CB SKIP WITH US TO STAY! PAGE 9

S9

MARCH 1966

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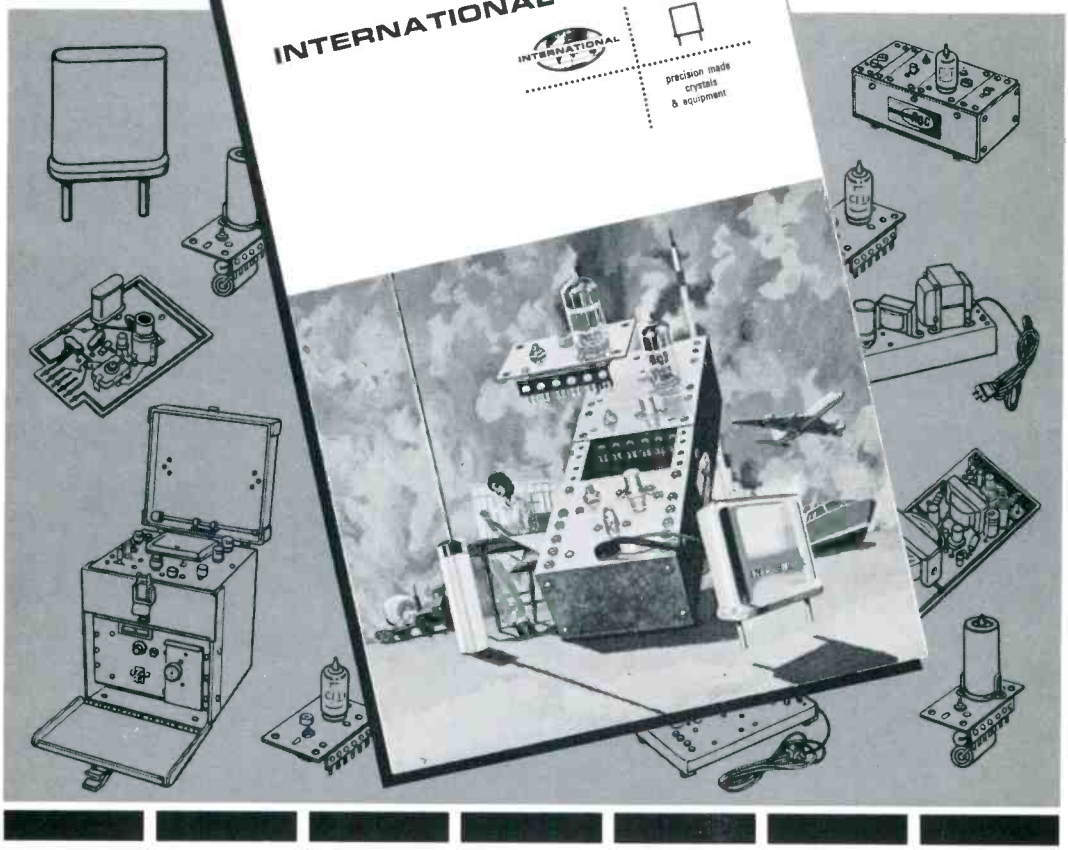

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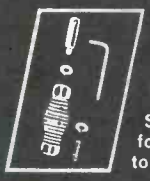

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the citizens band journal

Vol. 6, No. 3
March, 1966

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FEATURES

DEPARTMENTS

EDITORIAL STAFF

BUSINESS STAFF

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READER MAIL

WHAT TO DO

Dear Tom,

Why not find some space in S9 for the publication of a list of commonly used CB phrases, instructions on how to call another station, switching to another channel, signing off, etc. It would be a real convenience.

Alex Gillespie, KNN4722
Dearborn, Mich.

Okay Alex, you're on! We've received scads of letters similar to yours for months now and, as a result, have been working on just such a feature. Watch for it in the next (April) issue of S9. Also included will be a chart showing all of the currently assigned CB prefixes together with their geographic locations, plus a synopsis of the most important CB rules and regulations. This will all be combined in a "CB Operators Manual" which can be removed from S9 and kept handy by the rig. Don't forget, this is in the April S9!

BACK HOME AGAIN

Dear Tommy,

Many thanks to all of the wonderful S9'ers who sent me their QSL cards while I was in Vietnam. While I still have many yet to answer, I'm slowly catching up with the backlog. I can't tell you how much something as simple as a QSL card means to a CB'er so far away from home.

S/Sgt. Jim Carey, Jr., KHD5777
HHB, 45th Artillery Brigade
Arlington Heights, Ill. 60005

If any S9'ers send us the complete names, addresses, and callsigns, of U.S. and Canadian servicemen stationed overseas (or aboard ships) we will run them in S9. We've found time and time again that S9 readers are unmatched for extending a friendly hand when it's needed. S9'ers are a special breed of CB'er.

FRONT END SURGERY

Dear Tom,

The excellent article "Front End Surgery" (S9, December, '65) didn't mention what you can use to improve a receiver blessed with a 6EA8/6U8A in the front end. Any suggestions?

F. H. McCollough, Jr., KKR2349
Shreveport, La.

Tom,

The only substitution you missed out on was for the 6EA8.

G. M. Anderson, KNH5619
St. Louis, Mo.

S9 is the nation's largest circulating CB publication.

You fellows with 6EA8's or 6U8A's are going to have to "make do" with what you've already got. No substitutions tried offered improved reception. You can experiment yourself if you want, we tried the following substitutes: ECF82, 1252, 6678, 7731, 6CQ8.

Tom,

Liked the "Front End Surgery" article and wish to pass along my own favorite substitution. I pulled the 12AU7A and replaced it with a 12AX7WA. Now I have the quietest mobile in town, regardless of the fact that I use a Ford truck. Don't even have to use the squelch, all the noise I hear is virbator hum. My rigs are Johnsons.

Carl Ragar, KKV7544
Altus, Okla.

Dear Tom,

"Front End Surgery" was nothing short of GREAT! Here is what I did to my National NC-190 receiver. RF Amplifier substitutions proved fruitless with 6DE6 and 6DK6 as the stock 6BZ6 was tops until I tried a 6HQ6 which brought me up 3 S-units. The 6HQ6 was popular in early TV sets and most dealers who are still stuck with them should be happy to dispose of them at cut rates. I also yanked the two 6BA6's and replaced them with two 6AG5's and cut the noise considerably. I took the NC-190 and made it a really hot CB receiver with simple modifications.

Roger Camire
Manchester, N. H.

SPOTTY SUNSPOTS

Dear Mr. Kneitel,

To the best of my knowledge, the CB service was established back around 1958, at the end of the 11 years sunspot cycle. This was a time when both the 10 and 11 meter bands were "dead." In a very few years these two bands will be w-i-d-e open again. I wasn't a Ham in those pre-CB days but I hear from old timers that during those years of high sunspot activity, eight watts could get you through to Australia and just about all of Asia. In the afternoons even now the 11 meter skip rolls in and each successive channel seems to be one big hetrodyne. What's going to happen to CB in a few years when a half-million people try to elbow into 23 channels that are no longer "local" but international?

Mike Burns, WA5KWK/KNE0701
Los Alamos, N. M.

When we got your letter Mike, we immediately assigned a sunspot story to one of the most prominent radio propagation experts hereabouts. This, of course, is Stan Leinwoll, who is the "skip" expert for Radio Free Europe (and author of many articles and books on the subject of skip). Stan's analysis and predictions appear in this issue of S9.

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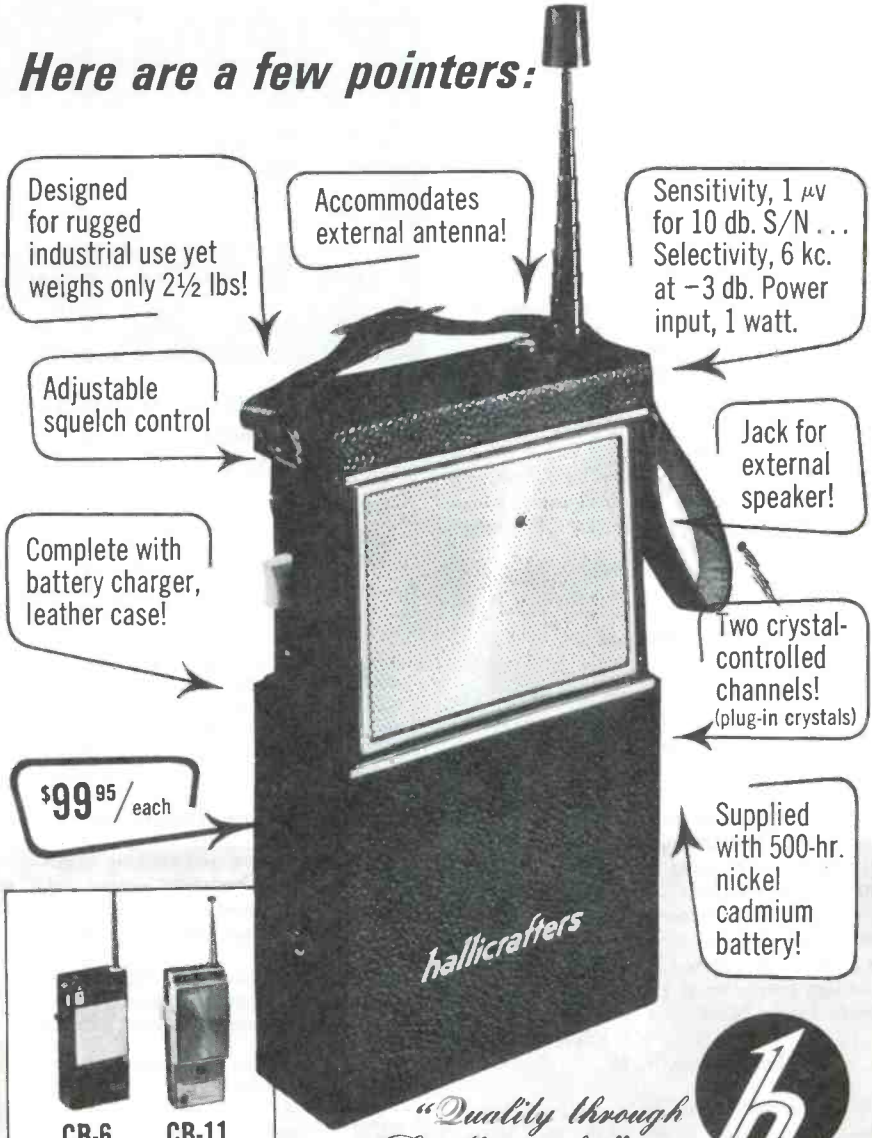

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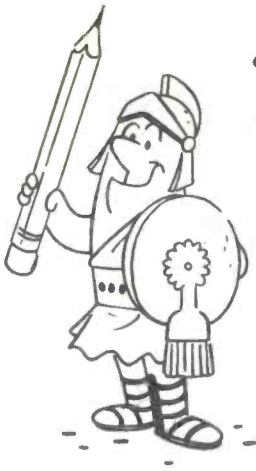

editorial

KBG4303 rides again!

by TOM KNEITEL
EDITOR, S9

CHRISTMAS AFTERMATH

For once, the users of CB and the FCC were both on the same side of the fence. Seems that this past Christmas turned up a bumper crop of unlicensed walkie-talkies in the sweaty little hands of a nasty group of juveniles who decided that 11 meters was a good place to play a game which is apparently called "Idiot." At any rate, we were all bombarded with an avalanche of foul words, deliberate jamming, derogatory remarks about licensed operators on the channel, etc., all done in a variety of voices ranging from *early-teen-adenoidal* to *neo-Cretan*.

FCC monitoring stations nearly burned up a year's worth of recording tape digging the sounds, even though the 100 milliwatt units do not specifically come under FCC jurisdiction (since they aren't licensed). The FBI was a party to the foul language business, however. They were also called in on the case of the Florida Christmas walkie-talkie recipient who sent out a false SOS, claiming that he was on a sinking boat.

Seems that a great many of these hand-held units operate on Channel 10, which, unfortunately, lies within the group of channels which the FCC still permits us to use without full restrictions. That means that the WT's had a good bead on the greatest possible number of us.

What makes the whole situation especially unfortunate is that it reflects poorly on so many people and things. For instance, it made young people look bad; even though many of the teen age CB'ers heard on 5 watt stations are courteous operators who manage to stay on the safe side of the rules. It made walkie-talkies look bad, although, when properly used, they are a dandy piece of low-cost communications gear fitted to 1000 uses. It made all CB'ers look bad because a great many newspapers made a "whole thing" about it for about two weeks (the story earned a spot on the Associated Press newswire).

I don't think that any of the CB'ers (or the FCC) minded the little tots who used the hand-held units to carry on war games, or even those who used them to set up their own "junior Ham" stations. It was just the obnoxious and annoying group who went out of their way to make everyone's life wretched.

Every cloud has a bright side however, and while the morons with the walkie-talkies made us miserable, they turned out to be so dumb that they soon busted the little rigs, or wore out the batteries from constant yakking, or just lost interest and went on to other endeavors (probably made zip guns from the antennas).

Who can do something about this situation which will be with us again next Christmas? Not the FCC. Not the FBI.

Somehow we have *got* to get the message across to the consumers who purchase these rigs, the parents who want to see Clarence occupied with something other than stealing hub caps. Perhaps manufacturers should enclose some instructional material in with the rigs to let the buyers and users know that it is a federal offense to use foul language over the air, as is using a WT for jamming the communications of licensed CB stations.

How do we get the message across to the consumer at the "point of purchase" (as we used to say in the "ad biz")? Frankly, we are open to suggestions from readers. Any and all will be considered, and we will aid in the implementation of any good ideas.

Perhaps a CB'er in Sacramento, Calif., summed it up properly (as reported in the *Sacramento Bee* on January 2). At regular intervals throughout Christmas day he came on the walkie-talkie channel and announced, "Santa Claus is a rat-fink."

COMRADE'S BAND?

Here's an item to excite all of the Birchites in our reading audience, something which has never before been made public.

Continued on page 70

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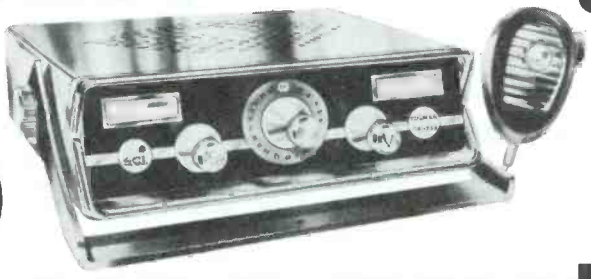

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CB SKIP TO-MY-LOO

CB SIGNALS HIT THE COMEBACK TRAIL

by STANLEY LEINWOLL
RADIO FREQUENCY AND PROPAGATION MANAGER
RADIO FREE EUROPE

The number of skip openings in the Citizens Band has been decreasing steadily since early 1959. This winter is the worst in the history of CB radio for skip. Since things are always blackest right before the dawn, C-Banders should take heart. The lull is over, and for the next six or seven years conditions are expected to improve steadily. Who knows—perhaps there will be a return to those record-breaking "Good Old Pre-CB Days" of 1957 and 1958, when skip to many parts of the country was an everyday affair. Of course, since working skip stations is illegal for CB'ers, improved skip conditions mean lots more interference and many more CB'ers who will give in to temptation and run afoul of the FCC.

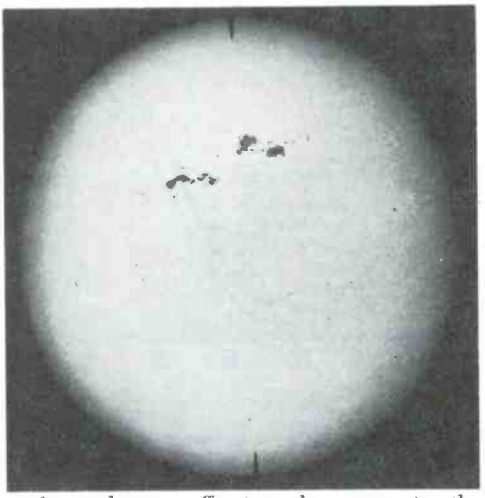
Wha' hoppen? Sunspots have happened, and what is more, they are happening with steadily increasing frequency.

Back in mid-1964, S9 ran an article entitled "A Confidential Dissertation of the Propagational Aspects of Electromagnetic Energy in the 11 Meter Wavelength, Especially Relating to the Decaying Characteristics of Same . . . Or, What's Happening to CB Signals?" In spite of the snappy title, the article itself was a prediction of continued worsening conditions in the Citizens Band, particularly where skip was concerned.

The article predicted these worsening conditions until the minimum of the sunspot cycle was reached. Then, and only then, would conditions begin to improve. Well, the minimum of the sunspot cycle has indeed come and gone. Sunspots, like cuffless trousers, have come back, and with them, improved conditions. It is possible, beginning this summer, that some CB skip interference will be with us every day for the next eight or nine or ten years.

In order to better understand what is happening, and why, it would be advisable to describe briefly the basic principles of CB propagation as well as some of the factors that influence conditions in the Citizens Band.

Skip occurs because of the ionosphere, which is an electrified region high above the surface of the earth. The ionosphere is formed by radiation from the sun. This radiation interacts with gases at various heights above the surface of the earth, and the gases become electrified, or ionized. This region, known as the ionosphere, has the property of reflecting high frequency radio waves in the range from 3 to 30 megacycles. This range includes the Citizens Band.



The radiation affecting the gases in the earth's atmosphere is primarily ultra-violet light, and the intensity of this radiation varies to a great extent. As a result, the ionosphere itself is subject to considerable variation. Because the radiation comes from the sun, the ionosphere varies from day to night, from season to season, and also from year to year, over an eleven year cycle. This 11 year cycle will be explained shortly.

As the properties of the ionosphere change due to changing radiation levels, so too, do the range of frequencies the ionosphere will reflect also change: the greater the intensity of radiation reaching the ionosphere, the higher the frequencies the ionosphere will reflect.

Sunspots have been found to be a major source of ultra-violet radiation. Therefore, the more sunspots, the greater the intensity of ultra-violet light reaching the ionosphere, and the higher the frequencies the ionosphere will reflect.

Thus, the importance of the year-to-year changes becomes apparent. Since the number of sunspots appearing on the sun varies from year to year, the amount of ultra-violet light reaching the atmosphere also varies from year to year.

During the great years from 1957—early 1959, more sunspots were observed on the sun than at any time in history. This can be seen from Figure 1. As a result, the intensity of the ultra-

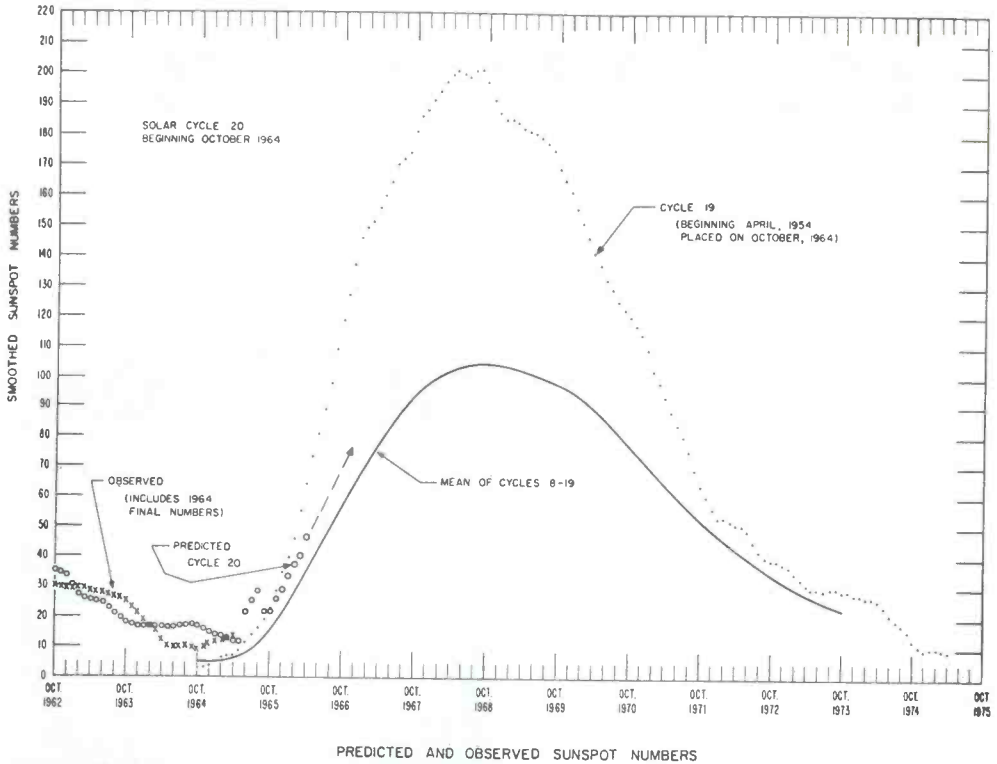


Figure 1. The last complete sunspot cycle (number 19), as well as a composite of previously observed cycles. In addition, the beginning of cycle 20, as well as a prediction of the course it will take.

violet radiation striking the atmosphere was greater than it had ever been. Because of this, the range of frequencies the ionosphere was able to reflect was greater than ever before, and conditions in the 11 meter band were better than they had ever been in the history of radio.

Since the beginning of 1959, sunspots have been declining, and with them, so have conditions in the 11 meter band. The x's at the lower left hand portion of Figure 1 show the most recent sunspot numbers, including those for most of 1965. It can be seen that after reaching a minimum centered on October 1964, they have been increasing very gradually. By looking at the plot of the last sunspot cycle, shown dotted, as well as the average of the previous twelve sunspot cycles, shown solid, it can be seen that once the minimum of a cycle has been reached, sunspot numbers generally begin to increase very rapidly. The slope, or upward slant of the curves is therefore rather sharp.

Radio propagation specialists are able to predict the range of frequencies the ionosphere will reflect for varying sunspot numbers. In general, a sunspot number of 70 means that there will be some skip on 11 meters. After that, the higher the sunspot number, the greater the number of openings there will be in the Citizens Band.

We can see, therefore, that radio conditions depend to a great extent on the sunspot cycle. Study of Figure 1 shows that over a period approximating 11 years, the number of spots on the sun varies from a minimum to a maximum, and back to a minimum again. This variation is what is generally referred to as the 11 year sunspot cycle. Although a complete plot of all previous sunspot cycles is not shown in Figure 1, individual sunspot cycles have varied from nine to fourteen years in duration. The average has been 11 years.

We can see, then, that the cycle, the 19th since regular records started being kept, is the one that in 1957 and 1958 gave us record-breaking conditions, then five years later gave us heart-breaking conditions. It is now over. Cycle 20, shown as small circles on Figure 1, is upon us. By projecting its upward course, we can see that a sunspot number of 70 can be expected late in 1966. After that, the sailing will be smoother and smoother with the passage of time.

How long will conditions continue to improve? At this point it is difficult to say. We are still not far enough into cycle 20 to project with much accuracy how the cycle will go. We can judge, from past experience, that the sunspot numbers will continue to increase for another two or three years, but we cannot say as yet how high they will go. We feel safe, however, in saying that with each passing month, barring short term setbacks due to disturbed radio conditions, conditions will improve.

To give the reader an idea of what he can expect this coming winter, Figure 2 shows the expected range of frequencies the ionosphere will reflect in the United States during the winter months of 1966-67, for varying distances. It can be seen that during the mid-day period, CB DX should be a daily occurrence where the transmitter and receiver are separated by a distance of 2000 miles or more. From Figure 2 it can be seen that transcontinental CB DX should be possible almost every day throughout the winter months.

Of course, this does not mean that every CBander with a rig will automatically be able to raise everyone at or beyond the distances shown on the curve. There are many factors that influence skip at long distances where low power is concerned. On the whole, however, once the winter months have arrived, CB skip should be better than it has been for the past four or five winters.

Where skip is concerned, it is possible, and even likely, that conditions will show a marked improvement beginning in late April or May. This is due not to sunspots, but to another propagation phenomenon called sporadic-E, and abbreviated E_s.

There frequently occur, at the lower edge of the ionosphere, at an altitude of about 65 miles, "clouds" or "patches" of very high ionization, which are capable of reflecting back to earth frequencies much higher than the ionosphere is normally capable of doing.

It was thought, during the early days of radio, that these clouds occurred infrequently, and because of this, the phenomenon was referred to as sporadic-E propagation, both because of the unpredictable nature of the occurrence, and because it occurred at normal E-layer height, which, as we have seen, is about 65 miles up.

These E_s clouds, which we now know are much more common than originally believed, are frequently capable of propagating 11-meter signals, with the result that skip via E_s is fairly common during the summer months, when sporadic-E type propagation is most common.

Using simple geometrical techniques, it can be calculated that since the height of E-layer clouds or patches is about 65 miles, then the distance to which DX is possible is roughly of the order of 1000 miles.

We can see then, that during the summer months, short-skip (from relatively close to about 1000 miles) openings will be most common, while later on, when the normal ionosphere takes over, and DX from about 2000 miles outward is more common, openings will be of the long-skip variety.

Sporadic-E activity varies according to the time of day and the season of the year, but is generally considered to be independent of the level of sunspot activity. There has been some evidence to indicate that E_s is more common during years of low sunspot numbers, but this is not conclusive.

E_s occurs primarily during the daylight hours, from about ten in the morning, local time, to mid-afternoon. As has already been

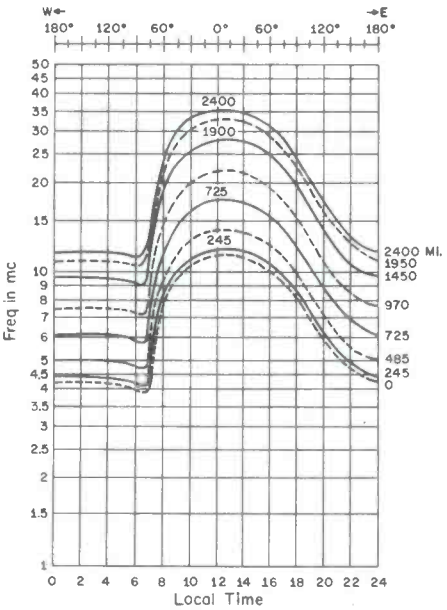


Figure 2. Maximum usable frequencies, in miles, for different distances in the United States during the winter months of 1966-1967.

indicated, it is most common during the summer months, but there is a secondary, and much less pronounced, peak, during the winter time. In winter, when it occurs, E_s is more likely to take place during the evening hours than at night.

SUMMARY

Beginning this summer, perhaps as early as the end of April or mid-May, there will be a pronounced improvement in CB skip. It will begin with short-skip openings, up to distances of around 1000 miles. There may then be a drop in the number of openings in late August and September, but by the time October rolls around, there should again be an increase in CB DX.

How good conditions are in October will depend on how rapidly sunspots have increased to levels around the number 70, as shown in Figure 1. Thereafter, as the number of spots on the sun goes up, skip should be more and more a part of the CBanders activities.

In general, skip due to higher sunspots will be of the long variety, with openings to distances of several thousand miles being more common that short skip that was characteristic of the summer months.

Finally, it would appear that the drought is over. There will be day-to-day variations in the kind of conditions experienced, but in general, they will be much better than the relative silence of the past several years. If you think that local interference is bad now, wait until you start fighting it out with CB'ers from all over the country!

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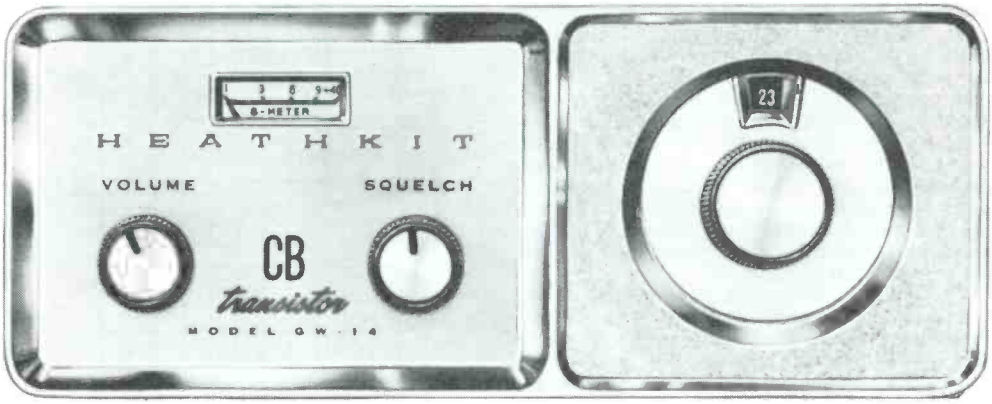

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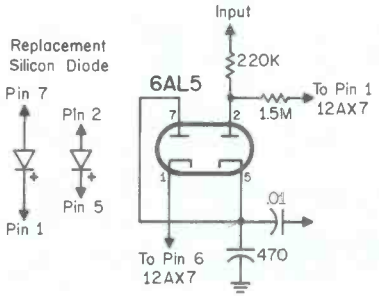
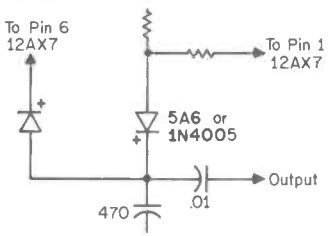


One very popular accessory used on many citizen band radio sets is a noise limiting device known as the "TNS noistop" (manufactured commercially and sold under various trade names). The noistop uses two tubes, a 6AL5 and a 12AX7. While working on a number of CB sets, including my own, I have found that the 6AL5 tube seems to be a weak point. I replaced three of these tubes in one year in my own set.

To remedy this problem, the 6AL5 was replaced by two silicon diodes, and the 12AX7 was re-wired for 6 or 12 volt operation, whatever the case might be. In most cases the new diodes had leads that would fit snugly into the proper 6AL5 tube socket holes without soldering. Soldering could be done right into the circuit though.



The diodes I have used are either International Rectifier 5A6's or Motorola IN4005's. Other similar types should work just as well. The result has been, no more 6AL5 purchases, no diode replacement since making the change, and at least in my case, better noise limiting operation, and of course one less tube to consume extra power.

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- ★ 14 Transistor, 4 Diode Circuitry
- ★ 12 Channel Crystal-Controlled Transmit and Receive
- ★ Full 5-Watt Input — FCC Max.
- ★ Double Conversion Superhet with 455 KC Mechanical Filter
- ★ Push-Pull Audio Amplifier-Modulator
- Variable Squelch Control Plus Automatic Series Gate Floating Noise Limiter
- Large Self-Contained 3 x 5 Inch Speaker
- Push-To-Talk Plug-In Microphone
- For 12 Volts DC Negative or Positive Ground or 117 Volts AC with Optional AC Power Supply
- Supplied with Pair of Channel 9 Crystals for CB and Emergency Mobile Aid through H.E.L.P.

Ultra-compact CB transceiver designed for economical and rugged operation. MOBIL-ADE's full 5-watt transmitter input with highly efficient push-pull audio modulation gives you a husky signal to punch through crowded CB channels. Razor sharp selectivity and fine adjacent channel rejection is achieved by the 455 KC mechanical filter. An excellent choice for both business and personal applications. Sensitivity: 7μv. for 10 db signal to noise ratio. Unit has socket for direct use with Lafayette PRIVA-COM II selective call unit. Supplied with microphone, sturdy mobile mounting bracket, power cable, and a pair of channel 9 crystals. Size: 5 5/16 W x 7 7/8 D x 2 1/8" H. Imported.

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FAMOUS CB FAVORITE . . . NOW ALL-TRANSISTOR PLUS 2 POWER TUBES

ONLY **89.95**

99-3052WX

- ★ 10 Transistors, 2 Tubes, 10 Dodes
- ★ 12 Position Crystal-Controlled Transmit and Receive — 23 Channel Tuneable Receiver
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PLUS

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- Push-to-talk Dynamic Microphone for Enclosed Relay Switching
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- Professional Styling, Attractive Aluminum Knobs
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NEW! LAFAYETTE Comstat™ 25
25-Channel Crystal Controlled CB Transceiver

23 CB plus 2 Emergency H.E.L.P. Channels—All Crystals Supplied!*

Obsoletes All 23 Channel Crystal Control CB Transceivers!

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99-3065WX

FEATURING HIGHLY EFFICIENT RANGE BOOST CIRCUITRY

■ 15 Tube Performance with 10 Tubes, 2 Transistors and 9 Diodes ■ Built-in 117 VAC, 12 VDC Solid-State Power Supply ■ Dual Conversion Receiver Features 8/10 μv Sensitivity ■ Final Utilizes Pi-Network and Low Pass Filter for Maximum Power Output ■ 5-Watt/100-Milliwatt Selector Switch (Rear).

Exclusive Range Boost circuit greatly increases the average talk power. Fine tuning vernier control with 2.5 KC total bandspread simplifies precise zeroing-in on frequency. Highly selective circuits greatly suppress adjacent channel interference (—45 db) and a variable squelch effectively quiets the receiver between calls. Switchable power level allows operation at 100 milliwatts for transmission over short distances. Illuminated front panel meter indicates relative RF output in transmit position and doubles as an S-meter during reception. Front panel switch converts transceiver to a handy 4.5 watt public address amplifier. Comstat 25 features push-to-talk relay switching and a plug-in ceramic microphone with coiled cord. Rear socket is pre-wired to accept Lafayette PRIVA-COM selective call unit. Supplied with vari-tilt mounting bracket. Size: 12Wx8½Dx 5"H. Imported.

*Automobile Mfg. Association H.E.L.P. Application Pending Before Federal Communications Commission.

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THE MEMBERS

ARE ANY OF THESE CB'ERS IN YOUR CLUB?

THE JOINER — In addition to the local CB club, he also belongs to the ACBA and a dozen other "national clubs." Has a lot to say at meetings and frequently brings a portable CB rig. Is the local "skip" working champ. Favorite expressions are "what can I tell ya" and "a big 10-4." Everybody hates him.

THE FOUNDER — The town druggist (everyone calls him "Doc"). Once suggested that the local CB'ers have a get-together in his store's basement. That was the start of the club. Recently he had to sit through two hours of speeches and unfunny jokes about himself when the club presented him with a CB rig for his birthday. Sorry he started the whole mess, but hasn't got the heart to quit.

THE MONITOR — Was a Ham operator back in 1919. Shows up at each meeting and reads a long list of CB rule violations he has heard since the previous meeting. Writes fire and brimstone letters to S9 and demands that the club President read them to the members. Has been on Channel 3 since the early days of CB; nobody else in the county would dare operate on it.

THE OLD TIMER — Never lets anyone forget that he had one of those early "W" CB callsigns. Still uses his 1959 Heathkit "Lunchbox" regen rig, claims that CB has gone to the dogs these days. Next year the club members will give him a plaque.

MR. KNOW-IT-ALL — So dumb that he can't add up a whole lot of sixes, but can give you an instant on-the-spot diagnosis of what ails your rig. Never heard a rig that didn't need his suggestions. Last year he caused four members to leave. Next year he plans on bringing his power megaphone to the meetings to quiet members who talk during the reading of the minutes.

THE FOREIGNER — Showed up six months ago with an out-of-district callsign and was immediately elected to a club office as a gesture of friendship. Drives a beat up old red convertible with a siren. Never talks.

THE BREWMASTER — Makes coffee and serves doughnuts at each meeting. Loves to kid around with the guys. Has a voice like a steam whistle and a laugh that could break windows across town. During the day she holds down the fort on Channel 11 with off-color remarks and recipes.

PROSPECTIVE MEMBER — Came to the meeting because someone broke in on his contact with his wife and invited him. At the meeting he stood up and asked to know the exact purpose of the club. Everybody called him a fink. He never came back.

THE 7-11 SPECIAL

BUILD THIS TINY TRANSMITTER OF A DOZEN USES

by PETER PATTIESON, KBG8911

I call it the 7-11 SPECIAL not because I won it in a dice game (galloping dominoes to the pro) but it cost me exactly $7.11 to construct. Whatzit? It's a tiny little radio transmitter which operates within the broadcast band without need for an FCC license. The crystal mike input, small size (it will fit into a cigarette pack), and ease of construction makes it a useful gadget for a number of uses—some of which will be described later.

You can build it without too much grief by using a piece of Vector Board, plastic, fiberboard, or even metal as the chassis. This material is cut to fit snugly inside a King Size cigarette pack, all of the components have been specially selected for their small size and the whole circuit can be constructed on this size chassis. For you cigar smokers out there in CB-land, you can build the 7-11 SPECIAL in your cigar box using standard size components (and even with standard size parts, you'll still have room for a few stogies).

Parts layout isn't critical, but due to the space limitations you will see that there aren't too many different layout possibilities. A good bet is to place all of the components on the board like a jigsaw puzzle before you do any cutting or soldering. You can then juggle around your design to give you the layout to best suit you.

The antenna is a piece of bell wire, cut not longer than 10 feet to keep within FCC regulations for Part 15. You must also sign the ID slip, shown here, and affix it somewhere on the 7-11 SPECIAL to keep the FCC happy.

CERTIFICATE OF COMPLIANCE WITH FEDERAL COMMUNICATIONS COMMISSION REGULATIONS, PART 15, PAR. 204

S9 Magazine certifies that this low power transmitting device can be expected to comply with the requirements of Paragraph 15.204 of the FCC regulations under the following conditions: (A) When this device is assembled according to the diagrams and instructions published by this magazine, using components of the exact specifications described. (B) When in use for the purpose and in the manner indicated in the instructions. (C) When operated on a frequency between 510 kc/s to 1600 kc/s and using an antenna limited to a single element not more than 120" long.

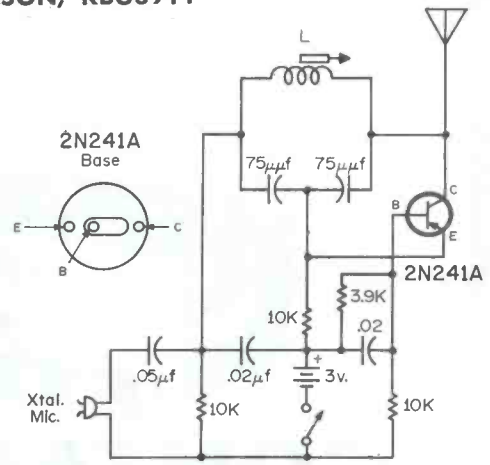
Thomas S. Kneitel

S9 Magazine, Port Washington, N. Y. Dated: February 15, 1966

I hereby certify that I have assembled and adjusted this device in strict accordance with the above.

Owner's signature. Date:

The finishing touch! To comply with FCC regulations it will be necessary for you to sign this tag, cut it from the magazine, and paste it firmly on the rear of the unit.



PARTS LIST

- 2 .02 ufd. (Lafayette 33-6906)
- 1 .05 ufd. (Lafayette 33-6907)
- 2 75 ufd. (Lafayette 32-0943C)
- 3 10K, ½ watt (Lafayette 32-0937C)
- 1 3.9K, ½ watt (Lafayette 32-0937C)
- 1 adjustable ferrite loopstick (Miller 14-9015)
- 1 crystal microphone (Lafayette 99-4510)
- 1 3 volt battery (Eveready E-132N)
- 1 SPST switch (Lafayette 34-3703)
- 1 G.E. 2N241A transistor
- 1 chassis and cigarette box

The microphone which I used was a lapel type which comes with a 5 foot cable. You can use any crystal mic with a moderate to high output, however. In my unit, I left the mic cable attached, but the cable can be snipped and the mic wired into the circuit and mounted right in the cigarette case.

With the unit constructed, turn it on, and also turn on a nearby standard broadcast receiver. Locate a dead spot on the broadcast receiver dial and then tune the 7-11 SPECIAL to that frequency by means of the adjustable coil (L). You may then experiment to see how much DX you can get by simply walking off in a direction away from the receiver, carrying the transmitter and counting into the microphone. Useable distance will vary with several factors such as the quality of the receiver used, the receiving antenna, the transmitting antenna, obstructions to the signal, etc.

USES

The 7-11 SPECIAL was originally built to be

Continued on page 70

S9 has every top CB author in the field!

THE PAINLESS MOBILE WHIP

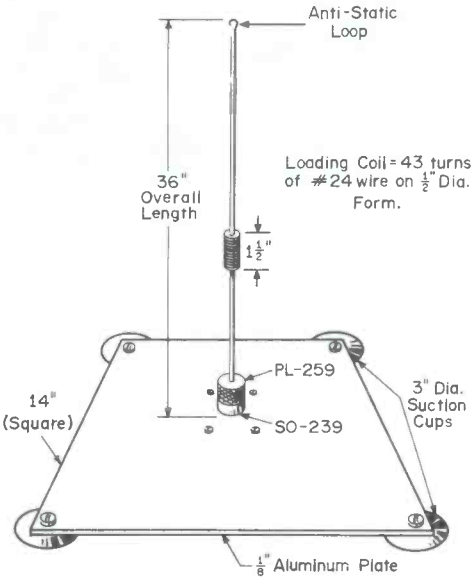
by PETER CARR, KLP6503

When it comes to the best in mobile CB performance, it's generally agreed that nothing beats the roof mount antenna. But it also means climbing up on the roof of your brand new '66 Chromemobile and drilling a large and ugly hole in it. Then there is the task of fishing cable through the headliner and molding. When the average CB'er is faced with all this work he usually gets a pained look on his face and decides that the old bumper mount will last another year. And even if he doesn't mind doing the job he still has to face the YL's objections and the hawkeye of the auto salesman at trade-in time. When all this is considered, its easy to see why other types of mounts are so popular. But read on, because you *CAN* have your cake and eat it too.

The Painless Mobile Whip is as permanent as your roof but can be switched from car to car in seconds. It will survive low trees, garage doors and turnpike speeds and still give you S-9 reports. With all these features its still a Scotsman delight.

The mounting plate is ⅛" aluminum plate, fourteen inches square on which four 3" diameter suction cups and an SO-239 connector are mounted. The cups are sealed with a light coating of heavy grease before being pressed down. Six to ten feet of RG-58 coal run through the rear side window and under the front seat to your rig.

The antenna is made from piano wire which can be purchased at a hobby shop. The lower section is #20 gauge and thinner stock is used at the top since this only supports its own weight. The center loading coil is 43 turns of #24 wire on a ½" by 1½" cylinderical form. Plastic wood or tape and airplane model glue will securely hold the wire inside the coil form.



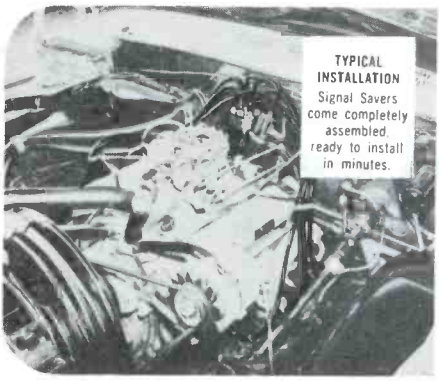
Enamel is scraped from the coil leads and they are soldered to the piano wire. Tape is used to pack the wire into the top of the PL-259 at the bottom antenna. The coil may be sprayed with clear paint or acrylic plastic for resistance to weather as can the solder connections at the SO-239 chassis connector.

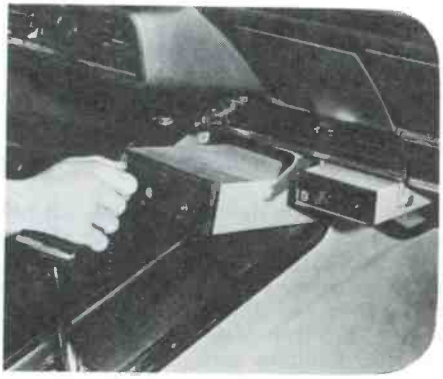
If a ready made antenna is preferred, any of the units designed to be used off the rear of the set may be used with good results. The Hy Gain Mobile Topper telescoping model or the Lafayette base loaded model 99-3015 may be used.

Here then is the truly "Painless" path to better signals.

ADD MILES TO RECEPTION
range of CB & FM receivers

by reducing ignition noise with
HALLETT SIGNAL SAVERS*





HERE'S WHY SIGNAL SAVERS INCREASE RECEPTION RANGE

Your receiver has a given operating range, depending on the type, power and frequency of the base station equipment, your mobile equipment, and local conditions. However, all gasoline-spark type ignition engines create ignition noise that interferes with your reception. And as your vehicle moves further from your base station the signal becomes weaker, the ratio of ignition noise to signal strength increases, and eventually the noise interference overrides your signal. Thus, noise interference limits your communications range.

But by grounding noise interference so it doesn't "clobber" the incoming signal, you can extend your reception range. Even double it. That's how *Signal Saver* works. It places a noise blanketing shield around the sources of the noise – the distributor, coils, spark plugs and high tension leads. In short, *Signal Saver keeps the noise out, lets the message in.*

FREE

Write for helpful information on adding miles to mobile receiver reception. Includes prices and data on Hallett Ignition and Battery Charging Shielding Systems. Get full reception from your receiver by reducing ignition noise. Write today!

There's a Signal Saver to fit practically every internal combustion engine

*Signal Saver is a trademark of Hallett Manufacturing Company

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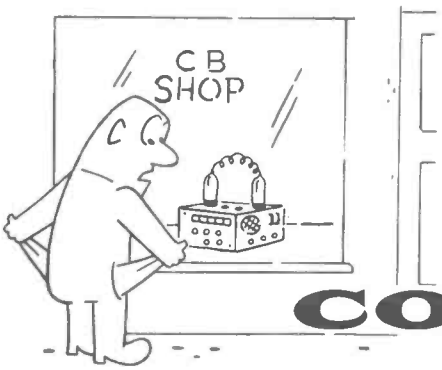


ON THE COUNTERS

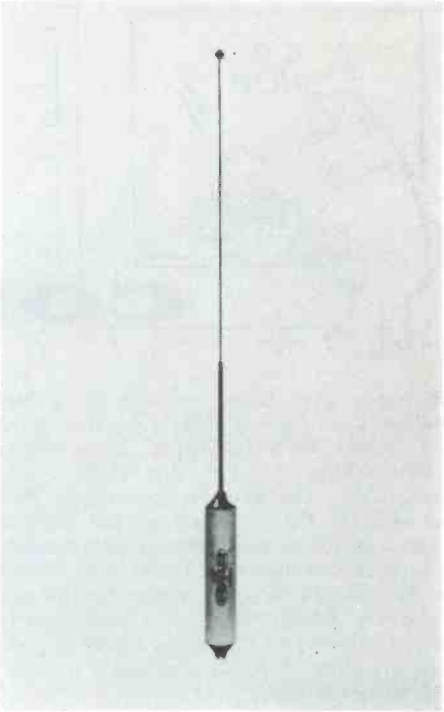
If you've ever been bothered by a high Standing Wave Ratio ("SWR") you'll be interested in the "SWR LIMITER" being offered by Clarke Mfg. Co., P.O. Box 41262, Sacramento, Calif. The manufacturer claims that, used with any CB rig, you'll get just about as perfect a match to your antenna as is possible, if you hook this device into your coax. Sounds like there should be a big market for this one! By the way, Clarke Mfg. Co., is headed up by none other than Jack C. Clarke, KNA0390, who is the President of one of northern California's most active CB clubs.

Lafayette Radio, Dept. S9-C6, 111 Jericho Turnpike, Syosset, N. Y. 11791, has introduced a new 3 transistor walkie-talkie, Model HA-70B, which sells for only $7.50 each. You can get about a quarter of a mile out of one of these nice looking sets; they operate from a 9 volt battery.

The E-Z Mobile Antenna Mount Co., P.O. Box 277, Algonac, Mich. 48001, reminds CB'ers who have new '66 cars that you don't have to drill holes in order to operate with an efficient CB antenna. Their mount will accept any antenna on the market and support it at any speed. Made of 14 ga. steel, it is double chrome coated. Three models are available. Write to E-Z for full specs and prices, and tell them that S9 sent you!

How would you like to have a snazzy steel license plate bearing your CB callsign in either blue, red, or black letters on a white background (baked enamel letters?) If you would, then you're ready to contact Specialty Merchandisers, P.O. Box 448, Burlingame, Calif. The "big" size plate is 6" by 12" and sells for $3 each. A smaller size (4" by 12") is also available. If you want two plates bearing the same callsign, a special $5 is in effect.

The FM Alert is a new FM emergency monitor receiver being produced by Squires-Sanders, Inc., Millington, N. J. Available in two models, one covering 152 to 175 mc/s, and one for 30 to 50 mc/s, both units sell for $89.95, with an optional matching speaker available for $9.95. Some of the features include, variable tuning, two crystal controlled channels, 12 tube performance, 3 uv sensitivity, squelch, solid state power supply.



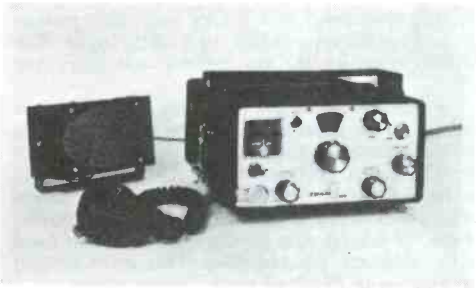
Hams operating on 10/15/20/40/75 meter bands from their mobile units will want to investigate something new from New-Tronics, 3455 Vega Ave., Cleveland, Ohio 44113. The "something new" is the "Super Hustler" and it is designed to take a "full gallon" on any band, offering a wide bandwidth with low SWR. Write to New-Tronics for details.

Have you seen a copy of our own Jim Kyle's new book, "Transistor Etched-Circuit Projects"? If you haven't, trot down to your nearest radio shop and bang on the counter until they show it to you. In it you'll find complete, detailed, step-by-step, instructions for building 30 projects, which include: mike preamp, intercom, amplifier, receiver, shortwave converter, transmitter, test gear, and much more. Price is $2.95 and it's published by Howard W. Sams & Co., Indianapolis, Ind. You'll find Jim's book to be great if you're a beginner, and even better if you are a seasoned builder. By the way, Jim's next book will be "How to Cheat at Pung Chow."

Manufacturers are invited to send in press releases and photographs for listing here, for which there is no charge or obligation to advertise. Readers should take note that we have not investigated the products, claims, or services listed in On The Counters, and cannot be held responsible for any erroneous information contained here.

S9

S9 Lab Reports



The Tram XL-100 CB Transceiver shown with its separate speaker. A snap-on clamp at each side of the set allows it to be quickly installed or removed from the gimbal bracket mount.

TRAM XL-100 CB TRANSCEIVER

The Tram XL-100 CB Transceiver is the most compact vacuum-tube job we've seen so far. It measures only 8⅛" wide x 4⅛" high x 8⅛" deep, making it ideal for mobile installations. Besides this, it imploys a frequency synthesizer to provide crystal-controlled transmit and receive operation on *all* 23 channels which are individually identified by large illuminated and easily read numerals on the selector dial.

A special feature of "the sharp one," as it is called by the manufacturer, is its excellent receiver selectivity that is obtained without sacrificing pleasant and easily understood audio output quality which is further enhanced by the employment of a separate loudspeaker that may be mounted at the most convenient and best location where the audio output can be directed at the operator for maximum intelligibility. In this respect, an unusual feature is an adjustable tone control that provides the maximum effectiveness with individual voice characteristics and which can be set to minimize some types of annoying noise that may otherwise result from interference or other background sources.

The receiver has a very effective solid-state automatic impulse-noise limiter and an adjustable squelch also is included to silence receiver background noise when signals are not present. The sensitivity rating of the receiver is .18 microvolts for a 10 db signal-to-noise ratio and .3 uv for 1 watt AF output. AGC is provided with which the audio output of the receiver varies less than 12 db with signal inputs of from .5 to 5000 uv (80 db). The AF power output is 2.5 watts with 2.5% distortion. A panel meter indicates signal levels in S-units, with S-9 equivalent to an input signal of about 50 uv.

TRANSMITTER SECTION

The transmitter operates at the full legal limit of 5 watts input and it is highly efficient with a minimum output of 3.5 watts. It has a Pi-L output network that provides adjustable matching for use with 50-75 ohm antennas. The L-section acts as a filter to improve harmonic suppression which is rated at 80 db down. This is considerably better than the FCC requirement of 50 db.

The transmitter is capable of being modulated 95 to 100 per cent and high average voice power is maintained by the use of "keyed" audio compression in the speech amplifier. A neon lamp glows when the transmitter carrier is on and it flashes brighter during modulation to indicate that you're on the air with voice. Used as suggested in the manual, it also indicates the proper voice level for optimum modulation. Push-to-talk operation is provided where with the receive/transmit transfer is accomplished with a dust-protected relay that has gold-treated heavy-duty contacts to switch the antenna and the B-plus circuits as needed.

CIRCUITRY

The receiver is a dual-conversion affair using 6255 kc for the first IF, 455 kc for the second IF. Excellent image rejection is ensured by the higher IF, while good selectivity is provided by the lower IF; but unlike with double-conversion systems used heretofore, a unique feature of the XL-100 is the addition of a two-crystal filter at the first IF of 6255 kc to further provide superior selectivity and improved cross-modulation characteristics.

In addition, high sensitivity with low noise and high stability is achieved with a *neutralized*-triode RF stage and a triode mixer. The detector is a crystal diode, a high back-resistance silicon diode is used as a series-gate impulse-noise limiter with an on-off switch, and a triode tube functions as an AGC—operated squelch.

There are two stages of audio amplification ahead of the AF power-output stage and another departure from the usual CB rigs is that the S-meter is operated in a balanced-bridge circuit that is directly driven from the AGC which, incidentally, has a delay bias to allow relatively high AF ouput on weak signals.

FREQUENCY SYNTHESIZER

The frequency synthesizer furnishes frequencies in the 21 mc range that are obtained from the mixture sum of the frequencies from two crystal-controlled oscillators, one operating in the 4 mc range, the other in the 16 mc spectrum. The 21 mc outputs hetrodyne with the 27 mc CB signals in the first mixer of the receiver and this produces a 6255 kc IF which is the difference between the CB signal frequency and the particular 21 mc synthesizer frequency for the channel. The 6255 kc IF is mixed with a 5.8 mc crystal-controlled frequency to produce the last IF of 455 kc.

Fine tuning (delta tuning) to 2.5 kc either side of the channel frequency is uniquely obtained by "rubbering" the 16 mc crystals in the

positive ground also). These units are very small, so in mobile installations they may be mounted out of the way behind the dashboard, on the fire wall or under the seat.

CONSTRUCTION

The XL-100 is solidly built and is nicely styled in a manner befitting a piece of electronic gear. The transmitter and receiver sections are assembled on individual chassis which are mounted vertically to the panel with their bottoms facing outward toward each side of the unit. When the cabinet is removed, each section is thus easily accessible for servicing.

A number of special mechanical features are also incorporated in the XL-100. An adjustable bracket with a gimbal hangar allows 5 inches of front-to-back adjustment and permits suspension or mounting in a variety of ways and at tilted angles. The bracket has snap-on clamps that allow quick removal or installation of the equipment without necessitating the manipulation of nuts and bolts. The snap-on clamps also are provided with facilities for installing padlocks to minimize the possibility of theft. The gear is further protected against unauthorized use by the inclusion of a lock which prevents the application of power, unless the lock is opened with a special key.

PUBLIC ADDRESS

The Tram XL-100 also may be used for low-power PA or "hailing" applications. Instructions

synthesizer through varying the bias on a reactance tube that is shunted across the crystals. During transmit, the reactance tube is disabled, so there is no danger of "out-of-tolerance" or off-frequency operation when you're on the air.

TRANSMITTER

On transmit, the 21 mc output of the synthesizer is combined with a 6.255 mc/s crystal-controlled frequency, the sum of the two producing the desired channel frequency for operating the transmitter which has a driver stage that pushes the final amplifier, a 6GK6, to 5 watts input. The output circuit for the transmitter was described earlier.

The AF power-output amplifier of the receiver doubles as the modulator for the transmitter. In addition, another novel scheme in the XL-100 is one wherein a portion of the AF voltage from the modulator is rectified with a silicon diode and applied as a DC control bias to the suppressor grid of a high-gain pentode stage that is used for the microphone amplifier. This arrangement provides up to 12 db of audio compression.

POWER SUPPLY

One reason why the main unit of the XL-100 can be so well compacted, is that the power supply is a separate package which includes the AF power amplifier/modulator. Two models are available; one is for 120 VAC base-station use, the other for 12 VDC mobile operation with negative ground system (it may be rewired for

for such use are not given in the manual, but it appears that this requires the PA speaker to be connected to an octal-type plug which is then inserted at the rear of the set. When this is done, the transmitter final amplifier is disabled and the microphone signals go through only the PA setup. An accessory unit is being made available to allow instantaneous changeover between transmitter and PA service. Included therein is a PA volume control, a necessity heretofore not provided for PA work with CB rigs.

PERFORMANCE

The manufacturer's specifications for the XL-100 are quite rigid and cover more ground than usual. The figures for receiver sensitivity/noise ratios are given as .18 microvolts and .1 uv for respective signal-to-noise ratios of 10 and 6 db (30% modulation with 1000 cycle tone). Measurements conducted in the S9 lab, with the XL-100 tone control set at mid range, were indicative of such performance, taking into consideration that we used 400 cycle modulation instead of 1000 cycle tone.

The selectivity is rated as 4 kc at the 6 db points, 20 kc at 95 db. The 6 db bandwidth was found to be somewhat over 4 kc and for 20 kc bandwidth it was at 85 db. Carrier-to-carrier adjacent-channel rejection, rated at 95 db, was 85 db; alternate-channel rejection, rated at 110 db, was at least 100 db (the limit of our test setup! desensitization by adjacent channel, rated at 90 db, was 85 db; and adjacent-channel cross modulation, rated at 65 db, was 58 db. Direct or indirect images and spurious responses measured up the respective ratings of 100, 75 and 75 db down. Other specifications, given earlier in the text, were confirmed.

The transmitter carrier-power output, rated at 3.5 watts minimum, was 4 watts while using a 12.6 VDC power source. Peak modulation limited to just under 100% and the modulated RF envelope was well filled out due to the high average voice power made possible with the audio compressor. No break up of carrier, that could cause splatter, was observed.

Operating the XL-100 in the car was a distinct pleasure. It proved to be operationally sound with superior over-all performance and convenient handling capabilities. The noise-limiter performance was excellent with no adverse distortion; the squelch was exceptionally smooth and which, by the way, could be adjusted to operate with signal levels as low as .1 uv. It had to be set only once as desired and it was not subject to chattering from noise or other sources.

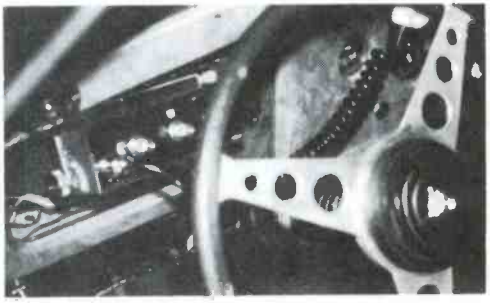
A handy convenience was the large illuminated channel numbers which could be easily read, a particularly helpful feature at night. One thing we especially liked was the separate speaker that could be placed in the most advantageous position and in connection with which the AF quality and intelligibility was tops, in spite of the high selectivity which ordinarily could deteriorate the frequency response required for maximum voice intelligence. In this respect there was plenty of leeway with the tone-control setting to make the signals sound bassy or high pitched, thus providing audio "tailored"

to the operator's taste. Last, but not least, the transmitter produced a fully-modulated crisp-sounding signal that was clean and solid.

The XL-100 is priced at $318, complete with 12 VDC power supply, loudspeaker, microphone and mounting brackets. It is a product of Tram Electronics, Inc., Dept. A-3, P.O. Box 187, Lower Bay Road, Winnisquam, N. H. 03246.

Manufacturer's specifications for adjacent-channel rejection usually are based on carrier-to-carrier signals. Heretofore, adjacent-channel measurements made in the S9 lab usually were conducted using 400-1000 cycle modulation with the adjacent channel which we feel is more indicative or "splash-over" or "cross-talk" characteristics; nevertheless, in the future we expect to present our findings both on a carrier-to-carrier and on a cross-talk basis. For instance: The report on the Johnson Messenger III, reviewed last month, was based on adjacent-channel cross-talk. The equivalent carrier-to-carrier rejection would have been about 50 db.

THE LAFAYETTE HB-555 "MOBIL ADE" RIG



Right from the start we're going to let you in on a secret, we like the HB-555—it's a nifty, tiny, well designed little communications package which is within the budget range of even the most parsimonious among us. Nothing in the world is absolutely perfect, and we did have one or two small unhappinesses about the unit, not enough of them, however, to diminish from our enthusiasm.

The HB-555 is one of the "new breed" of CB rigs, that is, a transceiver designed to be as small as possible, transistorized, and with a minimum of schmaltzy frills (lights, meters, buzzers, switches, knobs, whistles, flags, etc.). In other words, it is made to get a message through while remaining almost out of sight in your car.

The HB-555 is 6 inches across, 2 inches high, and about eight inches deep. The front panel is uncluttered, bearing a mike connector, squelch/PA knob, channel selector, and off-on/volume knob—that's all, brother! Inside are no less than 14 transistors and 6 diodes, these combine for a 5 watt input

(measured at 2.7 watts out), 100% modulated, .7 uv sensitivity in a receiver which has two IF (6685 and 455 kc/s) stages and a mechanical filter. The finished product operates on 12 CB channels (receiver is crystal controlled) with channel 9 crystals supplied. A jack on the rear apron permits either earphone operation or PA (if you hook an 8 or 16 ohm speaker there). The built in speaker has a nice sound quality.

The HB-555 is so small that we mounted it right in the car's glove compartment, running the output to a cowl mounted center loaded fiber-glass whip. For it's small size and lack of frills, it performs its job of communicating very well—draining your battery of less than an amp when transmitting and about 100 milliamps when on receive.

Another thing we liked was its ability to be operated from both negative and positive ground electrical systems. Funny thing, little rigs are superb for sport cars but most manufacturers fail to realize that a great deal of the overseas originated rolling stock possesses positive ground electrical systems. Most transistorized rigs will not operate in sports and foreign cars because of this. The HB-555 *will*, as we mentioned; and it is a welcome sight because of this. To operate the unit from a positive ground electrical system it is necessary to remove 4 Phillips screws to open the cabinet, and then switch connections on two wires (no cutting or soldering is necessary, as the wires are connected with push-on type lugs). It was while attempting to make this swap that we ran into one small problem, that being the Phillips head screws, which must have been tightened by King Kong or Steve Reeves. Two of them were eventually removed by a power operated screw driver, the other two had to be drilled out, being destroyed in the process.

The only bothersome feature of any consequence about the HB-555 is the lack of peaking capabilities. Despite the fact that the instruction manual goes into detail regarding tuning the transmitter for maximum output, and also adjusting the pi-output network for best match to the antenna, all of the adjustable coils and capacitors are sealed tight with a rather stubborn coating of paint and/or wax. Not wanting to take a chance of ruining the delicate components, we were forced to let them be—although the SWR meter showed a reading of 2.5:1, which could probably have been lowered had we been able to tinker with the pi-output circuit. It should be noted that these adjustments may be made only by a properly li-

Continued on page 70

KYLE'S KORNER

WRITE TO:

JIM KYLE, KEG3382
% S9 MAGAZINE
14 VANDERVENTER AVE.
PT. WASHINGTON, N. Y. 11050

Okay, okay! So I have a tendency to goof sometimes, and when I do I sure don't do it by halves. As witness my answer in the November issue to W.D.B. of Spencerport, N. Y., concerning proper usage of the callsign.

At least a dozen of you fine folk (as of this writing; probably will be ten times that many before this reaches print) have caught the booboo. At least I haven't yet been jumped by the FCC for violation of Section 95.93 (b), which states clearly that "each transmission of the station call sign . . . shall be complete, and each letter and digit shall be separately and distinctly transmitted.

This means that the "Kay Eee Gee Thirty-three Eighty-two" which I recommended is completely wrong. The only right way to do it is "Kay Eee Gee Three Three Two."

What makes it doubly embarrassing to me is that I personally arranged for the first publication of the new rules when they were adopted, and went through them with a fine-toothed comb to prepare a summary of their major effects. Obviously, I missed one of the minor changes.

Question for you all for a change: Does this requirement for a "complete" call-sign transmission, taken together with the prohibition against assigning your own modifications to a callsign, make it illegal to add a "Unit One" or "Unit Two" to the sign? (This ought to stir up some controversy—what do you think?)

Now let's get down to business at hand:

COMPLAINT DEPT.

Can you tell me anything about a company in Oklahoma that advertised so enthusiastically in the October issue of S9? I sent an airmail money order for $17.95 on October 5; here it is November 23 and I still haven't heard anything from them. Will you see what you can find out?

—M.A., Sea Cliff, N. Y.

As it happens I was quite closely involved with that project (since I designed and wrote up the device you ask about). The company which arranged to produce them had all sorts of problems getting production off the ground —and one of their biggest problems was the enthusiasm with which S9 readers greeted the gadget! Within the first week after the article appeared in print there were more than 100 orders, and the company had expected to produce only 5 to 10 a week. It took them almost six weeks to get the additional materials in and production rolling, and as I write this reply they advise me they are still running a week to 10 days behind in filling orders. The whole thing became such a headache for the distributor that he's decided to drop the mail-order sales just as soon as he gets all the orders filled to everyone's satisfaction—but at the same time some of the original purchasers are sending in re-orders so it must be as helpful to others as it was to me. Incidentally, there was no advertisement as such—just a single mention in the construction article. If you haven't yet gotten your unit, drop a note to this department and I'll get it touch with the folks at ECA (the manufacturer) personally. If you want more, direct future orders to ECA at 1236 N.E. 44, Oklahoma City 73111 —and they ask me to be sure and remind you to add $1.05 postage and packing which brings the total price to $19 even. By the way, to give you a direct answer to a direct question, the merchant about whom you inquire is most respectable and honest. The problems caused by the TalkPOW'r production delays almost gave him several heart attacks, one after another as delivery dates slipped. I've known him personally for many years now, and have never known him to even attempt to put anything over on a customer; if anything, he leans over backward to be fair. I would be even more laudatory and mention him by name, but he's asked me not to put his name in print again—he's that shook up by the whole affair. However, you need have no worries—and as I said, if you failed to receive a unit by any chance, let me know and I'll look into it personally.

PROCUREMENT PROBLEM

Rod Hudson's construction article on the Supreamp, page 28 of the November, 1965, issue interested me very much as a project. However, none of our local electronics retailers stock B&W 3015 Miniductor required for the

coils. Please advise where I may obtain this component. Thank you.

—J.L., Fort Myers, Fla.

Any of the larger mail-order houses ought to be able to supply this. My 1965 Lafayette catalog (couldn't find the '66 one in a hurry) lists it as catalog number 40 G 1624, at a price of 68¢ per 3-inch length. One should be enough since this amounts to 48 turns of coil stock.

BUREAU OF SOMETHING FOR NOTHING, ETC.

In your October issue you printed a short article on stacking electronically-rotating antennas. Since as you pointed out it would be illegal to stack the antennas and difficult if not impossible to phase these antennas, I would like to know what might happen if one would add 2 parasitic elements in front of the driven element by extending each of the 3 booms. Could this give one the gain of a 5-element beam?

—R.L.D., Long Beach, Calif.

Sorry to toss the cold water, but it would run into exactly the same troubles as an attempt to phase two of them. Actually, all a parasitic element in a beam does is to provide proper phasing of a signal to get the phasing-type gain. This may be hard to see at first glance—and it's even harder to prove, but the antenna experts insist that this is the case and I know just enough about the physics involved to take their pronouncement on faith. Since this is the case, addition of parasitic elements would produce the same problems as an attempt to phase a pair of steerables. If you want really high gain (10 db or more) together with "electronic rotation" so that nothing actually moves, about the only way to do it is with several hundred acres of antenna farm and a whole brace of rhombic arrays. The result is fantastically effective (it's what the commercial outfits such as transoceanic telephone hookups use) but also fantastically costly. If enough of you are interested I'll see about working up a description of the principles involved for publication in these pages as a feature—but I doubt if it's really practical.

AUDIO APPLICATION

Recently I purchased a new mike for my rig. Can I install the mike right from the box or is there any wiring modification on the mike itself prior to installation?

—A.H.R., Rockford, Ill.

Virtually all mikes sold as "extra" items are "universal" wired so that they will work with almost any rig. The only points of possible trouble are in telling which is the audio lead and which is the switching or push-to-talk lead in the mike cable. Usually the audio lead is shielded—but not always. Just hook the new mike's audio lead to the same place the old audio lead went, and the same for the PTT lead. Then plug in and enjoy new audio.

MASH NOTE DEPT.

I very much enjoyed the way that you explained the rules governing QSL's. I think that you should run a regular section on the FCC rules, and how they should be interpreted. You could even let readers send in opinions. Thank you.

—D.D., Mechanicville, N. Y.

After that last boo-boo of mine on callsigns, I'm not so sure that this is such a good idea—but thanks for the bouquet anyhow. Actually, that's supposed to be a part of the function of this department. It's understood that any interpretations given here are strictly unofficial unless marked otherwise—but if the problem appears to be a knotty one I'll seek advice from Washington before giving an answer, and in this case I'll indicate that the interpretation is in fact official (if it is). The door is open—send in the questions!

IS SIDING SHIELDING?

I would like to get your opinion on this matter. Several people have told me that the aluminum siding on my house will kill part of my signal, and several others say it will not. I am going to put up a dual-polarization beam, which will be at the legal limit above the house. This makes it 18 inches above an aluminum awning at one point, and about 3½ feet over the aluminum siding elsewhere. Should I expect trouble?

—Q.D.H., Griffin, Ga.

I wouldn't think you should have any more trouble than anyone else. While the aluminum siding might (and also might not) reduce the signal pickup if the antenna were inside the house, the only effect to expect with the antenna mostly in the clear above it is for the siding to act as a "virtual ground." This would show up as a higher angle of radiation than you might otherwise get, which would slightly reduce your ground-wave range and increase the pick-up of skip signals by possibly one S-unit. Were the antenna as much as 8 feet above the awning, I wouldn't expect any effect at all from the siding. So this all sums up to "Don't worry about it," since it will have about the same effects with any kind of antenna and in any event they should be small.

S-METER DIFFICULTIES

I built your "S-Meter for Transistorized Rigs" (October 1965 column), and now I have some problems with it which I hope you can help me solve. I cannot get full scale deflection of the meter either by adjusting "zero set" or "sensitivity." The highest reading I get is about 3. The meter does respond to signals, but not as much as it should. I had the following variations in the construction: (1) I was unable to obtain 2N1302 transistors and had to use GE-5's. (2) My S-meter is 1.2 MA, a Gonset model 112-005 I had on hand. (3) My receiver is a Pace 5000; it has a test-meter plug on the front panel and I am using this with P-3 to red and P-1 to black. I understand the regular test meter is 0.1 ma. I would appreciate any suggestions you may have for increasing the range. Incidentally, the "zero set" pot only moves the needle about 1.5 points on the scale, and the "sensitivity" about 3 maximum. Thanks for any help you can offer.

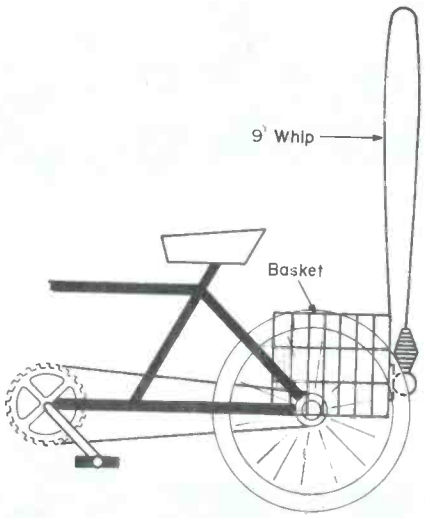
—K.W.G., Jr., Manhattan Beach, Calif.

Whuff! Long-distance diagnosis is always difficult, so the following must be taken as simply educated guesses. Possibly the GE-5 doesn't have quite as much DC current amplification as did the 2N1302's I normally use in this circuit. The 2N1302 is rated for rather low DC beta, but all of them I have tested show up to have exceptionally high values. I would suggest replacing the GE-5's with a pair of type 2N3391A or 2N3390 transistors. These may be a mite difficult to locate but they are very good for this type of circuit (they're the new silicon epoxy units, made by GE, and are rated at DC betas of 250 to 400 for the 3391A and 400 to 800 for the 3390 respectively—either type should cost less than $1 each). If you don't have a GE industrial supplier around close to you (should be several of them in downtown L.A.) you can probably get them from Allied Radio or from Lafayette, since both these concerns try to keep a current stock of late transistors. If this doesn't do the trick, or if it helps but not enough, try adding a 1-megohm resistor from each collector to the opposite base. In fact, you might even try this first, since it takes only addition of a pair of resistors rather than replacement of both transistors. In this change, try to have both resistors matched as closely as possible, and don't be surprised if the meter wants to swing off scale. If the resistors and transistors both match pretty well, you should be able to find a setting of "zero set" which will hold an accurate zero. If they're unmatched and the meter won't zero, switch resistors, and if this doesn't help, change values on one of the resistors a little at a time until you are able to get a good zero. Your hookup to the receiver is correct, and the difference in the meter movement shouldn't have any noticeable effect. I think if you can get a little more amplification out of the transistors by using either or both of these suggestions, you'll find things working out nicely.

BIKEMOBILES, PART II

In the October issue, we had an inquiry from Brooklyn concerning how to put together a "bicycle mobile" installation. I didn't know an exact answer—but you alert readers sure did. Thanks to all of you who submitted pictures and sketches together with detailed descriptions. Some of the pictures were a bit small for reproduction in these pages, but all were appreciated—and a few of your submissions are around here someplace. Now for the additional details, as sent by some of you readers:

From Glen Arbor, Michigan, Scott Gilmore reports, "I successfully set up such a rig, using a 102-inch whip, by mounting the whip on the



rear of the bike's twin baskets. To conquer the whiplash and permit better control of the bike, I 'hooped' the antenna over and connected the top to the other basket with an *insulated* gutter clip. I snaked my coax forward to the rig, a Heath GW-21. Range was 3 miles transmitting and 45 receiving with the antenna over; better with it up. Others might put the rig in one basket and battery in the other . . ."

In Elyria, Ohio, KLM3386 used an International Executive in a rear basket with a 48-inch whip mounted on the rear hub and a car battery in the front basket. "It worked beautifully," he reports.

KLN4532 in Russels Point, Ohio, uses a small transistorized rig (he didn't say what kind and the photo is too small to identify it) mounted below the seat on the side of the frame, with a hot-shot battery strapped to the rear carrier and a whip mounted on the back of the carrier. No performance report given.

At Elmsford, N. Y., KKD1366 has not only a bikemobile but also a "walking mobile." He uses the battery not only to power the rig but to provide head and tail lamps for the bicycle. The unit is "very easy to handle on the road," he says. What's more, he reports he has it patented!

The request is still open. Anybody else interested in bicycle mobiling—or other unusual installations?

Which brings us to the end of the line again, with a box full of questions still to go. Do I have yours in line? If I don't, send it in to me, % S9, 14 Vanderventer Avenue, Port Washington, N. Y. 11050, and sooner or later it'll probably show up here. Until next time, this is KEG Three Three Eight Two.

S9

The CB'ers Creed

As a Citizens Band Radio Operator, I recognize my obligations:

To the Federal Communications Commission and The United States of America, who believe that I am sufficiently mature to be entrusted with the ownership, control, and operation of a radio transmitter.

To my neighbors, who trust their lives and safety to my skill and judgment during times of emergency.

To my fellow Citizens Band operators, who depend upon me to follow established good practices, procedures and courtesies.

To discharge these responsibilities, I will at all times observe the highest standards as a Citizens Band operator.

I will never knowingly cause interruption to Citizens Band stations engaged in communications.

I will be careful to avoid generating interference to radio and TV receiving equipment, and will endeavor to locate and eliminate interference to any such equipment which may emanate from my station.

I will transmit only to pass necessary and substantive messages.

I will make all efforts to make full and proper use of Channel 9, the National Calling and Emergency Channel.

I will aggressively maintain my proficiency as a Citizens Band operator and keep abreast of electronics and communication developments so that my operation, which largely depends on such knowledge, may be of the highest order.

I will conduct myself on the air to reflect credit upon myself, the Citizens Radio Service and my country.

I will constantly strive to keep my standards high.

I pledge adherence to these principles so that I may contribute my part to more efficient radio communications, and advance the dignity of the Citizens Radio Service.

_____

Operator's Name

Building the KG-221 FM Monitor Receiver

DIG THOSE EMERGENCY BROADCASTS

by DAN VEZZANI

When "friend" and "good neighbor" Tom Kneitel handed my 11 year old son Ricky a Knight KG-221 FM monitor receiver and said, "Why don't you and your dad put this together and try it out?" I'm sure Ricky thought him to be a chubby, bearded God but as I emptied out the "magical" box with its impressive looking array of nuts, bolts, tubes, resistors, capacitors, etc., all I could say to Ricky was, "Tell Tom I said thanks a bunch!"

This, I figured, was to be another of those famous father-son projects where dad goes through all sorts of mental and physical gymnastics in trying to put the thing together while son's part of the work consists in restlessly exclaiming, "Isn't it finished yet?"

The truth of the matter was it wasn't the work that had me in such a negative mood but when your boy looks at you with that eager, enthusiastic, "You can do anything, Pop!" look, you hate to let him down. I could still remember that unfortunate experience some ten years ago—the last (also the first) time I attempted wiring a kit—after 22 hours of work I plugged it in and . . . nothing!

However, like Columbus, being of a pioneering branch of Italian ancestory, one which doesn't give up after just one failure (two—maybe) I set about this new venture in a determined and optimistic (?) manner.

First Evening (2½ hours)—By golly! This wasn't bad after all! Even had to admit it was turning out to be fun! I mounted the tube sockets, switch, jack, speaker, audio and power transformers, etc. (with the help of Ricky who fed me the screws, washers and nuts as I called for them) and completed the first wiring on the chassis bottom. The instructions provided for assembling and wiring were found to be remarkably clear and easy to understand. The diagrams provided also proved to be most helpful. It was so easy and work progressed so smoothly that Ricky was able to solder many of the terminals himself. In fact my 12 year old daughter Darlene soldered a switch and my 9 year old daughter Danielle a speaker terminal. Everybody got into the act except my wife who was busy with some uncreative chore like

cleaning the kitchen (and our dog, who, though able to perform many dandy tricks, is still unable to catch on to the knack of soldering, although we're working on it).

Second Evening (2½ hours)—The next evening found me hard at work at my task . . . not reluctantly, either! I was eager to get this thing finished. I wanted to see if it would really work. Could all that assemblage of wires and gadgetry really recreate a sound?

Thanks to those great instructions the second wiring proved no more difficult than the first.

Third Evening (4½ hours)—This was a marathon effort. I devoted a long evening to the completion of the third and fourth wiring. Yes, Ricky was still with me but mainly as moral support. The chassis was getting cluttered and it wasn't easy to get the components placed in the right position. Soldering required a steadier hand, also. This portion of the job called for some sweat and patience (and an occasional draught of liquid refreshment) but still, no cause for any kicks.

Fourth Evening (2½ hours)—The final wiring completed! The last resistor ready to be soldered in place when, clumsy me, the lead broke off right at the edge of the resistor. No catastrophe but it meant postponing our trial test another day. Ricky and I were both disappointed. We had been looking forward to trying the receiver out. That's life!

The next day a new resistor was purchased at an electronics shop (8¢) and that night it was quickly placed in its proper location in the receiver. The chassis was slid into the cabinet

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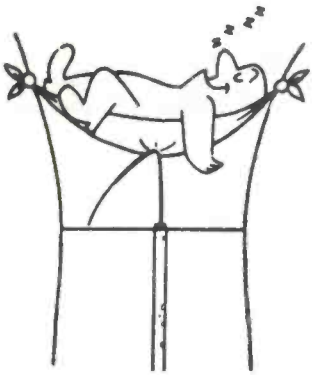


ANTENNAS

by LEN BUCKWALTER, KBA4480

A-GROUND AT SEA

Most CB antennas aboard a boat don't need a ground to put out a signal. But chances are that other objects do. Reason is that metal items above the water line can pick up RF energy from the antenna and begin to act like antenna elements themselves. They kick back signal that upsets the clean, non-directional pattern of the antenna. Also, metal might tune in on noise signals from engine or ignition wiring, build them up and make the receiver noisier than it should be.

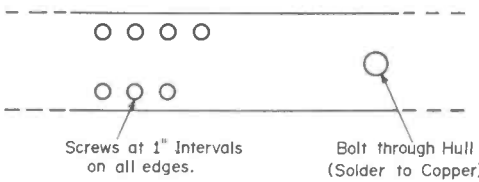
Rule-of-thumb: Anything above the water line made of metal should be tied together with a common ground strap. This is especially true of fibre-glass and wood boats. Don't overlook cleats, chrome strips and the metal posts which support lights. Strap other electronic devices, like a depth finder, into the ground system.

Thin wire doesn't make a good common ground strap. It has too much of a coil-like effect, which just might pick up hash and retransmit it. Best material is copper strip, not thick, but wide. About a 2-inch width is good. A source of this material is your local lumber, hardware or building supply. It's called "flashing," simply copper in roll form that's used to weatherproof a home roof. It can be fastened to the boat with some adhesive like epoxy cement or suitable screws. Be certain there's good contact at every connecting point and figure the shortest possible wiring run. The less strap, the better. Hook it also to the transceiver case and engine.

Whether you should install an underwater ground plate is up to you. Marine CB antennas rarely require one, but there may be some advantage in noise reduction. A good ground system gives noise a chance to drain into the water and not the antenna.

There are three ways you can go about installing a ground system below the water line: have it done by a professional; the home-brew: and kit. If you get a marine serviceman, he'll probably install a plate designed for the marine radiotelephone band which lies between 2 and 3 megacycles. The FCC recommends 12 square feet, minimum, for the plate. This approach is recommended if you only like to pilot the boat, and not work on it.

The home-brew job uses copper flashing.



Shape or position are not especially critical, but keep the plate at least as large as 12 square feet. Use a good grade of fastener such as Everdur screws and install them along the edges of the copper, a screw every one inch. (See Fig. 1) Anywhere the plate bows out, pin it down with additional screws with a 6-inch spacing between them.

A bronze bolt through the plate and hull brings the ground connection inside the boat. Try to enter at a point near the CB set. Nuts and washers enable you to connect the copper strap inside the boat. To get a good connection between the bolt head and ground plate, solder this point with a heavy-duty iron. Caulk anywhere you suspect water might enter.

Finally there's the kit approach. Instructions make it a simple step-by-step job and all materials are supplied. Heath Company offers a novel kit that consists of two 8-foot copper tubes for fastening along the boat's keel. Just seven holes are needed to mount the tubes, an done holes are needed to mount the tubes, and one of the tubes is equal to nearly 14 square feet.

SNEAKY-E

Spring brings higher temperatures—in the air and in people. For that's the time of Sneak-E, which turns neighbor against neighbor. Reason is that Sneaky-E can fool a TV viewer into blaming a nearby CB'er for chopping up a TV picture.

Officially it's known as "Sporadic-E Layer." And there's good reason. It's a cloud of highly charged gas that flits around high in the ionosphere and causes TV signals to skip as far as some 1,000 miles. So the neighbor's interference can be a distant TV channel arriving on the same frequency being viewed.

Nasty part of the problem is that these electrical clouds shift rapidly, even disappear then return quickly. But usually they happen several days at a time during spring and summer. They

Continued on page 70

ODDS 'N ENDS

by HERB FRIEDMAN, KBI9457/W2ZLF

From time to time we hear remarks from some quarters of the electronic fraternity that the CB'er is a first rank *boob;* a *shmoe,* whose *only* life interest is CB, CB, CB. Yet, from the stack of letters we receive weekly from all of you, our beloved S9 readers, *we know for a fact* that your interests range far afield from CB; that your interest in hi-fi, test gear, tools, auto electrical systems, in fact, virtually anything connected with electronics is often greater than that of the so-called electronic hobbyists.

Often, your letters request we recommend some specific transceiver, or tool, or in the case of two readers, a four door station wagon with almost no ignition interference. As a general rule we, like other publications, don't recommend or suggest specific equipment because there are so many considerations which bear on each individual installation. It is likewise unfair to *you* to give a hedging answer such as: Transceiver *A* is great, but so is *B.*

On the other hand, we don't generally carry advertising other than CB, so, as one reader suggested, we are going to tally your letters, find out what you're interested in and then give you a report on non CB products; and that report will appear here in *Odd 'n Ends.* However, we'd like to make one thing clear. Unlike many publications which write test reports, or comments, from the manufacturer's literature, all items covered here *will actually be tested.* In addition, if we run across items which appear to be no more than a means to part you from your money we intend to work it over, *even if it's for CB* (let's see any other magazine make that statement), and even if it's an advertiser.

So we'll be expecting your letters. Let us know what type of gear you're interested in—anything from model control to auto accessories to hi-fi, you name it—an we'll try to dig up some decent equipment. No one will get a personal answer, but we'll try to cover the gear that interests the majority. Some months you may be bored to tears, but here and there we hope we cover a few things each of you is itching to know about. So here we go.

Unusual as it may seem, a large percentage of you want to know how to drill holes in auto bodies for mobile mounts. Seems like a radio chassis has a thicker steel than a car, and a high-speed drill often tears the body, just like sheet metal. The answer to this one is a *motor speed control,* a device that can slow a high speed drill down to a 300 RPM crawl. One of the best we've run across is Heath's *GD-937A SCR Motor Speed Control.* The GD-937A is a heavy duty control rated a full 15 amperes, and will even carry a heavy duty ½ drill. Instead of an internal circuit breaker that just keeps breaking and making the circuit in case of overload, often destroying the rather expensive SCR, the Heath control uses a standard 3 AG fuse that is accessible from outside the cabinet —you don't have to dismantle the control to get at the fuse. Unlike many controls whose switch is actually not a power switch but a full power switch, which means the control must be disconnected from the line when not in use, the GD-937A's three-way power switch provides full power off in the center position. When set to the *control* position the SCR circuit is connected and the drill speed can be varied from essentially zero (a couple of hundred RPM) to about 80% of full speed. When the normal full speed is needed the power switch is set to *full line*—removing the SCR control and applying full line voltage to the drill. The control is supplied with a three wire grounding power cord which actually grounds the SCR control cabinet and a three-wire grounding receptacle. The motor control is available in kit form; it's not difficult to assemble—at most a couple of hours —and it's virtually impossible to make a mistake. The instruction manual is geared for the rank beginner with lots of pictorials and a good though concise troubleshooting chart.

Our second item is the Knight-Kit KG-371 timing light, available from Allied Radio. Often, heavy ignition noise suppression cause poor engine performance. Sometimes it's due to extensive use of resistor filters, other times CB'ers make the mistake of thinking a change in tune-up will affect noise, then they can't get the en-

gine back to normal performance. With a timing light you can do your own tune-ups, often better than the local "screwdriver mechanic." With the Knight timing light you can adjust your engine's timing to the most optimum setting, as well as check and adjust the automatic advance system. Further, once the engine is properly timed defects such as worn plugs, defective gaskets and wrong fuel grade are more easily pinpointed. The KG-371 is all solid-state; a transistor blocking oscillator generates the high-voltage for the flash-tube, and unlike cheap timing lights which you can hardly see in daylight, the KG-371 produces a brilliant timing flash. The kit is another one evening project; most components are assembled on a small board which fits inside a pistol shaped frame with the flash tube at the business end. Naturally, the on-off switch is a trigger. We've got a complaint, however; Chrysler engines will probably require a special spark plug adaptor—Knight should have included it in the kit. Chrysler cars are not a rarity (I own two) and it sort of takes the pleasure out of building something when you finish it Sunday morning and find you have to wait till Monday—when you can get to the auto shop—before you can try it out. The lousy adaptor should be included in the kit.

Our final item this month is the Endeco Model 100A desoldering tool—a cute gadget that should be in every shop. Ever try to clean a lump of solder off a terminal strip?; right, it generally runs and shorts to the chassis. Or if you've ever tried to change a connection on a printed circuit board you know what a botch can be made if the PC leads are too close. But the Endeco desolderer makes component removal a breeze. Instead of the usual solid soldering tip the Endeco has a hollow tip, with a suction bulb on one end. You simply squeeze the rubber bulb, place the hollow tip over the connection, release the bulb, and every drop of excess solder is *shlurped* off the connection. On PC boards the Endeco does such a good job the component lead is often left free and clear of solder and you can just slide the component off the board. It's the greatest tool for servicing walkie-talkies a printed circuit CB rigs we've run across.

Well, that's the best buys of this month. Don't forget to write and let us know what *you're* interested in.

S9

BEST BETS FOR LISTENERS ON THE DX BANDS

by RICK SLATTERY

Possibly one of the world's northernmost DX shacks, that of Bob Baltimore, KDI2830, who was with Uncle Sammy in Alaska when the snap was snapped. Now back "on the continent," Bob listens from Eglin AFB, Florida.

Busy, busy this month, as the mailman got backstrain from the unusually heavy load of reader mail and photos.

A number of letters have been received which expressed some confusion about the relationship between kilocycles and megacycles, and how to convert the same frequency from kc/s to mc/s and vice versa. A megacycle is equal to 1000 kilocycles, therefore a radio station which operates on 2000 kc/s could also be said to operate on 2 mc/s. To convert then, all you do is to take the kilocycle frequency and count in three numbers from the right. At that stop, drop in a decimal point and you've got the same frequency converted to mc/s. Example: 6195 kc/s is 6.195 mc/s. In reverse, 7.285 mc/s would be 7285 kc/s. OK?

We received a shack photo along with the report from Bert Heiser, KLN4105, Ypsilanti, Mich. Bert uses a Hammarlund HQ-100A, a Hallicrafters S-38E, and 2 VHF monitors. Some of Bert's DX catches include *Deutsche Welle*, Germany, on 9640 kc/s at 2055 EST; *Radio Madrid*, Spain, 6130 kc/s at 2000 EST; *Radio Australia*, 17840 kc/s at 2100 EST; and *Radio Japan*, on 9505 kc/s at 1010 EST.

Steve Jones, KLO0519, Lawrenceburg, Ky., is really quite an all1around DX'er, and his report reflects a wealth of nice DXploitations in many areas. Steve just graduated to a new receiver, a Lafayette HA-230, which he hooked to a 100 foot longwire antenna. His old set was an Ecophone (how many readers remember "Hogarth" from the old World War II Ecophone ads?). Some of Steve's shortwave broadcast items are: *R. Presidente Balmaceda*, Santiago, Chile, 9600 kc/s at 2030 EST; *R. Village*, Monrovia, Liberia, on 4770 kc/s at 1745 EST. On the Ham bands, Steve reports: CO2KX, XE1EEI, HI8JET, YS1IM, VP1WS, VP9FE, VP9NU, and VP9NK on 20 meter AM. From the Utility bands, Steve gleaned the *Mexican Telecommunication Service* at 1203 EST on 18115 kc/s and *Tropical Radio & Telegraph Co.*, Tegucigalpa, Honduras, at 1445 EST on 14350 kc/s, among many others.

Rodney Johnson, Hampton, Va., was digging

Ken Butterfield, KHJ3719, Plymouth, Mich., monitors the megacycles from this neat looking station. Rig is a Hallicrafters S-76, plus a Zenith TV set for that Sporadic E video DX. Ken has been busy on the broadcast bands and has good reason to brag with catches like: Lisbon/669, Paris/674, Madrid/638/737, Holland/790, and Ukraine/647.

Here's a photo of Allen Holmes of Alderwood Manor, Wash. Receiver is a National NC-173 running into a gigantic dipole. Some of Allen's catches include: WSL/890, WBZ/1120, WCCO/830, WJR/760, KOA/850, XERF/1570, WGN/720, CBK/540, CKOY/1310.

through the Ham bands and pulled the following from the 40 meter QRM: EA8CP, and XTOH (what dat?). The 20 meter band produced: HZ1BC, XE5L, CR6FE, CR4AJ, FG7XX, EA9IC, VR5AB, KC4USB, KC4USH.

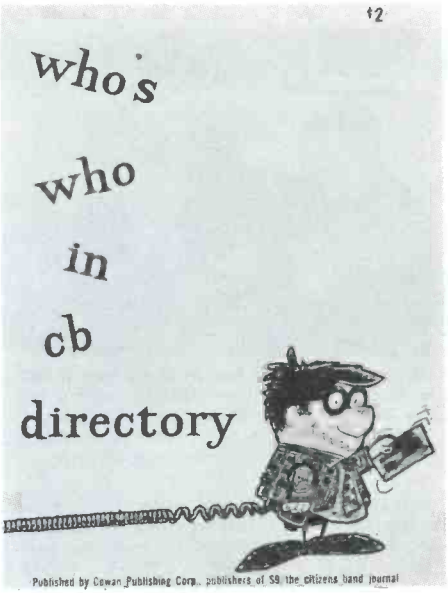
Shortwave broadcast station WRUL has applied to the FCC for permission to change their callsign to WNYW.

William Richmond, KMD6724, West Orange, N. J. heard the following broadcast band stations: XEWA/540, CMCY/550, WKUM/810, XERF/1570.

Next month we hope to present a listing of all of the stations in the Royal Canadian Mounted Police radio network. To the best of our knowledge, such a listing has never before appeared in any publication. We'll have all the frequencies, plus some of their mobile (ship/aircraft) callsigns too. The *Mounties* have a real swinging net going, and it can be heard throughout most of the United States *if you know where to listen!*

Keep those reports and shack photos on the way. If possible, indicate the station schedules in Eastern Standard Time.

From Brooklyn (birthplace of Tom Kneitel), N. Y. we see a shot of the monitoring station operated by Bob Spitzmiller also known as KKD4632. Covering all bands, Bob uses a Sonar "E" on CB, a National NC77 for shortwave, and a Utica Duo-Band FM emergency monitor receiver. Above all can be seen an S9 "wall certificate."



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CARD SWAPPERS UNLIMITED

Swappers Awards are given to those readers who have sufficiently proven that they have reached certain specified levels of achievement in QSL card swapping. There are 19 different and distinctive Swappers Awards, and if you would like a complete set of rules, address your request together with a stamped, self-addressed envelope, to: Swappers Awards, S9 Magazine, 14 Vanderventer Ave., Port Washington, N. Y. 11050. Here are the winners of the black, red and gold certificates for the past month.

SACA	284	D. Bellask, KMD0428, Brooklyn, N.Y.
	285	J. Blythe, KKK5253, Conway, N.C.
PX-25	559	K. Ryan, VE3PEILO, Ottawa, Ont,Canada
	560	B. Hickman, KKK1511, Elizabeth City, N.C.
	561	J. Murray, KMD0363, Bethpage, N.Y.
	562	B. Wood, KHI5002, Gallipolis, Ohio
	563	R. Wilkins, KNA1524, Albany, Calif.
	564	R. Warner, KNC2257, Eugene, Oregon
	565	F. Davis, Conway, N.C.
PX-50	481	K. Ryan VE3PEILO, Ottawa, Ont.,Canada
	482	J. Murray, KMD0363, Bethpage, N.Y.
	483	B. Wood, KHI5002, Gallipolis, Ohio
	484	R. Wilkins, KNA1524, Albany, Calif.
	485	J. Losey, KMP5059, Troy, N.Y.
	486	L. Doxey, KNP5523, Mechanicville, N.Y.
PX-75	375	L. Litchfield, KMV4210, Oklahoma City, Okla.
	376	K. Ryan, VE3PEILO, Ottawa, Ont., Canada
	377	J. Blythe, KKK5253, Conway, N.C.
	378	R. Berger, KNM1285, Columbus, Ohio
	379	J. Murray, KMD0363, Bethpage, N.Y.
	380	B. Wood, KHI5002, Gallipolis, Ohio
PX-100	344	L. Fried, KMD0404, Bellmare, N.Y.
	345	B. Wood, KHI5002, Gallipolis, Ohio
	346	D. Getgood, KLN6367, Sanford, Mich.
	347	J. Cuccia, KMD4139, Lodi, N.J.
PX-125	253	B. Lukonis, KKA8400, Wallingford, Conn.
	254	D. Bellask, KMD0428, Brooklyn, N.Y.
PX-150	208	D. Conder, KNJ4430, Centralia, Ill.
	209	L. McGann, KMA3939, Southbridge, Mass.
PX-175	179	Wm. Haines, KKI4574, Riverdale, Md.
PX-200	154	D. Field, KNK0240, Park Forest, Illinois
PX-700	101	W. Wise, KFA4659, Anaheim, Calif.
MSA	209	Pop Utah, KKA8441, Poquonnock Br., Conn.
SSC-1	218	D. Conder, KNJ4430, Centralia, Ill.
	219	R. Gould, KLM3971, Kalamazoo, Mich.
	220	H. Enaki, KFA4077, Bristol, Conn.
	221	D. Getgood, KLN6367, Sanford, Mich.
	222	Wm. Haines, KKI4574, Riverdale, Md.
SSC-2	167	D. Field, KNK0240, Pk. Forest, Ill.
	168	D. Getgood, KLN6367, Sanford, Mich.
SSC-3	140	J. Mary, KKI2063, Baltimore, Md.
SSC-5	119	Pop Utah, KKA8441, Poquonnock Br., Conn.
	120	D. Theisen, KNM0810, Norwalk, Ohio

If you would like to be listed as a QSL card swapper in our monthly listing, you must do the following: send us a separate card for each month you would like to be listed (you may send several month's worth of cards at the same time), and enclose 10¢ *in cash* (*no* stamps, checks, or money orders) for each month you are to be listed. Try not to write on your cards and don't Scotch Tape your dime to the card. Address the material to: Card Swappers Unlimited, 14 Vanderventer Avenue, Port Washington, N. Y. 11050. Deadline for listing in the May issue is March 12th. Any cards received after this date will be listed in the following issue.

Here are this month's swappers:

1W6216	Errol Engraving, 36 Hampden St., Westfield, Mass.
2Q0152	Karl Weiss, 245 Ashmore Ave., Trenton, N.J.
2Q1147	George Delaney, 308-47th St., Union City, N.J.
4B5372	Jim Cross, 755 South Potomac St., Hagerstown, Md.
6Q0054	Glenn Poore, P.O. Box 6101, Chattanooga, Tenn.
6W7263	Bill Orton, 905 Altamaha St., Chattanooga, Tenn.
9Q0472	Ben Bailey, 4201 Nagle, Bryan, Texas
11Q1313	George Strainline, 1171 W. Miracle Mile, Tucson, Ariz.
11W9751	George Strainline, 1171 W. Miracle Mile, Tucson, Ariz.
18B2648	Glenn Davis, 6143 N. Rockwell St., Chicago, Ill.
18Q4913	Tom Leadbetter, R.R. 4 - Box 40, Muncie, Ind.
18Q5121	Rodger Nordlund, 7635 W. Irving Park Rd., Chicago, Ill.
19A8145	Gene Hecht, 26 Sheridan, Pontiac, Mich.
19Q7741	Willard Shingleton, 1900 Belle St., Parkersburg, W. Va.
19Q8152	John Kasten, 5916 Westbrook Dr., Brookpark, Ohio
20Q1360	Ivan Smith, 419 Water St., Danville, Pa.
KAG2486	Dave Buda, 717 Centre Street, Nutley, N.J.
KAJ0765	J.L. Kirkland, Route 7, Raleigh, N.C.
KAR0738	The Card Swapper, P.O. Box 411, Westfield, Mass.
KBA5557	Ted Cummings, Bellflower Rd., Billerica, Mass.
KBA8387	John Hornyak, 1192 Norman St., Bridgeport, Conn.
KBA8595	Lee Aspinall, 20 Forest Ave., North Haven, Conn.
KBA9919	Frank Trask, RFD 2 Laconia, Gilford, N.H.
KBB0471	Fran Smithwick, Box 62 - Rt. #1, Ellington, Conn.
KBC0264	Everett Decker, Box 411, Westfield, Mass.
KBC0503	Marion Thompson, 47 Paugus St., Lakeport, N.H.
KBC4459	George Sylvia, 21 Page St., New Bedford, Mass.
KBC4768	George Sherman, 25 Church St., Rutland, Vt.
KBC6229	Paul Conant, 139 North Main St., Florence, Mass.
KBC6510	Ralph Bryant, 716 Riverside Dr., Fairfield, Conn.
KBC7679	Robert Hughenin,U.of Pitts.Dorm.,Titusville, Pa.
KBC9285	John Christofaor, 7 New Lane Rd., New Canaan, Conn.
KBD0747	Herb Girard, 348 Carrington Ave., Woonsocket,R.I.
KBD1849	Paul Sanders, 5 Victor Rd., Framingham, Mass.
KBG6576	Charles Arnwine, 725 South Broad St., Trenton, N.J.
KBG7387	Gerry Schechter, 3535 Kings College Pl., Bronx, N.Y.
KBG7687	Robert Thatcher, R.R. 1 - Box 59-B2, Hudson, N.Y.
KBG8079	Alvin Allen, 610 Prospect Ave., Spring Lake Hts., N.J.
KBI1282	Alan Klein, 2755 Audrey Terr., Union, N.J.
KBI2123	Richard Rios, 2897 Ardsley Rd., Wantagh, N.Y.
KBI2251	Mona French, 19 Essex Lane, Old Bridge, N.J.
KBI4513	Al Leslie, 184 Wales Ave., River Edge, N.J.
KBI6025	Max Latterman, Box 608, Rd. 1, Princeton, N.J.
KBI6373	Charles Bennett, 89 Valley Rd., Haworth, N.J.
KBI6480	Art Scheid, 2 Essex Place, Hartsdale, N.Y.
KBI8077	John Krejc, 60 Division Ave., Garfield, N.J.
KBI8510	Robert Gannon, 322 First St., Newburgh, N.Y.
KBI9265	John Sullivan, 20-47 32 St., Astoria, N.Y.
KBJ0753	Richie DuBois, Box 135, RD.#2, Wallkill, N.Y.
KCC2969	Robert Stouch, Box 120 - R.D. 1, East Stroudsburg, Pa.
KCC4016	Wm. Hansche, 2004 So. New Brooklyn Rd., Erial, N.J.
KCD1896	Howard Taylor, South DuPont Rd., Penns Grove, N.J.

KCD4212 Rick Firmani, 110 Olga Rd., Elsmere, Wilm., Del.
KCD6109 Lois Lowell, R.D. 2, Sellersville, Pa.
KCD6125 Neil O'Connell, 22 Cassatt Ave., Berwyn, Pa.
KCF0011 Ed Kacicek, 134 Polk Dr., Manassas Park, Va.
KCF1616 Frank Albanese, Berkeley Springs, W. Va.
KCF2446 Robert Crigger, 411 S. Mount St., Baltimore, Md.
KCG0706 Eddie Becker, 5606 Franconia Rd., Alexandria, Va.
KCG1087 Barney Ross, 425 Garden St., Washington, D.C.
KCG2216 Doris Cross, 755 South Potomac St., Hagerstown, Md.
KCG2419 Park Bedford, 4903 Asbury Lane, Bethesda, Md.
KCG2891 Edith Becker, 5606 Franconia Rd., Alexandria, Va.
KCG3068 Ricky Lowman, 1001 W. Addition St., Martinsburg, W.Va.
KCG3236 Bob Gallery, 5013 Westport Rd., Chevy Chase, Md.
KCG3575 Jim Lott, White Post, Va.
KCG3689 Edward Ross, 1967 Comm.SQDN, APO San Francisco, Calif.
KCG4106 Dave Royer, Rt. 1 - Box 133, Finksburg, Md.
KCI2842 Clarence Moore, Rt. 4- Box 34, Thomasville, N.C.
KCJ1216 James Gough, Rt. 1 - Box 4, Crozet, Va.
KCJ3880 Lee Willick, 3709 Hester Circle, Raleigh, N.C.
KCJ4187 Joel Smyre, 747 S. Brady Ave., Newton, N.C.
KCJ5092 Doug Paynter, 1001 E. Jefferson St., Charlottesville, Va.
KCJ8516 The Morrison's, 826 Longview Dr., Woodbridge, Va.
KCJ9615 James Surratt, Rt. 2 - Box 86, Denton, N.C.
KDA0334 Truman Jones, Rt. 8 - Box 218, Roanoke, Va.
KDB9372 Claude Hooper, RFD. 3 - Box 130, Sylva, N.C.
KDC0843 Raymond Sheely, Box 95, Petersburg, Ohio
KDC1716 John Croke, 21 Elmwood Court, Alexandria, Ky.
KDC2091 Charlie Kreuger, Route 2, Marion, Ohio
KDD1805 Freddie Martin, 779 Derrydown, Decatur, Ga.
KDD9708 Stuart Cash, 1109 Mississippi Ave., Chattanooga, Tenn.
KDI3558 Tom Smith, P.O. Box 147, Orlando, Fla.
KDI3938 Earl Barnes, Rt. 1 - Box 1594, Haines City, Fla.
KDJ0332 Nick Miller, Box 3006, St. Petersburg, Fla.
KEB1661 Bob Fancher, Darling, Miss.
KEE2743 Harry Hoffpowier, 724 Coolidge Rd., Channelview, Tex.
KEJ1049 Harry Garrison, 45503 Sancroft Ave., Lancaster, Calif.
KEJ1341 E.H. Rogers, 24950 E. 6th St., San Bernardino, Calif.
KFA1592 Elliot Ness, P.O. Box 903, Arleta, Calif.
KFA4077 Smitty Smith, 11142 Penn St., Lynwood, Calif.
KFA6387 George Prock, 4814 W. 131st St., Hawthorne, Calif.
KFD1525 Chuck Watrous, 421 W. 12th St., Tracy, Calif.
KFD4351 Steve Kruft, 1755 - 29th Ave., San Francisco, Calif.
KFD5345 Cecil Long, P.O. Box 367, Ivanhoe, Calif.
KFD5811 Larry Kluender, P.O. Box 183, Oroville, Calif.
KFI1219 Jack Sudduth, 8103 16th S.W., Seattle, Wash.
KFJ0479 Agnes Sudduth, 8103 16th S.W., Seattle, Wash.
KGC2295 Duane Foss, Box 238, Laramie, Wyo.
KGI1077 Bob Fellows, Box 38, Goff, Kansas
KGI6100 Robert Schmink, 357 No. Waco, Wichita, Kansas
KGI6245 The QSL Swapper, 5439 Dober Lane, St. Louis, Mo.
KGI7912 Donn Stoneburg, P.O. Box 11221, Omaha, Nebr.
KGI8903 Ralph Williams, 3420 Nickell Dr., St. Joseph, Mo.
KHA0733 Harold Handley, 13800 W. 145th Place, Lockport, Ill.
KHA8376 Gordon Velpel, 801 S. Franklin St., Garrett, Ind.
KHB1210 Larry Rost, R.R. 2, Muscatine, Iowa
KHB2113 Sherwood Risley, Rural Route 4, Mt. Carmel, Ill.
KHC4185 Lou Chappell, 3644 E. Minnie St., Decatur, Ill.
KHC4453 Dick Stout, Maple Spring Farm, Chatham, Ill.
KHC5525 Carl Connolly, 924 Haverford Dr., Lafayette, Ind.
KHD1288 Charles Couchman, Box 194, North Vernon, Ind.
KHD4705 George Newberry, 1027 W. Douglas St., Freeport, Ill.
KHG3085 Edwin Chisholm, 1825 Avon St., Saginaw, Mich.
KHG3450 Ernie Grubb, 1757 Moonlight Dr., Akron, Ohio
KHG4945 C.M. Cooley, 1006 Hooven Ave., Hamilton, Ohio
KHG5896 Ron Neufeld, 3090 E. Derbyshire, Cleveland Hts, Ohio
KHG9085 Alfred Hogan, 1108 Walker St., Mansfield, Ohio
KHH0407 Jerry Rathburn, 22 W. Main St., Alexandria, Ohio
KHH2658 Doc Earley, Box 6, West Union, W. Va.
KHH4408 Pearl Getter, P.O. Box 441, Scio, Ohio
KHI0886 Frank Keersmaekers, 22715 Maxine, St. Clair Shores, Mich.
KHI5457 Geo. Barker, 343 N. 27th St., Battle Creek, Mich.
KHI5522 Jim Foley, Port Sanilac, Michigan
KHI9979 Gene Taylor, 121 N. Adolph Ave., Akron, Ohio
KHJ1206 Marty Snyder, 1516 Lockwood Rd., Barberton, Ohio
KHJ2246 Gus Cottis, R.D. 2, Bantam Ridge, Wintersville, Ohio
KHJ3477 Donald Belitz, 13474 Enid Blvd., Lake Fenton, Mich.
KHJ4598 Fill DeFord, 31 Miller Ave., Battle Creek, Mich.
KHJ5042 Harold Davis, 9575 Shell Beach Rd., Pinckney, Mich.
KHJ5190 Terry Elliott, 327 Riverside Dr., Battle Creek, Mich.
KHJ5862 Peachy Cole, 1025 Muskingum Ave., Zanesville, Ohio
KHJ6091 Lord Ellpus, #646 Hope Expressway, Scio, Ohio
KHJ7033 Max Green. 100 North Main St., North Baltimore, Ohio
KHJ7131 Ken Massie, 115 Woodlawn Dr., Ironton, Ohio
KHJ7892 Boots Beaudry, Box 252, Trenton, Mich.
KHJ7895 Bob Best, 12067 Greenlawn, Detroit, Mich.
KHJ7920 Maury Lackey, Rt. 1 - Box 230, Berea, Ky.
KHJ8472 Scrubboard, 1164 Lindsay Ave., Akron, Ohio
KHJ9411 Jim Waters, 28 S. Pembroke Ave., So. Zanesville, Ohio
KHJ9482 Francis Garrett, 1226 Moxahala Ave , Zanesville, Ohio
KHJ9558 Ed Leonhardt, 3518 Smithfield Lane, Cincinnati, Ohio
KIA0468 Clarence Kernstock, 1820 Filmore Pl., Essexville, Mich.
KIA1465 Chuck Spaar, R.D. 4, Cadiz, Ohio
KIC3500 Ruthie Bopp, 350 W. Fifth St., Lewistown, Pa.
KIC3501 Phil Rodon, 16 Garfield Ave., Batavia, N.Y.
KID0007 Fred Martz, Davis-Lane Speedway, Hustontown, Pa.
KID0186 Mike Reshetar, 102 1/2 Walnut St., Binghamton, N.Y.
KID5293 George Gould, P.O. Box 42, Hudson Falls, N.Y.
KID5389 James Gross, 1410 Burley Ave., Tyrone, Pa.
KID5802 R.V. Pollard, 109 Pennsylvania Ave., Johnstown, N.Y.
KID6356 Roscoe Harrington, 5 Schuyler St., Hudson Falls, N.Y.
KID7260 Stan Breitkopf, 271 Stanton Lane, Rochester, N.Y.
KID8232 Roy McGregor, R.D. 2, Central Square, N.Y.
KID8939 Ronald Hoover, 303 Eden Ave., Waynesboro, Pa.
KIE0628 Al Gulley, R.D. 3 - Box 392, Coraopolis, Pa.
KJC0223 J.C. McCalla, 273-G Dyea Ave., Ft. Richardson, Alaska
KJH0032 Jere Caricofe, 2301 Norfolk St., Hopewell, Va.
KJH0080 Robert Grubbs, Route 3, Winston-Salem, N.C.
KJI1072 Len Siedinski, 18 Ames Ave., Tonawanda, N.Y.
KJI2293 The Silver Eagle, 339 Harter St., Herkimer, N.Y.
KKA0488 Cyril Wilson, 6 Collins Terrace, Lynn, Mass.
KKA0658 Jerry Cote, 105 Old Walpole Rd., Keene, N.H.
KKA3340 Hootin Annie, 11 Forthill Rd., Poquonnock Bridge, Conn.
KKA4210 Dick Clogston, Starks, Maine
KKA4762 Mark Sinkoski, 139 Main St., Ware, Mass.
KKA5174 George Brown, 101 Truman St., New London, Conn.
KKA5305 Chase's Engraving, 175 Kitemaug Rd., Uncasville, Conn.
KKA5308 John Mildner, Roberts St., Rd. 1, Pascoag, R.I.
KKA6048 Mike Suntava, 198 Mercier Ave., Bristol, Conn.
KKA6265 Arnold Dakin, R.F.D. 2, Thorndike, Maine
KKA6894 David Goodwin, 68 South Broadway, Lawrence, Mass.
KKA7064 Irving Norman, 9 Greenfield St., Pawtucket, R.I. 02861
KKA7402 John Flynt Jr., Royal Coach Motel, Weirs Beach, N.H.
KKA8101 John Moriarty, 86 Beacon St., Florence, Mass.
KKA8428 Linda Fritzges, 12 James St., North Haven, Conn.
KKA8441 Leonard Prue, 11 Forthill Rd., Poquonnock Bridge, Conn.
KKA8491 Ellen Sanford, 80 Chesley Ave., Portland, Maine
KKA8891 Ralph Lovering, 254 Prospect St., Northampton, Mass.
KKA9690 Peter Flynn, 212 Allen St., Springfield, Mass.
KKA9926 Brian Benkosky, 343 Washington St., Keene, N.H.
KKB0156 Kevin Gobeille, 15 Wilson St., N. Wilbraham, Mass.
KKB0399 Stan Holland, South Rumford, Rumford, Maine
KKB1198 The Shafer's, 3 Cherry St., Windsor, Vt.
KKB1337 George Randall, 71 Taylor St., Granby, Mass.
KKB1587 Bob Lapointe, 60 Prospect St., New Britain, Conn.
KKB1757 Tommy Miller, 109 Fallon Dr., Hamden, Conn.
KKB1975 Cy Hyde, 17 Ocean St., Belfast, Maine
KKB2326 Bob Campbell, 5 E. Collins St., Salem, Mass.
KKB3080 Elsie Randall, 71 Taylor St., Granby, Mass.
KKB3548 John Monaco, 118 Ledgecrest Ave., New Britain, Conn.
KKB3865 Ed Porter, 446 West St., Rutland, Vt.
KKB4031 Alan McCathron, 50 Crown St., Bridgeport, Conn.
KKD0491 Mike Kaplan, 37 Fairview Terrace, Maplewood, N.J.
KKD1013 Rich Werner, Box 234, Port Ewen, N.Y.
KKD1746 Ivan Samuels, 179 Glenview Rd., South Orange, N.J.
KKD1915 John Fernicola, 13 Dryden Terr., Short Hills, N.J.
KKD1946 Al Neely, 90-26 215 Place, Queens Village, N.Y.
KKD2292 Henry Meyer, 50 Knickerbocker Rd., Plainview, N.Y.
KKD4144 Clair Sigafoos, R.D. 2 - Box 259, Milford, N.J.
KKD5471 Clifton McGuire, 814 Southard St., Trenton, N.J.
KKD6425 Jim Marra, 160 E. Lakeview Ave., White Plains, N.Y.
KKD6953 Peter Mozzone, 328 Horton Hwy., Mineola, L.I., N.Y.
KKD7419 Arthur Vincent, 921 Liberty St., Bohemia, L.I., N.Y.
KKD8383 Bob Peterson, 61 Crosshill Ave., Yonkers, N.Y.
KKD8952 Charles Gordon, 378 Kosciusko St., Brooklyn, N.Y.
KKD9486 Willie Bergman, 248-02 76th Ave., Bellerose, L.I., N.Y.
KKD9510 Ray Dame, 38 Vliet St., Cohoes, N.Y.
KKD9511 Mitch Zimmer, 1213 E. 83rd St., Brooklyn, N.Y.
KKE0173 Tony Russomanno, 9 School Rd., Whippany, N.J.
KKE0366 Al Martinez, 15 Lindy Pl., Old Tappan, N.J.
KKE0449 Al Farber, 2554 E. 29th St., Brooklyn, N.Y.
KKG3074 Harold Peer, 617 Halliard Ave., Beachwood, N.J.
KKG3229 Don Schmitt, Box #14, Gettysburg, Penna.
KKG4032 Sophia Mitch, 309 South St. Cloud St., Allentown, Pa.
KKG5549 Ernest Kenter, 4607 Olivehurst Ave., Olivehurst, Calif.
KKG6020 Terry Sheppard, 2033 W. Main St., Millville, N.J.
KKG6183 Tim Heiniman, 331 North Church St., Robesonia, Pa.

KKI2915 George Bowen, 831 W. Matthews Ave., Baltimore, Md.
KKI4574 William Haines, P.O. Box 333, Riverdale, Md.
KKK0566 Archie-Vandoris Patton, Rt. 2, Raleigh, N.C.
KKK1145 Jim Brizendine, 2016 Wayne St.N.E., Roanoke, Va.
KKK2366 Jack Barbour, 1659 Old Buckroe Rd., Hampton, Va.
KKK4410 Smylie Grantham, P.O. Box 364, Raeford, N.C.
KKK4512 Jake Sprouse, Rt. 6 - Box 279, Charlottesville, Va.
KKK6388 Bill Ball, Box 65, Raven, Va.
KKK6901 Wallace Carroll, 105 E. Allen St., Monroe, N.C.
KKM2052 Linton Slappey, P.O. Box 52, Plains, Ga.
KKM2628 Jimmy Cofer, 1903 Bennett Ave., Chattanooga, Tenn.
KKM7788 Claude Witt, 814 S. Webb Ave., Crossville, Tenn.
KKM8392 Marvin Farrar, Route 6 - Box 228, Dalton, Ga.
KKM9702 James Wolfe, 1707 Merrycrest Dr., Memphis, Tenn.
KKN0224 Jerry Bumbaugh, 316 Crest Dr., Boone, N.C.
KKN0258 Bill Powers, P.O. Box 104, Bowling Green, S.C.
KKN0673 Randall Thomas, Box 108, Boone, N.C.
KKN2690 Carroll Rogers, Box 178, Middletown, Conn.
KKN2985 Charles Martin, R.F.D. 6, Harrison Pike, Cleveland, Tenn.
KKN3002 Robert Miller, 1430 N. Houston, Athens, Ala.
KKN3780 Jim Brown, Rt. 5, Spring St. Ext., Darlington, S.C.
KKP1645 Henry McLeod, P.O. Box 126, Perry, Fla.
KKP2023 Dale Haskins, Grove Service, Lake Hamilton, Fla.
KKP2242 Frank Wolfgang, 4729 Bay Vista Ave., Tampa, Fla.
KKP3068 Mark Haskins, P.O. Box 182, Lake Hamilton, Fla.
KKP4175 Jack Thompson, 3710 Kinsman Ave., Ocala, Fla.
KKP4260 Clark Dickinson, Rt. 2 - Box 50, Perry, Fla.
KKP5254 John Saunders, 2202 E. 109th Ave., Tampa, Fla.
KKR5223 Charles Keathley, 3005 Loma Dr., Little Rock, Ark.
KKR6231 Mike Anderson, P.O. Box 2626, Laurel, Miss.
KKT0812 Steve White, 1156 Ash St., Clute, Texas
KKT3680 Le Winder, 4204 Oaklawn St., Bryan, Texas
KKT3900 Leonard Ferguson, 4217 Nagle, Bryan, Texas
KKT4113 James Bowman, Box 703, Fresno, Tex.
KKV3836 Clarence Norton, 512 W. Broadway, Longview, Texas
KKV7967 Tom Richey, 817 Hillside Dr., Sherman, Texas
KKX1831 Joe Stechnij, 555 W. Mahoney Ave., Mesa, Ariz.
KKX5201 Dale Fletcher, 54728 El Prado Trail, Yucca Valley, Calif.
KKX7505 Pete Gabel, 4240 Palmero Dr., Los Angeles, Calif.
KKX8504 Ken Weiland, 137 South Poinsettia Pl., Los Angeles, Calif.
KLA2524 John Brown, P.O. Box 502, San Pablo, Calif.
KLA3291 Paul Linehan, 2 Estabueno Dr., Orinda, Calif.
KLA5187 Ken Anderson, P.O. Box 1008, Los Gatos, Calif.
KLA5788 T & E Saunders, 782 Hutchings Dr., San Leandro, Calif.
KLA7292 Wayne Metzger, 4068 N. 3rd, Fresno, Calif.
KLA7428 Jack Evans, P.O. Box 108, Ivanhoe, Calif.
KLD2362 Richard Spengler, Rt. 1 - Box 48, Grangeville, Idaho
KLE0268 Tom Raczykowski, Rt. 1 - Box 77, Laramie, Wyo.
KLF1927 Arvin Wilson, 3820 Macalaster Dr., Mpls., Minn.
KLF2980 Steve Butler, 822 North Glendale Ave., Tomah, Wisc.
KLH8375 Michael Anthes, 7804 Bloom Dr., St. Louis, Mo.
KLI0184 The Roamer, 2615 E. 11 St., Sioux City, Iowa
KLI1434 W.H. Stalons, 3903 Garfield, Lincoln, Nebr.
KLJ0280 Al Warshaw, 1905 E. 86th St., Chicago, Ill.
KLJ3382 Earl Gordon, 419 W. Grand Ave., Decatur, Ill.
KLJ3945 William Turner, 1728 Ford Ave., Owensboro, Ky.
KLJ4024 Loren Snyder, 542 9th Ave. South, Clinton, Iowa
KLJ4142 Jon Kramer, R.1 - Box 45J, Trevor, Wis.
KLJ4663 Bev Chappell, 3644 E. Minnie St., Decatur, Ill.
KLJ6057 Bill Hittle, 1601 So. 4th St., Richmond, Ind.
KLJ7000 Melvin Murphy, R.R. 1, Wapolla, Ill.
KLJ8259 Jack Jackson, Jackson's Texaco, Morocco, Ind.
KLJ8918 Rich Moler, 30 W. Busse, Mt. Prospect, Ill.
KLK1015 George Thompson, 13112 Windward Trail, Orland Pk., Ill.
KLK1623 Ada Gordon, 419 W. Grand Ave., Decatur, Ill.
KLK1975 W.H. Willett, Lewisport, Ky.
KLK2328 John Wigginton, R.R. 1, Lincoln, Ill.
KLK2458 Lincoln Ide, 7842 So. McVicker, Oak Lawn, Ill.
KLK4317 Pat Cavanaugh, 3620 W. Southland Dr., Franklin, Wis.
KLK4886 Charlotte Stearman, P.O. Box 326, Albany, Ill.
KLK5488 Lorraine Regene, 2315 So. 5th St., Rockford, Ill.
KLK5617 Chuck Sylvester, 1629 East 86th Place, Chicago, Ill.
KLK5810 Irving Felzer, 2131 So. 15th Place, Milwaukee, Wis.
KLK6413 Frank Reynolds, P.O. Box 358, Morocco, Ind.
KLK6799 Gordon Rogers, 5811-19th Ave., Kenosha, Wis.
KLK8194 Glenn Hoelscher, 706 Cherry, Carthage, Ill.
KLL0297 Bob Hubsch, 179 Westwood Dr., Park Forest, Ill.
KLL0681 Dick Stichter, 851 E. Pleasant St., Freeport, Ill.
KLL0800 Gil Davis, 2405 Sunset Blvd., Anderson, Ind.
KLL0809 Fritz Stearman, Albany, Ill.
KLL1090 Reid Kenley, P.O. Box 427, Maywood, Ill.
KLM1447 Lee Collins, 4814 Sundale, Drayton Plains, Mich.
KLM3314 Paul Monhart, 2170 W. 63 St., Cleve., Ohio
KLM4842 Bessie Hazen, 231 North Mead St., Zanesville, Ohio
KLM5832 Noel Allen, P.O. Box 54, Roseville, Ohio
KLM5950 Jim Towe, 325 Terrace Dr., Wintersville, Ohio
KLM7450 Bill Piper, R.F.D. #5 - Box 414, Swanton, Ohio
KLN1475 Walter Huber, 365 Notre Dame, Grosse Pointe, Mich.
KLN2106 Gary Lauff, 1447 Balfour, Grosse Pointe Park, Mich.
KLN2229 Jerry Bradley, 1881 Whitefeather Rd., Pinconning, Mich.
KLN2610 Joe Tylka, 1410 Maple St., West Bellaire, Ohio
KLN3125 John Daugherty, 129 Elmore St., Zanesville, Ohio
KLN3263 Henry Smith, 11944 Algonquin, Pinckney, Mich.
KLN3497 Ed Newton, 2120 Irving Dr., Benton Harbor, Mich.
KLN5264 V.A. Norling, 25 Indian Trail, Poland, Ohio
KLN5418 Don Noel, 4912 S. Hill Rd., Milford, Mich.
KLN5726 Douglas Dix, 3307 Martindale Rd.N.E., Canton, Ohio
KLN6051 Ray Buell, 3313 Trade Winds Ave., Dayton, Ohio
KLN6165 Jerry Zimmer, 1441 W. Rich St., Columbus, Ohio
KLN6367 Tom Getgood, 426 Mitchell St., Sanford, Mich.
KLN7344 John Arnold, 8 E. Main St., Trenton, Ohio
KLN7841 Grace Beaudry, Rt. 1, Rose City, Mich.
KLN8233 Don Gorda, 1854 Warwick, Lincoln Park, Mich.
KLN8383 Phil Samuell, 3503 Orchard, Portsmouth, Ohio
KLN9155 Evans Johnson, 115 McKee, Manistee, Mich.
KLN9710 Ray Keller, 852 N. Rosedale Ave., Lima, Ohio
KLN9891 Marvin Schuler, 3940 South Dixie Highway, Lima, Ohio
KLN9961 Orville Bluhm, 1483 F. Bellum, Muskegon, Mich.
KLO0253 Marvin Davis, W. Wayne St., Dunkirk, Ohio
KLO0598 William Lechner, 4441 Parnell, Pontiac, Mich.
KLO0828 Tim Richards, 6730 New Carlisle Pike, Springfield, Ohio
KLO1270 Bob McClellan, Box 51, Elberta, Michigan
KLO1903 David Covert, 5112 Valiant Dr., Louisville, Ky.
KLP0319 Pete Hons, 614 Main St., Portage, Pa.
KLP2753 Horace Morath, 2380 Woodard Rd., Elma, N.Y.
KLP3284 James Phillips, 599 West 8th St., West Wyoming, Pa.
KLP3765 Ken Clemens, Box 71, Yorkville, N.Y.
KLP5005 Bud Fowkes, Box 261, Duncansville, Pa.
KLP5525 Bill Beeke, 11 Maple Dr., Bath, N.Y.
KLP6626 Wallace Nolen, 12 Chase St., White Plains, N.Y.
KLP7516 Guy Widmeyer, Box 99-A, Hopwood, Penna.
KLP7578 David Moss, P.O. Box 61, Endicott, N.Y.
KLP7749 Ray Bronder, 416 9th St., Monessen, Pa.
KLP7879 Clarence Peet, Box 73, Port Crane, N.Y.
KLP8083 Howard Davidson, 26 Knight St., Glens Falls, N.Y.
KLP8179 Tony Dominguez, 272 W. Lawrence, Albany, N.Y.
KLP8791 Jim Smith, R.D. 3, Fort Plain, N.Y.
KLP9151 Bob Lance, 10 Fredella Ave., Glens Falls, N.Y.
KLP9557 George Booth, 971 Sweeney St., No. Tonawanda, N.Y.
KLP9660 Harold Clark, Ashford Station, Ellicottville, N.Y.
KLP9700 Bob Bowser, 130 Blackmore St., Pittsburgh, Pa.
KLP9709 Dick Tipton, 1252 Hilton Parma Rd., Hilton, N.Y.
KLP9789 Ed Kindervater, Box 404, Hopwood, Pa.
KLQ0421 Don Bean, Box 130, Knoxboro, N.Y.
KLQ0423 Roy Clinch, 3558 Gifford Rd., Vernon Center, N.Y.
KLQ0457 Charles Goughnour, 207 Coldren St., Johnstown, Pa.
KLQ0660 Jerry Monroe, R.D. 1 - Coy Rd., Greenfield Center, N.Y.
KLQ0964 Pete Guy, Box 55, Middle Grove, N.Y.
KLQ1560 Jud Kurlancheek, 242 E. Dorrance St., Kingston, Pa.
KLQ1563 Cliff Miller, 137 East Budd St., Sharon, Pa.
KLQ2217 Don Anderson, 528 Ridge Ave., Cannonsburg, Pa
KLQ2433 Robert Wydra, 472 Pringle St., Pringle, Pa.
KLU0347 Charles Lowrey, Box 3878-P, Star Rte. B, Anchorage, A
KLU0347 C. Lowrey, Box 3878-P, Star Rte.B, Anchorage, Alaska
KMA0060 Norman Harold, 27 Blantyre Rd., Malden, Mass.
KMA0295 Dale Rook, Star Route 3, Windsor, Vt.
KMA0743 Jim Bezanson, Harris Point Rd., Eastport, Moose Island, Me.
KMA0858 Dick Schreiber, P.O. Box 147, Barrington, R.I.
KMA1219 Russell Sargent, 19 Woodbury Ave., Norwalk, Conn.
KMA2028 Edwin Keller, 10 South St., Plymouth, Mass.
KMA2465 Tom Vecchitto, 117 So. Vine St., Meriden, Conn.
KMA2668 Steve Shear, 177 Cherry St., Malden, Mass.
KMA2766 Chuck Saverse, High Manor Park, Rockville, Conn.
KMA3004 Al Pelc, 117 Plimpton St., Southbridge, Mass.
KMA4245 Henry Tadrzenski, 143 Newell Ave., Bristol, Conn.
KMA5273 James Stuart, 45 South Main St., Baldwinville, Mass.
KMA5639 Thomas Dwyer, 785 Main St., So. Weymouth, Mass.
KMA5715 George Goodell, Enfield, N.H.
KMA5991 Ron Rumary, 102 East St., Plainville, Conn.
KMA6504 Don Lemoine, 118 Miller St., Springfield, Mass.
KMA6506 Otis Butler, Cedar Haven Motor Court, Brewer, Maine
KMA6681 Russell Grant, Breezy Hill Rd., St. Johnsbury, Vt.
KMA7347 John Pietras, 53 Devens St., Indian Orchard, Mass.
KMA7386 Al LaMont, 334 Linden St., Holyoke, Mass.
KMA7668 Bill Harvey, 16 Sander St., New London, Conn.
KMA7795 Don Sevigny, Dewey Lane, West Rutland, Vt.

KMA8156 Earl Booth, 67 Highland Ave., Leominster, Mass.
KMA8289 Anita Finn, 26 Munjoy St., Portland, Me.
KMA8931 Andy Eppler, 15 Eastern Ave., Lynn, Mass.
KMA9093 Jerry Kennedy, 104 Davis St., Greenfield, Mass.
KMA9157 Rocky Rockwell, 95 Proctor St., Waterbury, Conn.
KMA9232 Bruce Henriques, 53 White Street, Ludlow, Mass.
KMA9261 Carroll Rogers III, Box 178, Middletown, Conn.
KMB0078 Paul Guyette, 17 Lincoln St., Easthampton, Mass.
KMD0346 Nelson Powell, 29 Hilton St., East Orange, N.J.
KMD0428 David Bellask, 1159 East 42nd St., Brooklyn, N.Y.
KMD0490 Fred Decter, 339 Leslie St., Newark, N.J.
KMD0980 Rick Cary, 565 Edmund Terrace, Paramus, N.J.
KMD0992 Howard Huneke, 518 Mountain Ave., Springfield, N.J.
KMD1113 Richard Harvey, 133 Morris Ave., Summit, N.J.
KMD1314 John Humphries, 102 Lincoln Ave., E.Paterson, N.J.
KMD1705 Phillip Ellery, 20 Riverside Dr., Suffern, N.Y.
KMD2018 Ron Kerber, 25 Broadway, Park Ridge, N.J.
KMD2334 Sherwood Wile, 15 Vanderventer Ave., Pt. Washington, N.Y.
KMD2436 John Erwin, 38 Gouverneur St., New York, N.Y.
KMD2462 Bob Miro, 2680 E. 19th St., Brooklyn, N.Y.
KMD2476 Gene Rosenberg, 367 Grant Ave., Oradell, N.J.
KMD2625 Philip Trofimuk, 164 Main St., Franklin, N.J.
KMD2795 Sheldon Monter, 1495 Popham Ave., Bronx, N.Y.
KMD2938 Mike Young, 544 Metropolitan Ave., Staten Island, N.Y.
KMD3059 Bruce McPherson, 231 Wales Ave., River Edge, N.J.
KMD3295 Alex Marcus, 315 East 68 St., New York, N.Y.
KMD3327 W. Mitchell, 31 Fowler Ave., Newburgh, N.Y.
KMD3449 "Goldie" 11 Johanna Lane, Monsey, N.Y.
KMD3719 Dale Schmaling, 239 Seymour Rd., Port Chester, N.Y.
KMD4083 Rick Trevena, 103 Bryson Ave., Staten Island, N.Y.
KMD4217 Clifford Dvorkin, 857 Liberty Ave., Union, N.J.
KMD4915 Girard Bauer, 74 Grove St., Little Ferry, N.J.
KMD5215 John Steinmetz, 96-10 57th Ave., Rego Park, N.Y.
KMD5998 Ken Eller, 99 E. 4 St., New York, N.Y.
KMD7034 Robert Karkus, 402 Elmwood Ave., Maplewood, N.J.
KMG0214 Rich Matiza, 1437 Reservoir Ave., Roslyn, Pa.
KMG0285 Charles Bell, 407 Pomeroy St., Ridley Park, Pa.
KMG0471 Charlie Stauffer, R.D.#1, Holtwood, Pa.
KMG0515 Michael DeRossi, So. East Ave., Vineland, N.J.
KMG0524 Gary Nicholson, 801 North Pitt St., Carlisle, Pa.
KMG0791 Gregory Pace, 910 Redwood Dr., Carlisle, Pa.
KMG1025 Jackie Heilig, 888 Club House Rd., York, Pa.
KMG1802 Richard Fennessy, 209 Meadow Ave., Point Pleasant, N.J.
KMG1806 Ken Harryn, 158 W. Clarke St., Hellertown, Pa.
KMG1866 Don Titus, R.D. 1, Gettysburg, Pa.
KMG1918 The Reinhardts, 445 Independence Dr., Burlington, N.J.
KMG1955 R. Schwechten, 2330 Washington Ave., Northampton, Pa.
KMG2365 Steve Drabick, 143 Garfield Ave., Cementon, Pa.
KMG2513 Harry Watson, 53 W. Columbia Ave., Lindenwold, N.J.
KMG2638 George Sayers, 317 W. VanBuren Ave., New Castle, Del.
KMG3020 Bill Cornwell, 102 St. Johns Rd., Shiremanstown, Pa.
KMG3588 Don McDonald, 5905 Orchard Circle, Centerville, Del.
KMI0032 Steve Ray, 516 East Olive St., Bridgeport, W. Va.
KMI0347 Betty Bedford, 4903 Asbury Lane, Bethesda, Md.
KMI0928 Jim Shaffer, 109 South Front St., Georgetown, Del.
KMI1219 Russel Lopez, 216 Elk Ave., Nutter Fort, W. Va.
KMI1259 Joe Lentini, 7911 Amherst Dr., Pensacola, Fla.
KMI1499 Don Heinbuch, 218 N. Rose St., Baltimore, Md.
KMI1943 Michael Carman, 1184 Des Moines Ave, Morgantown, W.Va.
KMI1975 Bill Rowan, , 1133 Steiger Way, Baltimore, Md.
KMI2116 Gary Tate, 900 Hood Ave., Shinnston, W. Va.
KMI2262 Todd Smith, 828 Hamilton Blvd., Hagerstown, Md.
KMI2312 Fred Fleming, P.O. Box 2155, Monongah, W. Va.
KMI2317 Mike Pepper, 12905 Broadmore Rd., Silver Spring, Md.
KMI2488 Dallas Bradford, Box 74, Pittsville, Md.
KMI3125 Robert Brill, 1234 Woodstock Lane, Winchester, Va.
KMK0568 Rose Pridgen, 408 W. 19th St., Lumberton, N.C.
KMK0678 Edith Grantham, P.O. Box 364, Raeford, N.C.
KMK0862 Jerry Haislip, 4508 Kirk Dr.S.W., Roanoke, Va.
KMK1740 Buddy Bagley, 2040 Wagon Rd., Chesapeake, Va.
KMK2054 Jim Scott, Gladys, Virginia
KMK4168 Bobby Pickard, 114 Shaw St., Randleman, N.C.
KMM1135 Lonnie Jenkins, 8 Ranger Dr., Charleston Hts., S.C.
KMM1177 Ted Booth, 231 Illinois St., Travis, A.F.B., Calif.
KMM1484 Jerry Morgan, 106 Merchant St., Mt.Pleasant, Tenn.
KMM5807 Willis Knight, 903 Beech St., Newport, Tenn.
KMM5816 Ora Cardwell, Route 1, Box 335, Heiskell, Tenn.
KMM6790 Steve Fuston, 110 Water St., Woodbury, Tenn.
KMM6842 Carlton Ealy, 3915 Tacoma Ave., Red Bank, Tenn.
KMM9038 Jim Ganoe, 5925 Portview Cr., Chattanooga, Tenn.
KMM9410 Skip Dakeman, 6109 Bermuda Terr., Chattanooga, Tenn.
KMP0707 Jimmy Roberts, 2304 Palmdale St., Jacksonville, Fla.
KMP0104 Mel Kelch, 3122 Ivel Dr., Orlando, Fla.
KMP0848 Jim Skidmore, Route 2 - Box 281, Palatka, Fla.
KMP1128 Cy Hyde, 1140 37th Ave.N.E., St. Petersburg, Fla.
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KMR4249 Bruce Broyles, P.O. Box 161, Newport, Ark.
KMT0015 Phillip Sharman, P.O. Box 671, Clute, Texas
KMT0443 Oliver Shuttle, 311 Sharmain Pl., San Antonio, Texas
KMT1395 Floyd Tappan, 6315 Newquay, Houston, Texas
KMT1506 Arthur Cates, 1310 North Dakota, Baytown, Texas
KMT1570 Dale Cuthbertson, Route 3, Bryan, Texas
KMT2542 Everett Strother, Box 875, West Columbia, Texas
KMT3371 Wally Goodwin, 4301 Nagle, Bryan, Texas
KMV3634 Frank White, Rt.#3 - Box 104, Bartlesville, Okla.
KMV5505 Joel Bond, 6223 Stefani, Dallas, Texas
KMV6463 The Haslers, 420 Northlake Shopping Center, Dallas, Tex.
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KMX1007 Rolly Butler, 520 E. Fourth St., Long Beach, Calif.
KMX1528 Monty Nelson, 752 Harding, San Fernando, Calif.
KMX2815 C.A. Emerson, 7448 E. Holly, Scottsdale, Ariz.
KMX3234 Ron Murphy, 12993 Herrick St., Sylmar, Calif.
KMX3714 Donald Hamilton, 1780 N. Conejo, San Bernardino, Calif.
KMX5223 Fred Osterman, 621 N. Philadelphia St., Anaheim, Calif.
KMX6226 Avery Golden, 16610 Bosque Dr., Encino, Calif.
KNA0247 Ernie Miguels, 11940 Barnett Valley Rd., Sebastopol, Cal.
KNA1504 Mike Forsyth, 789 Colusa Ave., El Cerrito, Calif.
KNA1606 Bud Boswell, 211 Harrison St., Coalinga, Calif.
KNA1724 Jim Byrne, 140-31st Ave., San Mateo, Calif.
KNA1941 Dick Miranda, 2663 Kavanaugh Rd., San Pablo, Calif.
KNA2893 Edward Fell, 4018 E. 3rd Ave., Napa, Calif.
KNA4266 John Knutson, 1508 - 27th Ave., Oakland, Calif.
KNA4488 Jon Casamajor, P.O. Box 46, Chico, Calif.
KNA4972 Mac Ogborn, 2217 North Rancho Rd., El Sobrante, Calif.
KNA5053 Gordon Graham, 37340 Walnut St., Newark, Cal.
KNC0535 Ed King, 505 Merchant, Eastside, Oregon
KNC0791 The Miles', 936 Alta, Medford, Oregon
KNC1469 Dan Ochs, 766 K. Street, Camas, Washington
KNC2257 Rick Warner, 4290 High St., Eugene, Oregon
KNC2354 Jacque' Roberts, #9 Cadillac, Valsetz, Oregon
KND1195 Del Gaines, 2509 8th Ave.South, Great Falls, Montana
KND1451 Don Lyman, 503 Blue, Richland, Wash.
KND1879 Calvin McDonald, Box 115, Somers, Mont.
KNE1514 Lonnie Scheeles, Rt. 1 - Box 94, Dix, Nebraska
KNE1971 John Brutlag, 124 Ash St., Sheridan, Wyo.
KNF0811 Oakley Olson, Box 96, Rhame, N.D.
KNH0935 Pete Nosler, 1144 Pineridge, Wichita, Kansas
KNH1445 Virgil Argo, 520 West Halsey St., Maryville, Mo.
KNH2138 James Larson, 617 North Spruce, Wichita, Kansas
KNH2587 Frank Mauler, R.F.D. 1, Olmitz, Kansas
KNH3016 Lee Glore, 101 Fannie, Lemay, Mo.
KNH3499 Dillard Smith, 1610 Nall St., Sherman, Texas
KNH3738 Red Shaw, 9010 Sycamore, Kansas City, Mo.
KNH4790 Don Drey, 12186 Parkwood Pl., Bridgeton, Mo.
KNH5306 Donald Carson, 1613 South Vermont, Sedalia, Mo.
KNH6618 John Breidert, 2208 Empress Dr., St. Louis, Mo.
KNH7064 Jim Haberer, 4114 "S" St., Omaha, Nebraska
KNH7132 Henry Hawkins, Rt. 1, Box 86, Fair Grove, Mo.
KNH7167 Keith Miller, 1110 Second St., Perry, Iowa
KNH7705 Bill Thompson, 519 N. Quincy, Sedalia, Mo.
KNJ0550 Bill Busse, 100 South Louis St., Mount Prospect, Ill.
KNJ0905 Ken Sanders, Box 305, Morris, Ill.
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KNJ2046 Dennis Goethe, 902 W. Cleveland St., Freeport, Ill.
KNJ3086 Janet Stanley, 334 N. Franklin St., Dunkirk, Ind.
KNJ3718 Jim Coyle, 4522 11th St. Court, East Moline, Ill.
KNJ4342 Kenn Paulini, 2343 Birch St., Des Plaines, Ill.
KNJ4430 David Conder, 1319 South Cherry, Centralia, Ill.
KNJ4735 Arthur Martin, 424 E. 4th St., Mishawaka, Ind.
KNJ5625 Dave Ludwig, 1325 Lincoln Way East, Mishawaka, Ind.
KNJ6487 John Crawford, P.O. Box 1053, Owensboro, Ky.
KNJ6622 Robert Hensley, R.R. 1, Tamalco, Ill.
KNJ6721 John Povlinski, 445 E. Ridge Rd., Gary, Ind.
KNJ7169 Robert Eurick, R.R. 2 - Box 20-B, Noblesville, Ind.
KNJ7698 Steinar Loken, 2825 W. McLean Ave., Chicago, Ill.
KNJ7802 Wm. Wallace, 35 Gilbert St., Savanna, Ill.
KNJ8755 Frank Hodge, P.O. Box 318, Centralia, Ill.
KNJ8784 Don Ault, 1823 S. 5th Ave., Maywood, Ill.
KNJ8816 Anna Johnson, 835 Ann St., Edwardsville, Ill.
KNJ9452 Bill Hinders, 225 N. Phillips St., Kokomo, Ind.
KNK0240 Don Field, 464 Shabbona Dr., Park Forest, Ill.
KNK0460 David Sigo, Route 1 - Box 153, Goodland, Ind.
KNK0485 Jack Harron, 212 W. St. Charles Rd., Elmhurst, Ill.

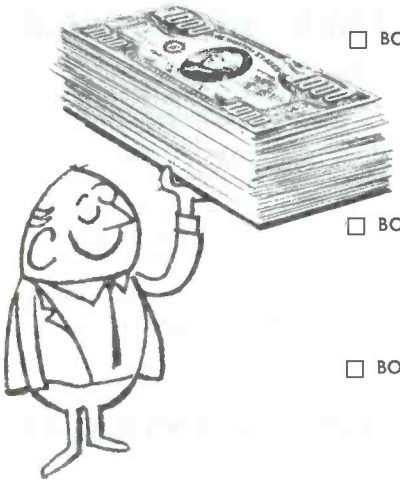
KNK0706 Roy Powell, 706 S. Manhatten St., Indianapolis, Ind.
KNK0717 Clifford Major, 1136 E. Elmhurst, Decatur, Ill.
KNK0846 Ed. Gressing, 7917 W. Medford Ave., Milwaukee, Wis.
KNK1126 Richard Danhauer, R.R. 2, Leitchfield, Ky.
KNK1129 C.B. Brown, 807 East 15th St., Sterling, Ill.
KNK1188 Charles Primus, R.R. 2, Vincennes, Ind.
KNK1538 Bob Schlereth, 540 South Fifth St., Watseka, Ill.
KNK1639 J.C. Anderson, 8 Sheridan Rd., Kenosha, Wisc.
KNK1770 Frank Zawila, 2300 7th Ave., No. Riverside, Ill.
KNK1867 John Drew, 116 So. Promenade, Havana, Ill.
KNK1890 Ernest Petersen, 1201 Roosevelt St., Clinton, Iowa
KNK1923 Robert Klopenstine, 407 South West St., Mishawaka, Ind.
KNK2004 The Rodinos, 2019 E. 4th St., Mishawaka, Ind.
KNK2211 Ron James, 1352 E. Locust St., Decatur, Ill.
KNK2343 Ken Kramer, 5735 S. Merrimac Ave., Chicago, Ill.
KNK3972 Joseph Jachimiak, Rolling Meadows, Ill.
KNK4890 Kent Newton, 608 Sunset Court, Havana, Ill.
KNK7027 Michael Margolis, 2700 W. Chase, Chicago, Ill.
KNM0784 The Edminston's, 1704 Marks Ave., Akron, Ohio
KNM0810 Don Theisen, 53 Norwood Ave., Norwalk, Ohio
KNM1533 Glen Wright, Rt. 1 - Box 122 A-1, Hurricane, W.Va.
KNM2171 Gary Maturen, 1003 Court, Saginaw, Mich.
KNM2322 Chuck Sisler, 140 Montgomery Lane, Mingo Junction, Ohio
KNM2845 Lois Rizer, Box 19, Mason, W. Va.
KNM3050 Jim Dameron, 2556 N. Union Rd., Dayton, Ohio
KNM3577 Walt Boren, 4525 Haddington Dr., Toledo, Ohio
KNM3802 Dale Windon, Box 222, Winfield, W. Va.
KNM3839 Skye Wittig, 603 Spruce St., Manistee, Mich.
KNM4439 Ed Konopka, 3112 Bradley Rd., Westlake, Ohio
KNM4570 Myrtelle West, 1804 E. Ganson St., Jackson, Mich.
KNM4813 Jim Waters, 28 S. Pembroke Ave., So. Zanesville, Ohio
KNM4958 Richard Gaunt, 15 Riverside Dr., Saginaw, Mich.
KNM5016 Bill Brooks, 117 W. Stewart Ave., Flint, Mich.
KNM5436 Nick Koch, 6422 Elbrook Ave., Cincinnati, Ohio
KNM6935 Roger Weber, 6231 Highland Rd., Cleveland, Ohio
KNM7185 C.V. Fortnoff, 1759 Kingsley Ave., Akron, Ohio
KNM7399 Lyle Green, Boyne City, Mich.
KNM7694 Keith Carnes, 2277 Oak Park Ave., Muskegon, Mich.
KNM8518 Harry Kimmel, 869 Wood St., Follansbee, W. Va.
KNM8674 Larry Richardson, 536 Miami Ave., Barberton, Ohio
KNM9065 Joe Ackerman, Box 312, R.R.1, Sawyer, Mich.
KNM9338 Carroll Full, Rt. 2 - Box 288-A, Parkersburg, W.Va.
KNM9486 Stephen Hodges, 105 1/2 5th St., Ludington, Mich.
KNM9699 Ted Davis, R.D. 1 - Box 38-A, Farmdale, Ohio
KNM9849 Harold Kraenzlein, 4049 Hess, Saginaw, Michigan
KNN0101 Steve Stephan, 1051 W. Maple Ave., Adrian, Mich.
KNN0838 Dave White, 23305 Fernwood, Beachwood, Ohio
KNN1158 Elvis Eves, 2020 Lowden Lane, Flint, Michigan
KNN1608 Bernie Godaway, Box 256 B, St. Clairsville, Ohio
KNN1625 Bill Hutchisson, 3130 W. 115th., Cleveland, Ohio
KNN1700 John Rice, 204 East Main St., Metamora, Ohio
KNN2006 Lou Perrine, 4161 Lake Vista Rd., Akron, Ohio
KNN2435 Ervin Laurenz, 7214 Cole Rd., Saginaw, Mich.
KNN2515 Bob Troupe, 532 Tichner St., Linden, Mich.
KNN4759 Lewis Thome, 204 Greenler St., Holgate, Ohio
KNN5084 Dave Houdek, 341 Hilltop Dr., Upper Sandusky, Ohio
KNN6192 John Dye, 3705 Harrison St., Bellaire, Ohio
KNP0066 Cliff McLain, West Hill Road, Hamilton, N.Y.
KNP0567 Bob Ivanoff, 726 Ellsworth Ave., Jeannette, Pa.
KNP1200 Chuck Kratochvil, 111 Cort Street, Jeannette, Pa.
KNP1421 John Ricci, 2835 Fourth Ave., Beaver Falls, Pa.
KNP1444 Paul Clark, 863 Monaca Rd., Monaca, Pa.
KNP1445 Earl Roehl, 861 Monaca Rd., Monaca, Pa.
KNP1806 John Rose, 431 Jackson St., Summerhill, Pa.
KNP1994 John Bruny, 2005-7th St., Beaver Falls, Pa.
KNP2225 Robert Madison, 1515 Edgar Ave., Chambersburg, Pa.
KNP2399 Dale Monfort, 218 Maple Crest Ave., Lakewood, N.Y.
KNP2429 Bob Bialecki, 17 Roser St., Rochester, N.Y.
KNP2471 Jim Laubs, Route 1, St. Thomas, Pa.
KNP2658 Ronnie Goodwin, R.D.#3, Wellsboro, Pa.
KNP3245 Geo. Thayer, A303 Irquois Drive, Salamanca, N.Y.
KNP4353 Chuck Harrison, 140 Whitehill Ave., Jamestown, N.Y.
KNP4524 David Disbrow, 32 Hollister St., Dundee, N.Y.
KNP5155 John Thompson, 436 N. Main St., Wilkes-Barre, Pa.
KNP5268 Bill Keenan, 163 Home St., Pittsburgh, Pa.
KNP5301 Stretch Cunningham, East Main Rd., Westfield, N.Y.
KNP5344 Jack Anchor, 209 Crescent Dr., Lower Burrell, Pa.
KNP5382 Dick Tanner, 14 Seneca Manor Dr., Seneca Falls, N.Y.
KNP5523 Dave Doxey, 807 Elizabeth St., Mechnicville, N.Y.
KNP5743 Gene Wingert, 8 Lincoln Ave., Waynesboro, Pa.
KNP5816 Denny Spitzer, 9 Crescent St., Jamestown, N.Y.

Continued on page 71

READERS' BONANZA!

TAKE YOUR PICK OF THESE GIFTS!

For some time now we have been offering all kinds of free goodies with new subscriptions and renewals, we vary them each month. But we always seem to get requests for bonus items which haven't been offered for several months and that sends the Circulation Department into a tailspin. So here it is, a grand round-up of all the various offers, tied in with an exciting offer for you to get several of these things FREE with your subscription or renewal.



☐ BONUS ITEM #1 — Large 3 inch, 3 color, "Monitor Channel 9" decal. Regularly sells for 50¢.

☐ BONUS ITEM #2 — 50 Project Aid cards which you are required to use to notify the FCC whenever you use your CB rig to help a stranded motorist or for any emergency use. These sell for $1.00.

☐ BONUS ITEM #3 — S9's CB Interference Manual, a complete handbook covering the elimination of TVI, detection and elimination of power line interference and noise, and CB mobile ignition noise. Everything you need to know, including details of obtaining free TVI high-pass filters. The books sells to non-subscribers for $1, you can get it FREE.

☐ BONUS ITEM #4 — **Do-It-Yourself-S9-Editor-Kit** — Yes, an official multicolored S9 Press Card which will get you on buses (show it when you pay your fare), also a 10-code card, plus one of our now famous green and white "Wall Certificates."

☐ BONUS ITEM #5 — Jazzy blue-with-white, red-with-white or black-with-white plastic badge engraved with your callsign. Big 1" high by 3" long. Just the thing for a jamboree or use the pin to stab artichoke hearts or your aunt Maud in the clyde. $1.50 value. Specify color combination.

With a 1 year subscription or renewal you get your choice of any one of these items; with a two year subscription or renewal you get your choice of any THREE items, and a three year subscription earns you not only all FIVE items FREE, but we will bow towards your 10-20 once a week (on payday). Just check off the item or items you want, rip out this page and enclose it in the postage-paid envelope (in this issue) when you send in your subscription.

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S9 is the nation's largest circulating CB publication.

THE CIVIL AIR PATROL RADIO NETWORK

FOR ALL CB EMERGENCY MONITORS & SWL SHACKS

Perhaps the largest single radio network in the world is the one operated by the Civil Air Patrol, an Auxiliary of the United States Air Force. The CAP network encompasses thousands of land, mobile, and aeronautical stations located throughout the U.S. and its possessions, and the stations may be easily heard on a number of frequencies between 2 and 148 mc/s.

The CAP is perhaps one of the most active search, rescue and disaster communications agencies going today—members of the CAP are always an integral part of just about every newspaper headline we read which concerns people lost or in trouble in the United States.

Being an auxiliary of the USAF, the CAP radio stations use USAF "tactical" name callsigns (although each "Wing," or state group, is assigned a single overall FCC call for all of its stations). Also operating on CAP frequencies are USAF Liason Officer ("AF-LO") stations which use "VP" prefix callsigns—these are actual USAF stations which are in communication with the CAP stations.

When listening on CAP frequencies you will be able to locate the stations by checking their "tactical" callsigns on our chart. For instance, should you hear a station announcing "Red Chip 27" you would immediately know that it is mobile unit #27 of the Tennessee Wing. "Hornet 7" would be an aircraft of the Idaho wing. "Zigzag 105" is a land station in New Jersey. The FCC calls are never used on the air.

One of the Civil Air Patrol frequencies is adjacent to the Citizens Band and it is possible to monitor this channel on many CB tunable CB rigs. On crystal controlled receivers it is only necessary to insert a crystal for this frequency in the receiver crystal socket. Many CB'ers who are active in the CAP can utilize their existing CB gear to participate in CAP nets operating on this channel.

CB'ers interested in the possibilities of joining the Civil Air Patrol should write to CAP National Headquarters, Ellington AFB, Texas.

CAP Frequencies: 2374, 4467½, 4507½, 4585, 26620 kc/s, 143.9, 148.15 mc/s.

REGIONAL STATION TACTICAL CALL SIGNS

VPØ-Nat'l Hqs., Ellington AFB, Texas

REGIONS	AF-LO CALL	REGIONAL CAP CALL	LAND CALL	MOBILE CALL*	AIRCRAFT CALL*
Northeastern	VPØ 1	KGC 632	Northeastern	NE Mobile	NE Acft
Middle Eastern	VPØ 2	KIL 769	Middle Eastern	ME Mobile	ME Acft
Great Lakes	VPØ 3	KSF 248	Great Lakes	GL Mobile	GL Acft
Southeastern	VPØ 4	KIJ 960	Southeastern	SE Mobile	SE Acft
North Central	VPØ 5	KAJ 506	North Central	NC Mobile	NC Acft
Southwestern	VPØ 6	KKQ 266	Southwestern	SW Mobile	SW Acft
Rocky Mountain	VPØ 7	KAI 562	Rocky Mountain	RM Mobile	RM Acft
Pacific	VPØ 8	KMG 664	Pacific	PAC Mobile	PAC Acft

*Write out prefix, i.e., Northeastern Mobile, Northeastern Acft, etc.

WING CALL SIGNS

WING	L/O	WG CALL	LAND STA.	MOBILE STA.	AIRCRAFT STA.
Alabama	VPØAA	KIG-442	Golden Rod	Hot Rod	Ram Rod
Alaska	VPØBY	KQA-677	Sourdough	Mukluk	Aurora
Arizona	VPØAB	KOF-424	Thunderbird	Geronimo	Tomahawk
Arkansas	VPØAC	KKI-719	Dogwood	Razorback	Diamond
California	VPØAD	KME-284	Whitebear	Blackbear	Brownbear
Colorado	VPØAE	KAF-357	Pikes Peak	Red River	Blue River
Connecticut	VPØAF	KCC-590	Nutmeg	Rambler	Rocket
Delaware	VPØAG	KGC-462	Gabby	Vagabond	Barfly
Florida	VPØAH	KIG-444	Sparrow	Crane	Eagle
Georgia	VPØAI	KIG-443	Red Star	White Star	Blue Star
Hawaii	VPØBX	KUA-341	Firebrand	Mobile	Hiboy
Idaho	VPØAJ	KOB-425	Magpie	Rabbit	Hornet
Illinois	VPØAK	KSC-952	Red Fox	Yellow Fox	Blue Fox
Indiana	VPØAL	KSC-953	Red Fire	Blue Fire	Green Fire
Iowa	VPØAM	KAF-358	Corn State	Bulldog	Cyclone
Kansas	VPØAN	KAF-359	Jayhawk Post	Jayhawk Bug	Jayhawk Bat
Kentucky	VPØAO	KIG-445	Middleground	Whirlaway	Jet Pilot
Louisiana	VPØAP	KKI-720	Magnolia	Muskrat	Pelican
Maine	VPØAQ	KCC-591	Pinetree	Pinekarr	Pineayr
Maryland	VPØAR	KCC-464	Plant	Tug	Jet
Massachusetts	VPØAS	KCC-592	Freedom	Pilgrim	Clipper
Michigan	VPØAT	KQD-405	Red Robin	White Robin	Blue Robin
Minnesota	VPØAU	KAF-360	Star Fish	Dog Fish	Cat Fish
Mississippi	VPØAV	KKI-721	Mocking Bird	Jay Bird	Snow Bird
Missouri	VPØAW	KAF-361	Blue Bird	Red Bird	Black Bird
Montana	VPØAX	KOF-426	Father	Mother	Angel
Nat'l Cap.	VPØCD	KGC-463	Aero	Aerodyne	Aeronaut
Nebraska	VPØAY	KAF-362	Wigwam	Buffalo	Meadowlark
Nevada	VPØAZ	KOD-427	North Wind	Yellow Jacket	Red Spider
New Hampshire	VPØBA	KCC-593	Profile	Boboat	Saucer
New Jersey	VPØBB	KEC-994	Zigzag	Domino	Aircap
New Mexico	VPØBC	KKI-722	Pueblo	Zuni	Navajo
New York	VPØBD	KEC-995	Empire	Tomcat	Wildcat
North Carolina	VPØBE	KIG-446	Red Dog	Blue Dog	Mad Dog
North Dakota	VPØBF	KAF-363	Blackfoot	Sioux	Mohawk
Ohio	VPØBG	KQD-406	Black Hawk	Gray Hawk	White Hawk
Oklahoma	VPØBH	KKI-723	Sooner	Oilwell	Gaswell
Oregon	VPØBI	KOF-428	Beaver Fox	Beaver Muskrat	Beaver Bird
Pennsylvania	VPØBJ	KCC-465	Keystone	Rolling Stone	Flight Stone
Puerto Rico	VPØCH	WWA-353	Pineapple	Sugar	Hurricane
Rhode Island	VPØBK	KCC-594	Rhody	Little Rhody	Air Rhody
South Carolina	VPØBL	KIG-447	Kiddy Kar	Side Kar	Box Kar
South Dakota	VPØBM	KAF-364	Dacotah	Mandan	Cheyenne
Tennessee	VPØBN	KIG-448	Blue Chip	Red Chip	Gold Chip
Texas	VPØBO	KKI-724	Eagle Nest	Gold Eagle	Blue Eagle
Utah	VPØBP	KOF-429	Uncle Willie	Uncle Mike	Uncle Able
Vermont	VPØBQ	KCC-595	Pico	Marble	Mansfield
Virginia	VPØBR	KIG-449	Blue Flite	Green Flite	Red Flite
Washington	VPØBS	KOF-430	Fir	Maple	Ash
West Virginia	VPØBT	KQD-407	Lowland	Overland	Highland
Wisconsin	VPØBU	KSC-954	Badger	Scooter	Buzzard
Wyoming	VPØBV	KOF-431	King	Queen	Jack

SUZIE SEZ . . .

SEND ALL ITEMS
AND PHOTOS TO:
Suzie Sez
% S9 Magazine
14 Vanderventer Ave.
Port Washington, N. Y.

by SUSAN HENRIKSEN
Assistant Editor

Hi Girls!

I'd like to start by announcing the YL QSL card winner for this month. It is Edith Becker, KCG2891, of Alexandria, Virginia. Congratulations Edith!

I would like to mention that there is a newly formed CB club in Ilion, N. Y. that is now open for membership for those who may be interested. The name of the club is the Mid-York RA-COM. There sole function is to provide emergency communications for local towns, hospitals, and law enforcement agencies. I would also like to add that the club is open for members including CB'ers, hams, marine, aircraft, portables, etc. Some of their present members are also members of the Sauquoit Valley Emergency Unit, which is in their third year of operation. The persons responsible for the clubs existence are L. Joy, G. Johnson, E. Beauchamp, E. Markwordt, W. Kuyrkendall, C. Bosler, R. Sitterly and R. Brown. If you are interested you may contact L. Joy, 14 Sunset Ave., Ilion, New York.

I also received a letter from Janice Strange Seidmann, who appeared in a past issue of S9. Janice and her husband Pedro have been receiving requests for CB cards and are no longer able to fulfill them. She asked us to inform the readers that they can no longer comply with your requests.

John Kramer, KLJ4142, sent us this scoop on his XYL Jen, KNJ0011. They were married Aug. 30, 1962 and have two kids, John Len, 7 mo. and Jean Marie 2½ yrs. They live in Trevor, Wisconsin. Besides being an ardent CB'er, she is also a first rate bowler. She's been bowling for only 7 months and has organized a 4 team, 20 girl league. Jen has just recently won the Illinois open American Bowling Congress "Beat the Champs" for which she received a cup trophy and a patch for first place. The guys are very proud of Jen, with good reason, and asked me to pass along the information. Congratulations Jen!

I'd also like to congratulate Sue Pearson of Harrodsburg, Kentucky who started off her New Year with a new addition to her family. She gave birth to a 9 lb. 2 oz. baby boy, Ronald Jackson Pearson II, best wishes Sue.

Happy Anniversary *and* Happy Birthday to Elaine and Larry Fried, of Bellmore, N. Y., married 7 years; and to Betty and Morgan Morris, KMV1898, of Tyler, Texas, married 15 years. Congratulations folks!

The recipe for this month is:

Here's a great dish you Southern girls might enjoy (you Yankee gals too):

Dixie Sweet Potato Pie

¼ cup butter	⅓ cup milk
½ cup brown sugar	½ tsp. salt
1 cup mashed sweet potatoes	1 tsp. vanilla
3 eggs beaten	1 cup broken pecans (optional)
⅓ cup corn syrup	1 unbaked pie shell

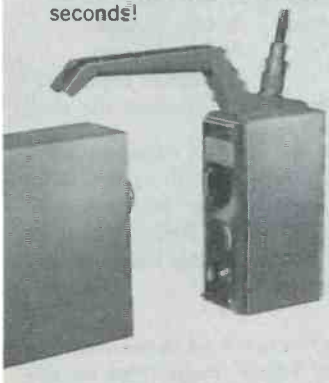
Cream together butter and sugar, add potatoes and eggs. Combine with syrup, milk, salt, vanilla and pecans. Turn into pie shell. Bake 10 minutes at 425°. Reduce heat to 325° and bake 35 to 45 minutes longer. Serve with whipped cream.

I would also like to thank all those who have sent me such nice letters. Keep them coming in; I'll do my best to print whatever I can.

Till next month . . . Suzie!

MESSENGER "100"

BASE STATION — 117 Volt AC power supply — plugs into any convenient outlet — installs in seconds!



PORTABLE — Completely self-contained "Power Pack" with rechargeable nickel cadmium battery

new!

Check the performance features — then take a look at the price tag! You won't find *any* CB unit on the market that will match the value and solid reliability that the "100" gives you for your two-way radio dollar! The same highly competent engineering team that designed the famous Messenger III now brings you this low cost, compact, 5-channel transceiver designed for mobile, base station or portable field use! Advanced circuitry gives the unit the capability to deliver maximum power output from legal input. High performance noise limiting provides "whisper quiet" op-

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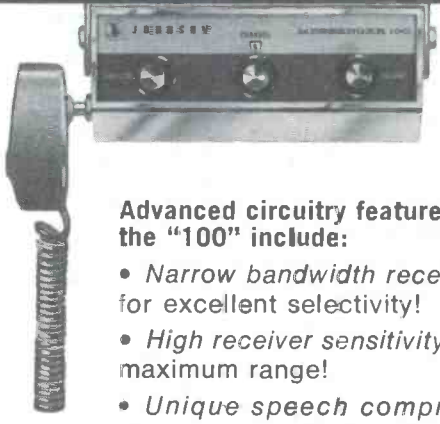

Advanced circuitry features of the "100" include:

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AREA PUBLIC RELATIONS EDITOR BULLETIN BOARD

Effective March 1, 1966, Mr. Fred Lepine of Concord, New Hampshire is *no longer* an accredited press representative of S9, the citizens band journal. Future questions should be addressed to S9, Club Editor.

New appointments this month to the A.P.R.E. Program include: William A. Gendron, Jr., 344 North Winooski Ave., Burlington, Vt.; Charles H. Long, KMX4018, P.O. Box 2063, Montclair, California; Louis Delaney, KLM9087, 3660 Maple Hill Drive, S. Ft. Mitchell, Ky.

COMING EVENTS

State of Vermont Jamboree. The Otter Valley CB Radio Club will sponsor the event, June 26th, State Fairgrounds, Rutland, Vermont. Contact: P.O. Box 669, Rutland, Vermont.

3rd Annual Jamboree, sponsored by the Bell City CB Radio Club, Lake Compounce, Bristol, Conn., Saturday and Sunday, Oct. 1st and 2nd. Jamboree control channel 9 and 11. Contact: Secretary, P.O. Box 753 Bristol, Conn.

CB Jamboree, June 26th, sponsored by the Jacksonville Area CB Club, Jacksonville, Ill. The event will take place at the Morgan County Fairgrounds, Jacksonville, Ill. Contact: G. E. Jones, 929 Hardin Ave., Jacksonville, Ill.

2nd Annual Jamboree, March 11th, 12th and 13th, 1965 at the Community Hall on U.S. 41 in Bonita Springs, Florida. The event is sponsored by the Bonita 5 Watters, Inc., P.O. Box 658, Bonita Springs, Florida.

The Mahoning County CB Radio Club, Inc., will hold their 3rd Annual picnic and round-up, July 10th at the Holy Trinity Grounds, Route 616, Struthers, Ohio. Control on channel 9. Contact—Donald C. Peloquin, KLN7005, 618 West Heights Ave., Youngstown, Ohio.

NORTHERN

Officers for 1966 of the Troy Area CB Radio Club are: President, Jack Coultry, KBG1812; Vice President, Harry Green, KKD9222; Secretary, Bill Wagner, KNP-7752; Treasurer, Paul Austin, KBI5188. Membership is near the 300 mark and meetings are held the 1st Sunday of each month at 8 p.m., Charles J. Brady American Legion Post #235, 52 Third Street, Waterford, New York. Club paper is the "Digest."

Saratoga Springs, Spa Ten-Fours Club—According to James Todd, President of the Spa Ten-Fours Club, local club members were plagued by the Christmas gift walkie-talkie problem. He said members encountered local abuses of the small radio sets by children who do not realize the power output of the sets they own.

He also pointed out that children do not realize the strictness of federal laws governings the use of radio as a communication medium.

Mr. Todd said many of the sets are not precision instruments putting out too much power and placing that particular set in a higher class, perhaps one that requires the operator to be licensed. It was noted that most of the sets operate on Channel 9 which members monitor constantly.

Club members are considering starting a walkie-talkie club for boys and girls interested in learning more about radio and its proper use.

A.P.R.E. Donald R. Shue reporting from the first capitol of the U.S.A., York, Pa. York County REACT, Inc., held election of officers for the forthcoming year. Those elected were: Robert Cook, KKG3552, Presider Ron Brockley, KMG0477, Vice President; Phil Ha man, KMG3111, Secretary. Robert Barrick, KKG39 was elected assistant Treasurer. It was recently a nounced the REACT members are currently enrolli in the local Civil Defense organization. This move expected to aid the community, communication-wise, the event of an emergency of major magnitude. A though there are currently local CB'ers in CD who are not in REACT, cooperation among the two grou (REACT members and non-REACT members) is e pected to remain highly intact. The York City Civil D fense organization, with whom the local REACT tea is affiliated, has completed plans for an 8 hour cour in radiological monitoring for area shelter owne supervisors and CB'ers involved in the CD progra The course, which will be offered at three different tim began Jan. 9th, and concluded the 30th of Janua with the second session running during the month February and the third group holding sessions March. Classes take place from 2 to 4 p.m. Capta Richard D. Gray, CD director, announced that t bulk of those attending are owners of buildings which shelters are located and others associated wi shelter operations. Also attending are members of t various local clubs who will act as communicatio links between CD headquarters and the shelters in ti of emergency.

A recent fire in the nearby vicinity of Marietta, P left the family of Eli and Alma Frick and their ni children homeless. Word soon spread to York and number of CB'ers took time to gather together clothi and furniture and a large amount of cash. Cliff Ramb KKG3932, and Charles Kohler, KKG5440, volunteer space from their homes and garages in which to st the donated item. Three trips to the Frick family w made to assure them that they received all donatio The Frick boys' ages are 13 yrs., 12 yrs., 6 yrs., 3yr and 17 months old. The ages of the girls are 18 yr 15 yrs., 14 yrs. and 10 yrs. Thanks to the CB'ers of t York and Lancaster areas the Frick family had a ha pier Christmas than was expected.

The York CB Assistance Club held its annual el tion of officers at their December meeting held Spurg's. Elected were John Barnhill, President; Wa Hoin, Vice President; James King, Treasurer; Ch Terrasi, Secretary and "Tick" Galloway, Sgt.-of-Arm Robert Shank, George Chantiles and William Maugan were elected to the Board of Directors. The meetir held in the form of a Christmas party, attracted 12 members, their families and friends. The evenir opened with a full course turkey dinner with all t trimmings. Big John Barnhill headed the committ which made special arrangements to have Santa Cla make an appearance to pass out gifts and hear adc tional requests by the children.

Ervin Renoll of the Pennsylvania Rangers inform this A.P.R.E. that his group now has their own c letters, KMG3322. The Pennsylvania Rangers is t group in this part of the state which is a mounted o ganization . . . that is the members use means of hor back transportation rather than conventional moto ized vehicles to aid them in their searches for lost people. Such a search, mock-wise, took place in early December when a party was called together to search for a "lost person." The search lasted approximately 2 hours before they came across the "victim," a stuffed dummy.

Donald R. Shue, S9 A.P.R.E., recently gave up his post as chairman of the Public Relations committee of the York County REACT.

The Radio Rescue Service, a non-profit, non-political organization has been busy little beavers this past summer. It started last May with the Radio Rescue dance and election of officers. New president-elect, Mr. Joseph Rivers.

In July it was the 4th of July patrol, the bicycle race, where again **Radio Rescue** was on traffic patrol. Also in July they held a car wash, the proceeds went to the mentally retarded. Then a First Aid Station for the Chamber of Commerce barbecue.

In August again on traffic patrol for the Drum and Bugle Corps parade. After the parade they set up a First Aid Station for the competition events. Late in August was the participation of parades held in Enfield, Conn.—Hartford, Conn.—and Southwick, Mass.

October held a break for Radio Rescue, the patrol on Labor Day week end and the partol on Halloween were their only outside activities.

During the recent blackout of the Northeast in November, they were again called out on patrol.

Patrolling consist of traffic directing, prevention of vandalism and to provide First Aid and Communications wherever and whenever they are needed. They are called out by the Police Dept. and are soon to be taken into the Civil Defense program.

The annual meeting of the Stonington Emergency Communications Unit elected the following officers for 1966—Captain, George W. Francis, KBA6840; 1st Lieutenant, Charles Cooper, KBA0918; 2nd Lieutenant, George A. Smith, KMA6961; Sergeant, Charles W. Richmond, KKA0197; Secretary and Treasurer, William F. Mitchell, KBC4201. During the past year **SECOM** assisted in many community projects of which they should be proud.

Officers of the Sociable 5 Watts CB Radio Club, Inc. are: President, Charles Vogler, KIC2808; Vice President, Charles Young, KID5894; Secretary, Jean Young, KID5894; Treasurer, Ruth Vogler, KIC2808. Club paper is the **Sociable 5 Watts**, which is published by the Shetlers'.

The Beaver County Radio Emergency Associated Citizens Team, Inc., REACT, elected the following, Director, Roy Shelter, KNP7656; Ass't Director, Casper Rider, KID3783; Secretary, Estelle Norton, KID0507; Treasurer, Francis Baumgardner, KID1818; Editor, Madelene Wilson, KJI1124; Historian, Robert Roser, KLP8954.

Officers for 1966 of the Beaver Valley Citizens Radio Ass'n are: President, William Coberly, KLP7506; Vice President, Donald Baumgardner, KID1818; Treasurer, William Baltes, KIC1119; Record Secretary, Mike Montier, KIC5025.

CENTRAL

For those mobiles from out-of-town who are traveling in the Cleveland, Ohio area may call for assistance and/or road information by calling the **Cuyahoga County REACT Team** on call channel 9 or their secondary emergency channel of 1. When in or around the Cleveland area, please call: KHI1466 **REACT BASE STATION** for the Cleveland area. Or you may call into KHI5814, the **Suburban REACT Rescue Squad** in Cleveland. Both parties listed under the REACT program, are on twenty-four hour standby and alert for the Cleveland area. Also monitoring on channels 9 and 1 in connection with the REACT program, is the Ohio State Highway Patrol, with the call numbers of: KNN-3083, who are also on a twenty-four hour monitoring system. **The Cleveland AAA Club** (under the HELP program) monitor Channel 9 **ONLY**, with the call numbers KNN3544, and is located downtown Cleveland on Euclid Avenue at East 26th.

All out-of-town CB'ers coming into the Cleveland area, please switch to call channel 9 for assistance.

The Twin Lakes CB Club, of Leitchfield, Kentucky, has elected new officers for the year 1966. Ed Wagner, KLJ1068, will serve as president; Stoy "Sonny" Decker, Jr., KNJ7029, will be vice president; the husband and wife team of Mr. and Mrs. Jack Richerson, KLK1992, will serve as treasurer and secretary respectively, and Rev. Richard Danhauer, KNK1126, will be corresponding secretary. The latter welcomes all contacts from other clubs or individuals, and invites everyone to the club meetings, which are held on the 2nd and 4th Friday of each month, at 7:30 p.m., in the Leitchfield REA Building. The club is active in all CB work and will QSL 100%.

The Central Iowa CB Club, Inc. provided mobile and base communication again for the Iowa State Fair from August 20 to 29, 1965. They assisted the Iowa State Fair in 1964 for the first time and was by Kenneth R. Fulk, Secretary, to help again in 1965. Special Temporary Authority call letters was requested and the Federal Communication Commission assigned "KUY2147" to the operation. The CICB club set up a base station in the Iowa State Fair Police Dept. Headquarters on the fairgrounds. Two men CB'ers operated the police station base. The ladies of the club op-

(Advertisement)

CB IN ACTION

By Les Hench, KHA3272
Sales Manager
Pearce-Simpson, Inc.

Thanks to Charles Jacob, Jr. for his very exciting award winning CB in Action story.

"Basetrop, Louisiana, Sunday, November 21, 1965 at approximately 5:15 p.m., little 'Peanut' Keller was abducted from her driveway in front of her home. The only eyewitness was her 8 year old playmate, Connie Spear, who immediately ran in to Nancy's house and sobbed to Nancy's father, Dr. Douglas Keller, 'Somebody got Peanut!'"

Dr. Keller rushed outside and caught a glimpse of receding taillights. He got into his car, but by the time he had backed it out of the driveway, there was no way of knowing which road the kidnapper had taken.

Dr. Keller then phoned the local police, and within minutes they had road blocks set up. At the same time, the local CB'ers went into action. Each mobile unit had already been given an identifying number and the local sheriff's department had a CB unit on 24-hour service monitoring the special channel which was, by common agreement, left clear for emergency use.

Mr. Harry Franklin, our club treasurer, acted as CB dispatcher and methodically directed the search, covering the entire area, section by section. Duplication of search efforts in wooded areas was avoided by breaking off a pine top and dropping it in the intersection, indicating that the particular side road had been investigated. This, along with our communications network actually saved many hours of double tracking.

At 4:50 p.m. on Monday, almost 24-hours after the start of the search, the sheriff's radio operator advised all units to call off the search and clear channel 2. Nancy was safe. She had escaped from the empty house where she had been locked in the attic, calmly walked to a nearby house and telephoned her home. When Dr. Keller answered, she said simply "Daddy, I want to come home."

Perhaps it would have been more dramatic if a CB'er had saved Nancy, but we're awfully glad it turned out the way it did.

Big tough men; policemen, national guardsmen, and citizens, all with real tears in their eyes, lined the streets and waved back at Nancy as she rode home with her joyful parents.

CHARLES JACOB, JR., KMR6067

WIN A COMPANION II CB

Your story of "CB in Action" can win a COMPANION II CB. Write and tell us how CB helped perform a service or helped you or your community in an emergency. Send your story to Les Hench, National Sales Manager, PEARCE-SIMPSON, INC., P.O. Box 800, Biscayne Annex, Miami, Florida 33152.

erated a second base unit which was maintained in the Public Safety office in the Administration Bldg. There were two women operators at a time, one taking information and the other dispatching. The ladies handled various information, mainly lost and found children. The men cruised the fairgrounds and campgrounds in their radio equipped cars. Each CICB'er had a state fair policeman with him. They located misplaced cars (reportedly stolen), lost children, dispersed loud and disorderly drinking parties in the campgrounds, stopped a great number of teenagers sneaking into the fairgrounds (over and under the fences), and many other things too numerous to mention, including uncovering and removing from the campgrounds a mobile house of ill fame. In addition to the CICB patrol cars (which had large signs on both sides marked "Official—Iowa State Fair—Radio Police Car"), the grounds were patrolled by the Iowa Highway Patrol, Iowa National Guard and members of the Des Moines Police Dept. and State Bureau of Criminal Investigation. There had been rumors that a race riot would take place during the state fair so all precautions were taken to insure a peaceful and successful 1965 Iowa State Fair. The Central Iowa CB Club members who participated were: Dick Baker, KLH8844; Dean Churchill, KNH1056; Angelo Cipale, KLH5796; Jack Doggett, KLH4994; Ted Hesseltine, KLI0477; Lowell Huggins, KNH4098; Don Jackson, KLH5136; Larry Mihalovich, KLH1880; Ralph Pittman, KLH7495; Ralph Sheets, KGI7662; Gary Winterberg, KGJ0538; Gary Wood, KLH9422; Kathie Churchill, KNH1056; Donna Cipale, KLH5796; Arelene Doggett, KGI4981; Joan Hesseltine, KLI0477; Marie Huggins, KNH4098; Helen Iiams, KGI7580; Elaine Jackson, KLH5136; Laura Mihalovich, KLH-1880; and Marilyn Sheets, KLH7379. Present CICB club officers are: President, Jack Doggett, KLH4994; Vice President, Joan Hesseltine, KLI0477; Sgt.-at-Arms, Dick Baker, KLH8844; Sec.-Treasurer, Larry Mihalovich, KLH1880; Emergency Coordinator, Ted Hesseltine, KLI0477; Public Relations, Kathie Churchill, KNH1056 and Editor, Arlene Doggett, KGI4987. The CICB club received a nice donation and letter of high praise and recognition of outstanding service from the Iowa State Fair Board. The club also has a nice paper published monthly in Des Moines, called "THE BREAKER." Anyone wishing to subscribe to it may send $2.00 with your name, address, call letters and zip code, to Arlene Doggett, Editor, KGI4987, 8060 Dema Drive, Des Moines, Iowa 50315, and "The Breaker" will be sent post paid 3rd class to them each month.

On December 20, 1965, eleven-year-old Susan Brady, 703 N. Day Ave., Rockford, Illinois, failed to return to her house after playing with friends. She was last seen at 5:45 p.m. walking along a street on the northwest side of Rockford.

By nightfall local police and firemen had begun a search in the immediate neighborhood. Four airplanes and a police dog joined the search at dusk, but failed to turn up anything.

Beginning at dawn the next day, police intensified their search for the missing girl. The Winnebago County Sheriff's Dept. asked for help from the Rock River Valley Citizens Band Emergency Squad in searching county areas. At five Tuesday night the entire emergency squad was called out in an effort to find Susan before dark. Forty-eight radio equipped cars with two people in each car responded to the call. Manning these cars were emergency squad members and CB'ers from all over Illinois and Wisconsin.

These 94 CB'ers in cars and the men in the control base engaged in a futile search of the entire county until 10 p.m. that night, when the search was called off until the next morning.

By Wednesday, December 22nd, authorities had organized a huge search involving 1000 civilians, 12 airplanes, 400 police and firemen and the FBI. The Rock River Valley Citizens Band Emergency Squad working with the Winnebago County Sheriff's Dept. and the Illinoise State Police put mobile units in each of the seven search areas. By afternoon, the number of emergency squad cars was 35. Each of these units was acting as a relay between the area state police car and the civilian searchers without radios, besides their regular job of searching where they were assigned.

Thursday was the last day of the big search. 17 CB cars teamed up with 170 Boy Scouts and 10 deputies in searching the heavy woods of five Christmas tree farms in Winnebago County. While this was going on the Rockford Police Chief urged everybody to check their own property in an effort to come up with a new clue.

Unfortunately the girl was not found despite the

efforts of authorities, volunteers and CB'ers, and hope of finding her alive dimmed. Many leads and clues were turned in and checked out, but none ever turned out to be the one necessary to find the girl.

The emergency squad in the past week since large search operations ended has been called out almost every day to search with the sheriff's dept. and the city police in many out-of-the-way areas. The squad checked about 50 summer homes looking for possible clues to where Susan might have been held. Foot searches through all parks and fields not yet covered also drew a blank. Squad members rode as observers in boats as the five rivers in the area were checked from one end to the other. On New Year's Day, fifty squad members gave up their bowl games to check along railroad tracks and behind stores. Working with the city police they planned to work Sunday also checking vacant lots around the city in a last effort to find a clue to little Susan's disappearance.

Her father, James Brady, a reporter for the Rockford Labor News has put out a plea, "We only want her back. I won't press for charges." Rewards for Susan Brady's safe return now total over $6,000. Countless man hours have been put in looking for her please do not let our efforts go in vain. If you have information concerning Susan Brady please call the Rockford Police Dept. 964-3341, collect.

Police Chief LeRoy Jenkins commended **Racine Civilian Band (CB)** radio operators Monday for their assistance during the Christmas Day snowstorm which felled 113 power lines throughout the city.

Jenkins said members of the **Racine County Emergency Network** offered their services shortly before midnight on Christmas Eve and worked through the night and until 5 p.m. Christmas Day to guard fallen wires and warn motorists and pedestrians of the hazards.

"Wires were coming down faster than we could handle the calls," Police Sgt. James Jerdee said about the conditions which prevailed in the late hours of Christmas Eve.

Accepted Help

"We didn't have enough men. When the CB operators offered their help, we accepted."

About 1½ years ago, a group of **Racine Civilian Band** operators formed the Racine County Emergency Network to help in just such emergencies as occurred over the week end, and also in conjunction with Racine County Civil Defense activities.

Some Worked All Night

Chief Jenkins said that more than 30 CB operators gave up their Christmas Day activities to aid in locating and guarding fallen wires until Wisconsin Electric Power Co. repairmen could remove hazards.

"Some of them worked all night and were posted at some locations for more than six hours," Jenkins said.

The emergency radio service started shortly before midnight on Christmas Eve when Virgil Phillips, 1231 Cherry St., and James Lolar, 1559 Taylor Ave., called the police station and asked if their assistance was needed.

Once the operation got under way, CB operators

throughout the area took to the airwaves and offered help.

Coordinate Calls

Police Dispatcher Lawrence Albro said that one of the CB operators removed his transmitter-receiver unit from his car and set it up in the police department dispatch room, where he was able to coordinate the civilian effort with the incoming calls at the police station.

From the dispatch room, operators were sent wherever their services were required.

"We couldn't have run the place without them," Albro said.

Chief Jenkins said the civilian band operators "performed a great service to their community in giving up their Christmas holiday in order to protect their fellow citizens from the dangerous conditions resulting from the severe snowstorm."

ATLANTIC

At the recent meeting of the **Arfax Citizens Band Radio Club Inc.** in Arlington, Virginia the following officers were elected for the coming year 1966. The President, Ralph W. Keys, KCF2462; Vice President, Warren Harrison, 4Q0791; Secretary, Margaret Swink, KCF0497; Treasurer, Preston Loveless, KCG0612 and Jim Kirkwood was elected to the Board of Directors.

Van Gillenwater a member of Arfax **CB Club** was elected Vice President of **The Virginia State Citizens Band Radio Club Association.** Ralph Keys, president of **Arfax CB Club** was elected Vice President of **National Capital Regional REACT Inc.** in the Washington, D.C. area.

Other club activities for the month of December included a toy drive for toys to be turned over to the Salvation Army for needy families at Christmas time. We also had a Christmas party for club members, their families and guests. At the December meeting the newly elected officers took office.

On January 15th the Arfax **CB Club** will hold its 4th annual Officers Installation Dinner-Dance for members and guests.

The Arfax CB Club meets at 1900 South Walter Reed Drive, Arlington, Virginia the last Thursday of each month at 8 p.m. Visitors are welcome.

The **Virginia Beach CB Club Inc.** should be mighty proud of their newspaper, "The Hurricane" which already has been issued twice by Editor Ed Winkler, KCJ-6128. We are looking forward to many more outstanding issues of this paper. The club held their regular business meeting the 19th of December and later adjourned to the home of Brady and Betty Atkins, KKK-3090, for a most enjoyable Christmas party. Turkey, ham and all the trimmings were quickly consumed and everyone relaxed and danced to some sentimental music furnished by the "Homebrew Harris Jukebox."

News of Tidewater, Virginia CB clubs is from Bob Smith, KKK6249.

Firemen in the Dismal wamp area are grateful for the help received from Tidewater, Virginia CB'ers in putting out the fire there. Several walkie-talkies donated by members of the **Dismal Swamp** and **Portsmouth CB Clubs** were used to make work in the area easier. As no vehicle could go within several miles of the fire the Citizens Band radios and walkie-talkies were most helpful.

Members of the **Portsmouth CB Radio Club** and members affiliated with Civil Defense, helped run the Veterans Day Parade. Herb Simpson, Civil Defense director and other officials said that without the CB radios the parade would have been half as good as it was and certainly not as orderly. We are looking forward to more use of CB radios in this manner.

Sunday, November 7th **The Tidewater CB Clubs** met at Red Cross headquarters in Norfolk, Virginia, and discussion was held on the pros and cons of having our call letters on our state license tags. It was decided to support this legislation to the fullest extent. Both **Virginia State CB Radio Club** President John March, KCG2967, and Delegate, Gordon Mitchell, KCI4692 have been instrumental in the forthcoming of this bill. All Virginia CB radio operators are requested to submit any item of interest to support this legislation to your State Senator. Robert F. Baldwin of the Second Senatorial District is the chief sponsor of this bill and desires our wholehearted support for its passage.

TERRAC held its elections at the December 9th meeting and re-elected as President, Fred "Rabbitt" Bryant, KKK7179. Other officers elected to serve for the next year are: Vice President, Ed Crawley, KMK-4446; Treasurer, Dick Stillwell, KKK7646; Secretary,

The CB Assistance Club of Chesapeake, Va. has picked the first week in August, 1966 as the time for its Jamboree, according to Bill Hobbs, KCJ6633. This promises to be the best jamboree ever held. Shown presenting the door prize at their Christmas party held in the Moose Hall is Club President, Charles Williams, KMK1764. Phillip Stroud, President of the local UAW at the Ford plant is the proud winner of the portable TV set.

Bobbi Crawley, KMK4446; Chairman of the membership committee, C. R. Poythress, Jr., KKK7454 and Communications Officer, Manuel Pena, KMK4965. The newspaper, a first for TERRAC, is being edited by Lynda Kozar, KLN9488.

Don't forget to write your Senator to support the bill to have our call letters on our licence plates.

News of Tidewater, Virginia clubs is from Bob Smith, KKK6249, A.P.R.E.

SOUTHERN

Newly reporting is the **Columbus Air Force Base CB Club** who boasts a membership of 35, which is composed of both civilians and military personnel. Official club channel is 9. They also recently organized their "poop sheet," better known as the "11 Meter Monthly" to keep the members and surrounding CB clubs informed of their happenings. News of the group comes from William F. Miller, President. The club is located in Columbia, Mississippi.

PACIFIC

Newly reporting is the **Circle Nine Radio Club** of Los Banos, California which elected the following for 1966: President, Paul Thomas, KNA5318; Vice President, Orval Graves, KLA3938; Treasurer, Robert Zuspan, KNA4570; Secretary, James Doering, KNA4219. The club operates on channel 9 and will assist whenever called upon.

CANADA

Officers for 1966 of the Montreal Bilingual Radio

Officers for 1966 of the Sunshine City CB'ers Radio Club, St. Petersburg, Florida are: Left to Right—Vice President, Raymond Jannarohe; President, Harvie Raybon, Treasurer, Gertrude Jalbert; Secretary, Catherine Raybon . . . S9 A.P.R.E., Laurence Kirk, KDI1690, extends congratulations to the new officers and wishes them continued success of 1966. Retiring officers are: President, Armand Jalbert; Vice President, Andy Boisvert; Secretary, Dina Goodman; Treasurer, Gerrie Hall.

Club are: Chairman, Jules Provost, XM521376; Secretary, Beulah Ferguson, XM524367; Treasurer, Mike Dowd, XM51892; Directors, Reeves Coleman, XM524155 and Neil Davy, XM524105. Interested parties should contact: P.O. Box 125, Lachine, Quebec.

EXTERIOR

The Citizens Banders for Civil Defense, took part in a communication Exercise on November 21, 1965, at Birkheimer Tunnel from 1300 hours to 1600 hours. There were 33 Citizens Band Radio operators present at this exercise.

Operations commences at exactly at 1355 hours. The reason for the delay was due to RACES (Radio Amateur Civil Emergency Service) was not ready due to malfunction of equipment. However, the CB'ers was standing by at exactly 1300 hours. This radio service operated on Channel 15 or (27.135 mc), as assigned by the Civil Defense officials under the call: 21Q0245. Mobiles were assigned to shelters listed in communication letter from OCDA (Oahu Civil Defense Agency), regarding Civil Defense Communication Exercise. Operation of this service had no major difficulties while transmitting or receiving messages, one of the minor troubles encountered was receiving a standard broadcast station on the channel we were operating on. This will be corrected by checking our antenna system, it was found that the ground plane antenna on the telephone pole located on the slopes in the Diamond Head crater, the center radiating element was broken due to the wind storm encountered a few weeks ago.

The Alimanau Radio Club held their first Citizens Band communication drill last September to test the mobile capabilities and proficiency of their members to mobile in case they are called to act or assist in any emergency with the Civil Defense or The American National Red Cross.

It was learned that such drill did bring into focus many mobile deficencies, especially in the mobile antenna systems, and some members even had the transmit and receive crystals installed in the wrong crystal sockets.

Mr. Walter Kaleikini, Radio Officer, KNS0037, had a field day trying to correct the various discrepancies found in their mobile rigs. The Command Center was set at the residence of Mr. David Kauhi, KLS0123, the drill commenced early in the morning and lasted until 1300 hours that afternoon. At the termination of the drill, Mr. Frank Machado, KLS0013, operating officer, Mr. Walter Kaleikini, KNS0037, radio officer and Mr. Jerry Alidon, KNS0031, radio drill coordinator held a critique of the entire day's problems. In spite of various breakdowns and radio discrepancies, the drill was termed a success. Plans for December drill was cancelled at the last moment due to the holiday rush.

October 23, 1965 was the date of the Alimanu Radio Club, had its first CB Shindig. The Luau was a successful get-together of all the members, their families and guests. Other CB'ers and their families were invited primarily to encourage them to join the club.

Approximately 100 people (members, families, friends and guests) attended the Luau which was held at the residence of Mr. Henry Rabago, KNS0066. Everyone had lots of fun as they danced to the music of the "ECHOES," a rock-an'-roll four-piece combo, who incidentally are sons of members Mr. Bert Kalaikai, KNS0062, Mr. Henry Costales, KNS0074, Mr. Bert Kalaikai, KNS0047 and Mr. Jerry Alidon, KNS0031 who planned and prepared the Luau.

The biggest reward of it all is seeing all the families there at the Luau and gaining six (6) prospective members for the club, more such get-togethers are being planned.

WESTERN

On the night of December 2nd, a large part of southern New Mexico and Texas suffered a power failure and was blacked out. At Alamagordo, New Mexico, the **Missile Valley Citizens Band Radio Club** immediately swung into its emergency procedures. Officials of the club said that the City Police Department requested them to help in combatting any looting or breaking and entering of major business establishments. The club sent out mobile units to standby at the downtown area. These units illuminated banks and large supermarkets with lights from their vehicles. Alamagordo returned to normal when the power was restored after a two hour blackout. A spokesman for the City Police Department said, "Nothing was reported in this city and that radio club was sure a big help."

REACT Earns Praise From Police, Council

Final action in city council meeting Wednesday was the approval and signing of a resolution commending REACT (Radio Emergency Association Citizens Team) for their assistance on Halloween patrols.

The club, national in organization, observed and reported via citizens band, low-frequency car radios, on large groups to **Brownwood** Police Department.

The club was recognized for its assistance throughout the year to law enforcement agencies by donating its personnel and equipment in emergency situations to assist normal law enforcement communications.

Owners of the 300 units in **Brownwood** who are members of REACT hold regular meetings the second Saturday of the month at 7:30 p.m. in the National Guard Armory. REACT invites anyone who is interest to attend these meetings.

Officers for 1966 of the **San Gabriel Valley REACT Monitor Team** are: President, Walter T. LeBlanc, KKY-0332; Vice President, Richard Ballew, KFA7543; Commanding Officer, Alan Reichard, KFA8441; Secretary and Treasurer, Gary Carrico, KMX4681. Meetings are held the first Saturday of each month at The First Federal Savings and Loan Building, Sunset and Service Ave., West Covina, California. Membership is approximately 60 at this writing. Good luck to the club in 1966.

The woman motorist, stranded with a flat tire or empty gasoline tank, and the driver of a jackknifed semi-truck and trailer find a common denominator in the emergency aid provided by COMUPAC REACT, Inc.

Spreads Blanket

This is the REACT chapter that spreads a broad blanket of two-way Citizens Band radio assistance throughout the West End of San Bernardino County.

Recently, this group assisted the Upland Police Department by freeing police officers from duty at flood-swollen washes. REACT members, in shifts, maintained a safety watch to prevent autos from crossing hazard areas.

Incorporated as a non-profit body early this year, members of COMUPAC REACT have devoted their time and equipment to helping local residents needing emergency communications since 1963.

The initials preceding the title of the organization are an abbreviation for Claremont, Ontario, Montclair, Upland, Pomona and Chino.

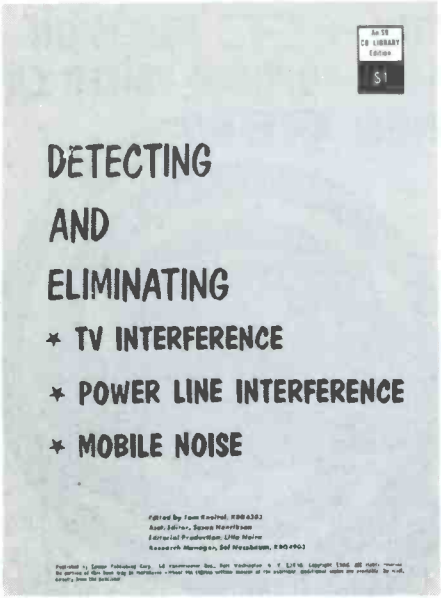
They maintain a 24-hour watch REACT monitor for fellow CB'ers, who are personally in distress, or reporting problems of other motorists.

Watches through the day and night are served voluntarily by housewives, their husbands—or, perhaps a REACT member at his place of business.

According to COMUPAC REACT president, Elvin Harris, the monitor on duty is prepared to make contact with police, fire and highway patrol agencies, as well as calling tow service for stalled autos.

S9 pays highest authors' rates. Why not submit your article?

LOOKIE!



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WASHINGTON OUTLOOK

• These CB'ers were requested by the FCC to show cause why their licenses should not be revoked for not replying to official FCC communications:

KLN9913, Robert L. Bonnell, Inkster, Mich.

KMT0252, C. J. Freeborn, Houston, Tex.

14Q0795, William R. Stocker, Spokane, Wash.

KIJ0162, Rivera's TV-Refrigeration Service, Rio Piedras, P. R.

KBC3760, Harland Gower, S. Portland, Me.

KMM1762, Lacy L. Clay, Haleyville, Ala.

KLD1360, Cecil C. Stinson, Milltown, Mont.

KKT0232, George R. Holliday, Jr., Houston, Tex.

KLK9779, Harold E. Scurlock, E. Moline, Ill.

KLN3131, Jerry G. Land, Detroit, Mich.

18Q0724, Lawrence B. Dube, Great Lakes, Ill.

KKX3107, Patrick J. Spaulding, Pomona, Calif.

KLA5545, Norton E. Bunyan, San Jose, Calif.

KNM5904, United Hearing, Dayton, Ohio

KNM2763, Robert A. Ervin, Chillicothe, Ohio

KMT0994, Robert R. Shane, Beaumont, Tex.

• Past the "show cause" stage, the following operators had their licenses revoked for not replying to FCC communications sent to them:

KJI0083, Edwin C. Austin, Erin, N. Y.

KLT0069, Roberto Vargas, Bayamon, P. R.

KAL0118, Charles W. Carnes, Dansville, N. Y.

KKM0084, B & B Construction Co., Stone Mtn., Ga.

KEG4475, Lawrence A. Basden, Midwest City, Okla.

KKP4019, Bobby J. Bell, Tampa, Fla.

• Monetary forfeitures equalling $100 each were doled out to the following operators:

KIF0314, John Rita, Waianae, Hawaii (off frequency)

KHG9755, Terry J. McMahan, Kendall, Mich. (off frequency)

• The following operator had a previously issued monetary forfeiture reduced to $50:

KMM3091, E. E. Parks, Birmingham, Ala.

• These operators had their forfeitures reduced to $25:

KKM9772, Franklin E. Davenport, Greenbrier, Tenn.

KKV4537, Larry Bradshaw, Denison, Tex.

• Previously announced FCC actions against the following stations were set aside or dismissed:

KHI4679, Wayne Phillips, Dayton, Ohio. Licensee settled with monetary forfeiture and the "Show Cause" notice was dismissed.

KNM1412, Columbus Two Way, Columbus, Ohio. "Show Cause" notice set aside because license was submitted for cancellation.

KMA5471, Brookside Motel, Ellsworth, Me. "Show Cause" action dropped as license has been cancelled.

18B3529, Juan Rodriguez, Chicago, Ill. "Show Cause" action dropped because licensee furnished satisfactory explanation for violations upon which the order was based, and has taken corrective measures to preclude a recurrence of the violations.

In other FCC actions, the November 15, 1965, effective revocation date of the CB license 19Q1819, Howard L. Barkley, Marion, Ohio, has been stayed until June 21, 1966 (unless set aside or affirmed by subsequent order).

The FCC has set up hearings to decide as to whether they should grant another CB license to Ernest L. Walker, of Fairview, N. Mexico. Walker, it may be remembered, had his license revoked in 1963 during a stormy session with the FCC, wherein it was claimed that he repeatedly violated the rules. Walker went on to become one of the founders of the ACBA (American Citizens Band Association), but resigned when they could not provide a satisfactory accounting of certain expenditures and actions (see his article in the January, 1964, issue of S9).

VHF fans will be pleased to note that the Weather Bureau is going to greatly expand its 162.55 mc/s continuous weather forecast broadcasts. The broadcasts are presently being heard

in New York, Chicago and Kansas City. Scheduled to be in full operation before the start of the 1966 hurricane season are similar stations (about 40 mile radius each) on the same frequency in the following cities: Boston, Miami, New Orleans, Wilmington (N.C.), Atlantic City, Jacksonville, Charleston, Tampa, Lake Charles (La.), Galveston, Brownsville, Norfolk, Providence, and Corpus Christi.

SPECIAL

Continued from page 20

used between my car and my brother's when we took a recent motor trip together using both cars. He didn't have a CB rig and we were able to communicate by using two 7-11 SPECIALS and our car receivers. Even if he had installed a CB rig in his car, we still would have used this communications method because, for one thing, it does not limit you to the length or substance of transmission; for another it doesn't tie up busy CB channels with idle chatter. Besides, it permits me to monitor CB Channel 9 without interruption while in transit.

I later found that I could connect my crystal phonograph cartridge at the mic input points and use the 7-11 as a phono oscillator. Probably if I hooked two of these units to a stereo cartridge, I'd have wireless stereo, using two broadcast receivers.

The 7-11 has uses as a party gag, for eavesdropping, as an interesting construction project, as a home intercom—I guess you can think up quite a few of your own uses.

S9 LAB REPORTS

Continued from page 31

censed technician, and the sealing wax was probably used to keep the untrained hands of John Q. CB'er out of the innards.

All in all the $99.50 price tag combined with the many features of the HB-555 makes it a top contender in the battle to quench the thirst for newer and better equipment which has been growing since the first CB set went on sale.

Manufacturer of the HB-555 is Lafayette Radio, Dept. S9-C6, 111 Jericho Turnpike, Syosset, N. Y.

ANTENNAS

Continued from page 41

tend to be strongest for several hours after sunrise and in the hours of prime TV viewing time, several hours after sunset.

If you're falsely accused of a crime being committed by Sneaky-E, first identify the problem. One symptom of an in-skipping TV signal is fast-moving frames that seem to flow behind the main picture. This is the distant image trying to lock into the receiver, but not quite succeeding. In bad cases, you'll see the bare outlines of the distant image. Another peculiar symptom is in the audio. Usually there's a high-pitched grinding noise, caused by the two TV carriers mixing. These symptoms are distinctly different from the usual CB interference seen as a herringbone pattern on the screen.

Since Sporadic-E hits all receivers in a given area, you might recommend that your complaining neighbor ring a friend and find out if he, too, is getting the interference. This could clear you of the TVI complaint.

BUILDING THE KG-221

Continued from page 40

and as the plug was put into the electrical socket and the set turned on we were alert to see which of three results would occur—

a) an explosion.
b) nothing.
c) it might work.

Wonders never ceasing, the thing worked. No kidding . . . first try. (I told Ricky I knew it would . . . why shouldn't it?) We tuned in a police broadcast which was concerned with cornering an alleged criminal suspect in a wooded section of the neighborhood. It was really great! Reception was weak but, after all, we only used a hunk of wire for an antenna.

The following week Ricky and I installed the recommended ground plane antenna on our rooftop. Now we really get reception. Not only police calls, but taxis, fire calls, emergency vehicles, and the weather bureau. This neat looking receiver provides a tremendous listening experience. It was gerat fun to build and I look forward to wiring some more kits.

As for neighbor Kneitel? He's really not such a bad guy!

KBG4303 RIDES AGAIN

Continued from page 7

You'll all be surprised to know that the Russians are quietly set up with a gigantic "CB" station right smack on Channel 9, our National CB Calling and Emergency Channel.

Our sources say that the station is equipped to run a thousand watts with either AM or CW into an omni-directional antenna. Callsign of the transmitter is UEY5 and the location is Ust Kiakhta, northeast of the large city of Irkutsk in Siberia.

With sunspots on the rise again, and prospects of skip getting better by the minute, things could be interesting. We understand that a few years ago, when skip was at its peak, stations in Asia used to work into North America with only a few watts. A thousand watts might make a lot of noise atop Channel 9 during an emergency.

If that bothers you Bunky, you'll be relieved to know that they also have 1,000 watters

ready to go on CB Channels 4, 11, and 12—to say nothing of the 15,000 watt station on Channel 20.

These stations have now been registered with the International Telecommunications Union in Switzerland. Anyone who wants to check further on them can dig through Volume III of the ITU's International Frequency List, they're all there.

S9

CARD SWAPPERS UNLIMITED

Continued from page 51

KNP6017	Wendy Snyder, Rd. 5, Butler, Pa.
KNP6317	Tom Roche, 91 Beaumont St., Wilkes-Barre, Pa.
KNP6852	James Smith, 210 Lincoln Ave., Dunkirk, N.Y.
KNP7450	Terry Hartsell, 217 Fulton St., Jamestown, N.Y.
KNP7640	Frank Lavelle, 222 No. Penna. Ave., Wilkes-Barre, Pa.
KNU0024	James Schubauer, 420 Haines, Fairbanks, Alaska
KNU0079	Dale Martin, 516 N. Pine St. Apt.5, Anchorage, Alaska
KOA0092	Charles Yering, 31 Shore Dr., Waterford, Conn.
XM112136	M.L.McDougall, General Delivery, Prince George, B.C.
XM21704	Lynn Mantz, 752 7th St.S.E., Medicine Hat, Alb., Canada
XM22444	Paul Cross, 9758 145 St., Edmonton, Alb., Canada
XM231343	Tom Sanders, #505, 1904 - 10th St.S.W., Calgary, Alberta
XM41747	Capt. Blood, R.R. 1, Orillia, Ont., Canada
XM412800	Skippy Massam, 66 Guthrie Ave., Toronto, Ont., Canada
XM42820	Dorson Valiquette, 7140 Justine Dr., Malton, Ontario
XM431259	Denis Dubois, Box 71, Welland, Ontario
XM43614	Jacob Fehrman, R.R. 1, Port Colborne, Ontario
XM431853	Jim Myers, 2542 Culp St., Niagara Falls, Ontario
XM442411	Bill Kerwins, 287 Nelson St., Sarnia, Ontario
XM522895	Bernard Rachlin, 2615 Kent Ave.#204, Montreal, Quebec
XM524176	Geoffrey Stewart, 8383 Blvd.Pie IX, Montreal, Quebec
XM531209	Norbert Bilodeau, P.O. Box 122, Sherbrooke, Quebec
XM531350	Ives Ranger, 992 Perry St., Sherbrooke, Quebec
XM552163	Carole Huot, 1663, Cote de l'Eglise, Sillery, Quebec
XM552222	J.C. Mainguy, 799, des Chenes Est., Quebec, Canada
XM56683	Andre Adam, 552 Godbout, Trois-Rivieres, Quebec
XM56735	Percy, 885 Duplessis St., Trois-Rivieres, P.Q.Canada
XM56773	Serge Adam, 563 Godbout, Trois-Rivieres, Quebec
XM631022	Bill Meakin, 2581 Creighton St., Halifax, N.S. Canada
North 99	Everett Decker, P.O. Box 411, Westfield, Mass.
North1099	Ray McCarty, 6 Circle, Hornell, N.Y.
North3300	Tom Bolling, 233 Temple St., Fredonia, N.Y.
North5015	Don Schmitt, P.O. Box 14, Gettysburg, Pa.
PR-1550	Sten Wretstrom, Skanorvagen 28, Johanneshov (Stockholm)Sw
OZDR1261	Palle Nielsen, Humlebaekgade 13''', Copenhage, N Denmark
ONL170	Jacquet Camille, UBA P.O. Box 634, Brussels, Belgium
WPE1DRU	Errol Decker, P.O. Box 411, Westfield, Mass.
WPE1GFM	John Kuc, 193 Hampshire St., Indian Orchard, Mass.
WPE1GHX	Roger Murphy, 3 Allen Ct., Keene, N.H.
WPE2LJE	Robert Gollihur, 871 Falesky St., Rahway, N.J.
WPE2MOM	Warren Eggers, 2235 Knapp Dr., Rahway, N.J.
WPE2NIO	Sheldon Shuff, 105-57 Flatlands 8th St., Brooklyn, N.Y.
WPE3FNB	Donald Trayes, 341 Miller St., Bangor, Pa.
WPE3FQQ	Donald Schmitt, Box 14, Gettysburg, Pa.
WPE4ENC	Jimmy Bullock, 1628 Long Ave., Nashville, Tenn.
WPE6FAN	Jon Casamajor, P.O. Box 46, Chico, Calif.
WPE6GAE	Jim Harris, 897 Bockman Rd., San Lorenzo, Calif.
WPE6GBC	Henry Slade, 136 Tamarack St., Vandenberg AFB, Calif.
WPE7CFV	Richard Warner, 4290 High St., Eugene, Oregon
WPE8HQN	Walter Huber, 365 Notre Dame, Grosse Pointe, Mich.
SWL	Rich Caldeira, 16317 Molino Dr., Victorville, Calif.
SWL	Fred Lampert, 10 Green View Dr., Pequannock, N.J.
TRQ-1000	David Bubeck, 109 E. Main St., Schuylkill Haven, Pa.
	Ralph Bryant, 716 Riverside Dr., Fairfield, Conn.
	Ruth Charon, 109 Bowers St., Holyoke, Mass.
	Central Printing, 920 Vandeventer, Fayetteville, Ark.

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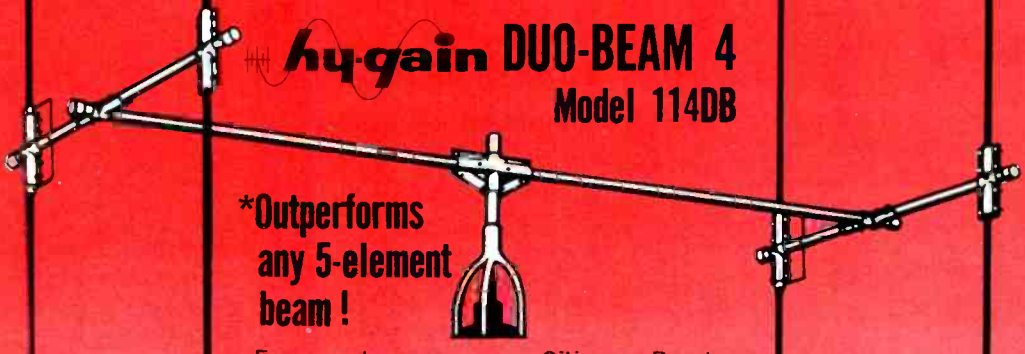

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