

THE WIRELESS INSTITUTE OF AUSTRALIA

Tasmanian Division,
Box 851 J.G.P.O.,
HOBART.

MONTHLY BULLETIN

PRICE 6d.

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Meeting Place - 147 Liverpool Street, Hobart.

Commencing this month the Monthly Bulletin will take a different form, to put into effect a decision of Council as follows :-

It was decided to publish a periodical to be known as the Monthly Bulletin of the Wireless Institute of Australia, Tasmanian Division. Issues to be made monthly and all copies posted to the private addresses of Members, to be forwarded regularly. The price of 6d to be included in the annual subscription. Six shillings per annum from each Member's subscription shall be put apart for the Journal and to be separately accounted for in the Annual Balance Sheet, and duly audited.

This will enable the postage costs on the Bulletin to be greatly reduced and will also tend to make the Monthly Bulletin more interesting, and we will include in each copy some technical item. If you have any ideas in this regard I will be pleased to hear from you. Hope the circuit for this month turns out all right, only got a Biro pen to do it with hi.

NEXT MEETING: The next General Meeting will be held at the Club Rooms, 147 Liverpool Street, on July 6th. at 2000 hrs.

LECTURE: The Lecture this month will be a recorded talk by Mr. B. Madeley, who is the Divisional Engineer, T.V. with the P.M.G. Dept. Central Office. Those of you who were fortunate enough to hear Mr. Madeley's previous talk will know the quality of that Lecture, and I believe that this tape is equally as interesting. The subject - "Buying a T.V. Receiver".

NORTHERN ZONE: The next Meeting of this Zone will be held on July 8th, 2000 hrs. at D.C.A. A demonstration of equipment, arranged by Mr. P. Frith will be given. It should be an interesting night.

NORTH-WESTERN ZONE: The next Meeting of this Zone will be held at Lakin's Hall, ULVERSTONE, on Tuesday, July 5th. at the usual time. As many as possible, plus a few more are urged to attend this Meeting and the matter of the equipment for the Burnie Fire Brigade, which is being constructed by Members of the Zone, will be discussed. MAX requests that all hands rally round and give a hand in this very worthy project.

S.W.L. GROUP: This Group will meet as usual on the second Wednesday in the month at the Club Rooms. I have no information regarding activities scheduled for this Meeting, so will you please go along to find out.

V.H.F. GROUP: This Group's Meeting will be held on the third Wednesday at the Club Rooms. Again, I have no information regarding this Group apart from the fact that Mr. A. Morrisby has arranged to procure a number of RL18 valves. If you require any please contact Mr. Morrisby. They will be priced at 4/- ea and are, I believe, usable at 576 Mc/s. ALAN also has a transmitter operating in the 6.4 Centimeter Band. Would'nt need much space for a real super beam antenna for that one, ALAN.

As from July 1st, Amateur Stations in the Northern Territory will use the prefix VK8 in lieu of the VK5 as at present. The

call signs are as follows :-

VK's 8AE. 8AS. 8EW. 8GU. 8NE. 8OW. 8PL. 8ST. 8ZG & 8ZDW.
The names and addresses will be notified in the new Call Book.

REMEMBRANCE DAY CONTEST: As YOU will have noticed this will be held on August 13th-14th next. With YOUR help Tasmania won the Contest last year and with YOUR help we will retain it this year. Log Sheets will be forwarded next month to those who require them and if you will let VK7WI know, JACK will pass the info. on to me. I have 1,000 sheets so if we fill that lot up will be very ~~fb~~. Last year's effort was really good. Of all the Stations on the air, only one operator failed to forward a log, which does seem a bit pointless, having put in a lot of time running up a score. So this year let us have everyone on and ALL put in a Log. Even the Z Call chaps have only to ~~xxxxxx~~ work 6 stations (on the mainland) and they can also shoot in a Log. May be a bit difficult but who can say it is impossible? So get that gear checked over and let us retain that Trophy, have an enjoyable time in the Contest, and if the worst comes to the worst, lose it as actively as possible.

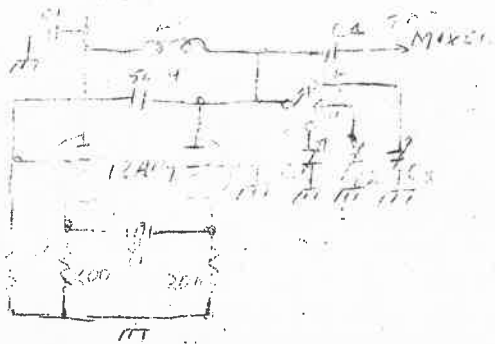
Well, here goes with the Technical article which is taken from QST, the Author, one JAMES A. MURRAY, Jrn. W4TKR.

Referring to the accompanying (I hope) circuit, the 3.5 Mc/s Xtal is used on the 3rd, 5th, and 7th. overtones to cover, respectively, 20, 15 and 10 meters. Oscillator switching is accomplished by switching trimmer capacitors in the Butler osc. tank circuit. On all these bands the receiver tunes forward since the fixed conversion osc. is on the low side and the i.f. starts at approx. 3.5 Mc. Since the overtones are not harmonically related to 3.5 Mc. there is a slight displacement of the lower band edges from the 3.5 Mc. tuning position of the receiver. This amounts to about 8 Kc. for 20 meters, 9 Kc. for 15 meters, and 10 Kc. for 10 meters with the 3505 Kc Xtal in use.

It is interesting to note that the 7 Mc. band could be beat down to 3.5 Mc. by using the fundamental frequency of the Xtal, but the osc. signal would come directly through the mixer at the Xtal frequency and so would the second harmonic of the Xtal which falls in the 7 Mc. band. Three possible solutions suggest themselves; One is to use a second Xtal somewhat lower than 3.5 Mc. for the 7 Mc. band only. Another is to accept more of a dispersion of the higher frequency bands and use a single Xtal with a frequency a little below 3.5 Mc. The third method would be to use a Xtal with small dispersion among the high-frequency bands but one which would permit tuning 7 Mc. with the osc. on the 3rd. overtone (about 10.5 Mc.) In this case the 7 Mc. band would tune backwards, from about 3.5 to 3.3 Mc. It has been assumed that the overtones will be lower than the harmonics of the fundamental, as is generally the case.

A converter such as this with some 7 Mc. provision would be a valuable accessory for one of the 3-6 Mc. Command receivers.

W4TKR's single crystal oscillator circuit for covering 14, 21, and 28 Mc. in a Xtal converter. The osc. tank circuit should tune to the osc. freq. in each case - approx 10.5 Mc. for 14 Mc.; 17.5 Mc. for 21 Mc.; and 24.5 for 28 Mc. Separate tank circuits for each band can be used, but W4TKR simply switches trimmer capacitors with a single coil as shown. This requires that LICI tune to 24.5 Mc. with a low value of C at CI in order to achieve a reasonable L/C ratio at 10.5 Mc. The value of C4 should be adjusted to give the desired coupling to the mixer.



All for this month,