

We'll  
Blow  
Our  
Trumpet



Mingay Publishing Company is proud of its achievement in publishing during 1946, the Newspaper Edition and the Broadcasting Edition of AARDS. These editions were compiled and published during a difficult period but the ready acceptance by advertisers and agencies of this service is a pleasing indication of the esteem in which it is held, and of its assistance to all buyers of advertising "time" and "space." And now coming up early in 1947, the Periodical & Miscellaneous Media Edition. This will complete the entire coverage of Australian advertising rates and data.

#### AUSTRALIAN ADVERTISING RATE & DATA SERVICE

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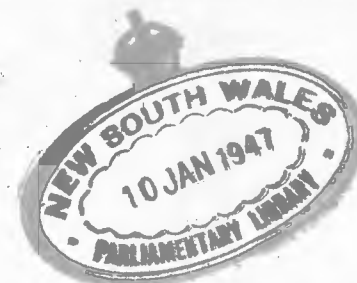
# BROADCASTING BUSINESS

VOL. XV, No. 13  
442nd Issue

Thursday,  
January 9 1947

Incorporating 'Commercial Broadcasting'

Registered at the G.P.O. Sydney, for transmission by post as a newspaper



Hi' Fellers -  
This is the Gravy!



I heard of a chap the other day who advertised in his restaurant that he served colored gravies — "to match any waistcoat!"

MAYBE it was just a stunt, but I reckon it's the sort of stunt that spells "know how" in any business . . . knowing how to please. It's the same kind of "know how" that the 2UW boys have . . . knowing how to give the advertiser a winning deal; and knowing how best to please the customers. If you haven't sampled the 2UW "know how", then, as my old pal Dyer says: "You Ain't Heard Nothin' Yet!"

Ask the 2UW boys to help you with your particular advertising problem, and then you'll see for yourself why



most people listen to **2UW**

# 8 MARKETS IT PAYS TO CONSIDER WITH 8 STATIONS

COVERING A COMBINED POTENTIAL MARKET OF 500,000

2AY	2GN	2GF	3BO
ALBURY	GOULBURN	GRAFTON	BENDIGO
4TO	4CA	4MK	4WK
TOWNSVILLE	CAIRNS	WARWICK	MACKAY

Use these stations and your job of reaching customers is easy because you have a ready and able-to-buy audience.

When you make your next appropriation, keep in mind these eight stations and these outstanding points

- THEY ARE A PROFITABLE BUY
- THEY REACH SALES—RICH MARKETS
- THEY GIVE SALES RESULTS AT LOW COST
- THEY REACH THRIVING MARKETS ECONOMICALLY

Most of the listeners are tuned-in to their own station most of the time. Each station is dominant in its own area.

All particulars from:

**AMALGAMATED WIRELESS (AUSTRALASIA) LTD.**  
SYDNEY BRISBANE MELBOURNE

## BROADCASTING BUSINESS

Incorporating COMMERCIAL BROADCASTING  
The Broadcasting Business paper of Australia, devoted to the promotion of commercial broadcast stations and circulating fortnightly to the broadcasting, advertising and business community. Established 1934.

THURSDAY, JANUARY 9, 1947  
Vol. XV, No. 13 (442nd issue)

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## EDITORIAL

### Broadcasters, Manufacturers, Mutual Problems

The news published elsewhere in this issue that in America the National Association of Broadcasters and the Radio Manufacturers Assn., have named their respective representatives to an industry committee once again emphasises the contention put forward several times in this business newspaper that such a set-up is very definitely required in Australia.

More than at any other time in the history of broadcasting, the present period of electronic development calls for the closest co-operation between broadcasters and manufacturers of radio equipment. Such a committee should act as a vigilance as well as a planning committee so that not only immediate matters of mutual interest can be frankly discussed but some much-needed long-range planning entered into with a view to meeting the possible revolutionary processes through which electronic development will progress.

Broadcasting and radio manufacturing run parallel with each other but as close as a set of railway lines—each bound to the other. Nevertheless radio manufacturing is the larger of the two "rails"—it represents not only a many times greater economic investment in money and manpower but embraces a tremendous force of mankind's inventive brainpower. Technical development and technical progress that issues from such a bank will not be stemmed. And if broadcasters will not find an outlet—a use—for the products of the manufacturers then surely enough the manufacturers will themselves create those outlets.

That the executives of the Federation of Commercial Stations and the Radio and Telephone Manufacturers Assn. are alive to the need for co-operative planning for commonsense application of technical development in the radio sphere was amply evidenced at the I.R.E. Radio Founders Day Dinner in Sydney recently when the respective presidents of those two organisations each agreed that the time was ripe for active industry co-operation. However, in spite of these very definite pronouncements we have yet to see any evidence of their implementation.

### The "Good" the Critics May Not Understand

If the Federation of Commercial Broadcasting Stations would collate from the archives of its member stations all the powerful evidence of the humanitarian work of the stations and cause it to be published to the world it may have the effect of educating some of the critics of commercial broadcasting in this country. It would at least provide the Federation with some ammunition with which to refute the often repeated suggestion that commercial stations think of and operate only in the interests of sponsors and the equally fatuous allegation that they fail to operate in the public interest.

In last issue the case of the Orange High School and some comments by the school's headmaster were pointed out. Also in that issue was the story of the £10,000 raised for charity purposes by the 2CH Womens League. Elsewhere in this issue there is an account of part of the work carried out by Launceston station 7EX's Women's Association during the past year to cap a magnificent wartime record of community service. Launceston is not a very big place and therefore provides an extraordinarily fine example of the "power for good" which is influenced by a commercial broadcasting station conducted with that ideal in mind. The Launceston example we know, and most of our readers know, is in fact multiplied by scores of commercial stations throughout the Commonwealth.

Elsewhere also in this issue can be read how 3KZ Melbourne on Christmas Day raised £20,873 to take that station's total tally of charity money raised to £121,350, and how country station 3LK worked to raise £13,500 last Sunday week for hospitals in central Victoria.

## Advertising Notables—

**Mr. W. T. McCLELLAND,**  
W. T. McClelland Company,  
Sydney.

Mr. McClelland commenced his advertising career in 1919 when, after recuperating from war wounds in 1918, he returned to England. In Fleet Street he had his first introduction to the Agency side of the profession. Upon returning to Australia, he joined the Successful Advertising Company in Melbourne and Adelaide and, later, in Sydney, Sales and Advertising (A/sia) Limited, under the direction of J. B. Perceval and J. U. Leask.

Receiving an offer from J. Hott Limited, of New Zealand, he went to Wellington as Copy Manager. After 18 months, "Mac" returned to Sydney to join Harrie Ferguson in the formation of Ferguson Advertising Agency Pty. Ltd. Later, he became Advertising Manager for Australasia of Gordon & Gotch (A/sia) Ltd. After serving four years in that capacity, he was appointed Manager for Australasia for Wylie B. Jones Advertising Agency (of New York). When the American principals decided to re-form that Company, it was named Hartford Advertising Agency Pty. Ltd. and "Mac" became its Managing Director.

After nearly seven years with the Hartford Agency, in 1944, Mr. McClelland opened an Agency in Sydney.

### A Reminiscence.

"Unique, perhaps, in the history of advertising, was an occurrence following a certain occasion when I had arranged for copy, layout and blocks to be forwarded to a country paper for publication.

"No proof of the advertisement was sent for O.K. but, later, a voucher copy of the paper arrived wherein layout and block portions of the advertisement only were published—even to lines indicating where copy would be set in layout—but no copy! The copy had been lost in transit . . . but the paper must have felt that the layout was worth publication for itself alone."

2UE'S OWN PRESENTATION TECHNIQUE INCREASES  
THE PULLING POWER OF YOUR SALES MESSAGE



With Eichorns Pty. Ltd., Eloy & Co. Pty. Ltd., Knox Drug Co. of Los Angeles, and McNiven Bros. Limited, Radio 2UE is prominent in the advertising schedules of the W. T. McClelland Company.

## BROADCASTERS AND MANUFACTURERS GET TOGETHER IN U.S.A.

(From Our Own Correspondent)

Washington, D.C., Dec. 16: The National Association of Broadcasters and the Radio Manufacturers' Assn. are moving into closer and closer cooperation as more matters affecting their mutual interests become paramount within the broadcasting and television industries.

A joint committee of broadcasters and manufacturers has been named and are as follows:— **Broadcasters**, T. A. M. Craven, v-p. Cowles Broadcasting Co.; W. Fay, v-p. Stromberg-Carlson Co. (WHAM); G. Gray, pres. WSJS; J. D. Shouse, v-p. Crosley Broadcasting Corp. (WLW); and C. D. Smith, general manager WRC. **Manufacturers**: Dr. W. R. G. Baker, v-p. General Electric Co.; W. Evans, v-p. Westinghouse Electric Corp.; F. M. Folsom, exec. v-p. RCA-Victor Division; P. V. Galvin, pres. Galvin Manf. Corp.; and E. A. Nicholas, pres. Arnsworth Television and Radio Corp.

### EUROPEAN BROADCASTS SET INTERNATIONAL POSERS

Russian-language broadcasts from the U.S., beamed to the Soviet Union, were close to realisation in December, when the U.S. State Dept. placed in service three powerful transmitters at Munich, Germany, to relay "Voice of America" broadcasts to Europe.

The shortwave transmitters, each of approximately 85 KW power, began operations Dec. 15, William T. Stone, director, Office of International Information & Cultural Affairs (OIC), State Dept., announced. Programs originating at the New York OIC office are being relayed daily from 11 a.m. to 4.30 p.m., EST, which is the top evening listening time in various European areas.

The Munich transmitters are being used to beam programs to Czechoslovakia, Yugoslavia, Rumania, Poland, France, Bulgaria, Hungary and Austria, with some programs in English. Studies are being made for broadcasts "to other countries in Europe, including Soviet Russia," said the State Dept.

Use of the Munich transmitters was obtained by the International Broadcasting Division of State Dept. through co-operation with the U.S. Military

## Armstrong FM Rights for British Empire Acquired by E.M.I.

An announcement of very great interest was made by Sir Ernest Fisk on December 12 last when he advised the 15th Annual General Meeting of Electric & Musical Industries Ltd. in London that negotiations had been completed for the company to acquire the British Empire rights on the wide-band FM patents of Major Edwin H. Armstrong.

The agreement provides for the manufacture and supply of transmitting and receiving equipment to Armstrong patents by E.M.I. or its subsidiaries throughout the British Empire while, if desired, E.M.I. may also issue sub-licences for the same purpose.

Simultaneously, a manufacturing process agreement had been completed with an American firm already well-advanced in the production of F.M. equipment and, consequently, the E.M.I. group would be able to proceed forthwith with work on the Armstrong patents.

Another interesting announcement by Sir Ernest, covered the acquisition by E.M.I. of the British Empire rights over the H. H. Scott gramophone noise suppressor patents—a development which permits full-range gramophone recording and reproduction without extraneous noise from needle scratch and rumble.

E.M.I. is represented in Australia by Columbia Graphophone and The Gramophone Co. Ltd., at Homebush, N.S.W.

Government in Germany, the announcement stated. Earlier requests of State Dept. to use the transmitters, which formerly were part of the Reichspost radio plant, were blocked by military authorities in Germany.

The Russians were expected to protest the use of the Munich transmitters by the U.S. because they are in Germany. Russia, however, has refused to permit the U.S., Britain or France to use the powerful Radio Berlin, which is in Russian hands.

Part of the Munich transmitters are being used by the Armed Forces Network for troop entertainment in the European theatre.

## STOP PRESS

### UN MAY SEEK WORLD REALLOCATION OF FREQUENCIES

(From Our Own Correspondent)

Washington, D.C., Dec. 24: Advisory committee on UN Telecommunications headed by Brig.-Gen. F. E. Stoner, assistant chief signal officer US Army, has recommended to UN General Assembly that a world-wide radio network be set up at estimated cost of six million dollars exclusive of cost of buildings and land. Recommendation will be voted on at next General Assembly in September 1947. It calls for a reallocation of international shortwave frequencies and acquisition of frequencies formerly allocated to League of Nations. Operations would embrace not only high-frequency field but medium and low bands as well to ensure widest possible coverage of UN broadcasts.

### PSCB MEETING IN MELBOURNE

The new Parliamentary Standing Committee on Broadcasting held its first meeting in Melbourne last week under the chairmanship of former chairman, Senator Amour. One problem up for early consideration of the Committee is that of the distribution of listeners' licence fees revenue as between the PMG Dept. and the ABC.

### SINGING COMMERCIALS

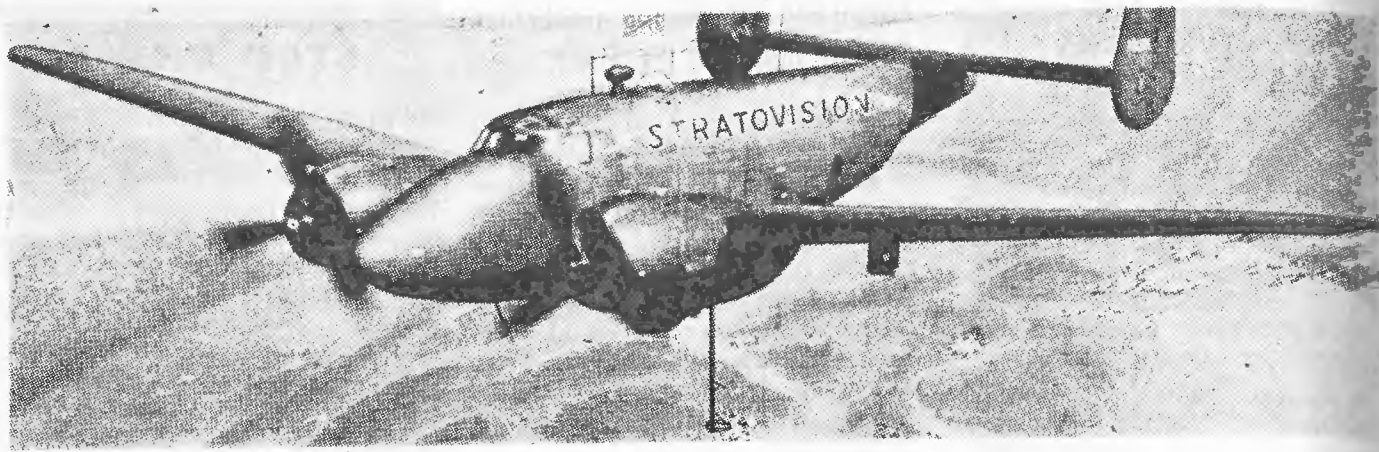
Result of representations of AAAA to defer ban on singing commercials from January 31 to June 30 AFCBS asking all station members to state if they (1) desire adhere Convention decision or (2) agree extend banning date to June 30 and (3) wish ban apply to existing as well as upcoming announcements of that type.

### INDUSTRY CO-OPERATION COMMITTEE

Messrs. Ridley (2GZ), Paddison (2KA), Morgan (3KZ) and Worrall (3DB) have been appointed by AFCBS as Industry Committee to seek co-operation with radio manufacturers on matters of mutual interest.

### H. G. HORNER CARRYING ON TO FEB.

Understood that Mr. H. G. Horner, whose retirement from 2GB-Macquarie general managership previously announced to be effective Dec. 31, will carry on to end of January when Reg Lane will take over (see page 34). Mr. Lane will be in Melbourne most of balance this month.



## Latest Reports on "Skyhook" F.M. and Television

This article, culled from the American paper "Frequency Modulation Business", presents the historical background of the development of the Stratovision experiments and also the latest conclusions. The article was originally compiled by Walter Evans, vice-president of Westinghouse Electric Company, who is in charge of all radio activities of that organisation.

Just over twelve months ago, a small group of men sat in a darkened studio at Westinghouse radio station headquarters in Philadelphia, U.S.A., with all eyes focused on series of charts spotlighted at the front of the room. Two speakers unfolded details of a completely new and fascinating story a proposal to provide F.M. and television programs to farm and city homes alike all over the land promptly and at an economically practical cost. The two speakers were Charles Edward Nobles, Westinghouse radar engineer, and the other, William K. Ebel, Engineering Vice-President of the Glenn L. Martin Aviation Co., world-famous designers and builders of aircraft.

The occasion was the first mooted of "Stratovision"—an idea that had grown out of a radio engineer's desire for "sky-hooks" to support VHF antennae at heights beyond the limits of earth-bound structures.

With quick, sure phrases Charles Edward Nobles made his points:—

*Popular interests in FM and television was high . . . the desire to enjoy these programs great.*

*Warborn "know how" pointed the way to promising new horizons for these services, both subjects of considerable prewar research and development. But—two major hurdles block the way.*

*One, the fact that FM and television programs can be received satisfactorily only as far as the eye can see; the other the expense involved in pro-*

*viding many stations because of this limited coverage of a single station.*

*Why not provide FM and television programs from airplanes, cruising constantly six miles up, in the stratosphere . . . with each station's coverage area vastly expanded . . . with programs available to millions of small town and farm families who might never enjoy these services by any other system . . .*

FM and television for all? From the stratosphere? His small audience leaned forward with added interest. **No Unusual Problems**

William K. Ebel then took up the tale and gave his ideas on the proposal.

*He had studied the plan in great detail. FM and television were new to him but airplanes? . . . that was another matter.*



Examining the main underside antenna for the Stratovision aircraft are—(left) William G. Van Zelm, chief of new design for Glenn L. Martin Company, collaborating with Westinghouse in development of Stratovision planes, and (right) C. E. Nobles, of Westinghouse, whose dream of stratovision is about to materialise.

*He saw no unusual problems in building planes to cruise constantly in tight circles over a given area in any weather. In fact at 30,000 feet a plane was above the weather for all practical purposes and modern radar, blind-flying and anti-icing equipment would make takeoffs and landings possible in anything short of a hurricane.*

*He must admit the proposal was most dramatic . . . but it was amusing too, because after years of striving for faster and faster airplanes here was a request for a plane which would "go nowhere slowly."*

The discussion ended. Lights were on. Enthusiastic conversation swept over the group and before the day ended this jury of top officials of the Westinghouse and Martin companies summoned to Philadelphia to hear and appraise this new and unorthodox plan, had given it their approval.

So it was that a little less than seven months after the idea first occurred to Mr. Nobles while flying over his native Texas the previous December, possibilities of the plan had been probed and proven on paper and endorsed by the best technical talent of the two companies.

And within one more month the plan had been readied for public announcement and introduced to a critical but very interested audience of editors and radio executives at New York's Waldorf-Astoria.

Today "Stratovision"—it was christened Stratovision almost immediately (although many of those closest to the development still know it more fondly as "Sky Hooks")—is more than a concept.

(Continued page 10)

# AGAIN WE'VE DONE IT!

## AGAIN 3KZ's XMAS DAY APPEAL A HUGE SUCCESS . . . £20,873 RAISED

Despite the glorious sunny weather which induced thousands of Melbourneites to spend Xmas away from their homes, 3,158 listeners phoned their donations to 3KZ during the Xmas Day Appeal . . . and £20,873/15/2 was raised IN THE ONE DAY for Austin Hospital and Australian Red Cross. The total amount raised for charity by 3KZ is now over £121,350.

## AGAIN OVER 250,000 ATTEND 3KZ's "CAROLS BY CANDLELIGHT"

For the third successive year, over 250,000 people attended 3KZ's "Carols by Candlelight" Xmas Eve Festival in Alexandra Gardens—the vast number listening in can only be guessed at! An audience of nearly one-quarter of Melbourne's population cannot be promised for every KZ programme, but we can promise one large enough to keep the cost-per-sale of any suitable product down on a very low level.

## AGAIN "P. & A. PARADE" LISTENERS' COMPETITION ATTRACTS COLOSSAL ENTRIES . . . 48,000 IN FACT

Eighteen thousand entries were received in the 1944 competition . . . 43,000 in 1945. The 1946 competition held in December brought just over 48,000 written entries. (Phone entries were not accepted.) Entrants had to place the 16 competitors in Maples "P & A" Parade Grand Final in the same order they hoped the judges would, and had only 4 days to record their votes! The prize money was £80 and 5 completely correct entries were received.

# 3KZ

MELBOURNE

CERTAINLY HAS DRAWING POWER

SYDNEY REPRESENTATIVE: A. L. FINN, 65 YORK ST. Phone: BW 6251

## Independent News Service For Queensland Stations

Although the ABC news service has been available free of cost to numbers of Queensland commercial stations and has been used by those stations for some time, many station managements have not been at all happy about the service.

In some circles the ABC news service is regarded as an out-and-out propaganda service for the Government in office.

For some time negotiations have been going on between the two leading Brisbane newspapers—the Courier Mail and the Telegraph—with a view to establishing a news service which could be made available at comparatively low cost to Queensland commercial broadcasting stations. There were several hitches but eventually agreement was reached and a four-services-a-day schedule prepared and submitted through the Courier-Mail station 4BK, to other stations. Times are 7.45 a.m., 12.30 p.m., 7 p.m. and 10 p.m. Stations last week announced as accepting the 4BK-AK relay were as follows: 4BH Brisbane, 4BC Brisbane, 4SB Kingaroy, 4IP Ipswich, 4GR Toowoomba, 4GY Gympie, 4MB Maryborough, 4BU Bundaberg, 4RO Rockhampton, 4MK Mackay, 4TO Townsville and 4CA Cairns.

It is understood that Macquarie headquarters in Sydney is also offering an attractive independent news service organised in conjunction with the Sydney Morning Herald.

Commenting on the establishment of the new news service for Queensland stations, the managers of the three Brisbane commercial stations made the following statements:—

Mr. Prouse Knox, general manager of the Commonwealth Broadcasting Corporation (Queensland) Ltd.: Main object of this new Queensland radio news service is to give a world cover of news. The aim will be to publish it on the air accurately, impartially and concisely.

Mr. C. R. Carson, Queensland vice-president of the Australian Commercial Broadcasting Federation and manager of 4BH: In recent years radio, particularly during the war, has made a great advance. Especially is

this true of radio news reporting—factual and up-to-the-minute. News gatherers are applying the modern technique, and the inauguration of the Queensland Radio News Service will supply listeners throughout the State with a reliable and swift service.

Mr. A. Robertson, manager of "The Courier-Mail" station 4BK and 4AK: One of the greatest benefits that radio has brought to humanity has been the development of what is called a "news sense." It has given news a greatly increased value to the average man and woman, and has been a tremendous factor in presenting news from all over the world speedily and vividly. This outstanding service to the people by radio is still developing, and there is no doubt that the inauguration of the Queensland Radio News marks another very important stage of that development for Queensland radio listeners. This will be a news service as up-to-date, as thorough, and as comprehensive as modern communications will allow, and will bear comparison with any broadcast service in the world.

### NEW RECORD SET FOR CHRISTMAS DAY APPEAL FOR CHARITY FUNDS

Christmas Day is no holiday at Melbourne station 3KZ. This Christmas, as in past years, the station management and staff devoted to an all-day appeal over the air for funds to equip a new Children's Block at the Austin Hospital, funds for which have already been raised.

On the day's tally 3,152 listeners phoned the station with guarantees of cash donations totalling £20,873-15/2 which surpasses all past figures set up by this annual appeal. Sixty per cent of this amount only will be required for the equipment and the remaining 40% will go to the Red Cross.

The new block at the Austin Hospital will cost about £60,000 and construction is expected to commence early this year.

At the close of this Christmas Day's appeal Mr. Syd Morgan, managing

## Australian Development of Drugs, Chemicals, Cosmetics

The development of the Australian drug and cosmetic manufacturing industry is clearly shown in a survey of the Chemicals, Drugs and Medicine industry carried out by the Commonwealth Statistician for the year ended 1945.

These specific industry surveys were suspended during the war years.

The survey reveals that between 1935 and 1945 the number of factories engaged in the manufacture of chemicals, drugs and medicines increased from 203 to 349 with employees increasing from 4,251 to 10,477 in the same period. In the ten years under review salaries and wages rose from £713,000 to £2,943,000. The value of production, i.e., the value of output minus the cost of raw materials, containers, power, fuel, light, lubricants, water, tools replaced, and repairs to plant, representing the value added in the process of manufacture within the factories, rose from £2,639,000 to £8,572,000 in 1945.

The Statistician's report is incomplete in regard to the total types of manufacture, as in the schedule of articles produced totalling a value of £18,122,313 for the year 1944-45 more than half (or £10,365,631) is listed under "other articles" which includes unrecorded value of articles produced and also items, particulars of which are not available for publication.

Of the remaining £7,756,682 the following products accounted for the values shown:

	£
Pharmaceutical products ..	4,389,588
Cosmetics, creams, lotions ..	560,000
Insecticides ..	479,906
Essences (flavourings) ..	437,213
Acid (other than sulphuric and hydrochloric) ..	352,678
Tooth Paste ..	335,171
Disinfectants (incl. Phenyl) ..	217,405
Sulphuric Acid ..	207,922
Talcum powder ..	126,435
Sprays ..	120,272

director of 3KZ broadcast his company's deep gratitude to listeners who had contributed and to the scores of voluntary helpers, including many telephonists, who gave up their Christmas Day in the cause of charity.

Station 3KZ has now raised a total of £121,350 for direct charity appeal.



# 2HD

NEWCASTLE

THE SPORTING STATION IN A

..... SPORTING COMMUNITY

HAS NOW ADDED THE FAMOUS SPORTING SERVICE OF

• 2UW SYDNEY •

TO ITS SPORTING LINE UP — A LINE UP WHICH INCLUDES

## EXCLUSIVE BROADCAST RIGHTS OF NEWCASTLE STADIUM

IMPORTED WRESTLERS — Each Tuesday Night

TOPLINE BOXERS — Each Saturday Night

1st GRADE CRICKET and Football Descriptions by

## 2HD's ACE TEAM OF SPORTING COMMENTATORS

• Special Offer to Sponsors •

A Combined Two Station Cover of Newcastle and Cessnock has been arranged by 2HD and 2CK who both relay the 2UW Sporting Service.

For details contact

STATION 2KY SYDNEY

'Phone M 6291

## "Skyhook" FM and Television

(Continued from page 6)

It has been under flight test since December and, although much work remains to be done, Westinghouse has transmitted a usable FM signal 240 airline miles from an altitude of 25,000 feet with power of only 250 watts. This performance agrees almost exactly with earlier calculations and would appear to prove beyond reasonable doubt the basic contentions of the Stratovision plan.

Transmission has been on 107.5 mc. and most has been of FM carrier with voice announcements. Some FM programs have been rebroadcast but extensive work in this direction is just getting under way with large-scale public participation tests scheduled.

In these tests Westinghouse plans to borrow from the earliest days of broadcasting and ask receiver owners to tune in and report reception. Public participation rebroadcasts of programs from KYW-FM in Philadelphia are planned and dates, times and flight courses will be announced sufficiently in advance to insure maximum audience. These transmissions, too, will be on 107.5 mc.

### Stratovision's TV Efforts

Television work to date centers around problems of "ghosting" and considerable data have been obtained at frequencies around 500 mc. Operation in three additional channels, up to 2000 mc., has been authorized by the Federal Communications Commission and transmission on these frequencies is anticipated as work progresses.

All tests are monitored by the Stratovision laboratory at the Westinghouse Baltimore plant; by the FCC monitoring station at Laurel, Md., and by Westinghouse Radio Stations headquarters in Philadelphia.

Although basic design features of the final Stratovision planes—to be built by the Martin Company—have been worked out, some details cannot be established finally until requirements are more specifically defined in further flight tests.

All airborne work to date has been done with a twin-engine medium bomber obtained from war surplus and refitted by the Martin Company. The ship is manned by a crew of two from the Martin flying personnel and based at the Martin Airport near Bal-

timore. Two Westinghouse engineers handle Stratovision equipment in flight.

Aviation aspects of the joint development are headed by Mr. Ebel while Mr. Nobles is in charge of FM and television work.

Flights to date have been over three main courses: from the Martin Airport over Wilmington, Philadelphia and New York to New Haven, Conn., and return non-stop; over Washington and Richmond to Rocky Mount, N. C., and return non-stop; and Baltimore to Detroit via Pittsburgh with stopovers in Detroit.

### Line-of-Sight Principle

The Stratovision concept is as simple as it is effective. It hinges on the fact that the higher one's point of viewing the farther one can see. Apply this simple example to FM and television waves and you have Stratovision.

Radio waves which carry television and FM programs travel essentially in straight lines and, to all practical purposes, are lost at the horizon. This means that good ground station coverage is in a radius of 35 to 50 miles. Line-of-sight coverage is increased however, as the antenna is raised and with this increase of elevation comes a proportionate increase in the number of persons who can enjoy the station programs.

Applied to relaying—the matter of supplying a far-reaching FM and television network service—high altitude operation means fewer relay points required, fewer repeaters, better program quality and lowered costs.

Stratovision planes, flying six miles in the air, would cover approximately 103,000 square miles in a large circle more than 400 miles in diameter. Eight such planes, in addition to broadcasting to the respective areas over which they cruise, might form a coast-to-coast high-altitude relay network. Addition of six more planes would make possible program service for approximately 78% of the nation's population, and 100% coverage could be attained by the addition of more planes.

Four antenna systems are required on the test plane in addition to those serving its normal radio operational requirements. One—a 10-foot mast of aluminium tubing with dual loops 15 inches in diameter—is hinged in the

bomb bay and lowered into place loops down, after take-off. This is the FM broadcasting antenna which sends programs received in the plane from ground stations, back to earth over a greatly increased range.

A second underside antenna picks up programs from the ground station for rebroadcast: a third, on the top of the plane, provides a communication channel, and a fourth, also mounted on the 10-foot mast, serves as a 515 mc. television test antenna. The Baltimore ground station employs four antennas mounted on a single 50-foot mast for FM and television studies.

Present plans envision the ultimate Stratovision plane as an all-metal, low-wing monoplane with completely super-charged cabin and power plant similar to those proven in wartime operation of the B-29. They will carry the most modern blind-flying, radar and anti-icing equipment, and take-offs and landings will be accomplished when necessary, under conditions of low ground visibility.

Tentative operational schedules call for takeoffs at staggered four-hour intervals with each plane remaining at 30,000 feet for eight hours. While one plane broadcasts a second will be in the air as a standby, ready to take over at any time. This means that four planes will be required for each operating area—with two in the air and two on the ground at all times.

In addition each plane will carry a four-hour reserve fuel supply. This will provide a 50% safety factor in any emergency, and in addition, will make it possible—in the event of unusually bad weather at any operating base—to serve the stormbound area from planes operating out of adjacent bases and flying to and from the broadcast location above the storm.

### Radio-Telephone Service to Eire and France

The Postmaster-General (Senator D. Cameron) announced last week that arrangements have been made in conjunction with the British Post Office for the re-introduction of the radio-telephone services between Australia and Eire and Australia and France on and from the 1st January, 1947. These services, which will be available via the Anglo-Australian radio telephone channels, were in operation prior to the outbreak of war but were closed down when hostilities commenced.

The tariff for calls to Eire will be 20/- per minute with a minimum fee of £3, while the charge for calls to France will be 22/- per minute with a minimum fee of £3/6/-. The usual surcharge of 1/- in the £1 to cover exchange will apply.

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BX 2098

CHRISTMAS PICTURE ROUND-UP IN MELBOURNE, SYDNEY



Picture at top is of a corner at the afternoon tea party given by Cr. O. J. Nilsen, managing director of Nilsen enterprises, for children of his employees. At the end of near table is Cr. O. J. Nilsen, Mrs. Vic Nilsen, Mrs. Eric Cottrell and Mr. Arthur Prince, general manager 3UZ. At right Cr. Nilsen is seen wishing everyone a Happy Christmas.

The large picture in the centre shows a portion of the crowd estimated at 250,000 who attended 3KZ's "Carols by Candlelight" on Christmas Eve, and below the Lord Mayor of Melbourne, Cr. Connelly with Mr. Norman Banks of 3KZ on the dais.

Bottom right picture catches Tommy Trinder, Mr. Walter Cavill, managing director of Goodlands who sponsored the Trinder broadcast through 2GB on Christmas morning, and Mr. H. G. Horner.

FOR 1946—

"STATION 2SM...THE MOST CONSISTENTLY EASY-TO-LISTEN TO STATION ALL THE YEAR ROUND" Ormsby Wilkins' 'Tuning-in Time'—('Daily Mirror')

THE EASIEST ON THE EAR ALL THE YEAR!

Long ago old superstitions linked our destiny to a collection of odd symbols known as the Signs of the Zodiac. In 1947 we live and do business by more realistic figures. For instance there is the symbol—2SM. It stands for results that are satisfying and significant . . . for regular clean entertainment of that standard which over many years has made 2SM a radio call sign that is synonymous with good broadcasting.

That's **2SM** Sells  
Why **2SM** More

# BBC Analysis of Frequency Modulation Tests

Since preparation of the material on the BBC FM tests, presented in "B.B." December 12, the original Report from the "B.B.C. Quarterly" has been received and corresponds substantially with the data already presented. However, the complete Report also included some explanatory notes on reception and transmission technique, as well as an elaboration of the brief reference to "other systems" which were considered. These points are covered in the following notes which are reproduced direct from the report by Mr. H. L. Kirke, BBC Research Chief.

## Receiving Equipment

A number of types of British and American receivers were used for the tests and, as might be expected, there was a considerable difference in performance between them, particularly in regard to the suppression of receiver noise, impulsive noise and sensitivity. The degree to which this is accomplished depends, as has already been stated, to a large extent upon the design of the receiver, which may be reflected in its cost. In order to suppress noise satisfactorily, a receiver should have adequate radio frequency and/or I.F. amplification and a well-designed limiter.

F.M. receivers are in general more difficult to tune than A.M. receivers, in that there is no point of maximum signal to which to tune. In order to obtain the maximum suppression of interference and receiver noise it is necessary to tune the receiver correctly, but the degree to which this is critical depends upon both the mechanical and electrical design of the receiver. The receiver heterodyne oscillator must have good frequency stability after a short period from switching on has been allowed for steady conditions to be reached, as any detuning causes distortion, particularly on modulation peaks, as well as impairing the signal:noise ratio. As the correct tuning position is not easily identified, some tuning indicator, or preferably some automatic tuning or frequency-correcting device, is likely to be essential if ordinary listeners are to obtain reliable and satisfactory results.

Crystal control may appear to be uneconomical, but as so much work has been done on the mass production of crystals, it would not appear impossible to envisage the production of very cheap crystals of adequate stability, say 1 part in  $10^5$ . The use of crystals might in practice enable the ganged condenser to be eliminated, and for the whole tuning to be of the press button type, crystals of

appropriate frequency being provided to suit the transmitter frequencies for each district. A fault of some receivers is that the I.F. band width is too narrow. If this is the case distortion will occur, particularly on weak signals, as the effective band width of an F.M. receiver increases as the signal strength increases.

A point of importance in receiver design is the band width of the discriminator. If this is too narrow distortion will occur on the peaks of modulation, and if it is too wide the suppression of ignition noise will suffer. A judicious compromise is required, therefore, and it is suggested that for a peak deviation of  $\pm 75$  kc/s. a discriminator band width of  $\pm 100$  kc/s. is about right.

An interesting comparison is that between F.M. receivers on ultra-short waves and a medium wave receiver of comparable price class. In tests carried out the improvement of F.M. on ultra-short waves over A.M. on medium waves was substantially the same as that between F.M. and A.M. on ultra-short waves for general and set noise, but for ignition noise the improvement is less, as ignition noise is not a problem on medium and long waves.

The incorporation of an ultra-short wave band in a broadcast receiver would increase its cost, and an additional increase would be entailed if F.M. transmissions also are to be received. But it is thought that the increase in receiver cost for F.M. compared with A.M. is not unduly great when considered in relation to the benefits of F.M. as a service. It is clearly not possible here to give any indication of the actual costs, as this is a question for the manufacturers. Nevertheless, it is safe to say at this juncture that the additional cost of F.M. is not prohibitive, and it is not asking too much to expect that future development by receiver manufacturers and others would not only improve the performance of F.M. receivers but, it is hoped, reduce the cost.

A problem which will require attention is that of the receiving aerial, particularly if a listener has an A.M. medium wave receiver, a television receiver and an F.M. receiver. It would simplify the problem if the polarisation of both television and F.M. were the same, so that they could both be received on the same aerial. An efficient combined receiving aerial system for television, F.M. and medium and long waves would be the ideal arrangement.

## Transmitting Equipment

One of the advantages of F.M. is that the carrier can be modulated at low power. It is usual to modulate at a frequency much lower than the carrier frequency. The modulated carrier is then passed through frequency multipliers and power amplifiers until the appropriate carrier power is reached. As has been mentioned before, a further advantage is obtained, namely that as the carrier does not vary in amplitude, power amplification can be carried out at high efficiency.

There are two principal methods of effecting frequency modulation. One of these is the original Armstrong system, in which the carrier oscillation is generated at a comparatively low frequency and at low power and is then phase-modulated and frequency multiplied. Since phase modulation is the differential of frequency modulation, this method requires the modulation to be integrated in order to obtain frequency modulation. In a modification of Armstrong's method developed by the Zenith Radio Corporation in the United States and later perfected by the American General Electric Company, use is made of a special type of valve called a "phasitron."

The second main method is more direct, the frequency of an oscillator being modulated by the use, for instance, of a reactance valve. A method of achieving direct frequency modulation has been developed in the B.B.C. Research Laboratories and employs a circuit wherein the phase angle of a

Continued page 23

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AND 2ZA PALMERSTON NORTH

NATIONAL BROADCASTING SERVICE (COMMERCIAL DIVISION)



## PSCB RECOMMENDATIONS ON FM FOR AUSTRALIA

As 1947 will undoubtedly go down in Australian radio history as "FM Year" due to the fact that this year will see the experimental introduction of the system to Australian broadcasting it will not be inappropriate to look back at this stage upon the FM recommendations of the Parliamentary Standing Committee on Broadcasting in the Committee's Twelfth Report.

Full text of the recommendations is as follows:—

(1) National service tests of F.M. in the V.H.F. band should be made in each capital city, as proposed by the Post Office, the estimated cost of the six stations being £48,000, excluding the cost of programs (which do not enter into the calculation, as existing national A.M. programs would be transmitted).

(2) Arrangements should be made for the Federation of Commercial Stations to make a similar test in each capital city if so desired (using existing commercial programs), under such technical and other conditions as the Post Office deems necessary in the public interest.

(3) Similar tests by applicants for F.M. licences who do not hold A.M. licences would involve them in heavy expenditure, not only for transmitting equipment but also for studios and programs, in respect of which they could not hope to secure advertising revenue until such time as a substantial number of listeners were equipped

with F.M. receivers to hear such programs. Hence, experiments by these applicants would probably have to extend over a number of years and would not be tests in the sense intended under the Post Office proposal. Therefore, to authorize tests by these applicants now would be tantamount to the issue of licences to them—a procedure which would entail difficult discrimination and might be unfair to other interests pending determination of the overall policy which is to govern the issue of licences in future, after settlement of the questions referred to in paragraph 50.

(4) Consideration should be given to means of improving the quality of equipment and reducing the cost of receivers (see paragraphs 38 to 46).

(5) F.M., in the portion of the V.H.F. band which the Post Office considers most suitable as the result of the tests, should be substituted for A.M. in the medium frequency band in capital cities, at a date to be so selected as to provide for the change-over occurring within a period bearing a reasonable relationship to the normal depreciation of receiving equipment.

(6) In order to safeguard the interests of all concerned as reasonably as possible, an official announcement should be made as to the approximate length of time during which A.M. service in the medium frequency band will continue to be provided from capital city stations.

### Station Staff Guests of Management



3KZ personalities at the station's Christmas cocktail party held at Melbourne's Hotel Australia. From left to right: Eddie Balmer, Norman Swain ("Billy Bouncer"), Caryl Rose, asst. manager A. J. Murray, and Lew Bennett.

## AUSTRALIA'S DEPT. OF INFORMATION

A recent order signed by the Governor General of Australia appearing in the Commonwealth Government Gazette sets out the specific matters with which the Department of Information (which is under the ministerial jurisdiction of Mr. A. A. Calwell) will deal, as follows:—

- (a) National publicity through—
  - (i) An editorial and pictorial production organisation in Australia, servicing overseas publicity officers in England, United States of America, Canada, India, Malaya, Japan, France, Egypt, Brazil;
  - (ii) The regular publication of essential facts and figures relating to the Australian economy and administration;
  - (iii) The organisation of Australian exhibitions for use abroad.
- (b) Conduct and administration of Short-wave Broadcasting, transmitting—
  - (i) National publicity to overseas countries;
  - (ii) Foreign Policy broadcasts to Allied and former enemy countries, in conjunction with the Department of External Affairs.
- (c) Administration of the National Film Board, whose objects are to expand, promote, assist and co-ordinate the production, distribution and the importation of films for the purpose of adult education, rehabilitation, social development, international understanding, trade and tourist expansion and immigration.
- (d) Direction and control of Immigration publicity in association with the Department of Immigration.
- (e) Establishment and servicing of Australian News and Information Bureau abroad; appointment and servicing of Press Attaches to Australian Diplomatic Missions, and of Information Officers attached to Australian Trade Commissions.

## TASMANIAN NEWS

### I.R.E. Dinner in Launceston

A well-attended dinner was held at the Brisbane Hotel on December 12 to celebrate the conclusion of the first year's activities of the Launceston Division of the I.R.E. and to commemorate Radio Foundation Day. Chairman of the gathering was Mr. Herbert Ebrall, Launceston engineering consultant. Speakers included the Mayor of Launceston and Mr. A. P. Findlay.

The Mayor (Ald. Hollingsworth) said radio was the greatest single achievement of the present era. It played an outstanding part in the war, and with the invention of radar saved many thousands of British lives.

Referring to the part played in the development of the industry by local men, Mr. A. P. Findlay said that many of the early radio enthusiasts of Launceston spent much of their own money in an effort to further the industry in Northern Tasmania.

## Parkes Station 2PK Destroyed by Fire

### On Air Again in 6 Days

After being completely destroyed by fire on December 23, 2PK Parkes resumed its normal broadcasting programs on Sunday, December 29, a spokesman of Macquarie Network, of which 2PK is a member, stated last week.

Mr. F. W. Spicer, M.L.C., managing director of 2PK who was in Sydney last week, stated that the studios, transmitter, record library and the general offices of the station were gutted. He expressed appreciation of the ready assistance of other stations whose help had enabled 2PK to come back on the air in such a short time.

Mr. Spicer said that 2GB had been most helpful and had allowed 2PK a relay of their programs from 2.30 p.m. to 10.30 p.m. daily.

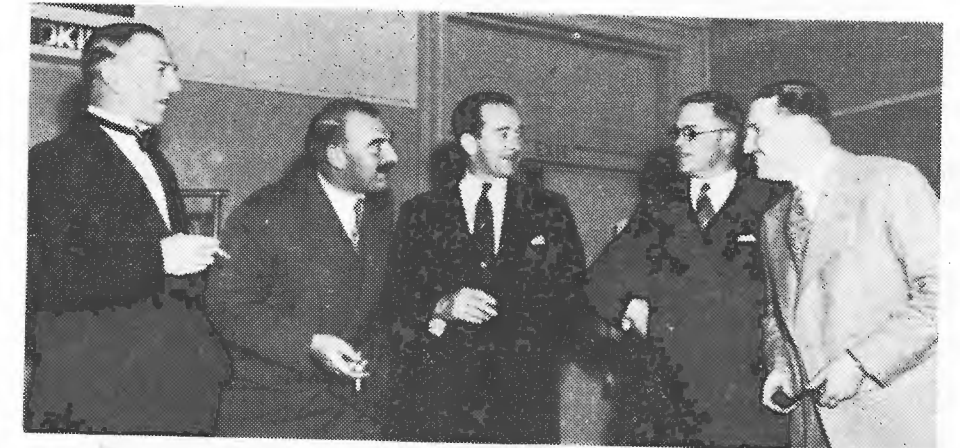
As soon as news of the fire reached Sydney, the Federation of Commercial Broadcasting Stations' executive sent a telegram to 2PK management expressing sympathy and offering assistance. Subsequently Orange station 2GZ made available to 2PK an emergency turntable, pickup and records. Offers of assistance came from several other stations also.

The speed with which the station was got back on to the air reflects credit upon the technical staff of Macquarie Network and others associated with the supply of equipment.

Macquarie chief engineer, Mr. Len Schultz, by 9 a.m. the morning after the fire had contacted Thom & Smith Pty. Ltd., transmission equipment manufacturers and arranged for the modification and supply of an AT14 army type transmitter and in four hours A.W.A. had ground and supplied a crystal.

The modified transmitter was eventually sent to Parkes by truck and Mr. Schultz followed by car with some of his staff and a small supply of records and other program material. The new transmitter and emergency studio was set up in a garage next door to the burnt-out site and was in operation by the following Sunday.

## "Junior Information" Sponsor Talks Over Feature



After the Grand Final Prizes for Brockhoff's Biscuits Junior Information for 1946 had been awarded at a Special Prize Giving Night at 3KZ on December 17, Compere, Sponsor, Advertising Agent, Adjudicator, and Producer exchange airy verbiage. From left to right: Compere Norman Banks, Harold Brockhoff, Basil Carden, Adjudicator A. Lewis Clayfield, and Lewis Bennett. Brockhoff's award £300 annually in prize money in their Tuesday night feature, "Junior Information," on 3KZ, the 1947 Edition of which commenced January 7.

## U.S. LISTENERS FAVOUR CONSOLES & F.M.

Results of a survey conducted in the U.S.A. to determine listener preferences in new radio sets showed an overwhelming proportion in favor of console radio sets and radio-gramophone combinations, while FM has made such a favorable impression upon radio listeners that two out of every five prospective purchasers want it in sets they plan on buying in the coming year.

This is revealed by the results of a nation-wide sampling of nearly two and a half million families who subscribed to "The American Magazine" and, by themselves, offer a potential market now for 976,500 radio sets. Thirty-five per cent. of these families, largely in the middle income class, are in the market for new radios and many of them want more than one set.

The survey also shows that 63 per cent. of the families planning radio purchases this year have decided upon a combination radio-phonograph and, on the average, are prepared to spend approximately \$200 for a console model. Sixty-seven per cent. of the respondents said they would buy a television set if it was marketed at a price they could afford. Most popular price mentioned was \$200. This assumes that a television station is broadcasting in their area.

Some 46 per cent. said they will buy

## LITTLE IMMEDIATE TELE. EXPANSION IN G.B.

(From our Special Correspondent)

London Nov. 28:— The BBC is reported to hold out very little prospect of early television in Britain, outside of London.

Research engineer, Dr. A. R. A. Randall of the BBC speaking at Edinburgh recently, said the BBC is presently engaged on the laying of a coaxial cable between London and Birmingham which will take two years to complete. No expansion of television to the provinces was likely until this cable had been completed, and the results investigated. He said that while cinema interests were forging ahead with 1000-line screen tele, he thought 450-line would be adequate for normal domestic receiving.

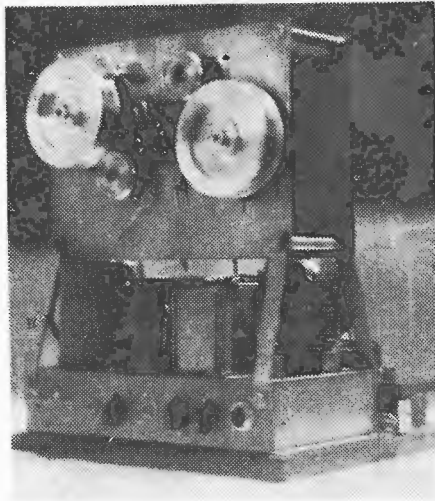
their radios at a radio store; 16 per cent. at a department store; 15 per cent. at a furniture store; 12 per cent. at an appliance store, and 9 per cent. at a music store.

The survey shows that the console radio is regarded as an important piece of furniture. Whereas 92 per cent. of those planning to buy such a set expect to keep it in the living room, 33 per cent. intending to purchase table models will put them in the bedroom, 32 per cent. in the living room, and 21 per cent. in the kitchen.

"There seems to be an increasing market for models designed and colored specifically for bedrooms," the

## Enterprising Station Builds Own Wire Recorder

Confronted with the problem of making "on the spot" recordings of street interviews during its popular session, "Warrnambool Speaks," 3YB has met the situation by designing and building its own wire recorder. This unit, which is shown in the accompanying photographs, has now been in use for over three months and in addition to its work with 3YB's "Roving Microphone", has been used successfully to record the Caulfield, Melbourne and Williamstown Cup Broadcasts.

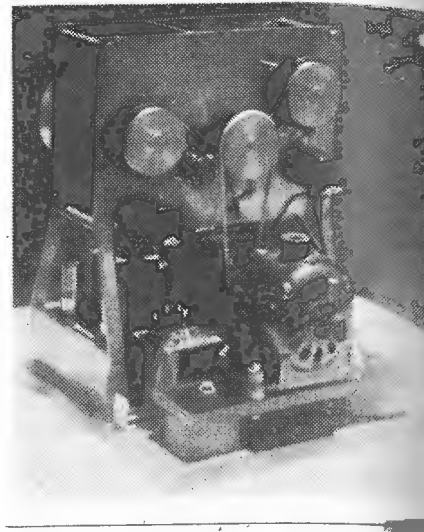


The design and construction of the recorder was carried out personally by 3YB's Engineer-Manager Harry Fuller, who originally started out to build an experimental job. However, the ex-

periment proved such a success that the recorder now forms a regular part of the 3YB set-up.

Recording is effected on a steel wire moving at a rate of two feet per second and recordings up to one hour in length can be made, and reproduced or erased as required. The unit is self-contained with its own amplifier and can be fed from a crystal microphone or a split from the studio equipment. Both speech and music can be recorded, with quality comparable with the average transcription.

No details of the actual recording and pick-up units or the electro-mechanical arrangement are available, but the general layout can be seen in the front and rear view photographs. The unit is quite compact and its size can be gauged from the wire spools, which are about four inches in diameter.



## JUVENILE JURY TO BE LAUNCHED THIS MONTH

Lever Bros. will be breaking refreshingly new ground in radio entertainment with the launching this month of "Juvenile Jury" in at least several States of the Commonwealth.

The program was sold to Lintas agency by 2CH but it is understood that production of the show will be handled by Lintas. A similar feature started up in New York station WOR about six months ago and after only a month on the air proved so attractive to listeners that it was spread to the Mutual Broadcasting Network.

The Australian version of the show, judged on audition cuts so far heard, will most likely prove equally effective. In it listeners are taken to a "courtroom" over which presides a "Judge" assisted by a Court Officer and dictated to by a jury of five children. In the ensuing half hour the juvenile jury will give advice on problems submitted by adult listeners—mainly dealing with parent and child relations.

The first "Juvenile Jury" consists of Barry Smart, aged 11; Frank Hoffman (12), Wilma Robb (12), Diana Foster (11), Verlie Demeral (12).

One unusual aspect of the station bookings which were incomplete as this goes to press is that in Sydney both 2CH and 2UW will be used for the program—possibly on different evenings. Other N.S.W. stations will be 2AY, 2BH, 2GN, 2KO, 2LT, 2WG while in Victoria 3DB-LK and 3BA, 3BO, 3SR and 3UL are so far in the line-up.

It is understood the new feature will replace Lever's sponsored "All Australian Hit Parade."

## MORE GOOD WORK

### Tas. Station's Fine Aid to Charities

The outstanding work of the 7EX Women's Association during 1946 and earlier in the war years was commended upon by 7EX director Gordon B. Rolph at the annual Christmas party of the Association in Launceston on December 18.

He pointed out that more than 20 charities had benefited from the £3,500 raised by the association during 1946. He congratulated the association on carrying into the post-war period the wonderful work they did during the war, when nearly £40,000 was raised for numerous funds including Red Cross, A.C.F. and the bombed victims of England. He particularly commended the work done and money raised for hospitals and other institutions for the sick, from the Launceston General and Queen Victoria Hospitals to the Bush Nursing fund and Blind, Deaf and Dumb Institution.

Equally commendable was the work done for civic betterment notably for the pre-school centre of the Launceston War Memorial Community Centre.

Mr. Rolph said he was particularly pleased with the association's work for the Food for Britain Appeal, as he had had first-hand experience of the appalling shortages there. While in England he had actually eaten horse-flesh, and it was freely advertised in butchers' shops.

"In the great effort the association has made throughout the year, it would be impossible to single out any one worker or group of workers," said Mr. Rolph. "It is the team spirit that has made for the success of the association; but Margot is to be particularly congratulated for her tireless work of organisation and leadership."

"The 7EX Women's Centre which has concluded its first half-year with such a fine record and which, by the way, has broken new ground in showing just what a radio station's women's association can do, is largely due to Margot's imagination, ability and drive."

### Xmas Toys for Youngsters

Four hundred children were presented with toys provided by 7EX and "The Examiner" newspaper at Launceston just before Christmas. The gifts were distributed after the children had been given refreshments at a party at the City Mission.

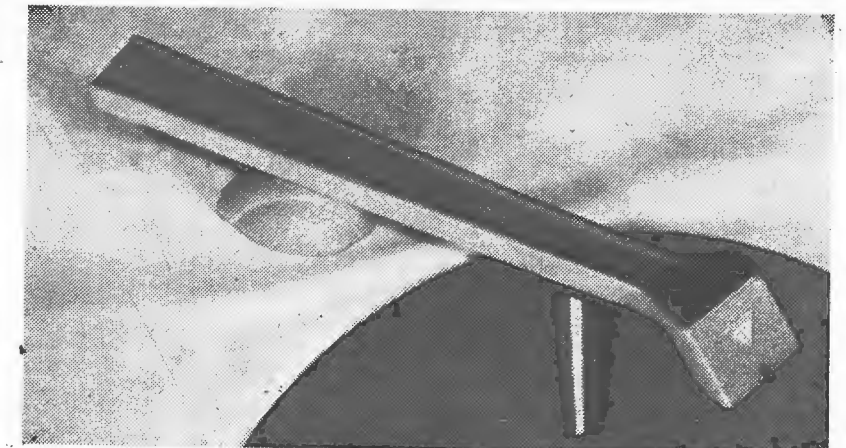
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(From our own Representative)

Commencing at the latter end of January, Simpson Bros. Pty. Ltd., Brisbane (Simpson's Self-raising Flour), will commence a 15-minute weekly Home Science program on stations 4BK-AK, 4BH and 4BC-SB (Brisbane) where Miss R. P. Borrowdale, superintendent of the Simpson Test Kitchen, will make personal microphone "appearances." The same program recorded will be broadcast over stations 4IP, 4MB, 4CA, 4TO, 4WK, 4MK, 4BU, 4GR, 4RO. Special feature of the presentation, which is entitled "Simpson's Cookery Close Ups," will be a "Questions and Answers" section wherein all cookery questions will be answered over the station to which they are directed. The contract is on a 52 weeks' basis and the business is handled by R. S. Maynard Advertising, Brisbane.

"The Musical Casket" competition over 4BC-SB Tuesdays at 12.15 p.m. has been renewed for another 52 weeks by E. C. Farley (Aust) Pty. Ltd., Sydney—Commercial Advertising of Sydney handle this account.

Peters Arctic Delicacy Co. Ltd. have extended their contract on 4BC, incorporating a half-hour every Tuesday night 7.15-7.45 and utilising the feature "The Playhouse of Favourites." Noble-Bartlett Advertising, who handle the account, advise that Peters will continue using the 7.30 time channel on Tuesday nights when the feature "Popular Fallacies" is broadcast.

E. Sachs & Co., of Wickham Street, the Valley, Brisbane, have renewed their contract on 4RO Rockhampton for 52 half-hours at 9 p.m. every Thursday. The account is handled by Noble-Bartlett.

Noble-Bartlett Advertising advise that Fraser Edmiston's Optical Service has contracted for 208 x 50-word announcements in the breakfast session on 4BH.

Well known to Brisbane listeners, Keith Howard now freelancing in Melbourne, met with some bad luck whilst in Brisbane recently on holidays by breaking his wrist.

John Dolby, of Goldberg's Advertising Agency, Sydney, recently made a flying business visit to Brisbane which he combined with pleasure when he enjoyed the Xmas holidays visiting his folks up here—returned to Sydney by "Skymaster" on New Year's Day.

Also seen in Brisbane recently on a business visit was Jimmy Wood of Sydney—well known in radio circles.

When Rhondda Kelly arrived in Sydney by the "Wanganella" recently, she was immediately greeted by 4BK through the aid of 2UE Sydney and as soon as she was clear of the Customs she relayed a message back to her own State expressing her delight at being back in Australia, and gave a few impressions of her tour abroad, making no mistake about acknowledging that Australia was the best country in the world. Arrangements have been made by 4BK to broadcast a series of talks by "Miss Australia" covering various aspects of her trip abroad—these are being sponsored by "The House of Curzons." On her return to Brisbane the management of the Courier-Mail station, 4BK, completed with Miss Kelly negotiations which had been started before she left Australia and as a result of these she will join the broadcasting staff of 4BK as a "specialist" announcer in the very near future.

On New Year's Eve, in company with a number of radio artists, George Hardman of 4BH conducted a most entertaining

"New Year's Revel" at Southport. The big show consisted of community singing, quizzes, talent tests and performances by Brisbane artists. To make room for the big turn-out, Southport local authorities roped off portion of the main street. This goodwill station feature was organised in conjunction with the Chamber of Commerce.

The annual "Carols by Candlelight" Festival was held in the Brisbane Botanical Gardens on Xmas Eve, with an attendance of approximately 10,000 people. The Brisbane Temple Band assisted as also did Stratton Russell at the Everett electric organ. George Hardman compered and led the singing of the traditional carols which placed all who attended, and listened through 4BH, in the true spirit of the Yuletide Season.

A commentary on the Sydney-Hobart Yacht Race was broadcast over Station 4BC under the sponsorship of the Queensland Pastoral Supplies (Q.P.S.), each evening at 10 p.m. from the night of Boxing Day, December 26, until the close of the race. Mr. A. S. Huybers, Managing Director of Q.P.S. is a keen yachting enthusiast and his own yacht, "The Dolphin," contested the Albert and Forster Cups. The Forster Cup, named after Lord Forster, early Governor-General of Australia, is the Blue Ribbon event of Australian Yachting. Edmunds Advertising Service handles the account.

The Commonwealth Broadcasting Corporation (Qld.) Ltd., Station 4BC, extended very cordial hospitality at their informal pre-Christmas gathering held at the Carlton Hotel, on Thursday, Dec. 19: Messrs. Prouse Knox, Roley Graham and Mr. R. R. Clifford did an admirable job as hosts and kept the ball rolling throughout the party. Amongst those present were, Messrs. C. Bowley—Director of C'wealth Broadcasting Corp. (Q'land), J. C. Stewart—Deputy Director of Posts & Telegraphs for Q'land, W. Conry—Superintendent of Wireless, Mr. McCann—acting manager for A.B.C. Qld., D. Felsman, A.B.C. staff, A. E. D. Carson—Superintendent of Telephone Lines, Hon. V. Gair, Minister for Mines, H. Witte, Sec. Chamber of Commerce, V. F. Mitchell, Managing Director 4BH, C. Carson, Manager 4BH, R. McDonald, Manager Telegraph Newspaper, Nelson Burns (Te Pana), H. Vinnicombe, Tom McGregor (4BC), E. P. Griffin and R. Ralph.

The Advertising fraternity were well represented by, Messrs. C. McMillan, A. Bartlett, W. H. Noble, A. Campbell, C. J. Harvey, E. G. Littleton, C. B. Simmins, P. Cossey, E. Edmunds, R. Ellacott, H. Jones, Miss Fletcher, V. Laxon, J. Le Grande, L. A. McNicol and Miss M. Lippold.

The 4BH Auditorium filled to more than normal capacity Saturday mornings at 8 when Ray Barrett presents the "Safurday Morning Sing-Song". Originally intended as a show for an audience of all ages, it has now been necessary to produce the show especially for the interests of the teenagers, who have taken it over as "their show". Afterwards, the sponsor (Peter's Ice Cream) provide the audience with an ice cream each.

Littleton-Harvey-Simmjns announce the booking of association with the Third and Fifth Test Broadcasts from 4BC for Black and White Cabs. Fourth Test is in doubt due to landline facilities but contract will cover this broadcast if available.

On Xmas Eve a cheery and informal gathering was held at the Edmonds Advertising Agency office, which has recently been enlarged and renovated—Principal E. Edmonds played host at this enjoyable get-

together when members of the broadcasting stations, advertising agents, newspaper men and others spent a happy hour or so powwowing over a keg of the amber fluid. Amongst those present were: Messrs. C. R. Carson, manager 4BH, Andy McDougall, F. Garnsey, M. Rees and M. Gibb, all of the "Courier Mail," Tom Waite, "Truth and Sportsman," R. Eversen formerly of 4VI and 4GR and now in his own advertising agency in Toowoomba, E. A. Roush, Brisbane's radio chemist, Joseph Allen, optometrist, L. Prouse-Knox, manager of 4BC, S. Edmonds, Brisbane representative for 2MW, 2LM, 4VL, and 4LG, and the "House of Curzons" representatives, general manager C. Breydon, and merchandise manager, E. F. Bartlett.

Stan Duthie, Alan Campbell's right hand man in his agency, has just returned from holidays, and no doubt is finding it rather hard to get back into harness again after his vacation.

**GALLUP POLL ON PARLIAMENTARY BROADCASTS**

According to reports appearing in a section of the daily press, a Gallup Poll has revealed that four out of ten men and three out of every ten women listened to at least some of the broadcasts from Parliament in the first fortnight of the present session, and that seven out of ten favour continuing the broadcasts.

The poll was conducted in capital cities, provincial centres and farming districts, and most interviews were made on November 23 and 24, when people were first asked whether they had listened to the broadcasts from Parliament in the previous fortnight. 36% had listened and 64% had not.

The figure of 36% shows a marked decline compared with 50% of listeners disclosed by a similar Gallup Poll made at the end of July, a few weeks after broadcasting of Parliament began.

**DEATH OF RADIO PIONEER**

The death of Mr. R. M. Vyvyan, a wireless pioneer aged 70, was announced from London on December 18. He was associated with the late Marchese Marconi in the first Transatlantic wireless experiments and was responsible for the construction of the first radio stations on the Canadian side of the Atlantic. His most notable work was in the early schemes for Imperial wireless communication, which culminated in the Empire beam system.

**MULTI-PROGRAM WIRED BROADCASTS FOR BRITAIN**

(From our Special Correspondent)

London, Nov. 28:— After months of preparatory work, Multi-Broadcast Ltd., have commenced a carrier-frequency wired broadcast system (the first in Great Britain) at Rugby. System is similar to that introduced several years ago by Musak Corp. in U.S.A.

British Co.'s proposal is to establish independent relay stations at points throughout the British Isles wherever a public interest and need is demonstrated. It is anticipated that about 2,000,000 listeners to the wired-broadcasts would be connected in the early stages, each connection paying about 2/- weekly for a selection of six different programs.

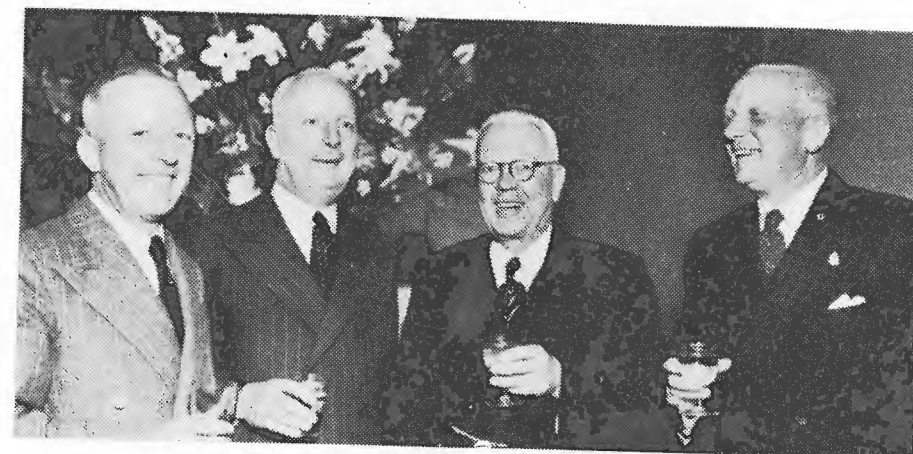
(Ed. Note: This new British system of program reticulation should not be confused with the earlier radio-relay system which has been operating in England for some years. In the older system, distribution was effected at audio frequencies over normal telephone circuits and was limited to one or two programs.)

**TASMANIAN COASTAL NETWORK**

**7BU 7AD**  
**BURNIE DEVONPORT**  
**7QT 7DY**  
**QUEENSTOWN DERBY**

ASK STANFORD ALLAN or A. L. FINN MELBOURNE WHY SYDNEY EVERY NATIONAL CAMPAIGN MUST INCLUDE THE TASMANIAN COASTAL NETWORK

**Morgan Family of Businessmen Get Together**



A unique picture of "The House of Morgan" taken at 3KZ's Christmas Cocktail Party. Left to right: Syd Morgan, Will Morgan, Val Morgan Snr., and Stan Morgan.

**RADIONIC EQUIPMENT**

Is the choice of Station Engineers when they require New Equipment or Spares for their Studio or Control Room.



**RADIONIC PRODUCTS**

MEADOWBANK (SYDNEY) N.S.W. 'PHONE RYDE 243

**4BU BUNDABERG**

offers Sponsors a complete and effective coverage of the Central Coastal Queensland Market.

Cattle, Dairying and Sugar, plus a host of secondary industries, makes this area serviced by 4BU an enticing market for Sponsors.

The Market-wise Sponsor uses

**4BU BUNDABERG**

Central Coastal Queensland Unit of the Macquarie Network.

Representatives:

SYDNEY—Macquarie Network MELBOURNE—Macquarie Network

## KING GEORGE PATRON BRITISH I.R.E.

The recently-elected President of the British Institution of Radio Engineers, Lord Louis Mountbatten, announced at the 21st Anniversary Dinner held in London that His Majesty the King was now Patron of that Institution.



The acceptance by His Majesty of patronage of the Institution bestows on radio a further honor which is obviously in appreciation of the achievements that radio has to its credit, both in peace and in war.

The British I.R.E. was founded in 1925 and incorporated in 1932, whereas the Australian I.R.E. was incorporated and founded in 1924, but did not function actively until 1932.

## OLD TIMER'S DINNER

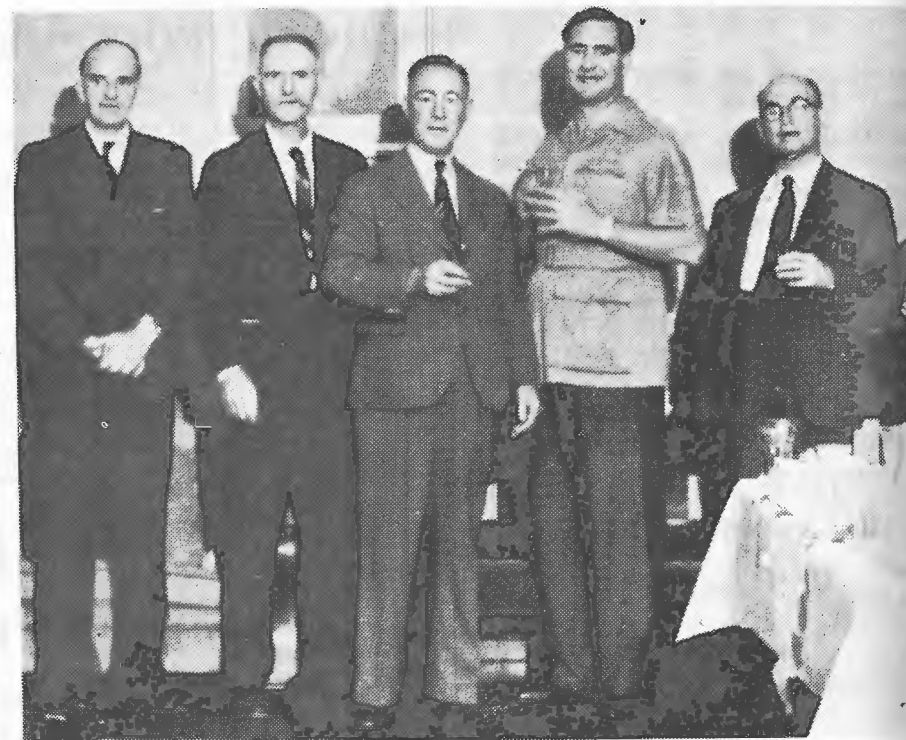
A generous gesture similar to that of Gartrell White Ltd. (Sydney bakers), to 1,000 Sydney old-age pensioners ("B.B." 26/12/46) was made by a 4TO sponsor, Lane's Cafe, Townsville, who issued 100 invitations to the old-age pensioners of Townsville to a Christmas dinner at the cafe. The dinner resulted in a very happy gathering and the proceedings were broadcast by 4TO. Murray Hulett compered the show and the guests exhibited rather indifferent microphone technique, giving the control room a busy time monitoring, but nevertheless they showed no "mike" fright and helped to make the broadcast an outstanding attraction both for the sponsor and station.

## CHRISTMAS COCKTAIL PARTY IN MELBOURNE



At the happy cocktail party given by the Directors of 3XY on Tuesday afternoon, December 17, Mr. Frank Mogg was host. Guests included station managers, and broadcasting and advertising executives. Mrs. Frank Thring was there to help entertain the guests. The occasion was "To speed the old year on its way" and good wishes for the festive season were exchanged by the cheery gathering.

## DIRECTORS OF 4BU CELEBRATE ANNIVERSARY



Australia's Amateur Hour visited Bundaberg for its first performance north of Brisbane, and on Thursday, December 12, an audience of 2,300 enjoyed the show at the Paramount Theatre, Bundaberg.

As the date coincided with the eleventh anniversary of 4BU, Mr. W. J. Harvey, on behalf of the directors of the station, invited about 50 of 4BU's local advertisers to a cocktail party at the Royal Hotel, Bundaberg, and at the same time gave them an opportunity of meeting Mr. Dick Fair and his staff.

During his stay, Mr. Harvey took Mr. Fair for a run through the district embracing points of interest, and not forgetting a call at the Bundaberg Distillery!

The picture shows left to right: Mr. D. G. Rattray, (Deputy Mayor of Bundaberg), Mr. A. J. Christensen, (Director), Mr. W. J. Harvey, (Chairman of Directors), Mr. Dick Fair and Mr. R. G. Curtis, (Director).

## BBC on FM

(Continued from page 14)

feedback chain is modulated, whereupon the frequency changes so that the phase shift reverts to zero.

In any direct method of frequency modulation the frequency of oscillation itself is varied. It is therefore necessary to provide some means of stabilising the mean carrier frequency. There are two principal methods; one is to design all the circuits to be extremely stable in frequency, such as by the use of low temperature coefficient components and the stabilisation of voltages, etc., and in addition it may be necessary to control the temperature of the circuits themselves. The other method is to compare the mean carrier frequency with that of a stable oscillator such as a crystal, and to feed back a voltage dependent upon the difference between the two frequencies to the frequency modulated oscillator, so that automatic frequency control is effected. There does not seem to be any outstanding preference for one method or the other, and the method used will largely depend upon the personal choice of the designer. For high power transmitters, any difference in cost in the two methods would seem to be unimportant, although for low power transmitters the cost may be a factor of importance.

Lack of space forbids discussing these F.M. transmission systems in any greater detail.

To obtain the maximum range, a high transmitting aerial is needed and a mast sited on a hill will usually be adopted. About 500 feet seems the optimum mast height to carry arrays having some gain over a dipole.

### Other Transmission Systems

**Wide Band Amplitude Modulation with Limiter:** This system has been proposed, as an alternative to F.M., from the point of view of the suppression of impulsive interference. In this system a wide band receiver is used with a special form of amplitude limiter. The wide band receiver is necessary in order that any impulse of short duration may conserve its shape in the receiver itself, where it can then be suppressed by a special form of limiter, which is sensitive to short-duration impulses, but is insensitive to modulation. In any such arrangement, however, unless the duration of the impulse and the time constant of the limiter are much less than the time for one cycle at the highest audio frequency, audio-frequency distortion of the high frequency components will result. Tests

which have been carried out with this system indicate that for the suppression of impulsive interference it is about as good as F.M., if it is suitably adjusted. Whether the arrangement would remain in satisfactory adjustment in the hands of the public is not known. The cost of a receiver incorporating a limiter might be somewhat less than the cost of an F.M. receiver. The disadvantage of this arrangement is that no suppression of random noise takes place. It would suffer from the same disadvantage as A.M. in this respect, and the service area would therefore be considerably reduced. Generally speaking it is thought that if ultra-short wave broadcasting is used, F.M. is the better system.

**Pulse Modulation:** This system was proposed many years ago, and has been developed considerably and used during the war. In this system pulses of comparatively short duration, and having a repetition frequency con-

siderably higher than the highest audio frequency, are modulated in duration, phase or repetition frequency. As the amplitude of the pulses does not vary with modulation, a limiter can be employed in the receiver, and interference and noise may be reduced. Pulse-duration modulation can be received on an amplitude-modulation receiver without any modification, although if this is done no advantage can be obtained by the use of a limiter. Pulse-phase and pulse-frequency modulation require a special type of receiver. In general it can be said that, as in frequency modulation, the advantage from the point of view of signal: noise ratio increases as the band width is increased, but for the same band width as is normally used for F.M. the advantage over A.M. is small, and F.M. is the better system. Therefore if single channel systems are compared, there is no doubt that F.M. has the advantage.

## CENTRAL QUEENSLAND

To ensure that sales messages reach the 30,000 listeners in this rich responsive market, Sponsors must use 4LG the station with the huge coverage. 4LG sells to Central Queensland because 4LG's loyal listening audiences are guided in their buying habits by sales suggestions made by 4LG.

## 4LG CENTRAL QUEENSLAND

Owned and Operated by LONGREACH PRINTING CO. LTD.,  
LONGREACH

Representatives: Sydney; FRED THOMPSON, B 2085  
Melbourne: STANFORD ALLAN, Central 4705

## MR. TIME BUYER! . . . . There is No Time Like The Present

Now . . . at the beginning of a new year . . . is the time to sow the seeds of prosperity throughout 1947. The inclusion of 3XY in your Victorian schedules will be one seed that will prosper. Our huge audience of buyers will see to that.

# 3XY

163 Spring Street, Melbourne  
Central 6612

Sydney Rep.: Mr. Rick Barnes  
42 Pitt Street. Phone: BU 5995

# DON'T USE RESEARCH IF YOU WON'T DO AS THE "DOCTOR" SAYS

(Based on a talk by Albert B. Blankenship of National Analysts Inc.  
at the University of Pennsylvania Conference on Measurement of  
Consumer Interest)

Success in the measurement of consumer preferences depends upon technical know-how, and a competent staff. It also rests upon ability to sell the procedure and results to those who should display interest. This may be termed the problem of public relations.

Since I represent a research agency, our public is our clients. We must be able to convince our clients that we have the technical competence to perform the work, and we must be able to present the final results in such a form that action will result from our recommendations.

The people for whom we do research are business executives. As executives, they are forced to know a little about a great many different things; without this they cannot manage the affairs of an organization. This means that the usual commercial research firm is doing research for a layman—one who knows little about research procedures.

The trouble is that many executives think they know how to run a business research project.

A basic difficulty in dealing with clients is getting them to appreciate the difference between a *problem* and a *technique*. All too frequently the client comes to us and says: "I have a problem. Here are some questions I'd like to have asked of a cross section of people in certain markets. Can you do it for me?"

Now the questionnaire is one of the basic tools of the research process. It is precisely one of those steps of technique that should be the responsibility of the research agency. If a patient were going to a doctor, the patient wouldn't dream of saying, "Doctor, here's a stethoscope. I'd like you to listen to my heart."

Good business research, like good medical practice, is expensive. In the field of medicine, a patient seldom shops around in order to get the cheapest price for medical service. Yet in business research, that very thing frequently happens. The organization obtains estimates from many research firms—and buys the least expensive job. Research buying, like medical

practice, should be based upon quality and confidence.

Business generally has a problem. The business doctor can help cure the patient by going through a planned series of steps—learning what the symptoms are, planning a laboratory test, performing the laboratory test, analyzing the results of the test, making recommendations based upon the test and his general background.

The business doctor must first learn what the symptoms are. In research terms, this refers to the nature of the problem. A patient does not go to a doctor with the statement that he has diagnosed his own case, finding that he has diabetes. Instead, the patient describes his symptoms. The doctor, from the symptoms and perhaps with the aid of laboratory tests, makes his own diagnosis and comes out with a recommended treatment.

Yet in the business field a client will often come to a research firm with a specific idea of finding out, for instance, whether people like his company. Without knowing the background of the situation—the reasons the client thinks he needs that study—the research firm cannot decide, in the first place, whether the study is really required; and, in the second place, the specific form it should take.

In order to develop a procedure which will help in his problems, the research agency needs to know that there will probably soon be a strike in the client's plant, and that he wants to know what he should tell the public in order to retain its confidence. This sort of statement tells the research firm that it must be sure to measure public attitudes toward the labor policies of the plant, as well as attitudes toward the plant union.

In other words, the general problem of the client in this case is to build a sound public relations program in the specific case of a strike. The research problem is to measure attitudes in such a way that this over-all problem of the client can be solved.

The doctor must next make plans for the laboratory test. Just as the practicing physician must frequently

resort to laboratory tests in his diagnosis, so business research must frequently depend upon a field study in order to obtain facts of the case.

One of the first steps, as contrasted with the work of the physician, is the development and sharpening of the tool required for the analysis. The physician has standard procedures in the business field a new questionnaire is designed for every study.

The number of tests to be made is usually specified by the physician. Oddly, in the field of business research, the patient often suggests to the doctor how many tests (interviews) should be obtained.

Even the nature of the tests—the nature of the cross section—sometimes is defined by the business patient. Sometimes the suggestions are good, but it does seem a bit odd to have a doctor called in while the patient designs the tools for the analysis, plans the laboratory procedure, arrives at his own diagnosis and finally prescribes his own medicine.

Performing the laboratory test is the third step. In the collection of business facts, one must be just as careful and as thorough as the physician is in his planning of laboratory tests. Quality of field work in business research is, in general, not given its proper emphasis. Yet poor quality in this phase of the operation can cause the results to be meaningless and even dangerous, since they may lead to the wrong diagnosis and recommendations.

Because this phase of the procedure is so important, it is essential to select the workers carefully, train them well and supervise them at every point in the process.

Peculiarly enough, the average business patient pays less attention to this step than to any other part of the process. From the technicians' point of view, the entire field would be better off if clients of research firms forced them to pay more attention to obtaining quality field work.

**Analyzing the Results.**

With sound training, the physician is able to consider all of the results

make his diagnosis and come out with a recommendation. In business research, we must be able to come out with generalizations based upon the results of the field work, and end up with recommendations. Our recommendations, like those of the physician, must consider not only the results of the laboratory test but also all other known facts about the patient's condition.

Oddly enough, the business patient sometimes thinks that he alone can interpret the meaning of research for his business. Imagine a patient's telling a doctor to give him the diagnosis, and that he—the patient—will then write his own prescription.

This point of view overlooks several facts. To begin with, commercial research interpretation is not easy—it is a job for technicians. In the second place, the actual process of translating the results into recommendations depends both upon technical knowledge of research and upon having a broad background of business experience. That is why the usual research firm employs persons who represent as many different fields of business as possible.

When the business doctor gives his prescription to the patient, there is one big difference between him and the physician. The business doctor must give the medicine in a palatable form—otherwise the patient won't even take the trouble to bother with the treatment. The recommendations, then, must be given in simple, easy-to-get form. The style of writing must be clear; the form of report must be easy to read; plenty of illustrative material should be included.

#### Sponsor Trouble!

In conclusion, the problems facing the research firm in its dealings with clients are:

1. The client frequently buys research on the basis of the cheapest bid.
2. The client frequently confuses problems and techniques, and clients attempt to develop tools.
3. The client's description of the problem is far from adequate.
4. The client sometimes attempts to dictate the nature of the field job.
5. The client sometimes believes that the research organization cannot possibly interpret the results of the laboratory test as well as he himself can.
6. The client sometimes fails to act upon the recommendations.

What should those in the business research field do?

It is clearly our responsibility to educate our clients.

## BOOKS and PUBLICATIONS

from the  
**MINGAY PUBLISHING CO.**



- **Radio & Electrical Retailer**  
The fortnightly national business paper of the radio and electrical trade. Established 1930. Subscription: 26 issues, 10/- (52 issues, £1) Aust.; 13/6 other British countries; 17/6 Foreign.
- **Radio Service Job Sheets**  
100 pages in duplicate book form — acts as a receipt and record of service work done. 6/- per single book; with your name and address printed on the customer's sheet, 10/- per book (minimum order 10 books). Thousands used by radiomen.
- **Radio Diagram & I.F. Index, 1947 Edition**  
Lists over 2,600 brand line receivers since 1936, giving description, Intermediate Frequency and reference to where detailed circuit diagram published. Price 5/- each.
- **Aust. Official Radio Receiver Trade-in Allowance Handbook, 1947 Edition**  
Contains present-day valuation of all brand line sets. Approved by all Trade Associations. 5/- each.
- **Broadcasting Business**  
The fortnightly national business paper for all interested in selling by commercial broadcasting. Subscription: 10/- 26 issues, Aust.; 13/6 other British countries; 17/6 Foreign.
- **Squared & Log Graph Paper**  
10 x 7 inches plus margin, 50 sheets 4/-.
- **Aust. Advertising Rate & Data Service**  
Provides information on all the rates and data of newspapers, commercial broadcasting stations, periodicals and other advertising media in three separate editions each published annually—Newspaper Edition, Broadcasting Edition, Periodical and Miscellaneous Media Edition. All with regular monthly supplements. Subscription for each edition: in Australia, £2/2/-; British Empire, £2/10/-; America, \$10; Foreign, £3/3/-.
- **Philips Manual of Radio Practice for Servicemen**  
By A. G. Beard, M.I.R.E. (Aust.). Contains 496 pages in 7 sections covering Broadcast Reception; Broadcast Receiver Technique; Principles and Components; Service to Radio Receivers; Technical Formulae, Tables and Charts; Mathematical Formulae and Tables; Valve Data. 21/9 each.  
Prices Include Postage      Cash With Orders

**BOX 3765 G.P.O., SYDNEY**

MELBOURNE

ADELAIDE

BRISBANE

PERTH

# "Carols" Pageants Now A Definite Xmas Influence

## Quarter-Million Attendance At Melbourne

The "Carols By Candlelight" Christmas Eve broadcasts which were originated in Melbourne in 1938 and now have been duplicated in all other State capitals of the Commonwealth, and in many country towns, are probably unique in broadcasting history.

This year the festival at Alexandra Gardens attracted an estimated crowd of 250,000 people. It was the ninth such festival and pageant organised and broadcast by 3KZ, and under the direction of Norman Banks.

Following a depiction of the cavalcade of Red Cross and the procession of Torch Bearers from Princes Bridge to the main dais carols were sung by the multitude. Guest artist on the dais was Florence Austral who was introduced by Melbourne Lord Mayor, Cr. R. Connelly. An orchestra conducted by Major Phillip Cohen was assisted by the Veterans and Ex-Servicemen and the Salvation Army Staff Territorial Bands. Other solo artists featured were: John Lanigan (he's in "Opera for the People"), Noella Cornish, Morris Williams, Maxwell Cohen (Sun Aria Winner 1946), Laurel Paxford, Joyce Macartney (P and A Parade winner 1946) and the Melbourne Mixed Quartette. A special chorus was under the direction of Max Orbistone.

The Lord Mayor of London, speaking from Mansion House, London, broadcast a message which was arranged through the aid of the Australian Department of Information Short-wave Service.

Cables were received from Don. Joyce, well-known Melbourne program producer now in Sth. Africa on a visit, and from an Australian war bride in Virginia, U.S.A., to her mother while another cable of greetings came from Kansas City.

These "Carols" broadcasts must have a tremendous impact and influence upon the people—not only those who turn out in so many thousands to attend the pageants but also upon hundreds of thousands of listeners to the commercial stations, who are unable to attend.

### AT LAUNCESTON

Over 6,000 people attended the "Carols by Candlelight" festival held at City Park and organised by 7EX. A choir of 500 children, conducted by J. F. Turner, headmaster of West

Launceston State School, made an excellent job of the carol singing. The Railway Silver Band added to the musical attraction. Proceeds exceeded those of the previous year and will aid the Crippled Children's Fund.

### SYDNEY CELEBRATION

Sydney's first celebration of "Carols" organised by 2UW and the Sydney "Daily Telegraph," attracted a crowd to Hyde Park estimated by police at nearly 100,000.

Special outdoor burning candles were on sale as also were special souvenir programs. With the co-operation of the "Daily Telegraph," these programs were also on sale at all metropolitan newsagencies, and also in the leading retail stores for some weeks prior to Christmas, the whole proceeds of the sales of both candles and programs being devoted to the Rachael Forster Hospital.

The singing was led by a massed choir organised around the Hurlstone Choral Association under the baton of Vivian Peterson, and massed bands of the N.S.W. Band Association. The soloists were Strella Wilson, Raymond Beattie, Heather Kinnaird and Reg. Willoughby.

The immediate reaction of this first program was such that 2UW decided straightway to commence the preliminary organisation for a similar celebration next Christmas.

The program was relayed from 2UW to 2TM Tamworth, 2GF Grafton, 2KO Newcastle, 2GN Goulburn, 2CK Cessnock, 2WL Wollongong and 2AY Albany.

### "CAROLS UNDER THE STARS"

Out at Orange in central western NSW, 2GZ organised a "Carols Under the Stars" festival in Robertson Park which was attended by 7,000. Dick Turner, 2GZ studio manager, compared while the station's musical director, Merv Beeh, conducted the Orange Civic Orchestra which was founded and developed by 2GZ. The Orange Brass Band was also in attendance. A choir of 100 voices was drawn from local churches and choral societies.

### AT NEWCASTLE

At Newcastle 2HD organised a pageant in King Edward Park which was attended by about 5,000. A massed choir of 250 voices and 50 white clad girl torch bearers added to the impressiveness of the pageant. The sale of candles was in aid of a local charity.

### BROADCASTING BOOKINGS

Rockdale Emporium—50 word announcements—Women's session 2UE—Dyer Malou Advertising.

Norman Smorgan and Sons Pty. Ltd., Canned Foods—312 1 min. scatters—2GZ, 2WL, 2KO, 3AW, 3BA, 3GL, 3SR, 4BC, 4AR, 4RO, 4TO, 5DN-RM, 6PR-TZ, 7LA, 7HO commencing January 13—Paton Advertising.

## CHRISTMAS CHEER AT SYDNEY RADIO STUDIO



At 2UE Christmas Cocktail Party, program manager Paul Jacklin of 2UE feeds Ken Howard with a sandwich. Over Paul's shoulder can be glimpsed Mr. R. Doutreband, one of 2UE's directors, and host "Paddy" Campbell-Jones is right of Ken Howard.

# ADVANCES IN NIELSEN SYSTEM OF SURVEYS

(From Our Own Correspondent)

Washington D.C., Dec. 16: In New York last week, most talked-of subject in broadcast advertising circles was the Open House being offered by A. C. Nielsen Co., with full demonstrations and explanations of methods of automatic devices used by the company in measuring radio audiences.

Reporting the "exhibition" and general quizzing of Nielsen on his system, "Broadcasting" published to-day says this:—

Various models of audimeters and some of the machines used to decode and tabulate the tape records were demonstrated in action.

### How It Operates

"Climax of the afternoon session was a visit to an adjoining room in which are installed 24 instantaneous audimeters, their rolls of tape visible within glass-fronted cabinets, each connected by leased telephone lines to a radio receiver in a New York home. In addition to the tape record, each cabinet is equipped with five lights which show whether the set is tuned to one of the four network outlets or to a non-network station. Although telephone lines are used, connections can be made with non-telephone as well as with telephone homes, Mr. Nielsen explained.

"The instantaneous audimeter, he said, was developed in response to demands for speedier reporting service than is available at present, when NRI service men change the receiver tapes monthly. Tapes recording an evening's listening of a test audience, Mr. Nielsen said, could be mailed that night to his company's Chicago headquarters for analysis and tabulation the following morning. Or, if even faster reporting is desired, he stated that it would be possible to set up a board not unlike those in brokerage offices on which changing lights would register all dial tunings as they occur.

Following this demonstration, the group was taken to dinner at the nearby Biltmore Hotel, after which Mr. Nielsen conducted informal discussions, based largely on questions of those present. At the opening session last Monday the discussion centered chiefly on the adequacy of the NRI sample, which currently comprises 1400 audimeters in 1140 homes (two audimeters are installed in homes with two receivers) distributed to cover about two-thirds of the country's radio homes on a ratio of

## Automatic Devices Tape All Listening

one NRI home to every 16,000 radio homes. Audimeter homes, Mr. Nielsen said, are chosen in accordance with census statistics so that the sample is representative in every pertinent respect.

"NRI clients, he reported, unanimously agree that an extension to cover 85% of the country will be sufficient, a total of 2100 audimeters in 1600 homes; and that is NRI's present goal. Asked whether this sample is not too small to permit breakdowns by age, sex, income level, family size, etc., he replied that while the probable error, which for a network program rating would normally range from three-tenths of one percent to seven-tenths of one percent, will be enlarged by such breakdowns, a sample can usually be subdivided several times without any practical loss in dependability.

"Citing comparative statistics on the coverage obtained by C. E. Hooper Inc., which calls 35 homes a minute, and the NRI, which measures 1140 homes continuously, Mr. Nielsen declared, "NRI is so much more accurate than Hooper is or CAB was that people should pay us our price with-

out question, rather than questioning our accuracy."

"When an agency executive suggested that NRI would have more subscribers if it would reduce its rates, which start at about \$10,000 a year for one network program, \$14,000 for two, \$18,000 for three and go up to some \$60,000 or \$70,000 annually for the networks, Mr. Nielsen replied that these rates are only approximately one percent of the clients' annual radio expenditures and that they are not out of line for the amount of information NRI clients receive.

### Lists Data

"He listed such data as average and full audience figures for each program, analyses of the program's holding power and of flow of audience, breakdown of audience by income groups and city sizes, number of homes reached per dollar of radio cost with the program and with the commercial message, product usage analyzed by homes of various listening levels to the sponsor's program, etc., which are not offered by other rating services, and concluded: "We could reduce our rates by offering only a rating service, but frankly we don't think ratings alone are worth much."

"Asked why NRI does not release its top-rated programs for publication as Hooper does, Mr. Nielsen answered that the firm's lawyers say such action would lay them open to libel suits. He cited a reported instance of one radio performer who has several times been on the verge of suing Hooper over an allegedly unfair rating."

## ANOTHER FEATURE FOR SEPELTS WINES

### Strong Educational Theme

B. Seppelt and Sons Ltd., who last week commenced sponsorship of 52 quarter-hours on 2UE, 6.30 p.m. Fridays for "Beyond the Setting Sun", have not only demonstrated their great faith in the broadcast medium—they have numerous other sessions on the air throughout the Commonwealth with "Reflections in a Wine-glass" possibly the best known—but are to be congratulated in securing a feature which is highly educational as well as being entertaining. It is being broadcast, too, at a time when a large juvenile audience is normally available.

The Seppelt account is serviced by Beckett-Thompson Advertising Pty.

Ltd., and the new program was built and recorded by A.W.A.

"Beyond the Setting Sun" presents the stories of men of all nations who explored the unknown—explorers, navigators, captains of the sea and air, men made famous by their voyages of discovery.

Amongst the famous names in the field of exploration and navigation whose achievements have been dramatized in radio form are Captain James Cook, Martin Frobisher, Rear-Admiral Peary, Henry Hudson, Captain George Vancouver, John Cabot, Sir Richard Burton, Vasco da Gama, Fernando Cortes, King Henry of Portugal, Marco Polo and Rear-Admiral Sir John Franklin.

## PEPSODENT RELEASING "OUT OF THE NIGHT"

Lintas agency which bought Grace Gibson Productions' version of "Out of the Night" for Pepsodent ("B.B." Dec. 12) announced last week that the quarter-hour self contained dramas will have made their debut in six States by the end of the first week in January.

Produced by Reg. Johnston and starring Nigel Lovell, Kevin Brennan, Muriel Steinbeck, Neva Carr-Glynn, John O'Malley and other good players the series dramatises true but bizarre stories of actual experiences and happenings. The series has been written by William Isherwood who wrote such documentaries also for Grace Gibson Productions as "Story of Flight", the "Australian Story" and "Drama of Medicine."

First release was through 5AD-MU-PI-SE in South Australia and 4BK-AK in Queensland on January 1. In Sydney 2UW started the feature on January 5 and in Melbourne 3DB-LK opens on January 7. There is no standard time channel for the series. Other stations carrying the show are 2GZ-KA, 2BH, 2KO, 2TM, 2WG, 3BO, 3SR, 3UL; 4CA, 4MB, 4MK, 4RO, 4TO; 6IX-WB-MD; 7HT, 7EX and 7BU.

## Piano House Using New Mid-Morning Feature

Savery's Pianos Ltd., of Adelaide, one of South Australia's earliest radio advertisers, are the sponsors of 5DN's new mid-morning serial, "So Lovers Dream," broadcast in 1/2-hour episodes Tuesdays and Thursdays. It is a love story set in the beautiful country of Gloucestershire, and combines mystery with human interest. The first episode took the air December 12.

Savery's Pianos Ltd. have been using radio as an advertising medium ever since 1929 and programs under their sponsorship have been broadcast from 5DN without a break for the past 16 years. "Wake Up Australia"—comparing Australian artists with overseas stars—was used before this new serial and it occupied a high place in the popular programs poll during its 12 months' run. Savery's, too, are great believers in time signal announcements believing that these short, snappy commercials do much to keep the house name well to the fore.

The Savery's Pianos Ltd. account is handled by Alan A. Martin Advertising Service.

## TELECOM. CONFERENCE IN MOSCOW

A five-power Preparatory Telecommunications Conference recently met in Moscow for a three-weeks series of discussions aimed at improving organization of radio communications and reallocation of radio frequencies of maritime, aeronautical, long distance land services, broadcasting and other purposes.

The formal conference in 1947 will act finally on these questions. Sir Arthur Angwin, head of the British Delegation, said the conference "very probably" will be held in the United States.

Discussing the preparatory Conference just concluded, Sir Arthur said, "Many points of disagreement have already been cleared up. When we present the proposals to a full international conference, our ideas will be more closely in line and will help toward a speedier and more efficient settlement of the whole problem. The Russians treated the Conference as an important matter and showed the greatest desire to co-operate in the international aspects of the discussions.

One of the most important recommendations made by the Conference was for establishment of an International Board for Registration of Frequencies. This, it was hoped, would reduce mutual interference be-

## AGENCY DIRECTOR AND STATION EXECUTIVE OFF TO JAPAN ON SPECIAL MISSION FOR GOVT.

It was learned last week that a special mission of three men who will shortly leave Sydney for Japan to secure radio and press material for the Federal Government will comprise Messrs. John Jackson of Jackson-Wain Advertising agency, Mr. Darcy Fitzgerald of 2CH and a photographer from the Department of Information.

Equipment will include two wire recorders and a portable disc recorder and the party anticipate being away about three weeks. They will visit any part of Japan where there are Australian troops in occupation.

Darcy Fitzgerald, who will be granted three weeks' "loan" to the Government by 2CH, is as familiar with Army matters almost as he is with recording and program production. During the war he served as a Lieutenant in Sigs. and later was transferred to Army Broadcasting.

tween the world's radio stations.

It was also recommended that a world conference should be called in 1948 for revision of telephone and telegraph regulations, and that the existing International Telecommunications Union should be recognized and enter into relationship with the United Nations.

## MORE INDUSTRIES FOR AUSTRALIA

According to the Minister for Post War Reconstruction (Mr. Dedman) in a recent announcement at Canberra, Australia could expect a big influx of overseas industrial capital in the near future. He listed the following firms as contemplating new activity or extension of existing plants in Australia.

*From United Kingdom:* Varley Dry Accumulators (Aust.) Ltd.; Joseph Lucas (Aust.) Pty. Ltd.; Australasian Petroleum Co. Pty. Ltd.; Hollins Jills of Australia Pty. Ltd.; Macleans Ltd.; Rootes Ltd.; Stothert and Pitt (Aust.) Pty. Ltd.; Vatric Electrical Appliances Ltd.; B. O. Morris Ltd.; British and Australian Carpet Manufacturers Ltd.; Broom and Wade Pty. Ltd.; Kent-Sippe Corporation of Australia Pty. Ltd.; Tecalemit Australasia Ltd.; Allen and Hanbury Ltd.; Coty (England) Ltd.; Allied Australian Textiles Pty. Ltd.; Robery Owen and Co. (Aust.) Ltd.; Courtaulds Ltd.; Standard Cars Ltd.; Lister Blackstone Pty. Ltd.; and DSK Pty. Ltd.

*From United States:* California Productions Pty. Ltd.; Julius Kayser (Aust.) Pty. Ltd.; Rheem Manufacturing Co. (Aust.) Pty. Ltd.; Burlington Mills Ltd.; Rubtex Elastic Co. Pty. Ltd.; Westclox (Aust.) Pty. Ltd.; I. Miller and Sons (Aust.) Pty. Ltd.; Central Automatic Sprinkler Pty. Ltd.; Bitumen and Oil Refineries (Aust.) Ltd.; General Dry Batteries (Australasia); Vacuum Oil Pty. Ltd.; Max Factor (cosmetics); Flexees Fashions (Aust.) Pty. Ltd.; Jansen (Aust.) Ltd.; Revlon Corporation (cosmetics); Club Razor Blade Pty. Ltd.; and Coca Cola Co.

*From Canada:* Bruck Mills (Aust.) Pty. Ltd.

*From U.K. and U.S.A.:* Insulators Pty. Ltd.; Ruston and Hornsby (Aust.) Pty. Ltd.

The following firms, some of whom are included in the above lists, would occupy wartime munitions factories and employ about 8,500 people:—Bruck Mills (Aust.) Ltd., at Wangaratta; Californian Productions Pty. Ltd., at Bathurst; Hollins Mills of Australia Pty. Ltd., at Villawood; Rheem Manufacturing Co. Pty. Ltd., at Bulimba; Burlington Mills Ltd., at Rutherford; Rootes Ltd., at the armored fighting vehicles depot, Port Melbourne; B. O. Morris Ltd., Allied Australian Textiles Pty. Ltd. and

## New Programs

Three new programs are to commence on 3UZ this month, including "Bluey and Curly," a comedy serial in 15-minute sessions which commences on January 15, at 8.45 p.m. and will be aired at the same time on Tuesday, Wednesday, Thursday, Friday and Saturday each week. This program is sponsored by Griffiths Sweets. The second is a George Edwards' production "Dawn Journey" which replaces "Beloved Rogue." This will be sponsored by E. C. De Witt and will be heard on Tuesday, Wednesday and Thursday evenings at 9.45. Finally, the new "Bright Horizon" program with Humphrey Bishop as the showman is scheduled to be aired early during the month.

## Sydney Show for Melbourne

"Raising a Husband" is an adaption of the show under the same name which has proved such a success in Sydney, and will commence from 3XY on January 13 from 9-9.30 p.m. Married couples will be quizzed individually—that is to say, wives will be asked to leave the studio while husbands are quizzed, then the wives will return to be quizzed and confound the remarks made about them by their husbands. Show is compered by Alwyn Kurts.

## AGENCY'S CHEQUE FOR LEGACY

At the office of Goldberg Advertising (Australia) Pty. Ltd. during December the governing director, Mr. Frank Goldberg, presented Miss Sadie Parker of Legacy with a cheque for £100. He explained that £50 of this amount was contributed by the staff of Goldberg's Sydney office and the other £50 by the management. This sum would be endowed upon four wards of Legacy—children of deceased diggers. Mr. Goldberg went on to say that of all charitable organisations none was more deserving than Legacy, and he hoped that in 12 months' time the endowment would double itself.

Miss Sadie Parker, supported by Mr. Robert Fisher, expressed thanks on behalf of Legacy for this generous gesture by the staff and management of Goldberg Advertising (Australia) Pty. Ltd.

Ru Pullan, Melbourne radio scripter and playwright, has joined the staff of 3UZ as continuity chief and feature writer. He was formerly attached to 3AW as dramatic producer-writer, and has also been active as a freelance. His scripts have been broadcast in Australia, New Zealand, South Africa and South America. Also a novelist, he is expecting the publication of a new book in January.

Allen and Hanbury Ltd. at St. Mary's; Vatric Electrical Appliances Ltd. and Rubery Owen and Co. Ltd., at Flinsbury,

## I.R.E. NEWS

At the Institution of Radio Engineers' Council Meeting held in December in Sydney, the following were elected Fellows of the Institution: D. McVey, c/- Standard Telephones & Cables, Sydney; Frank R. Bradley, Deputy Director Post & Telegraphs, Sydney; Samuel O. Jones, c/- Phillips Electrical Industries, Sydney; Thomas A. E. McNeill, Chief Engineer 2UW, Sydney; and Leonard N. Schultz, Chief Engineer 2GB, Sydney.

Aubrey P. Hosking (A.W. Valve Company) was re-admitted as a Full Member; Gerritt Mak, Flinders Park, S.A., was admitted as a Full Member, while Edgar M. Cooper of Hawthorn, Vic., and Reginald K. Crow, of Ormond, Vic., were elevated from Associate members to full membership.

The following were elected Associate Members: Raymond E. Conrad, Derwent Park, Tas.; James N. Delaney, Rose Bay, N.S.W.; B. R. Fuller, Artarmon, N.S.W.; Irvine L. Krahe, North Sydney, N.S.W.; Francis J. Maher, Perth, W.A.; John A. Paterson, Strathfield, N.S.W.; Colin A. Ramm, University of W.A., Perth.

The following were elevated to the grade of Associate Member: Robert S. Coggins, Bridgewater, S.A.; Creswell W. Everdell, Beaudesert, Qld.; David L. Hollway, Gordon, N.S.W.; Norman L. W. Nielsen, Hobart, Tas.; James A. Sam, Flj.

The following were elected to the grade of Graduate: Peter A. Cox, Perth, W.A.; James J. Gambell, Bankstown, N.S.W.; Alan N. Powell, Lower Mitcham, S.A.

The following were elevated to the grade of graduate: Keith S. Crowley, East Brunswick, Vic.; Robert S. Zucker, Rose Bay, N.S.W.

Francis C. Filby, Adamstown, N.S.W., was admitted as a Junior.

Examination Syllabus: Chairman of the Examination Board (Mr. D. G. Lindsay) reported that the new syllabus and details of examinations are expected to be completed within the next few weeks when sample questions and answers would be prepared for publication in the I.R.E. "Proceedings."

The I.R.E. is taking a keen interest in the technical education courses at Sydney Technical College and its representatives are assisting in the review of these courses.

Amendment of Articles: The Council of the I.R.E. has almost completed a long and close examination of the existing Articles of Association of the Institution. A special general meeting of members will be held shortly to consider these proposals and if they are adopted will change considerably the membership grades and the standards required of new applicants.

I.R.E. Councillor Reg. Southey (The Gramophone Company) has been granted three months' leave of absence on account of his leaving to visit England where the parent company E.M.I. is located, and America.

Membership of the I.R.E. of Australia at December 1, 1946, was 1,814.

Sydney broadcasting and advertising executives experienced a hectic round of Christmas parties and for several days before the holidays and on Christmas Eve there was hardly a broadcasting management or an agency organisation which had not exchanged "the spirit of good cheer." At Weston Company agency managing director W. O. Richards entertained many station executives and sponsors at a delightful function providing food and drinks. At Kinelab, Geoff King had his main recording studio gaily decorated for the occasion while a bevy of lovely assistants handed around savories. His "nine gallon keg" was a happy idea. As usual, 2UE entertained a constant stream of well-wishing visitors on Christmas Eve with host "Paddy" Campbell Jones dispensing cocktails and savories.

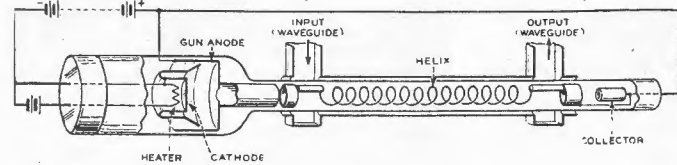
## Vox Pop Popular in Newcastle



Newcastle people, like the quiz in the street idea and the popularity of this regular Saturday morning feature is well known to 2HD and to the sponsor, Edwards Bookshop, outside whose premises in Hunter Street Michael O'Regan takes his "Man in the Street" microphone each Saturday. O'Regan, formerly of 4LG Longreach and 4AY Ayr, has proved quite a "personality" on 2HD.

# "Travelling Wave" Tube Brings Television Relays A Step Nearer

Looking something like an oversize thermometer, a new electron tube has been developed as a result of wartime research and promises to provide a simple solution to the problem of obtaining a useful degree of amplification over the wide bands required for micro-wave multi-channel communication systems or television relays.



Christened the "Travelling Wave" tube, this device breaks sharply with previous concepts of electron-tube design and consists solely of an electron "gun" working into a long, narrow helix of wire. No conventional grids or other control electrodes are used and coupling to the tube is effected for both input and output by means of a simple wave-guide assembly placed over the helix.

Practical development of this tube has been effected by Drs. J. R. Pierce and L. M. Field of the Bell Telephone Laboratories following the lines of research initiated by British scientist R. Kompfner at the Oxford University's Clarendon Laboratories.

The present tube, which is now undergoing extensive tests in the United States, has been designed for operation at a mid-frequency of 4,000 MC/s. and has an operating bandwidth of no less than 800 megacycles. At this frequency and band-width, the tube will provide a power gain of 10,000—the significance of which may better be appreciated when it is realized that present types of pentode tubes at best provide a power gain of 10 over a band-width of only 20 megacycles. Even the recently-developed velocity modulation tube, while it can be made to give the same power gain as the travelling-wave tube, will only handle a band-width of 10 megacycles.

In practice, the significance of the travelling-wave tube's wide-band operation is that all types of repeater and radio relay equipment may be considerably simplified, to such an extent that nation-wide television re-

At right, the "travelling wave" tube, and, above, sectional diagram of complete amplifier using the tube.



lays become economically feasible. Literally dozens of full colour or black and white television programs could be handled simultaneously, while in the communications field, it makes possible design of repeaters which would carry more than 10,000 simultaneous telephone conversations or 100 million words a minute by telegraph.

The general appearance of the tube and a diagrammatic representation of an amplifier using the tube are seen in the accompanying illustrations. The tube measures about 18 in. long and two-thirds of this is occupied by the wire helix which is the amplifying medium. In operation, a beam of electrons is focussed axially along the wire helix and the signal to be amplified is fed to the coupling antenna at the "gun" end of the helix. The arrangement is such that the signal travels along the helix toward the far end of the tube and, in doing so, picks up energy from the electron beam and is considerably amplified before reaching the output wave-guide coupling. The simplicity of the device is such that the items shown in the diagram constitute the complete amplifier—thus eliminating a maze of equipment which would be required if conventional tubes and circuits were used to obtain the same gain and frequency response.

The A.B.C. this year will organise a National Radio Eisteddfod for singers, instrumentalists, actors and actresses. About £2,500 will be paid in prize money.

## All-Electronic Color Television Demonstrated by RCA

The color television controversy has reached its final stage, according to a special report on "color" issued by *Television magazine in America* and covering the October 30 demonstration of electronic color by RCA. The report states:—

According to RCA officials the development of electronic color takes the issue of color television out of the range of controversy. Dr. C. B. Jolliffe, executive vice president of RCA Laboratories, stated that all-electronic television is far superior to any mechanical system of color with its rotating discs and other well-known limitations.

RCA's system, briefly, is based on simultaneous color transmission. Transmission of the picture is achieved when a light beam from a special scanning kinescope is focussed through a film picture and separated into component colors by a system of mirrors and photoelectric cells. Each of the three transmitted basic colors, red, blue and green, has 525 lines and also the same horizontal scanning rate and the same picture repetition rate of thirty pictures a second as in present black-and-white commercial television broadcasting.

The receiving set is equipped with three 3-inch kinescopes which separately receive the signals representing red, blue and green. This trio of kinescopes is called a "trinoscope." From it the three color images are optically projected into a composite picture which appears on a 15 x 20 inch screen.

Dr. Jolliffe stated that "the problem is no longer how to transmit and receive color pictures by an all-electronic method, because the basic principles have now been solved. The problem that still now challenges is how to operate television broadcasting as a steady and reliable service on the high frequencies, whether in black and white or in color."

RCA officials still stick to the promise made in December 1945 that five years would be required to present any color system comparable to the present status of black and white television.

Perhaps the outstanding feature of RCA's system is the removal of the

threat of obsolescence of low-frequency black-and-white television receivers. Since the electronic characteristics and all of the standards, including the synchronizing pulses, are identical to those of the present black-and-white standards, one of the colors broadcast from color stations using the electronic simultaneous system can be received clearly on low-frequency black-and-white receivers by the addition of a simple inexpensive low-frequency converter and filter system to select the green image, which is in full detail and reproduces as a normal black-and-white image.

A television station can start out on black-and-white transmission and eventually operate a monochrome transmitter on low frequencies and also an electronic color transmitter on ultra-high frequencies using the signal of the color camera to operate both transmitters. In addition to this, the high frequency color transmitter will also be able to send pictures out in black-and-white. With this arrangement the problem of obsolescence for the broadcaster as well as the viewer is reduced to a minimum.

Theoretically and logically it seems that all-electronic color should be the eventual method of color television. The final answer must come from the Federal Communications Commission. (Hearings were set on color television for December 9.)

The main issues are: (1) the cost, practicability of operation and picture quality of mechanical versus electronic color; (2) use of high frequencies; (3) time element; (4) obsolescence.

## NO STIFLING OF TELEVISION —Says B.B.C. D-G.

Speaking in London before the recent imperial Press Conference Sir William Haley, director-general of the B.B.C., gave a pledge that it was intended to press on with the task of making television available to as many homes and over as widespread an area of Britain as was possible.

"Television has come to stay," he said. "On behalf of the B.B.C. I say that we approach this problem in as broad and statesman-like a way as possible. We seek no temporary advantage, but hope to establish goodwill by confidence. The one thing we cannot envisage is the stifling of television, for television will go on."

# AMERICAN BROADCASTING NEWS

(From our Own Correspondent)

Washington, D.C., Dec. 24: First full-time commercial FM licence issued in Canada to a private company has gone to Canadian Marconi Company, Montreal, and the station will carry all programs of AM station CFCF, Montreal.

Walter S. Lemmon, president of WRUL, Boston, has demonstrated his invention of a new dual-purpose radio system capable of broadcasting ordinary voice transmissions and printed radiotype or morse code impulses simultaneously within the same bandwidth.

Sylvania Electric Products Inc. last week displayed in New York City a new "flexible" viewing screen for video receivers. Screen is housed atop the receiver console and can be made to face any part of a room.

Radio Diabolo, San Bruno, Calif., is seeking a permit from the FCC for a 50 KW FM operation planned to commence in January to test newly developed transmission tubes by Eitel-McCulloch Inc., tube manufacturers. Owners of the tube firm also hold major interest in Radio Diabolo.

With Bing Crosby and one or two other notables submitting to transcriptions, and the advent of many more independent broadcasting stations via FM, there has been extreme activity in the platter-making business in America over recent months. Many hope to cash-in on what looks to be a lush market. Many will yet learn that it's tough going nevertheless. In Washington particularly the accent is on news-roundup type of commentaries committed to wax. Transcription business in America has never flourished to the same extent as in Australia. Maybe there is a change coming.

Norman Corwin, who recently visited Australia in the course of his Wilkie "One World" tour, is being stacked up against Bob Hope with his report to the nation incorporating commentaries and interviews recorded in Australia and other countries. He's a bit peeved that CBS has decided to put his series on in half-hours instead of hours and then up against the Hope broadcasts in the 10-10.30 p.m. time channel Tuesdays.

A new photo-color process with possibilities for video-adaption was recently viewed by FCC and broadcasting executives in Chicago. It is the invention of Richard Thomas, who holds a number of color photography patents. So far no television-electronic system has been developed along the Thomas-color line, but it is apparent that some electronic engineers in U.S.A. are displaying more than a casual interest. It is significant too, that Thomas last month, had prepared to appear at the CBS color hearings before the FCC late December.

A direct viewing color television receiver tube capable of receiving colored images broadcast by either the sequential system developed by CBS or RCA's simultaneous method was shown last month to a delegation of the FCC during a visit to the Allen B. Du Mont Labs., Passaic, N.J., says "Broadcasting." In showing the new color tube, called the "trichromoscope," Dr. Allen B. Du Mont, president of the laboratories, who conducted the FCC tour of his factories, stated that his company is not offering any new color television system at this time. "We feel," he said, "that the tools necessary to make any color television system work properly are still in the development stage and the progress that can be made in developing these tools will be the main factor bearing on what type of system is most suitable to the public.

"Of the systems so far proposed, we favor the simultaneous method as its advantages over the sequential are overwhelming," Dr. Du Mont said. "However, we feel that with the numerous new developments now being worked on, any standardization at this time will certainly mean that the public will not get anywhere near the ultimate in color television, as far as quality or cost of receivers is concerned."

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# NOTED AUTHOR GIVES REASONS WHY THERE SHOULD BE A WORLD RADIO ORGANISATION

The suggestion that no time be lost in getting together a world conference of commercial broadcasting interests, made by AFCBS president, A. C. Pad-dison on his return from America a few months ago, (C.B. Sept. 5) is carried further by Dr. Arno Hurth, writer, lecturer, and author of several books on broadcasting in the following article which is reprinted by courtesy of the American news-magazine *Broadcasting*. Dr. Hurth points out the need for a world-wide radio organisation composed of broadcasting services of all the United Nations saying that by its very nature radio broadcasting calls for international agreements and international co-operation.

Reviewing activities in this field prior to 1939, Dr. Hurth said:—

"A great many technical and legal problems as well as those in the field of programming can only be settled by an international organisation. The need for such an organization has been recognized ever since the beginning of broadcasting. As early as 1925, the postal administrations and broadcasting companies of nine European countries established at Geneva the Union Internationale de Radio-diffusion (UIR).

"The purpose of the UIR, known also as the International Broadcasting Union, was to deal with the crisis caused by the growing mutual interferences of stations in different countries, and to draw up a European wavelength plan. But the Union soon outgrew this task and became a powerful central organisation which exercised a decisive influence on the development of broadcasting, and especially of the international program exchange.

"At the eve of World War II it comprised over 60 member companies which operated no less than 900 stations with a total power of 12,000 kw. However, there was a serious shortcoming in the constitution of the UIR: full membership was reserved to broadcasters in the "European Zone" (i.e. Europe, the Mediterranean countries and Iceland). The 24 non-European members, including the big American companies, such as NBC and

CBS and the services of the British Dominions had no seat and vote in the Council.

## War Affects the UIR

"The political and military developments during the war greatly affected the UIR and its activities. The suppression of numerous broadcasting services, as for instance in Poland, in the Baltic countries and in Yugoslavia, reduced the membership of the Union. Whereas the International Telecommunications Union or more exactly its Bureau in Berne, observed a neutral attitude and resisted to political pressure, the International Broadcasting Union came more and more under the influence of the Axis powers and especially Germany, which caused the BBC and most of the other allied services to withdraw, among them CBS, the World Wide Broadcasting Foundation and the Canadian Broadcasting Corp. (Soviet Russia and many Latin American countries have never belonged to the Union.)

"In the last years of the war, the conventions of the UIR Council, held in Switzerland, were nothing but meetings of the Axis delegates, their satellites, the Quislings of the occupied countries, and a few neutrals. While the Director General and the Secretary General of the Swiss Broadcasting Service acted as President and Secretary General of the UIR (the latter also as director of the General Office), the position of the four vice presidents were reserved to the delegates of Nazi Germany, of Fascist Italy, Vichy France, and occupied Denmark. The Checking Centre of the UIR at Brussels was directed by the German delegate.

## Reorganisation Needed

"It goes without saying that if the UIR is to be preserved, it must be reorganised entirely. But the question arises whether it would not be preferable to make a fresh start. Just as the governments of the world have preferred to replace the old League of Nations by the new United Nations Organisation, it may be advisable to replace the discredited UIR by a new world-wide organisation, which would represent the American interests, as well as the European, and closely co-operate with the United Nations Organisation.

"For this purpose its headquarters could be suitably located near the seat of the UN, as well as those of the UIR were situated at Geneva, the seat

of the League of Nations. Its membership should be open to the broadcasting services and the association of broadcasters of all the countries which are members of the United Nations."

## United Action

"The post-war responsibilities of radio are so great and its tasks so difficult that the broadcasting services of the various countries ought to co-ordinate their efforts for the purpose of common international action. This can only be done by a world-wide broadcasting organisation whose functions would be as manifold as radio broadcasting is itself.

"In the technical field, the new organisation—in close contact with the International Telecommunications Union and the Communications Committee of the UN Social and Economic Council—would have to apply to broadcasting the provisions of the future International Telecommunications Convention. It would further have to establish a wavelength plan for shortwave broadcasts, and to create a system of international relays to ensure world-wide distribution and satisfactory reception of international programs, especially of the UN broadcasts. It should also provide for the exchange of information on the technical problems of radio broadcasting, and television, and thus advance technical progress.

"In the legal field, the new organisation should promote the free exchange of information by means of international agreements and other appropriate measures; it should mediate between broadcasting services in the case of conflicts; prevent the illegal use of program material; endeavour to improve the relations between radio and the press (which, in many countries, are far from good), radio and the recording industry, television and the motion picture industry. Further, more it would have to prepare new international copyright agreements for the preservation of the interests of both broadcasters and authors.

## Programming Chief Function

"Its main functions, however, would be in the field of programming, where the Union should act as a clearing house for international broadcasting. It should help the United Nations, the UNESCO, the ILO, and other UN agencies to spread their ideas all over the world; it should promote an in-

ternational program exchange between all countries and continents, and arrange international programs to be broadcast by all members. It should try to further the exchange of broadcasters, educators and artists between the affiliated broadcast services as well as the exchange of information and literature dealing with program developments and international broadcast activities."

## Broadcasting and UNESCO

A further note on the international aspects of short-wave broadcasting comes from USA, whence it is reported that effective use of radio by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) to promote world peace and exchange of views by various governments was one of the chief topics to be discussed last September when the National Commission on Educational, Scientific and Cultural Co-operation held its first meeting in Washington.

William B. Benton, assistant Secretary of State in charge of Public Affairs, at a news conference, emphasised radio as the "easiest, fastest field in mass communications."

Questioned about Government operation of shortwave in competition with commercial broadcasting, Mr. Benton declared "there is no commercial opportunity in shortwave." He alluded to a memorandum from Brig. Gen. David Sarnoff, RCA president and NBC board chairman, to the State Dept. in 1943 in which the general opposed commercialism of shortwave broadcasting. Mr. Benton said there would be insufficient revenue to make profitable, commercial broadcasting might offend countries that ban it, and the quality of programs broadcast under commercial sponsorship might not achieve the aims and purposes of the State Dept.

## OVALTINE SHOW EXTENDED TO 40 STATIONS

"The Ovaltine Show," sponsored by the manufacturers of Ovaltine, A. Wander of Devonport, Tasmania, which commenced on September 1 on a network of 15 stations ("B.B." 5/9/46) has now been extended to 40 stations. As from December 1, 7BU, 7HD, 7QT and 7DY were linked up to take the ½ hour show and as from January 5, 2LM, 2HR, 2TM, 2GZ, 2KA, 2WG, 2CA, 2WL, 3SR, 3BO, 3BA, 3GL, 3TR, 3MA, 3HA, 4GR, 4TO, 4RO, 4MB, 4MK and 6KG have been included in this time channel of 5.30 p.m. Sundays. The Ovaltine Show, which is produced and recorded at 3DB, is built to have a wide adult and juvenile appeal. The account is serviced by Warwick Advertising, Melbourne.

## AGENCIES

The staff of O'Brien Publicity, Melbourne gave a Xmas luncheon to their chief, Edward O'Brien. An excellent luncheon was provided at the Hotel Australia and a special menu to "O.B." was designed with amusing limericks and autographs.

There was open house in Melbourne at Paton Advertising on the Monday before Xmas when their friends in radio, press and advertising dropped in for a glass of good cheer.

Another of the many happy parties in Melbourne during the festive season was provided when John Haysom of John Haysom Advertising, invited station managers, representatives and others in the advertising world, with their wives, to partake of a cocktail or two at his very charming home in Toorak. Mrs. Haysom assisted and was a charming and most efficient hostess.

Mr. John Wilkinson of Marsh Pty. Ltd., Sydney, managed to sneak in a couple of weeks' holiday at the close of the year. Took his family to Bundanoon for a week and spent another week at home. He couldn't quite get used to the holiday idea as it was his first in six years.

Atlantic Union Oil advertising manager, Mr. Jack Lee, announced last week that Dyer-Malone Advertising Agency which has been handling the Atlantic radio account for several months have taken over the account for all media effective January 1. The account was previously handled by Goldbergs.

Congratulations to Ron Willmott are doubly in order. At Christmas Ron's wife presented him with twin boys. Grandpapa Claude too is beside himself with pride and jocularly declared that the two young huskies will soon be entered for the J. V. Hall School of Applied Advertising.

Just before Christmas, Mr. Frank Goldberg, head of the Goldberg Advertising Agency organisation, found himself hijacked from the pursuit of new business by a formidable group of his top executives armed with bottles of "Scotch" and like liquid. Senator Harry Foll, in a neat but un-Senate like speech, proposed a Christmas and New Year toast to Mr. Goldberg and family, enthusiastically seconded by Messrs. Horsfield, Brooks and Richardson. Mr. Goldberg in reply expressed his deep appreciation of the spontaneous gesture.

## N.S.W. CHANGE IN OWNERSHIP

RODGERS ADVERTISING SERVICE (William H. Rodgers and Allan A. Stewart), 10 Martin Place, Sydney, advertising agents. On 1/11/46 Allan A. Stewart retired.

## N.S.W. REGISTERED FIRMS

Dyer-Malone Advertising, 66 Pitt Street, Sydney, advertising agency. Com. 26/9/46. Proprs.: Robert N. and Dorothy Dyer and Joseph W. B. Malone.

## QUEENSLAND REGISTERED FIRMS

Victory Sound Productions, King Arthur Ter., Tennyson, film and gramophone record making. Commenced Sept. 5. Proprietor, Ralph M. Moody.

Mr. Reg Fox, who is in charge of AWA's Recording Division, was among the blessed in the Christmas holidays when his wife presented him with a bonny son—to be called Stephen—born December 29.

## COUNTRY STATION NETS £13,500 FOR HOSPITALS

In a Sunday day-time appeal from 9 a.m. to 5.30 p.m. over 3LK more than £13,500 was raised in direct donations from listeners. The relay unit of 3DB Melbourne operated separately for the appeal to aid Wimmera and Mallee hospitals, and when the effort closed at 5.30 p.m. to take up the normal evening relays from 3DB donations were still pouring in and the organisers were of the opinion that much more would have been raised if it had been continued into the evening.

Twenty-one hospitals in the Wimmera and Mallee areas will benefit from the money raised.

Eric Pearce and John Stuart of 3DB, visited Horsham for the occasion and were assisted by leading citizens of the Wimmera.

Responses from listeners came from as far as Murrayville, on the South Australian border, 200 miles from 3LK. Seventy-five telephone girls, working in shifts, received the telephoned donations. Many letters of thanks and of congratulations from country hospital committees have been received.

## HOMELY PARTY SPIRIT CAPTURED FOR SPECIAL BROADCASTS

A refreshingly-new angle for Christmas and New Year "stunt" broadcasts comes from Newcastle where on Christmas morning 2KO's roving reporter, Pat Barton, complete with wire recorder, went on a round and dropped in on homes chosen at random to report first-hand how Newcastle was spending Christmas Day.

The enterprise and novelty later paid off with a barrage of phone calls from well-wishing listeners.

The interviews were broadcast in the Christmas dinner period, when those interviewed were undoubtedly enjoying the Christmas spirit Pat left in the homes visited.

On New Year's Eve the roving reporter was again abroad inviting himself in wherever bright lights and music indicated a New Year's party in progress.

The result was 30 minutes of novelty broadcasts with singing (mostly off-key), bagpipes and finishing up with Auld Lang Syne as only a Scottish party can sing it at the end of a New Year party.

## Purely Personal

Mr. F. A. Morawetz, managing director of Tip Top Chemical Products of Aust. Pty. Ltd., left Melbourne last month for an extended tour abroad to study latest methods in manufacture of paint materials. He flew to Vancouver by Skymaster and will tour Canada, America, Great Britain, Scandinavia, France, Central Europe, Palestine, India and Malaya.

Mr. L. Bromilow, manager, Victorian Railways Tourist and Publicity Services, has been appointed a member of the reconstituted National Film Board.

Stan Thomas, sales manager of 3XY is at present holidaying at Mornington. Stan has recently resigned as President of the Frankston Yacht Club. It looks as though he is to transfer his nautical activities to Mornington as he is a member of the Yacht Club there.

A "breeze" in Sydney last week insisted that Major "Bill" Cousens may not necessarily rejoin his old pre-war station 2GB in spite of suggestions to that effect announced earlier. There is every likelihood that the famous broadcaster will content himself with freelance broadcasting work.

Cr. O. J. Nilsen, head of O. J. Nilsen manufacturing and broadcasting enterprises, believes in being a real Father Christmas to his employees' children and their mothers at Christmas time. This year he entertained about 400 kiddies at Cathedral Hall and every child received a party cap as well as an appropriate present and refreshments. Arthur Dickens, manager of Nilcrom Porcelains, was compere and all kinds of acts such as a Punch and Judy show and tumblers, etc., were staged.

The A.B.C. director of music, Mr. W. G. James, left by air on January 5 for a visit to the United States, Canada and Europe to study post-war development in music, particularly in relation to broadcasting.

Lt.-Cdr. Donald MacDonald died at his home in Camberwell, Vic., on Sunday, Dec. 22 at the age of 63. He was a radio engineer for 3AR at its inception and did constructional work on 5AD Adelaide, and 7ZL Hobart.

The engagement has been announced of Mr. F. I. L. (Rick) Barnes, Sydney representative of 3XY Melbourne to Miss Esme Hawley, only daughter of Mr. and Mrs. N. W. Hawley. Mr. Hawley is technical director of Lever Bros.

Mr. I. B. Hutchinson, now managing director of Lintas Ltd. in London, arrived back in Australia by flying boat on Xmas Eve on a short business visit.

Mr. George Corthine who has spent about 25 years in the advertising agency field in England, has taken up his duties as production director of Lintas agency in Sydney. During the war he was five years with the British Army.

Mr. Bernie Stapleton, general manager of 2SM, was host to one of the largest Christmas parties around the broadcasting studios in Sydney on December 23. From mid-morning to late afternoon the big main studio at 2SM was packed with well-wishers who gladly accepted the station's invitation to a spot of good-cheer. Transport Minister Mr. O'Sullivan and Local Government Minister Mr. J. J. Cahill were two State cabinet members noted there, while the Lord Mayor of Sydney, Ald. Bartley also dropped in. It would be impossible to name all the agency executives, the sponsors and other commercial folk who were there to bid the station and its directors and staff a Happy Christmas and prosperous New Year.

Mr. Val Sydes, manager of 7LA Launceston, was a visitor to Sydney this week and spent a lot of time with Macquarie headquarters. As chairman of the Launceston division I.R.E., he was invited to a Sydney division meeting during the week.

Dave Worrall, manager of 3DB is holidaying for three weeks at Portsea.

Mr. V. M. Brooker, manager of the A.W.A. Broadcasting Department, is off this week on the first lap of three weeks' holidays. Our guess the usual venue—Whale Beach.

Mr. Tom Sproule, advertising manager A.W.A. Broadcasting Dept. has returned from three weeks' leave and is looking as fit as the proverbial fiddle.

Eric Wood, 3UZ Sydney rep., is spending his annual holidays at Woodford on the Blue Mountains.

Mr. Emory Chubb, chairman of directors of Chubb and Son's Lock and Safe Co. Ltd., has arrived in Sydney by flying boat from London.

Mr. Rober S. Conrow, who has been managing director of Armco (Australia) Pty. Ltd. since its incorporation in 1933, has resigned. Mr. A. W. (Sam) Jones has been appointed managing director and Mr. W. G. Holiday assistant managing director as from January 1, 1947.

Mr. V. G. Watson has been appointed a director of Wunderlich Ltd. in place of the late Mr. R. Taylor. Mr. D. Croudace, previously director-secretary, has been appointed a managing director to act jointly with the other managing directors. Mr. Alfred Wunderlich and Dr. C. Wunderlich. Mr. E. G. Scott, previously chief accountant, has been appointed secretary.

Mr. James C. Dunbar, local manager for New South Wales of the Insurance Office of Australia Ltd., retired last week. He was recently tendered a dinner at which the directors of the company made a presentation to him.

## MR. REG LANE TAKES OVER MACQUARIE-2GB REINS



Mr. Reg E. Lane returned from his Christmas vacation to take over his new post as general manager of Macquarie Network and 2GB consequent upon the retirement of Mr. H. G. Horner which became effective from the close of the year. For several years Mr. Lane was assistant general manager.

Mr. Lane is a native of the New England district of N.S.W. and is an Old Boy of Newington College, Stanmore. His present appointment is the culmination of a brilliant career in advertising. He joined Macquarie in 1938 after having been with 2CH as advertising manager from 1934. Prior to that he was in journalism and toured the world in 1931 on a special commission. Earlier he was advertising manager of the Ford Motor Co. of Australia (1928-31) and was a Melbourne councillor of the Australian Association of National Advertisers during which time he played an active part in the formation of the Audit Bureau of Circulations.

Keith Winsor in charge of publicity at 3AW is away on annual leave.

Si Meredith who reads the midday serial from 2UE sponsored by F. J. Palmer and Sons, completed 17 years' association with the station on January 2. This session has been sponsored by Palmers from the initial broadcast. Si also does football commentaries for the A.S.E. Service which emanates from 2UE.

### Classified Advertisements

Advertising in the Classified Section, these columns is at the rate of a minimum of 1/9 per line. Should enquiries be addressed to this office at Box 3765 G.P.O., Sydney the charge for the incorporation of the address will be at the rate of 2/6d. Charge accounts already established are recognised, otherwise cash with order. Replies to this office are re-addressed without charge.

#### POSITION WANTED.

First class announcer-engineer. Seven years' experience country stations, announcing, copywriting, sales and program. Specialised O.B. and Sport Commentaries. Desires position with city or country station. Replies to N.R.E., Box 3765 G.P.O., Sydney.



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## The VICTORIAN BROADCASTING NETWORK

Head Office: 239 COLLINS ST., MELBOURNE.

PHONE: CENT. 4124

Sydney Representative: S. O. CLARKE, c/- Western Newspapers, 56 Young St. 'Phone: BW 7283.

### STATION STAFF

Ron Haig-Muir, formerly 2WG sales manager, has arrived in Melbourne to exclusively represent that station in Victoria, as from January 1.

Stan Thomas, 3XY sales manager, is having a well-earned month's holiday at Mornington.

Joan Read, who has been convalescing at Lapstone Hotel for some weeks subsequent to being discharged from Prince Henry Hospital, resumed work at 2UE on Monday, January 6.

Pam Morris (the popular young vocalist in the 2UE musical production "Music in the Tanner Manner") and her mother were involved in a car accident during the holidays. While neither was seriously hurt, they were badly shaken and were in hospital for a few days.

The stork must have been working overtime at 3XY! Norm Curry, publicity manager, was presented with a son (Richard), on December 27, while around the same time Stan Rees of the sales staff became the father of a bonnie daughter weighing 10 lbs. 3 ozs. Congratulations to you both.

# BROADCASTING AARDS

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# BROADCASTING BUSINESS

Vol. XV, No. 14  
443rd Issue

Thursday,  
January 23, 1947

Incorporating "Commercial Broadcasting"

Registered at the G.P.O., Sydney, for transmission by post as a newspaper

Hi Fellers -  
Learning the "Know How"

N. S. W.  
PARLIAMENTARY  
LIBRARY



THIS happened about four years ago, but maybe it's new to you!

*The Polish airman, escaping to Britain to join the R.A.F., was sent to a flying school in the far Highlands. A couple of months later, in London, somebody asked him if he had learned to speak English. "Aye mon," the Pole said, "a wee bit".*

AT least he had the right approach . . . he was learning "know how" from his own experience.

When I tossed that one to a couple of the 2UW boys the other day I remembered that they too had learned the "know how" the hard way . . . the right way . . . knowing how to provide a top-drawer deal for the sponsor and his audience.

It's "know how" that counts in radio today . . . and boy, do the 2UW fellers know how!

It's just another reason why

most people listen to **2UW**