

QRM

BULLETIN ISSUED BY THE NORTHERN
ZONES OF THE WIRELESS INSTITUTE
OF AUSTRALIA TAS. DIVISION

P.O. BOX 1010
LAUNCESTON.
TAS. 7250

APRIL
VOL. 3 NO. 1

REGISTERED AT G.P.O. HOBART
for transmission by post as
a periodical. CATEGORY B.

PRICE 10¢

THE ADJOURNED AGM of the WIA Tas Division will be resumed on May 5th at 1.30 pm in the A.E.D. Rooms, 12 High Street, Launceston. A new ballot paper for Council will be in the mail very shortly along with a revised balance sheet.

The latest on the Federal convention is that it will not now be held in Launceston due to the cancellation of accommodation. The convention will now be held in Melbourne.

As you may have noticed above, this is the first issue of our third year of QRM. I would like to thank everyone for helping to make the last two years the success that it has been. All zone activities, QRM and Equipment store have had good support from members and I hope we can count on your support again to make this another record year.

'73'

JOHN VK7JV

M E E T I N G S

- MAY 1st NORTH WEST ZONE LAKIN'S HALL, ULVERSTONE
- APRIL 13th NORTHERN ZONE, AED ROOMS, YORK STREET - ZONE ANNUAL GENERAL MEETING, ELECTION OF OFFICERS AND DRAWING OF RAFFLE
- APRIL 12th I.R.E.E. LECTURE ABC STUDIOS, ANN STREET, LAUNCESTON - PLEASE ATTEND!
- APRIL 7th YRCS CLASSES, KINGS MEADOWS HIGH SCHOOL - NO CLASSES DURING EASTER
- APRIL 19th - 23rd FEDERAL CONVENTION - MELBOURNE
- MAY 5th AGM WIA TAS. DIV.
AED ROOMS HIGH STREET, LAUNCESTON. 1.30 PM

NORTHERN NOTES

OCL 7KW gave the 29 members attending the March meeting an enthralling view of Casey Base VK~~8~~ land. It was apparent that even ice has a beauty all its own and that Col spent an adventurous and interesting year.

SOME EVENTS TO KEEP IN MIND:

Raffle will be drawn at our April meeting. Ticket butts should be returned to 7JV by April 7th.

ANNUAL ZONE MEETING: A.E.D. April, 13th York Street, - Give thought to Office bearers that are required:

President
Vice President
Secretary
Treasurer
Editor

Nominations should be in the hands of the retiring secretary prior to the meeting - (forms supplied last month).

REPEATER

Latest advice is that crystal deliveries will take place around 5th May. Frequency changes then would be possible about 2 weeks later.

TESTING FET's IN CIRCUIT

J-FET: Short gate to source and the device will start to conduct heavily as the field which punches the channel is removed. To check, monitor the DC drain voltage which will decrease or the source voltage which will increase if the FET is C.I.

MOSFET: NON-ENHANCED: Short gate to source and it will conduct heavily.

ENHANCED: Shorting the gate to source will remove the enhancing field and therefore the device will turn off.

'73'

7CS.

WIA MEMBERS are invited to attend the I.R.E.E. Launceston Branch. Lecture by Mr. F. Poake of ABC Engineering at the new ABC Launceston Studios, followed by inspection on Thursday 12th April at 7.45pm. ABC STUDIOS Ann Street. The date for this lecture was altered to suit WIA members so let's not disappoint with a small attendance.

CONGRATULATIONS to GRAEME REARDON on his passing of the AOLCP Graeme can already be heard on 6M AM 2M FM using the call VK7ZGE.

ALSO CONGRATULATIONS to ANDREW VK7AW ex VK7ZAP on his pass in the CW exams.

UNLESS YOU HAVE PAID YOUR SUB TO THE NORTH OR NORTH WESTERN ZONE THIS WILL BE YOUR LAST ISSUE!

IT SEEMS ROBIN VK7RH has done something about C.W. classes, I am not certain but I believe they get together on Sunday afternoons. If you are interest you had better check with Robin.

DCB VK7IL got some nice publicity for amateur radio in the Examiner on March, 9th.

6UP is in the mail again with Roger Harrison VK2ZTB as editor. Subscriptions - \$3.00 per year to: The Editor, 6UP

47 Ballast Point Rd.,
BIRCHGROVE. 2041

NORTH WESTERN NOTES

"The tumult and the shouting dies". The dinner is now history! But not so the meeting. From compliments received I conclude that the dinner was a success and I would like to thank my partners who co-operated to make it so, Tony 7AX, Harold 7MZ, Graham 7ZAZ and Ian 7ZIE in particular. We would like to thank the personnel of the Gateway Motor Inn for a well prepared tasty meal, served in such pleasant surroundings. No doubt the meeting was disappointing, but the circumstances surrounding it has engendered a great lift in interest in Institute affairs. Discussion has been heard in many quarters and some serious thinking is taking place. This is a good thing. But let our thinking be governed by what is best for the Institute.

The North Western area appears to be quite active on various bands. Two metre activity is good as usual, and a lot of work is going on at High Frequency. Harold 7MZ is busy on 20 M particularly, with a lot of c.w. contacts. Ken 7RH is working then mainly on HF Mobile. Harry 7AR can be heard chasing rare DX and getting them too. Les 7LH has overcome some TX problems and is appearing on H.F. again. As for me 7MX is knocking the odd European on 20 etc. and on 80M publicising the Golden Jubilee Award particularly in ZL. Don't forget chaps, these boys are very keen and constantly looking for VK7 contacts. Remember that some of them are restricted to 80M so please come on that band. I forecast that VK7 will be inundated with applications for the award later. All this is F.D. and contributes to justifying our existence. There is little use in getting all excited about administration if we neglect communication. So keep it going up the stick.

7MX,

WIRELESS INSTITUTE OF AUSTRALIA
TASMANIAN DIVISION NORTHERN ZONE

TRADING ACCOUNT FOR YEAR ENDING 9th MARCH 1973

Creditors	\$41.20
To Stock	162.04
Purchases	2282.87
Gross profit	<u>2282.87</u>

\$2486.11
603.15
<u>\$3089.26</u>

PROFIT AND LOSS ACCOUNT FOR YEAR ENDING 9th MARCH, 1973

To Expenses	\$60.00
O.R.M.	27.15
Repeater	2.50
Minute Book	5.00
Insurance	14.42
Parts case	5.00
P.C. Box	6.00
7M2 Licence	9.37
Xtals Zone Mobile	2.80
Refund IGL 7PS	130.00
Deposited on Xtals	9.25
Subs. to Mag.	4.00
Picnic	2.40
Cheque book	10.00
Petty Cash	10.00
Rent	<u>10.00</u>

\$297.89
564.38
<u>\$862.27</u>

BALANCE SHEET AS AT 9th MARCH, 1973

<u>LIABILITIES</u>	
Sundry Creditors	\$41.20
Acc. Funds 29/2/72	\$523.13
Net Profit	<u>564.38</u>

\$186.80
325.80
15.00
6.63
<u>\$534.23</u>

BALANCE SHEET FOR CLUBHOUSE ACCOUNT AS AT 19th MARCH, 1973

Debitors	\$156.60
Sales	2604.66
Stock	<u>328.00</u>

<u>\$3089.26</u>

By Gross Profit	\$603.15
Other Income	
O.R.M.	\$79.00
Repeater	37.50
Subs.	60.50
Commission on	
insurance	22.00
Bank Interest	14.12
Deposit on	
Xtals from	
N.W. Zone	36.00
Petty Cash on	
hand	<u>10.00</u>

\$259.12

<u>\$862.27</u>

<u>ASSETS</u>	
Sundry Debtors	\$156.60
Stock	328.00
I.D.S.	644.11
	<u>\$1128.71</u>

\$186.80
325.80
15.00
6.63
<u>\$534.23</u>

Bank Balance

<u>\$534.23</u>

Q. R. M.

BULLETIN OF THE NORTHERN ZONES W.I.A. TAS.

APRIL, 1973

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NEW STATIONS heard using the repeater include GERRY VK6ZDC who was in Tassie for a week. Gerry was using a 2 watt hand held transceiver. Using a MR20D was NORM VK2ZXC, Norm was in QSO with BRIAN 7RR when he mentioned that he was passing through Dilston on the way to Hobart. It seems the maps handed out by the Tourist Department could be a little clearer. New calls using the repeater from Launceston are PHILVK7ZAX and ED VK7HE.

*

JCE 7ZGJ was telling me the other day that the best thing yet for protecting the copper side of printed circuits is HAIR SPRAY. Apparently it is easier to solder through and gives good protection.

*

ROY VK7ZRG can now be classed as a Launcestonian as he has moved into his house at Newstead.

*

I don't know what the attraction is on the TCP island but they have been going over at regular intervals. 7NR, 7ZDY and 7ZGT were in VK3 during the last few weeks and 7DK is enjoying the company of the VK5's and VK2's.

*

PETER 7PD will be the first using an IGL transceiver build up for handheld use.

*

BRIAN 7RR busy hoisting antennae up on the new tower.

F O R S A L E

5.5 Mhz XTAL FILTER with transformer and upper and lower sideband Xtals \$10.00

*

MRT-25^A 2 metre transceiver solid state with valve final Xtals for Channels B & 4 -

\$130.00

*

GELCO Amateur band receiver front end as used in E.A. May 1965 Amateur Band 10 Receiver - \$30.00

*

VK3 - 6 metre converter - \$3.00

*

2 metre converter 6CW4, 6ES8, 6DL8, output IF. 9 Mhz - \$5.00

*

RAPAR RP-242 STEREO AMP. 10W output - \$20.00

*

ALL THE ABOVE AT JCE VK7ZGJ.

VK3 Carphone boards and most components new as received - \$40.00 O.N.O.

GORDON VK7GW - Phone 31 3157.

SOME NOTES ON 6 & 2 METRE TRANSVERTERS

BY M. TRICKETT VK3ASQ (COURTESY GARC
NEWSLETTER)

The QQE06/40 as most operators know makes an ideal medium power final amplifier tube for most types of service at V.H.F.

However when used as an AB2 linear with S.S.B., difficulty was experienced in driving the plate current beyond the 150 mA level. After some experimenting and circuit alteration it was found to be due to self developed bias across the relatively high impedance of the bias line, causing an A.L.C. action to occur. This was producing a rather large negative feedback action by increasing the bias applied to all tubes controlled by the bias line in the transverter.

After discussions with Phil VK3FF, we found the most satisfactory method was to use zenor diodes to hold the bias at a fixed level, this method proved to be satisfactory, producing a substantial increase in plate current and therefore output. See Fig. 1. -35 volts of bias appears to be about correct giving a standing plate current of approx. 60 mA with the supply voltages used. This voltage rating for the zenors may be made up by using a single diode or 2 or more in series.

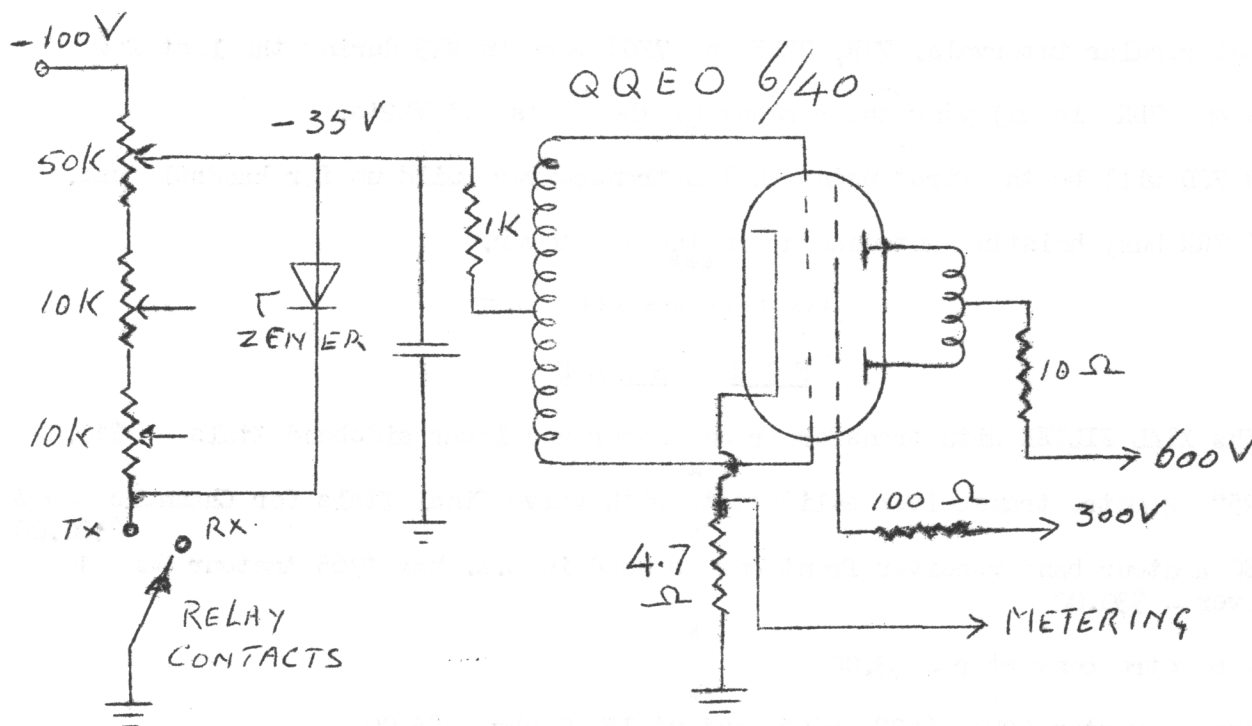
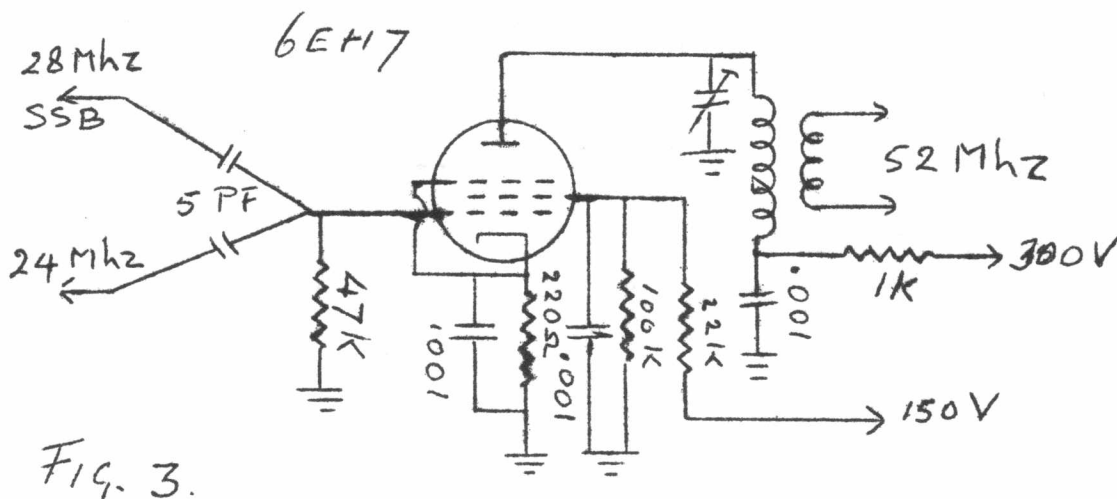
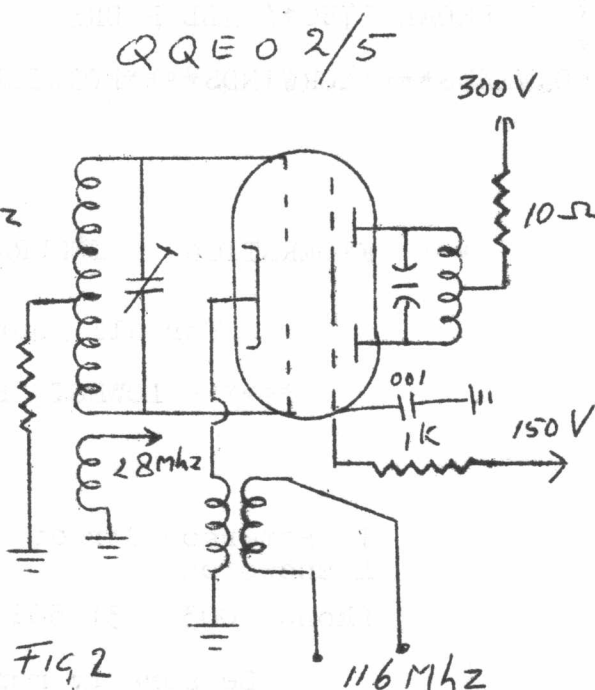
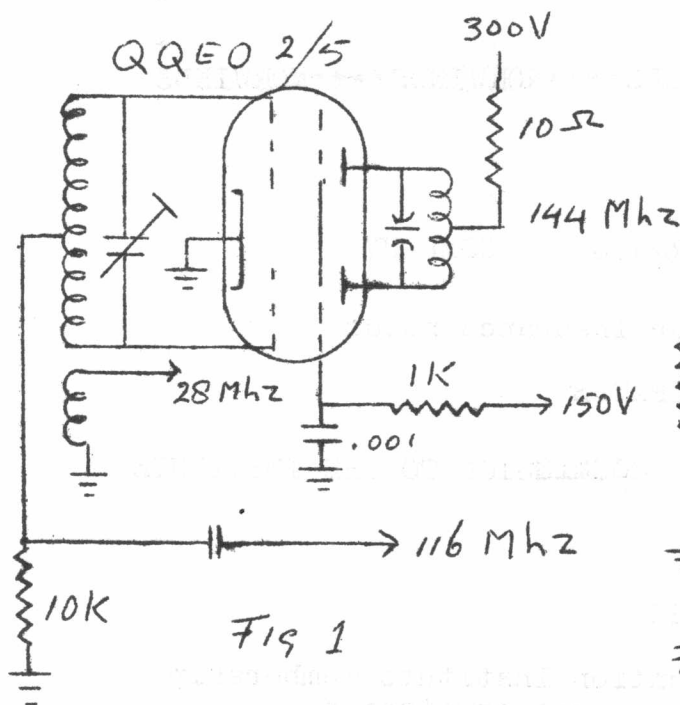


FIG 1

MIXERS - Several types of mixers have been tried over the past months of experimenting, some are shown below, one thing became evident after a few types were tried, the QQEO2/5 makes a far superior mixer at the levels used compared to a QQEO3/12. The output and linearity of the 2/5 appear to be quite good also. The object of the exercise is to take a low level output at 28 MHz (about 1w PEP) mix it with 116 MHz and produce 144 MHz SSD. The 116 MHz is obtained from a xtal multiplied a suitable number of times, this needs to be a little more in level than the 28 MHz SSD. to achieve good mixing. It is possible to reverse the inputs to the mixer, but the arrangement shown is desirable as a closer look will show the 116 MHz to be driving the tube in parallel while the output is in push-pull thereby cancelling this freq. in the output, this may not be so important with the freqs. used here but in the case of a heterodyning freq. closer to the output it would be necessary. The arrangement shown in fig. 1 has the best performance all things considered, producing the greatest output for a given input: fig. 2 is very similar and is used in many of the "good books" however it is far more critical to input levels. Fig. 3 works very well on 6 metres but has very low output on 2 metres and seems unsuitable for this band.



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