps came down and enjoyed an entertaining evening. Thanks to 2XT and XYL for taking 2ASJ along.

Hunter Branch Contest Committeeman Harold 2AHA, repeats the challenge issued on behalf of Hunter Branch to other zones (R.D. Contest) for the VK-ZL Jubilee DX Contest, that is: Hunter Branch three top scores to beat three top scores of any other zone. Harold says we'll put up ½ db. each as backing for our three! Any takers? What about it you chaps in other zones?

2AHA is "all stoked up" for Contests, and he'll be near the top too! A miniature Hamfest was held recently at 2ZC's QTH, with 2AHA, 2IS and 2FP present. 2ZC going on 6 soon with 829. Still threatening to come on 40 is Ernie 2FP. New turret tuned Rx of 2ANG is well under way, but Phil shifting QTH soon, so QRT for while yet. Welcome to 2YS who showed up on 40 phone with 9 plus sig—Norm has 100w. to p.p. 807s and QTH is Nelson's Bay. Latest victims to 2AAI's 20 metre folded dipole are European phone stations; good show Ron. 2TE has broken the ice again, chasing ZL's on 40.

Nice to see 2NX at meetings again; Shorty building new car radio. 2MC waiting for 144 to be populated again.

A recent visitor from the big smoke was 2EW and Wal was using small 144 beam in car and put out whopper signal. Neil reports 2ADS is back on 2, and Doug has f.b. transmission from SCR522. Another to show up on 144 is 2AGD; George has new shack about completed. That reminds me, if you haven't given me the gen on your 144 or 50 Mc. gear (including longest normal working distance), please let me have it or forward direct to VK2VW. c/o. Box 1734, Sydney. 2XY has 50w. mod. tranny ordered and hopes to have TA12 on 80, 40, 20 and 10 very shortly—95 watts! Keeping daily sked with 2SS and 2AQQ is 2XT. 2AXM took time off from RA10s to work an air-mobile—good show Bill.

Having fun with AB 807 modulator is 2AQS; Norm hopes to be on 40 phone soon. 2UY decided he'd try if Tx still worked, but only results were pretty blue flashes; Stan doing Boy Scout's deed with 2ASJ's sick AR8. Secretary 2SF giving hand too—Varley only has power supply to complete before he is on the air. Up river, 2XQ is knocking Ws over on 20 phone. 2JZ is talking of 20 metre beam, getting DX conscious Alec? 2TY has KH6 vertical on 10. Six and 40 metre phone receiving attention from 2VU.

The Stockton gang regretfully saying 73 to "veteran" 2AMM; due to XYL's illness, Bill is moving to old QTH at Hamilton. 2PJ landed a VK1 on 40 phone and Bill only had 5 watts —nice work OM. Ivan 2IS spent part of recent holiday at Taree with 2AEY, and was heard on 40 from that QTH. 2AEX has only to put door on to complete new shack. Following spell in hospital, 2OS back at toil, and Nev now building new modulator. 2BZ is keeping 2ASJ on right track, but otherwise no Ham Radio; hang on to your gear Dave. Heard 2CI on during week; reason being broken axle on Gordon's business car. Rotary beam at 2DZ doing good work; Johnny worked HB9 on 20 phone recently. "Father of Newcastle Hams," 2MR, QRT this month. Hope Edgar OK. The 20 metre rotary working well at 2ASJ but not complete yet.

COALFIELDS AND LAKES

Thanks to 2ARV for letter re his activity. Chas only on at week-ends, working away during the week; doing well on 40 and had the first VK-ZL 40 phone contact at 15 seconds past midnight on the night the band became available to ZL. Major 2RU quite busy and not on so much; chores include turret tuner, 144 Mc. gear and calibrating v.t.v.m. plus fiddling with 2KR's v.h.f. Rx. Cec 2KR and 2GA John keeping Woy Woy on the map both on 40, 6 and 144 Mc. Chris 2PZ making slow progress, but QRL, business keeps him busy. Bruce 2ALR has made a comeback on 40 and 6 phone, working ZLs on the former band. Max 2KZ only gets on 10 at week-ends due to work every day, hopes to have something different by Xmas. Bob 2KF has been active, but nothing new to report.

Bob 2TY still battling away on 10. Geoff 2VU working usual bands, but believed to be tuning up on 8 for the summer season. Ken 2ANU getting good results on 144 Mc. and working stations consistently. Glad to learn the YF is OK again. Jack 2ADT says condx very patchy but active on 40, 8 and 144 Mc. New v.f.o. in use, unit is switched and any band can be v.f.o'ed; new grid dip oscillator working fine. 2YL and his antennae gradually falling to pieces. Firstly the four half-waves in phase 75 feet high fell across the house, the 10 beam a pile of wreckage, then to add insult to injury recent winds flattened the four element beam for 6. Activity low, restricted to 40!

WESTERN ZONE

Max 2OT, of Broken Hill, keeps up the good work of rounding up the news and doings of the "Silver City" boys. Much appreciated Max, also the Sunday morning contacts. 2AFV, ex-5BJ, now at Broken Hill; John is at the local b.c. station and is running 35w. to a 809 on most bands. Harry 2AGU who has been in B.H. installing new b.c. station Tx, will be leaving shortly to return to Sydney. Dud 2DQ has been working hard on new xtal controlled converter. 50 Mc. has received No. 1 priority from Rod 2ACU at Coonamble lately; had a visit from 2AVG.

Heard a whisper that Dave 2EO was contemplating a visit to Trev 2NS. Now I wonder what those two old brass-pounders could find in common? V.h.f. activity has become real in Bathurst with Trev almost there on 6 and 2 and Phil 2IE making enquiries about the dimensions of 50 Mc. beams.

Orange is also suffering the drift to the v.h.f's. Norm 2JW has a new four element 50 Mc. rotary and a new exciter which gives stable output on 50 Mc., the 64th harmonic; recently on the receiving end of the first Forbes-Orange 50 Mc. contact when Norm received 2WH's 50 Mc. signals at S8. Don 2ALX contemplating replacing his 28 Mc. rotary with 50 Mc. ditto and making an 813 bow down to 50 Mc. Bill 2AWY heard with nice 7 Mc. phone signal.

Round Forbes, John 2AMV is having a week in Sydney getting his strength up for R.D. Contest. 2WH been very busy getting new 50 Mc. beam going. Results to date very satisfactory; 144 coming up fast. 2LZ busy during the 144 Mc. Contest. 2EX active on the A40 rather than 40. 2ACP Katoomba active on 20 and 40, old Bill sends a nice drop of morse. 2HZ been resting at week-ends, so the shack won't be finished for Xmas!

SOUTH COAST AND SOUTHERN

Everything is in hand for a big roll up from this zone for the R.D. Contest—it should be a record entry this year from the area. Peter 2APP has his new Tx working and will christian same by working three bands in the Contest. 2RM at Military College, Duntroon, will be absent during the Contest on leave. According to the conditions on the DX bands, I think the predictions, as published in "A.R.," are far too generous, although 20 appears to open up to Central America at 1300 hours as predicted. Notice in the DX notes by 4QL that, to quote

DEATH OF TELEGRAPHY PIONEER

Mr. Arthur Sheard, one of the early pioneers of morse telegraphy in Australia and an acknowledged master of the technique of sending and receiving morse, died in the Calvary Hospital, Adelaide, recently. He was 73 years old.

Born at Numurkah, Victoria, he learned telegraphy in W.A. at the end of the last century. Mr. Sheard held many records for speed and accuracy. He could send and receive morse messages at the same time, and could receive and transcribe two messages at once.

From Darwin he went to Adelaide on the G.P.O. staff in 1928.

Mr. Sheard served in World War I. as a telegraph operator, and once was able to defeat German intelligence by sending and receiving messages so fast that they could not read them.

After his retirement in 1940, he served as an R.A.A.F. instructor in morse at Parafield. He also instructed the S.A. Police.

Arthur Sheard, better known as "Pop," was the code instructor for the VK5 Division classes, and was instrumental in a large number of the boys getting their tickets, both Amateur and Commercial. He was well liked and took a sincere interest in all his pupils.

He is survived by three sons, Keith of Perth, Denis of Dunedin, N.Z., and Arthur of Graymore, S.A.

his words, "Valuable assistance was forthcoming from several stations." How I envy that guy, nobody ever seems to help me!

Cec. 2ALS has eliminated some b.c.i. from a nearby b.c. listener and by using a filter S9 signals went right out on the b.c. band. Looking forward to hearing the Wollongong and Albury gang in the Contest. 2DY, 2AMW, 2AMD and 2ON are certainties and guess 2OJ and 2EU will air their rigs for a few contacts. Jim 2AKE will be active and incidentally he should have a.c. soon, bought a TA12D so should be airing the full gallon shortly. Had QSO with Jack 2OY one night but lost him when we tried crossband; was trying a Type A Mark III. with Clamp type modulation. Believe Chick 2ALB has his indicator unit working as a c.r.o. and believe the mod. was very simple.

2PI has peculiar trouble in his rig, OK on 40, but when modulation applied on 20, everything goes haywire. Gain has to be increased to get any depth of modulation and the result thin voice quality. My own rig doing a mighty fine job of dual-band operation at the one time 40 and 20. The final tubes were mighty pretty, red and blue; OK for football jersey, but not lending itself to a good band signal. 4QL may be interested in the fact that pre-war XU6F operated from air force school Hong Kong, his name Fung Him. The 6 metre Tx at 2DO is nearly built—6V6-6V6-807, 8 Mc. rock, all that remains is to get it going—just that.

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VICTORIA

CENTRAL WESTERN ZONE

The Annual Zone Convention will be held at Ararat on Sunday, 16th September. An interesting programme has been arranged—we will be looking forward to seeing many of the voices in person. If you require accommodation contact 3GN, George Turner, 6 Queens Avenue, Ararat (Phone Ararat 292), not later than Tuesday, 11th September, as accommodation is not plentiful.

Programme: 1200 hours assembly at Ararat Town Hall, 1300 lunch, 1430 hidden transmitter hunt (3512 Kc.), 1630 end of transmitter hunt, open envelopes, 1700 back to Ararat Town Hall, 1700-1800 competition and ragchew, 1800 tea, 1900 annual meeting, presentation of prizes, talkies, and home to bed.

The transmitter hunt prize is three miniature tubes, in addition a further prize for the first zone member to locate the Tx. Also there will be a prize for the best piece of home-built equipment. This will be selected by ballot of those present. Three tubes were donated by Geoff Clark, and the other two prizes by Gordon Weynton.

3HL has a cunning way of getting gear built, simply invites another Ham for a week or so and presto, latest willing victim was 3ARL who re-built the control system to single control. Lin's antenna tuning unit tried conclusions with a charge of lightning the other day with spectacular and noisy results. 3TA is very busy on commercial projects at present, has had the 'flu. 3YW tried a little transmitting minus the antenna during the zone hook-up with surprising results. 3ATR is at last getting places with a 14 Mc. beam, Trevor has the tower welded up now, so things must be getting on. A new Ham is 3AFO, Merv. is located in Horsham about four doors from Byron; welcome to the ranks OM and let's hope you keep clear of b.c.i.

3DP is at last getting near the finish of the new Rx, then off to 14 Mc. with the s.s.b. as Jim has about had it on 7 Mc., 3ARM is after dope on Clamp modulation, so Bob will be another of 'em. Charlie 3ACI (Lubeck) and 3IB (Dimboola) are working plenty of DX on 7 and 14 Mc. Tx is v.f.o. controlled and finishes up with an 804, antenna is centre-fed. We have made a convert to s.s.b. on 3.5 Mc., it won't be long now (we hope) before company arrives and our splendid isolation destroyed.

DON'T FORGET, Ararat Convention on 16th September. Zone hook-up, Sunday, 9th September, 1000 hours on 7155 Kc. approx.

NORTH EASTERN NOTES

The night preceding the convention 3UI had many visitors, some 12 call signs were present. Alan had quite a time with two metre mobile signals coming in from all directions. After the "do" many more congregated at 3UI and a hectic day finished at a late hour. 3APF is on a trip to VK4, going in search of better weather, Peter? 3FD threatening to migrate to two metres. You will still need a modulator Andy. 3KR and 3AGT still bashing three hours after the zone hook-up. 3UI heard from 3CI for the third hook-up in succession.

Heavy silence followed 3UI's announcement that the zone correspondent had passed the A.O.C.P. Well fellers, I'm sorry you feel that way, but cotton wool is cheap. Many thanks to Alan for his diligent concentration in making me make the grade. Andy I think you will have a cobber. Cheers and 73's till next month.

EASTERN ZONE

I am glad to say that I have something to report this month. 3ANC has a home-brew double conversion Rx working very nicely. What about paying 3650 Kc. a visit some Sunday Norm, instead of just earbashing on 40? Cliff 3AJA has some 288 Mc. gear working, although no contacts as yet. 3ABF has discovered that to push 90 watts into parallel 807s isn't as easy as it looks! 3AMV has arrangements for the November Convention well in hand. He has also re-arranged his modulator tube line-up. Works nicely now, after a slight hold up. You should remember Martin, that although a 6B7 looks just like a 6J7—well, it ain't!

3PR now in a new house and should be on the air again shortly. 3WE is alleged to be learning to ski! Pleased to say that Mrs. 3WE is on the mend again. Associate Leo Dwyer is anxiously awaiting the result of the last A.O.C.P. exam. 3TH very busy on the farm these days. 3QZ putting out a very nice signal on 80. 3SS still moaning about arrears of book work. 3LV another regular on 3650 Kc. 3DI, 3VL, 3US, 3AEP among the missing, what's wrong with you chaps? 3RH a proud papa, a girl, no call sign as yet!

John Jarman 3ADA is with the R.A.A.F. somewhere in VK5 and would very much like to hear from the boys in the zone. Here's his address: A11426 L.A.C. Jarman, J. B., c/o. S./L. Garden, Box 1424H, G.P.O., Adelaide. Go to it chaps and remember, the stamp only costs a penny! 3ABP working on 40 with voice operated carrier. What about an article for the mag Bud? That's the lot for now, except to point out to 3LV and 3AMV that, notwithstanding reports to the contrary, my spies are everywhere!

SOUTH WESTERN ZONE

3AGD has been having trouble with floods and lost portion of his weir. 3II has new movie projector now and finds it much better than cranking the old one by hand; Leigh has a heater in the shack and is on a little more often. 3AKR thinking seriously of s.s.s.c. on 80 metres. 3ADN still very quiet on the air

though Pat does a lot of listening. Heard a signal on 40 signing 3AMH, couldn't possibly have been you, could it Bill? Was in Warrnambool the other day and met up with Norm 3EQ; Norm says that the boys there have been very inactive. Frank 3ZU has been ill; hope that when you read this Frank, you are sparking well again.

GEELONG AMATEUR RADIO CLUB

There was a good muster of members at the first meeting of the month and many things were discussed. The Secretary reported that arrangements were under way for the visiting of a couple of new places during the year. At the next meeting the syllabus was finalised and it is expected to be a successful year for the club. During September a visit from the Moorabbin Radio Club is expected. Two more of the members sat for the last A.O.C.P. exam. and it is hoped that they will be successful, thus adding two more to the Geelong Hams.

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QUEENSLAND

News seems very scarce this month. In addition only one lot of country zone notes have been received due, no doubt, to the fact that the country rep. 4UX is now in the country himself and is unable to take news for me on 7 Mc. hook-up. Anyhow, I wish to tell you of the achievements of two Brisbane Amateurs who have really gone in for DX hunting and as a result can lay claim to some very hard-won certificates. After reading of their splendid efforts some of us may be tempted to equal their claims. Perhaps there may be some of you who can do so already, if so what about letting me know?

The first of these Amateurs is 4FJ who does more listening than transmitting and just as you think you have a rare one to yourself will suddenly pop up and take him from under your nose. Roy has the following to his credit: B.E.R.T.A. (British Empire Radio Transmitters' Award), QSLs for Empire DX Certificate (but has to be a member of the R.S.G.B. for a certain period before he can lay claim to the award), DX C.C. Open (149 confirmed and 162 worked), DX C.C. Telephony (101 confirmed and 115 worked), DX C.C. C.W. (125 confirmed and 135 worked), W.A.C. 28 and 14 Mc. phone and c.w., W.B.E. 28 and 14 Mc. phone and c.w., W.A.P. (29 telephony 1 c.w., out of 30 required), worked 38 zones and confirmation of same, has 47 U.S.A. States confirmed, KH6 Mobile Club Certificate, Worked All Japan Districts Certificate (first VK to claim this award), member of Rag-Chewers' Club (how Roy got this, I'll never know).

To 4HR's credit we list the following: Empire DX Certificate (open section), has QSLs for Empire DX Certificate on telephony, DX C.C. Open (186 confirmed 202 worked), Telephony (142 confirmed 161 worked), C.W. (146 confirmed 170 worked), W.A.C. 28 and 14 Mc. phone and c.w., W.B.E. 82 and 14 Mc. phone and c.w., W.A.P. Telephony, W.A.Z. W.A.S. (U.S.A.), W.A.S. (Australia) 50 Mc., KH6 Mobile Club Certificate; Tibby also needs only one ZS7 for the Worked All Africa Award and in addition holds the P. Termaritzburg Club Certificate (South Africa).

Incidentally, I heard a good one about Tibby. Just to give you an idea of how keen he is. He heard a new one and after waiting for a long time for him to finish rag-chewing with a station nearer to him, he signed off and closed down saying to his friend that he would see him the next night on the same frequency at 5 p.m. He had to QRT in a hurry because the petrol in his engine-driven generator was running out. Consequently Tibby missed out on the QSO. However, he knew that he had a chance the next night at 5 p.m. if he could be snared before he contacted the local station who would obliterate Tibby's signal once he came on. With this thought in mind, Tibby didn't touch either his receiver or v.f.o. for 24 hours. Just about three minutes before the due time, the ZS8 came on for a few very short testing calls. I think he said, "Hello test" three times. You can imagine Tibby's feelings as he pressed the trigger to get him before another rag-chewing session began. The chap could hardly believe Tibby had been waiting for him for 24 hours and didn't think he was that rare. Both Tibby and Roy would make good fishermen I am sure.

MARYBOROUGH NOTES BY 4GH

4KG should have his boat in the water soon. Then perhaps some Ham Radio. 4AI seldom heard. Building up some new gear including a g.d.o. 4GH converted Class C Wavemeter into v.f.o., with T9 xtal note. Still has broken hand in plaster. Comes of punching the key too hard? 4BG re-appeared on 40, indicating that Remembrance Day Contest is in the offering. Conditions poor on all bands during July, though Europeans coming in again early a.m. on 20 metres.

CLARE'S CORNER

5DL, who is on transfer to this State, is operating under the call sign of 4GP from his QTH at Hill Street, Cooper's Plains. Welcome to sunny Queensland Don. 4YA is at present in the Brisbane General Hospital and latest reports indicate he is on the mend. Here's wishing you a speedy recovery Bill and hope we hear you on the band again soon.

4FN left Brisbane on the 28th July and should by now be settling down in his new QTH. At the last W.I.A. meeting, Frank was presented with a very nice crystal salad bowl and dish by the Queensland Division in appreciation of the good work done by him in the past.

4IM looks like going off the air temporarily, being cramped for space to house the rig. Maybe a portable, would solve the problem Mac? Heard 4CC suggesting to one of his overseas friends he should spend his vacation on some remote island with a portable rig. Hope he won't be like the Yank who arrived in Korea and said "Now I is rare DX," Clive. Have you ever looked down the barrel of a gun, pulled the trigger and shot the guy in front of you? That's how 4RT's beam works. John works them the long way round off the back.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held at the Shell Theatrette to a capacity audience and took the form of a film evening. The general reaction to the entertainment provided was that it was the best selection of films that the members had witnessed, and this is saying a big thing because we have been singularly fortunate in the type and the quality of films that have been screened at our meetings in the past. Owing to the business to be discussed it was considered that only a passing reference need be made to essential general business and any matters arising therefrom could be discussed more fully at the next meeting, which will be held at our recently re-built and re-decorated clubrooms. The VK5 Division is extremely grateful to the "best broadcasting station in the State" for its generosity in permitting us to hold our meetings in its luxurious and splendidly appointed auditorium at such an absurdly cheap price during the afore-mentioned re-building, but then knowing the type of hard working and efficient technical men employed by them, such generosity is only to be expected. Ahem!!

A recognised technical book which is printed in the U.S.A. and is accepted for its common sense comment on current radio affairs, this month had the following editorial comment to make: "Today, a large number of experimenters are turning away from radio to audio, and the number is being swelled by quite a few radio Amateurs. Many are the theories being advanced for this trend, but the most logical is the obvious fact that the audio man constructs a little, and buys a little, and the resulting effort is something which not only gives him pride in his work, but permits him to share his enthusiasm with, and at the same time entertain, the members of his immediate family. The cultivation of the radio side of the hobby however, tends to shut the Ham off from the members of his family, he acquires a phraseology all his own, tends to become a stranger even to his family, and before long is looked upon as being not much better than a hermit." Does the cap fit?

Our venerable and revered President with the golden spectacles, "Doc" Barbier 5MD, has been spending a portion of his recreation leave at Mount Gambier and no doubt meeting all the local gang. He has, no doubt, been selling the merits of the "odd" antenna, and the advantages of the v.h.f's. to all and sundry, and his XYL has, without question, been discussing the well known "May" brand of "Toitles."

5CH apart from skeds on 2 and a few contacts on 20 and 40, is leading what may be termed a quiet life. What, no power house Claude? 5MS is another one who may be termed as somewhat quiet, but nevertheless Stuart has managed to rake a couple of new countries in and also several long yarns with John Sheard (ex-5JA) at present in England. 5FD is in the throes of shifting into a new home, and as I can speak from experience, needless to say John is decidedly off the air.

5KU is talking of building a 20 metre beam and apart from working a few stations on 20 and 40 metre c.w., finds the prevailing conditions very poor. Wouldn't all this high winds be OK for a spot of gliding Erg? 5KB is still a hard one to catch up with although I have heard quite a few ZLs calling Peter on 40 and can only presume that he is working them, because I can't hear him. 5TW has a permanent watch scheduled for DX with his "hotted up" version of an AR7, although all of his activity has so far been confined to 40. My pet aversion (5MD) informed me, upon his return from the Mount, with envy written all over his face, that Mrs. 5TW is an earnest reader of these notes, and it was my intention to write a funny ha-ha concerning her in this paragraph, but I lack information. What about it Tom? This is your golden opportunity.

5CJ is still without a modulation transformer, although Colin has obtained a couple of 813s and is getting a bit tired of gazing longingly

at them. Apart from a couple of contacts on 2, he is another one to comment on the quiet nature of things. 5JK has now focussed attention upon himself, not for any new type of aerial, but because of his sartorial excellence. "It," wears gloves these days; gloves, mind you. I have been given to understand that the next step for Jim is spats, and that all the Eastern Suburbs look to him to find out just what the well dressed man is wearing. "Beau Brummool" now replaces that nickname of "umbrella man."

5PS emerged from temporary hiding this month and was heard testing in his well modulated Rose Park voice on 20. Many and varied were the sarcastic remarks concerning QRM heard the following day, from all walks of life, but I understand that Warwick is treating them with ignore, plus a certain amount of condescending pity. 5BZ (Battler to you) was seen recently in a well known radio department talking to Norm Coltman and enquiring as to the merits and de-merits of radio sets. The arrival of the "Amateur Radio" reporter was the signal for a burst of insults from all concerned, although the name of 5DN was heard distinctly mentioned several times. 5DN, by the way, is the best broadca———, all right Tom, all right, I know you are the Editor, Grrr.

The responsibilities of a member of the Advisory Council are many and irksome, and the possession of a sense of humour plus a share of tact seems almost a necessity for the job. Might I very respectfully point out that the practice of "bawling out" an offender on the air not only shows a lack of the above mentioned qualities, but it also lowers the prestige of the "bawler out" in the minds of the many unwilling listeners, to say nothing of the feeling of resentment it creates. Another necessary attribute that should be the proud standard of an Advisory Councillor, is the knowledge that in pointing the finger, his own house is in order.

In listening to a well known "oldtimer" on 20 this last few months, I seemed to gather the impression that he was a little eccentric at times and when mentioning this fact to several of the boys, I was somewhat surprised to be told, "Oh yes he is very eccentric, he likes people to think so." Well, well, what some people will do to achieve notoriety. He is very lucky; they don't tell me that I am eccentric, they simply say, "that Parsons bloke is as silly as a wheel, have you ever read the tripe he writes."

It is a remarkable thing that when any stranger to Amateur Radio is being shown over the average shack the first thing that they say is "by the way, is Vic Coombs still on the air? I used to listen to him every Sunday morning once." "Uncle Vic," as he was affectionately known to hundreds, seems to be symbolical of Amateur Radio in VK5, and still confined to his bed as he is, his first love is Amateur Radio. There was a suggestion of him being given a provisional licence on 10 metres on a fixed frequency, recently, but the Wireless Branch went thumbs down on the matter.

Murray Nicholson has at last received the call sign of 5CF and has been on the air already testing his gear. Several minor faults to be cleared up, and then all will be well. 5MA has now taken up the matter of relay control with a vengeance and will soon be having the slickest break-in operation that ever was. It appears that Fred's XYL appears to like the sound of c.w. better than phone because every time that he has been working Bill 5HD on 6 metre c.w., Joyce goes into a rare dance when it starts up. 5BC has been on a little on 40 lately, helping out the boys in Berri, and managing to work a few other stations with a small 10 watt 6V6 Tx, although he has been very busy with his car. Hughie has also been doing a little woodcarting so I have been told.

Ralph 5KD has been doing a spot of relieving at the most powerful station in the State this month, but is not heard very much on the air these days because his gear is battery operated, and three CQ calls followed by a couple of signs means that the batteries have to go on charge. 5SL has been on 40 a little this month, and with the washing machine, the motor car, the wood chopping, the incidental duties associated with the wood carting, and last but not least, all the duck egg blue pretty pretties ready and finished, Laurie can now relax, momentarily. Thanks for the 88s Pat, but don't tell Skinny.

Judging from the letters that I have received from the country boys at various times, it would appear that they consider that the magazine has somewhat let them down by not describing some simple gear for the ultra-highs. Whilst I realise that the lot of the country Ham is much more difficult than the city slickers, from the viewpoint of exchanging views and seeing the other fellow's gear, I must point out that the matter is one of magazine policy, and one of the few things that cannot be placed at my door, although someone will eventually try and pin it on me. Nevertheless dear charming Editor, what say you?

I have been besieged this month by members wanting to know just what it was that "Doc" said in reply to the "crack" from Rose 5AJ concerning Alcatraz, and also who was the member that told his XYL that he had been to the meeting, when in fact he had been somewhere else. I regret that I mentioned these two facts in last month's notes, you nosey Parkers, you.

Ross 5LW has recently changed to plate modulation and has acquired the best crop of gremlins and bogeys that have ever been heard in VK5. He can be heard on 20 nightly asking all and sundry what the heck is wrong with his signal. He has received more controversial reports than he can handle and is slowly forming the opinion that either his listeners are ganging up on him or that they don't want to offend him. As if they could!

Ralph 5TR must have a lot of spare time on his hands because almost every week he can be heard on 20 giving details of some new radio gadget that he has just completed building. The only thing that I can think is that Doll does not get any help with the dishes, and has to chop the wood herself.

Congratulations are the order of the day in VK5 to the magazine for printing those Army VT numbers and commercial numbers in last month's issue. This fills a much needed want and shows that the magazine is doing all it can to give its readers service. Keep up the good work.

— • • • —

TASMANIA

Final efforts were made by interested Hams during July in an effort to have all available gear in readiness for one of our main events—the Remembrance Day Contest. Several new Tx's were completed, and from the interest taken locally in the elimination of key clicks, thumps, etc., seems c.w. will be as popular as phone. Was disappointed to hear from the North West that 7KB will not be as active as last year in the Contest, although several new members are available and no doubt will endeavour to maintain the high standard of scoring for which this Division is noted. Bad luck "Doc" trust things will be OK for the ZL Contest. Saw 7LL the other week looking very happy, having just returned from a two months' tour of the Barrier Reef in the ketch "Matthew Flinders."

The July meeting was held at the usual spot on 1st August, the meeting being reasonably well attended. Discussion was mainly concentrated on the increase in fees made necessary in an effort to offset the rise in printing costs of "Amateur Radio." A recommendation of a three shilling increase on the present fees was made by the Council. When brought forward at the General Meeting it was decided, in view of further basic wage adjustments, that five shillings would be necessary, which met with the unanimous decision of all those in attendance. The meeting ended at 10.30 p.m.; 7OM was once again in the chair. By the time these notes appear, the v.h.f. rigs and r.f. meters will have arrived and distributed. Thanks must be passed to our Secretary 7LE whose untiring effort made possible this distribution of disposal gear and to the VK3 Division from whom the gear was purchased.

Local rag chew heard one recent Sunday consisted of 7BH, 7SD, 7RX, 7LD, 7OM, 1KA, and not forgetting 7RM. Sounded like old times, hope to hear more of these in the future. 7SD having trouble with Rx and Tx. Trust Don things iron out OK and congratulations on the appointment as radio technician with the local constabulary. Don, together with 7BH, going for 2nd class ticket, which we hope both attain. 7RM can be heard bowling the ZLs over on 40. 7AL QRL with business, but you can bet Tom will be available on 11th August.

Power cuts at 7RY have restricted operating time. Seen in town since his return from his sojourn in the north was "Sandy" Powell, vows going to give radio away, owing to his other pastimes having priority on his time. Mentioned 7CA still carrying on the good work at Kelso and we hope we hear something from you shortly Max. 7JB still active despite home building worries, believe Jack has enrolled in a brick laying course. Suggest you take over the shack Joy, seeing Jack is too busy home building.

Results are to hand of the Portable Field Day Contest and congratulations to the Sig. Radio Club 7SR in gaining third place in the phone section of the Contest. Unfortunately generator trouble caused considerable delay and it is hoped everything will be in readiness next year. Welcome to Noel Kerison in obtaining his majority; call sign is eagerly awaited and when this is to hand, signals should soon be heard from his QTH. Believe Terry Connor is feeling fit once more after an illness, long time since we heard the old call 7CT Terry, so how about coming on one of these days. 7KX having v.f.o. trouble.

NORTHERN TASMANIAN ZONE

A welcome is extended to a new member to our ranks, 7LX who is active on 80 and 40 metres. At the other end he is also using a 576 Mc. Rx. 7GM has a new QTH well away from man-made QRM and should be able to put up a decent antenna; Gordon does not recommend flat life and "ham" antenna systems.

The secret is out at last. 7BQ had been seen measuring the length of bumper bars on different cars, and now 7BQ has a new car. Rumour has it that the bumpers will make excellent 144 Mc. radiators. Any truth in it Len? 7RB has been doubly busy—trying to finish off his house and having to take over at b.c. station 7LA following on the unfortunate death of 7MC.

7AM, our busy zone secretary, still finds time for his 144 Mc. skeds with 7BQ and 7LZ. Les is also working on a 40 metre phone outfit and should have it working soon. Signals from 7TE are expected to take some unexpected twists and turns as Bill has taken up square-dancing—anyhow he plays the string bass in one of our orchestras that goes out into the wilds a couple of times a week for square-dancing. How about letting us hear some of that nifty rythm on the key Bill?

7DS out at Longford is getting acquainted with 144 Mc. and when in full swing should give the "townites" some local v.h.f. DX. Our chief exponent of c.w. is looking with more and more disdain on phone, specially as his modulator power transformer blew up, however 7RK does most of his DX on c.w. We hear that 7DB is nearing completion of his house.

7XW says "never give up hope for that missing QSL cards." He was recently able to send on to a VK4 a card from a W5 which had been incorrectly addressed to Chris. It had been posted in W5 seventeen years ago. 7XW has recently obtained a Class "C" Wavemeter and promptly built in a 200 Kc. marker crystal oscillator using a miniature valve. The whole makes a swell frequency meter.

HAMADS

9d. per line, minimum 2/-.

Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received by 8th of the month, and remittance must *accompany* advertisement. Calculation of cost is based on an average of six words a line. Dealers' advertisements not accepted in this column.

FOR SALE.—Eddystone "640". Condition as new, £60 or best offer. K. Echberg, 14 Glyde St., Mosman Park, W.A.

FOR SALE—Receivers: AR8 (A.W.A.) RA1B (Bendix) 0.15-15 Mc., BC454 3-6 Mc. Sell separately or the lot. Perfect condition. Offers: I. Jay, 6 Ballater St., Essendon, Vic. (FX 8000).

SELL.—New, boxed, R.C.A. 829B £5. V. H. Leonard. Phone: WA 9646 (Melb.).

SELL.—97 feet 300 ohm ribbon (unused); 85 feet 70 ohm ½ inch co-ax (slightly used). R. Jones, 25 Panoramic Road, North Balwyn, E.9, Vic.

WANTED.—Manual on No. 22 Set, also vibrators for No. 22 power supply. R. Campbell, Box 42, Sorrento, Vic.

WANTED TO BUY.—Circuit or Handbook for Marconi B28 Receiver, Admiralty No. W2835E. Ralph Clark, 13 French Ave., Bankstown, N.S.W.

WANTED.—Two 455 Kc. Variable Selectivity I.F. Transformers manufactured by Hammarlund Co., U.S.A., as spares for Super-Pro Receiver. Must be in new condition. Will pay 30/- each or swap "Q Plus" Car Radio Coil Kit with I.F's. (new). J. E. Rogers, 61 Broadway West, Yallourn, Vic.

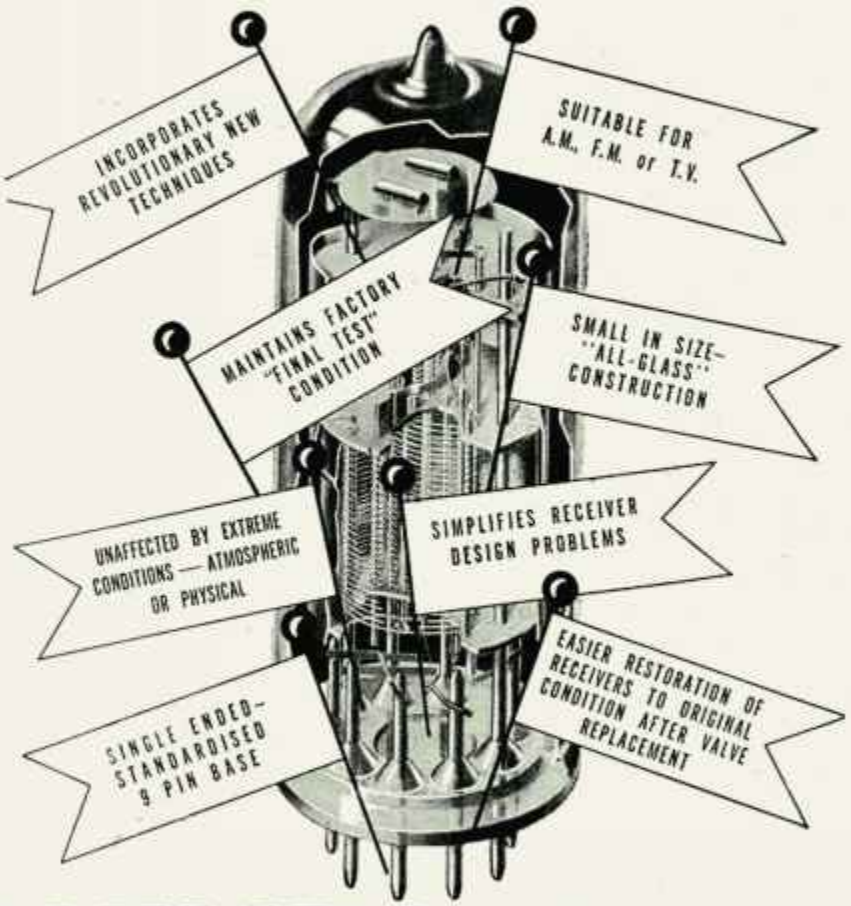
WANTED.—V.h.f. SCR522 Transmitter-Receiver, complete. State price. C. M. King, 11 Albert St., Corowa, N.S.W.

OCTOBER
1951

Amateur Radio

JOURNAL OF
THE WIRELESS
INSTITUTE OF
AUSTRALIA

For the Experimenter
and Radio Enthusiast



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EDITORIAL

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The Responsibilities of Membership

When discussing the organisation of a society such as the Wireless Institute of Australia, the remark has often been heard that "Divisional Councils have this or that responsibility to members," and whilst accepting this fact, it is also obvious that individual members also have responsibilities to their Divisional Councils and to the Institute as a whole.

On reviewing this question, it becomes apparent that members' responsibilities embrace such things as supporting their elected representatives in promoting an active and energetic vitality in their Division's general life and group activities.

This interest can be most helpfully displayed by members in shouldering their share of the work to be done, rather than leaving everything to the few reliable workers who frequently bear more than their share of the load.

We feel sure that you will agree that even the largest Divisions find it difficult to obtain office-bearers and helpers at times, and very frequently the excuse offered by some is that the affairs of the Divisions are run by a clique who do not want newcomers to enter their select circle. Now we consider this to be rationalisation to say the least—newcomers with new ideas always help to improve the progress of an organisation, and the Wireless Institute is no exception in this regard.

When you consider that the privileges we enjoy today have been obtained for us by such organised effort, there is no excuse for lack of enthusiasm by individual members in rising to the occasion when workers are in demand.

Have you ever stopped to examine the position, or to consider what unified control of Amateur activities has been achieved by the Wireless Institute of Australia—if so, you will have no difficulty in recognising that members have another responsibility insofar as it is their duty to obtain new members for their Division and thus strengthen our representation to the P.M.G's. Department when we approach them on behalf of the Australian Amateur.

Departmental officers have often publicly expressed the opinion that the conditions under which we operate today have been obtained only because of the friendly contact which exists between the P.M.G. Department and our organisation. The Advisory Committees, which we originally sponsored, have helped, in no small measure, to maintain this relationship and to ensure a friendly solution to breaches of the regulations.

Will you therefore do your part by taking an active interest in Divisional affairs next time someone is required to undertake official duties, and also start right now by securing some membership allocation forms from your Secretary and making definite visits to non-members with a view to enlisting them in your Division.

FEDERAL EXECUTIVE.

The Contents . . .

807s As Floating Screen R.F. Amplifiers

BY B. HANNAFORD,* VK2ALR

THE circuit to be described came from experiments with 807s as r.f. triodes. One circuit used an 807 with the screen resistor and by-pass condenser connected to plate. Another used an r.f. by-pass condenser between control grid and screen, the screen resistor being connected in the usual way. Both these circuits will work, the idea being to parallel the required elements for r.f. but still have normal d.c. screen volts.

If you wish to experiment on these lines, don't fail to remember there is a phase difference across the condenser so the elements are not really at the same instantaneous r.f. potential. With both these circuits neutralising will be required. A rather large capacity in the first circuit and a small capacity in the second circuit.

Using the second circuit, tests were made on the necessary capacity for the grid to screen condenser. Surprisingly, it was found that the condenser was apparently unnecessary. The circuit was quite stable with the screen floating. Now we have a third circuit with an un-by-passed screen grid and neutralised in the normal manner. For the want of a better name let's call this the floating screen circuit, the screen apparently having no definite r.f. potential. The circuit may be single ended or push-pull, the screens may be fed from a common resistor without trouble.

To sum up, the floating screen circuit is a normal tetrode circuit with neutralising added and the screen by-pass taken out. It can be plate and screen modulated and the drive requirements are the same as for tetrode connection. In fact, you might almost consider it a tetrode circuit with the neutralising cancelling out the feed-back due to the un-by-passed screen.

Consider it as we so desire, but what we really want to know is what are the advantages of its use? From the limited number of tests possible before writing this article, it appears the circuit has more stability than the usual 807 tetrode circuit. Perhaps this circuit has the stability we have always wanted but so seldom got without a lot of trouble. Perhaps by now you are interested and want to try the floating screen circuit for yourself. If so, a few points worthy of mention are as follows.

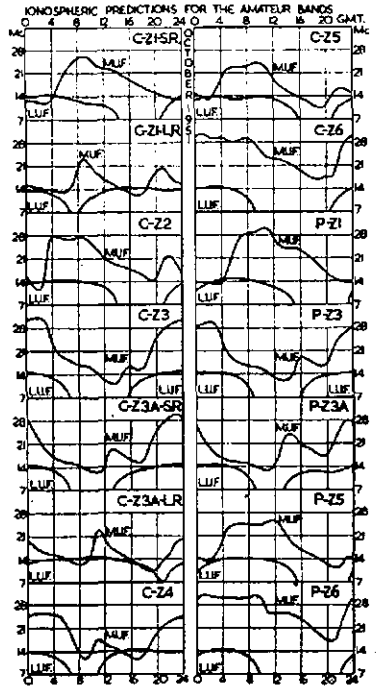
As regards neutralising circuits, use grid, plate, or cross neutralising as you like, but the neutralising capacity is very small. To make things easier, boost the tube's grid-plate capacity with a small external condenser. Then it will be found that a reasonable size neutralising condenser can be used and adjustments are easier to make.

When using push-pull with cross neutralisation, the neutralising condensers should be approximately equal. However, one interesting fact was observed, the screen currents of the tubes were unequal; the tubes were changed over, but the same side of the circuit still had the highest current. The screen currents were balanced by increasing one neutralising condenser two turns and decreasing the other two turns.

However, this state of affairs may have been due to unequal grid-plate capacity loading mentioned earlier. The screen resistor should probably be located right at the tube or tubes, but three feet of lead did not seem to matter on 7 Mc.

* 95 Wollombi Road, Cessnock, N.S.W.

PREDICTION CHART FOR OCTOBER, 1951



ERRATUM IN RULES OF THE VICTORIAN 576 Mc. CONTEST

Rule No. 4 should read as follows: Only one contact with any station on any one day will be counted for the purpose of this Contest unless either or both stations have changed their location, that is, from home to portable. However, an unlimited number of contacts with any one portable station will score provided the distance between the portable station and the station worked is increased by at least ten miles each time contact is made.

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	13	3
VK4RY	2	2
VK2VW	9	2
VK5LC	1	1
VK6DW	3	1
VK4HR	4	1
VK3PG	5	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK3ACL	14	1
VK2ABC	8	

DR. A. L. GREEN

We record with deep regret the death of Dr. A. L. Green on 28th August, 1951. Dr. Green was born on 3rd February, 1905, at London, England. Educated King's College, London University, B.S.Sc. 1925, M.Sc. 1929. Investigator to Radio Research Boards, Councils for Scientific and Industrial Research Great Britain and Australia. Head of Commonwealth Ionospheric Prediction Service.

During his lifetime Dr. Green was foremost authority in Australia on Radio Propagation Phenomena and was instrumental in securing for the Institute the provision of the special chart which is published in this magazine each month. We Amateurs will always be indebted to "backroom" workers like Dr. Green whose untiring efforts to unravel the mystery of the Ionosphere have helped in no small measure to remove the uncertainty from DX hunting. F.E. in particular will always revere the memory of Dr. Green for his work on behalf of the W.I.A.

TELEVISION MADE EASY

Part ii.—How the Camera Works

BY JOHN JARMAN,* VK3ADA

As Hams, we are naturally more interested in the receiving side of television than the transmitting side, but in television, unlike sound broadcasting, one cannot learn the principles of reception without some knowledge of what takes place at the transmitting end. For this reason, the next two articles of this series will be devoted to television transmission, commencing with the camera.

Now so far, we've learnt that the camera takes photographs continuously at the rate of 25 per second, and splits each of these photographs into 625 horizontal lines, transmitting each of these, in succession, as a stream of electrical impulses, corresponding to the light and dark portions of each line. How does it do it?

Well, consider your domestic camera. It consists of a dark box, fitted with a lens, by which light rays, from a distant object, are focussed on to a film, where they cause chemical action, which produces the photograph.

Now a television camera also consists of a dark box with a lens, but instead of a film, the light is focussed on to a special "target" that turns light into electric current (Fig. 1).

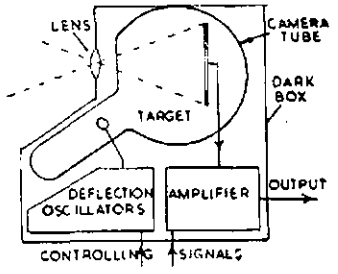


Fig. 1.

There are a number of different types of television camera in use, but to cover the general principles, it will suffice for us to deal with only one of them, and devote the rest of this article to the associated control equipment. (My, what a burst!)

First, let us study this 'ere target (Fig. 2). Contained in a vacuum glass bulb, it consists of a thin sheet of dielectric (e.g. mica), whose front surface is studded all over with minute particles of a special metal which gives off electrons when light shines on them, or, if you want to be technical, they are "photo-emissive." Although very close to each other, these particles don't touch one another, but resemble little islands.

On the rear surface of the target is a sheet of thin metal called the "signal plate," so that the aforementioned particles are like a lot of little condensers, joined to a common lead. After all, a condenser is simply two conductors with a dielectric between them, and in this case we have a particle and a signal plate, with a dielectric between them. Compare Fig. 2a and 2b, if this is not clear.

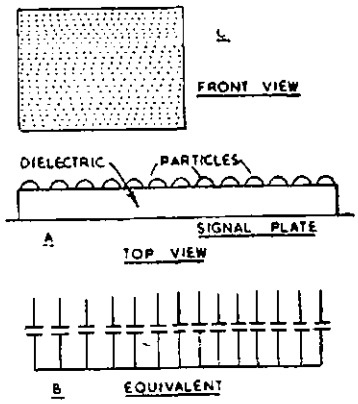


Fig. 2.

Now when light shines on the target, each little particle sheds a few electrons, the number depending upon the brightness of the light—so what? For a moment, we shall change the subject, and talk about condensers.

Consider a condenser, as shown in Fig. 3, with one plate connected to earth, through the resistor R. Now, remember, electricity is contained in everything, including plates X and Y, and when an object contains the correct number of electrons, it is said to be electrically neutral, as in Fig. 3a.

Let us now "rob" plate X of a few electrons, say two. Immediately, an equal number of electrons will "race" up from earth, through R, into plate Y, in an attempt to replace those taken from X (Fig. 3b). Let us now return to X the same number of electrons that we previously removed; in other words, we shall give X sufficient electrons to **make it neutral**. The extra electrons, which had gathered at Y, will at once realise that their service is no longer required, and "scram" back to earth, through R, so that a pulse of current flows through the latter.

Now consider a number of condensers, connected through a common resistor to earth, as in Fig. 4c, and suppose that from the upper plate of each condenser, a certain number of electrons be taken, as shown by the figures above. In each case, an equal number of electrons will enter the lower plate of the corresponding condenser, as in Fig. 3b.

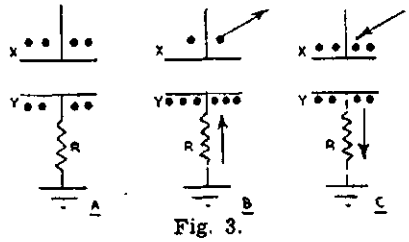


Fig. 3.

To each condenser, let us now give sufficient electrons to make it neutral. As each condenser is "satisfied," a number of electrons will flow down to earth, through the common resistor R, **equal to the number taken by each condenser.**

In other words, the common resistor will now carry a series of pulses of current, forming a pulsating d.c.

Having thus seen how pulsating d.c. can be produced by "discharging" a series of "charged" condensers (to use the correct electrical terms), let us now return to our television camera.

We have seen how light rays, focussed on the metallic particles on the target's face, cause each particle to emit electrons. Now for each electron emitted, an extra one will enter the signal plate, which is earthed through a resistor, just like the "common lead" we have been talking about.

Let's take a look at Fig. 4. "A" represents a typical line of the picture, as focussed on the target. (Refer back to last article, if necessary). "B" is a top view of the row of particles on the target, which will fall in this line.

Particles in the light parts will emit a lot of electrons, whereas those in dark parts will emit very few (note figures). "C" shows the condensers which these particles form.

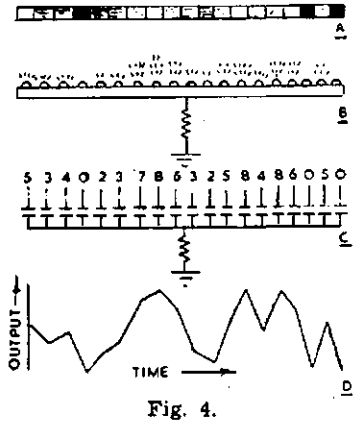


Fig. 4.

Now commencing from the left, suppose we discharge each of these condensers, by giving to each particle, in succession, sufficient electrons to make it neutral, i.e., the number it has lost. In each case, an equal number of electrons will leave the signal plate, and flow through R to earth, so that the current through R will be as graphed in Fig. 4d.

Therefore, our camera works, by first allowing the light to charge a lot of little condensers and then discharging them in succession.

But how does it discharge them in succession? Well, we saw in the last article how the electron beam of a cathode ray tube can be made to trace out a number of parallel horizontal lines. Suppose we put our target inside a cathode ray tube (Fig. 5) so that these lines will be traced out on the target's face.

Commencing at the top left-hand corner, the beam will now sweep across the top row of particles (Fig. 1c). Consisting of electrons, it will restore to each particle sufficient to make it neutral, i.e., the number it had previously emitted.

* A11426 L.A.C. Jarman, J.B., c/o. S./L. Garden, Box 1424H, G.P.O., Adelaide.

The action reminds one of the act of passing a box of chocolates along a row of hungry "harmonics" seated at a matinee.

Just as each kid would grab sufficient "lollies" to satisfy his appetite, so does each particle collect sufficient electrons from the beam to restore neutrality. After completing each line, travelling from left to right, beam will "jump" back to the left hand side of the target, and trace out the following line, ultimately reaching the lower right hand corner when beam will return to its starting point. All of this takes place 25 times per second, and as the beam travels over each line, the action outlined in Fig. 4 will take place; so that a burst of pulsating d.c. will flow through the load resistor R (Fig. 5), from which the output is taken.

This type of camera is known in England as the emitron, and in U.S.A. as the Iconoscope, and it will be noted that the output is obtained by "electrostatic induction" (though I shall not bother you too much with this big word).

It might be mentioned that in other types of camera, the output is taken from the electron beam which, after scanning the target, is made to return to an anode. The losses, which the beam suffers, in restoring electrons to the target, cause changes in anode current, which represent the camera's output. An example of this type of camera is the Image Orthicon, which is so sensitive that it will photograph a scene in the light of a match! Its operation, however, is beyond the scope of these articles.

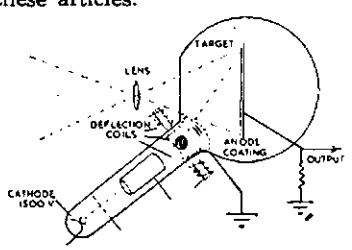


Fig. 5.—Emitron Camera Tube.

Having learnt the principle of operation of a typical camera tube, we, as Hams, will be more interested in the associated equipment.

The tube is of course contained in a dark box, fitted with lens and optical accessories. The camera case contains two saw-tooth oscillators (horizontal and vertical) to operate the scanning beam, and a small amplifier, to "boost up" the tube's output, before it leaves the camera. In many types of camera, portion of the output is fed into a small viewing cathode ray tube, mounted in the back of the camera case, to act as view-finder. Every camera is provided with headphones and microphones, which keep the cameraman in touch with the control room.

There are of course many other components in a television camera, but these are all we need bother about, in order to understand its operation, which is our main concern.

So far we've seen how the camera turns the picture into pulsating d.c. Before this picture signal can be used to modulate the transmitter, however, it undergoes some important modifications, some of which take place inside the camera, and others in the external equipment, as we shall see.

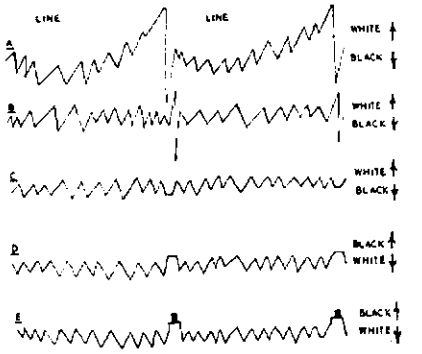


Fig. 6.

Let us first study the quality of this picture signal. Fig. 6a shows the signal as it leaves the tube. Note how it increases from left to right. This is called "Tilt and Bend" effect, and if not corrected, would cause the picture to appear brighter on one side of the screen than the other. Correcting signals, called "shading sginals" are therefore mixed with the camera tube's output, which "flatten" it, as shown in Fig. 6b. Since the extent of this tilt and bend effect is constantly varying, the amplitude of these shading signals must be kept manually adjusted, to maintain correct balance.

Note also that at the end of each line, there is a high amplitude pulse, generated by the camera. This is removed, by applying suppressing signals (between lines and between pictures), so that the signal becomes as shown in Fig. 6c.

The picture contrast must also be constantly adjusted.

Theoretically, the camera tube's output at any black part of picture should be zero. Actually, however, the tube gives some appreciable output when a black portion is being scanned, so that if not corrected, black would be transmitted as grey, thus spoiling the picture contrast and general quality.

Furthermore, the tube's output, for black parts of the picture, does not remain constant, but varies appreciably.

Output must therefore be constantly adjusted, so that, briefly speaking, at any black part of the picture, no signal modulated the transmitter. This adjustment is called "setting the black level."

These faults are not common to all types of television camera, nor are they the only faults which television cameras suffer. There are plenty more, but these are probably the most common and have been mentioned here to illustrate the difficulty of keeping a good quality television programme on the air, compared with an ordinary sound broadcast.

Our signal, now "perfected," must be "inverted." We have seen that the brighter the picture, the greater will be the camera's output. In the last article, however, we learned that in Australia, negative modulation is to be used, so that arrangements must be made to ensure that the amplitude of the modulated carrier will **decrease** with picture brightness. In other words, the modulation system must be arranged so that the **darker** the picture, the **greater** will be the carrier amplitude, as in Fig. 6d.

In the spaces between the lines, synchronising signals are inserted, as shown in Fig. 6e, but we'll treat this in more detail in the next article.

Now, we've said a lot about adjustments that are made to the camera's output, during transmission. Who makes them?

Well, between the camera and the transmitter there is a very important device, called the Camera Control Unit, consisting of a large control panel, containing monitor screens and many dials and switches. Most television broadcasts use more than one camera, and the Camera Control Unit is arranged so that for each camera, there is a monitor screen, and a separate set of controls. The c.c.u. operator must carefully watch the picture produced by each camera and keep the output adjusted, so that this picture maintains good quality. By means of fading controls, he can also select whichever camera is giving the best view of the scene, and fade one scene into the other, just as one sees on the movies. By means of a small telephone system, he can also issue the necessary instructions to the cameramen whose job is to keep their cameras trained on the scene and adjust the optical focus of their cameras.

Before closing, just a word about synchronisation. We learned in the last article how the receiver must work in perfect "step" with the camera. Now, likewise, all cameras in the studio must work in step with each other and of course the generators which provide the shading and suppressing signals, described earlier, together with the generator, which inserts the synchronising signals in the transmission.

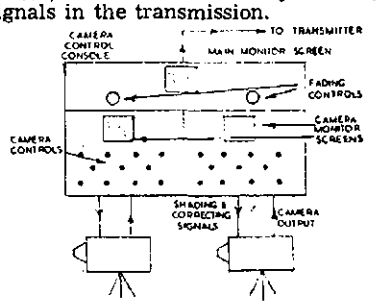


Fig. 7.

For this reason, all cameras and signal generators are controlled by a "master synchroniser" which may well be compared with the Sergeant Major, calling step to troops on the march, since the cameras, signal generators, and all receivers tuned in to the programme "take their orders" from this source, by keeping in step.

So far we've learnt how the camera turns the picture into electric signals, how the camera is controlled, and very briefly, how the receivers are kept "in step" with the camera. Before studying the receiver, we'll need to know more about the nature of these synchronising signals, which will be the subject of the next article.

Meanwhile, don't forget our query service. Mail your questions on Television to VK3ADA. The more we receive, the more we'll appreciate your enthusiasm. 73's till next month.

A Single Tube V.F.O.

BY JAMES JACK,* VK2AGX

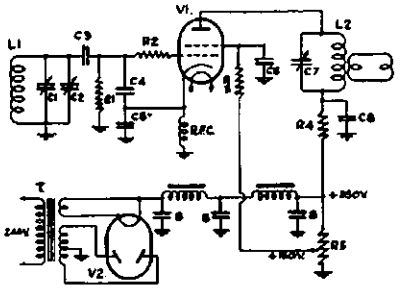
When the grid and plate circuits of a master oscillator are tuned to the same frequency, extensive isolation is necessary. But by tuning the plate circuit to twice the grid frequency, this difficulty is overcome and the use of isolator tubes avoided. This principle is employed in the following circuit.

This v.f.o. has been used here for some time with excellent results. Actually it came to me from VK2OQ, so if any honour is due for it, it belongs to Harry. Many chaps frown on single tube v.f.o's., but we have not had any bad reports regarding the operation of this one.

The circuit is very simple, doubling from 3.5 to 7 Mc. in the tube itself.

The band set condenser C1 should be one with good bearings and heavy plates and once tuned to the correct frequency need not be touched again. It has been found that by pruning L1 till the plates of C1 are about two-thirds in mesh, best stability will be obtained. It is essential to keep L1 well away from the tube so that it will not be effected by heat from the tube, in fact it is a good idea to shield L1 in a separate compartment and put L2 and the tube in another section.

The circuit is quite flexible and here we found that by omitting the first filter condenser, thus making the filter choke input, and feeding the screen from a 50,000 ohm resistor from the full B+ (about 250 volts), that there was sufficient drive to drive an 807 on 7 Mc. Also a 50 pF. condenser was used in place of C4, a 100 ohm resistor for R2, earthing the rotor of C7 and capacity coupling from the plate through a 250 pF. mica condenser to the grid of the next stage. If capacity coupling is used the length of the connecting line will effect the number of turns on L2. The longer the line, the less turns required.



C1—250 pF. variable (old b.c. type).
C2—25 pF. or less.
C3—150 pF. mica.
C4—25 pF.
C5—100 pF. (neg. coeff.)
C6—0.005 uF. mica.
C7—50 pF. variable.
C8—0.004 uF. mica.
R1—100,000 ohms.
R2—50 ohms.
R3—500 ohms.
R4—150 ohms, w.w.
R5—15,000 voltage divider.
RFC—2.5 mH.
T—385-0-385 b.c.l. transformer.
V1—6V6 or 6L6.
V2—80, 5Y3, 5Y4, etc.
Coils—L1: 3.5 Mc., 18 turns, 18 gauge, on 1¼" former; L2: 7 Mc., 18 turns 18 gauge, on 1¼" former.

* 29 Matthew Street, Punchbowl, N.S.W.

DX C.C. LISTING

PHONE

Call	No.	Ctr.
VK3EE	10	158
VK3JD	1	155
VK6RU	2	148
VK4HR	12	146
VK6KW	4	145
VK3BZ	3	141
VK4KS	9	135
VK3LN	11	132
VK6DD	6	126
VK3JE	7	123
VK4JP	8	114
VK3AWW	14	112
VK4WJ	17	104
VK4DO	20	104
VK4FJ	21	103
VK2ADT	13	102
VK2AHA	15	102
VK4WF	16	101
VK6PJ	19	101
VK3GG	18	100
VK3IG	8	100

CW

Call	No.	Ctr.
VK3BZ	6	183
VK4EL	9	163
VK3FH	15	167
VK2EO	2	152
VK3CN	1	151
VK4HR	8	150
VK6SA	28	150
VK3VW	4	143
VK2QL	3	141
VK3KB	10	138
VK6RU	18	135
VK2GW	16	132
VK6RX	23	132
VK5BO	33	129
VK4FJ	29	128
VK4RF	11	125
VK4DO	20	125
VK3JE	21	124
VK3EK	3	122
VK6FH	31	119
VK3JI	25	118
VK3UM	12	116
VK3KK	30	114
VK4DA	7	113
VK3PL	38	113
VK7LZ	17	112
VK4QL	36	110
VK4RC	13	107
VK3YD	27	105

OPEN

Call	No.	Ctr.
VK3BZ	4	202
VK4HR	7	187
VK6RU	8	181
VK3JE	12	180
VK3HG	3	171
VK2DI	2	170
VK3KK	1	167
VK6KW	13	165
VK4EL	10	163
VK4DO	15	151
VK4FJ	32	150
VK4KS	24	149
VK5FL	28	149
VK3MC	9	139
VK3OP	19	137
VK6DD	22	136
VK3LN	29	135
VK2ADE	28	133
VK2AHA	9	128
VK2AHM	20	125
VK2NS	16	123
VK3HT	41	123
VK3JI	33	119
VK7LZ	23	116
VK3AWW	45	115
VK3JA	43	114
VK2ADT	14	113
VK3VQ	46	112
VK3PG	47	111

AN APOLOGY

It is regretted that owing to lack of space in this issue, some regular features have had to be deleted.

I desire to express my regret to the contributors and hope they will not be discouraged.—Editor.

CONTESTS

Remembrance Day Contest

The 1951 Remembrance Day Contest has successfully concluded with a larger number of participants than of previous years, indicating the desire of the Australian Amateur to honour the memory of those keys silenced forever whilst in the service of their country.

This Contest is unique in the annals of Amateur Radio in that no glory is attached to the individual, irrespective of the number of points scored by leading stations in each State, thus providing one of the rare occasions when the elusive DX is of no interest and giving one the opportunity of having short contacts with other VKs, many of whom we have known on Service. Not that the Contest is confined to Service personnel by any means—on the contrary this was exemplified by the large number of contacts which took place between the old-timers.

This year the Contest appeared to be more popular than ever, numerous calls being heard for the first time. VK9 stations were particularly active, operating on all bands from 3.5 Mc. to 30 Mc., thus providing a greater number of points than of other years. Of the calls heard for the first time, many were newcomers to the Amateur ranks —operating in their first Contest—the standard of operating being quite good. A number of stations did not make full use of the available bands—the 28 Mc. band being somewhat neglected—although those who persevered on this band were amply rewarded for their patience.

It is anticipated that the final scores will be published in the November issue of "A.R."

Jubilee Relay Contest

By the time these notes are published the Jubilee Relay Contest will have concluded and every corner of the earth should have been appraised of the fact that Australia is celebrating its Jubilee as a Commonwealth.

Radio Australia and other Empire Shortwave Networks have contributed to the publicity given the activities of the Australian and New Zealand Amateur, many requests being received for copies of the rules and log sheets. In addition, a talk will be given over the Australian Broadcasting Commission's National Network on the "Jubilee VK-ZL DX Contest" in News Review during the first week of October.

Jubilee VK-ZL DX Contest

All Amateurs in Australia and New Zealand should have now received a copy of the Rules and Log Sheet; any who have not, or any additional copies if required, can be obtained from Divisional Secretaries.

With reference to the rules, it has been suggested that an ambiguity could arise regarding the interpretation of the words "British Isles Prefix." These prefixes are G, GC, GD, GI, GM, and GW—not G2, G3, G4, etc.

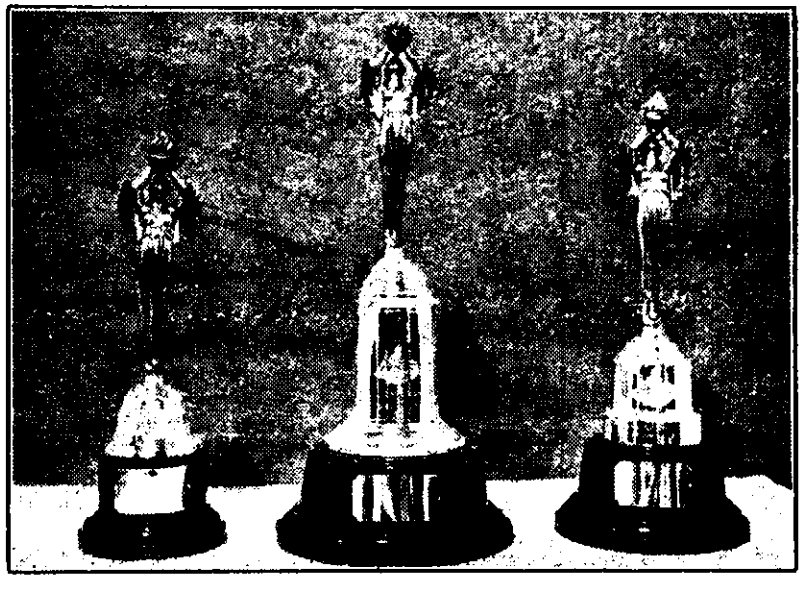
In the Receiving Section, Rule 3 should read: ". . . the strength and tone of the calling station." As set out in the Log Sheet and "A.R." it reads. "called station."

The trophies illustrated on this page are for the Open, Phone, and C.W. Sections. Certificates or medallions will be awarded for the winners on various bands.

The success of the 1951 Jubilee VK-ZL DX Contest depends on YOU! Don't forget to send in your log sheets irrespective of the number of contacts made, and don't forget to send them in early. The Committee has done its part in publicising this Contest to the world, and it is fervently hoped that conditions will be on the side of all those participating.

Remember, the C.W. Section commences at 0001 G.M.T., 13th October, concludes 1200 G.M.T., 14th October; Phone Section commences 0001 G.M.T., 20th October, concludes 1200 G.M.T., 21st October. Your logs should be in Sydney not later than 30th November. (Foreign logs not later than 31st January, 1952.)

In conclusion, the Jubilee Federal Contest Committee would like to thank Allen Fairhall, VK2KB, who is a member of the House of Representatives at Canberra, for his interest in pressing the Amateurs' case for recognition during the Jubilee Celebrations and obtaining thereby a monetary grant from the Commonwealth. The Committee also extend its thanks to W.I.A. Divisional Officers and Officers of the N.Z.A.R.T. who assisted so capably with the distribution of the Rules and Log Sheets.



Replicas of trophies to be won in the VK-ZL DX Contest.

Operating in R.D. Contest

My memories of the Contest are just a complete haze. I sat down at my operating position in the shack, and with three freshly sharpened pencils, together with ten clean sheets of paper, I prepared to do battle with all the other entrants in the battle of the numbers, I'm sorry, the Remembrance Day Contest.

Calling CQ Contest, in my best Rose Park manner, I prepared sedately to enter the first number received. Ten seconds later I was surrounded with pencils, numbers, call signs, and a couple of log sheets. When I came to, I was laying on the mat in the passage with my wife throwing water on me, and my daughter wearing a very worried look on her face, was asking what was the matter.

My wife, in a very resigned voice, explained to her that Dad was in a Contest and had become a little confused. My daughter said, "A radio contest? When my wife said "yes," my daughter lost interest with the words, "oh, that explains it all."

Nothing daunted, I girded my loins and with restored vigor, started throwing numbers at all and sundry. The next time that I went to the mat, my wife's mother who was visiting us had joined in the water throwing, and seemed to be getting quite a kick out of it. She was telling my daughter in an aside, "your father was always a little queer, my dear, even when he was first calling on your mother."

Gently rising to my feet, and sneaking in a sly kick in the shins to my mother-in-law, I forced myself back to the receiver and took a couple of hours more punishment before my spirit finally gave out, and as my wife tucked me into bed after saying my prayers, I never had enough spirit to answer back, as she said, "Petals, you've had a busy day!"

Well, there you are, that is the Remembrance Day Contest for you, and whilst you may not have had such a hectic four or five hours as I did, I'll bet there were a couple of times that you would have willingly gone to the mat.

It was a grand contest, it meant renewing a lot of acquaintances that you had almost forgotten, and best of all, it is the finest way of paying homage to that gallant band of "Silent Keys."

—"Pansy" Parsons, VK3PS.

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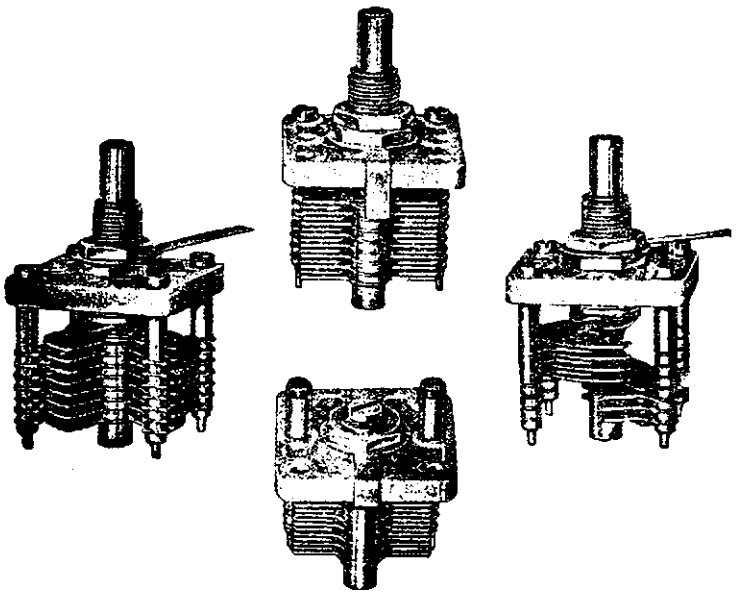
Cat. 838—100 pF. Single Section double end plates for v.f.o. tuning, etc.



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WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc., and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. and 146.5 Mc. No frequency checks are available.

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Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.

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Secretary: L. W. Edwards, VK7LE, Box 371B, G.P.O., Hobart.

Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.

Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.

North Zone Correspondent: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston.

FEDERAL

HANDBOOK FOR OPERATORS OF AMATEUR WIRELESS STATIONS

In view of the fact that many members are interpreting the Regulations from the Handbook for Operators of Amateur Wireless Stations, January, 1948, which is now somewhat out of date, F.E. are delegating these columns to a complete errata and amendments to bring this book up to date.

It is strongly suggested that every Amateur spare an hour to complete these amendments to his Handbook, and at the same time refresh his mind on the details of the regulations under which he is licensed to operate his station.

Amendments up to 31st August, 1951

In all places where mentioned, delete "Chief Inspector (Wireless)" and insert "Assistant Director-General (Wireless)."

Page 3, para. 2: Delete the definition of "duplex operation."

Insert the following: "'Third party' means another person besides the two principals (one of whom is at the transmitter and one at the receiver).

"'Broadcasting station programmes' means programmes broadcast by stations operating on the medium frequency broadcast band, i.e., 535 Kc. to 1605 Kc. but, in remote areas where, because of unsatisfactory medium wave reception, it is usual for listeners to rely on programmes originating from high frequency broadcasting stations situated within the Commonwealth or its Territories, such programmes are also to be included in this definition."

Page 4, para. 15: Delete. Insert: "An application to install and operate an Amateur station at a Department of Navy, Army, Air or Supply establishment, depot, camp, etc., may not be considered unless the approval, in writing, of the Department concerned has previously been obtained. In the case of the Departments of Navy, Army, and Supply, such approval may not be recognised unless issued by the Central Administrations, Melbourne. Authority in this connection has been delegated by the Department of Air to Area Headquarters in the States concerned. The question of the operation of an Amateur Station on Department of Civil Aviation property is a matter between the Regional Director concerned of that Department and the applicant."

Page 6, para. 29: Third line, amend to read: "Their use for instructional purposes is confined . . ."

Page 6, para. 32: Amend to read: "An Amateur station licensee may transmit in English and receive in any recognised language, plain language messages . . ."

Page 6, para. 33: In the fourth line after "direct or indirect" insert the words: "or any matter of a commercial character." At end of paragraph, insert: "The relevant regulation under the Wireless Telegraphy Act 1905-1936 concerning this matter reads as follows: '56 (3). The licensee of an Amateur Station shall not, except in writing of an authorised officer, undertake the transmission or reception of messages for third parties'."

Page 6, para. 36: Third line after "emanating from other Amateur Stations," insert "irrespective of the frequency of the originating transmission."

Insert new paragraph: "36A. Subject to certain conditions, a limited number of permits to record and re-play transmissions from other Amateur Stations operating in the Amateur frequency bands below 50 Mc. are issued as from September of each year to the licensees of Amateur Stations by the Superintendent, Wireless Branch, in the various States."

Insert new paragraph: "36B. The licensee of any Amateur Station may, in the Amateur frequency bands of 50 Mc. and upwards, record and re-transmit transmissions from other Amateur Stations operating in these bands. The equipment so employed must be capable of producing recordings of high quality. Retransmissions made at the request of an individual station are to be limited to a period not exceeding five minutes in the aggrgeate in any one day."

W.I.A. ACTIVITIES CALENDAR

October 13-14: VK-ZL Jubilee Contest (C.W. Section).

October 20-21: VK-ZL. Jubilee Contest (Phone Section).

Page 7, para. 42: Fourth line, after "licence or special permission" add "In this connection, due regard must be paid to the provisions as indicated in paragraph 15."

Page 7, para. 43: Delete following portion, "In certain cases . . . three months."

Insert in lieu thereof: "In certain cases, temporary permits to operate portable or mobile stations within any of the authorised Amateur frequency bands below 50 Mc. may be granted for a period normally not exceeding three months in any one current year of the licence."

Page 7, para. 50: Delete. Insert: "An Amateur Station licence may be granted to a radio officer, or other qualified person, to operate an Amateur Station on board an Australian ship on which he is employed, if the approval of the Master of the vessel is obtained. Such a licence confers the right to operate the station at all times except while the vessel is anchored in any harbour, or moored to any wharf or pier belonging to another Administration. Permission to operate the station while so located must be obtained from the Administration concerned."

Page 7, para. 53: Delete. Insert: "Any person who has been licensed by a foreign Administration to install and operate an Amateur Station on board a ship, yacht, etc., shall not operate his station while the vessel is anchored in any harbour or moored to any wharf or pier in Australia or its Territories without the approval, in writing, of the Assistant Director-General (Wireless)."

Page 11, para. 88: After the word "persons" add: "Electrical wiring associated with Amateur installations must comply with the safety standards demanded by the Electrical Supply authority concerned. In addition, licensees must take all other reasonable precautions considered expedient for the particular installation."

Page 11, para. 89: Delete "166" in the last line and substitute "144".

Page 12, para. 95: Add to this paragraph: "While single components such as valves, transformers, etc., capable of handling power in excess of that authorised shall be permitted for use in Amateur Stations, unless prior permission has been obtained from the Superintendent, Wireless Branch, no combination of such components may be so used."

Page 12, para. 98: Delete all figures and substitute the following:—

3.5	—	3.8	Mc.
7	—	7.2	,,
14	—	14.4	,,
26.96	—	27.23	,,
28	—	30	,,
50	—	54	,,
144	—	148	,,
288	—	296	,, (Temporary)
576	—	585	,, (Temporary)
1,215	—	1,300	,,
2,300	—	2,450	,,
5,650	—	5,850	,,
10,000	—	10,500	,,
21,000	—	22,000	,, (Temporary)
30,000	Mc.	Upwards	(Temporary)

Page 12, para. 102: After "Pulse" emissions add: "N.F.M.—Narrow band frequency modulation telephony. Transmissions to be confined within plus or minus 3 Kc. of the quiescent carrier frequency. Type A3a waves, S.S.S.C., single sideband reduced carrier telephony."

Page 13, para. 105: Under "Type A0 waves" delete "166" and substitute "144". Under "F.M." amend to read: "The band 26.96-27.23 Mc. and all authorised frequency bands from 50 Mc. upwards." Under "Pulse" delete "166" and substitute "144". After "Pulse" add: "N.F.B. (narrow band plus or minus 3 Kc.) All authorised bands. Type A3a waves (single side band reduced carrier) all authorised bands except the band 26.96-27.23 Mc."

Insert new paragraph: "105A. Where pulse transmission is employed, the length of each pulse and the nature of the emitted wave-shape shall be such as to restrict the radiated sidebands within the limits of the Amateur frequency band in which the transmission is taking place."

Page 13, para. 110: In second and last lines delete "166" and substitute "144".

Page 14, para. 111: Delete the words "and duplex" from both the heading and the second lines of this paragraph. Delete also the words "In the case of duplex operation" from the fourth line and the word "however" from the fifth line.

Page 15, para. 121: Under sub-paragraph (e), delete "(Except 0 or 1)".

Page 16, para. 129: Delete "166" and substitute "144".

Page 16, para. 132: Add new paragraph, "132A. Provided that portable and/or mobile stations which are using telegraphy indicate their location (including the State) at the end of the initial call and immediately before conclusion of a session, as required by paragraph 132, the suffix '/3', '/2', etc. (to indicate the State from which operation is taking place) may be added to the station call signs for intervening calls and the word 'portable' or 'mobile' may be omitted therefrom."

Page 25, appendix 3: In third line, delete the word "Assistant" and amend address to read "340 Collins Street, Melbourne, C.1."

Page 27: Delete "Duplex Operation . . . 2,111."

Page 28: Under "Mobile Amateur Stations" add further paragraph "132A".

Page 29: Under "Portable Amateur Stations" add further paragraph "132A". Under "Pulse transmissions" add further paragraph "105A". Under "Recordings-Re-transmission by" add further paragraphs "36A, 36B".

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

An award worth achieving is the "Worked All America" Award instituted by Liga de Amadores Brasileiros de Radio Emissao to encourage interest in the American area. The W.A.A. award is for confirmed contacts with 45 or more of the 57 countries listed in the entire Americas and is available to Amateurs everywhere in the world. Confirmations have to be forwarded direct to L.A.B.R.E. Headquarters, Box 2353, Rio de Janeior, Brazil. Further information as to additional conditions may be had from this Bureau.

Many VK stations will be interested to know that the first batch of QSLs from FG7XA, Guadeloupe, arrived here early in September. Phil CM9AA and Lily Richard CM2AC, during their 12-day sojourn at Gundeloupe, worked 110 countries and W.A.C. Phone eight times and c.w. 12 times. The Tx used ran 50 watts and all antennae were folded dipoles.

From the Southern California DX Club bulletin for June, 1951: "I am surprised to hear that the A.R.R.L. is bouncing AR8AB cards. As I know Jean quite well and I am sure that all is OK. I will write the A.R.R.L. and see what I can find out." The foregoing is portion of a letter the Bulletin received from Don ex-DL4QH.

The abovementioned journal also publishes the fact that VK1VU will not QSL. Don Wallace W6AM is, however, persisting with his endeavours to extract a card, but his cajolery and inducements are still falling on deaf ears.

From Stan Mayne, VR2AS, dated 17th April, 1951: "Why the world seems to think the VR2 Bureau is the centre for all the Pacific, goodness only knows. For the past year I've been forwarding on VR1, VR3 and VR5 cards. Like the wharfies, I've now struck. The cost of postage is too hot and in this small place we have no club to finance things. VK boys are bad offenders in this respect also. I have returned them to you to let the boys have them back. If you get a chance put a word in for me in the VK journal." Well Stan, there it is and I hope it relieves you of some of the inconvenience and expense.

VK1BS, Bill Storer, a Sydney P.M.G. telegraphist, who prior to commencing duty at Macquarie Island, did not have a Ham ticket, wants all QSLs for him to be sent to the VK2 Bureau. He is not due back until May, 1952. Bill says that VK1WO, also on Macquarie, is nearly ready to "fire".

Above par came from Eric Trebilcock, BERS 195 who now has 198 countries confirmed post-war. Seems to me Eric that listeners do better than Hams in this respect. Eric also states that there is a possibility of Ham operation from Cocos Island (ZC2) in the near future, when D.C.A. staff commence duty there.

Another award well worth striving for is the Diploma of the French Union (D.U.F.), sponsored by the R.E.F. Under the amended rules of March, 1951, the award will consist of four sections. The first section requires confirmed contacts with stations of the French Union situated in three continents including Europe and totalling five countries. The second

CRYSTAL SWAP

We have received several requests from readers to commence a section listing Crystals available for exchange.

This service will be entirely free and all that is necessary is to forward details of the Crystal to the Editor "A.R." Crystals will be listed ONCE only.

section requires four continents including Europe and eight countries. The third section requires five continents including Europe and 10 countries, while the fourth and final section requires six continents including Europe and sixteen different countries. The award is progressive and sections may be claimed progressively. Completion of the sections entitles the applicant to receive a special medal, silver-plated and stamped to indicate the holder. The reverse side of the medal is graven with the number of the fourth section diploma obtained. Certificates for each section are free but the medal costs 700 francs. Confirmations and applications for any of the sections should be submitted to this Bureau, and do not have to be forwarded to the R.E.F. The first VK winner of the complete sections and medal as far as is known is VK2DI.

Cards incoming to the Bureau during the month of August were well below the average in numbers and probably this is a reflection of the poor and erratic conditions prevailing on the DX bands for the past twelve months.

Interesting cards sighted during August are YI3BZL (ex-G3BZL, whose home QTH is J. E. Blore, 27 Fountain St., Leek, Staffs., England); MD2PJ, of Tripoli, Libya, or via R.S.G.B.

ACCURATE FREQUENCY TRANSMISSION RESULTS

The following is the official results of the Accurate Frequency Transmission from VK3WI on 23rd August, 1951, on the 3.5 Mc. band:—

3500	Kilocycles	20	cycles	low
3530	"	40	"	"
3560	"	25	"	"
3590	"	35	"	"
3620	"	30	"	"
3650	"	52	"	"
3680	"	20	"	"
3710	"	45	"	"
3740	"	20	"	"
3770	"	60	"	"
3800	"	16	"	high

NEW SOUTH WALES

The August general meeting of the N.S.W. Division was held at Science House on Friday, 24th, with the President, John Moyle, in the chair. The attendance wasn't as good as usual —there were some vacant seats at the back. This may have been partly due to the fact that the monthly bulletin was not sent out this month and looks a wee bit like the "do-do" on present appearances. (Surely everybody knows that the meeting night is on the fourth Friday though). This wiping of the bulletin without notice in such precipitate fashion brought forth some criticism at the meeting, but when it was explained that the cost of production had soared to £175 per annum (including postage) and that it had to get to press so early now that the contents were stale by the date of receipt, a motion was passed endorsing Council's action.

The meeting was unlucky enough to strike the zone blackout night and in consequence the first part of the proceedings were conducted in a dim religious kind of light emanating from two pressure lamps, until 8.45 p.m. Those who missed the meeting should proceed to kick themselves heartily, for they missed a treat.

Nev Williams 2XV was the highlight of the evening with his talk and demonstration on wire and tape recorders. After the lucid discourse we all know something about recorders at last, and after the demonstration we went home with that glow of satisfaction one derives from an evening well spent.

The versatility of the tape recorder from the viewpoint of editing and production was revealed by an exerpt from the well known farce, "The Mill Girl," on the platform with the assistance of Miss Ruth Plummer and Mr. Phil Watson, who kindly came along for the purpose. The lines were purposely scrambled somewhat to turn the recording of the show into a producer's nightmare, but with a few deft flips of the control the mistakes were expeditiously wiped off the tape, and the recording taken up again from the interruption. The final edition was as smooth as a baby's cheek with no trace of the stops and cuts.

The audience laughed until their sides and jaws ached at the next demonstration. A harmless recording of a Ham transmission on the 7 Mc. band was first played as it came over the air and then as "edited" by some of the boys from the newspaper office. Lots of dreadful remarks and hilarious sound effects had been effectively injected. The demonstration concluded with an interesting companion of the same orchestral piece, firstly on the tape, then on a conventional home disc recording made by the President, and then on a commercial microgroove recording.

Don't forget the Annual Field Day at Woy Woy on Sunday, 18th November. Besides the usual Amateur attractions, a special programme has been arranged this year for the ladies and the youngsters. Also, don't forget to listen to the weekly VK2WI broadcasts for announcements of meetings and all other relevant news, especially now that the bulletin is in a state of—shall we say—suspended animation. This Division takes this opportunity to welcome Lyell Woolnough 2GW, one of the dyed-in-the-wool old timers, to the Council.

The Divisional sub-editor is grateful this month to 2YK and 2GW for items of news interest and "copy."

ST. GEORGE ZONE

I have been listening on and off for the last month to try and hear some of the local boys on 20, but VK2s were conspicuous by their absence, and as I have been very, very busy lately (exam. next Tuesday night, thank heavens), I have not been around to see the local lads. I would like to know if 2ASK, 2JJ, 2XW, 2SW, 2ALT, 2AIL, 8AGH, 2BN and 2AHV are still poking holes in the ether; if they are, I have not heard a single peep out of any of them

2AGH and 2BN could of yore be heard DXing mostly at any time, but both are very quiet now. 2JJ, I believe, is now in JA land, and 2ASK and 2SW are cruising around the ocean somewhere, but what has happened to "All In Love"? He must be sick or something. Heard 2SA on 10 recently, but not once did I hear anybody come back to his CQs—keep trying Wal! Also heard 2XX on v.h.f. making contacts now and then.

Listening on 20 has been very "dead" and I have not been able to listen on 40, 240 volts on the aerial coil did not improve things at all. Anyhow, boys, I will be around to see you after Tuesday each month so if you hear or know of news or items of interest for these columns, keep it in mind for me. Most of you know my QTH: 84 Carlton Cres., Kogarah Bay.

EASTERN SUBURBS

Congrats are in order for John 2CF who recently became engaged to a charming YL named Denise. John is making up a new Rx and relegating the Type 3BZ to a stand-by role. A Type ASV Rx has been converted for 144 Mc. application but John doesn't consider it much of a success. Over towards the south, Vince 2VA has a new interest on 14 Mc. It is a s.s.b. outfit which, at time of writing, seems to have teething troubles. The indefatigable "Victor Able" however will no doubt have the gremlins chased away in due course.

2ARH, along with other locals, has been through the hoops with the gastritis wog that seems to have swept through this part of the metropolis. Ray is so busy writing about technical radio that he finds little or no time left to get on the air on any band. Antenna repairs have been in order at the writer's station, the gale-wrecked G8PO/Triplex being replaced by a Delta-matched version for 14 Mc. On 7 Mc., the 75 ohm doublet has given way to a 136 ft. off-centre 300 ohm ribbon-fed multiband affair which gives promising results all round. Heard 2AYE tackling DX phone on 20 without much luck. QRM spoiled the effort, but Dave will land that G yet. Even so, one is not in the pandemonical race without a beam or array of some kind.

NORTH COAST AND TABLELANDS

Quite a few of the gang are busily engaged in the establishment of a coastal network on 144 Mc. Peter 2PA at Port Macquarie is putting out a good signal from a pair of 7193s using a 3 over 3; he has been received at good strength by 2AHA in Kempsey on an ASV301 and a three element beam. 2XO, 2GI, 2WC and 2AWS also getting under way. Carl 2CJ knocked up an f.b. Lecher wire frame for 2PA. What about 144 Mc. signal from Bill 2AEY at Taree. North Coast boys think it is an excellent scheme to keep the low end of 6 clear for break throughs. Doc 2LH reckons he has to carry his 6 metre signals over to Chas 2ADE's place to get a report. 2UC, 2AGM and 2WT are also dabbling on 6. Quite a few of the gang were active during R.D. Contest.

Most N/C chaps heard on 80 of an evening and some of the Inverell boys have come out of hibernation, Ted 2ZX seems to be the most active. Roy 2NY puts S max. signals into Kempsey on 40. Ted 2DX often heard amongst the DX on 20 as is Doug 2SH. DX often heard calling Syd 2APS who spent a few days at Urunga recently and renewed acquaintances with the coastal boys. 2XO Crieff bogged down with the flu, but nearly back to his old self again. Len 2LR is now busy using a controlled carrier set up. Harry 2ARY tangling with tape recorders, at the moment of writing is rather ill, we all wish him a speedy recovery. Trust Keith 2GI and family are all OK. Joe 2GL seems to be in a lot of trouble pulling dials to pieces, one OT said he was using a VT501 as an r.f. amplifier in the Rx. Joe 2AYH visited the N/C zone recently staying at Tamworth.

Associate Percy Sara hit the headlines again when his "four element beam" celebrated its first birthday. The Quads look really well Percy! While mentioning associates, I would welcome a note from any of you with information gleaned from your "mail reading". Norm, of Kempsey, should be a fully fledged associate soon. An historic meeting took place recently when Ray 2HC and Russ 2WT met for the first time, although they first had a QSO in 1926; both long blokes but Ray won by a short head. Ken 2APB has just finished a vee beam for 40, but is temporarily transferred from Coffs Harbour to points farther north, hopes to take portable gear along with him.

HUNTER BRANCH

Hunter Branch history was made on 10th August when a very successful meeting was held at Maitland. There were 46 present, including Dave 2AYE (representing Divisional Council), members of I.R.E. and representatives of the trade. Those present were privileged to hear Joe 2JR at his very best. The lecture—"Master Oscillators"—was given by means of tape recorder and slides, manipulated by Joe who, at the conclusion of the lecture, answered the many queries flung at him. In response to the thanks expressed by our President 2CS, Joe mentioned that he began his radio in the Newcastle district and that it would always give him the greatest pleasure to give any help possible to the Branch. Members feel that they can claim Joe as "One of our mob." The opportunity was taken at Maitland to present to Jack 2ADT the first prize for the 1950 scramble.

Hugo 2WH recently paid a flying visit to Newcastle, but short notice did not permit the band being out to meet him. Other visitors to the city were 2AEY, 2AAQ and 2RM. Hunter lads who entered the R.D. Contest made a good show. Harold 2AHA appeals to the boys to put forth their best efforts in the Jubilee Contest, and thereby show their appreciation of the good work done by their fellow member 2KB Alan Fairhall in gaining the support of the Government in the VK-ZL Jubilee Contest. 2ANA was one who logged a VK9 in R.D. Norm did well on the key. Harry 2AFX also managed to get on and work a few. 2PJ was only on for a couple of hours, but Bill put up good show in his first contest.

Interest aroused by Maitland meeting. Vic 2AKP is on air again with nice 40 metre phone. 2XQ worked very hard in R.D. Contest, resulting in John blowing all volume controls in Rx! 2ANL on 40 again and Joe is talking of 144. Pleased to report 2MR active once more, Edgar had argument with fence, broke ribs, then pleurisy but OK now. 2AGD getting out well on 40 and George recently landed a VK1 on phone. Tom 2PQ has started on a multi-purpose 10-20 metre beam. 2CN is worried about his audio, but Bert getting out OK on 40. Seen lately at opera was 2PT, but no arias from Alan on Ham bands yet. 2KQ QRL with old timers session on 80; Jack has invited ZL2BT to "Killarney of VK". Bill 2AMM very pleased with his racecourse QTH and has worked new country—HS.

2KG has completed the "super" Rx and Ken pleased with results. Frank 2FX has just moved into new home so no time for Ham Radio. Welcome back to 2AFA, Harry using TA12 on 40 c.w., had first QSO for 13 years—working 2SO, the most consistent 40 c.w. man on Hunter. 2CW showed up on 20 for local QSO, but Bill QRL with work. We have news of another Ham at R.A.A.F. Williamstown—F/L Burston, ex-VK3, VK4 and JA. Len hopes to operate all bands with 100 watts. Congrats to our v.h.f. man 2XY who QSOed 2ANF/P near Bathurst on 144. Ivan 2IS just completed another project—speech amp. with 2A3s. 2WU on 20 occasionally, Lew tries to get on once a week. 2NN on 40 at week-ends, and Don only on c.w. yet. Notable absentee in R.D. Contest was 2CI. 2YS active 40-20 and Norm recently contacted Stan 2ZW, one of the founders of Newcastle Radio Club. A week ago Ernie Baker 2FP, one of our pioneer Hams (1913) celebrated his silver wedding on the same day as his parents celebrated their golden wedding. A photo made the front page of the Newcastle "Herald". Ernie's XYL is almost as well known as himself and all the gang offer their congratulations. 2ADS has suddenly appeared on 40 phone—a beautiful transmission Doug.

COALFIELDS AND LAKES

Some of the Coalfield boys, namely, 2ANU, 2JZ, 2VU, 2KF, 2ADT, 2PZ, 2YL and a couple of associates, attended the Hunter Branch meeting at Maitland last month. Apart from bursts during the R.D. week-end not much activity has been observed. 2ADT is at present putting ASV Rx into shape for 2XO. Jack is on school holidays as usual! 2PZ been actually cleaning up the shack, you can actually get into the room now! Ken 2ANU using xtal control on 144 and getting good results. 2VU not on as much as usual, but makes 6 and 40 whenever possible. 2YL made a few contacts on all bands during the R.D. Contest.

Cess 2KR working Sydney on 144 and cross band to 6 with 2GA and 2RU. 2RU has been getting an occasional break on 6. 2ARV active on 40 phone and c.w. during the week-ends. Cec 2KR has arrangements under way for the Woy Woy field day—don't forget the date, 18th November—we hope to see you all there.

FRANK ("POP") STROUD

Many Amateurs in Sydney's Eastern Suburbs are sorrowful at the death of Mr. Frank Stroud, late of Bondi, and known affectionately as "Pop". His passing in Liverpool Hospital (N.S.W.) was the result of a road accident. Always a keen receiver constructor and listener to doings on the popular Amateur bands, including v.h.f's., "Pop" was a welcome and endearing visitor to many of our stations. Seldom was heard a heartier laugh for a man of 72 years. He came to Australia in his youth, from England's Sussex, and played a prominent part in the surf club activities of the 1900's. Frank Stroud was an engineer of considerable ability—no job was too tough for him to tackle, and his radio receivers and amplifiers were worthy creations. His loss a few months previously of his beloved wife left a great emptiness in his life, but intimate friends and relatives only were aware of his feelings. A fine old English gentleman has gone on his last journey, and I like to feel that "Pop" is happy in the re-union he undoubtedly visualised. This planet is the poorer by the going of people of such high ideals and calibre. The deepest sympathy is extended on behalf of "Pop's" many Amateur Radio friends to the sons and daughters of his family.—D.B.K.

WESTERN ZONE

The R.D. Contest this year seemed to be better supported than in previous years, and all contestants will await with great interest the final results. Inter-zone competitions helped to stimulate interest in N.S.W., and the final scores look like being very close.

A vigorous outbreak of v.h.f'itis is sweeping through the country and interest was stirred up by the visit of members of the Gladesville Radio Club to the mountains and Mt. Panorama near Bathurst. Trev 2NS contacted a number of the mobile and portable stations on 144, and is really sold on the v.h.f. bands now. With Phil also active on 144, and 50 Mc. to be dealt with very soon, there has been little activity on the "d.c. bands" (who originated that phrase anyway?).

2BT, Eugowra, back on 50 Mc. with a converted 522 putting a very nice signal into Forbes. Bill inspected 2AMV's 144 mod.-osc. and super-regen. gear and rushed back home to sort through the junk pile. Another sig on two very shortly and very welcome too, as the unbroken hiss of the ASV becomes a bit monotonous. Cross-band 6 and 2 from 2AMV and 2WH are nightly drill now.

2JW and 2ALX are cooking up something on the v.h.f's. Bill 2AWY was expected in Forbes with the Apexians but too much work prevented the trip. Don't miss next time Bill or else. Johnnie Barradine is with the Forestry Commission, but don't know your call OM, would like a QSO some time to get all the low down. Skene, 2SS of Lawson, heard keeping VK3 skeds on 7 Mc. 2RT, of Katoomba, runs 809s with 75 watts on 40 and 20. Building 144 Mc. gear, being in the airways game, Morrie says he meets more DX than he works. Con 2LZ still mainly on 144. Alex 2EX still not active. 2HZ works two skeds a week only.

SOUTH COAST AND SOUTHERN

An invitation from the North Eastern Zone in VK3 was extended to the Hams in this zone at Albury and Jim 2ANQ and Art 2EU accepted Murray 3HZ's invitation. Both attended the annual convention at Shepparton. On behalf of the VK2 boys down your way many thanks for the hospitality Murray. 2MF and 2AKY can be found on 40 if stations calling them are any indication. Skip has been very short, even 2EU can't hear these stations. Understand that 2UT has been cancelled, the operator has been in England for some time. 2EU hopes to contact him with his G call.

Stations active down Albury way include 2ANQ, 2QE, 2QD and 2JA. A recent visitor there was DL7AO who lived in Berlin. He had some interesting gear to display, was a manufacturer of test equipment and has something hot in the Rx line. Noel 2OJ is trying out a vertical antenna after using the 50-50 aside job; after 15 years the old faithful mod. class B 46s are being replaced by a pair of 807s. Incidentally remember when those 46s were on sale for 4/6 and 82 rectifiers to suit at 2/6, who said all this disposal gear was at bargain prices. 2RS Don has done the very thing we often read about; the local theatre was giving forth in good style when suddenly the voice of 2RS took over. Don found an unshielded wire in the talkie equipment, and all is well again. Don received his call on 16th August was on the air same night. Rig—AT5 v.f.o. into 813, 807s AB2 and a really f.b. signal.

New Ham in zone is 2JG who I believe is a Naval man and located at Canberra; no details of gear as yet. 2PI had rather a lucky break recently. Lucky in one respect that he got across 10 kv. and woke up later in hospital. According to Les, he had no recollection of what happened and is back at work after a week off. Preliminary results suggest that the Northern Zone will take out the R.D. Contest side wager for the six highest scores. Our congrats to these boys. I thought Len 6LG's remarks were the most apt during R.D. During the peak hours he said, "When I cut the carrier come out fighting!" Many thanks to the South Coast and Tablelands group for their fine efforts in the Contest. Looks like 2DY winning the 813 and 2OY the second prize of an 1852 and magic eye tubes. Prizes donated by 2DO and 2AKY respectively. Off on holidays next month so may not have much to offer next issue.

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VICTORIA

FAR NORTH WESTERN ZONE

Members of this zone gave valuable assistance at an Exhibition held at the Mildura Town Hall and conducted by the local Scout Movement. The Exhibition turned out to be a first-rate show with Ham activities claiming plenty of attention. 3TI's rig was installed at the Town

Hall and contacts were made with Amateurs throughout Australia. Local Hams turned out and manned the show right through. Everybody did a bit and we all enjoyed it.

The zone greatly appreciates the assistance given by all Hams contacted by keeping technical stuff at a minimum and giving the layman audience plenty to talk about.

There are quite a number of Hams in this zone these days, including 3GZ, 3MF, 3AMJ, 3AJF, 3AUG, 3SN and 3TI.

NORTH EASTERN ZONE

John 3ACK has taken up photography. Doug Twig, from Avenel, is a constant visitor to 3UI. Thanks to Doug, I was able to replace a broken halyard that came adrift in a storm. 3CI is hearing wonderful signals on 2 metres with a Lazy H beam sitting high above the terrain. Sid has now received his gear from VK5, so we will be having another one to populate the v.h.f. bands. 3IZ heard putting out good signals on phone and c.w. Hope to contact you soon Peter for some news.

Notice 3ALN is now at Mangalore. Investigate Doug, so we can get him on the hook-up. Who can investigate 3AGZ? He is now at Echuca. Hope this is in our territory. Saw two fugitives from the Ham bands—3AGG and 3PE—playing golf, now I know where you boys hide out. 3YV sadly missed on the hook-up. Very sorry to hear you are confined to bed again Howard, zone sends best wishes for a speedy recovery.

Zone members were noticeably absent from 40 metres after the magazine came out. Now don't be offended fellers, I haven't a call sign allotted yet. My XYL will be pleased when it comes, might keep me at home more than one night a week; 3UI gets blamed for the rest.

3UI, Doug and yours truly struggled ¾ mile with 40 ft. mast on shoulders. The Vulgar Boatmen had nothing on us by the time it was erected. Neighbours around take one look at the antennae and blame me for all static crashes very prevalent around this area—what hope have you. 3KR had the makings of a 20 metre rotary beam in his back yard, designed by a bridge builder, I'm told; ah, hem, seeing is believing. In closing, the v.h.f. gang in this zone would welcome all newcomers to 6 and 2, and that includes you Ken.

EASTERN ZONE

Once again we have had a large flood in this area and the usual hooey appeared in the press. Personally, I think some reporters should carry shovels, not typewriters! The emergency gear was all in order during the flood period, but fortunately, was not required.

The annual meeting of the Sale Sub-Branch was held at Maffra on 23rd August. Twenty members were present and a good time was had by all. Officers for the ensuing year are: President, Cliff Arnold 3AJA; Vice-P., 3AHK; and Secretary, Lindsay Maguire 3IO. Not having any money, we haven't got a Treasurer! The September meeting of the club is to be held at Bairnsdale, with films on radio and allied subjects.

Associate Leo Dwyer passed the A.O.C.P. exams held in July and is awaiting his call sign; more QRM! 3ALA hasn't built up a modulator yet, however he did work a VK1 and has a card to prove it, so maybe the AT5 isn't so bad! 3ABF tells me his 807s are now behaving nicely, but he won't be on the air for a while as he is changing houses at present. 3VG was marooned at Regional 3GI during the flood. 3AFG not heard lately. 3ABP is still earbashing on 40, but handles the zone QSLs very neatly. Letters to hand from John Jarman 3ADA state that he is back in Adelaide for a time and the address in August "A.R." will find him.

3LV and 3AMV sneering at my spy service; you'll be sorry! 3PR waiting on his new house, revamping his rig in the interim. 3TH very QRL, not heard much on 80. 3SS constructing a frequency meter, I wonder if the R.I's. visit had anything to do with this? The zone hook-up has been rather small of late, and where are all the back sliders? Can't all be busy, all the time!

SOUTH WESTERN ZONE

3HG has got his alternator going and now has his rig .a.c. operated; heard a lot of Neil on 80 lately. 3JA not quite as active on the l.f. bands as usual, lately Jack has been having Rx trouble. 3AGD quiet lately and had a bad trot with the lambing season. 3II has just returned from a trip to VK5. Leigh got good results from the ZC1 while working portable from that State. Worked 3AGV quite a lot on 40 this month. Gordon still has his regular contacts with 2SS; Gordon is also building up equipment for 50 Mc. 3ADN only heard spasmodically, says he's an expert at de-bogging vehicles, especially Land Rovers. Yours truly has finished playing around with tape recording and starting on s.s.s.c. on 80 mx.

Frank 3ZU has been on the sick list with pleurisy and is now on holidays and hopes to take his portable rig with him. 3DX has also been on the not-so-well list with the 'flu, but is back in harness now. Harry 3HF has finished all the work connected with switching over the local broadcast station to high power, so we should see and hear a lot more of him. Norm 3EQ hasn't been very active of late as he is working day and night and of course doesn't get on the air. Ted 3PS back on the air after a short brake, and puts out a fair signal for only 12 watts. Eric Giddings sat for the exam. but luck just wasn't with him—better luck next time. Bill Wines has finished putting up his new 60 ft. antenna—the Ws are much better; his XYL has been ill but is OK again now, she never misses the broadcast on Sundays. Bill Wines would like all Hams intending to come up for the Convention on 20th and 21st of October to let him or 3ZU know immediately as there are a couple of other functions here at that time and the accommodation position will be serious if you don't let them know.

3APG has broke the silence again and has come on 80 mx with QRP—1 watt, using an RC16B and has been having a few contacts. 3BU has been giving his portable equipment an airing again. 3AKE has got 576 and 144 Mc. gear going mobile, is still trying to break through to Melbourne on 576 Mc. 3ALG is now at his new QTH but will be a while yet before he can get on the air. 3BW has built himself a new Tx covering from 80 to 10 metres a.m./f.m. and is very pleased with the results; he has not yet got the f.m. going yet. Most of the Geelong gang have not been active as some are building houses which account for this.

GEELONG AMATEUR RADIO CLUB

The first meeting of the month was taken up with a very fine lecture and demonstration of 576 Mc. equipment by 3AKE. Ed used a field strength meter and Lecher wires during this demonstration. It is hoped that more of the Geelong gang will be operating on this band in the near future. On 15th August members went to see an exhibition held at the Gordon Institute of Technology where many pieces of equipment were on display to interest them. Then on 29th August an interesting lecture by club member Dick Heighway 3ABK on his tour with the mobile television unit entertained members. Dick had large scale diagrams to illustrate his lecture which lasted for 2¼ hours, after which he handed round approx. 200 snapshots taken during the tour.

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QUEENSLAND

CLARE'S CORNER

Nice to hear 4NF back on the air again. Noel has been off for about six months and managed to get back on in time for the R.D. Contest. New calls heard during the Contest were 4GP, 4TN and 4LR. 4WF missed out in the Contest, being away on holidays. Hope you had a good time Bill and didn't worry too much over the DX. 4YA out of hospital and is now building up his strength before erecting a two element beam. Hope you will soon be fully recovered Bill.

Pleased to see 4UX and XYL at the last W.I.A. meeting. Claude, who is now installed in the country, was on a week-end visit. Some Hams have all the luck. While we have difficulty in getting QSL cards, some VK4s have them to burn! 4CI is building a new final using a pair of 211s. Whacko Alex.

Heard 4WG's voice eminating from the ether the other night after a long silence. 4NC called Wally and remarked he was putting out the usual 4WG signal, and got quite a shock when told he was at 4TN's shack. The road to 4FJ's shack is paved with certificates. I wonder if you hold the record Ray?

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held in the newly painted and re-decorated club rooms to a very representative gathering, and all present were loud in their praise of the improvement to the meeting room. The entertainment for the night took the form of a buy and sell evening, and I use the word entertainment in its strict sense, because I am never sure as to whether the members come along to buy or sell, or just to enjoy the antics of the auctioneer. Due to a family bereavement, Dougal 5BY could not officiate as the auctioneer, and his place was taken at short notice by "Ned" Kelly 5LW who gave of his best and the audience were convulsed for the better part of the evening.

Quite a lot of gear changed hands, and there is no doubt that these evenings are a huge success and from all opinions could be held quarterly. Naturally with such an evening before them, the members were not very interested in general business and therefore there is nothing to report in that direction.

Among the welcome visitors were Frank 5FP, Doug 3DW, Ron 5VS, Charlie 5WQ ex-3WQ, and last but not least, Ivan Tickoffski (YU3AC) who upon investigation proved to be Launce Deane 5LD whose usually restrained sense of humour apparently broke its fetters for a short space. To these gentlemen we say a hearty welcome and come again.

Talking to Doug 3DW after the meeting, he said that he would have liked to thank all the boys who had made his visit such an enjoyable one, but as that would be a little difficult he would leave it to me to do the honours. He said that everybody had gone out of their way to make him feel at home and he was very grateful. Brian 5FQ and his wife are in the seventh heaven of delight this month, as the stork delivered a little daughter (Robin Alison) on schedule, and naturally radio is playing second fiddle at the moment.

Whilst I claim no originality for the following cynical view of the present rise in radio prices, I do feel that it sums up the position very well. In 1045 we were "broke," so we used 807s. In 1951 we used 807s, so we are "broke." Get It?

Noticed Jack 5JZ at the meeting, and everybody gave him a hearty welcome. Jack is a very busy man and finds it difficult to attend many meetings. The nickname of Pansy that I possess, and I emphasise that it is a nickname, pursued me through the R.D. Contest and several VK2 stations had a sly dig at me. 2AAB almost said it, and 2SB would have liked to, but my deep and fierce voice daunted the pair of them. Noticed Pete 5FM in the front stalls at the meeting and he appeared to be enjoying himself no end. I was beginning to wonder if he would have to retire before the meeting was over, so hysterical did he become.

All the Mount Gambier gang were decidedly active in the R.D. Contest. 5TW has his 2 mx. Rx going well now and Tom is concentrating on the Tx. 5CH is walking around with his chest well to the front these days. The reason? Well he has had a report from VK3 on his 2 mx transmissions. Whilst Claude is not very far from Victoria, nevertheless it is the best DX so far. 5KB has finished his term with the D.C.A. at the Mount, and Peter is on his way back to the big smoke to increase the local QRM. 5JA has left England for home and before these notes are printed John should be back in Australia. Incidentally, he announced his engagement to a lass from the Highlands, so expect that a reduction in radio activities can be forecast.

5MS had quite a good day on 20 during the R.D. Contest and Stewart can often be heard on 2 mx, that is when the memory or resistors do not fail. He had the misfortune to lose another h.t. tranny, probably strained it during the Contest! 5FD is still busy settling down in the new home, but cut short his lunch on the Sunday to work enough stations in the Contest for an entry. That's the spirit John. 5KU is still active on 20 and 40 mx phone and c.w., and judging by the number of stations heard calling him he must have had an enjoyable debut in the Contest. Did you work them all Erg?

5CJ has had a temporary transformer in the 40 mx rig and it seems to work as well as the permanent one. Col is very pleased with the reports on the xtal controlled 144 Tx. On the first test the report from VK3 was R5 S9. and although the VK3 listener is not very far into Victoria, it is definitely on VK3 soil and out of "line of sight." 5XJ was heard several times this month with a perfectly modulated signal on 20 mx, in contact with that acme of tailoring perfection, "Beau Sullivan" 5JK. I noted that Colin had recently returned from a sojourn in hospital and was on the easy list, trust you are OK now OM.

A welcome visitor to VK5 this month was Laurie Georgeson, son of Jim Georgeson (ex-5JG now 2AKU). Laurie is a member of the flaming staff and coiled serpent fraternity, many of whom have found their way to the QTH of "Doc" 5MD recently. Very subtle, very subtle.

I have been brushing up my alphabet lately and find that the modern rhyming of the said alphabet is quite intriguing. To wit—

C is for Camel who often has the Humps
and M is for Muriel who now has the Mumps.

Well you can't blame me Muriel, you did tell the whole of 20 mx the other night, now didn't you?

4DF is still about with low power on 80 and 40 mx and is almost ready for some c.w. on those bands providing that the top speed does not exceed 8 w.p.m.! Wally thinks that he may have the a.c. power in two years, perhaps.

5RJ has been erecting, de-erecting, and re-erecting aerial poles this month, and together with 5DF and Ken (call sign, if any, not known) had the pleasure of seeing and hearing

one of the 50 foot poles doing a ballet dance at the mercy of the wind and finally crashing around his head on his temporary shelter from the elements. Darcy says that it will be another few months before he can get on the air now, after nearly a year's silence. The neighbours enjoyed it, anyway!

5HL Henry and his XYL were host and hostess at a posh "do" this month, at a well known Adelaide hostelry, and to be on the safe side I bought myself a new tie, just in case, but the postman never blew his whistle. Too bad, and with me now able to eat peas off my knife in the best Rose Park manner. Life deals some bitter blows! Heard 6DX the other night saying to a VK5, "Give my regards to the lunatic who writes the VK5 notes." Thanks Bill, but could we be a little more formal. Mister Lunatic, please.

5MA has been very busy this month reconstructing his tower and managed to gather all the local boys together to assist in the raising of this mighty project some 40 odd feet or so into the heavyside layer. Fred has been heard a little on 40 mx. 5BC has been putting his portable Tx and Rx through its paces in preparation for his annual holidays, and no doubt as these notes are being read, Hughie is entertaining all and sundry with the tales of how the big ones got away at Normanville, both in the air and in the water. 5KW is another one of the Upper Murray gang that has added another length to his tower. It would seem that Harry and 5MA are training to be pilots or something considering the height that their towers now stand. Harry also enjoyed the R.D. Contest and is eagerly awaiting the next one.

5CF has been on the air consistently since getting his call sign and is putting a good signal out considering the power. Murray has had a good run of luck with the ZLs and ran up a creditable score in the R.D. Contest.

5SL has been heard on 40 mx a lot during the last month on phone and c.w., but as the stork has been beard flapping its wings around Berri lately, Laurie has not had much time for radio. FLASH! By a strange coincidence, as I type this paragraph, Laurie has just called me on the telegraph and proudly tells me that he has become the father of a bonny bouncing boy. Is he excited, I thought by the speed of the sounder that the most powerful broadcasting station in the State had serious trouble with its crystal detector or worse. Congratulaions Skinny, and you too Pat, but gee whiz, it makes me fee old. It only seems the other day that Laurie was an office boy in short pants, and so keen on radio that he would come in two hours early in the morning, just for the chance to play the wide range records on the air. Those were the days, Skinny, at least I did get some respect from you then, even if you did call me Fatty behind my back!

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WESTERN AUSTRALIA

BY L. G. WILSON, VK6LG

Radio activity by the VK6s on 7 and 3.5 Mc. still seems surprisingly small, there was, of course, a sudden burst of "warming up" just prior to the recent Remembrance Day Contest, no doubt many of those stations will not be heard again on the domestic bands until next year. About the only stations showing much life on 7 Mc. phone lately have been 6WU, 6LU, 6RS, 6LG, 6MO and 6WL, week-ends there are a few more about for a while. Even heard 8MO calling a ZL one evening. You will really have to get that new modulator finished this year OM. 6LU has been tickled pink with several reports on his phone from ZL. Be careful Lu, someone will be christening you "Loud Lu"—or something. 6LW made one brief appearance and with his 7 point 7 was heard in New Zealand at 5 by 5, should have hung round a bit longer OM and had a contact with him.

Not many VK4s about lately at this spot, but sometimes a "good one" bobs up; did hear a rumour to the effect that 4CC had actually had a contact with a VK6 on 7 and 3.5 Mc. Hear Olive's voice sometimes floating over from that "windy" place, usually it doesn't last long though. From the southern part of the Far East the voice at 3AGF seems to be the most active, though some of the Ballarat gang are running him a good second. From a little farther north, the Dubbo mob are often heard having a "short" one with Relentless Lennie. The VK2 marine mobile (in "Our 'Arbour") seems to be doing pretty good for himself.

Can't read morse yet so don't know what the c.w. boys are netting, have heard there is a fair bit of DX about some nights—and the mornings too. Have found 7 Mc. so interesting lately that I haven't been doing much snooping on 14, but have heard that there are not a great number of VK6s active there either, I suppose the usual dog fights, chain ganging and piggy backing still goes on. The old 80 metre band still has its few faithfuls, now added to by 6RS, also heard a fairly good signal coming from 6BO a couple of times lately. Congratulations 6LM on your re-appearance among the "ole women."

Seems to be something wrong with the higher frequencies lately, don't hear many of those boys about on 7 Mc. of a Sunday morning arranging their skeds for six and two, probably they are all busy polishing up the knobs ready for the season. Seems likely they will have a couple of new additions to the family in 6X1 and 6BS.

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TASMANIA

Remembrance Day Contest held during August created a general interest and it was pleasing to hear quite a number of old call signs operating once again. From what can be gathered at this juncture, a reasonably good score should result as from figures to hand, indicate a percentage of 55 per cent. of all Hams participated, which is truly an indication of interest taken by the members of this Division.

Congratulations must be extended to 7LJ who operated on three bands—80, 40 and 20, both phone and c.w.—the power was 100 watts to a 813 in the final. Other top scores were 7AJ, 7OM, 7BH, 7NC, 7RX and 7JB. Bad luck with some of the gear resulted in 7AL, unfortunately only managing to scrape up seven or eight contacts which was disappointing as far as Tom was concerned.

Our new associate, Mr. Aspinal gave a very interesting lecture on the cathode ray oscillograph. Its use and construction was easily followed by all those in attendance and towards the end of the lecture an actual demonstration was given. The meeting concluded at 10.30 p.m. after a vote of thanks was passed to Mr. Aspinal for his very interesting information. A letter from 7AB with regard to a convention which is proposed to be held in Burnie during the long week-end was read and left in obeyance until the next meeting. Attendance was not as good as usual, but now the weather is on the improve, should show an increase in future meetings.

Activities on all bands this month have been restricted, owing to the poor conditions and except for one or two, there has been a noticable absence of VK7 Hams. News form 7EJ indicates that he will in future be operating on 20 during the evening and will be looking out for any of the old gang if skip does not take too much of a hand with regards to local signals.

7JP is back in town after a long absence, still busy with household activities but signals should shortly be heard. Plans for the completion of the s.s.s.c. Tx are well in hand although until this is completed a 100 watter will be the rig in use. Incidentally Leon, don't forget the meetings are still held on the first Wednesday of the month and the Photographic Rooms is the place. Strife in the modulator has been had by 7FM, but Tom soon traced the breakdown and now everybody is again happy.

Heard 7DW with a solid signal recently, Doug has been sticking to c.w. since his return to Ham activities but from a recent talk about modulation transformers, seems as though my old mate will soon be a member of the "earbashers" club. Soon to be a proud owner of a "740" Eddystone Rx will be one of our associate members, Max Hynds, who, owing to a disability, has not been able to procure the necessary license. A further application has been made by Max and we trust we will have another Ham in our midst in the very near future.

Talking of associate members, another member to be welcomed to the fold is Ray Calvert who is at present swotting for the A.O.C.P. examination. 7AF still engaged in the manufacture of a tape recorder with the help of a new lathe. Another member engaged also on a recorder is 7CW who is well advanced with his unit. The 144 Mc. gear of 7MY is now being operated by 7OM whose signals were S9 at approx. six miles distant. Incidentally Bob did not have any aerial connected at the time which certainly indicates the amount of r.f. available. 7DA wrestling with a new aerial which is to be fed with 300 ohm ribbon. Heard with an f.b. signal during the Contest was 7SK, activity being restricted owing to pressure of work. Bad luck with his power supply has put 7GB off the air for a while. Ted is generally on for a while around midnight, and 40 mx is the band used. No signals yet heard from 7HB at Richmond. how about getting some gear out Harold and let us hear from you in the future.

NORTHERN ZONE

7BQ has his nice shiny new car but won't let any Hams near it in case they want to carve their calls on it. VK3 saw a little of 7LZ recently who took a flying trip over Bass Strait and enjoyed his holiday. One thing about the R.D. Contest was the way it brought out some of our members who seem to be hibernating. 7RK's XYL has been in hospital and we all hope she will be out by now.

Did you hear about all the goodwill publicity Amateur Radio got over the R.D. Contest Just look at this: Saturday—Item in State news, Tas. A.B.C. Monday—Large paragraph in "Examiner" and "Mercury"; item in State news, Tas. A.B.C.; item Launceston Com. 7EX; item Launceston Com. 7LA; interview with zone secretary 7AM on Monday morning on 7LA. The following Saturday—Talk on R.D. Contest by State Secretary, Len Edwards, in the A.B.C. "Town and Country Magazine." Well, after all that VK7 must win the trophy.

7RB and 7KW were observed with a lovely, oh so beautiful, so georgeous, so nifty, R.C.A. Field Intensity Meter checking the field strengths of the two best b.c. stations in Australia.

NOVEMBER
1951

Amateur Radio

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THE WIRELESS
INSTITUTE OF
AUSTRALIA

For the Experimenter
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9D.

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JUST ARRIVED! ENGLISH I.F.F. SETS (equiv. to 966A American type I.F.F.), 11 valves. Contains two CV6s in P.P. with Butterfly Ceramic Condenser, four VR65As, two 6J5s, one VR54 (6H6), two VR92 (6.3v. diodes). Host of condensers and resistors, also 18 volt genemotor and gear box, output 450 volts at 50 Ma. Condition as new. To clear (allow 5/- packing charge) ..... each £3/12/6

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AMATEUR RADIO

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EDITORIAL

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You will remember the advice given in last month's Editorial regarding the responsibilities of members, wherein it was suggested that members should obtain additions to our ranks by approaching non-members and endeavouring to enrol them in the Wireless Institute of Australia. In order to assist you in bringing forward points for discussion in your approach to intending members we have pleasure in offering the following very interesting reasons why every licensed Amateur should be a member of our organisation:—

Technical Publications: The Institute publishes its official organ "Amateur Radio" as a means of disseminating technical information and club notes of particular interest to Amateurs.

QSL Card Distribution: This feature offers members a cheap, economical and efficient method of handling QSL cards.

Lectures: The provision of lecture rooms and meeting places makes it possible for lectures of special interest to Amateurs to be given.

Field Days: Our organisation caters for those Amateurs interested in portable equipment by arranging numerous field days.

Contests: Many Amateurs are interested in contests which could not be held without an organisation such as the Wireless Institute of Australia to handle the detailed work involved.

Library: Technical publications and in some cases, instruments are available on loan to members.

Divisional Broadcasts: Divisional broadcasts keep country members and others in touch with current happenings in Amateur Fraternity.

Advisory Committees: These committees provide effective liaison between officers of the P.M.G. Department and Amateurs who, without their friendly guidance would infringe the regulations.

P.M.G. Department Liaison: The voice of the Amateur is represented to the P.M.G. Department through the Federal Council and the Federal Executive, thus ensuring regulations of a generally satisfactory nature and protecting Amateurs' rights and privileges.

A.O.C.P. Classes: The Institute provides lecture rooms and lecturers to fit intending Amateurs for examinations.

I.A.R.U. Liaison: The Institute provides liaison with other Amateur bodies throughout the world through the Federal Executive and the I.A.R.U.

Slow Morse Transmissions: Special permission has been obtained from the P.M.G. Department to assist intending Amateurs by providing slow morse transmissions.

Disposals Equipment: Organisation has been provided in various States for the collective purchase and distribution of disposals equipment.

Country Branches and Zones: The interests of Amateurs outside the metropolis is catered for by organisations within the Divisions to permit such members the opportunity to present their particular views on Amateur matters.

Affiliated Clubs: The Institute fosters and approves the affiliation with other Amateur Clubs.

We have no hesitation in saying that all of the above facilities could only be provided through an organisation such as that provided by the Wireless Institute of Australia. The democratic government of the Institute is assured through the controls exercised by the Divisions through the Federal Council and the Federal Executive who govern and defend the rights of both members and non-member Amateurs.

It is up to you to use this information in securing as many new members as possible for your Division.

FEDERAL EXECUTIVE.

The Contents . . .

A Double Conversion Superhet For 50 Mc.

BY F. J. STIRK,* VK2ABC

HAVE you ever thought about building for yourself one of these "Double Conversion Superhets" that are so glibly mentioned over the air at various times? If you have, you immediately begin to worry about which frequencies to choose for the i.f. channels? What side of the i.f. channel shall the oscillator operate? How many "birdies" and how strong will they be in the band of operation? How can I eliminate them if necessary? If a xtal is unavailable for the second oscillator will an ordinary oscillator do? What will the frequency stability be like? Will 450 Kc. be satisfactory for the second channel or should I use 175 Kc.? What tubes ought I to use? And a hundred other questions which magnify the task to terrific proportions before you start.

When you commence to look for information on these receivers it's a little hard to find unless you have an extensive library and even if you can find some description of a receiver the details are perhaps just not quite what you want and you go ahead with certain doubts in your mind and this leads to a lot of time spent in experimentation and in some cases frustration.

The receiver about to be described is not classed as a "world beater," but it is a receiver with good sensitivity, signal-to-noise ratio, reasonable selectivity, a minimum of controls and reasonable adaptability, and more to the point, within the limits of home construction.

At this point someone may say, "why a receiver?" "Why not just a converter?" Well, it's a matter of opinion, deepness of pocket, operating intentions and convenience. So for those who have in mind building something for "six" to be used in the coming DX season, here it is. Tubes used were on hand and are considered satisfactory, although better tubes could be used with perhaps advantage in the r.f. section.

The 6AG5 r.f. amplifier is used as a pentode feeding a 6AG5 used as a triode mixer. The oscillator for the first mixer is a 955 which is reasonably stable and fairly plentiful, this operates on the low frequency side of the signal tuning from 47.9 Mc. to 51.9 Mc., the first intermediate frequency being 2,100 Kc., an easily attainable frequency. The i.f. amplifier used is a 6BA6, ideal for the purpose, and with a large amount of gain, the transconductance figure being 4,400 micromhos at 250 Ep.

The output of the first i.f. channel feeds into a 6J8G as a second mixer; a number of tubes were tried In this position and this gave the best conversion gain. The X61M, with a conversion transconductance of 750 approx. would possibly be better, but was unavailable for test. The demodulator chosen was a 6G8G, and the output tube the normal 6V6 without feed back or frills.

A noise limiter is almost always essential and for this purpose a 6H6 was used in a fairly effective circuit before the grid of the 6G8G. This employs a circuit described in "W.W.," Dec., '46.

The b.f.o. is necessary of course for c.w. operation and hunting up weak signals. The 6SJ7 used here could be substituted with a 6J7 or equivalent, or almost any tube on hand.

"S" meters are fairly tricky things at the best of times and unless definite calibrations are obtained and held, the readings mean nothing except for a comparative basis and is an aid for tuning. However, it was decided to include one using a 2.5 Ma. movement converted 5 amp. r.f. thermo-couple meter. Plate current variations in the a.v.c. controlled tubes were insufficient except on strong signals to provide a reasonable deflection, so a linear type of arrangement employing a double triode 6SN7 was employed. This provides excellent readings and on strong signals a full scale deflection. The tube could be substituted with a 6A6 or equivalent if a 6SN7 is unavailable, or if a 1 Ma. meter is available it can be placed directly in the h.t. lead to the 6BA6 using a bridge circuit to balance out the standing current with excellent results and the exclusion of the extra valve. I_p variations in the 6BA6 were approximately 0.7 Ma. for a solid signal.

Power for the receiver is obtained from a standard type power supply using an 80 or 5Y3GT rectifier and an 80 Ma. power transformer.

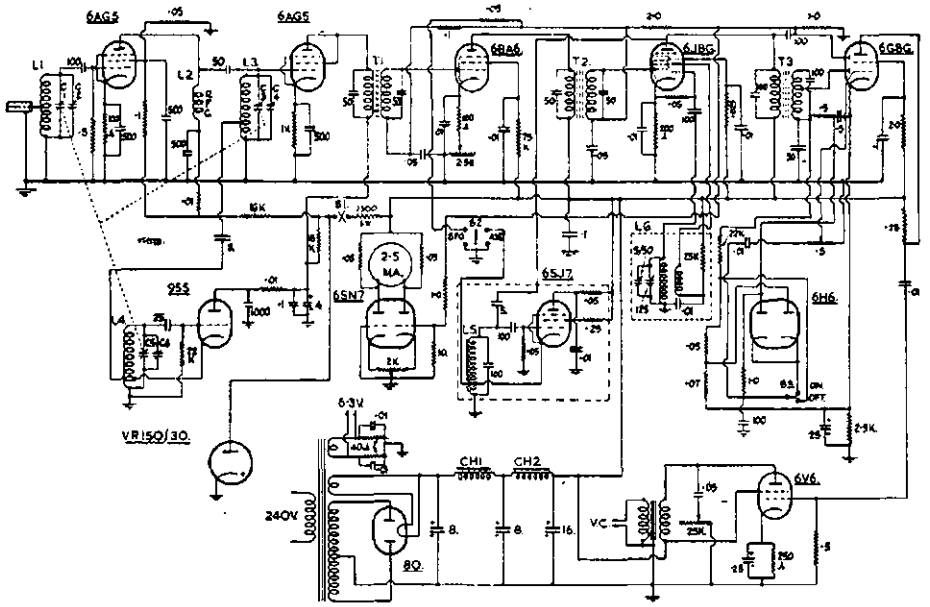
THE R.F. SECTION

On building the r.f. section it was decided to include a blocking condenser and grid leak for the r.f. amplifier to prevent the grid handling excessive current which is not good for the tube. This current can reach alarming values if you are in the habit of leaving the receiver on or even breaking the h.t. supply when transmitting. After "doing" two or three tubes you come round to this way of thinking.

It is essential to fully shield the r.f., mixer and oscillator sections to prevent any unwanted coupling and attain best performance of these high gain valves. While on the subject of shielding, it is well worth while paying a little attention to the shielding of the second mixer oscillator and b.f.o. as well.

Choose a good strong chassis when setting out your equipment for assembly. Nothing is so annoying as the way the signals dive all over the dial when you rest your hand against the dial or panel of the receiver if you use flimsy material. The tuning condensers employed were two-plate isolantite ended types. If there is a choice, use condensers with plates shaped to allow a maximum capacity change per degree of rotation at the extremes of operation, as in the centre position, otherwise, the calibration seems to go astray at the ends. With these condensers the whole of the band can be spread nicely

(Continued on Page 7)



L1—6 turns 18 g. enamel, ½" diam., ¾" long, tapped 1½ turns from earth end.
L2—R.F. Choke, wound on a 1 Meg. 1 w. resistor, 32 g. enamel.
L3, L4—6 turns 18 g. en. ½" diam., ¾" long, tapped 1½ turns earth end.
L5—450 Kc. b.f.o. coil, tapped approx. third from earth end.
L6—B.c. coil, reduce grid winding approx. 20%.

C1, C3, C5—Two-plate isolantite ended tuning condensers (midget type), ganged.
C2, C4, C6—5-35 mica (ceramic) trimmer condensers.
T1, T2—2.1 Mc. i.f. transformer (converted).
T3—450 Kc. tapped i.f. transformer.
CH1, CH2—15 H. 80 Ma. filter chokes.
S1, S2, S3—Toggle switches.

* 60B Alma Road, Maroubra, Sydney.

TELEVISION MADE EASY

Part iii.—What's in a Television Signal?

BY JOHN JARMAN,* VK3ADA

So far we've learnt that at the transmitting end, the camera takes photos of the scene continuously, at the rate of 25 per sec., and that each of these photos is split into 625 horizontal lines, each of which is transmitted as a stream of electrical impulses.

We've also learnt that this picture signal is mixed with certain controlling signals, before being transmitted, so that the signal, which reaches our receiver is actually a composite signal, containing both picture and controlling components. We shall now treat this in greater detail.

Now the only controlling signals that we have dealt with so far have been the synchronising signals. In addition to these, however, there are important components called "blanking signals." What are they for? Let us review part of the first article of this series, where we learned that on the receiver screen, a moving spot of light starts at the top left hand corner, and traces out a zig-zag path, completing 625 parallel lines, as shown in Fig. 1.

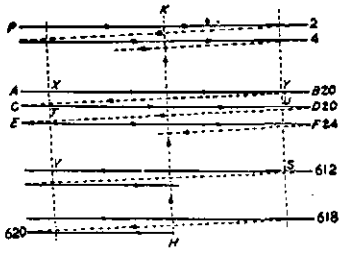


Fig. 1.—Even Field.

Between these lines, the spot returns to the left hand side of the screen, as shown by lines BC, DE, in Fig. 1. These are called the "fly-back" or "retrace" periods, when the spot must not appear in the picture. How can we make this spot invisible between lines?

Well, we've already learnt that the brightness of the spot depends on the amplitude of the received signal. This is illustrated in Fig. 3. Take a look at it. Line AB represents the maximum amplitude of the signal. Now, since we are using negative modulation, the greater the amplitude, the darker will be the spot. Therefore, if the signal's amplitude be increased above a certain level, the spot wlil become invisible. This is called the "black level" of the transmitted signal, and in Australia, this level is to be 75% of the maximum signal amplitude, as shown by line CD.

Line EF in Fig. 3 shows the minimum signal amplitude, to be permitted in Australia, which is 10% of the full amplitude, and of course represents maximum brightness of the picture.

Therefore, when the amplitude falls to 10% of its maximum value, the moving spot on the receiver screen will be at its brightest; and when the amplitude reaches 75% of its maximum value, spot becomes invisible. Try and figure this out before reading any further.

By increasing the signal amplitude to 75% or over, therefore, we can make the spot invisible whenever we please, and this is the purpose of our blanking signals, which are simply broad pulses, whose amplitude is 75% as shown by XY and PQ in Fig. 3.

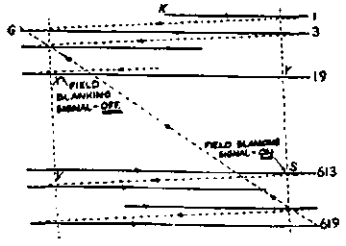


Fig. 2.—Odd Field.

Let us now study the movement of this spot more closely. Look at Fig. 1. Commencing at A, spot travels across to B, "painting" a line of the picture. When it reaches B, a synchronising pulse (in the received signal) causes the spot to be "jerked" back to C, from which it commences tracing out another line of the picture, CD, and so the process continues. When dealing with the receiver, later on, we shall learn how these synchronising pulses operate, but for the present, we are only concerned with their positions in the signal.

Now refer back to Fig. 3, where these synchronising pulses are shown. They are simply narrow pulses, of maximum signal amplitude.

Now we notice that the blanking signals are much broader than these synchronising pulses. Why? Look at Fig. 1 again.

Because of the width of these blanking signals, the spot is visible only when between the lines XV and YS. For example, while tracing the line AB, the spot is "blanked out" at Y. Continuing its journey, it is not made visible again till it reaches T. But why?

There are two reasons. Firstly, this "trims up" the edges of the picture, but this is just "by the way." The main function of the broad blanking signal is to separate the picture signal from the synchronising pulse, and thus prevent high amplitude picture impulses from upsetting the synchronisation. This is most important, as we shall learn later.

Remembering that in this article, we are studying the composition of the television signal, let's sum up what is found between the lines of the picture. First of all a blanking signal is applied, just before the light spot on the receiver screen has finished its left-to-right journey. Next, a synchronising pulse, and finally, the blanking signal is removed. These three phases are shown in Fig. 3 by points X, T and Y respectively.

At the end of each picture, the spot is returned to the top of the screen, so that between pictures, as would be expected, there is another synchronising signal consisting of six broad pulses as shown in Fig. 4, and accompanied by a long blanking signal, to act as a "separator," but you ain't 'eard nothin' yet!

In our first article, we touched briefly on "interlaced scanning," explaining that each picture is transmitted in two stages, each consisting of 312½ lines, the first consisting of even numbered lines, and the second, the odd-numbered lines, as shown very briefly in Figs. 1 and 2. Now each of these half-pictures is called a "field," and the pair, forming a complete picture, a "frame". Remember these names, since we'll be using them quite a lot. Once again, let us study the movement of our spot, on the receiver screen, referring back to Fig. 1.

In the case of an "even field," the spot commences at point P, and traces out alternate lines 2, 4, 6, etc., until it is half-way along line 620 (point H). At this instant, the field synchronising pulse (called a "vertical synch. pulse") arrives, causing the spot to be quickly moved to point K, at top of screen. Briefly speaking, it takes a period equal to three lines for the spot to complete the journey from H to K. These will be lines 620, 622, and 624. Since there are only 625 lines in the picture, the next alternate lines after 624 will be number one of the next field.

Spot will therefore, on reaching point K, trace out the latter half of line 1, thus commencing an odd field, as shown in Fig. 2.

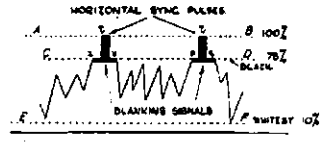


Fig. 3.

Continuing its journey, spot will now trace out lines 3, 5, 7, etc., until it has completed line 619. It will now be at point F in Fig. 2, when another vertical synchronising signal will cause it to be sent back to point G, to commence line 2 of the next even field. Lines 621, 623, and 625 will of course be "lost" during this latter part of the spot's journey, which occupies a 3-line interval.

We see now that interlaced scanning is achieved by using an odd number of lines per picture (625) and an even number of fields per second (50). This ensures that each alternate field will terminate half-way through a horizontal line, and consequently, that the following field will be started half way along a horizontal line, so that the lines of an odd field will fall between those of the

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even fields, which precede and follow it. Study Figs. 1 and 2 carefully if this is not clear.

Our receiver will have no trouble distinguishing an odd field from an even one, since at the end of an odd field (Fig. 4a) the vertical synchronising signal commences at the end of a line, whereas, at the end of an even field, it commences in the middle of a line. (Fig. 4a.)

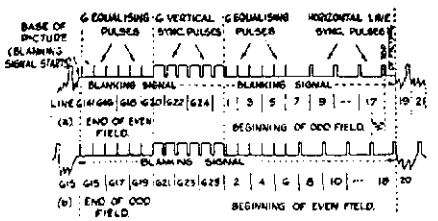

Fig. 4.—Signals Between Fields.

Now let us study the signals that appear in the transmission between fields. During an even field, the blanking signal is applied half way through line 614, and maintained until the middle of line 19 in the next field. This is, of course, to ensure that picture signals will be well separated from the vertical synchronising signal. Likewise, during an odd field, blanking signal is applied at the end of line 613, and retained till the end of line 18 of the next field.

This is shown quite clearly in Fig. 4, but oh my! What are all the other "turly-wurlies" in this diagram for?

Well, it's like this. To keep a steady picture on the screen, the synchronisation of the horizontal deflection oscillator must be maintained throughout the interval between fields (and if you've forgotten what the horizontal deflection oscillator is for, just take a look back at article 1).

The synchronisation of this oscillator makes it necessary for the vertical synchronising signal to be of such a nature that besides "triggering" the vertical deflection oscillator (as we'll learn in more detail later) it must also keep the horizontal oscillator "in step". Vertical synchronising signal therefore consists of six broad pulses, and as we will learn, when dealing with the receiver synchronising circuit (which is a subject in itself), these broad pulses have the same ultimate result as the normal horizontal, or "line" synchronising pulses. The same applies to the equalising pulses, which precede and follow the vertical synchronising pulse. These have the same general shape as the line synchronising pulses, but are much narrower, and although at half-line intervals, keep the horizontal oscillator in step, without changing its frequency. Their function is something else that will be dealt with in a later article, but for the present, it will suffice to say that they are there to help the synchronisation of the vertical oscillator perfect.

So, we have our vertical synchronising signal, and its associated equalising pulses, but what about the horizontal line synchronising pulses that follow? These are to ensure that horizontal oscillator is in step, before the blanking signal is removed.

We've now dealt with the complete composite signal, which is handled by a television receiver. Still clear as mud? Then pour over Fig. 4 a little longer. Study it in conjunction with Figs. 1 and 2.

You will notice that the only lines that appear on the screen are those within the frame XYSV, in Figs. 1 and 2, but adjustments are made to ensure that these lines fill the receiver screen, and the camera target, so that no detail is lost.

To top off this article, let us talk about frequencies. In audio work, the modulating frequencies that we handle range from about 16 cycles/sec. to about 15 Kc.

Now in television, the carrier is modulated by frequencies ranging from 50 cycles/sec. (the field frequency) to over 5 Mc.! I shall not waste valuable magazine space going through the arithmetic of working out this last figure, but a brief outline may help.

For mathematical purposes, each line of picture is assumed to consist of a row of squares. If the picture were square, there would be 625 per line. Picture is to have a height-length ratio (called the "aspect ratio"), however, of three-quarters, so that the number of squares per line will be 625 x 4/3. Each of these squares, called a "picture element" represents the smallest amount of picture detail that can be transmitted, and forms half a cycle of signal current. Now consider the number of lines per field, that carry picture detail, and the number of fields per second.

Without any further calculation, we can see that the answer has a high value, just over 5 Mc.

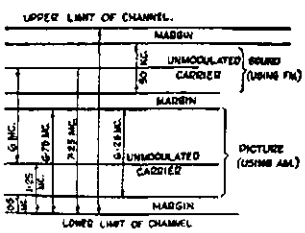

Fig. 5.—Signal Allocation on a Television Channel.

By means of a cunning system, involving the suppression of portion of one of the sidebands, the picture signal (Fig. 5) is "compressed" to fit into a bandwidth of 6.25 Mc., which is the maximum allowed.

The sound is transmitted on an adjacent channel, by a system called "Frequency Modulation" which will be explained in a later article. The total bandwidth allowed for the complete signal is 7.5 Mc.. and the receiver is broadly tuned, to admit the whole lot, through the one input stage, the sound and picture signals being separated within the receiver.

CHANGE OF ADDRESS

W.I.A. members are requested to promptly notify any change of address to their Divisional Secretary, not direct to "Amateur Radio."

ACCURATE FREQUENCY TRANSMISSIONS FROM VK3WI

The next Accurate Frequency Transmission will take place on Thursday evening, 22nd Nov., 1951, on the 7 Mc. band. Details of the operating procedure and times of operation will be found on page 5 of the February, 1951, issue of this magazine.

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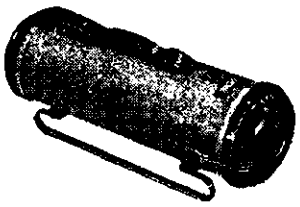

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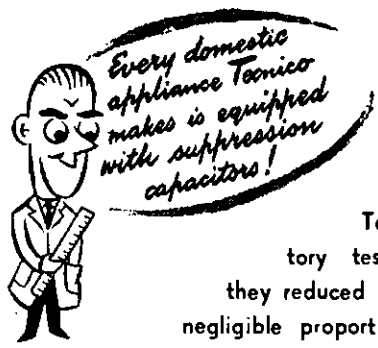

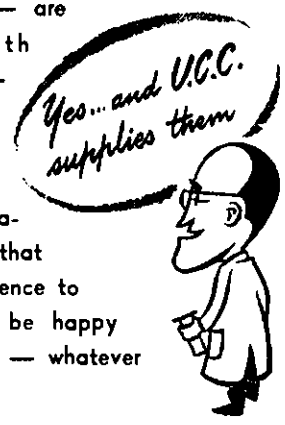

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F.P.T.I

A DOUBLE CONVERSION SUPERHET FOR 50 Mc.

(Continued from Page 3)

from 95° to 5° on an 0-100° dial if you take care with the coils.

The 2,100 Kc. i.f. transformers can be obtained from standard 1600 or 1500 Kc. transformers. These transformers, if of local manufacture, will be found to employ 100 pF. condensers as a rule, and honeycombe windings. With a little manipulation, remove the 100 pF. condensers and substitute 50 pF. condensers of a silver mica type preferably. Other types may cause the tuning to move, or even a reduction in gain due to loss of Q. When replacing the condensers, recover them with wax to be on the safe side.

SECOND OSCILLATOR

The oscillator section for the second mixer may consist of a suitable b.c. oscillator coil which normally tunes from approximately 1000 Kc. to 2000 Kc. Remove about 20 to 25% of the turns and retune to resonance at 1650 Kc., adding capacity to attain this. This gives a reasonably high C circuit and increases the stability. In the writer's case the capacity employed amounts to almost 175 pF., made up of 125 pF. lumped capacity and a 5-50 pF. good quality trimmer for adjustment. It was not found necessary to frequency control this arrangement with the use of temperature compensating condensers.

To reduce radiation of the fundamental and harmonics to a minimum. the plate voltage to the oscillator was fed via a 300,000 ohm resistor and it oscillated quite readily and supplied enough injection voltage at that reduced h.t. If possible, place all the tuning condensers, and as much of the leads as possible in the coil can and adjust the trimmer through the base or top of the can.

B.F.O. COIL

The b.f.o. coil can consist of a half section of an old 450 Kc. i.f. transformer or any suitable coil fitted into a can and reasonably shielded to prevent stray radiation. Tuning can be accomplished via the slug if employed, otherwise include a small trimmer condenser.

APPLYING THE H.T. SUPPLY

After you have decided on the layout, and mounted and wired the components, comes the moment when you switch on the power, and either switch it off again smartly at the appearance of a wisp of smoke, or proceed to make your electrical checks. A good practice is to connect a voltmeter across the h.t. supply and then switch on, observing the meter reading. This can prevent damage if mistakes in the wiring have been made.

When you have measured the h.t. and decided it is satisfactory, check the voltages on all the tubes and make any adjustments necessary. Before leaving the h.t. on too long, take a quick look at the "S" meter and if the needle is not laying at the bottom of the glass adjust the 2,000 ohm potentiometer for zero reading on the meter.

Switch the noise limiter and the b.f.o. to the "off" position and make any checks necessary on the audio system. A quick flick on the grid of the demodulator will decide whether the audio system is working.

LINING UP THE STAGES

Temporarily short the a.v.c. circuit to ground via the 50,000 ohm resistor and connect a signal generator (if available) to the grid of the 6J8G via a 0.1 uF. condenser and adjust to 450 Kc. You will probably need the full output of the sig. gen. to produce a signal in the speaker for a start, but by adjusting the i.f. transformer, the input can be reduced. After the i.f. transformer is adjusted, switch off the modulation from the sig. gen., switch on the b.f.o., and adjust the frequency by means of the slug to give you the required beat note with the 450 Kc. signal.

With the b.f.o. switched off and the short still on the a.v.c. system, connect the sig. gen. to the grid of the 6BA6 i.f. amplifier. You may be able to hear a weak signal, and if so, roughly peak the 2100 Kc. i.f. transformer, reducing the input accordingly. If you cannot hear a signal, adjust the trimmer on the second mixer oscillator, commencing from the **maximum** setting, until a signal appears. Now tune the i.f. transformer for maximum response.

Remove the sig. gen. and connect to the grid of the 6AG5 mixer. leaving the grid coil in position, and adjust the first i.f. transformer for maximum response. The sensitivity with both i.f. and audio volume controls fully advanced will now be in the vicinity of 50 uv. or so.

Now adjust the i.f. transformers commencing from the second 2100 Kc. transformer for maximum response. Check the setting of the trimmer on the second mixer as this may be slightly off resonance too. The overall sensitivity of the i.f. channel from the grid of the first mixer will now be in the order of 10 to 15 uv. which is a reasonable gain and there should be no evidence of instability. If there is, then look to the by-passing and placement of wiring.

If the sig. gen. will tune to 50 Mc., so much the better; if not, you will have to use a harmonic, second or third will do at a pinch. Remove the short on the a.v.c. line and connect the sig. gen. to the aerial terminal via a small condenser about 100 pF. or via the dummy aerial if available and tune the sig. gen. so that you introduce a 54 Mc. fundamental or harmonic into the receiver. Now adjust the oscillator trimmer condenser for a signal commencing from the maximum position. When you have decided which of the many signals you will hear is the correct one, quickly swing the mixer and r.f. trimmers to resonance and check that they will resonate.

This adjustment should be done with the tuning condenser near minimum position. To make sure you have the right peak on the oscillator, reduce the capacity of the oscillator trimmer until you hear the signal again at approximately the same strength, this is of course the h.f. peak, and retune to the original position that places the oscillator on the l.f. side of the signal, which is what we require.

Tuning the mixer and r.f. sections to resonance is now normal practice and need not be covered here. It is sufficient to say that by peaking the trimmers on the h.f. end of the band and squeezing or opening the coils to track at the l.f. end of the band, the amount of error in tracking, when finally adjusted, is surprisingly small. Better adjustments can be obtained using iron slugs and suitable formers, but these are not always readily obtainable and present difficulties in construction.

You should, at this stage, be able to connect the antenna and get quite an amount of background hiss, if not receive signals. This depends of course on whether there are any signals on the air at the time.

Tune over the band, however, and check for any whistles or strange carriers. If the procedure has been followed using the frequencies suggested there will be no spuriously radiated signals heard from one end to the other. If any whistles are heard. check whether they are being radiated from the second oscillator by placing a screwdriver on the trimmer and noticing if the frequency shifts. If they are, careful manipulation of the second oscillator will move them one way or the other and then re-align the 450 Kc. channel to compensate for the new frequency of the oscillator. However, no signals were apparent for some distance on either side of the band in the model.

If no signal generator is available, it will be worth while making a small oscillator for the 450 Kc. frequency with a switched or plug-in coil unit for the 2100 Kc. signal or using one coil to cover the 450 Kc. channel and the harmonics to cover the 2100 Kc. channel is a possibility.

The frequency of 2100 Kc. ensures that the second spot or image of any signal in the 50-54 Mc. band falls outside the band. 450 Kc. was chosen as the second channel frequency as this affords sufficient selectivity at 50 Mc. unless operating under difficult conditions. 175 Kc. or lower frequencies increase tuning difficulties and necessitate very good mechanical construction and regulation of the h.t. supplies.

Regulation of the h.t. was not found necessary, but was added, using a VR150/30 valve connected across the supply to the oscillator and first mixer.

Noise figures were taken on the receiver using a home-made noise generator. The figures quoted do not necessarily mean that they are accurate, but serve as an indication. The best figure obtained was approximately 4 db, but as pointed out, this is only a reference figure. The main use of the noise generator is to adjust the aerial tap on the grid coil for best signal-to-noise ratio and for this purpose it is ideal.

It is realised that there are shortcomings in certain features of the design of the receiver, but it is a reasonable receiver, behaves well, is stable, and provides the writer with quite a few good contacts on "six."

It is worth mentioning that the best available components should be used for the r.f. end, mica filled valve sockets, good quality air trimmers, isolantite ended tuning condensers, reliable resistors and by-pass condensers, etc.

That's all chaps—be seeing you on "six".

DX NOTES BY VK4QL*

Well, as far as I am concerned up here, September has been the worst DX conditions for many a long time. This is also the opinion of 4EL, from his "super" location. The bands showed promise early in the month, but about the 9th, the bottom fell out of the 7 and 14 Mc. bands, and they never recovered. These two bands in the mornings have produced practically a dead band, even the host of commercials being missing on 7 Mc. 14 Mc. followed no set pattern in the afternoons, signals from one area being there one day and nil the next, but some other continent would turn up. On the 22nd for example, there were plenty of S. and C. Americans until about 0630 G.M.T., then Italian and Asian stations appeared, no North Americans or Europeans being there. Some colossal VK and ZL signals were heard occasionally on 7 Mc., and the next night a dead band practically.

The band survey of stations heard/worked from the gang is not very heartening, stations being listed which normally is chicken feed. All times are shown as G.M.T.

3.5 Mc.: 7RK and my own visits produced very little except weak VK and ZL signals.

7 Mc.: Noise level on this band has been quite high since the band collapsed, and with the poor signals, it has not been much good for DX. Even W signals are few and far between. Europeans have been very scarce. 4EL and I had a QSO one night and despite only 20 miles distance, Eric faded out. 7RK/7ZL are hearing a few Europeans in the afternoons, with an occasional N. and C. American at night. They list KL7FAD, XE1SA, G6CJ, GC4LI. 2OW has found the band of little use, being unable to hear the W.I.A. broadcast. My own listing, VQ4AQ, ZS6KY*, ZS3U*, EA7EB at 0645 and 2100, CN8MZ, SU1FX, HH2LD, LU3EL, VS1DZ*, KJ6AP, KT6AA*, ZC4DW*, KT6AA said he is in Trust territory, pre-war J9, and will let me know the score by letter. I wonder!

14 Mc.: Same complaints from everybody re this band, and its erratic behaviour. You just had to be about at the right time when the DX broke through. An example comes from 2AXN when, on 23rd, he worked a string of South Africans between 0530 and 0630. In the evenings, 7RK/7LZ hear very little except the closer Asians. They list FI8RO*, VU2EJ, VR2CD, KR6CR, MI3RR, YV5AE, AP2K, KG4AT*, KB6AQ, HR1AT, YN1OC*, XE1OM, VQ8CB. 9XK has been doing alright except for the fact that he has not been hearing Europeans for the last couple of months. His worked list includes FY7YC, OQ5RA, HP1BR, TI2PZ, YS1O, 4X4RE, PY1HQ, ZE3JO, VP4LZ, C3AC, F3AT/FF8, FF8JC, FI8RO, AP4A, ZD2DCP, ZD2TBS, ZS3Q, MI3US. Russ has no trouble working the S. Africans in the afternoons. 8CX has been working into Europe OK. VK3 seems able to do this when nil heard here. Alan lists PY6DU, KV4AA, FI8RO, VP9DDD, VP9AAA, VP9AR, ZB1BS*, IIRC/Trieste, HB1JJ/HE, MD2JB, MD2PM, YN1OC*, VO6VB, FB8BB, FB8ZZ*, EA9AP, VP4LZ, ST2GL, VQ4RF, ZS5CZ, ZE3JL, the last batch of Africans in the afternoons. 2NS has been having beam trouble, but snagged HC8LA. 4EL has not found the Europeans as plentiful as usual, not hearing one on some days. 2OW has not found things to his liking either, but managed to work CT3AA, GI6TK, SP1JF, ZB2I, HZ1AR, VP4LZ, TI2PZ, FI8RO, KB6AQ, YV5AE. All these bringing him closer to his goal of 100 countries. My own list shows VR4AB*, LA8RB*, VQ8CB*, YN1OC, OQ5LY at 0600, OQ5RA at 0615, OQ5IL at 0645, ZS3K at 0615, LA2B, ZS7C, VP4TR, VP4LZ*, 3A2AD* (QSL via HB9 Bureau), C9NR*, XZ2EM*, FB8ZZ, MI3SL, EA9AP* (Box 213 Melilla), KM6AX* ZC4OR* AP2N, MD2PJ (QSL via R.S.G.B.)

9XK, who is ex-3XK, has been doing OK at Samarai to the tune of C3MY*, XZ2EM*, VP6CS*, HS1UN*, CR7BC*, CR7CR*, CR7AU (CR7s round 0900), PJ5HM*, VP5FR*, ZS3K*, VR4AB*, VR1B*, HB1JJ/HE*, HC1FG*, FF8JC*, VQ8CB*, VP6LN*, VP6CDI*, YN1OC*, VU2EJ*, PZ1AL*, OQ5LL*, VR1G*, VP7NM* and YV5EH*. Has worked 50 countries in six weeks.

28 Mc.: This band has been of little use, but 4EL has found the band worth watching, hearing and working the Americas and Europe at times. 7RK reports the band of no use.

W6KIP said PX1AR was legitimate, but he closed down again before the end of the month. Also that EA0s AB, AC, and AD are fairly active on 14 Mc. I know AB does QSL as DX stations have his card. Alex said also that an SV9 is active on Crete, LB9AC at Svalbard and LB8CH Jan Mayen. Also mentioned VR7AA is reputed to be on Nauru, but little is known about him.

KM6AW/KS6 will be at Pago Pago for two years, but to date does not hear the many VKs that have called him.

The QSL situation shows some good ones which have turned up for the gang, to the tune of FR7AA, FG7XA, XU6F, VP4TB, YI3BZL, VP6SD, KV4AQ, KB6AQ, HS1UN, HC1LM (in seven days), 3A2AB, EA6AM, KC6WC, PK7AQ, now EK1AQ who had one of my cards chase him for four years, but he got it and sent me one in reply. 7RK has been hearing YN1OC promise cards by air mail, yet he and 7LZ are still waiting after two years. 3KX is waiting on cards from KX6 and EK, even though he has worked a few of each. 2YC said cards are still not available from 1PG and 1YG. 2DG worked VR7AA and sent an air mail card to Nauru, the QTH given, and had it returned by the P.M. at Nauru as "unknown." Keith reckons the P.M. will be a bit busy on this returning job as VR7AA is known to be fairly active. KG4AT, through 7LZ, advises there are about 12 KG4 stations active.

3CX also has the news that another FG7XA, a local inhabitant, is active, whilst W6LDD said that LB8CH and FB8BB are active on 14 Mc.

3KX by the way told me he had been hearing things like FP8BX, ZC4OR, ZC4KP, FG7XA, FB8ZZ, HB1JJ/HE, and FY7YB.

Some months ago, I mentioned the propaganda appearing on QSLs from OK. It seems to have gone a stage further now, and it is being thrown at us over the bands. Afraid I got a bit terse with OK1VA. A listener's card from LZ1102 says stations should be operative from LZ after about 7th May. Stations expected to be operating are LZ1AA, LZ1KBA, and LZ1KSR. The present CR4AH is not the same one that was operating a few months ago. When querying the non-receipt of his QSL, he said the previous CR4AH was now in Portugal. Stations signing JB prefix are now on the band, but the contact I had faded out after I heard him mention Japan, so have no further details on this one.

One never knows where the W.I.A. mag. is read these days, and the XYL reckons I'll probably be up for libel from a DX station. This month I received a copy of the "DX'er", the monthly publication of the Northern California DX Club who had read a couple of issues of the mag. Some interesting gen was gleaned from this copy, one item especially, is that if W stations are caught by the F.C.C. working stations in PK, FI, EP, EQ, AR, PJ, HS, J and OE except Allied occupation forces, they are in for a "bluey."

Alan 3CX, is after the C.Z.A.R.A. award which is given for 25 KZ stations worked. Has five to go. 2DG said if Alan works 250 KZ stations, he is due for a "Native Blonde with a bunch of bananas." Even the bananas would have a market these days. Alan also now has his cards for W.A.P. In case some of you have not seen the wording on the KZ award, it's not bad, and reads: "To all men who shall see these presents, know ye that the operator of Radio Station ..... being of sound mind and body, did of his volition, without any promise of radio patts, pecuniary compensation, or other forms of coercion, make contact with at least .....of the KZ5 species, without apparent damage to his antenna, receiving equipment or auditory perception nerves. In recognition of this brilliant and daring achievement, said operator is hereby presented with this certificate, the borders of which depict some of the operating hazards encountered in the Canal Zone." (No sign of the Blonde hazard tho').

QSLs for the month here are: XU6F, CR4AH, VP6CDI, CO2PD, CO7AH, SP1JF, SP1SJ, CR9AF, KV4AA, LA6U. 7RK had one from 9S4AX and BERS195: XU6F, PK5AA, KC6WC, KC6WD, 9S4AR, CR9AF, ZS7D, VQ8AB, OQ5DZ, and SV1EC (for 1946 report) bringing his total confirmed to 198.

One card I received from C7CW reads: "Found out by the police, non-licensed station, C7CW is out of the air from 3/3/51. I hope see you again when Japanese given with formal licence." So you see all C prefixes are not necessarily China. 2OW is wondering when some of his cards are going to turn up. Patience Gordon is all you need.

My thanks to all those who once again gave me their assistance, which brings me to the thought for the month which is—

● "Before you give a phone station his report, put the b.f.o. on, if one graces your Bx. You'll be surprised just what it brings to light at times."

* Flt./Lt. F. T. Hine, No. 10 (G.R.) Squadron, R.A.A.F., Townsville, Queensland.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3EE	10	158	VK3AWW	14	112
VK3JD	1	155	VK4FJ	21	109
VK6RU	2	148	VK4WJ	17	104
VK4HR	12	146	VK4DO	20	104
VK6KW	4	145	VK2ADT	13	102
VK3BZ	3	141	VK2AHA	15	102
VK4KS	9	135	VK4WF	16	101
VK3LN	11	132	VK6PJ	19	101
VK6DD	6	126	VK3GG	18	100
VK3JE	7	123	VK3IG	5	100
VK4JP	8	114			

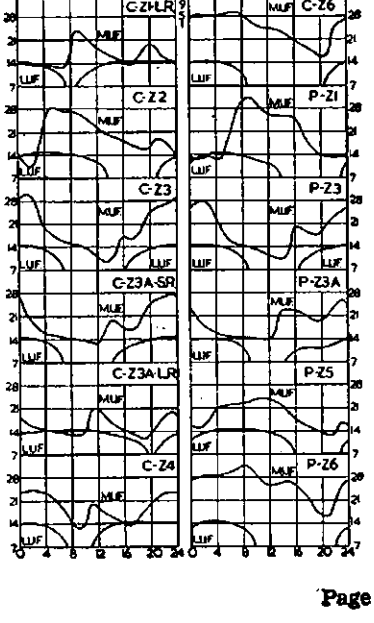
O.W.

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK3EK	3	122
VK4EL	9	163	VK5FH	31	119
VK3FH	15	167	VK3JI	25	118
VK2EO	2	152	VK3UM	12	116
VK3CN	1	151	VK3XK	30	114
VK4HR	8	150	VK4DA	7	113
VK6SA	28	150	VK3PL	38	113
VK3VW	4	143	VK7LZ	17	112
VK2QL	5	141	VK4QL	36	110
VK3KB	10	138	VK4RC	13	107
VK6RU	18	135	VK3YD	27	105
VK2GW	16	132	VK2YC	34	103
VK5RX	23	132	VK3HT	37	103
VK3CX	26	132	VK3APA	14	101
VK4FJ	29	129	VK3NC	19	101
VK5BO	33	129	VK2OA	32	101
VK4RF	11	125	VK7RK	22	100
VK4DO	20	125	VK7LJ	24	100
VK3JE	21	134	VK2AEZ	35	100

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3JA	43	114
VK4HR	7	188	VK2ADT	14	113
VK6RU	8	181	VK3VQ	46	112
VK3JE	12	180	VK3PG	47	111
VK3HG	3	171	VK4RC	21	110
VK2DI	2	170	VK3ZB	34	110
VK3KX	1	167	VK4WF	40	109
VK6KW	13	165	VK2ZC	25	108
VK4EL	10	163	VK2YL	11	106
VK4FJ	32	155	VK3AWN	36	105
VK4DO	15	151	VK2VN	18	104
VK4KS	24	149	VK4UL	27	104
VK5FL	26	143	VK6PJ	44	104
VK3MC	5	139	VK2HZ	17	103
VK3OP	19	137	VK7KB	30	103
VK6DD	22	136	VK2TI	37	103
VK3LN	29	135	VK3HO	38	103
VK2ADE	28	133	VK6DX	42	103
VK2AHA	9	128	VK7RK	31	102
VK2AHM	20	125	VK4TY	35	102
VK2NS	16	123	VK9GW	48	102
VK3HT	41	123	VK2ACX	6	100
VK3JI	33	119	VK2TG	39	100
VK7LZ	23	116	VK3MM	49	111
VK3AWW	45	115			

PREDICTION CHART FOR NOV., 1951



FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

NEW SOUTH WALES

The September meeting of the V.H.F. Section was devoted to films. Philips Electrical Industries supplied a film dealing with the Electron Microscope which proved extremely interesting. Horrie 2HL brought along a couple of films to add to the evening's entertainment and a short film taken by John 2AMV was shown—the latter dealing with the last Urunga Convention.

The main item covered in general business was the proposal to set aside a small section of the 144 Mc. band for the use of country stations attempting to work into the city. After considerable discussion a vote was taken which resulted in the motion being passed with a very large majority.

The frequency sene—144.0 to 144.1 Mc.—is set aside, by gentlemen's agreement, for the use of country stations wishing to work into the metropolitan area. Stations within the metropolitan area are requested not to use the above mentioned frequency sone, keeping it clear of interference to allow the very much weaker country signals to be heard.

Country stations not having crystals which will multiply into this zone should make use of the crystal swap facilities as mentioned in last month's "Amateur Radio" as quite a number of the city boys have crystals falling within this zone.

One point of importance regarding the zone is that it should be used by stations using crystal control only, as one modulated oscillator would take up the whole zone all on its own!

60 Mc. News: With the warmer weather approaching quite a number of stations have left their winter quarters to try out their gear ready for the DX season. In the hope that someone may be listening from far afield, 2QZ is running regular nightly transmissions on 50.14 Mc. The time is 1930 to 2000 E.A.S.T., the transmissions being on m.c.w.

2AZ has re-appeared on the band after something like two years' silence. Les is now located near Liverpool and still very keen about v.h.f. work. At the moment is using a 40 mx Zepp! The nearer country stations have been coming through well and making contact with city stations. 2ADT, 2VU and 2ADS have been worked in Sydney with signals generally on the Increase as the weather becomes warmer and temperature inversions more frequent. So far nothing has been heard of 2GU, Canberra, or stations further afield, but with the increase in activity in country districts, the summer months may see some new contacts made.

144 Mc.: Once again, 144 Mc. has been the centre of v.h.f. activity. The contest to decide the winner of the Bardin Trophy for mobile work was held on Sunday, 30th September, and quite a number of stations took the field. 2AMV made the journey from Forbes to the Blue Mountains area to take part in the contest and last heard of was making a pretty big score. John provided the sight of the year with a very substantially made three over three beam mounted on the back of his Holden!

2HL has once again been travelling, taking a party to Mt. Lambie for the holiday week-end. With transmitting equipment for 50, 144 and 580 Mc. and receiving gear from 3.5 Mc. upwards, they had a pretty busy time.

It is pleasing to note the interest in 144 Mc. being taken by country stations and judging by the intense activity there should be large quantities of 144 Mc. r.f. burning up the atmosphere this summer. Out west, the Forbes boys, 2AMV and 2WH, ably assisted by 2BT at Eugowra have been establishing what amounts to a private "telephone" link via 144 Mc. 2JW at Orange has been experimenting with pulsed micropups and a 12 element beam and succeeded in contacting Forbes. 2TA at Young has been in regular contact with 2WH over a distance of 70 miles. This, mark you, with 2TA using a folded dipole about the same height as the guttering on his house and 2WH with an A.S.V. Rx! These results point to the excellent possibilities of v.h.f. work in the country districts where plains are the main feature of the landscape.

A new station on 144 Mc. in the city area is 2OK, ex-JA5AI. John has started the right way with a four stage crystal controlled converter and a crystal controlled Tx and is putting out a very fine signal. 2AJQ is also reported as being active with very low power. In the North Coast districts, 2AHH and 2PA are working 144 Mc. between Port Macquarie and Kempsey and 2XO hopes to have his 144 Mc. gear going this month. 2AEY, Taree, has started up on the band with a mod. osc. using 7193s and was last heard trying to make contact with 2ADT at Cessnock. 2KR has been the only station active on 144 Mc. in the Gosford area and has been running regular skeds with 2ANF during the lunch hour. 2RU has finishted his 829 Tx but so far has not made It talk.

576 Mc.: This band was fairly lively last month. Early in the month a number of ASB7 and ASB8 Rx hit the disposals market and were quickly snapped up by the 576 Mc. enthusiasts. These Rx's, suitably modified, make the band appear in an entirely new light, rather reminiscent of the ASV/7AD days on 144 Mc. The only snag about the ASB7 Rx's is the current shortage of lighthouse tubes. However, even without the r.f. stage in operation, the ASB7 performs much better than even the best super regen Rx and of course with the 12 db gain of the r.f. stage represents something really worthwile.

The near war on polarisation has been amicably settled (we hope!) and by mutual agreement, vertical polarisation is being used, along with a few helical antennae which give circular polarisation. 2HL/portable at Mt. Lambie tried hard to establish two way contact on 576 Mc. but without success. They did however receive very weak signals from 2XX at Sutherland over a long and not particularly good path.

VICTORIAN V.H.F. GROUP

Dates to remember: Nov. 21, Group Meeting at the Rooms, 2000 hours; Nov. 11, V.H.F. Field Day No. 2, 1200-1700 hours, 50, 144, 288 and 576 Mc. Lecture or other arrangements for the November meeting will be notified over 3WI broadcasts.

The September meeting was well attended and the 576 Mc. gear created a great amount of interest. Contact with 3QO was established and signals from 3AUX were also received. The Tx used p.p. RL18s; the antenna, eight half-waves all fed and a wire mesh plane reflector, was merely placed on a ledge outside the window; the Rx, a 955 super regen. The Group desires to express its thanks to 3AUX, whose efforts made the demonstration possible, and to extend congratulations to Geoff on the arrival of a junior op.

The matter of field days provided considerable discussion and it was decided to hold six during the coming months. Commencing in October, these are to be held on the Sunday following the first Wednesday of each month, except January, up to April, 1952. It was decided to hold a contest in conjunction with these field days and it was left to the chairman to draw up a set of rules to be presented to the October meeting for approval.

Perfect weather prevailed for the opening of the field day season on 7th October. Portable were 3HK, Mt. Dandenong; 3FO, Arthur's Seat; 3ACH, Mt. Bullengarook; 3AJI, Pretty Sally; 3ATB, Macedon; 3UI, Mt. Major; 3JO, Kinglake. Both 50 and 144 Mc. bands were used, but no information is available about 288 and 576 Mc. activity, if any.

3UI at Mt. Major, midway between Shepparton and Benalla in Northern Victoria, used both 50 and 144 Mc. and was much sought after. He worked 3ABA, 3PG and 3AJI and heard 3UG (150 miles) and 3KF. At Kinglake his signals were R4 S4, but the 955 mod. osc. wasn't equal to the 80 mile hop. The 60 mile hop to Arthur's Seat, however, was made with ease, signals being S8. Several stations using the "community crystal" frequency on 144 Mc. caused QRM while more than enough channels for all remained vacant throughout the band.

SOUTH AUSTRALIA

Main interest is in the V.H.F. Contest, the rules for which are as follows:—

VK5 Intra-State V.H.F. Contest Rules, 50 Mc. And Above

Periods.—Each Sunday evening, 1800-2200 local time commencing Sunday, 6th January, and ending 31st March.

Transmitting Section Scoring.—One point for each station contacted, plus one point for each twenty miles of the contact. Total of above points to be multiplied by number of individual stations contacted during the Contest periods.

Receiving Section Scoring.—One point for each station logged plus one point for each twenty miles between receiver and transmitting station. To be eligible for an award, a receiving station must forward during the Contest at least one monthly activity report to the V.h.f. Correspondent VK5KL. These reports will be acknowledged by VK5WI on Sunday mornings. Total score will be multiplied by number of activity reports received. Activity reports should contain in the first instance details of receiving equipment and must reach VK5KL by the first of each month.

Transmitting Logs are to show: Date, time, station worked, RST/NR. received, RST/NR. sent, points claimed. C.w. stations use a six-figure number, phone stations five-figure number. Numbers to commence at 001.

Receiving Logs to show: Date, time, call sign of station logged, points claimed. All logs must be received by 1st May, 1952. They are to be addressed to Box 1234K, G.P.O., Adelaide, and endorsed V.H.F. Details of awards to be announced later.

Lack of reports from the 288 Mc. gang does not mean lack of activity I understand, but some of the interest has wained since the knowledge that 5LO has been posted from Mallala to Ballarat and so the 288 Mc. DX has ceased for the time.

50 Mc. activity has flared up again in Darwin and this time the challenge has been taken up by 5IR operating on 50.8 Mc. and is calling daily at 1730, 1830, 1930 and 2030 C.S.T. for five minutes and then listening. Will this DX season see us break through to Darwin, at least we all hope so.

2DQ Dud Nourse is reported active on 50 and listens each Tuesday and Thursday at 1900 and transmits half hour later. 5QR intends concentrating on 144 and 288 Mc. this summer, looking for duct break throughs to the Eastern States.

—. . .—

50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	13	3
VK4RY	2	2
VK2VW	8	2
VK5LC	1	1
VK6DW	3	1
VK4HR	4	1
VK3PG	8	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK3ACL	14	1
VK2ABC	8	

NEW PUBLICATION OF INTEREST

Mr. Lay W. Cranch (VK2XC), Managing Editor of "Australian Radio & Electronics," advises that a special section of the journal is now devoted entirely to Amateur Radio, covering constructional articles on Ham gear and equipment, also activity on the bands and notes from around the shacks.

In the August issue of "A.R. & E." is an interesting article on the "Input Impedance of Folded Dipoles" with an impedance step-up chart to take care of calculating the input.

We are also advised that "A.R. & E." are commencing a v.h.f.-u.h.f. programme shortly, which will embrace receivers, transmitters, and the problem of ancillary equipment, such as absorption frequency metres, modulation monitors and other invaluable pieces of test equipment that enable one to work in the v.h.f. bands with so much more sureness, speed, and satisfaction.

Mr. Cranch stated: "That the main idea behind the v.h.f. project, is to assist those Hams who feel that with a little help in the way of suitable published articles, they could make a start in this intriguing territory."

"We hope," he said, "that these articles will be of some value to those who have been put off by the difficulties, imagined or real, of v.h.f. gear, as we feel that the Ham can build just as good transmitters and receivers for v.h.f. as he does for the lower frequencies and, what is more important, that the one is no more difficult than the other."

Readers who expect to be taking an interest in the "A.R. & E." v.h.f. programme are invited to send their suggestions for any v.h.f. equipment they would like to see incorporated in these articles. The address to which they should be forwarded is "Aust. Radio & Electronics," 17 Bond Street, Sydney, N.S.W.

CRYSTAL SWAP

We have received several requests from readers to commence a section listing Crystals available for exchange.

This service will be entirely free and all that is necessary is to forward details of the Crystal to the Editor "A.R." Crystals will be listed ONCE only.

Ross A. Hull Memorial V.H.F. Contest

RULES

1. The Contest will take place in the 50-54 Mc. band and will commence at 0001 hours E.A.S.T. on 15th December, 1951, and will continue until 2359 hours E.A.S.T., 6th January, 1952.

2. Points may be claimed for contacts outside the competitor's own call area.

3. Only one contact with any one station per twenty-four hours commencing midnight E.A.S.T. to count as a scoring contact.

4. Exchange of a serial number will constitute a contact.

5. The serial number of five or six figures will be made up of the RS (telephony) or RST (telegraphy) reports plus three figures which may commence with any number between 001 and 100 for the first contact and which may increase in value by one for each successive contact, e.g., if the number chosen for the first contact is 050 then the number for the second contact must be 051, for the third 052, and so on. If any contestant reaches 999, then he will start again 001 and continue.

6. Scores will be calculated on a point's basis, as shown below.

7. Logs should contain the following information: Date, time (E.A.S.T.), call of station contacted, serial number sent, serial number received, points claimed for the contact and at the foot of each page, total points claimed and at the end the grand total.

Logs should be signed by the competitor together with a declaration to the effect that the station was operated strictly in accordance with the Rules and spirit of the Contest and that the decision of the Jubilee Federal Contest Committee shall be final and binding.

Logs must be received by the Jubilee Federal Contest Committee, Box 1734 G.P.O. Sydney, not later than the 27th February, 1952.

8. Entries will be accepted from all States of the Commonwealth and Districts of New Zealand. Check Logs from other Countries will be appreciated by the Contest Committee.

9. For the purposes of scoring, Northern Territory will count as a separate Call Area. Also, VK9 will be considered as a State of the Commonwealth.

10. The decision of the Jubilee Federal Contest Committee will be final and binding upon all matters pertaining to this Contest.

11. The regulations governing the control of Amateur Radio in each contestant's country must be observed.

12. **Awards.** The outright winner of the Contest **within the Commonwealth of Australia** will hold the Ross A. Hull Memorial Trophy for one year and will, in addition, receive an appropriately inscribed certificate.

The highest scorer in each Call Area in Australia and New Zealand will be awarded a certificate. In addition the Jubilee Federal Contest Committee will have the right to make any other additional awards as entries or any other individual performance may warrant.

	VK2	VK3	VK4	VK5	VK6	VK7	N.T.	VK9	ZL1	ZL2	ZL3	ZL4	Other Countries
VK2	–	2	2	2	10	4	6	10	7	7	7	7	20
VK3	2	–	4	2	9	2	6	11	7	7	7	7	20
VK4	2	4	–	5	11	7	3	7	7	8	8	8	20
VK5	2	2	5	–	7	2	3	10	8	8	8	8	20
VK6	10	9	11	7	–	10	12	14	17	17	17	17	20
VK7	4	2	7	2	10	–	7	12	7	7	7	7	20
N.T.	6	6	3	3	12	7	–	3	15	15	15	15	20
VK9	10	11	7	10	14	12	3	–	12	13	14	15	20
ZL1	7	7	7	8	17	7	15	12	–	4	2	3	20
ZL2	7	7	8	8	17	7	15	13	4	–	4	3	20
ZL3	7	7	8	8	17	7	15	14	2	4	–	4	20
ZL4	7	7	8	8	17	7	15	15	3	3	4	–	20
O. Count's	20	20	20	20	20	20	20	20	20	20	20	20	

To obtain points per contact, look down the column of your call area until you come to the line of the State contacted. The figure where the two lines intersect is the point score for that contact. For example, VK5 works VK4, the points are 5.

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: G. GLOVER (VK3AO); Federal Secretary: G. M. HULL (VK3ZS); Box 2611W, G.F.O., Melbourne.

NEW SOUTH WALES

President: John Moyle, VK2JU.

Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.

Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.

Divisional Sub-Editor: Don B. Knock, VK2NO, 43 Yanko Avenue, Waverley, Sydney.

Zone Correspondents: North Coast and Tablelands: Noel Hanson, VK2AHH, Ryan Ave., West Kempsey; Newcastle: Ron McD. Stuart, VK2ASJ, 98 Dunbar St., Stockton; Coalfields and Lakes: Harry Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cambijowa, Forbes; South Coast and Southern: Roy Raynor VK2DO, 42 Pettit St., Yass; Eastern Suburbs: Don Knock, VK2NO, 42 Yanko Ave., Waverley; Northern Suburbs: Harry Powell, VK2AYP, Russell Ave., Wahroonga; St. George: Chas. Coyle, VK2YK, 84 Carlton Cres., Kogarah Bay.

VICTORIA

President: G. S. C. Semmens, VK3GS.

Assistant Secretary: C. Gibson (VK3FO).

Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.

Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.

Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, c/o. Victory Theatre, Tatura; Far North West.: M. Folie, VK3GZ, 101 Lemon Ave., Mildura; Eastern: H. O. Kellas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

WI BROADCASTS

All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. and 146.5 Mc. No frequency checks are available.

QUEENSLAND

President: J. H. Farrell, VK4WJ.

Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.

Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.

Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbier, VK5MD.

Secretary: G. M. Bowen, VK5KU, Box 1234K, G.P.O., Adelaide.

Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.

Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.

Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.

Meeting Place: Perth Technical College Annexe, Mounts Bay Road, Perth.

Meeting Night: Second Monday of each month.

TASMANIA

President: R. O'May, VK7OM.

Secretary: L. W. Edwards, VK7LE, Box 371B, G.P.O., Hobart.

Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.

Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.

North Zone Correspondent: C. A. Cullinan, VK7KW, 12 Montrose Place, Launceston.

FEDERAL

RUSSIA BANS 60,000 RADIO HAMS (EXCEPT THREE)

The following report comes from an English newspaper and is printed herewith for the interest of Australian Amateurs.

"The Russian Government has banned all but three of the Soviet's 60,000 Hams—Amateur Radio Operators—from transmitting to foreign countries. And the three who are to be allowed the freedom of the air are highly suspect in Britain.

"No reason for the ban has been given, but it is understood that it was imposed after a series of 'illegal' transmissions in code had been picked up by the Russian monitoring stations.

"The three who can still be heard—all in the 20 metre band—are UP5A, of Kaunas, Lithuania; UA3PA, of Moscow, operated by an old hand well known to Hams in this country (England); and UM8KAA, a new station in the Central Asia Kirghiz Republic.

"Last night the Soviet Embassy in London refused to explain the ban. An official said that he doubted whether any Russian Amateurs, other than the three, would be heard calling this country.

"For most of the 60,000 Russian Hams the air was their only link with Western civilisation. Most of them observed strictly the rule laid down by international agreement that only technical data should be discussed on the air.

"An official of the London bureau which checks Ham contact claims, said yesterday that 30,000 to 40,000 Russian cards confirming contacts with English stations were received each six weeks.

"For twelve months the Russian Government has been operating a station which sends out code messages in the 20 metre band—that most used by the Russian Hams.

"It has also had a 'jammer' idling in that band to black out transmissions from the Soviet Union."

Russian call signs are not included in the Radio Amateur Call Book Magazine and it is doubtful whether there are as many as the above report would have readers believe. Like other countries, Australia receives hundreds and hundreds of Russian cards, a great number of which are only listener's reports and not confirmation of contacts with Australian Amateurs.

Gs TO USE PULSE

Amateurs in the United Kingdom will soon be permitted to use pulse amplitude and pulse width modulation on any fundamental frequency within the bands 2350-2400 Mc., 5700-5800 Mc. and 10,050-10,450 Mc. leaving 50 Mc. guard bands at each end. The power limit is to be 25 watts mean D.C. input and 2.5 kw. peak R.F. power.

Frequency modulation is now permitted on the band 144.5-145.5 Mc.

SILENT KEY

It is with deep regret that we record the passing of:—

VK3DY—Dick Dyer, Sec. Vic. Div. W.I.A., 13th October, 1951.

VK2HI—Perc. Feeny.

VK4KH—Bill Argaet.

WORD FROM VK8UM

Hey chaps, we have received a few words from Bill Mitchell, VK3UM (late Federal Secretary), in England! We were just a'wondering whether Bill was ever going to demonstrate to others that he had put to use the Parker fountain pen with which he was presented before leaving his native land to take up military duties in England for an undisclosed (?) period.

He sends his very best 73 to all in VK land and to quote his own words, "tell 'em I miss their darned hides, curse 'em." And if someone doesn't keep Bill's files of "A.R." complete and in an unmutilated condition they can look out for trouble on his return! Hi!

A PARTING THOUGHT

Now Is It on? . . . Or is it off? . . .
I can't remember which.
I think it's off! His tombstone says
"He should have used the switch."

(Reprint from Radio ZS—South Africa.)

W.I.A. ACTIVITIES CALENDAR

Dec. 1-2: Fifth All-European DX Contest, C.W. Section.

Dec. 8-9: Fifth All-European DX Contest, Phone Section.

Dec. 15-Jan. 6: Ross A. Hull Memorial V.H.F. Contest.

FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

The S.S.A advises that a pirate using the call signs SM4BR and SM8BR is active on the 7 and 14 Mc. bands announcing his QTH as Hallsberg. His real QTH is believed to be in Central Europe. The only licensed Swedish call sign ending in BR is SM5BR.

QSLs for Malaya (VS1 and VS2) should be sent to VS2BA, Mr. E. G. Sugars, Dept. of Telecoms., Muar, Johore, Malaya, until December, 1951. After that date cards should be sent to Mr. C. E. Salton, Postal Services Dept., Malaya. It should be noted that the latter address is as yet incomplete, but the full QTH of Mr. Salton will be advised at a latter date.

A copy of "Amateurs Q Code," by VS2AA has been received from that station. A cursory glance at the "new" Q Code fails to reveal anything which suggests a departure from that at present in use. However, a closer comparison will be made during the month.

Arch Barrle, VK9GB (ex-ZL1OH and ZL1GS) of O.T.C., Rabaul, T.N.G., has at last received sufficient cards to make a start with his backlog of QSLs. Arch, after waiting many months for a supply to arrive from the "south," arranged for an interim supply to be printed at the Vunapope Catholic Mission in Rabaul. These measure up to the recognised commercial standard.

Copies of the rules of the forthcoming Fifth All-European DX Contest, to be staged this year by the R.S.G.B. as part of the Festival Year of Great Britain, set down this event for early December. There are two week-ends each 48 hours long, one for c.w. and one for phone. The c.w. section starts at 0001 G.M.T., Saturday, 1st December, and ends at 2400 G.M.T., Sunday, 2nd December. The phone section occupies similar times, Saturday, 8th December, to Sunday, 9th December, 1951.

A copy has been sent to the QSL Manager in each Division. Logs must bear a date stamp prior to 1st January, 1952, to be eligible and should be mailed to R.S.G.B. Contests Committee, 28-30 Little Russell St., London, W.C.1.

[Rules of this Contest are substantially the same as those for last year and printed in the November, 1950, issue.—Ed.]

An up to date list of all licenses issued in Southern Rhodesia, together with addresses, has been compiled by the QSL Manager, J. H. Magee, Box 1068, Bulawayo, Southern Rhodesia, and ZE3JJ.

JANUARY ISSUE

This time every year a plea is made to Advertisers and Contributors to forward copy early for the January issue.

To explain once again—as the printers close down for annual holidays from just before Xmas until the middle of January, it is necessary—if the magazine is to be posted to you on the 1st of January—for the magazine to be printed before Xmas.

Therefore it is requested that material for the January issue must be in the printers' hands by 1st December.

Your co-operation in this matter will be much appreciated.

—Editor.

NEW SOUTH WALES

The monthly general meeting of the N.S.W. Division was held at Science House, Gloucester St., Sydney, on Friday, 28th September, commencing at 7.45 p.m. Main feature of this meeting was a "Back to Methusaleh" discourse headed by Joe Reed, 2JR, supported by Jack Pike 2JP, and Harry Stowe. The appreciative gathering found much of interest in the doings of Old Timers as recounted by the "Methusalehs" on the platform. Total number of years in Amateur Radio on the part of these gentlemen added up to 150. There were some related facts of surprising nature for many. Yarns of the times when Amateurs could and did work two-way with battleships, etc. Early types of valves and components were displayed together with literature and photographs, and many questions were directed to the speakers at the conclusion. It was regretted that owing to unforseen circumstances, 2CM was unable to attend. A vote of thanks was moved by 2GW.

Other business followed, including considerable discussion on the question of support for the National Field Day, which event Federal Executive has suggested should be discontinued. Progress was reported by the organisers on arrangements for the Woy Woy Field Day. This time there will be two Tx's in use for the hidden Tx hunt and there will be an all-band scramble for 30 minutes. The winner will be the station with the largest number of contacts. New members were admitted, and it was announced with regret that the death had occurred since the last meeting of Perc Feeny, VK2HI. It was also announced that Old Timer 2WK Rev Kennedy is now unfortunately confined to a hospital bed, and that his equipment is to be offered for disposal. The meeting expressed sympathy with relatives of 2HI and expressed the hope that 2WK would soon be restored to health.

EASTERN SUBURBS

Those 40 metre "EB's" who consider that 20 DX isn't possible without a beam of some kind, should note the results obtained in recent weeks by 2AYE. With a 40 metre east-west Zepp on 20, he worked 28 countries in 14 days—yes, on phone! His first G was G3BTA and 'tis said that Dave had the QSL card on the way almost before the QSO was complete.

An OT who keeps very quiet around these suburbs is Mac 2MY who, it is at least known, has a good Rx in the shack. What about firing up a rig OT? Don't let the old bottles go to waste. Latest s.s.s.c. station in this part of Sydney is 2VA, who has been active with a new set-up on 20. Vince found that there were a few snags to overcome at first, but seems to have chased off the gremlins nicely.

2AIG has been enjoying his debut on 20 and although he is heard on phone occasionally, most times he is on the key. He has been pleased to have 589 reports from G land.

Jack 2EZ seldom misses the DX when he goes out after it on the key. He tells this scribe that he is using one of those lesser-known antennae (in this country) described as the W3EDP. During the first week he put it up, in 1947, Jack made W.A.C. with it, and moreover much of it is inside the block of flats. The W3EDP is described in the R.S.G.B. Amateur Handbook and is well-worth the attention of those who must erect antennae in a limited space.

2BC heard working DX on 20 c.w., and also on 40 c.w. working VK1BS. An old 6 metre friend has had his last QSO. Syd Schofield, ZL1CU, at Cape Reinga lighthouse on the northerly tip of N.Z's. North Island had worked many VK2s in this area on 6 metre phone during the last four years. It is reported from ZL that ZL1CU passed away recently. It took real enthusiasm to tackle v.h.f. DX from such a lonely spot, but Syd's efforts resulted in many a thrill.

WESTERN SUBURBS

Fred 2ID is on 144 Mc. with A3 after a bad bout of flu. He is hoping for the return of good conditions on 28 Mc., but in the meantime ropes the Ws in on 14 Mc. Keith 2NJ has been conceding three points to the two element beam of Rex 2XH, but still harbours suspicion that Rex has a full gallon or something. Rex 2VG has been having a change from c.w. and has been heard rag-chewing with QRP phone.

Frank 2ANC is heard occasionally on 14 Mc. and John 2AGT is becoming involved in beam construction. Harry 2OQ sometimes natters locally as a change from working the DX two at a time. Bob 2QR is heard again after a period of inactivity. Jack 2BK is still quiet after his antenna fell down with the shock of ten new countries last month. Bob 2OA is mildly active, but is to be seen sketching circuits of 2 metre gear (Acknowledgment to 2OA for the foregoing.)

ST. GEORGE ZONE

Speaking to Reg 2RE the other day, he tells me he will be shortly moving his QTH to his week-ender at Lake Burril; too much QRM in his part of the district. 2AIM is busy making windows, so that is why we have not heard him on the air lately. 2US is also busy putting up a three element wide-spaced beam for 20 mx., let's know how she performs Robbie. Another c.w. fan Arthur 2ACX happily pounding away at the brass on 20 mx. also. Frank 2FT has put up a 50 Mc. bent dipole and he tells me it has been very successful, comparing it with his previous antenna, it increased the signal from practically zero to strength 8. Let's have some DX reports Frank.

One of these days I hope to get enough time to put up my rotary beam. I have been trying to make a start on it for the last twelve months, but something or other crops up; most of the important jobs are done so I may get a chance to get to work on it very shortly. Don't forget boys, if you hear or know of any items of interest for these columns let me know. (Phone LW 4277.) I went around to see John 2XW to see if he had any news for me, but he was out. Listening during the month I have not heard any of the local boys, so let's hope conditions are better next month.

NORTHERN SUBURBS

Dave Duff 2EO, Hon. Secretary of this Division is not on the air often owing to pressure of W.I.A. business. John 2ANF, Roy 2HO, and Bill 2MQ are all v.h.f. men who are heard on 40 also at times, but 2ANF has had the bad luck to burn out his main transformer. Congrats John on winning the V.H.F. Contest. Harry 2AYP recently erected a ground plane for 14 Mc. and has had a large measure of success. The guys act as the G-P and the 33 feet vertical is fed with 75 ohm co-ax. Irwin 2AAJ is pleased about his new BC348N Rx, heard calling DX but his 10 ft. high antenna is not the best.

Bruce 2FD, Asst. Secretary of this Division, has re-built and re-erected his 3-over-3 for 2 mx and it now is rotatable; has had success with 20 watts on 14 Mc. during recent holidays. Ted 2AIE has changed his antenna and thinks it is no improvement. Len 2ADK rarely heard owing to pressure of toll. Bob 2ARL had his 2 element beam struck by lightning and is now using a 3 element job made from brass tube. This zone is sorry to lose Maurie 2AAN from the Lindfield area, he has moved to Eastwood. Bert 2AGW has left for a trip to G-land and will be heard from such stations as G3BUU in the near future.

NORTH COAST AND TABLELANDS

'Tis said insurance agents will no longer accept policies on motor vehicles owned or used by Port Macquarie Amateurs. Peter 2PA did an excellent job on his Vauxhall for the panel beaters and swelled the pockets of the local medico. Not content with that effort, Pete took a trip north in his utility to the VK4 Convention at Somerset Dam; on the way back he ran into a wallaroo (Pete's version), another job for the panel beaters. Not to be outdone, Doug 2SH decided to wreck his big Hudson. Whilst on the subject of motor vehicles, Rod 2ACU and Roy 2DO were last seen in Kempsey sorting water from petrol. Pete 2PA whilst north was working portable and had many good contacts. Ken 2APB has had a change of plans and is not journeying north as mentioned last month, but spends a lot of time with Audrey?

Roy 2NY is busy fishing, heard now and again on 40. Leith 2EA passing out information on double dipoles, having successful contacts with it. A visitor to the Coast was Ron 2UN who spent a few days near Urunga. Ron is becoming an expert on chopping wood, if you want any hints, 2UN is about on 40 at 7 a.m. A newcomer to Ham ranks on the North Coast is Percy Zara, father of the Bellingen Quads. The boys are betting 50 to 1 against a four letter call—nice going Perc. Bill 2AEY has been on the sick list, but is round and about once more and has been testing on 144. 2AWS busy getting a TA12 into operation. Another enthusiast for 144 is Bill 2AWG and Crieff 2XO has polished up miles of copper tube ready for his three over three. If anybody would like to take over a QTH next door to a panel beaters and garage, Alan 2ASO of Kyogle is willing to exchange.

The happiest man on the Coast this moment is Jack 2ADN; Jack recently visited Sydney and was successful at an auction sale in purchasing his eyes dream—a 35 m.m. movie camera of first quality. Harry 2ARY is back to health again and having the time of his life with 2PA's tape recorder. The North Coast is very dry indeed, water-tanks are dry and the grasses just existing. Usually we have more than our fair share—funny world. Last Sunday (23/9) the 2WI broadcast was not heard nor was any other station at more than S3. It is not often this happens, perhaps an 80 mx b.c. of an evening could be considered when conditions are bad.

HUNTER BRANCH

There was an average attendance of members at the annual meeting held at Newcastle on 14th September, with President 2CS in the chair. Acting on a request from Divisional Council that our financial year be brought into line with that of parent body, it was decided to elect officers for six months only. Following a suggestion by retiring Treasurer 2AMM, it was unanimously agreed that it would be an advantage to combine the offices of Secretary and Treasurer. Officers elected unopposed were: President Lionel Swain 2CS, Vice-President Bob Wilson 2AFS, Sec.-Treas. Varley Fitton 2SF. A vote of thanks to the officers of past year was enthusiastically carried.

Prior to general business, the boys were addressed by Major Leachie of the C.M.F. who is forming a Divisional Signals Unit in this district. The Major emphasised the excellent opportunities open to operators and maintainence men in the unit, and "this little yarn" as he described it, was very well received.

Then followed highlight of the evening, a lecture by Alan Stephenson 2PT on "Design and Construction of Transformers as applied to Ham Radio." We have in Alan a very competent lecturer, and he demonstrated in a comprehensive and lucid manner the tremendous advantages a Ham gains in constructing his own trannies. We are certain to hear more from Alan and no doubt his next lecture will deal specifically with the subject "Scrounging Iron"!

In future the dates and details of Hunter Branch meetings will be published in this column as well as being broadcast by 2WI. Don't forget the Woy Woy Field Day on Sunday, 18th November. This is the "Annual Get-Together" of Metropolitan and Hunter Hams, so roll up and meet the boys from the "Big Smoke."

Holidaying at Tamworth, President 2CS visited Syd 2APS. Nice to see 2LV at the annual meeting; Harold has built a new final and

VALE PERCY FEENY VK2HI

It is with deep regret we record the passing on 28th September after a short illness of Percy Feeny VK2HI of Mascot. Active since 1934, Ferey's main interest in the hobby was the building of equipment, and he delighted in producing all the minor gear used around the shack. Always beautifully constructed, not only did he build for his own needs, but would assist those Amateurs in the district who did not have the facilities or ability to manufacture their own gear. Despite his keenness for building, the operating side was not neglected and VK2HI could be heard from 3.5 to 28 Mc.; with main activity centred around 14,000 Kc. on c.w. Percy, at the time of his death, was Assistant QSL Officer for N.S.W. Through the years he assisted in many ways the workings of the W.I.A. Little was heard of these efforts but those that knew him well appreciated the odd jobs he performed in sending out bulletins, building display equipment, sorting cards, etc.

freq. meter, so almost ready to go again. 2CW and 2XY joined the ranks of car owners; Bill not heard much now but Neil still active on 40 (before YL time!). Harry 2AFA had his first post-war phone QSO using cathode modulated TA12—has joined up too. John 2XQ has built 'a new c.w. monitor and relay system. Another asst. op. has arrived at 2AAI. Hearty congrats Ron and Zenna. 2WP not heard from new QTH yet, Bill shouldn't be long now. Harry 2AFX has converter operating very nicely in front of MN26. An all band exciter has been built into v.f.o. by Ken 2KG. 2AHA fitted Gamma match on beam and new link for 2ASJ but Harold found time to work 93 countries in the Relay! With new xtal insert going well, Keith 2DG is on 20 phone again.

2AMM is sold on vee beams and Bill plans 'em bigger and better. 2TE recently had a field day with FF8s, working 7 in a row; has also built a 2 element 20 beam for Bill 2XT. Despite work on amplifiers, etc., 2PJ finds time for an occasional QSO on 40. Pleased to report Dave 2BZ back on 40/20 and he is using a "diaperpole" antenna! After recent operations 2OS going on leave, and all wish Nev a speedy recovery. Recent visitors at 2ASJ were Percy Sara (awaiting call sign) and XYL, and the old regular Taree Bill 2AEY. Yours truly very grateful to 2AHA and assistant 2IS for their efforts on beam—DX easy now!

Hunter Branch.—The November meeting will be held on Friday 9th at Tech. College, Tighes Hill, Newcastle. Lecture to be arranged. Don't forget, second Friday of each month.

COALFIELDS AND LAKES

Activities in the zone seem to have been affected by conditions. Is there a word in the Ham language with such a universality of meaning? Conditions have been so poor on most bands that there has been little to be active about. If any members have been active, conditions have prevented the news from reaching the local scribe. Max 2KZ lost his antenna in a recent gale—wx conditions! Bob 2KF is concerned at the condition of his 144 Mc. mixer which allows him to hear aircraft on 122 Mc. and little else. 2YL's shack has attained such a cluttered-up condition, that Harry threatened to dismantle the rigs to make room to work. 2ADT has been losing condition on the end of a paint brush. 2VU building a v.f.o., but has not reached a stage where it is in a usable condition. 2ANU could not believe 50 Mc. conditions were so poor that no signals could get through from Sydney, so took a run down to see if there was any activity on that band. 2KR works 2ANF on 144 or 40 as conditions permit. 2GA found the feed line to his 144 beam in a water-logged condition, so expended much energy replacing it. 2AMU seems to be confining his activity to observations of conditions from the astronomer's point of view. 2AIO was heard checking a portable rig for use during his holidays. 2RU has amost completed his 144 Mc. Tx with a view to investigating conditions on that band compared with 50 Mc. Finally congratulations to Geoff 2VU on the arrival of a second daughter—purely local conditions. Let's hope conditions improve next month. (Notes in this issue and for the next few months will be contributed by Jack 2ADT, in view of the above he will probably become known as "Conditions Jack.")

WESTERN ZONE

This month has been notable for the continued v.h.f. activity and the erratic behaviour of the 7 Mc. band. Fade-outs of fast onset and long duration have been numerous during the month, and the presence of commercial stations in the band renders about half the band useless during the "after dark and early morning" period. Rod 2ACU had visit from Roy 2DO during which time 2ACU was put on the air on 144 with three over three. No contacts yet, but Rod is trying hard. Tom 2AMR still the most active Ham in Dubbo. Likewise Lin 2EI, of Parkes; Lin is about to break into "two" with mod.-osc. and super-regen outfit following mobile visit from John 2AMV.

Trev 2NS been on the sick list for a week or so but back on the job again now. Been trying to open the Bathurst-Sydney link on 2 mx without success to date. John 2AMV been concentrating on mobile 2 mx work. 2WH acting as base station for 2AMV's mobiling, and building high power finals for 50 and 144 Mc.

Norm 2JW startled the boys by stating that his power on 144 was 5 kw.!! Hold it, peak pulse power. Norm has been heard in Forbes by 2WH on m.c.w., and is beaming east each night looking for Sydney contacts. 2AHM at Wentworth heard on 7 Mc. phone. Would like a contact some time OM to get all the low down. A newcomer to the zone is Peter 2JX, now a resident at Wentworth Falls; will soon be on 50. 2HZ's son was persuaded to climb higher up the stringy-bark to give the antenna a few extra feet. 2EX still not active but promises to make the trip to Woy Woy.

SOUTH COAST AND TABLELANDS

Having been on holidays during the last month I have had little except hearsay in the way of news of this zone. Toby 2AKY building new rig to run about 20 watts; v.f.o. will be a Clapp with voltage regulation, plate modulated and band switched for 80, 40 and 20. 2RH is a new station in this zone, Ron was 4EH and runs 12C5 osc. and 1625 p.a., mod. 1625s in AB1. Rx 455B plus additions and subtractions. Pleased to hear Col 2ASF on c.w. from Bega. Monty 2JQ quite often on 40 and worked Len 2AEL during a zone sked. 2RM, 2APP and 2OW are all active on the Sunday morning zone net. 2RM is to re-build shortly. 2PI operating from the kitchen with his KS Mk. II. (kitchen special mark 2, built into a wax match box). 2APP had a visit from Gordon 2OW, Peter spent quite a time showing him around.

Ron 2RS has 50 watts on 6 and 20 watts on 144, nice signal on 40 too. Ross 2PN active again on 6 after a spell of sickness. Cec 2ALS doing fine with QRP using 108 transceiver with about ½ watt input. During my holidays I visited many of the chappies I had often talked to but not met. I am very grateful to Rod 2ACU, Bill 2WF and Crieff 2XO for their hospitality. Rod and myself journeyed from Coonamble to the North Coast approx. 1,000 miles meeting 2SH, 2PA, 2AHH, 2PA, 2ARY, Percy Sara and the famous Quads. The highlights: The beautiful 150 ft. bush poles around Dorrigo; second, the extremely well constructed rotary beams from 144 to 20 sported by Bob 2ARG at his scenic spot at Palm Beach; and finally, the equipment of a station un-named, the Rx line-up—3 Super Pro's., one dual diversity Hallcrafters, an SX28, and a 680 Eddystone for luck. Rotary beams on 20 and 10. The Tx line-up—a Collins c.w. and phone rig, 25 watts on all bands, plus a Hallcrafters BC610 (no wonder I forgot the call sign).

— . . . —

VICTORIA

CENTRAL WESTERN ZONE CONVENTION AT ARARAT

Roads from all points of the compass converged on Ararat during the latter part of Saturday, 15th September and Sunday morning of 16th September, for the Annual Convention of

the Central Western Zone. The attendance was the second largest to date, 63 registered. It all started of course the day before when 3HG and family arrived at 3HL's, 3AKF and 3RD and XYL camped at 3ARL's; 3ALQ, 3XD, 3ZM and Associate arrived at Ararat from Melbourne; 3PF and XYL from Benella, and of course 3AKR from Westmere. Did they want to go to the pictures in Ararat? Of course not, judging by the funny noises heard on 80 mx, a good time was had by all. 3HL did not work at all from Friday to Monday, only radio, and with Neil's help, checked over the Tx and the new rhombic.

Sunday, 16th Sept. (Convention Day) turned on ideal weather for the show and after assembling at the Ararat Town Hall and being duly labelled, hot luncheon was served at 1300, during which our President 3XU welcomed members and visitors. After lunch, 3XU briefed the Tx- hunters at the Town Hall and issued each with a large scale map of the area. During this episode, 3YW, 3DP and s.w.l. Geoff sneaked out of town with the Tx to MacDonald Park, about 3 miles n.w. of Ararat on the Dividing Range. By 1440 the Tx was on the air. About 1530 two or three carloads were sighted driving past on the track. The Tx remained hidden until the end at 1630 when envelopes were opened. The nearest group (3ALQ, 3XD, 3ZM and Associate) could be seen searching through the grass and scrub about 40 yards away much to our amusement. So the three miniature tubes are still waiting for a home.

Back at the Town Hall once more, 3AKR played a number of recordings he had taken of various local Tx's on his tape machine, some indeed were surprising. 3ARL put on his quiz competition to test the various grades of grey matter on hand. This was finally won by Geoff 3PD. Shortly afterwards 3ACI carried off the prize for the best piece of home-built equipment with a beautifully made shielded loop. 3PD received an indexed note book as his prize, and 3ACI a pair of single blankets.

Tea was served at 1800 hours and we were pleased to welcome 3LF, XYL and family. Mal (a previous zone member) dropped in on his way back to Melbourne. After tea we got down to the business of the annual meeting. 3XU was re-elected President, 3TA Vice-President, 3YW Secretary, and 3ATR, 3XC and 3ND were elected to the Committee.

During his report the President stressed the need for members to endeavour to make the monthly zone hook-ups which are held on approx. 7150 Kc. at 1000 hours on the second Sunday of each month, and the desirability of members to try and enrol new W.I.A. members.

It was decided to hold the three miniature tubes as a prize for the next convention and 3PD made a very generous offer of half a dozen tubes for the best D/F loop on show at it. Since the convention, a Taylor T21 has also been offered, so it looks as if the boys have something to shoot for in the next twelve months.

The next convention will be held at Horsham during September, 1952. Further details later.

It will undoubtedly be of interest to Hams and zone members in particular to know that 3TA has permission to play back recordings of Amateur transmissions if requested. Byron cannot offer to do it, you must ask. After the annual meeting, 3TA showed three talkie films covering subjects of general and technical interest. Byron has a beautiful outfit, the excellence of the reproduction was most marked. The convention concluded about 2200 hours with a vote of thanks by 3PD for the pleasant and happy day.

NORTH EASTERN ZONE

Last month has been most devoid of news, haven't even been able to eavesdrop as most of the boys haven't been on. Heard John 3ACK calling CQ but John gave up in disgust. Zone hook-up didn't bring anything to light either. Listened to Eastern Zone to get some information. Looks like Peter 3IZ will be in our zone when he is home and in the Eastern Zone when at work. 3TS about to be married as I hear new QTH about finished. 3GD calling a plaintive CQ just off zone frequency. Get a v.f.o. George and join the boys.

3UI experimenting successfully with a portable v.h.f. rig for 6 and 2 mx which is a partially band-switched job. Feverish activity around the place denotes preparations for the v.h.f. field days, 6 and 2 mx beams and gear are in readiness to journey to Mt. Major. 3AGT winding deflector and focusing coils for a 12 in. c.r.o. Stan is also looking for a spare tube. I have one Stan, doubtless there will be others. 3CI's XYL and harmonia are down with the wog. 3APF sporting a new car. 3YV at time of writing is in the Wangaratta Hospital. Cheers from the boys Howard.

V.h.f. field day was quite a success, judging by the sun and wind burnt faces at its completion. 3UI and partner (Ken), and yours truly were there plus 3KR, XYL and harmonica. Quite a few stations heard by both 3UI and 3CI but it seems that the city boys prefer their own clique and wouldn't look further than their noses. 3KR nearly converted to a v.h.f. man and if you and Jack 3PF can get warm again on the idea I am sure that Ken will be an interested partner. 3ACW still working hard on 20 mx while Andy 3FD is actually enquiring about parts for his modulator. Doug Twigg, of Avenel, has been busy gathering parts for Tx while Mr. Brown, of Yea, has been conspicuous by his silence for the past few months.

SOUTH WESTERN ZONE

Haven't heard anything of the Warrnambool boys this month, certainly hope that the Convention details are well under way. 3HG active this month on both 80 and 20 mx, working plenty of European DX on 20 too; Neil has the 230 a.c. alternator going nicely and has the whole rig a.c. operated now. 3II has been heard occasionally but not overmuch. We will all be looking forward to working you when you get the new Tx going Leigh. 3ADN still manages to come on about once a month. Pat told me the other night, during one of these monthly appearances, that the property is littered with little mines, where he has been continually digging his Land Rover out of.

3AGD very quiet this month, as far as Amateur Radio is concerned at least I guess when some of the seasoned work is completed we'll hear John consistently on the air again. Nothing heard of 3JA for quite a while. 3AGV still (as ever) has his regular skeds with 2SS. Gordon has also been bitten by the v.h.f. bug and is collecting and building some very nice gear. 3AKR not quite as active as usual, having a multitude of troubles with the rig, right from the v.f.o. to the modulator.

3BW heard quite a lot on 40 since he got his new rig working. 3AKE doing quite well with his portable gear on 144 and 576 Mc., had 14 contacts on 144 the other week-end; was heard in Melbourne S9 on 576 Mc. 3BU using his AT5 again, has got himself a new AR7 Rx. 3AGN hopes to be on the air soon. 3IC gets on occasionally. 3ALG having a few contacts with his antenna 10 ft. off the ground at one end; hasn't got his "sticks" up yet. 3AJT still working plenty of DX on 20 mx. 3AOL has re-vamped his Rx, going pretty good now.

GEELONG AMATEUR RADIO CLUB

Members of the club paid a visit to the F.M. Station at Jolimont and were shown around by Mr. Norman. No member was at all keen to go up the mast. On 30th September the club conducted a hidden Tx hunt. The Tx was hidden by Dick 3ABK and Peter Cartwright. The location was 16 miles from Geelong at Russell's Bridge. Ed 3AKE was doing fine when his Rx broke down. 3SY and 3ALG, only five minutes behind, soon were in the lead and located the hidden Tx. Five cars took part, one party travelled 100 miles for the day. On the way back, the Tx was again hidden and was again first found by 3SY and 3ALG, with 3BU 2nd.

On 28th September, the club was visited by the Moorabbin boys. Brian Lloyd 3AOL gave a talk on Transformer Winding, after which a "chin wag" followed over coffee and biscuits. The Geelong gang will pay a visit to the Moorabbin Club in 1952. Peter Perkins was congratulated on attaining his ticket and will be on the air as soon as ms call comes through.

EASTERN ZONE

The September meeting of the Sale sub-branch was held at Bairnsdale and was a very good show. Sixteen members were present, which was pretty good, considering that the Sale and Maffra crew travelled 45 miles to be present. Main feature was the film show of various subjects, including one on the subject of radio landing aids, a service film provided by 3ABP. An excellent supper rounded off the evening.

3ANC has been appointed manager of the Traralgon butter factory; any chance of a free issue Norm? 3QZ bemoans the fact that when he goes away for the week-end, some dirty dog pinches one of his chooks. The villain does close the hen house door after him though! 3PR is back on the air from his new house in Leongatha. 3DI in strife with b.c.i. when operating on 80 mx. 3VL/US are active on 50 Mc., no antenna for low frequency as yet. We welcome 3IZ to the zone, Peter is kid-whacking at Yarram and expects to be on 80 soon. My neighbor Leo Dwyer has received his call at last, 3SL. 3SS still building a freq. meter! 3LV is a regular on 3650 Kc. on Sunday evenings. 3BB and 3AEP apparently gone into smoke. 3ALA building up his modulator at last. At least he wandered into 3SS' domain, purchased two resistors and departed, so he must be building Q.E.D.!

3TH's father received a broken shoulder in a car accident in September which prevented Gordon attending the State Convention. Gordon recently announced his engagement to a lucky lady named Charmaine. 3SS, 3QZ and 3PR represented the zone at the State Convention which, for the second time, lapsed for lack of a quorum. This shows a deplorable lack of interest by the city types and here are two suggestions, gratis! First, why not hold the Convention in the country—Eastern Zone for example. We have no trouble getting 20 members to branch meetings in Maffra and we would certainly provide a quorum! Secondly, I suggest having a disposals handout in conjunction with the State Convention! Now, go ahead and sue me!

Martin 3AMV has the Zone Convention arrangements well in hand and as a special treat visitors will be allowed to examine (and admire!) the Eastern Zone's latest acquisition, the "Kinnear Trophy." We expect a good muster as Warragul is close to Melbourne and distance is no excuse for non-attendance!

That's the lot for now, and I hope to see you all at Warragal on 8rd November.

FAR NORTH WESTERN ZONE

Charles 3TI attended the State Convention in Melbourne and returned with pieces of 300 and 75 ohm cable and quite a few ideas about gear generally. From all accounts, although there were very few at the Convention, quite a few points were discussed. A meeting of members of the Zone will be held in the near future to receive Charles' report of happenings. Charlie is still managing to keep on the air and whenever conditions are favourable, contacts 3WI and passes on any news. Noel 3AUG still on 20 mx franctically turning the beam by hand and chasing the elusive DX. I understand that he only requires Europe for W.A.C. The Ouyen gang very quiet, although we are expecting big things from them when the a.c. power is finally connected to the town. Frank 3FC drags the old Type 3 out and dusts it occasionally and is just waiting for the big day when the a.c. is switched on. Understand there is an S9er and Q5er to be attached to Rx.

Fred 3AFC very quiet and gather he has been working on an alternator for his a.c. supply. Harry 3MF unable to find corner in the house to set up his gear. With the approach of summer there is some talk about the v.h.f. bands and from all accounts there is a possibility of some work being done on them this year. Max 3GZ still operating the TA12D with Clamp tube modulation and endeavouring to increase the drive on 20 mx. Jeff 2AHM, of Willow Point, has been missing from the band for a few week-ends. Chas worked him recently and learnt that he had been sick, but now on the road to recovery and hopes to be in Mildura shortly. Had a visit from VK3OO last month and he had long rag chews with some of the gang.

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QUEENSLAND

It is of course well known by all Queenslanders that a get-together at Somerset Dam was held during a week-end in September which was a huge success for an initial meeting. The next one, which is to be held on Foundation Day week-end next year (coinciding with the usual field day contest), should be an enjoyable week-end. Accommodation has been promised for those staying the week-end. It was of interest to note that Hams came from hundreds of miles so you can see that a central meeting point is desirable and Somerset Dam is certainly a lovely setting, although some doubts have been cast on its suitability for radio communication; being hemmed in by surrounding hills. To 4PD goes the major credit for organising the day's outing, and seeing that he is on the newly elected

committee to make arrangements for the next "Do", it should be a huge success.

4RJ (Rev. Delbridge) is back on the air after having returned from a visit to England. Many of you probably worked "Del" when he was first on the air way back in 1927—nice to see you back "Del". We hate to see you having receiver trouble though.

Clare has written to me to apologise for the lack of notes from her this month. You see her Dad (4NC) has also been having Rx trouble. After much scratching of brains, three valves were found to have passed away. Sorry to hear it was such an expensive affair Charlie. I suppose the fact of the matter is that you burnt them out when you were tuning up the beam that time. The filaments must have gone the same way as all those pea-lamps, i.e. forever!

Another man who will be burning up pea-lamps soon is 4TN. (Aussie has only had his ticket for about four weeks.) Yes, he already has a three element rotary beam; personally helped him to push the tower up with the help of about four others, so you can see that there is not much to raising towers—provided you have a tower.

4VJ, 4WJ and 4MD have been inactive—on 20 mx anyhow. I wonder what they are cooking up for the Contest?

We were all very sorry to hear of the death of Bill Argaet (4KH) who would have been known to many of you old-timers.

4KP has a very nice range of gear at home including one of the latest magnetic tape recorders. I have never heard anything so delightful in the way of recorders in my life. I can assure you that if your phone is all distorted when played back to you by Noel, it's an even bet that it is distorted before it gets to the recorder. When Noel has it all wired up to use with his Rx in the shack I know his services will be very much in demand.

Cheerio and thanks for whispering! Sorry no notes from zone correspondents.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held at the club rooms in Waymouth Street to a representative gathering of members and visitors, and opportunity was taken to welcome Squadron Leader R. Walker and Flight/Lt. P. Hynds, who had kindly consented to attend the meeting and address members as to how the Radio Amateur could be useful to the R.A.A.F. Both gentlemen made it quite clear that the old idea of the Wireless Reserve had gone by the board in these days of specialised training, and after hearing a brief description of the many aspects of radio as applied to the R.A.A.F., nobody present could but agree with this decision. The suggested alternative of active or general reserve work available to Radio Amateurs was discussed at length and both officers were more than helpful in all respects, and quite a number of members showed a deal of interest in the proposition. Personally I felt that it was the old idea of the Wireless Reserve that appealed to most of those present, and whilst a feeling of disappointment pervaded the meeting that this would not be possible, all present quite realised that under the circumstances this was not at all feasible.

Active participation in the R.A.A.F. Reserve is a question for the individual and the individual alone, and I am sure that it is with regret that the members realised that the old order of Wireless Reserve, with its co-operative and W.I.A. backing, must give way to individual effort and professional service. My co-member of the journalistic profession, Les 5UX, proposed the vote of thanks in his usual polished manner and the enthusiasm with which it was received indicated only too well how successful the evening had been. The films which were screened were very well received, specially the one concerning the American B36, and of course the old favourite, "Frequency Modulation," came in for its usual well merited applause. Altogether it was a very good evening, and although the attendance was slightly down, 75 persons to be exact, I think that the number present surprised quite a few. 5XU was the sound projectionist for the night and turned in a very creditable job. By the look on his face early in the evening, I gathered the impression that he was having difficulty in balancing the budget or something, but it turned out that no ergs could be found in the power point, and after putting on his duck shooting hat and attacking the matter scientifically, the missing ergs were discovered. Good work, "Arold"! The hour being fairly late, the President 5MD gave himself a decided biff on the boko with the gavel and announced that unless there were items of general business needing urgent attention, he would adjourn all business until the next meeting, and that is where it stands for the present.

Among the visitors were Les 5UX, Hughie 5BC, Tom 5TW, Don 5LC and last but not least Charlie 5WQ. Roy 5AC was a very old member to be present (don't often see you these days Roy) and our youngest Associate member, Kevin John Robson (13 years), also was well to the fore.

Associate members' representative, Jim Paris, hit the headlines in the local radio paper recently by being the first Australian listener to hear the Iceland short wave station TFJ. Jim tells me that he could not understand much that was said because the announcer was talking in Icelandic, but he gathered that it was very cold there, because the announcer's teeth were chattering and there were frequent references to brass long-tailed quadrumanous animals. Nice work Jim, and talking of ice, how is the supply of icing sugar?

One of my Ham friends said to me the other day, "that tripe that you write for the magazine isn't bad, but you always seem to write about the same people." I agreed with him and pointed out that the reason for this was because I was only able to write about the people in my immediate circle, and naturally could not write about people or doings that were outside my ken. I suggested that if he and some others were to jot down a few paragraphs and send them to me I would be more than grateful. "Oh, heck," he said, "I am too busy to do that," and then as an afterthought, "why don't you spend a few hours listening in, you would pick up quite a lot of news." He seemed to be somewhat dubious when I suggested that possibly I might be a little busy too. Wouldn't it.

Les 5UX had a transformer made recently for his new Rx, the idea being that he could break down the 240v. to 210v. and all would be lovely. The idea did not work out as well as was expected, much to his mystification, and all and sundry were intrigued as to why. When the receiver was removed from its case for checking, it was noticed that the filaments of the tubes all appeared to be burning at half brightness and to the eternal degradation of "Uncle Xray," another transformer was found in the Rx chassis for the express purpose that the new one was procured. As I have often said, wouldn't it!

5CH is busily engaged in building a xtal controlled 2 mx Tx and as I have not heard any mention of the power house for the last three months' copy, I can only assume that the supply of watts is now well under control. Nearly time you paid us another visit Claude. 5TW has been on holidays and therefore there is nothing to report concerning Tom's radio activities. I went looking for you at the conclusion of the meeting OM, but "Doc" told me that you had gone earlier. 5JA is back from England and very busy getting the mothballs out of his gear. John brought back with him a television Rx which he was using in the old country, although when an image will appear on the screen still remains a debatable point.

5KU has a 40 ft. pole for his beam, but as yet Erg shows no sign of erecting anything on top of the pole. You had better hurry up OM, because before long the gliding weather will be here and then beams will have to take a back seat. 5FD has a recording permit these days and that is keeping John busy, although he has been heard on 40 mx occasionally. 5MS is still working a few on 20 mx, but Stuart is at present mourning the passing of his power tranny belonging to his 2 mx gear. Hata off please gentlemen. 5CJ has been heard sometimes on 40 and 20 mx, and all being well, Colin should meet the city boys at the October meeting as he will be down in the big city on his annual holidays. Hope that I see you this time Col. I understand that 5HL is at the moment of writing confined to hospital, no details to hand as yet, but we all hope that Henry is well on the road to recovery.

It is not often that I can be accused of being over modest, but after reading the closing paragraphs of the VK7 Northern Zone scribe, I feel something like a shrinking violet. The two best broadcasting stations in Australia indeed. Mr. Cullinan! Might I point out to you that over here in VK5 my life is made miserable because I had the temerity to allude to 6DN as being the best broadcasting station in the State. Not content with stealing my thunder, you also double it in spades. Tut, tut.

The news from the Upper Murray boys this month begins on a not-too-happy a note because of the fact that 5KW has fallen a victim to polio and we all hope that it will not be long before Harry's signal will be heard on 40 mx again. It was intended to forward the Type 3 Mark II., belonging to the VK5 Division, up to Harry for his bedside use, but as news reached here this week that he was on the way down to the city for treatment, this matter has been shelved for the present. Incidentally, I was surprised to find out that a number of members did not know that their Division had a Type 3 Mark II. for the use of any member confined to bed through illness. We should get a new publicity officer I think. What am I saying!

5BC has returned from his annual vacation full of the perfect air conditions existing at Normanville compared to the river districts. No noise level to contend with and consequently Hughie's simple portable set-up performed well beyond expectations, but when I have always maintained that he has a two stage amplifier just behind his inner ear.

5MA has been a little restricted in his radio activities this month because of the fact that his XYL has been on the sick list, and Fred has been head nurse, cook, and housemaid. His activities these days are centred on 6 mx and he has wired in a new idea for m.c.w., and if all can be believed, an article on this project may find its way into the magazine very soon. I can give you a tip on how to get it printed Fred, a couple of pounds of butter, or a case of oranges to the Editor will go a long way, that's how I get mine in so regularly. How's your blood pressure Tom?

5CF is going about the place with visions of a super double confusion Rx to beat all Rx's. Murray has been getting along with a simple converter into the b.c. Rx, but the pressure being exerted from the better three-quarters when she wants to listen to the latest "soap opera" has proved too much, and the necessary steps to end this confusion have been taken.

News concerning 5SL can be summed up in two words, "The new baby." Laurie sent me the local news this month, and believe it or not, the news occupied one page and the next twenty pages contained a slight description of the aforesaid baby. Laurie, isn't it wonderful how nature compensates for the imperfections of the parents, ho, ho, ho.

DARWIN AREA

On 1st September, a Jubilee Show was held in Darwin and was a huge success. The show was attended by the greater part of Darwin's 6,000 population. The W.I.A. was represented by a stand which was a credit to the far Northern Zone. A complete station was exhibited, together with a world map and QSL cards showing the extent of amateur communications. An oscilloscope and microphone entertained many children and their parents. An electronic key threw out a challenge to many a good P.M.G. key operator.

Special mention must be given to our friend Max Mander who, with his tape recorder, entertained children and parents alike throughout the day and evening. Special mention also to VKs 5WV, 5CV, 5AS, 5CN, 5AS, 5TF and Terry Robinson, Harry Brown, Charlie See Kee, Keith Halmester and Ces Davis. We hope the latter members will have their call signs soon.

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WESTERN AUSTRALIA

BY L. G. WILSON, VK6LG

What again! Well the simplest way to get rid of me boys is to enlist an official scribe. To save the W.A. Division the trouble of inserting a notice in this magaizne I think I had better state (in case it is not already evident) that I am not a member of the W.I.A., W.A. Div.

What the heck is the good of trying to tell the blokes the conditions prevailing on the bands, I reckon they could quite easily find out for themselves by the application of a few pennyworth of juice to their rigs sometimes.

However, the 7 Mc. band, down this way, still seems to survive the influx of strangers and a

few contacts can usually be had at some time during the evening. Sometimes one State comes in, sometimes another and sometimes the whole darn lot. During the month, have had quite a number of contacts with all States and a few with ZL. Quite often its the same old tale though, "Where are all the other VK6s, the only other one we hear much of is—sorry, can't help it—yes, 6LU.

There have, at odd times, been a few comparative strangers about, even heard 6AG a couple of times and blow me down if 6EC didn't make an appearance on 80 one night. Heard a rumour to the effect that 6JP had been on that band also, something about the rig getting such a shock that all the "toobs" went out. 6BR has a modulator going now and the resultant signal doesn't sound too bad at all—better in fact than some who have been on longer and ought to know better—or something. 6GA certainly didn't take long to get that modulator together at Forrest—pretty good too. More activity in the Geraldton region, but the Dancing Master hasn't been heard of much. 28 Mc. has apparently had a few spasms, 6MO telling me the other day that a W6 bashed his ears for an hour the other Sunday morn. What did they talk of? Yes, you've guessed, compression.

I believe there are still a few music boxes on 7 Mc. One way of overcoming some of 'em is to go the whole hog on controlled carrier as per Mr. Lippert. What about a re-print of that article from "QST" Ed.? I've typed out about a dozen copies of it and scattered them about but so far haven't heard anyone using it. As soon as I do, I will dig out my little QRM buster and have some more fun. To do a proper job of it though, 1,000 volts is really needed on the plates of the 807s.

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TASMANIA

A warm welcome was extended to Alan Finch at the last monthly meeting of the Institute which was held at the usual place. Alan has just completed a 2½ years' term in the tropics and during that time held the position of broadcast engineer with radio station 9PA. Location of the station was approximately three miles from Port Moresby and from the sound of things Alan is pleased to be home once again. A promise to lecture on his sojourn in the tropics is hoped and we are sure it would be of interest to all, so how about doing the right thing Alan. Another out of town member seen in attendance at our last meeting was 7EJ looking as prosperous as ever.

The lecture for October was ably given by 7AJ who, from every indication, thoroughly understands his new hobby which is tape recording. The mechanical and electrical side leaves nothing to be desired and after a comprehensive talk showing pit falls, etc., which one can get during the construction of same, gave an exhibition of its recording capabilities. A vote of thanks was made to Athol by 7AF on behalf of the members present and the meeting concluded at 10.30 p.m.

Our congratulations must be extended to our old friend 7CA who is a very proud father. According to Max the new second op. overmodulates at times but with the aid of speech clipping, etc., it should overcome this temporary state of affairs. A move back to the studio in Launceston seems likely whch should make things a little easier and it is hoped the old familiar call of 7CA will again be heard when this move is made. Talking of moves, it is learnt that 7JB, one of the oldest members of the Institute, is due for an extended period in Japan. Jack unfortunately is in the throes of building a new house which has caused quite a number of headaches and the thought of leaving in the middle of it doesn't help at all. A stay of a few months has been granted which we all hope will help a little.

The views of members of this Division regarding whether the annual national portable field day contest should be kept going was sought at the last meeting and it was the unamious opinion of all those present it should be continued. It was pointed out by 7FM that this contest gave the opportunity to members of checking portable equipment in the field and would be a national benefit in times of floods, bush fires, etc. Last year there were only three entrants from VK7, but it is hoped a larger participation will be made when held next year.

From 7SD it is learnt that f.m. may be on the way if no interruption in the line of duty occurs. A recent Ham to join the Institute is 7OK, located in the Great Lake area and despite very heavy noise level, manages to work a little DX on 40 which is not too bad considering the location. Was fairly active during the R.D. Contest and so far has not succumbed to phone. A stranger seen at our last meeting was 7CW who, owing to pressure of business, has but little time to spare for Ham activities. 7GR still manages a few contacts despite home building. Influenza kept 7OM off the air, is OK again. 7AF recently returned from a well earned rest in Sydney. Welcome must be made to 7BK who has just joined the Institute. Charlie is an ex-ZD4 and a G call was the first call sign received. Resident now at Seven Mile Beach, we trust we may see you at our future meetings.

NORTHERN TASMANIAN ZONE

Conditions generally have been poor with complete black-outs on most bands at times. However, 7LZ has been puttng the poor conditions to use by carrying out some long contemplated re-building and is now looking forward to the return of DX conditions. 7BQ now has his 576 Mc. Rx operating satisfactorily and is anxious for some of our other local Amateurs to get interested in this band. Latest news from 7RB is that the proposed experiments with high level full rating modulation have come to a halt because of a defective mod. transformer.

We all hope to hear 7DB back on 40 before long as Don's new QTH is nearing completion. We also hope to hear from 7GM now that he has moved to a new house. Another with the house moving fever is 7XW who hopes to be in a new QTH before Christmas. There is nothing like "being prepared." At least so thinks Associate Henry Solomon. Henry lives near a river and during recent heavy rain had a boat pulled right up into the doorway of the shack. (The gang are still wondering what Henry would have said if a flood did come along for we understand that he didn't know that the boat did not have a bottom in it.)

7RK is another who has been doing a spot of equipment building, so "look out DX, here comes 7RK." Associate Graeme Nicholls is having lots of fun with his tape recorder—Graeme and Associate Gordon Banner recently made a trip to Melbourne to see what makes the Smoking City tick. 7HY, 7AM and 7LX appear to have gone into hiding as nothing has been seen of them in Amateur circles for some time, only hope the police aren't after them, and talking of police reminds us that 7XW recently had a visit from a gentleman in Blue over the exploits of 7RB and himself as described last month—someone really did take them for suspicious characters.

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AMATEUR CALL SIGNS

FOR MONTH OF AUGUST, 1951

ADDITIONS

VK—

New South Wales

2RH—R. F. Hambridge, "Oakleigh," Hume Highway, Yerrinbool.
2RS—D. C. Haberecht, 482 Dean St., Albury.
2APO—J. K. Carter, 28 Ingram Rd., Wahroonga.
2AZN—I. L. Pogson, "Strathmore," New Line Rd., West Pennant Hills.

Victoria

3DL—R. J. Hollis-Bee, Chevron Hotel, 519 St. Kilda Rd., Melbourne.
3AKD—A. K. Fielden, 11 Rix St., Glen Iris, S.E.6.
3ALU—L. G. Glew, 22 Elphin St., Newport, Mel.
3AMZ—B. G. Powell, 62 Chaucer St., St. Kilda.
3APP—Radio Apprentices School Radio Club, R.A.A.F., "Frognall," via Canterbury.
3AVZ—North Suburban Amateur Group, 93 Jenkin St., Northcote.

South Australia

5FB—J. F. Clewer, Main St., Clare.

Western Australia

6BQ—F. Ward, "Clohesay," Alice Street, Scarborough.
6JC—B. J. Coles, 32 Balfour St., Kalgoorlie.
6NF—N. F. Odgers, O.T.C. Radio Station, Applecross.
6PC—C. A. Pinkus, 7 Baillie St., Victoria Park, Perth.

Territories

9BJ—A. G. Wilkey, Huxley St., Bulolo.
9DB—D. H. D. Beadel, Four Mile, Port Moresby.
9MF—F. M. Nolan, c/o. National Broadcasting Service, Radio 9PA, Port Moresby.

ALTERATIONS

VK—

New South Wales

2LI—8 Gordon Avenue, Coogee, N.S.W.
2MJ—22 Kurrajong Street, Sutherland.
2RC—Palace Street, Denman.
2SR—21 Turf Street, Grafton.
2UB—Lot "A", Westbrook Ave., Wahroonga.
2WE—Lot 21, Kiogle Street, Wahroonga.
2WX—42 West Crescent, Hurstville.
2AAP—15 Forsyth St., South Belmore.
2ADU—112 George St., Hurstville, Sydney.
2AEJ—Narran Street, Baradine.
2AMM—Racecourse Residence, Hamilton.
2ARJ—Fitzroy Street, Coffs Harbour.

Victoria

3AU—274 Mont Albert Road, Surrey Hills.
3BR—Main Street, Fakenham.
3CD—Long Lake, Lake Boga.
3EW—Flat 6, 1 Dunlop Avenue, Ascot Vale.
3GX—32 Ford Street, Ringwood.
3IH—50 Railway Parade, Pascoe Vale.
3JG—36 Fowler Street, Coburg.
3NJ—451 Glenferrie Road, Toorak, S.E.4.
3QC—94 Durrant St., Brighton.
3TY—c/o. Mrs. L. G. Glover, 36 MacArthur Street, Sale.
3AAE—71 Harcourt St., Upper Hawthorn, Melb.
3AGZ—69 Glencairn Avenue, East Brighton.
3AJJ—56 Lower Dandenong Rd., Braeside, via Mordialloc.
3ALG—14 Thomas St., Chilwell, Geelong.
3ALK—16 Jingella Avenue, Jordanville, S.E.11.
3ALP—35 Pettit Crescent, Norlane, Geelong.
3AQC—94 Durrant Street, Brighton.
3AVN—17 Queen Street, East Brunswick.

Queensland

4NG—124 Archer St., Rockhampton (Postal: P.O. Box 250, Rockhampton).
4ZB—Eastleigh Street, Chermside, N.4.
4ZZ—3 Roche Street, Dalley.

South Australia

5AL—c/o. Works and Housing Hostel, Alice Springs (Postal: c/o. Repeater Station, P.O. Alice Springs).
5GN—41 Milner Street, Prospect.
5LZ—1 Lynmouth Avenue, Brighton Park.

Western Australia

6FL—53 Second Avenue, Claremont.
6HM—41a Balfour Street, Kalgoorlie.
6UF—c/o. District Elect. Supervisor, W.A. Government Railways, Geraldton.

Tasmania

7CL—33 Welman Street, Launceston.

Territories

9FM—Dept. Civil Aviation, Madang, T.N.G.

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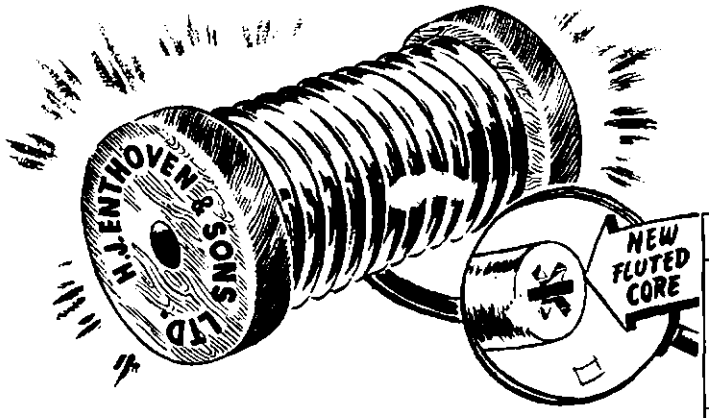

IMPERIAL STANDARD WIRE GAUGE	DIAMETER IN INCHES	DIAMETER IN MM	APPROXIMATE LENGTH IN FEET PER POUND ALLOY (TIN/LEAD)							
			20/80	30/70	40/60	45/55	50/50	60/40	65/35	70/30
10	128	3 251	23 6	23.2	24 2	24 8	25 2	25 9	26 3	26 7
11	116	2 946	27 6	28 3	29 4	30 1	30 7	31 6	32 1	32 6
12	104	2 642	34 2	35 1	36 5	37 6	38 1	39 2	39 8	40 4
13	092	2 337	44 0	45 1	47 0		49 0	50 5	51 2	52 0
14	080	2 032	58 0	59 5	62 0		64 5	66 5	67 5	68 5
15	072	1 829	71 5	73 4	76 3		79 6	82 0	83 2	84 5
16	064	1 626	90 5	92 8	96 6	99 1	100 8	104 0	105 2	107 0
17	056	1 422	118 0	121 0	126 0	129 4	132 2	135 0	137 0	139 0
18	048	1 219	161 0	165 0	172 0	176 6	179 0	184 0	187 0	190 0
19	040	1 016	231 0	237 0	246 0	253 0	258 0	264 0	269 0	273 0
20	036	0 914	286 0	294 0	306 0	314 0	318 0	328 0	332 0	338 0
21	032	0 813	362 0	371 0	384 0	397 0	403 0	415 0	421 0	427 0
22	028	0 711	473 0	485 0	505 0	520 0	527 0	542 0	550 0	558 0
APPROXIMATE MELTING POINTS		Deg C	280	260	238	222	215	190	187	192
		Deg F	536	500	460	432	419	374	369	378
APPROXIMATE PLASTIC RANGE		Deg C	97	77	55	39	32	7	4	9
		Deg F	206	170	131	102	89	44	39	48

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DECEMBER
1951

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AUSTRALIA

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and Radio Enthusiast

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All Amateurs are urged to keep these frequencies clear during, and for a period of 15 minutes after, the official Broadcasts.

VK2WI: Sundays, 1100 hours EST, 7196 Kc. and 2000 hours EST 50 and 144 Mc. No frequency checks available from VK2WI. Intra-State working frequency, 7175 Kc.

VK3WI: Sundays, 1130 hours EST, simultaneously on 3598 and 7196 Kc. and re-broadcast on 50 and 144 Mc. bands. Intra-State working frequency 7185 Kc. Individual frequency checks of Amateur Stations given when VK3WI is on the air.

VK4WI: Sundays, 0900 hours EST, simultaneously on 3750 Kc., 7196 Kc., 14342 Kc., 52.4 Mc. and 144.138 Mc. Frequency checks are given two nights weekly, and the times are announced during Sunday broadcasts. 7065 Kc. channel is used from 1000 to 1030 hours each Sunday as VK4 query service to VK4WI.

VK5WI: Sundays, 1000 hours SAST, on 7196 Kc. Frequency checks are given by VK5DW by arrangements only on the 7 and 14 Mc. bands.

VK6WI: Sundays, 0930 hours WAST, on 7196 Kc. No frequency checks available.

VK7WI: Sundays, at 1000 hours EST, on 7196 Kc. and 146.5 Mc. No frequency checks are available.

AMATEUR RADIO

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Melbourne, C.1

EDITORIAL

★

Christmas Greetings

With the arrival of the month of December comes thoughts of Christmas and the end of another year's work. Ordinary day by day worries, the trials and tribulations of commerce, the rush and bustle of our very existence give way to the atmosphere of Christmas with the traditional exchange of greetings one to another all over the world. Business care abandoned, some of us enter the holiday period with that freedom of thought to do what we want with our time, to enjoy the comfort of our friends and families, to rejoice with our fellow beings in the activities of the festive season, and to crowd into the holiday every happy minute we can muster.

For many Amateurs it is the time for completing those unfinished pieces of equipment; for re-building projects that for the past months have been merely a rough plan committed to a piece of paper poked away in a magazine or the corner of the desk drawer; for construction of the new "rig," the beam, the converters, the v.f.o., the dozen and one pieces of equipment for which the component parts have been so zealously saved for during the year when time did not permit of doing the practical work. It is the time for which many of us have looked forward with a keen and calculating mind when much will be done to enable us to greater enjoy our hobby the next year.

For those who have found the time throughout the year to build portable or mobile equipment, it is the time for holidaying in the open where the fun of being free can be enjoyed with the family and friends together with the opportunity to try out the new gear.

But whilst many can play, some will work. Communications must be maintained, public services must continue to function, broadcasting services must continue dispensing entertainment to listeners, essential industry must maintain production. But in every walk of life the Christmas spirit will prevail.

And so to all Amateurs—wherever they may be, on land or sea or in the air—the Wireless Institute of Australia sends to them the same old words, "A MERRY CHRISTMAS," and may you—and all those associated with you—enjoy to the full the festive season.

—FEDERAL EXECUTIVE

The Contents . . .

N.B.F.M. Phase Modulator Exciter for 80, 40, and 20

BY DON B. KNOCK,* VK2NO

NARROW Band Frequency Modulation as applied to our popular h.f. bands has been termed "b.c.i.-less." To imagine that the use of n.b.f.m. will result in complete eradication of **all** forms of b.c.i. is simply to hide one's head in the sand. It won't banish interference of the tunable spot kind, or shock interference introduced by the presence of a fair amount of carrier but a foot or two distant from the neighbouring b.c.l's. antenna. It will, however, get right away from the blanketing kind of b.c.i. that sneaks along the power lines and gets into the b.c. receiver audio channel via the second detector grid circuit. The latter kind of b.c.i. is a tough proposition to chase out with a.m., and the use of n.b.f.m. on that score alone is ample justification. Apart from b.c.i., there is the further advantage, that of moderate modulation gear; a feature of several systems other than n.b.f.m. But n.b.f.m. has that aforementioned advantage up its sleeve—a goodly step along the road to b.c.i. elimination.

* 43 Yanko Avenue, Waverley, Sydney.

A desire to use 80 metres for up and down country contacts prompted the writer to have a go at n.b.f.m. Many variations of reactance modulator and other schemes were put to the test, bearing in mind that in nearly all instances the signal had to be copied on an a.m. receiver. There are as yet few n.b.f.m. adaptors or appropriate receivers in use. Also, this same condition was wanted on 40 metres. Use of a.m. on 80 and 40, in the writer's location, spells certain b.c.i. Rusted conduit runs through nearby houses, and there might as well be a series of crystal detectors slung around the district!

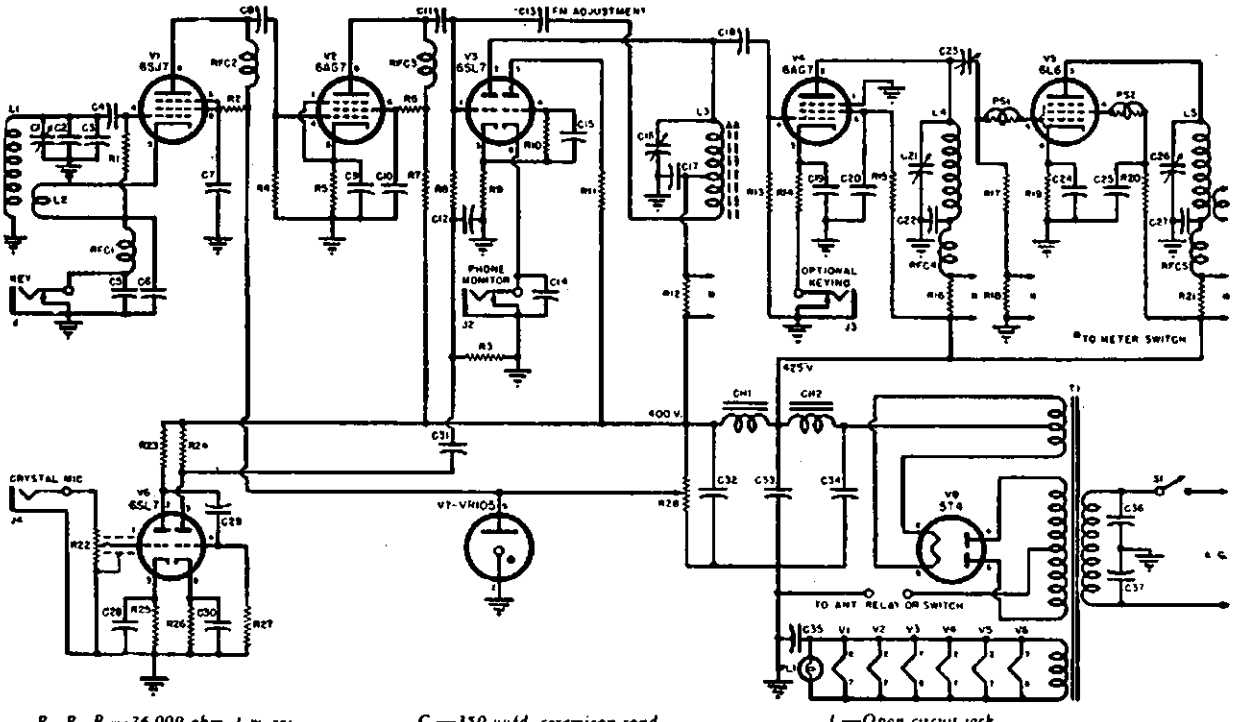
The following description is of a Phase Modulation Exciter employing the method first put forward by W2GDG ("QST," Jan., 1947), Chief Engineer of the Sonar Radio Corpn., N.Y. Locally, VK2ABD built an adaptation of the circuit into his existing exciter, and appeared on 40 and 20 with a different kind of n.b.f.m. transmission in which the apparent audio, as copied on the average a.m. receiver, lacked little or nothing.

The writer, attracted by the results obtained, recalled that a constructional article had been featured in "Radio and Television News" (U.S.A.) by W6EBT and republished two years ago in this country. Circuit diagram of W6EBT's exciter is illustrated here and a description of the version in use at the writer's station is appended. It is fitting to say at this juncture that many stations have expressed surprise that the method of speech transmission should be anything other than a.m.—for that is what it sounds like on the average a.m. receiver.

THE CIRCUIT

Reference to the diagram shows the following set-up. A 6SJ7 v.f.o. (V1) operates on 80 metres with (V2) a 6AG7 Class A untuned r.f. isolating stage following. Next comes a 6SL7 (V3) frequency modulator which tunes like any other r.f. stage. The condenser C16 is used across a slug-cored coil; the use of powdered iron here being important by providing increased deviation. Any powdered iron form of standard kind may be used. The second 6SL7 (V6)

(Continued on Page 5)



R_1, R_2, R_9—26,000 ohm, 1 w. res.
R_3, R_{10}, R_{17}—300,000 ohm, ½ w. res.
R_4—6000 ohm, 1 w. res.
R_6, R_{16}—150 ohm, 5 w. wirewound res.
R_8—30,000 ohm, 2 w. res.
R_7—1000 ohm, 2 w. wirewound res.
R_{11}—50,000 ohm, ½ w. res.
R_{12}—1 megohm, ½ w. res.
R_{13}, R_{18}, R_{19}, R_{21}—30 ohm, 1 w. res.
R_{14}—1 megohm, 1 w. res.
R_{15}—22,000 ohm, 2 w. res.
R_{17}—100,000 ohm, 1 w. res.
R_{20}—400 ohm, 10 w. wirewound res.
R_{22}—40,000 ohm, 10 w. wirewound res.
R_{23}—500,000 ohm pot.
R_{24}, R_{29}—250,000 ohm, ½ w. res.
R_{25}, R_{31}—1000 ohm, 1 w. res.
R_{26}—30,000 ohm, 50 w. wirewound res. (with slider)
C_1—140 μμfd. straight line var. cond.
C_2—350 μμfd. ceramicon cond.
C_3—20 μμfd. ceramicon cond.
C_4—300 μμfd. ceramicon cond.
C_5, C_6, C_7, C_{14}—.002 μfd., 400 v. cond.
C_8, C_{12}, C_{31}, C_{28}, C_{37}—100 μμfd. mica cond.
C_9—.003 μfd., 100 v. cond.
C_{10}, C_{36}, C_{27}—.05 μfd., 400 v. cond.
C_{13}—50 μμfd. mica cond.
C_{15}—See text.
C_{15}, C_{19}, C_{20}, C_{24}, C_{29}, C_{31}—.01 μfd., 600 v. cond.
C_{18}, C_{21}—75 μμfd. var. cond.
C_{17}, C_{22}, C_{23}—.005 μfd., 600 v. cond.
C_{25}—50 μμfd. midget var. cond. (APC type)
C_{26}—.02 μfd., 600 v. cond.
C_{30}—35 μμfd. midget var. cond.
C_{32}, C_{33}—40 μfd., 450 v. elec. cond.
C_{34}—2 μfd., 600 v. bathtub cond.
C_{35}—1 μfd., 600 v. cond.
J_1, J_2, J_3—Closed circuit jack
J_4—Open circuit jack
T_1—Power trans., 425-0-425 @ 200 ma., 6.3 v. @ 4 amps.; 5 v. @ 3 amps.
PS_1, PS_2—Parasitic suppressor, 50 ohm, ½ w. res. with 10 t. #20 en. wire
CH_1—6 hy., 75 ma. filter choke
CH_2—10 hy., 200 ma. filter choke
S_1—S.p.s.t. toggle sw.
Meter-sw.—2-pole, 4-pos. sw.
Meter—0-50 ma. d.c. meter (See text)
L_1, L_2, L_3, L_4, L_5—See coil table
RFC_1, RFC_3, RFC_5—R.f. choke (National R-100U or equivalent)
RFC_2, RFC_4—R.f. choke, #20 en. closewound, 1" coil length on ¼" form
PL_1—6.3 v. pilot lamp
1—6L6 tube
2—6SL7 tubes
1—VR-105 tube
1—5T4 tube
1—6SJ7
2—6AG7

TELEVISION MADE EASY

Part iv.—What's in a Television Receiver?

BY KEN WALL AND JOHN JARMAN,* VK3ADA

What, no circuit diagram? Was I too lazy to draw one? Well, maybe, but actually, there are two good reasons why no diagram of a complete receiver has been included. Firstly, such diagrams are regularly published in quite a number of magazines, imported from both England and U.S.A., and the object of these articles is not to duplicate what is already available in other literature, but to bridge the "gulf" between the television data in current magazines and the standard of training of the average Ham.

Secondly, the design of television receivers is making such rapid progress that new circuits come out almost daily, the object being, of course, to simplify construction, for the sake of economy, without spoiling the quality of reception.

The receiver circuits used today are therefore likely to be out of date by the time television is established in Australia, so we shall confine these articles to the operating principles which will always apply, irrespective of changes in circuit. All agreed?

For the benefit of readers who already possess imported literature on television receivers, it may be as well at this stage to note how overseas television systems differ from that in Australia.

The English system uses positive modulation (i.e. the brighter the picture, the greater the carrier amplitude). 405 lines per picture, and carrier frequencies around 50 Mc. The sound is also transmitted by amplitude modulation, instead of frequency modulation, and on a frequency lower than that of the picture signal. The radio waves are also vertically polarised, whereas in Australia they will be horizontally polarised.

The American system differs from ours by using 525 lines per picture and a field frequency of 60 per second.

The effects of these points of difference on design of the receiver will be explained, as we deal with the appropriate section.

So much for that introductory "burst," let's now get down to business, and study a typical television receiver. We have already learnt that our receiver must be capable of receiving frequencies around 200 Mc. (remember the last article?)

Furthermore, each television transmission occupies a bandwidth of 7.5 Mc. and consists of two carriers 6 Mc. apart. The upper one is frequency modulated by the sound signals, and the lower one, amplitude modulated by picture and controlling signals.

Now cock your eye over Fig. 1. This receiver is a superhet type, and although t.r.f. receivers can be used (and are quite popular in England), we will probably find that here in Australia, where the carrier frequencies will range from 180-204 Mc., the superhet circuit will be necessary for better stability, so this is what we will discuss.

Remembering that a single television channel occupies a bandwidth of 7.5 Mc., the aerial and r.f. amplifier must be types capable of accepting this wide range of frequencies and, of course, suitable for the high frequencies used. The r.f. amplifier is therefore broadly tuned to bring in both the picture and sound signals (which are 6 Mc. apart) and pass them on to the mixer, where they are separated, to produce two different i.f's. If the receiver is intended to pick up more than one station, "tuning" is accomplished by a selector switch, which brings in a different pretuned r.f. and oscillator circuit for each channel. We don't use tuning gangs like one finds in a broadcast receiver.

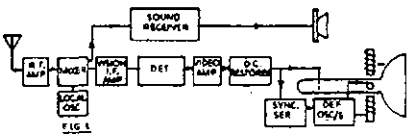


FIG. 1

The sound i.f. is frequency modulated, so that the sound section is a typical f.m. receiver, which will be described in a later article.

The picture, or "vision" i.f. amplifier consists of a number of broadly tuned stages, and is followed by the detector, which separates the modulating signal from the carrier. In the case of sound, we would call this the "audio" signal, but with vision, we call it a "video" signal. This is simply a Latin word meaning "I see," just as audio means "I hear."

Video amplifier, of course, amplifies the detector's output, but my goodness! "What the ——— is a d.c. restorer when it's at home?" Well, it's like this. The audio output of a sound detector is entirely alternating current. Correct? Now the output from a vision detector is not pure a.c., but pulsating d.c., which is a combination of a.c. and d.c. The a.c. component represents the picture detail, and the d.c. component the average light and shade. For example, the difference between dusk and bright sunlight.

The video amplifier, however, will not handle d.c. It amplifies the a.c. component and "leaves the d.c. behind," so the d.c. restorer is a device for "artifically" replacing the d.c. component of the signal which is "lost" in the video amplifier.

The modern trend, by the way, is to omit the video amplifier and d.c. restorer and feed the detector's output directly on to the grid of the c.r.t.

Now we will recall that our video signal is composed of both picture impulses and controlling signals. The picture impulses, of course, are applied to the grid of the cathode ray tube to vary the intensity of the electron beam, thus "painting" the picture, as explained in article one.

The blanking signals also vary the intensity of the electron beam, making the spot invisible between lines and between fields, as we learned in the last article.

The synchronising pulses, however, are required to control the deflection oscillators. Just how they do it is the subject of a later article, but **it should** be noted that the picture impulses must not be allowed to enter the deflection circuits. We therefore use a synchronising separator, which "clips off" the synchronising pulses and passes them on to the deflection oscillators (putting it briefly), leaving the picture and blanking signals behind.

Before reading any further, study Fig. 1 carefully, and make sure you are clear about the function of each part shown. Revise also the composition of the television signal, explained in the last article, noting carefully the types of signals which our receiver must handle.

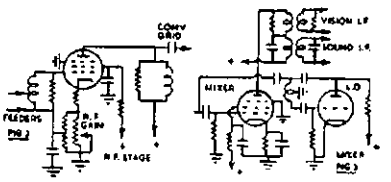
Here's a little test for you. As we will see later, no attempt is made to prevent the synchronising pulses from reaching the grid of the c.r.t. Why? Figure this out.

We shall now deal with each part of the receiver in more detail.

Remember, the diagrams shown are intended purely to illustrate how each part of the receiver does its job, and are not necessarily the circuits that will be used in Australian receivers.

Starting with the r.f. amplifier, its purpose is similar to that in a sound receiver, namely, to improve the signal-interference ratio. Although many text books, through force of habit, call this a "signal-noise" ratio, what they really mean by "noise" is the intermittent marking of the screen, caused by interference.

This stage also serves as an isolator, to prevent oscillating currents from the mixer stage entering the aerial and interfering with adjacent receivers.



One type of r.f. stage is shown in Fig. 2, using an r.f. gain control. Note that this control operates by varying the voltage on the **suppressor** grid, not that on the control grid, as in sound receivers. This is to permit changes to be made in the amplification of the stage without altering the input impedance.

The next stage could be a converter, but owing to the high frequencies used, we will probably find the mixer-oscillator set-up preferable for stability (see Fig. 3). In any case, however, provision is made for two separate i.f. outputs, one for sound, the other for vision. In this article, we shall concentrate on the latter.

The intermediate frequency always has a high value. In American receivers, it is around 30 Mc., and we'll probably find similar values used here in Australia. In any case, the i.f. amplifier must be capable of evenly amplifying a band of frequencies 6 Mc.

* A11426 L.A.C. Jarman, J.B., c/o. S./L. Garden, Box 1424H, G.P.O., Adelaide.

wide, yet it must also be capable of rejecting the sound i.f. which differs from the vision i.f. by only 6 Mc.

The broad response of this amplifier is achieved by using suitable coupling between stages.

Transformer coupling can be used, the required bandpass being obtained by either staggering the tuning, or using damping resistors across each winding.

Alternatively, the damped coupling circuits shown in Fig. 4 may be used.

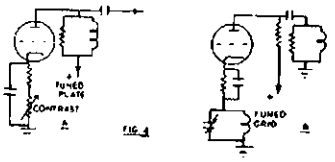


FIG. 4

It is most essential that sound signals do not reach the vision detector, as we will learn later when discussing interference.

The i.f. amplifier is therefore provided with "traps" tuned to reject the sound i.f. One type is shown in Fig. 4b.

Perhaps the best form of i.f. coupling is the band-pass filter, two types of which are shown in Fig. 5. These can be adjusted to give a response like that shown in Fig. 5c. The flat portion can be made almost as wide as desired, and in addition, such type of filter can be made to reject any particular undesired frequency such as the sound i.f. Like everything else, however, this type of coupling has its disadvantages and may not suit all types of receivers.

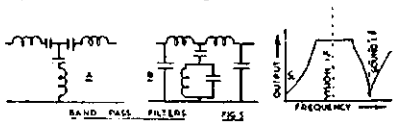


FIG. 5

In our final picture, the contrast between light and shade depends upon the amplification of the signal, so that by varying the amount of amplification in the i.f. stages, we can adjust this contrast.

The simplest method is to use adjustable cathode bias, as in Fig. 4a, though other more complicated forms are often found. The necessity for contrast control will be explained in the next article.

The detector is usually the diode type, but owing to the high value of video frequencies, compared with audio frequencies, its load resistor cannot be by-passed by a simple condenser. Instead, we must use a filter system, but oh my! I'm working overtime!

The detector is the subject of our next article, which will also cover the video amplifier and receiver controls, so until next month, cheerio and 73's, and don't forget to send us your queries!

N.B.F.M. PHASE MODULATOR EXCITER FOR 80, 40, AND 20

(Continued from Page 3)

is applied as a two stage speech amplifier, and the input takes the usual crystal (or other) microphone.

THE FREQUENCY MODULATOR

The only unusual feature of the circuit is the f.m. adjustment condenser C13. This is a capacity of approximately 2 pF. and may be merely two short pieces of insulated wire twisted together for three turns. The arrangement looks like a plate neutralisation connection, but its function is to increase the f.m.

Once installed and adjusted, no further alteration is required. In tuning C16, it is found that the plates will be about four-fifths meshed and need seldom be touched for v.f.o. changes of several hundred kilocycles. A phone monitor circuit is included and although not essential, is useful for checking speech quality.

QUADRUPLER

A 6AG7 (V4) is used as a quadrupler and is capacity-coupled to the anode of the modulator through C18, a 100 pF. mica condenser. It is biased by R13, a 1 megohm resistor in the grid return. The combination of the 150 ohm resistor R14 and 0.01 uF. by-pass condenser in the cathode circuit permits this valve to double, triple, or quadruple, with enough excitation for the next doubler. With the c.w. key "up" in the oscillator section, the anode current of V4 is kept to a safe value. 6AG7 valves are not easy to obtain in this country, and if this type is not available, the writer suggests that EF50, 6AC7, or 6SK7 valves may be applied in lieu.

THE POWER DOUBLER

A 6L6 is used in this stage and this takes the output from the preceding buffer, doubler, tripler, or quadrupler. A 50 pF. variable midget condenser (C23) is coupled to the 6L6 grid and provides variation of excitation control. Bias is provided by R17, 100,000 ohms, and the cathode resistor, R19, is 400 ohms. The latter is by-passed by a 0.01 uF. mica condenser. A 50 ohm 1 watt resistor in series with the grid leak and another in the anode circuit are provided for reading the 6L6 grid and anode currents by shunting a milliammeter at these points.

MECHANICAL DETAILS

The diagram of W6EBT's exciter, with the coil specified, shows that the v.f.o. covers between 3488 and 4050 Kc. The main tuning condenser is solidly mounted on angle brackets and operated by a vernier dial with suitable coupling. The v.f.o. coil is shielded to help isolate and eminate temperature changes. This shield also deflects heat from the other valves.

COIL WINDING DATA

Oscillator—

L1: 10½ turns 20 enam., 1¼" diam., spaced diameter of wire.

L2: 3 turns 20 enam., interwound at "earth" end of L1.

6AG7 F.M.—

L3: 50 turns 31 enam., ½" diam., closewound, tapped at 15 turns from "earth" end (iron core slug, see text).

6AG7—

L4: 80 metres—36 turns 20 enam., 1¼" diam. closewound.
40 metres—18 turns 20 enam., 1¼" diam., spaced 1/16" between turns.
20 metres—8 turns 20 enam., 1¼" diam., 1" long.

6L6—

L5: 80 metres—41 turns 20 enam., 1" diam., closewound.
40 metres—20 turns 20 enam., 1" diam., spaced 1/16" between turns.
20 metres—12 turns 12 enam., 1" diam., spaced diameter of wire.
10 metres—7 turns 12 enam., 1" diam., spaced ⅛".

ALTERNATIVE SUGGESTIONS

As mentioned previously, 6AG7 valves are scarce, but if the reader has any on hand from war surplus equipment, well and good. Other types can be substituted and considerable latitude is permissible, excepting in the case of the 6SL7 audio valves. A 6SN7 can be used, but less audio will be produced; the 6SL7 being a higher gain valve.

The writer's exciter has the v.f.o., which is the series tuned Clapp type, on 160 metres, and the valve used is a 12SJ7. The isolator stage is a 12SK7. The tuned phase modulator is a 12SL7 and the audio input valve one of similiar type. Following the modulator is the doubler (to 3.5 Mc.), using a 12A6.

The reason that 12 volt valves are used is simply because they were on hand from disposals gear. In the 6 volt series the valves will be a 6SJ7 v.f.o., 6SK7 isolator, 6SL7 (or 6SN7) modulator, 6SL7 audio, and 6V6G doubler. With an 807 as a p.a. at 20 watts following the exciter, reports on 80 metres are excellent—there is ample deviation available for a.m. receiver reception. With the exciter driving the 40 metre assembly, which has a 6V6G doubler driving an 813 final, the results are all that can be desired. Stations often have to be told that n.b.f.m. is in use.

It will be realised that with appropriate miniature valves, one could make up a very compact phase modulated exciter/transmitter on these lines for all-band coverage. The 12AT7 valve would be a good type in the modulator-audio set-up. Whatever the reader decides to do—it presents no problem to incorporate a phase modulator-audio combination as shown in the diagram for V3 and V6. Two 6SL7s can be built thus into any exciter, irrespective of the v.f.o. used. Final emphasis is placed on the advantages of n.b.f.m. These are:

1. Much less initial cost than a.m.
2. Reduction in power consumption—the audio power needed is negligible.
3. More carrier output can be used in the final stage because the valve or valves can be operated at c.w. ratings.
4. Final stage excitation needs are less severe—there are no amplitude peaks to consider and quality of modulation is not affected by the amount of drive available for the final.
5. Tuned circuit and other components in the final stage need only be adequate for c.w. operation.
6. Over-deviation does not have the same effect as over-modulation in a.m. —spurious frequencies are not produced as in "splatter"; the channel simply expands in proportion to the deviation.
7. F.m. practically eliminates broadcast interference of the kind associated with r.f. pickup in the audio channels of receivers.
8. Tunable types of b.c.i. are certainly not worse with f.m., but tend to be less, as the apparent audio on an interfering beat is usually light or even almost inaudible.

DX NOTES BY VK4QL*

I think the least said about conditions for DX in October would possibly be the better. The noise level on 14 Mc. up here was such that we expect down in VK2 in summer time, for 3.5 Mc. Most VKs seem to have the same complaint re static. In addition, Townsville has had practically no rain since January, so you can visualise the noise from the mains that goes on at night. ZL1BY said that during the Jubilee Contest the static drove him off 3.5 and 7 Mc. Europeans have almost disappeared off the band here, yet 3CX finds plenty of them in the afternoons. The odd South African is again appearing on 14 Mc. in the late morning, and an increasing number of South Americans are appearing in the afternoons and evenings. 3CX found the evenings quite good, yet here it was almost waste of time switching on Rx.

The band survey is as follows, with times in G.M.T.—3.5 Mc.: 2DG tried this band in the Contest but had no contacts. Wasn't interested in listening to static myself.

7 Mc.: This band has been almost useless for DX or Interstate. Practically nobody had been heard there mornings or evenings, the DX Contest producing the main activity. 5JE,. who haunts this band with a fair amount of success, was not so successful this month. At one brief period he heard S8 signals from the States. Ted worked, amongst others, VP7NM, VS7NG, FA8RJ, PK2WB, EA4 at 0700. If any VK has made 7 Mc. W.A.S. 5JE would like to know, he still needs N. Dak. and Wyo. His countries score is 56 and still has hopes of 7 Mc. DX C.C. 2DG worked HZ1KE, 3V8 and FA8. 7RK-7LZ found the band open between 1900 and 2100 on 13th Octobcr to Europe, N. Africa and N. and Cent. America. They can still hear Gs to 0730 and QSOed YU1APO. My own 7 Mc. reflects the poor band in ZS6AAE*, ZS6TE*, KJ6AP, HK5DH.

14 Mc.: 2DG reports nothing outstanding in his contacts during the DX Contest. He lists TI2OE*, IS1HM*, 3V8BB*, MD2PJ*, MI3RG*, CE7ZQ*. 2ACX lists ZS8MK, FB8BB, VP5BF Caymans; Art has been looking for FB8ZZ, has now reached 206 confirmed. 3CX produces EQ3FM, CE7ZQ. HS1UN, VP4, VP7, YI*, 9S4, SU1HG, FR7ZA. CR7, FB8BB, CR9. 5HI, a new correspondent, found the band patchy, but is hearing the S. Africans regularly in the afternoons, working a nice catch in ZD6AD at 0800. He also lists CR5AD, ZS3K, ST3AM, MD5PM, KT1DD, FQ8AE, CT2BO, VP5BF, VP8AU, and C3MY. John said he finds S. America the hardest continent, but agrees he can't have it all ways, when he finds S. Africa so easy. 7LZ-7RK found FB8ZZ, KB6AQ, VK1NL, CE3AG, SP7BA, EI5C, LA3UB, LA6KB, GC3HFE, YI3BES, YI3EFE, YI3ECU, YV5BZ, VP1AA, HZ1KE, VK1BS. You can see by that list conditions in VK7 are not so bad. These two "hounds" found the band similar to 3CX in the evenings. 4BG found an improvement in the bands, but still far from good, and lists HS1UN, OQ5CP, FQ8AE, TF5TP, TI2AB, and HZ1KE. 2OW is not happy about conditions either, and like a few others, mourns the notes missing from the October issue of the magazine. Seems a few people are reading these notes, including quite a few DX stations. Gordon added one new country with KM8AX. 4QL: FB8ZZ*, CR9AF, VQ2AB*, VQ2GW*, ZD1SD*, HZ1AR, FF8AG*, FF8JC*, CT3AN*, TF5TP*, FQ8AG, FQ8AK, 3A8AJ*, OQ5CP, OQ5AR, IS1FIC, 4W1AC*, PK7HI*. The best catch of the month was 4W1AC in Yemen, who was apparently W2YEJ, which is the QSL address. He said he was on by special permission for one hour daily. Has QRT after about one week's operation.

28 Mc.: Not much to report, but the band has been improving. Some good DX seemed to have been landed during the DX Contest. Otherwise, it's a matter of being around when the band decides to open. One strange thing I noticed in the C.W. Contest was the fact I could work very little DX, yet VK2, VK4 and ZL stations were audible the whole morning. 9GW is putting a hefty signal into VK7, and he also worked SV0WS, who was mobile outside Athens and putting in a good signal.

The "gen" section this month produces that a couple of the S. African boys are going for a holiday and their holiday is intended to bring VQ1AA on for a period in December. HC8GI is expected to operate from Galapagos for a period of one week in December also. FN8AD is reported to be active again. There is a possibility that our "friend," VR7AA, is also now using the calls of FH8AB and FD8AA. The FH8 QTH is given as Wallis Is. Has been worked by the W boys, but nothing known of his being heard in VK, which seems to indicate he is "foney." 3BZ might let us know if CE7ZQ, Chilean Antarctica, is a separate country. Some stations are now appearing with the KT prefix, and giving the QTH of Tangier. My KT was somewhere in the Pacific. ZD6EF is looking for VK contacts. VP6CDI has been advised he won the 1951 Senior B.E.R.U. Contest.

Once again, thanks for assistance gang.

● The thought for the month: "If you have no intention of sending a QSL to the station you are QSOing, play the game, don't say 'will sure QSL'."

* Flt./Lt. F. T. Hine, No. 10 (G.R.) Squadron, R.A.A.F., Townsville, Queensland.

DX C.C. LISTING

PHONE

Call	No.	Ctr.	Call	No.	Ctr.
VK3EE	10	155	VK4WF	16	121
VK3JD	1	155	VK4JP	8	114
VK4HR	12	151	VK3AWW	14	112
VK6RU	2	148	VK4FJ	21	109
VK6KW	4	145	VK4DO	20	104
VK3BZ	3	141	VK2ADT	13	102
VK4KS	9	135	VK3AHA	15	102
VK3LN	11	132	VK5PJ	19	101
VK6DD	6	125	VK3GG	18	100
VK3JE	7	123	VK3IG	5	100
VK4WJ	17	122			

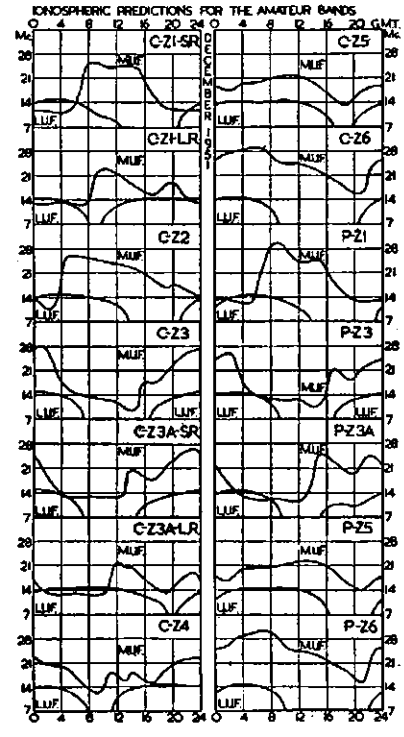
C.W.

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	6	183	VK5FH	31	119
VK3FH	15	187	VK3JI	25	118
VK4EL	9	153	VK3UM	12	116
VK4HR	8	154	VK3XK	30	114
VK2EO	2	152	VK4DA	7	113
VK3CN	1	151	VK3PL	38	113
VK6SA	38	150	VK7LZ	17	112
VK3VW	4	143	VK4QL	38	110
VK2QL	5	141	VK4RC	13	107
VK3KB	10	138	VK3YL*	39	106
VK6RU	18	135	VK3YD	27	105
VK2GW	16	132	VK2YC	34	103
VK5RX	23	132	VK3HT	37	103
VK3CX	28	132	VK3APA	14	101
VK4FJ	29	129	VK3NC	19	101
VK5BO	33	129	VK2OA	32	101
VK4RF	11	125	VK7RK	22	100
VK4DO	20	128	VK7LJ	24	100
VK3JE	21	124	VK2AEZ	35	100
VK3EK	3	122	* First YL.		

OPEN

Call	No.	Ctr.	Call	No.	Ctr.
VK3BZ	4	202	VK3AWW	45	115
VK4HR	7	190	VK3JA	43	114
VK6RU	8	181	VK2ADT	14	113
VK3JE	12	180	VK3VQ	46	112
VK3HG	3	171	VK3PG	47	111
VK2DI	2	170	VK3MM	49	111
VK3KX	1	167	VK4RC	21	110
VK6KW	13	165	VK3ZB	34	110
VK4EL	10	163	VK2ZC	25	108
VK4FJ	32	155	VK2YL	11	106
VK4DO	15	151	VK3AWN	38	105
VK4KS	24	149	VK2VN	18	104
VK5FL	25	143	VK4UL	27	104
VK3MC	5	139	VK6PJ	44	104
VK3OP	19	137	VK6PW	50	104
VK6DD	22	138	VK2HZ	17	103
VK3LN	29	135	VK7KB	30	103
VK2ADE	28	133	VK2TI	37	103
VK2AHA	9	128	VK3HO	38	103
VK4WF	40	128	VK6DX	42	103
VK2AHM	20	125	VK7RK	31	102
VK2NS	18	123	VK4TY	35	102
VK3HT	41	123	VK9GW	48	102
VK3J1	33	119	VK2ACX	6	100
VK7LZ	23	116	VK2TG	39	100

PREDICTION CHART FOR DEC., 1951



The Eddystone 696 Absorption Wavemeter

We have recently had the opportunity to test the Eddystone 696 Absorption Wavemeter, and after using it for a few days, find it is hardly recognisable with the usual type using the tuned circuit and pea lamp in series as an indicator.

In this instrument, for it is an instrument in spite of its simple circuit, the usual tuned circuit is retained, but it is the sensitivity of the indicating device that makes all the difference.

A Germanium crystal rectifier is used to operate a 0-200 microammeter, in conjunction with a condenser and a series of plug-in coils, covering the range from 1 to 180 megacycles.

The use of the 0-200 microammeter in place of the usual 0-1 milliammeter means that a sensitivity five times as great is attained. It would be possible to use a meter more sensitive again, but a meter such as a 0-50 microammeter, would be so sensitive as to be embarrassing, apart from the risk of damage. It seems, therefore, that the meter chosen offers the best all round results.

Sensitivity is such that full scale deflection can be obtained at distances of five to six inches from a 6J6 oscillator operating on 90 megs., whilst on the lower frequencies, even better sensitivity is found, especially on 80 and 40 metres and lower.

Here are a few of the uses to which this instrument was put in the few days of testing:—

(1) Finding the resonant frequency of grid dip oscillator in the range 1-180 megacycles, its coil ranges, etc.

(2) Checking to see if a receiver oscillator was oscillating.

(3) Finding out what harmonics were being radiated and their relative strengths.

(4) Tracing the frequency, amplitude, and location of an obscure parisitic in the final.

(5) Making the discovery that the Gamma match used to feed the "Plumber's Delight" three element rotary on 10 metres was causing the whole of the metal structure supporting the beam to be alive with r.f.

(6) Checking the feed line for standing waves.

Numerous other uses for the Wavemeter will occur to the reader, but the few mentioned above will serve as a guide.

The Eddystone type 696 Absorption Wavemeter is built into a small die cast metal box, and is fitted with a small square type 0-200 microammeter, a socket for the plug-in coil is provided, and the variable condenser is fitted with a 0-100 degree dial. A hand calibrated chart is provided for the six plug-in coils, the coils being mounted in a special plug-in base when not in use.

All in all, this meter is a must for any amateur or professional radio man, who does any experimenting with oscillators and transmitter equipment.

We are indebted to R. H. Cunningham Pty. Ltd., 118 Wattletree Road, Armadale. S.E.3, for the opportunity of testing this instrument.

CRYSTAL SWAP

In the last two months' issues we announced that this section would be starting in the magazine. This service will be free to members who wish to exchange a crystal of one frequency for one of another, and will be listed once only.

Members who wish to avail themselves of this service should forward their name, address and call sign, frequency of crystal they wish to swap and frequency of crystal they desire.

The proprietors of the magazine will accept no responsibility for any crystals, or correspondence. Those desiring to swap should deal direct with one another.

455 Kc. filter crystal; wanted 1600 or 1900 Kc. filter crystal or dual freq. 1000-100 Kc. crystal. E. J. Porrett, VK2AL, 29 Currawang St., Blakehurst, N.S.W.

FIFTY MEGACYCLES AND ABOVE

Compiled by J. K. RIDGWAY, VK3CR.

NEW SOUTH WALES

General. The October meeting of the V.H.F. Group was held at Science House on Friday, 5th October. Being no lecture arranged, the evening was given over to discussion and an impromptu debate, the question being debated, "That v.f.o's. increase operating efficiency on the v.h.f. bands." At this meeting it was also decided to set a date by which all Sydney stations would vacate the recently set aside country zone on the 144 Mc. band. Members are reminded that this zone, 144.0 to 144.1 Mc., is now set aside for the exclusive use of country stations attempting to work into the city area, city stations having agreed to keep this frequency clear of local interference. This agreement comes into force as from the 31st October, 1951.

50 Mc. News. This band has at last decided to behave and interstate contacts have been made earlier than ever before. The band showed signs of opening during the afternoon of 22nd October, both Adelaide and Hobart Beacons coming through very strongly. The band finally opened to VK5 about 2000 hours and continued to be in and out during the rest of the evening. First VK2 to work into VK5 this season was 2RU—Major doesn't miss much on six!

The following day the band was open to VK5 in the morning for about one hour and just after midday VK7LZ was worked. Again on the 23rd the band was open to VK5. During the evening, VK3s were heard but not worked, our old friend Stan 3AFL (ex-2LY) was the first one heard, but just wasn't playing speaks! Since then, the band has remained closed, but should brighten up this coming month (Nov.).

The arrival of the DX has not increased the activity on 50 Mc. to any great extent. 2ALU was heard working on the band and 2AZN has returned but otherwise the band population remains much the same as it was before the openings.

144 Mc. News. This band still remains the most popular band and most activity is concentrated here. 2OA is a new station on the band using 7193s and a four element beam which Bob at times supports on his head! 2SB was heard operating mobile in the Eastwood area. The V.H.F. Group Spring Field Day was held on the 144 Mc. band on Sunday, 28th October, seven stations participating. Despite the small number in the field, a good time was had by all and quite a large number of contacts were made. 2YM went with 2AOA and 2IT to Mt. Tomah, but upon arrival discovered that they had left their genemotor at home—hence the old mod. osc. came into use and the 1143 remained as supercargo! On the last field day, 2ANF, who also went to Mt. Tomah forgot to take the Tx—maybe this otherwise excellent location should be renamed Mt. Jinx!

On the same day 2JW, of Orange, went to the top of Mt. Canoblas in that district and worked 2WH and 2NS. He also heard a signal on the low end of the band which he could not identify. Norm is doing some good work on 144 Mc. and recently journeyed to Sydney complete with 144 Mc. gear which he operated from Eastwood during his stay in the big smoke. 2WH has been able to establish two way contact with Norm 2JW from their home locations after a considerable amount of trying. 2AMV lost his three over three during the recent wind and at time of writing John seems to be concentrating on 28 Mc. No news from Young where v.h.f. work is fairly well advanced.

In the Northern Zone 2XO has got his 144 Mc. gear going, along with his "gold plated" beam and has succeeded in working some of the chaps in that area. Crieff put a signal into Tamworth, about 145 miles, to 2APS. 2PA at Fort Macquarie works 2AHH at Kempsey fairly easily. 2AEY, Taree, is another station with 144 Mc. gear going.

In Sydney the talk is of bigger and better beams and more power to be able to work some of these country stations. 2ARF has put up a new beam—four over four over four. 2MQ also constructing a new beam. 2AOA has the biggest beam in Sydney—32 elements, consisting of two sets of 16 elements spaced ten feet apart. With activity on the increase in country districts and gear being improved in the city, the possibility of city to country contacts is brighter. With fair power and plenty of gain in the beam 144 Mc. signals will travel a long way, however the signals have to be received so, in the hive of activities concerned with beams and finals, don't forget to consider the Rx! Nothing could be more ludicrous than a station equipped with a 100 watt Tx of high efficiency, a large multi-element beam with high gain—and a super regen. Rx or ASV Rx!

576 News. News of doings on this band is scarce this month as those active on the band so bury themselves that it is almost impossible to make contacts with them on other bands!

2HL has had the loan of Cec Cronan's 576 Mc. gear and has been making contacts with most of the 576 Mc. enthusiasts. Horrie has an ASB7 Rx of his own but at time of writing has not yet converted it for the band. 2HO is still demonstrating how it is possible to work out of a hollow; Roy is at present away on a holiday so hasn't been heard. 2ABB, next door neighbour of 2AJZ, has been making good use of his new Rx. No other news to hand—what about it fellows? Could one of you come up for air sometime and pass on the news of activities?

SOUTH AUSTRALIA

To clear up a point re the VK5 V.H.F. Contest. One contact per station each Sunday night is permissable.

The weather charts on the 22nd October showed an inclination for a break through on 50 Mc. due to the cold front covering the whole of southern Australia and as high up as Alice Springs. True to form at 1940 C.S.T. the VK2s broke through. 2RU, 2ALU, 2ABC and others were heard. The band was also open on the 23rd and 25th October. Comparing notes, this is about the first time an opening has occurred in October so there may be things to come.

A note from 5BC advises he worked 2RU and 2ALU on 22nd and 2ANF at 1000 hours on 23rd, also 7LZ at 1230 p.m. In the evening he worked 2ABC, 2RU and 2AQR. 5BC contacted 4BT for short time on 26th. 5MA is dabbling with f.m., bemoaning the fact he missed the break through. 2OT in Broken Hill has copied 5BC's signal there OK. So far, 2DQ has only a Rx going, will be on 50.4 with p.p. 807s soon. This Broken Hill may be a hot spot. 2DQ copied 5JD when he was in Alice Springs for 28 days. A 50 Mc. break also occurred on 5th November to VK4. 5JD worked 4RY, but could not QSO 4BT.

On 288 Mc. 5AX, Gawler, is using two watts to a 6J6 Tx and also a 6J6 Rx. Antenna is 12 elements. Les has been heard in Adelaide. He was worked from Mt. Lofty by 5OQ and 5RO. 5OQ is also a newcomer to 50 Mc. 5GF on 288 is using a two half waves in phase antenna backed by a corner reflector. 5BD is in Blackwood and should put out a good signal, having the height.

To all the v.h.f. gang, A Merry Xmas from v.h.f'ers. in VK5 and good hunting during the DX season and Contests.

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50 Mc. W.A.S.

Call	Certificate Number	Additional Countries
VK2WJ	12	2
VK4RY	2	2
VK2VW	9	2
VK5LC	1	1
VK6DW	3	1
VK4HR	4	1
VK3PG	8	1
VK3RR	6	1
VK3HT	7	1
VK2AEZ	10	1
VK3XA	11	1
VK3GM	12	1
VK3ACL	14	1
VK2ABC	8	—

About Plug-In Coils

A useful point to remember about plug-in coils—whether for receiver or transmitter application—is the length of the lead from the termination of the winding to the pins of the plug-in coil. Sometimes the practice is to mount coil sockets on stand-off supports so that tuned circuit connections will be as short as possible. That is good practice, but often the coils themselves are constructed with unnecessarily long leads.

Many constructors wind the turns of wire for grid and anode coils in such a postiion with the result that the grid windings may finish up somewhere near the top of the form. Thus, between the end of the windings and the pins of the plug-in coil there may be an inch or so of unwanted wire—a serious matter, especially at the higher frequencies of 14 to 30 Mc. Many tuned circuits fail to cover an intended range by treating coils in this manner.

In the case of coils intended for 20 metres, the actual coil may have only three or four turns, but inclusion of the long leads inside the form makes the coil equal almost to a five or six-turn coil.

The better way to go about coil winding is to arrange the windings as near to the pins as possible.

1951 REMEMBRANCE DAY CONTEST RESULTS

Tasmania's Third Successive Win

Congratulations to Tasmania on again winning the Remembrance Day Trophy. The "Apple Islanders" certainly have a very fine record in this Contest, now having won the Trophy three years in succession.

Unfortunately, as in previous years, there was preliminary misunderstanding with respect to Rule 1—the duration of the Contest, but this was immediately rectified. It would be to the advantage of Federal Councillors and State Secretaries to make note of the fact that the Contest is of twenty-four hours' duration—unless otherwise altered at the 1952 Convention. When drawing up the Rules for the 1951 Remembrance Day Contest the Federal Contest Committee followed those of the previous year, not having been advised of the error therein, hence the time limit was shown as for 1950.

Some confusion was caused by the layout of the Official Log Sheets and most States asked that this be taken into account when checking Logs and VK5 suggested that a new form be adopted for future Contests. No contestant has been disqualified on this account. As a matter of fact, all Logs received have been accepted although in some cases scores have been slightly altered.

In all 384 Logs were received, being an increase of 67 compared with 1950. VK3 almost doubled the number of Logs forwarded. VK4 likewise. VK7 an increase of 13. Incidentally, the percentage of Logs received from Tasmania was over 50% of the Amateurs in that State! VK6 showed a considerable falling. VK2 and VK5 were much the same. VK3 Logs were not received until 13th September and the Contest Committee applied to the Federal Executive for a ruling as to whether they should be accepted or otherwise. F.E. ruled that they should be accepted. In view of this ruling, the Contest Committee decided to accept all Logs received provided they complied with the rules.

With reference to Logs generally, quite a number were very neatly typed and analysed. Some competitors did not bother to add them up at all, whilst others showed only a grand total on the last page. Very few signed to the effect that they had obeyed the P.M.G's. Regulations. This, no doubt, was brought about by the fact that the declaration on the Standard Log Sheet did not include these words.

The Contest Committee would like to thank those VK9s who participated in the Contest and helped to swell the score of the Mainland States. It was rather unfortunate that the number of Logs received fell short by only one to enable the Territory to participate as a body for the Trophy.

Here are the first six stations in each State:—

VK2		VK3		VK4	
VK2ZC	624	VK3ATN	581	VK4KW	516
VK2DO	613	VK3BD	550	VK4SE	511
VK2WH	566	VK3ALW	450	VK4HR	482
VK2AMR	562	VK3AWW	424	VK4FP	476
VK2AMV	539	VK3JE	418	VK4QL	444
VK2PA	530	VK3OM	408	VK4XG	428
	3434		2831		2857
Average	572		472		476
Bonus	46		43		99
	618		515		575
Logs revd.	87		86		64
Amat'rs	1091		947		307
Place, 1949	5		6		4
" 1950	4		6		5
" 1951	2		5		3

VK5		VK6		VK7	
VK5LO	539	VK6RU	664	VK7LJ	538
VK5KN	452	VK6VM	499	VK7AJ	493
VK5CE	437	VK6MB	458	VK7RX	439
VK5MD	437	VK6LG	422	VK7BH	429
VK5CN	435	VK6DW	287	VK7NC	401
VK5CO	404	VK6LJ	228	VK7JB	383
	2704		2558		2683
Average	451		426		447
Bonus	84		69		240
	535		495		687
Logs revd.	62		30		50
Amat'rs	327		186		93
Place, 1949	3		2		1
" 1950	3		2		1
" 1951	4		6		1

Some Conclusions From The Contest

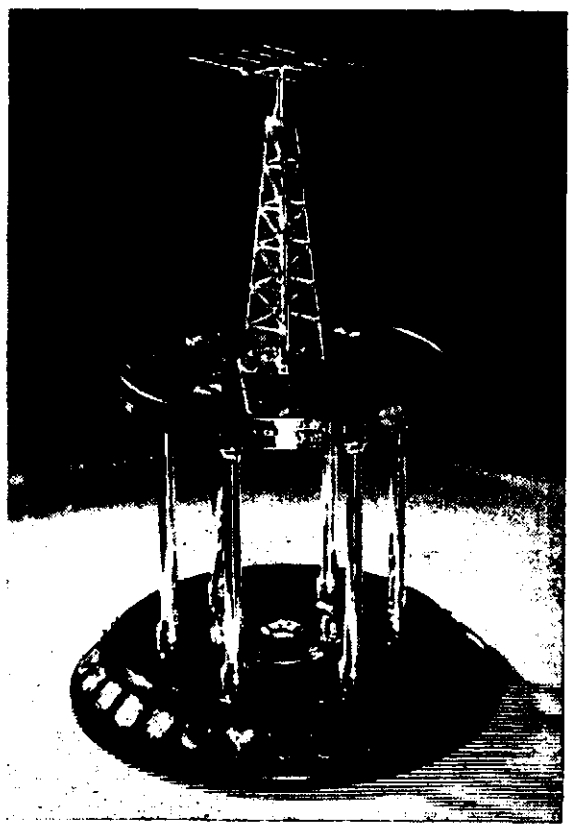
The system of scoring must be again altered to enable the larger States to compete on a more equitable basis. As an example, VK7 received a bonus of 240 points! The next highest bonus was VK4 with 99.

The Standard Log Sheet should be altered to remove any ambiguity regarding RST/NR. Time QSO ended and QSL S-R are superfluous.

Participants be asked to help the Contest Committee by adding up each page of their Log!

A copy of the Rules be attached to the Convention Minutes.

With reference to the system of scoring, the Contest Committee have deliberately refrained from making any suggestions at this juncture. Recommendations will, of course, be placed before the next Convention, but in the meantime the States should give this matter some thought. In the meantime here is food for thought. Instead of a ratio between the number of Logs received and the number of Amateurs in the Division, why not substitute number of financial members?



Tasmania Retains This Remembrance Day Trophy.

In addition to the six leading logs from each State, the following were also received to help swell the various States' totals and thus increase the bonus:—

NEW SOUTH WALES

VK2ANN	526	VK2AYP	307	VK2DZ	120
VK2AHA	516	VK2OA	294	VK2AMD	118
VK2AHH	494	VK2OW	287	VK2VN	114
VK2SH	488	VK2XQ	273	VK2ARV	113
VK2JU	421	VK2OE	262	VK2PV	113
VK2ACU	405	VK2BQ	261	VK2FD	112
VK2ADT	399	VK2OY	258	VK2VR	96
VK2GW	397	VK2ANO	251	VK2ANA	92
VK2AAB	382	VK2AFW	248	VK2AAI	91
VK2BO	377	VK2APP	231	VK2VU	90
VK2RA	373	VK2ASW	209	VK2AYH	87
VK2EO	367	VK2AYE	181	VK2ACD	86
VK2ADN	363	VK2AND	177	VK2AAM	72
VK2VW	339	VK2AMP	172	VK2AHI	71
VK2OT	321	VK2AMM	152	VK2GI	68
VK2DY	312	VK2MF	121	VK2EL	66
VK2YL	66	VK2RV	52	VK2AXZ	19
VK2AMB	60	VK2TI	51	VK2KN	15
VK2WT	59	VK2HC	51	VK2WI	14
VK2JF	59	VK2BT	51	VK2AFX	14
VK2YI	57	VK2EU	50	VK2HZ	14
VK2AAW	57	VK2APB	48	VK2RF	13
VK2YO	56	VK2PM	46	VK2OV	11
VK2PN	54	VK2PC	39	VK2ABO	—
VK2AGZ	54	VK2RK	37	VK2PQ	—
VK2AC	53	VK2ANU	28	VK2AIE	—
VK2ZQ	53	VK2JG	27		
		VK2AM	19		

VICTORIA

VK3FH	390	VK3XU	194	VK3ADG	70
VK3XB	379	VK3ARL	183	VK3ED	69
VK3FF	366	VK3IP	182	VK3LV	67
VK3HG	347	VK3PG	177	VK3ABA	63
VK3DG	309	VK3HE	175	VK3ADU	60
VK3AKR	308	VK3HT	175	VK3LN	59
VK3ALQ	308	VK3UT	168	VK3SZ	51
VK3RH	299	VK3ZL	154	VK3AGF	49
VK3FU	292	VK3RN	147	VK3AIM	47
VK3AMH	278	VK3KE	133	VK3SS	42
VK3ASB	260	VK3AGV	132	VK3UI	41
VK3ARV	246	VK3AJG	131	VK3HL	37
VK3FJ	225	VK3ZO	125	VK3TB	37
VK3VZ	224	VK3ZS	124	VK3YS	36
VK3ZA	216	VK3YF	119	VK3BI	36
VK3KC	210	VK3FO	118	VK3PL	33
VK3ZC	201	VK3AGD	114	VK3ZV	33
VK3AHH	194	VK3ACI	108	VK3AKW	33
		VK3AFF	105	VK3TJ	32
		VK3ADP	102	VK3AT	31
		VK3ADW	101	VK3IK	30
		VK3WM	100	VK3FR	27
		VK3TX	100	VK3TO	21
		VK3LS	99	VK3ARY	21
		VK3HK	97	VK3OJ	21
		VK3AMV	87	VK3ARP	17
		VK3ZU	82	VK3AVM	16
		VK3JI	76	VK3XH	15
		VK3UG	76	VK3AGP	14
		VK3IL	72	VK3JO	10
		VK3AHK	71	VK3WI	9

QUEENSLAND

VK4RT	373	VK4LM	60
VK4CC	358	VK4KF	56
VK4HD	354	VK4RH	56
VK4BQ	291	VK4HW	50
VK4TN	272	VK4CB	49
VK4DI	256	VK4GA	47
VK4WJ	240	VK4LE	45
VK4XJ	229	VK4HH	41
VK4NC	221	VK4PR	41
VK4PT	219	VK4PN	38
VK4BG	210	VK4JF	36
VK4FE	196	VK4KS	32
VK4NF	178	VK4CZ	28
VK4FJ	175	VK4DH	28
VK4XL	145	VK4LR	26
VK4CK	139	VK4YA	26
VK4FB	138	VK4WD	23
VK4RL	135	VK4JC	19
VK4MW	129	VK4AW	17
VK4GH	117	VK4OA	17
VK4AF	111	VK4WI	17
VK4HZ	105	VK4HA	15
VK4XR	94	VK4ZP	15
VK4IG	87	VK4PD	14
VK4RU	85	VK4RN	13
VK4MH	78	VK4OR	9
VK4SN	67	VK4KK	8
VK4GG	66	VK4XP	6
VK4RW	62	VK4EA	5

SOUTH AUSTRALIA

VK5KE	381	VK5BS	169
VK5WO	287	VK5MS	154
VK5RG	278	VK5MZ	154
VK5HI	228	VK5EH	147
VK5FL	216	VK5JE	146
VK5FO	212	VK5DK	144
VK5LQ	201	VK5LD	139
VK5XK	195	VK5KW	129
VK5KU	194	VK5JK	125
VK5CD	181	VK5FQ	119
VK5DH	181	VK5LE	117
VK5JT	180	VK5WY	117
VK5FM	170	VK5JD	116
VK5RR	116	VK5DP	81
VK5CA	113	VK5BZ	80
VK5PS	113	VK5RX	69
VK5AW	106	VK5CF	67
VK5EA	106	VK5HN	63
VK5HL	95	VK5TJ	63
VK5AX	92	VK5MA	55
VK5CJ	88	VK5CH	51
VK5TW	87	VK5LW	49
VK5WI	87	VK5DF	43

VK5TL	39
VK5RK	37
VK5JG	32
VK5WR	26
VK5XU	23
VK5UX	17
VK5CT	16
VK5MK	11
VK5ZR	9
VK5FD	8

WESTERN AUSTRALIA

VK6AZ	227	VK6GU	55	VK6LL	24
VK6ZZ	193	VK6RW	50	VK6WZ	22
VK6WW	145	VK6MO	41	VK6KW	22
VK6LU	129	VK6GA	38	VK6PJ	21
VK6SA	82	VK6JK	37	VK6MK	20
VK6WM	80	VK6WG	28	VK6KU	18
VK6HR	73	VK6LM	26	VK6GH	18
VK6BO	70	VK6AS	24	VK6RS	17

TASMANIA

VK7OM	383	VK7SK	60	VK7KB	24
VK7RL	346	VK7RK	50	VK7CF	24
VK7JD	316	VK7FJ	49	VK7WI	21
VK7BQ	298	VK7AI	48	VK7SJ	18
VK7CT	254	VK7AB	47	VK7GR	17
VK7KA	252	VK7WA	45	VK7MC	17
VK7RY	128	VK7CK	38	VK7AL	17
VK7IL	125	VK7SA	34	VK7JT	17
VK7FM	122	VK7DS	32	VK7LD	15
VK7DW	111	VK7LL	27	VK7GB	13
VK7AM	107	VK7AG	26	VK7HY	12
VK7AF	88	VK7EJ	25	VK7LE	12
VK7DA	71	VK7BJ	25	VK7SR	7
VK7KX	69	VK7YL	25	VK7XW	6
VK7GM	61			VK7CA	6

NEW GUINEA

VK9XK	478	VK9HI	22	VK9KT	—
VK9GW	96	VK9YT	22		

LISTENERS' SECTION

F. H. Price, 276 Stations.
B.E.R.S.195, E. Trebilcock, 175 stations.

A FEW COMMENTS

The first six stations in VK2 topped 500 points and all came from outside the Sydney area, viz, country stations. VK6RU topped Australia with 664 points from 266 contacts—170 on phone, 96 on c.w., and operated for 19 hours on 7, 14, and 28 Mc. Highest number of contacts in any one hour was 30, whilst on many occasions exceeded 25. VK6AZ, with 227 points, used phone exclusively on one band only. VK6LJ with 231 used c.w. on 3.5, 7, and 14 Mc. A feature of the VK6 entry was the manner in which the scores tapered off from 664 down to 228, thus nullifying the splendid effort of VK6RU.

VK9XK did a splendid job, 184 contacts and 478 points using 3.5, 7 and 14 Mc. In addition n.b.f.m. was used for several contacts. VK7LJ had 211 contacts, used three bands. VK7AJ used phone only for 201 contacts on three bands. VK7RX and VK7BH used phone only.

VK3ATN, using 40 watts to a single 807 had 229 contacts for 581 points. VK3BD, with 550 points, claimed he couldn't see out the distance. VK3OM gained all his points on phone.

VK5LO did most of his on phone and sent in a very neat log. VK5MD showed the old-timers how. VK5CN from Darwin added quite a deal of interest.

VK4KW, for Queensland, gained 516 points all from phone and was one of the few that used four bands. VK4FP also obtained his points from phone. VK4QL was strictly c.w., had a very neat Log and was one of the very few who signed to the effect that the P.M.G's. Regulations had been observed.

Two listeners' logs were received. F. H. Price, an s.w.l. from VK6, logged no less than 276 stations. Eric B.E.R.S.195 logged 175 stations, in all he logged a total of 566 stations some no less than 12 times.

—Federal Contest Committee.

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CORRESPONDENCE

The opinions expressed in these letters are the individual opinions of the writer, and do not necessarily coincide with those of the publishers.

1 Collie St., Albany, W.A.

Editor "A.R.," Dear Sir,

As a result of my snooping on six or somewhere I believe there are big things brewing in the Big City once more. Some "Stool Pigeon" of the Federal Executive has brought up the matter of admission of Associate Members. What collossal impudence, as if the W.A. Division could, for one moment, consider turning "The Division of the highest standing in the States" into a mere "glorified Listeners' League."

Why be bothered assisting blokes to get their "tickets," the Society will do that, then the W.I.A. can pinch them—or can it, and for how long? If, I mean when, it comes to a serious difference between the two bodies, which side will all these members, ex-Society, take? The answer is obvious.

What was this thing we now hear called Transix? Was it the W.A.R.T.L.? Who instigated the W.A.R.T.L.? Was it instigated by a very few members of the Institute who were unable to "pursuade" the rest to their way of thinking in relation to this matter of Associate members? I remember attending a meeting of this new body, there were five or six persons present. I could see no necessity for another Amateur body, attended no further meetings and did not renew the subscription—if I ever paid one.

Were these few members who instigated this break-away from the W.I.A. all engaged in wireless in some form or other as a profession?

This, gentlemen, is how some people think a democratic system works. If you can't get a majority with you, just pull out and form another little gang.

The Wireless Institute (even in this State) was not founded only by persons with transmitting licenses, but by a number of people interested in the study of wireless. In former days the associate member was always there to do a job of work, both physically and in many other ways. In fact he was more often there than some of the full members.

It is not so long ago that many members of the W.I.A. in W.A. did not even know that associate members existed anywhere; were they deliberately kept in ignorance?

The radio clubs were formed prior to this break-away. Why? I think because the W.I.A., at that time, would not provide classes for those associate members who desired to take the examination for A.O.C.P. Some members started the club idea and one bloke kept one of them going for about thirty years. Good on you, Bert.

Who were those opposed to the classes? Close inquiry may find that they were the same blokes who, a little later, instigated the break-away. Anyhow what's all the argument about? The easiest way to get over the matter of the unified constitution is for all those States who now have associate members to chuck them out and thus come into line with the minority. Isn't that the way the democratic system of some countries work? The majority must on no account dictate to the smaller number, but must be guided by that little clique.

And speaking of people who don't know who the Federal Executive are. It wouldn't surprise me at all if a station in W.A. (whose signal could be heard in Victoria) went on 7 Mc. and called CQ Federal Executive. He would get a reply about six months earlier than If a station in Victoria on the same band called CQ W.A. Council! Thripence please Max.

Yes, I know. All this is none of my business for I am not a member of the W.I.A. But, chaps, I wouldn't like to see the Institute in Western Australia strangle itself. Some of us have happy memories of the days when the associate member was not "without the pale."

I think it's good for business to let everybody know what "we" think of those "Glorified Listeners' Leagues" on the other side of the desert.

—L. G. WILSON, VK6LG.

Editor "A.R.," Dear Sir,

The above letter has been referred, prior to publication, to this Division by Federal Executive. We desire to close the matter at once and in reply make the following remarks:—

1. It is obvious that the comment and criticism by 6LG refers to the contents of a circular which was sent to all members by one member, at his own expense, as an expression of his opinion of Constitutional and Federal matters, which have been fully aired and discussed by all members prior to the acceptance of our new Constitution.

2. This Division has accepted without one dissenting vote the Uniform Divisional Constitution, with some amendments, but including Associate members.

3. In conclusion it is suggested that 6LG, as a non-member of this Division, refrain from publishing such criticism when he does not know the full facts. The executive of this Division encourages criticism, constructive and otherwise from VK6 members.

H. B. LANG, Hon. Secretary,
W.A. Division, W.I.A.

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AMATEUR CALL SIGNS

FOR MONTH OF SEPTEMBER, 1951

ADDITIONS

VK— New South Wales

2LP—L. R. Burston, R.A.A.F. Station, Williamtown.
2OK—J. T. Lake, 48 The Promenade, Sans Souci.

Victoria

3ET—K. Corcoran, 5 Albert St., Pascoe Vale.
3YH—R. V. Fisher, 12 Campbells Cres., Ballarat.
3ALL—P. L. Lempriere, 5 Illawarra Cres., Toorak, Melb. (Portable).

Queensland

4BL—W. A. Easterling, c/o. O.T.C.A., Thursday Island.
4GP—D. A. Crowley, Hill St., Cooper's Plains, Brisbane.
4SF—S. J. Ford, Warwick Rd., Churchill, Ipswich.
4VO—A. F. Wrembeck, Glencoe, via Gowrie Junction.

Tasmania

7XO—G. N. Kerrison, 47 View St., Dynnyrne, Hobart.

Territories

1SW—S. J. Wyatt, Macquarie Island.

ALTERATIONS

VK— New South Wales

2AG—Pacific Highway, Derowra.
2BQ—Richmond Street, Tumut.
2GG—13 East Drive, Bexley North, Sydney.
2IX—42 Cragg Street, Bankstown.
2JE—3 Asher St., Georgetown, Waratah, 2N.
2TH—85 Bondi Road, Bondi.
2TZ—12 Richmond Avenue, Dee Why.

Victoria

3BH—Corner Ellendale Rd. and Princes Highway, Noble Park.
3DC—9 Irilbarra Rd., Canterbury, E.7.
3IZ—Commercial Hotel, Yarram.
3RP—27 Laurie Street, Newport, W.15.
3TE—73 Cole Street, Elwood, S.3.
3UC—15 Myrtle Road, East Camberwell.
3XW—13 Reserve Road, Beaumaris, S.10.
3ADB—13 St. Andries St., Camberwell, E.8.
3ADC—Derwent House, Leongatha.
3ADF—13 St. Andries St., Camberwell, E.6.

Queensland

4PB—Timbury Street, Moorooka, Brisbane.
4RA—111 Old Scarborough Rd., Scarborough.
4RJ—Methodist Parsonage, 89 Harcourt Street, New Farm, Brisbane.

South Australia

5DE—Barton Trans. Aust. Railway, Barton, S.A.
5HE—c/o. Salisbury Hotel, Salisbury.

Western Australia

6BJ—101 Fitzgerald Street, Geraldton.
6CK—c/o. O.I.C. Dept. Civil Aviation, Halls Creek.
6GS—c/o. National Regional Station 6WA, Wagin.

Tasmania

7CL—33 Welman Street, Launceston.
7GM—24 Douglas Street, Launceston.

Territories

9FM—Dept. Civil Aviation, Madang, T.N.G.

DELETIONS FOR AUGUST AND SEPTEMBER

VK— New South Wales

2ND—Cancelled.
2ACW—Cancelled.
2ADI—Cancelled.
2AJF—Cancelled.

Victoria

3EL—Cancelled.
3GT—Cancelled.
3LJ—Cancelled.
3NP—Cancelled.
3SG—Cancelled.
3SX—Cancelled.
3VU—Cancelled.
3AGW—Cancelled; now operating under VK9BI.
3AHJ—Cancelled.
3AMI—Cancelled.
2AOH—Cancelled.
3ARN—Cancelled; now operating under VK6BQ.

Queensland

4AR—Cancelled.
4DJ—Cancelled.
4EH—Cancelled; now operating under VK2RH.
4HF—Cancelled.
4KC—Cancelled; now operating under VK3ET.
4SR—Cancelled.
4ZO—Cancelled.

South Australia

5BJ—Cancelled; now operating under VK2AFW.
5DL—Cancelled; now operatng under VK4GP.
5LF—Cancelled.
5ML—Cancelled.
5NM—Cancelled.
5PL—Cancelled.
5RB—Cancelled.
5SR—Cancelled.

Western Australia

6AD—Cancelled.
6AF—Cancelled; now operating under VK3AGZ.
6AN—Cancelled.
6AU—Cancelled.
6DA—Cancelled.
6RM—Cancelled.

Tasmania

7MC—Cancelled.

Territories

1RB—Cancelled.
1YM—Cancelled.
9YY—Cancelled.

RAAF VACANCIES FOR RADIO ENGINEER OFFICERS

The Royal Australian Air Force invites applications from suitably qualified men for appointment to Permanent and Short Service Commissions as Radio Engineer Officers.

FOR A PERMANENT COMMISSION applicants must be normally not more than 25 years of age, and hold a University degree in Engineering (preferably electrical) or in Science (preferably in physics, mathematics, and electronics), or hold a diploma in Engineering (preferably electrical or radio) which gives complete exemption from the Associate Membership Examination of the Institution of Engineers, Australia. Diploma candidates must also have not less than two years' experience in engineering after completion of diploma or have had war service in any of His Majesty's Forces, or be qualified to commence the first year of study for a University degree in Engineering or Science.

FOR A SHORT SERVICE COMMISSION (of 4 years with an extension for any period not exceeding three years). Applicants should be under 45 years and have held an appropriate technical appointment as an officer in His Majesty's Services or have completed an apprenticeship or comparable training in radio engineering, followed by at least five years' experience in that trade. Claims of applicants who have held Warrant or N.C.O. rank in a technical mustering will be given special consideration. Officers serving on Short Service Commissions are eligible for Permanent Commissions. All applicants must be British subjects of substantially European descent.

DUTIES include the inspection, servicing, maintenance, operation specification, development and supervision of design of telecommunications and radar equipment, airborne and ground, practical radio research and practical application of electronic theory.

DAILY PAY AND ALLOWANCES for officers, subject to cost of living adjustments and increment after two years in rank, are as follows:—

(Pay is on a 7 days per week basis)	**SINGLE**	**MARRIED**
Pilot Officer	*36/3*	*46/3*
Flying Officer	*39/3*	*49/3*
Flight Lieutenant ..	*45/9*	*55/9*
Squadron Leader ..	*56/3*	*66/3*
Wing Commander ..	*71/3*	*81/3*
Group Captain ..	*86/9*	*96/9*

APPLICANTS with former commissioned service in His Majesty's Forces will be considered for appointment in his former rank or such rank as may be commensurate with his qualifications and experience. Other candidates will normally be offered the rank of Pilot Officer but higher rank may be determined depending upon qualifications, age, and other attributes. Officers are required to contribute to a pension scheme which provides a generous retiring allowance and covers invalidity or death during service.

For further information write to:—

THE SECRETARY, AIR BOARD, VICTORIA BARRACKS, MELBOURNE, S.C.1.

AREO.1.93.101

FEDERAL, QSL, and DIVISIONAL NOTES

Federal President: G. GLOVER (VK3AG); Federal Secretary: G. M. BULL (VK3ZS); Box 2611W, G.P.O., Melbourne.

NEW SOUTH WALES

President: John Moyle, VK2JU.
Secretary: David H. Duff (VK2EO), Box 1734 G.P.O., Sydney.
Meeting Night: Fourth Friday of each month at Science House, Corner Gloucester and Essex Sts., Sydney.
Divisional Sub-Editor: Don B. Knock, VK2NO, 43 Yanko Avenue, Waverley, Sydney.
Zone Correspondents: North Coast and Tablelands: Noel Hanson, VK2AHH, Ryan Ave., West Kempsey; Newcastle: Ron McD. Stuart, VK2ASJ, 98 Dunbar St., Stockton; Coalfields and Lakes: Harry Hawkins, VK2YL, 27 Comfort Ave., Cessnock; Western: W. H. Stitt, VK2WH, Cambijowa, Forbes; South Coast and Southern: Roy Raynor VK2DO, 42 Pettit St., Yass; Eastern Suburbs: Don Knock, VK2NO, 42 Yanko Ave., Waverley; Northern Suburbs: Harry Powell, VK2AYP, Russell Ave., Wahroonga; St. George: Chas. Coyle, VK2YK, 84 Carlton Cres., Kogarah Bay.

VICTORIA

President: G. S. C. Semmens, VK3GS.
Assistant Secretary: C. Gibson (VK3FO).
Administrative Secretary: Mrs. S. May, Law Court Chambers, 191 Queen St., Melbourne.
Meeting Night: First Wednesday of each month at the Radio School, Melb. Technical College.
Zone Correspondents: Western: C. C. Waring, VK3YW, 12 Skene St., Stawell; South Western: K. O'Rorke, VK3AKR, Killigrew, Westmere; North Eastern: T. K. Tennant, VK3JC, 36 Wilson Ave., Tatura; Far North West.: M. Folle, VK3GZ, 101 Lemon Ave., Mildura; Eastern: H. O. Keilas, VK3AHK, Tinambra; North Western: C. Case, VK3ACE, Cummign Ave., Birchip.

QUEENSLAND

President: J. H. Farrell, VK4WJ.
Secretary: J. F. Pickles, VK4FP, Box 638J, G.P.O., Brisbane.
Meeting Night: Third Friday in each month at the I.R.E. Rooms, Wickham St., Valley.
Divisional Sub-Editor: Clive J. Cooke, VK4CC, Kuran Street, Chermside, Brisbane.

SOUTH AUSTRALIA

President: E. A. Barbler, VK5MD.
Secretary: G. M. Bowen, VK5XU, Box 1234K, G.P.O., Adelaide.
Meeting Night: Second Tuesday of each month at 17 Waymouth St., Adelaide.
Divisional Sub-Editor: W. W. Parsons, VK5PS, 10 Victoria Avenue, Rose Park.

WESTERN AUSTRALIA

President: J. Campbell-Watson, VK6JW.
Secretary: H. B. Lang, Box N1002, G.P.O., Perth, W.A.
Meeting Place: Perth Technical College Annexe, Mounts Bay Road, Perth.
Meeting Night: Second Monday of each month.
Divisional Sub-Editor: R. H. Atkinson, VK6WZ, Box 127, Geraldton, W.A.

TASMANIA

President: R. O'May, VK7OM.
Secretary: L. W. Edwards, VK7LE, Box 371B, G.P.O., Hobart.
Meeting Night: First Wednesday of each month at the Photographic Society's Rooms, 163 Liverpool St., Hobart.
Divisional Sub-Editor: S. Excell, VK7SJ, 77 Molle St., Hobart, Tasmania.
Zone Correspondents: Northern: C. A. Cullinan, VK7XW, 12 Montrose Place, Launceston; North Western: R. K. Wilson, 4 Menal St., Burnie, Tasmania.

FEDERAL

AMATEUR RADIO SHOW OVER THE VOICE OF AMERICA

The following is the new transmission schedule for the Radio Amateur Programme presented over the Voice of America broadcasts in co-operation with the American Radio Relay League.

Far Eastern and Pacific Service: 1230 and 1445 G.M.T. on a Sunday, on the following frequencies—6060, 6075, 6120, 6185, 9515, 9570, 9600, 11790, 11890, 15105, and 15330 Kc.

The times and frequencies are subject to periodic change with changing conditions for propagation.

Another programme of interest to Amateurs is transmitted by the International Goodwill Station OTC, Leopoldville, Belgian Congo, each Wednesday in English at 1910 G.M.T. on 9707 Kc. Anyone wanting to QSL can forward reports to Postbox 26, Brussels 1, Belgium.

LOSS OF 50-54 Mc. BAND

Back in May this year members of Federal Executive were co-opted by a Working Group of the Frequency Allocation Sub-Committee at the request of the Australian Broadcasting Control Board in order that the W.I.A. could have a voice regarding the possibility of providing two 7.5 Mc. television channels in that portion of the frequency spectrum encompassed within the limits of 29.7 and 148 Mc.

It was a forgone conclusion that a transfer of the 50-54 Mc. band, now allocated for Amateur Station use, to the frequencies between 56-60 Mc. would be inevitable. Whilst the Institute had virtually little say in the matter the opportunity to represent the Amateurs of Australia was appreciated, and the substitution of a harmonically related band was better than no band at all. The change of bands, however, will not take effect until **January, 1966.**

W.I.A. PROPOSALS TO THE I.A.R.U.

In conformity with the direction of Federal Council arising from Federal Convention, proposals were directed to the I.A.R.U. regarding the adoption of a standard numbering system by all Societies, and that the numbering system be that incorporated in the VK-ZL International DX Contest from time to time.

These two directions have been encompassed under proposals Nos. 77 and 78 of the June issue of the I.A.R.U. Calandar and forwarded to all Societies for a vote.

PRINTER'S ERROR

Under the amendments to the Handbook for Operators of Amateur Stations published in F.E. Notes for October, an error occurred in the printing of the amendment headed "Page 6, para. 33." This should have read as follows:—

Page 6, para. 33: In the fourth line after "direct or indirect" insert the words "or any matter of a commercial character." At the end of paragraph, insert: "The relevant regulation under the Wireless Telegraphy Act 1905-1938 concerning this matter reads as follows: '56 (3). The licensee of an Amateur Station shall not, except in the case of an emergency and with the consent in writing of an authorised officer, undertake the transmission or reception of messages for third parties'."

SILENT KEY

It is with deep regret that we record the passing of:—

VK2KJ—H. W. Crammond.

SEASONAL GREETINGS

Members of Federal Executive take this opportunity of personally wishing you a Merry Christmas and a Bright and Prosperous New Year.

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FEDERAL QSL BUREAU

RAY JONES, VK3RJ, MANAGER

Divisional QSL Managers and Amateurs generally are again reminded that Geoff Warner, VK9GW, care O.T.C., Port Moresby, Papua, can only distribute cards for stations in the Moresby area. Cards for stations in other areas of Papua and New Guinea must be sent direct. At the time of writing (November) Geoff will take cards for VK9AB, 9HI, 9ML, 9DB, 9FN, 9WK, 9KT and 9GW. Cards for others are returned to me by Geoff and this causes inconvenience, delays and waste of postage to both Geoff and myself.

Vic GD3UB has just ordered 15,000 cards and hopes during the slack period this winter to catch up on outstanding QSLs. Vic runs a beach cafe and during the summer months has no time for anything outside of his business.

No cards have been received from Box 88, Moscow, since July last. The R.S.G.B. QSL Manager advises none have been received by them since May. While QSL Managers will officially shed no tears over the loss of thousands of listener cards, Hams generally will be worried over the loss of 10 or 12 countries and a few zones.

Divisional Managers and others please note the following changes in the QSL addresses for W1, W4, and W7:—

W1—J. R. Baker, Jnr., Box 232, Ipswich, Mass., U.S.A.
W4—Thomas M. Moss, W4HYW, Box 644, Municipal Airport Branch, Atlanta, Ga.
W7—Mary Ann Tatro, W7FWR, 513 N. Central, Olympia, Washington.

The address of the Bulgarian QSL Bureau is P.O. Box 830, Sofia, Bulgaria.

W.I.A. ACTIVITIES CALENDAR

Dec. 1-2: Fifth All-European DX Contest, C.W. Section.
Dec. 8-9: Fifth All-European DX Contest, Phone Section.
Dec. 15-Jan. 6: Ross A. Hull Memorial V.H.F. Contest.

C2AP, Wang, of Box 5, Shimizu, Japan, has closed his Japanese under-cover station as from March, 1951. His QSLs state this.

Interesting cards sighted during October were those from Albert Hix, ex-W8PQQ and current holder of 7B4QF, Andorra; 3A2AC Monaco, and F7AB.

Cards confirming contacts in 1939 have just come to hand for VK3QK and VK3UM from CT1OI!!! After this what Ham should become despondent after a mere year or two of waiting for that rare card.

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NEW SOUTH WALES

The present Divisional Sub-Editor regrets that, effective from the publication of this issue, he finds it impossible, for business reasons, to find the time to continue appointment. This applies also to the role of Eastern Suburbs correspondent. Correspondents sending along copy are advised therefore to address it to the Hon. Secretary, N.S.W. Division, pending alternative arrangements.

The October meeting of the N.S.W. Division was held at Science House on Friday, 26th, and was well attended. President John Moyle occupied the chair. In accordance with a motion passed at the previous meeting the minutes were read and confirmed and without delay the main agenda item followed. This was a lecture by Professor D. M. Myers, of the Elec. Engr. School of Sydney University, covering Electronic Computers. The attentive audience enjoyed a revelation in the lecturing art in which much sober fact was mixed with humour and good spirits. Such is the Professor's ease of expression that he is able to explain the most complicated mechanisms and technicalities in simple, easily understood words. Even dull people can absorb it. Electronic computers appear to have been shunned as a study, but the lecturer, accompanying his remarks by projected slides, made at least an approach to the subject seem to be well within human powers. Professor Myers has sponsored and directed the manufacture in Sydney of one of the only seven or eight successful computers as yet in existence. A spirited discussion followed and the lecturer came up with all the answers.

General business followed; the main items being the Woy Woy Field Day, the Uniform Constitution, the 500 watt permit for VK2WI, the preparation of a Policy Book, a request by the R.A.A.F. that a member of the Service address the Division regarding enlistment of Amateurs for co-operation with R.A.A.F., and a written motion by a country member that Federal Council approach the P.M.G. with a view to raising the power limit to 250 watts.

Results of this year's Remembrance Day Contest were also given in brief, and congratulations are offered to Tasmania for taking the trophy for the third year in succession. It was announced that the P.M.G. have agreed to the input to VK2WI being 500 watts for the weekly broadcast, subject to certain conditions, some of which are hard to meet.

The President has been through the minute books and collected policy decisions, which will be entered into a book for easy reference; a task which involved a lot of work. The thorny subject of the power increase was left

over for discussion at the next meeting, when it is hoped that both city and country members will have contributed the results of their deliberations. It is futile to ask the P.M.G. for increased power without advancing some very sound reasons why such a request be granted. Dr. Bob Black, 2QZ, Chairman of the V.H.F. Section, made his usual comments with announcements, and the meeting broke up around 2245 hours. A sub committee has been appointed to design the new VK2WI 500 watt Tx and as soon as this stage is reached, there will be a foraging for parts. Donations from members will be welcomed—some offers have already been made and accepted. When the requisite parts list is made known it is hoped that a generous response will be forthcoming. (Acknowledgment to 2GW for the foregoing—Div. Sub-Ed.)

EASTERN SUBURBS

Veteran 2CE keeps pace with the modern trend. Alf has scrapped his 144 Mc. mod. osc. and built a very neat and compact crystal controlled job incorporating a harmonic osc. from an 8 Mc. crystal—6J6s to an 832—all on a chassis measuring 6 by 3 inches. The small size was planned with an eye to use in the car. Clamp modulation takes care of speech and a 4 element beam tops things off. Needless to say the outfit puts out a nice signal.

Sympathy is extended in this area to old timer Harold 2HP who is reported to have suffered partial loss of limb usage. As this is written it is reported that the old Honolulu Portugal is making progress. Keep it up Harold and good luck.

Andy 2AX puts in an occasional appearance on 40 mx phone (and c.w.) and seems satisfied thus with a casual sojourn. Heard 2AYE with a bad dose of wogs in his 40 mx Tx recently and a country net got a bit messed up thereby. Don't let it phase you OM, these things happen in all (Ham) families. 2AIG is enjoying himself with the dixie lid special and seems to have given 40 away. 2BC is heard being called by sundry c.w. DX on 20 and gets well among the rareities.

2NO had an unusual phone QSO on 20 one midafternoon. First he landed ZB1BZ in the George Cross Island and then a station broke in and introduced himself as a British aircraft flying at 8,500 feet 700 miles north of Khartoum, in the Sudan. To cap things, on comes YU1AG in Tito's Yugoslavia with a good signal, and a somewhat international flavour prevailed.

WESTERN SUBURBS

The Experimental Radio Society will be in the new premises at Greenwood Hall, Liverpool Road, Enfield, as from 8/11/51 and activities are being arranged to take care of each Thursday night. We are desirous of obtaining the attendance of some of the members of the past years and will welcome any members or visitors.

2AAB busy after a spell in hospital; operating on 14, 7, and 144 these days, 28 coming up. 2AHU busy with the v.f.o. to end all v.f.o's. 2ARF doing fine work with new 4 over 4, supported in a precarious position. Alec Gee, soon to own a brand new ticket, will be heard from MacDonaldtown on 144 at first, other bands to follow. 2AIR having a spell of work up the bush, has been heard from 2APS. 2APT's new beam doing a fine job. Joyce 2AMJ is sporting a new Rx, triple conversion. 2ATL knocking them over in fine style, no trouble at all. 2ACD still plodding along with an occasional new country, busy with gremlins at present. (Acknowledgment to 2ACD for the foregoing. —Div. Sub-Ed.)

ST. GEORGE ZONE

Met Graham 4BX, of Townsville, recently; on 7 weeks' holiday and is staying at Hurstville. Visited Reg 2RE who switched on his Rx for the visitor's benefit and the first station they heard was Bob 4RW, also of Townsville. They next had a yarn with 4XD (also of Townsville), all of which made Graham feel at home.

Robbie 2US has his 3 element beam up and working now. Bill 2ALT is now a Daddy so we should hear a nice harmonic on his main carrier. Congrats Bill. Geoff 2AEF, I am told, has three junior ops; perhaps future VKs? Frank 2ABA is back in the district again, returned from Korea, and is as dark as an African. John 2XW tells me he has been busy touring the countryside and is busy at home, but finds time in the early hours of the morning to get among the Ws.

SOUTHERN DISTRICTS ZONE

In Canberra this month a new radio club was born, "The Canberra Radio Club." It was convened by 2AIL, and 18 members were enrolled, and there were apologies from five others, so that it is off to a good start. Foundation members include 2PM President, 2PI Vice-President, 2ASB Secretary, 2AIL QSL Manager and Publicity Officer, together with 2PI, 2PM, 2ADM, 2TV, 2ANR, 2UH, 2JG, and 2IX. Apologies were received from 2ET, 2GU, 2ACG, 2ADG, and 2UZ. All enquiries should be addressed to 2AIL or 2ASB, of Australian Broadcasting Commission, Civic Centre, Canberra, A.C.T.

Canberra will shortly be the centre of a v.h.f. craze, as all the members are interested in and building 144 Mc. equipment, so swing your beam Canberra way occasionally boys, as some 11 stations will be active, it is hoped, by the time you receive this issue.

2GU, 2JG, 2TV, and 2UH were seen building 144 Mc. gear, so watch out for them. Others seen re-checking Tx's and Rx's and re-adjusting beams, etc., include 2PI, 2PM, 2ANR, 2ASB and 2AIL. They will all, it is expected, be actively working a 144 Mc. net by the month of December. 2TA, Young, and 2WH, Forbes, together with 2DO in Yass are among some who anxiously await signals from Canberra. If you are interested in Canberra, and 144 or 50 Mc. contacts, 2AIL will give you the information you desire.

NORTH COAST AND TABLELANDS

Activity is rapidly increasing on 144 Mc. and 2XO has been heard by 2APS in Tamworth. Crieff has a theory that 144 Mc. breaks are more likely when barometric pressures are low and proposes to take particular notice of conditions during contacts. Bill 2AWG at Coffs Harbour is putting 5 x 8 signals to 2XO at Raleigh and is just audible at 2AHH in Kempsey. 2PA has been very quiet on 144—possibly because his beam feeders have perished. 2WQ and 2NY also teeing up gear, while 2UN and 2ATS are active in Inverell on 144.

Welcome to the North Coast Amateur fraternity is Perce Sara who has been appropriately allocated the call sign 2QV (Quad Victory). Not wishing Perce any further alarm, but isn't it a coincidence that the Roman V follows Quad! Bill 2AEY had a flit to Newcastle recently and visited some of the Hunter Branch crew. A near neighbour for Bill will soon be at Old Bar in the person of Frank 2ADH. Ken 2APB was last heard of sorting out a three wave length rhombic on 20 which, if the grapevine is working, came to grief in recent winds. Terry Spence, ex-2AIS, recently visited 2AHH and avowed he would soon be on again.

Keith 2GI was not the best—some teeth came out and some stitches went in—hope it is all over now. Allan 2ASO is enjoying a holiday —busman's type. 2WT, 2UN, 2ZP, 2NY, 2JK, 2RK all heard with nice signals on 40. Haven't listened on 80 so don't know how the "old man's" band is shaping. Programmes will soon be out for the next Urunga "Do." It's going to be bigger and better, don't forget to get that portable gear lined up.

HUNTER BRANCH

Our October meeting was honoured by a visit from State President, John Moyle 2JU, and Divisional Councillors Vaughan 2VW and Maurie 2AAN. They took an active part in a lively discussion which followed a lecture on "A Q Multiplier" by Keith 2DG. Keith has built this equipment up with wonderful results. 2DZ was able to represent the Branch at the October meeting of VK4 Division, and Johnny reports that the welcome and hospitality extended to him were overwhelming.

As was expected, Hunter boys were well to the fore in the Jubilee DX Contest, and we hope at least one of those trophies will come to the Hunter Valley. John 2XQ, after experimenting with Zepps for 20 years, has decided they are no good! 2CN has hands full rebuilding shacks; Bert having converter trouble too. Shorty 2NX building all band portable gear for Woy Woy and next Urunga "Do." 2VJ making a comeback and Geoff has a four element 20 mx beam well under way. Another 20 mx convert is 2XT; Bill has cradle erected for beam. Pleased to report Secretary 2SF putting out nice signal on 40 and 20. Varley runs 25 watts, e.c.o., plate and screen mod. President 2CS has been well rewarded for the patient work on new Rx; Lionel says it's "super selective." 2KQ has yard full of building materials and can't get beam up again; Jack keeps his skeds on 80 and 6. At Teralba 2AFA has received first post-war QSLs—from Ws.; Harry plans new antenna pole soon. 2AAI not so active due work, but Ron is receiving some nice DX QSLs.

2YS has plenty of e.m.f. in backyard so no need for Norm to worry about power supplies. Many of the locals have migrated to 20 recently and 2AGD is one; erecting a two element delta match beam. 2IS is there too and Ivan got amongst the DX right away, using new version folded dipole. Having first QSO since April, 1949, 2ANG has nice signal on 20; Phil using 6V6 xtal tritet, 25 w. 807, 2 element beam. Also welcome back on 20 to 2PT; Allan using same gear as at Stockton. New beam on 20 at 2PQ and Tom hopes to have it on 10 soon. 2MR hopes to be on 20 soon; Edgar was worried about folded dipole during westerly gale but poles stood OK. Joe 2ANL getting out on 10 and 6. 2AAM is talking 144; Merv. looking for 8 Mc. crystal.

2CI reports mod. trouble caused by mike resistor, but says phone usual 100 per cent. again now. As a member local fire brigade, 2PJ has been QRL this weather, but Bill works an occasional ZL with QRP 40 phone. 2XY is a busy man, but Neil keeps an ear cocked for DX on 144. 2BZ is dreaming up a vee beam and meantime Dave works 2ADT on 6. Doug 2ADS experimenting with cascode converter on 6 and working ZLs on 40. 2OS enjoying holidays at Lismore. 2ASJ pleased at working Asians during Contest. Flash! 2AMM is a Daddy—a 2nd op. too! Congrats. Bill and Bettey—these notes specially delayed awaiting news.

Hunter Branch Meeting

The Committee is endeavouring to arrange a Social Evening in lieu of the ordinary meeting, the date of which will be Friday, 14th December. It is hoped that the Coalfields and distant members will be able to attend, and all are invited to bring their wives and YLs. Final arrangements will be broadcast by VK2WI.

SOUTH COAST AND SOUTHERN

2RH and 2AXG are two new stations active in this zone, the latter is on after a spell in hospital. Jim is using v.f.o. Hartley circuit, 807 with clamp tube modulator and 11 tube home brew Rx. Col 2ASF had the misfortune to lose his 12A6 final and to keep a sked plugged in a 6V6 and it's still working! Visitors this month, Chas 5WQ (ex-3WQ) and Clyde 3ACE from Birchip. Clyde and family stopped long enough to let their son render some piano solos. Noel 2OJ at last contacted on 40; many and varied antennae grace the landscape in Noel's backyard, he is a bit keen on the Boy Scout's "bob a job" idea, the lawn mower can be heard going while Noel relaxes. Gordon 2OW evidently working on suppressed carrier—entirely suppressed, everything looks OK but Gordon can't get a QSO; two new countries up recently, VP5 and OA, total 84, 45 confirmed.

2BQ, 2APP, 2PM, 2AGZ and 2RH all on parade last Sunday. Peter 2APP been to Sydney for a few days and called at 2NS on the way home. Did you hear of the well known Ham who was expecting some food stuff by mail—parcel arrived and was duly placed in frig. When it was decided to use some of it the contents of the parcel proved to be an electric soldering iron—this butter shortage!

This zone extends congrats to Jim 2ZC for his mighty effort in the recent R.D. Contest—a nice job Jim. Who said a job half done was not good enough. VK7 land can boast of half their members doing a solid job and that was plenty to win the R.D. Contest. Have not had very much time this month, busy on TA12D conversion and many other things. 2DO and 2PM tried 144 between Canberra and Yass, no contact to date. Can't follow this 144 racket too clearly as yet, but it certainly gets the gang in.

COALFIELDS AND LAKES

This zone at least has a population of at least 30 licensed Amateurs. Those who do receive mention in these notes have not been sufficiently active during the past month to attract the correspondent's attention. If you are active and would like it known, drop a line in the mail and include the news. Ken 2ANU visited 2VU who is busy re-building the 50 Mc. gear. Ken is at present designing a new band-switched converter. 2JZ is still active on 10 which must be improving because 2KZ took time to untangle the eight half waves, blown down recently. Bob 2KF caught the antenna disease and lifted the two high frequency beams onto the big pole. 2TY continues to be active on 10 but has not replaced the wrecked beam.

2ALR bobs up on 7 Mc. at odd occasions. Believe it or not but 2ADT's activities have been sorely reduced by work! However a few contacts on most bands are still maintained and he still continues to act a guinea-pig for the DX hounds on 144 Mc. 2KR remains active on 40, 6 and 2 and finally managed to hear 2ADT on 2 mx. 2RU has been busy trying to find someone active when he is on; Major also dug out some DX on 6. Phil 2TX sends his

VALE VK2KJ

It is with deep regret we record the passing of another old timer, Warne ("Blue") Crammond, VK2KJ, of Lane Cove, on 28th October, aged 59.

Active since 1928 and an ardent c.w. man, 2KJ mainly operated on 14 Mc. where the DX attracted him. During the existanee of the Lane Cove Radio Club, "Bine" tutored many newcomers to the game. He was not so active in recent years but his characteristic keying could be heard on odd occasions. During the war years 2KJ was very active in the V.D.C. He was a member of the W.I.A. for over 20 years.

The sympathy of all members of the N.S.W. Division is extended to "Bine's" relatives at his untimely passing.

regards to the gang from G land. To conclude I extend hearty greetings to all for the coming festive season.

WESTERN ZONE

Over past few months the zone notes have taken on the look of v.h.f. notes, but as that is the trend these days, all I can do is record the doings of the month. Any news of activity on the lower frequency bands is still very welcome. On 144 Mc. 2JW of Orange is doing excellent work with pulse transmission, puts good sig. into Forbes on m.c.w. Norm recently went up the 4,600 ft. Mt. Canobolas and put an S8 signal into Forbes with 1.25 w. input. Contacted 2WH and heard 2NS at S9. Lindsay 2EI is now fully operative on two. Trev 2NS still patiently trying to crack open the Sydney-Bathurst link on 144 Mc.; 50 Mc. beam and final coming along steadily.

A long missed voice popped up on 7 Mc. this month. Jack 2OF is still at Doonside and is staging a comeback after almost a year off the air. Jim 2JV is now a Parkesite and we hope he will help 2EI to keep Parkes on the map. John 2AMV has been giving the v.h.f's. a rest to participate in a couple of DX contests. 2WH now has 100 w. on 50 Mc. and waiting for that band to open. Dubbo boys all very quiet, 2AMR on 14 Mc. the only station heard. Rod 2ACU waiting on some gear to be permanently on 144. 2JX is not on from Wentworth Falls as yet but is likely to turn up in one of the contests. 2EX and 2HZ have turned into motor mechanics and so far nothing has blown up. 2LZ still only on v.h.f's. 2RT makes 40 between flights overseas. Everyone on the Blue Mts. waiting for the bushfires and perhaps some emergency work.

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VICTORIA

SOUTH WESTERN ZONE CONVENTION

Saturday, 27th October, was a lovely day and was really perfect for the commencement of the South Western Zone Convention. Visitors and zone members began to arrive early in the afternoon and by about 1600 hours there was quite a gang in the fair city of Warrnambool. Most spent the sunny afternoon seeing the beauty spots at the town, whilst others (3ASD, 3ZM and 3ALQ) spent their time trying to work rare DX on an equally rare antenna, down by the Breakwater.

At 1830 the happy crowd had dinner and at 1930 adjourned to the hall in which the meeting was to be held. The general ragchew was broken up when the meeting was started at 2000 hours. Those present were VKs 3AGD, 3BU, 3JA, 3HF, 3AGV, 3IC, 3GR, 3AKG, 3ZU, 3II, 3XD, 3ABZ, associates Bill Wynes, Jim Gibbins and Eric Gidding. During the course of the meeting a 1,000 Kc. crystal for the zone frequency meter was presented by 3AKR. The hook-up time was changed to 1000 hours on every Sunday on the 3.5 Mc. band. It was decided that the next zone convention will be held on the first available week-end in April, 1952, at Geelong. After the general meeting and supper, some went to bed early and some did not!

On the Sunday at 1000 hours a hidden Tx hunt was held which was won by 3AGD, 3II, 3AKR, and 3BU as a team, with 3AGV and 3IC second. In the winning team 3AGD was driver, 3AKR loop twiddler, 3II observer, 3BU compass man. At 1130 another hunt was held and the same team found the Tx closely followed by 3AMH and 3ASU. After lunch the local shacks and 3YB were inspected and the visitors gradually headed for home.

Of the zone activities generally, 3AGD has at last worked DX on 20 and 6. 3HG has completed his a.c. conversion, and 3AKR has rebuilt everything and experienced much trouble with wogs. 3BW has been having a spot of trouble with his new Tx, but has now cleared it up. 3APG has been having a few contacts with his RC16B Tx using 1 watt. Phil tells me his new Tx, which is band switched for four bands, is almost ready. Bill 3WT is putting out a very good signal on 40 mx and has been working ZL. 3ABE is re-building his rig so has not been on for a while.

3AJT still landing all the DX down Geelong way, has re-built his modulator. 3ALG on 80 mx and had a few contacts there, has not got around to putting his sticks in the air yet, but worked ZL with the antenna strung on the top of the fence. 3BU has been using his AT5 and TA12D again. 3IC not very active, has a new motor bike. 3AGN has been on 40 after a long absence, now using cathode modulation. 3ABK still digging post holes. 3AOL not as active over the past month.

EASTERN ZONE CONVENTION

Chief interest this month was the Convention held at Warragul on 3rd and 4th November, when 59 Hams, XYLs and YLs enjoyed what 3SS describes as a "sumptuous repast" on the Saturday evening. After the dinner the ladies attended the movies, while their worse halves made their way to the 3UL clubrooms where the meeting took place. With 3TH as chairman, the minutes of the previous annual meeting were read and confirmed and election of office-bearers for the coming year took place, with the following results: President, Graham Colley 3QZ; Vice-Presidents, 3AHK and 3AMV; Secretary-Treasurer, David Scott; Notes Correspondent 3AHK with 3SG as assistant. Having an assistant, I'll be able to get on the air sometimes!

Various items were discussed and from Max 3ZS and George 3AG we learned quite a lot about the R.A.A.F. Reserve. 3SS complained that 3AG used too many double barrelled words —which Keith couldn't find in his dictionary! He thinks that "umbrage" is a medicine, because people take it!

The next Convention will be held at Bairnsdale on a date to be fixed. On conclusion of the meeting, the ladies prepared supper, and the earbashers departed for bed about 1 a.m.

On Sunday morning we were taken on a tour of Miller's Linen Thread Works by Mr. Eric Waterstrom and I can say that it is a place well worth visiting. After that we proceeded to 3UL where we were welcomed by Mac 3AKM, who gave us the freedom of the station, which is soon to be moved to a new location. 3HK, 3FO and Len Jackson had v.h.f. portable gear in action and made contact with 3US at Leongatha on 50 Mc.

Lunch at the clubroom followed and we were entertained by Martin 3AMV with a tape recording of 3WI's 40 mx transmission. We were not amused by the action of a Ham, who has been active long enough to know better, in flopping his apparently uncalibrated v.f.o. onto 3WI's frequency and calling CQ! We have the tape to prove it!

Afterwards we proceeded to the State Rivers' project at Jindivick. On arrival at Jindivick, we were welcomed by Mr. Dixon, of the Commission, who explained that the object of the project is to supply extra water to the Mornington Peninsula and places en route. Part of the job consists of driving about 3,000 feet of tunnel through a mountain and after going about 300 yards into said 'ole, personally I think they can have it on their own! After inspecting the power house, we were entertained by Mr. Dixon at afternoon tea.

About 4.30 the gang began the long trek home, and from the general tenor of remarks heard, everyone had a good time, the credit

for which goes to the ladies, and 3AMV and 3QZ who did most of the work.

Several city Hams returned to Melbourne on Saturday night, but an equal number turned up on Sunday so we maintained our average. Altogether 38 Hams attended, the following being the city calls: 3GS, 3FO, 3AG, 3ZS, 3QN, 3ARV, 3VZ, 3IK, 3RN, 3HK, 3HE, 3TO, 3JP, 3GU, 3ZD, 3IE, 3TF, 3TE, 3JO, 3OJ, 3AWO, Len Jackson, and Ken Pincott. With XYLs, harmonics, and YLs, we had quite a gathering, and we say, "come again!"

Odd items. 3WE, who came down from Omeo, was guilty of using some long words too and 3SS wants to know where Bill learned 'em! I think Keith is envious! However, the real puzzle is this: The YL of a highly regarded member of the zone appeared with a black eye. Now! How, when and why? Cheers for now and I'll let my understudy do the notes next month.

CENTRAL WESTERN ZONE

At the last zone hook-up it was decided to hold a Central Western Zone Field Day on the A.N.A. week-end of 1952. Yes, that is the same date as the National Field Day, thus two birds would be killed with the one stone, a zone function which would help along the National Field Day at the same time. Keep it in mind chaps, and go through that junk box and see what can be done about portable operation. All that is required is something simple and reliable, as the ultimate aim in this type of work is preparedness for emergency communications.

3HL has now gone completely DX happy with the new rhombic and is getting S9 plus reports from G land. This, and competition from that super DXer 3HG keeps Alan up to scratch. But as the XYL says, it can't last much longer, as the crop will soon be ripe. 3ATR and XYL dropped into Stawell the other day; apart from providing meat for mosquitoes they spent a pleasant week-end at Hall's Gap. Treva now has the three element beam up and going on 20 and getting good results. 3ARL is very busy playing round with all-band tank circuits, and after a visit to 3AGD's has his grid-dipper calibrated on all bands. Apart from that, Lin, strange to say, is very quiet. 3AKP, after leaving Stawell for Horsham, is back again on the old job, but is not (I think) on the air as yet.

3YW built up a new output stage for the s.s.b. Tx and discovered the treasured 829B was soft—what a life. However the s.s.b. is now operating on 7 Mc. also and we are having a repeat of tuning instructions as in the days of old on 3.5 Mc. A new call heard in the zone was 3ABR located in Horsham. Welcome to the Wimmera OM, and may you have no b.c.i. 3DP now has the new Rx going; finds two stages of 50 Kc. a little touchy, but when in a good mood it has plenty of punch. 3ARM, 3AKW have both been heard on 80 of late, but as the Tx was off, could not be contacted.

The usual zone hook-up will be held on the usual date, usual time and frequency—that is the second Sunday of the month at 1000 hours on approx. 7150 Kc. Will you be there?

NORTH EASTERN ZONE

3UI experimenting with new lazy H beam with driven reflectors for 2 mx. 3CI has built a pre-selector for 2 mx with good results. 3ACK assembling gear for hook-up, was dismayed at the roll up when wanting to go out so promptly fled, leaving Rx on kero tin and Tx in sundry positions until next contact. John not very active lately; had rude comments to make about yours truly being on the air—water on a duck's back John. Atmospherics causing a lot of trouble around my QTH, according to my neighbours it's me, but no response to my request to report alleged interference has come to light so——.

Alec 3AT heard working 3GU; the first time I have heard him for months. Work prevents Alec being on as much as he would like. Quite a lengthy discussion on antennae was taking place, so if a new sort of beam comes to light don't be surprised. Would someone inform me how to work DX on 20. Only two contacts so far—3UI about half a mile, and a Melbourne station. Missed a ZL due to relay burning out at critical moment as he came back. However worked a ZL on 40.

Doug Twigg of Avenel is in process of building a Tx but is still awaiting call sign; will possibly have it before this reaches print. Doug is a constant visitor to Alan and myself. Peter 3IZ has the 6 and 2 mx bug with friend 2RS Albury. He has an idea to complete a 2 mx link from Sydney to Melbourne during school holidays. 3YV heard back on the air; good luck Howard, hope you are able to stay there. We all miss you when you have to decamp because of ill health. 3ACW still working 20. Doug hopes to get him on the hook-up soon.

3HZ busy last hook-up with commercial radio. 3APF and 3FD in town; how about a contact Andy? Don't mind the c.w., probably get some news. Hope your sister is progressing favourably. 3AGT getting explicate directions to zone picnic spot. Stan got lost last year and didn't even get there. Nothing heard from 3PE, 3AJO, 3AGG, although believe the latter is on holidays. We could still do with a couple of v.h.f. men over Benalla way. How about it Ken and Jack?

GEELONG AMATEUR RADIO CLUB

The club organised another of the popular Tx hunts on the first Wednesday night of the month. The Tx was hidden by Bill 3BU approx. four miles from Geelong. First on the location was Jack 3SY and Fred 3ALG who seem to be a good team as this is the third hunt they have pulled off. In second place was Ed 3AKE and party who lost time by being on the wrong side of the river.

The business at the next club meeting was dispensed with and members proceeded to the home of Mr. Bob Keddie who was kind enough to make his projector available to members to show a two hour programme of technical films which proved very interesting to the members. The Club President, Mr. Dick Heighway, 3ABK, thanked Mr. Keddie for the evening, to which he replied it gave him great pleasure to show the films for them and if they were delighted with the evening so was he to be able to combine his hobby with theirs.

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QUEENSLAND

Well here is some staggering news! Our President, Jack Farrell (4WJ) decided to move out of town. 'Tis rumoured he is going to Quilpie. Things are moving rapidly in that connection as his beautiful and efficient beam and tower have already been disposed of—to 4NC I am told. (It would appear that your beam worries are now over Charlie!) It will certainly be a blow to the Queensland Division to lose Jack's services as, no doubt you are aware, it was mainly through his keen business sense during his office as Treasurer that we were able to get out of the red, financially. He also pioneered "Q.T.C." and acted as Secretary, simultaneously with his aforementioned duties, so you can see that if any man deserves special mention for his service to us it should be Jack and his XYL who helped him with the typing and made cups of tea. If the country zone correspondents do their jobs as effectively as is being done at present it would appear that we will hear no more of 4WJ unless he personally drops me a line.

Now then, that last piece of sarcasm should provide a tasty subject for the usual Sunday morning hook-up. You have no idea how much I look forward to receiving some mail from the zone correspondents each month, but I get nothing to sub-edit. (Of course this does not apply to Clare, God bless her.)

4DN is back after an absence from the bands of about 12 months. Congratulations to Daph. and yourself on having a boy, Phil. (Ask Phil to tell you of his grounded grid amplifier.) 4ZB will soon be on again, we believe. His tower will be erected at his new QTH—only 500 yards from 4CC. Many thanks to 4WH for providing the following news. 4EJ has sold his NC200 to one of the boys at 4QN, so temporarily Ted is off the air. 4GD is moving out of Townsville to live at Cape Pallerandera and is dismantling his gear (going into business).

A.O.C.P. CLASS

The Victorian Division A.O.C.P. Class will commence on Thursday, 17th January, 1952. Morse and Regulations are held on Monday and Theory on Thursday evenings from 8 to 10 p.m. Persons desirous of being enrolled should communicate with the Secretary W.I.A., Victorian Division, 191 Queen Street, Melbourne (Phone FJ 6997 from 10 a.m. to 4 p.m.), or the Class Manager on either of the above evenings.

4VH has been transferred to Brisbane. 4XD has purchased 4EJ's 100 w. mod. tranny which cost £9 and which has about 100 impedance matchings on it. 4WH still chasing the c.w. DX as also is 4QL. 4JH inactive (temporarily lost interest). In fact most of the locals have become tired of the poor band conditions and so lack interest.

CLARE'S CORNER

At the monthly meeting of the W.I.A. three visitors were given a hearty welcome by the VK4 Division. They were VS7AL from Ceylon, VK2DZ and VK4JH. A very interesting talk was given later in the evening by VS7AL on conditions of Amateur Radio in Ceylon, making many of the boys quite envious at the quality and cheapness of disposal gear on that island.

Another bit of rare DX to visit Brisbane lately was Phil Palmer, VR3C from Fanning Island. Phil managed to meet quite a number of Queensland Hams either in person or over the air during his short stay. Besides Ham Radio, Phil is very interested in big game fishing, so is Clive 4CC, who once nearly caught a whiting off Sandgate pier, but it got off the hook.

Congratulations to 4KS on his fine performance in the Contest. Keith's effort was featured in the local newspaper and created quite a bit of public interest in the Contest and Ham Radio in general. 4PX is back on the air after his recent marriage. Best of luck to both you and the XYL (Coral), Arthur.

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SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division was held in the club rooms to a somewhat smaller gathering than usual, approximately 75 members, and quite an enjoyable if somewhat technical lecture was given by Mr. Ross on "Aeradio Equipment." Mr. Ross left no doubt in the minds of his listeners as to his grasp of his subject and gave a highly technical description of one or two of the latest pieces of aeradio apparatus, and also a brief description of the modern trend in design of air navigation aids. Unfortunately he overestimated the technical standards of most of his listeners, with the result that a good deal of his remarks were lost in the sea of technicalities. Nevertheless, members were able to form a mental picture from the lecture of some of the pieces of apparatus that they will see on their visit of inspection at Parafield Aerodrome next general meeting, and judging from the questions asked at the conclusion of the lecture, quite a number of members are keenly interested in this visit of inspection. The Past President, Hal 5AW, proposed the vote of thanks to the lecturer which was received with acclamation by all present. Among the visitors present were Messrs. L. Clarke, H. Pearce, and "Bill" Egge, who it will be remembered was once a prominent member of the old Railways Institute Wireless Club. "Bill" came all the way from Berri, and we were sure glad to see him after all these years.

During general business the matter of the VK5 exhibit at the Royal Adelaide Exhibition came up for discussion and, the matter was handed to the recently formed Exhibition Committee to handle as they may decide. The Secretary has made application for a permit to erect and operate an Amateur Radio Station at the Exhibition, and it is expected that the Department will give it a sympathetic hearing. Should we be successful in installing such a working exhibit it will give some very desirable publicity to Amateur Radio in VK5, and it behoves all and every Amateur to put his shoulder to the wheel in such a worthy effort to publicise his hobby.

Most of you know that our worthy Secretary is the organist at the Kent Town Methodist Church, and most of you also know that the best broadcasting station in the State (7KW please note) sometimes broadcasts the Sunday morning service from that church. The announcer one morning announced that Mr. Harold Bowen would be the organist, and the next day Gordon 5XU jumped on my fallen chest and accused me of organising the change of christian name. I strenuously denied the accusation and almost convinced him, but this Sunday his name was given as MISS G. M. Bowen and I have not stopped running yet. I hope that Miss Gertrude Myrtle Bowen does not catch up with me, Whoops! (I'll bet "Pansy" laid in the aisles. Best broadcasting station in State, well???—Ed.)

At the conclusion of the general meeting, the President (Mr. Edward Barbier, 5MD) rose to his feet and with that "cat who ate the canary look in his eyes" which clearly warned me that he was about to castigate me, proceeded, to my everlasting embarrassment, to personally move that the literary efforts of the VK5 scribe be recognised by recording in the minutes to that effect. Apparently my little effort in connection with the R.D. Contest was

the cause of his relaxing his usual Simon Legree manner toward me and whilst I lapped up his laudatory remarks, I feel that it is only fair to say that the praise should be shared by the Editor, who was responsible for lifting the paragraph out of the monthly notes and putting it where it was found. However, I am only human and it was a welcome change to get a pat on the back instead of the usual cracking of the whip. I thangyou, I thangyou.

From my own observations I did not hear any undue excitement on the bands in VK5 during the Jubilee VK-ZL DX Contest, although with the putrid conditions existing at present it was something of a wonder that I heard anything at all. VK5 has never been a very DX Contest conscious State at any time, probably because we never seem to hear the DX that the Eastern States call quite frequently, but I did expect to hear more VK5 signals in the contest than I did. Of course the regulars were there in full force, but even they did not sound very hopeful. As a long shot, Les 5LC appeared to do the best.

Heard from Harry 5KW this month per telephone, and he said that he was quite a lot better, in fact he can get around on a stick but his leg is still a bit weak. He has to go into a hospital for treatment for his leg muscles, and thinks it may be some time before the doctor will permit him to go back to work. The VK5 Council is waiting to see just which hospital he goes into before installing the Type 3 Mark II. at his bedside, and Harry says that he will welcome it because he has read all the books and magazines that have been printed in Australia!

Being the hardest working member of the VK5 Council it naturally fell to my lot to book the bus that will take members to Parafield next month. Bearing in mind that prices these days vary a lot, the President suggested that I ring two or three bus people and compare their prices. We were both amazed to note the wide variation in price of the three people that I phoned, and possibly it will act as a warning to all if I give them to you. The first bus was £7/4/-, the second £6, and the third £4/10/-. Possibly had I rung a fourth I might have been quoted three quid, but there you are.

The President and the Vice-President of the VK5 Council (long may they reign) journeyed out to the Northfield Infectious and Mental Hospital the other Saturday for the purpose of installing a portable Tx and Rx at the beside of Harry 5KW who is receiving physio-phisso-fissio—well anyway he is receiving treatment following an attack of polio. Naturally the President being what he is, the job of making enquiries fell to me, and after I had been in the office of the hospital for about a quarter of an hour he became impatient and came in to find out what ward in the mental section I had been taken to. (That's what he told the office girl anyway.) Actually he found me waging a battle with yards and yards of red tape, and when he finally disentangled me, we both realised that nobody was going to give permission for the installation for fear of possible repercussions, and therefore after visiting Harry in Ward 5, and checking possible hanging points for the antenna, we took all the gear away with us back to the city. At the moment of writing we are still waiting some official permission to go ahead, and Harry is biting his nails uo to his elbow. We had the Past President all cued up for a QSO on 20 from the hospital at three thirty; I hope someone has told him of the delay. Needless to say, the President (Simon Legree Barbier, 5MD) blamed it all on me (Little Eva Parsons, 5PS).

Frank 5MZ has just returned from a trip to Melbourne and Ballarat and is full of appreciation of the many acts of kindness on the part of all of the VK3 boys that he met. 3MZ, 3JR, 3AHH, 3VA and 3GR in Ballarat seem to have gone out of their way to show him the sights of the towns, and Frank is loud in his praise for them. He tells me that 3AVZ is a very progressive Ham Club in Northcote, with an extra good set-up of gear, and they are lucky in having such an enthusiastic secretary in Robby and his XYL Rene, who is also the second op. Frank has not stopped talking about Bert's 3VA station, and from all reports it must be one out of the box.

A new call sign heard on 20 this month is that of associate member Lloyd Brice, 5OK, and we welcome the newcomer to the air. Les 5PN was sighted in VK3 this month as was Max 5GF; Max on business and Les on pleasure, so I am led to believe. Cec. 5BZ is another who is planning a trip home to the old country in the near future. 5CH is still working on his 2 mx xtal controlled Tx and has built a xtal sub-standard for frequency checking. Claude will be moving into his new house before Xmas so that means that he is very busy in other directions. 5JA, who is the only bachelor among the south east gang, and therefore the one to whom they look to for uninterrupted Amateur activity, has not been back from England much more than a month and yet he is active on 40, 20, 10 and 2 mx. How do you do it John?

5TW has only one claim to fame this month and that is that he has spent most of his time in the garden after his annual holidays. This is a radio magazine Tom, not a gardening annual, so please do your best, please! 5FD appears to spend most of his time nursing his junior op if all is to be believed. You can't keep these proud fathers down, although the tape recorder that he has made up bears witness to the fact that John has put his time off from baby holding to good effect. 5MA has been on the air this month testing with n.b.f.m. on 50 Mc. but the trouble with the whole thing is that nobody in the river district has the necessary Rx to receive him properly. Fred is also working on a very secret "thing" behind locked doors and thus has managed to miss a couple of break-throughs on 50 Mc. with natural bad effects on his blood pressure.

5BC has at last wired in his "super" send-receive switch, relays, etc., and as only to be expected it works (I'll get on). By rights, Hughie should not rate a paragraph in these notes because he spends most of his time on 50 Mc., particularly as the season is just about to open, but he makes such a good cup of tea that I want to keep in his good books. 5CF is back from his annual holidays spent caravanning in the southern part of Victoria where many aerials were sighted but no shacks visited. Murray came home to see his aerial buried in the dust which is a poor welcome home to say the least. 5SL has been busy installing a special S/R switch and relays which is as slick or slicker than the one at the QTH of 5BC (copy cat) and Laurie expects to be down for the Xmas social, wife, baby and all. I will be quite happy to pass my expert opinion on the heir to the Sjoberg millions, if you give me an opportunity, Pat.

My anguished plea for someone to forward me some doings of the boys outside my immediate circle met with ready response, and Robert Pearce, who is 16 years old and a polio victim, has written to me and offered to keep me supplied with notes of the doings that he hears on the air. He tells me that he is not an s.w.l., but an a.b.l., which means an amateur band listener, and as he listens for four to five hours a day, my copy bag should be swollen. Thanks Robert for the offer, although I suppose that when you get your ticket you will be too busy dodging me to have time for espionage.

5KU is another of the gang who has taken to gardening, and after hearing all of the gardening plans for the future and also the past, it seems almost impossible that Erg also entered in the Jubilee VK-ZL DX Contest, c.w. of course. 5MS entered in the VK-ZL Contest and also the "CQ" Contest as well, but in his spare time Stuart is still chasing the hard-to-get building material. Here's hoping that you catch up with them OM. 5CJ has been on holidays for most of the month and apart from keeping his skeds on 40 and 2 mx, Colin has little to report. The Council of VK5 Division sent a letter of appreciation to Col this month for his forwarding so regularly the south east notes. Might I add my thanks too.

It gives me no pleasure to record that "Doc" 5MD finished equal third place for VK5 in the R.D. Contest, and according to what I heard today he has gone to one of the local stores to purchase a new hat. I wish that I was on the checking section of the contest. Why does everybody fix it for him to be in a position to poke mud at me. Congratulations to the President (oh, how that hurt me).

I heard on 20 the other night that someone in VK5 had sent fellow scribe Wilson (6LG) an earbasher's certificate. You have my sympathy OM, but always remember that the pen is mightier than the sword and can be wielded just as effectively, so go to it.

It is not often that I allow technical remarks to creep into these notes, but the foregoing has so much home truth that it can't be kept out. "The life of a working horse is given as fifteen years, but somehow or other DAD manages to last longer!"

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WESTERN AUSTRALIA

Two things must be done at the outset of these notes. The first is to explain the absence of any official Divisional screed for several months. When Alec 6AS had to give the job away for personal reasons, some difficulty was experienced in interesting anyone else in the task. My name was bandied about but as I live 300 miles away from Perth I knew very little about this and somehow or other official notification never reached me. However, "it's on again" and the scribe who kept VK6 doings in print eleven years ago now takes on the job again—same typewriter too! We are a well-preserved pair! Thanks, also, to 6LG whose interest in the Division prompted the notes you read in the October and November issues.

Secondly, while there's still time and space, Xmas greetings to all members of this Division and their families and to all Divisional scribes, especially the well-known, well-informed and (it seems) well-upholstered personality whose work appears immediately before mine.

The ionopshere trembled a month or so ago when, out of the blue, 6SA appeared on 7 Mc. with phone! This fact was duly chronicled in my first batch of notes which went astray somewhere in Perth and although the news is not news any more it must be set down in print for posterity. Jim, I didn't believe it possible! Other OT's who make occasional appearances on the "old woman's band" are 6AG, 6BC, 6CP and 6WP although the latter still has to be heard to be believed by this reporter. But there are those who claim to have worked Bill so it must be true. 6WR, who isn't an OT, still works an occasional station whose operator asks the time-worn question "Are you Bill Rodda?" To which, of course, the answer is "no." Haven't seen Bill for years, but firmly believe his downfall began when he went to work for a b.c. station and contracted "needle-watchers' neurosis." Few if any men can watch a db meter all day then go home to Ham Radio at night 'Taint natural.

During the month I had the pleasure of several QSOs with 6RS who was, at the time, developing a new type of emission akin to pulse; this has since cleared up and with the advent of a new all-band final with some questionable habits, has come the new handle of "Smoke-Choke Ron." Another strange call sign located on 7 Mc. recently belonged to Frank Brown who was told by one metropolitan Ham that his signal was "coming in from Mullewa fine business." Reflected skip no doubt for 6FB now resides in the metropolitan area. 6RT still has to explain occasionally that he is no longer at Dangin—but then that comes of not being on the air often enough. Another "rare one" is 6AH of Wiluna who finds very little time for Ham Radio these days it appears.

Contrast Corner. 6WU owns and flies his own "kite" but has said nothing as yet about going "airborne mobile." 6CP spends his working hours "chooffing" up and down a very restricted length of rail track with an electric loco. How are the 46s, Clarrie? Eric 6EC bobs up on 7 Mc. now and then with his f.b. s.s.s.c. transmission. How about an article for "A.R." on exalted-carrier reception, Eric? In a recent QSO with ZL2AAK, 6AG was heard to reminisce on the early 1920s when he was on 440 metres transmitting music. Those were the days!

Accusing Finger Dept. Who was the VK6 on 7 Mc. working cross-band duplex on 28th October with another station on 50 Mc., said 7 Mc. station was well and truly in the c.w. part of the band? AND he's a c.w. man, too! Check the log-books boys!

Gossip Bureau. 6RU on a business trip to Geraldton had an informal evening's discussion with 6CN, 6EL, 6UF (temporary exile from Perth) and 6WZ. Maybe there'll be a branch formed as soon as formalities can be completed. 6CN is still building that rig of his; promised me it would be ready for "the contest," but didn't say which one. Next R.D. is a long way off yet, Cyril!! 6EL has lashed out with his new 815 final on 20 and is raking 'em in. 6UF's gear is in Perth and Fred thinks his stay in Geraldton will only be short. As for myself—well as usual I've set myself more jobs than I can manage so there's somewhat of a bottleneck in the production line so to speak. By the time the c.r.o., the portable Rx and the new rig are finished, no doubt there'll be more bright ideas banked up ahead. I've often said that Ham Radio reminds me very much of the donkey with the carrot held in front. You never catch up, do you?

6KW recently spent a spell in Hollywood Hospital, but as these notes are being written is back at work again. News of Ron's admission to hospital was first received in the country via a 6WI breadcast and it was through another of these, more recently, that we heard of 6RK's sad bereavement Roger and Mrs. Choate received many messages of condolence on the loss of their son Anthony from near and far. Distressing though these news items are when we hear them they go to point out how necessary a Divisional broadcast is, not only for keeping us in touch with Institute matters, but also providing a link in times of suffering with those whom we know so well as call signs and as voices, but whom we may only rarely see in the flesh.

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TASMANIA

The highlight for this month was to learn that we were successful once again in winning the Remembrance Day Contest. This success is, in my opinion, attributed to our untiring Secretary for his efforts in organising members of this Division, more than half of the licensed Hams in Tasmania participating.

Cancellation of the Ham Convention at Burnie was disappointing. Quite a number of members, however, did arrive and from what can be gathered a happy time was had by all in at-

tendance. Several shacks were inspected and from comments received, the North West Division, although few in number, take a very active part in Amateur Radio.

Congratulations to 7BH on passing his second class operator's ticket. Brian is now busy preparing to get the other ticket which we hope will not be any worry. 7LE also busily preparing for the examination, preparatory to gaining his first-class certificate. F.b. signal heard from 7SK, had trouble with aerials during a recent heavy blow which have now been replaced with several new long wires, apparently with quite a lot more gain than previously. 7KA now experiencing b.c.l. trouble which has retarded activity to a great degree. Trust this is soon overcome Ken.

Seen purchasing some new amplifier equipment in town was 7CT. 7RJ also seen spending some of the "house keeping" money on radio parts. Several members of the 7SR Signals Radio Club visited the mainland for a stay of a week or so. 7AL is due to go shortly also which will prove a break for our busy QSL Manager. A new Ham to join the club is 7FM who now takes active part in the club's affairs. A comprehensive test was made recently throughout Tasmania in an effort to check radio communication throughout the State. Parties were at Queenstown, Devonport, St. Helen's, Southport and Hobart, operators at each centre being well known Amateurs. Heard 7OM on 40 mx during the month on c.w. Bob must have known I was listening as he slowed down to my modest speed, nice copy Bob.

Believe 7RX is still active on 40 and 20 mx. New beam working f.b. 7FJ seen recently but is not active of late. Bert Clark vows he is going to give radio away owing to the present heavy taxation. Complete now with new v.f.o. is 7DW, active again on 40 mx. 7NC active still with quite a choice lot of DX cards being received.

Our November meeting was held on the 7th of the month, the lecture was given by 7LJ and the subject being photography which apparently is nearly as expensive as radio to pursue. Meeting concluded at approx. 10 p.m. Quite a collection of radio parts will, it is hoped, be auctioned at the December meeting, so if you are desirous of purchasing some good radio equipment cheap, don't forget, be there or else you may miss out. Len, our auctioneer, seriously thinking of taking up his new job professionally.

NORTHERN TASMANIA ZONE

7LZ has had advise from George Elliott G5LI that he is leaving Britain to live in Canada and should soon be heard with a VE2 call. George, who is very well known to many VK Amateurs, was undecided whether to come to Australia or Canada, but VE land eventually won out.

7RK and 7LZ have been very active in recent contests and are very pleased with some of the rare DX which came to light. From 7BQ comes the news that the six metre band has been opening up for Interstate contacts. Len is still conducting tests with his 576 Mc. gear with associate Percy Crawford on the receiving end.

House building is still occupying all the spare time of 7RB who now has packed away his Ham gear "for the duration," but uses his Rx for b.c. reception. From the back blocks for our last meeting came 7DS with the news of the doings in "the wide open spaces." Hope to see you at more meetings Hugh. A big welcome was also extended to a visitor from VK5, likewise to Des Gray who is interested in the zone.

Associate Graeme Nicholls, who was to have brought along a tape recorder for a demonstration, caught up with the 'flu and couldn't make the meeting. However 7XW was able to narrate some of the more humorous episodes of the F.I. survey made by 7RB and himself—they were chased by bulls that turned out to be poddy calves and at one time were nearly locked in a cemetery. Right in the luck is 7LX who went along to some local auction rooms recently and picked up some nice disposals gear for a mere song. Henry 7HY has been getting his boat ready for summer holidays on the river and is hoping to have a portable operating on 40 mx.

Hear that 7TE now has his home recording outfit going well and puts a few jive sessions on disc now and then. 7AM, we understand, is looking out for any subscriptions that are overdue so hasn't been active on the air lately. Keep up the good work Les.

NORTH WESTERN ZONE

We were all very sorry that the Convention which was to have been held early in November had to be cancelled on account of apparent lack of interest in the State, but at our last monthly meeting we were pleased to welcome the State Secretary who paid us a visit.

7KB is putting out a very nice signal now with his QQE06/40 in the final and I believe you have all the relays working now Ian. Our sincere thanks go to Doug. for the splendid job he is doing as Zone Secretary.

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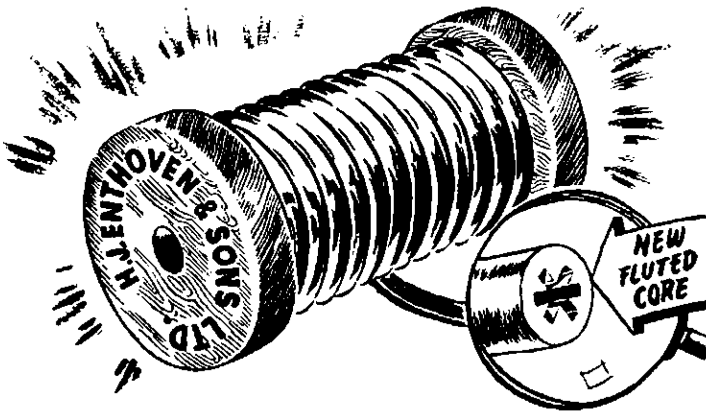
SOLDERS

FOR YOUR EVERY REQUIREMENT!



ENTHOVEN'S **Superspeed** (WHITE FLASH)

Activated
ROSIN CORED SOLDER

ROSIN CORED SOLDER

IMPERIAL STANDARD WIRE GAUGE	DIAMETER IN INCHES	DIAMETER IN MM	APPROXIMATE LENGTH IN FEET PER POUND — ALLOY (TIN/LEAD) 20/80	30/70	40/60	45/55	50/50	60/40	65/35	70/30
10	·128	3·251	22·6	23·2	24·2	24·8	25·2	25·9	26·3	26·7
11	·116	2·946	27·6	28·3	29·4	30·1	30·7	31·6	32·1	33·6
12	·104	2·642	34·2	35·4	36·5	37·5	38·4	39·2	39·8	40·4
13	·092	2·337	44·0	45·1	47·0	48·3	49·0	50·5	51·2	52·0
14	·080	2·032	58·0	59·5	62·0	63·6	64·5	66·5	67·5	68·5
15	·072	1·829	71·5	73·4	76·3	78·5	79·6	82·0	83·2	84·5
16	·064	1·626	90·5	92·8	96·6	99·3	100·8	104·0	105·2	107·0
17	·056	1·422	118·0	121·0	126·0	129·4	132·2	135·0	137·0	139·0
18	·048	1·219	161·0	165·0	172·0	176·4	179·0	184·0	187·0	190·0
19	·040	1·016	231·0	237·0	246·0	253·0	258·0	264·0	269·0	273·0
20	·036	0·914	286·0	294·0	306·0	314·0	318·0	328·0	332·0	338·0
21	·032	0·813	363·0	371·0	384·0	397·0	403·0	415·0	421·0	427·0
22	·028	0·711	473·0	485·0	505·0	520·0	527·0	542·0	550·0	558·0
APPROXIMATE MELTING POINTS		Deg. C.	280	260	238	222	215	190	187	192
		Deg. F	536	500	460	432	419	374	369	378
APPROXIMATE PLASTIC RANGE		Deg. C.	97	77	55	39	32	7	4	9
		Deg. F	256	170	131	102	89	44	39	48

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