

THE WIRELESS INSTITUTE — OF AUSTRALIA —

TASMANIAN DIVISION

BOX 851J, G.P.O., HOBART

AUGUST 1963

MONTHLY BULLETIN

PRICE 6d

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GENERAL MEETING

The next monthly meeting of the Division will be held in the Club Room, 147 Liverpool Street, Hobart, on WEDNESDAY, 7th August 1963 at 2000 hours.

As a change from the usual and to give those attending more time for a general rag chew this will be a sort of mixed evening.

Len Edwards VK7LE will give a short description of the transceiver we are to build for the Royal Yacht Club of Tasmania. This is a special job required by the Club for reception on 1775, 2524 and 6280 kc/s only and transmission on the two former frequencies. As permissible power output is different on the two frequencies a different line up is necessary.

Following this there will be an auction of some surplus disposals oddments and other items still available at a fixed price will be on display. These include new fixed condensers, electrolytic condensers, resistors, switches, micriphone, driver and modulation transformers, vibrators, vibrator transformers, relays, etc.

Our Quota.

£200



I. T. U.
Fund.

HELP IT GROW.

I. T. U. FUND.

For the information of new members and as a reminder to others, the next I. T. U. Conference will be held in Geneva in 1965 and it is essential that the W. I. A. be represented to watch our interests. To do this we need the help of every amateur, whether active or not. The cost is estimated at £3,500 and at the last Federal Convention it was decided to make an immediate start on raising the amount. The contribution from this Division has been fixed at £200.

As you can see we still have a long long way to go.

We appeal to all licencees especially to give us their support, and would welcome and appreciate any contributions from other members and non-members.

At the last Council Meeting it was decided that special fund raising efforts for the Club Room Fund would be suspended until we have reached our quota. Whereas the Club Room would perhaps be more the concern of City members, the I. T. U. Fund equally concerns all and we look for support from both city and country members alike. However small your donation is it will be welcome, and the names of contributors will be listed in the Bulletin each month.

Our thanks to Keith Johnston VK7RX who very generously donated half the proceeds of the sale of some gear and as a result the fund benefited to the extent of £5-4-3d. Apart from this I regret that I have nothing else to acknowledge this month. The total in hand is now £19-10-3d.

HAVE YOU CONTRIBUTED ANYTHING YET?

NORTHERN ZONE.

The next meeting of this Zone will be held on FRIDAY 9th August at 102 Charles Street, Launceston, at 2000 hours. A talk will be given by Col. C. J. Geard, Director of Civil Defence Tasmania, on "Civil Defence".

NORTH WESTERN ZONE.

The next meeting will be held in Lakin's Hall, Ulverstone, on TUESDAY 6th August at 2000 hours. This is the Annual General Meeting of the Zone so a good roll up of members looked for.

My apologies to the two Zones for taking them off the front page but the I. T. U. Fund is most important and warrants a prominent place.

Hear that attendances at both the July meetings was above average, which must be most encouraging to the respective office bearers.

COUNCIL MEETING.

The next Council Meeting will be held at the Club Room on MONDAY, 19th August at 1930 hours.

R. S. G. B. HANDBOOKS.

These should be to hand very soon now. Spare copies will be available but anyone wanting one should send their 35s/- (plus postage 3/- if necessary) to the Secretary immediately.

New members may not be familiar with this excellent publication which is generally considered the best of the Handbooks. Published by the Radio Society of Great Britain it contains 544 pages and is bound in a stiff cover. We have already sold over 60 copies in the Division at a big saving to members on local prices.

MEMBERSHIP CERTIFICATES.

The new style of membership certificate has now been printed and will be prepared by Federal Executive to whom a list of our financial members has been forwarded.

HAMFEST.

It is proposed to hold another Hamfest at Campbell Town early in November along the lines of last year's very successful function. Ted Cruise VK7EJ, 46 Colville St., Battery Point, has been appointed to make preliminary arrangements and would welcome any suggestions for the conduct of this year's event. We learned quite a lot from the last one and hope to turn on an even better show this year. If you have any ideas on the subject please let Ted have your comments.

REMEMBRANCE DAY CONTEST.

Once again the R. D. Contest is with us and we would like every licensee to at least work a few stations and put in a log. If your own gear is not in going order, make a point of going along to some active station and work your quota. VK7WI will be in operation in charge of VK7AL who will be able to let you know at what times he will be there.

Rules were in July "Amateur Radio". Read them, get on the air, work as many as you can AND THEN SEND IN YOUR LOG.

DISPOSALS.

Most of the gear advertised in June and July Bulletins is still available and may be purchased at the next meeting, and gear already ordered may also be collected then.

FOR SALE.

One only 122 Set in working order complete with power supply, spare vibrator, spare set of valves, phones and mike. This has been modified for use on the yacht frequencies, but a little bit of work on it should put it back in full operation.

These well known sets operate from a 12 volt battery on 2 - 8 mc/s and are ideal for mobile or portable work. Can be inspected at next meeting.

Any reasonable offer gets this. To Disposals Committee by August 19th.

V. H. F. NOTES by VK7ZAV

Our last meeting was held at the Club Room on the 17th July with 11 members and one visitor in attendance, John Grace VK7ZJG. John is applying for membership in the Institute in the near future and is an active operator on 144 mcs.

Items discussed included TVI, W.I.C.E.N., the Yacht Club transceiver, Jamboree of the Air and the Youth Radio Scheme.

In regard to W.I.C.E.N. it was planned earlier in the year to do something definite in this direction with the object of helping out with the Civil emergency set up. Such things as finding locations where mobile VHF units could be positioned quickly in the event of trouble, to give a wide coverage of the State etc. Since the lecture at the general meeting however and the latest developments in connection with Civil Defence, it has been decided to wait until it is known just what is required, and what part the VHF Group can play in the final arrangements.

The matter of the building of the transceiver for the Royal Yacht Club by the Institute was discussed, and the response was very good. Geoff D'Emden has donated the copper wire required for the antenna system and Allan Morrisby has undertaken the complete construction of the transmitter section. Allan's reasons for this were rather amusing, but we can be sure that the finished article will be a fine piece of equipment.

There was a great deal of discussion in regard to the use of a VHF link network in the Jamboree and I am not sure now just what the final decision was. However it seems that the Scouters concerned feel a need for this service and the remaining problem is volunteers to supply, and if necessary, operate the link stations. It also seems desirable that we have a link control station which is served by a telephone, so that the information gained on the link can be passed on for publicity purposes. The date is around the 19th and 20th of October, so how about it chaps? Lets have some offers now and avert the last minute rush as it has been in other years, where, due to lack of support, one or two have had to do the lot.

Band Activity. 50 mc/s. At last the winter DX is with us, or nearly anyway. On Saturday 6th July Wilf 7ZAQ worked a couple of VK5s and heard 2s and 4s at around 1630 hours. I have not had any reports of anyone else working DX at this time but I believe Dave 7ZAI has heard some sideband sigs from VK2 during the past week.

144 mcs. On Sunday 14/7 Winston 7ZAP braved the snow on Mt. Wellington and attempted to work into Launceston with his newly installed mobile gear. Eric VK7ZEC was contacted but although a carrier was heard from 7BQ contact was not made. Winston's mobile gear is very comprehensive and includes 6 mx and 2 mx transmitters, 6 and 2 mx crystal locked converters, all mounted in the boot, feeding into a 7 mcs tuneable converter, which in turn feeds a car radio. All band switching is controlled remotely from the front of the car and facilities are incorporated for cross band duplex operation. The power supply and modulator are transistorised and the antennas are Halos for 6 and 2 and the car aerial for reception on 7 mc/s.

VK7ZBM Eddie in Tarraleah is looking for contacts on 144. His frequency is around 144.7 on which he runs 10 to 15 watts with a 522. A xtal locked converter is included in the receiving end of things, and Eddie is around most nights about 1900 hrs and on Sunday mornings. He has heard good readable sigs from Hobart on several occasions, so is looking forward to working someone from that area.

V. H. F. NOTES.

As the V.H.F. meeting is held on the third Wednesday in each month there is not usually time to include notes from the meeting in our Bulletin. To overcome this the V.H.F. Group will in future cut their own stencil and this V.H.F. page will be included with the Bulletin as a supplement.

STRAYS.

Four of our Associate members from Terry Connor's A.O.C.P. Class sat for their exam on July 16th. We wish them luck and look forward to hearing some new calls on the air very soon. We cannot let this occasion pass without once again extending our thanks to Terry for the time and work he has put in as instructor to this Class. He is even talking about starting another class early in the new year if enough are intefested.

NEW MEMBERS.

This month we welcome as a Full Member Mr. R. T. Wilkinson VK7MW and associates Messrs. H. J. Ferrall, J. R. Darling, E. A. Greenhalf, F. A. Richards and the 13th Hobart Scout Group.

YOUTH RADIO CLUBS by VK7ZZ

Council has drawn up the following set of principles to control the formation and operation of Youth Radio Clubs within the Tasmanian Division.

1. Each Club shall be registered with our Division and allocated a distinguishing number.
2. Each club, as far as possible, shall be self running, our Division to give advisory help on technical matters when needed and organisational direction only when absolutely necessary.
3. All examinations of a written nature shall be prepared and marked by the Division's Youth Radio Club Committee, which shall have power to co-opt help as and when needed.
4. All Certificates awarded under the Youth Radio Club scheme shall be awarded by the Wireless Institute of Australia only.
5. All gear donated by Divisional members or otherwise obtained by this Division for use by Youth Radio Clubs shall remain the property of this Division.
6. Youth Radio Clubs shall be encouraged to join this Division as Associate Members, which shall entitle such Clubs to use all facilities and enjoyment of all benefits to which an individual associate member is entitled to.
7. Our Divisional Council shall have the right to cancel the registration with this Division of any Youth Radio Club for any good reason.

SLOW MORSE PRACTICE - ZKF SCHEDULE.

Transmissions are on 3324 kc and 6885 kc, Monday to Fridays from 1615 to 1745 hrs E.A.S.T. All transmissions are modulated C.W. and commence at 5 w.p.m. for 15 minutes, increasing by 5 w.p.m. each quarter hour until a speed of 30 w.p.m. is reached.
("Break-In June 63")

COUNCIL REPORT by VK7EB

Firstly I wish to apologise for the absence of notes in July Bulletin. I had one night to compile them and not one week as I thought.

VK7CT was the one Councillor absent at the June meeting due to a bad back. He is back on deck once more. I sincerely hope everything is now OK OM and was pleased to see you at the July meeting.

Quite a formidable list of new members for June and July - 5 Full, 6 Associate and 2 Student members. A hearty and friendly welcome to you all.

VK7EB nominated as State Co-ordinator ably assisted by VK7ZZ. Resolved that a Central Committee of five members be formed consisting of these two plus three floor members. (Youth Radio Clubs)

A copy of proposed rules was received from the Northern Zone. These were fully discussed by Council and a few suggestions are to be forwarded to the Zone. The Northern Zone has also applied to the Department through Council for permission to relay the Sunday W.I.A. Broadcast on 144 mc/s and this is now being done.

Pleased to receive a newsy letter from the N.W. Zone, also to hear they have rallied, and are now financial and retaining Lakin's Hall for meetings.

Resolved that every endeavour to be made by a member or members of Council to visit the Zones whenever possible or practicable to do so. Council feels that by adopting this policy a much stronger bond and understanding in this Division will result.

A copy of the R.S.G.B. Handbook and the N.Z.A.R.T. Call Book have been donated to the Library by Mrs. G. Aschman from the estate of the late G. Aschman VK7GA

Resolved that the President and VK7CT discuss matters with Col. Geard concerning Civil Defence exercises etc.

Latest developments re TVI were discussed and it was decided that the matter be taken over by the TVI Committee and that a meeting between the Department and the Committee be arranged.

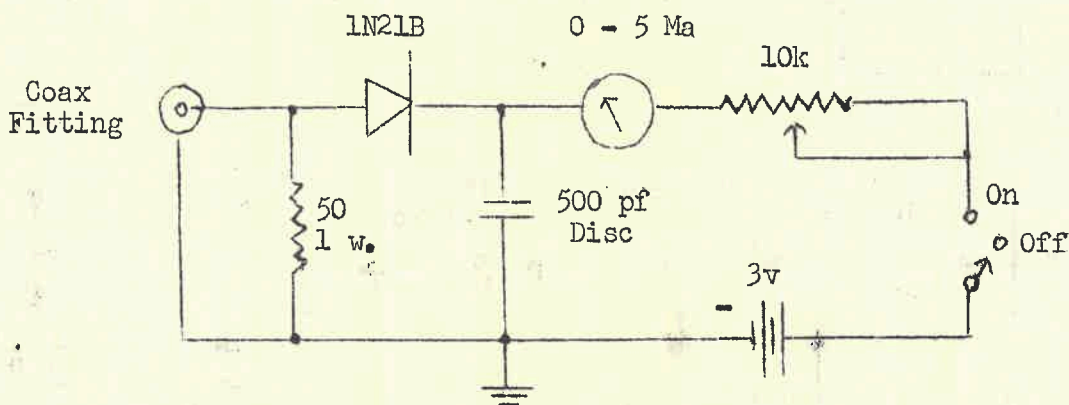
Re the agenda item from the Federal Convention concerning proposed table of C.W. Segments in the various H.F. bands it was resolved that the Division desires that the present position be preserved.

A preliminary meeting by Scouts and the Institute was held on 8th July and another meeting prior to the Jamboree will be necessary to finalise matters.

How about some material for my "Splatter" column chaps.

HAVE YOU SENT A DONATION TO THE I.T.U. FUND YET?

TECHNICAL by VK7ZAI
A Cheap Silicon Diode Noise Generator.



The 1N21B diode noise generator is primarily designed for the VHF bands and also the UHF bands up to about 3600 Megacycles. An S meter reading, or AF output voltmeter, with receiver AVC disabled, is generally used in the process of receiver alignment. The noise generator On-OFF switch is used constantly in order to make converter, parametric amplifier or receiver input circuit adjustments for best noise ratio for two switch positions. Less current through the diode for a given noise ratio reading such as 1 S point; or better, a 3 db a.f. ratio, means that the noise figure is being improved. The generator is designed for 50 ohm working, and a selected value 47 ohm 1 watt carbon resistor will suffice for the terminating resistor. The battery polarity must be for reverse bias for noise generation with any silicon UHF diode to take place. The 1N21B diode is available from a VK3 disposal store for 7s/6d, the new price being many pounds. For the serious VHF/UHF operator, a few nights work with this device could make those weak DX signals you can just hear now, down in the so called receiver noise, become a readable signal, and who knows what else you might hear.

Bridged - T Phase Modulator.

In last month's article the audio input terminating resistor value should have shown as 560 ohms 1 watt carbon.

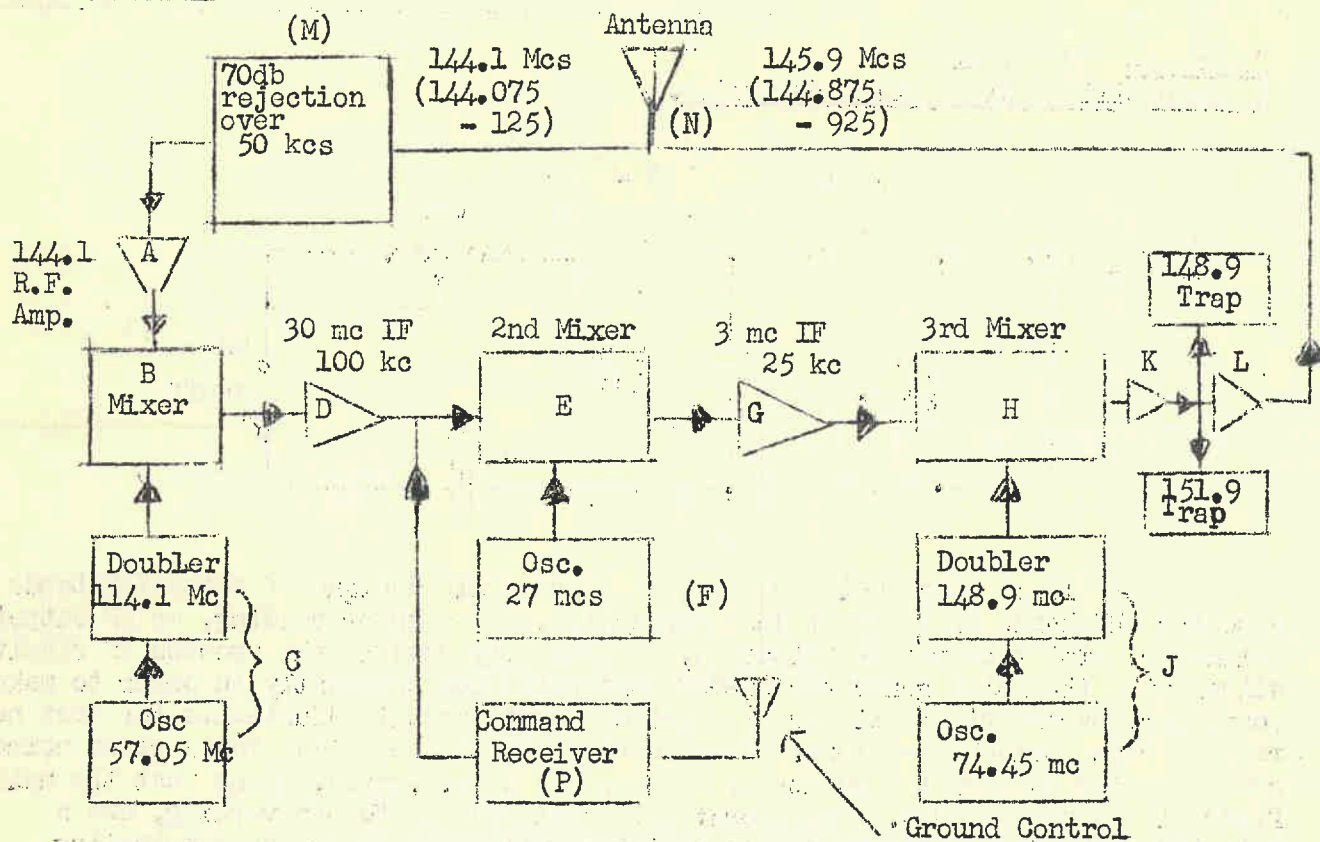
Technical Description of OSCAR III VHF Translator per PROJECT OSCAR INC.

When the OSCAR III package is placed in orbit in the U.S. late spring or early summer 144 mc operators who have got reasonable equipment will be able to communicate with fellow operators many hundreds of miles away, well over the nominal range of your present equipment. The modes of transmission can be CW, AM, FM, and as the transmit and receive frequencies are centred over a 50 kilocycle band width, no accurate frequency measurements are required to work into or out of the translator. With SSB signals the conversion ccts of the translator, converts an upper sideband signal to lower sideband and vice versa.

The translator functions in the following way. Assume that the translator picks up a signal on 144.100 Mc, which incidently is the WIA VHF group official calling and mobile frequency. The signal passes through the rejection filter (M) which stops the transmitter from gaining access into the receiver chain. The rejection of this filter is 70 db. The 144.100 Mc signal is amplified (A), and mixed with a 114.100 Mc signal (B and C) and the 30 Mc product is amplified (D). This amplified 30 Mc signal is mixed with a 27 Mc injection signal (E and F). From the band of frequencies produced the 3 Mc product is amplified (G) and fed to the third mixer stage. The 3 Mc signal is mixed with a local injected 148.9 Mc signal (H and J), and the 145.900 Mc product is amplified by linear amplifiers (K and L), and this is the signal that is fed to the aerial and radiated. The peak radiated power will be approximately 1 watt. The 148.9 and 151.9 Mc traps are to prevent birdies and spurious emissions from being radiated.

The command receiver (P) is controlled by a coded signal from Oscar HQ, which is used to block or unblock the output system of the translator, but in the normal condition the translator will be on.

As well as the translation system, Oscar III also will carry a 30 milliwatt beacon transmitting continuously on 145.850 Mc to aid in the tracking of the package and positioning of aerial equipment.



Block Schematic of "OSCAR III" VHF Translator.

The Tri-Vee Antenna.

For those who couldn't read the measurements of the different elements in last month's article, which didn't copy very well, they are : 20 mx - 16'10". 40 mx - n 32'9" and 80 mx - 64'6". If there are any queries on this antenna I'm sure Greg Johnston, 3 Inglis Street, New Town, would be happy to answer them if you drop him a line.

NON-TECHNICAL.

As a change from all the stories we are hearing these days of a certain YL at present much in the news overseas, we present :

"They're a Sane Mob"

There was an Irishman who came here posing as an Italian and declared that we Australians were a weird mob.

What utter nonsense! The Irish are weird; so are the Italians; so too are all the nations of the world EXCEPT the Australians. Australians on the other hand, are sane, reasonable, and intensely logical; and anyone who believes otherwise must be weird; he just doesn't know what it means to be sane, reasonable and intensely logical.

Take the case of the nuts and bolts.

The new owner of the grazing property was an ex-Englishman and unused to local conditions. He installed a leery steel-built fence, with its gate-rails held together by bolts of a size and gauge for which any farmer can always find a thousand uses, and he became quite resentful when, every now and then, he would find the rails down, where someone had taken one.

Now every Australian knows that "necessitas quid cogit defendit", or as they sometimes say, "If you've gotta have a bolt, you've gotta have a bolt!". But the Englishman brought up as he had been on "Trespassers will be prosecuted" and "Bags I all the fish in this creek" - being in short a bit weird - he put a box of bolts on the gatepost with a sign which read : "If you need a bolt, take one of these and leave the fence alone"

The utter selfishness of the impudent so-and-so! and grossly insulting!

Is there any wonder that the next time he made his round he found the fence down? Across the sign some sane, reasonable and intensely logical Australian had written : "We don't want your confounded charity"

(Queensland P.R. Newsletter)