

BULLETIN ISSUED BY THE NORTHERN ZONES OF THE
WIRELESS INSTITUTE OF AUSTRALIA TASMANIAN DIVISION

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At the last Council meeting two decisions were made favouring the Northern Zones.

The first is the acceptance of an offer made by DOUG FISHER VK7AB to make use of his home in Oatlands for future Council meetings. This will mean that Council members from Launceston will travel 100 miles less to attend meetings and be able to have a meal before leaving and return at a reasonable hour. But more important, it may encourage other Northern or North Western members to nominate for Council next year.

As you may know W.I.A. Tasmania will celebrate their 50th Anniversary in 1973. As part of this the W.I.A. will hold their Federal Convention in Tasmania. Council, after approaching the Northern Zone, decided to hold the Convention in Launceston. It will require a lot of organising by the Northern Zones if this is to be the best convention ever attended by the Federal Members and Councillors and that is what our goal should be! So if you think you can help in any way, now is the time to speak up. This is a good opportunity to help put Northern Tasmania back on the rap.

JOHN 7JV.
EDITOR.

COMING EVENTS

MAY 12th NORTHERN ZONE, A.E.B., HIGH STREET, LAUNCESTON.
JUNE 6th NORTH WESTERN ZONE, LAKIN'S HALL, ULVERSTONE.

Y. R. C. S. CLASSES

NO CLASSES DURING SCHOOL BREAK

JUNE 3rd KINGS MEADOWS
JUNE 17th " "

Among matters discussed at the last Northern Zone meeting were the following:

(a) Federal Convention 1973.

Some of our members had their ears chewed by W.I.A. Councillors at the A.G.M. in Hobart. Seems the W.I.A.'s Tas. Division fiftieth birthday comes up in 1973 and it was considered that a fitting birthday celebration could include the W.I.A.'s Federal Convention. It was suggested that it might be prudent to hold the function in Launceston. The idea was well received by our members and subsequent advice from Hobart tells of Council's acceptance of the deal. It is rumoured that a block booking of the Launceston Hotel has been obtained.

(b) Evening Broadcasts.

This possibility was thrashed about but left for someone to throw in again at a future occasion.

The meeting heard a talk on Insurance by Mr. Moore, Tasmanian Manager for Federation Insurance. The myriads of questions asked indicated members' interest.

Have you considered a policy to protect you from the liability of a flying lawn-mower blade. Or, perhaps the cost of re-tiling your neighbour's roof after you've picked your 6 meter beam out of his ceiling. Wonder if Chris 7UX took out the policy he inquired about - insuring against twins!!

JOHN 7JV completed the evening by showing some slides sent North by Col Perger VKQJV. Life in the snow-lands at Casey seemed quite varied - from building works, chasing penguins, unbogging vehicles and re-building damaged towers!

A.C.C.P. Seekers

Apparently very few of our members are actively working towards this goal. Only three indicated that they would appreciate some help. Perhaps the others are pretty good at individual studying. It may be worth noting that if you are interested in gaining the A.C.C.P. in the near future you'd be wise to get a move on. If the new licencing ideas are adopted, only existing holders would have use of 52 MHz. Better get that Z call quick-smart.

School Receives Award

The Kings Meadows High School, Launceston, recently received an I.R.E.E. pennant for achievement by its radio club.

The Northern President of the Institution of Radio and Electronic Engineers, Mr. Ken Briggs, in presenting the pennant to the school, stated that although the pennants had been awarded during the last five years in N.S.W., this was the first time an award has been made in Tasmania.

Although competition between Y.R.C.S. clubs in Tasmania is disappointing, the successes of this club rank well in comparison with others interstate.

Y.R.C.S. Classes

The Northern Zone continues to sponsor this group, fortnightly, at Kings Meadows High School. About 27 boys from first year to sixth year high school attended the last meeting. Five of the members are heading for A.C.C.P. type qualification while the remainder are following Y.R.C.S. certificate courses.

Help is given with practical projects. Currently 7RR and 7ZWX are assisting. If you'd like to assist - or just have a peek, see 7KK for details.

Who's the phantom button pusher. Monito g VK7WI/R2 on channel 4 provides a terrific way of keeping up with what's happening in the "better half". Its usefulness can, however, be easily killed. This happens when 20 "ear-wiggers" get fed up and reach for the volume control. Don't let this happen too often -

- don't be a button pusher

- don't use it too often as a "waffle" channel.

Man is inherently inquisitive - a call sign thrown in is better than a carrier burst - and it doesn't force you into a 10 minute QSO.

GEELONG HAMFEST - 14th, 15th MAY - ANYONE INTERESTED.

PETER 7PD booked for speeding and REG was pulled up for the same thing - didn't get booked though - talks faster than 7PD.

SEEMS one of the culprits turning the repeater off through being off frequency was the man himself Peter 7PF.

ASSOCIATE member IAN SNADDEN and KYL JULIE are now the proud parents of a baby girl MELLISSA JANE. We hope to see Ian take his amateur exam in August.

NORTH-WEST ZONE NOTES

We would like to see a better attendance at next months meeting. Remember the first Tuesday in the month.

Tony 7AX is residing in Hobart for two weeks, on business we understand.

In early April we witnessed an unusual opening on 2 metres - 7WH was heard 5/8 and 7ZRO 5/6, via the Geelong repeater, when they were driving up Mt. Wellington. A host of other stations were heard also.

Some mobile visitors were worked through town during the month including 7ZGT and 7ZWX on Channel B. There is usually someone monitoring channel B so if around keep calling. Contacts from Devonport to Burnie are quite easy and also from points as far away as Sisters Hills.

One of our local lads has found a cheap way of dispensing QSL cards. Leave the stamps off. I understand his XYL is getting the blame for suggesting licking the stamps with a sponge. In doing so apparently the glue was washed away and the stamps fell off in the post. Accounts for surcharge may be lodged with the local secretary!

Our old band-bashing friend of yesteryear is getting the urge again, 7 Tasmanian Tigers. Does that bring back memories Terry. Hope to year you on soon. And you also Frank. With a bit of effort, Ulverstone could make quite a noise ETHERICALLY. (Is that a word.) Never forget that the priviledges we enjoy as a ham are only justified by active hams. Congratulations to our old friend and North West Coast resident Ted on his new appointment - President. I can't think of anyone more deserving of the honour. On reflection, including myself and a few others, it's not a bad idea to wear the old ones out first, so long as the young ones are ready to take over when that time comes.

It was interesting to hear the proposal for the new licensing scheme. No doubt there will be opinions for and against but if it induces young chaps to get started in radio it will prove worthwhile. Once started there are few who ever give up.

If I don't stop this will turn into a soliloquy, so until next month 73.

VK7MX

CONGRATULATIONS TO GRAHAM RAND AND IAN ELLINGS FOR PASSING THEIR LAACP. HOPE TO WORK YOU SOON CHAPS.

Y.M.C.A. HOBBIES EXHIBITION

Some might say that this last exhibition was a waste of time - not only for the amateur fraternity but for other exhibitors as well. This is not for me to say. We did get one new member, by name - Paul Anslow, and I think a new more youngsters will be coming along later. So in my opinion the time we supposedly wasted was not in vain.

It is true that the weekend was not supported by the public, but this was due to poor publicity by the organisers. Our own contribution consisted of an H.F. rig on 40-20-15 Metres with Ch. 4 on VHF. The static display consisted of various pieces of Amateur gear including ZAH's automatic keyer, a morse key and oscillator connected to a CRC was the most popular piece of equipment and perhaps in future exhibitions we should put in more "working models". A closed circuit T.V. via courtesy of 7ZJG - 7AWA was a great success with, not only the Teeny Boppers, but also the Oldy Boppers. Not much operating was done but contacts were made with Japan, Canada, New Zealand, the U.S.A. and VK call areas. Whilst this lack of "Radio Activity" was partly due to Q.R.M. from a stone grinder and many dBs of audio. from a Juke Box a big amount of Eye Ball QSO's with members of the public were had. On Sunday afternoon we were pleased to receive a visit from Ted Cruise, our State President who spent a couple of hours with us.

The weekend may not have been very exciting radio wise but the flag was waved, and after all that is what the whole exercise was about.

Brian 7RR and I would like to thank all who assisted and those who loaned gear and helped to set up the display.

NORMAN 7ZNR.

KEVIN 7ZAH has a new shack in behind the garage - although it looks more like a LUXURIOUS DOGHOUSE.

JOE 7ZGJ has got the 52MHz beacon working and we should hear it on the air soon.

BELIEVE a group of individual members are again tendering for disposal equipment. What is wrong with the Institute!.

SYSTEM LEVEL COMPARISON

OF A-C-B AND A-C-C

SATELLITES

by Richard Daniels, WA4DGU

	A-C-B	A-C-C
<u>WEIGHT</u>	50 lb.	35 lb.
<u>DIMENSIONS</u>	12 x 14 x 10 in.	17 x 12 x 6 in.
<u>STRUCTURE</u>	Modular	Non-modular
<u>POWER</u>		
Solar Panels	90% of surface	50% of surface
Voltage	14 V	24 V
Battery -6 amp. hr. nickel-cadmium	12 cell	18 cell
Average Power	7.0 W	3.5 W
<u>TELEMETRY</u>	60 channel-teletype format	24 channel-Morse code format
	24 channel-Morse code format	768 bit programmable shift register
<u>MESSAGE STORAGE</u>	768 bit programmable shift register	2 nodes ground controlled
<u>EXPERIMENT CONTROL</u>	Under-voltage sensing, 4 internally controlled nodes	35 pulse commands
<u>COMMAND</u>		21 pulse commands
<u>REPEATERS</u>		
EURO-OSCAR	432 MHz up/144 MHz down, linear, 10 W PEP	
AUSTRALIAN	144 MHz up/435 MHz down, FM 4-channel hard limited 1 W per channel	144 MHz up/29 MHz down, linear, 1 to 2 W PEP
AMSAT	144 MHz up/29 MHz down, linear, 1 W PEP	29.45 MHz (in-band beacon within the repeater passband) 0.2 watt (A-1) 435.1 MHz 0.35 to 0.45 W(A-1)
<u>BEACONS</u>	in-band beacons within the passband of each repeater	

A-C-C DATA TO BE TELEMETERED BY THE MORSE CODE TELEMETRY ENCODER

Parameter	Unit	Parameter Range	Chan. No.	Approximate Calibration Data/Comments
Composite Array	I (ma)	0 to 500 ma.	1	$I_T = 5.00 N * (ma.)$
+X Solar Panel	I (ma)	0 to 100 ma.	2	$I_{+X} = 1.00 N (ma.)$
+Y Solar Panel	I (ma)	0 to 200 ma.	3	$I_{+Y} = 2.00 N (ma.)$
+Z Solar Panel	I (ma)	0 to 400 ma.	4	$I_{+Z} = 4.00 N (ma.)$
-X Solar Panel	I (ma)	0 to 100 ma.	5	$I_{-X} = 1.00 N (ma.)$
-Y Solar Panel	I (ma)	0 to 200 ma.	6	$I_{-Y} = 2.00 N (ma.)$
-Z Solar Panel	I (ma)	0 to 400 ma.	7	$I_{-Z} = 4.00 N (ma.)$
Charge or Discharge	I (ma)	-.5 to +.5 amp.	8	$I_{BAT} = 10.00 N - 500 (ma.)$ Battery charge or discharge I.
Unregulated Bus	V	18V to 30V	9	$V_{BUS} = 0.12 N + 18.0 (V)$
$\frac{1}{2}$ Battery	V	0 to 15V	10	$V_{\frac{1}{2}BAT} = 0.15 N (Volts)$
Switching Reg.	V	0 to 15V	11	$V_{SR} = 0.15 N (Volts)$
Battery Temp.	°C	-30 to + 50°C	12	$T_{BAT} = -1.471 N + 95.79$
Baseplate Temp	°C	-30 to +50°C	13	$T_{BP} = -1/471N + 95.79$
Transponder P.A. Temp	°C	-30 to +50°C	14	$T_{PA} = -1.471N + 95.79$
+X Panel Temp.	°C	-30 to +50°C	15	$T_{+X} = -1.471N + 95.79$
+Y Panel Temp.	°C	-30 to +50°C	16	$T_{+Y} = -1.471N + 95.79$
+Z Panel Temp	°C	-30 to +50°C	17	$T_{+Z} = -1.471N + 95.79$
Transp. P.A. Emitter	I (ma)	0 to 500 ma	18	$I_{PA} = 5.00 N (ma)$
Transp. Sw. Reg.	V	0 to 30 V	19	$V_{T.S.R.} = 0.30N (volts)$

EQUIPMENT STORE

The following items are in stock at the moment.

MC 1550\$1.70
 2N3565 50¢
 2N3564 60¢
 2N3055\$1.60
 9.1 Volt Zeners 400MW50¢
 Xtal Sockets "D" type P.C. Mounting 20¢
 B/L PCB Sockets 25¢
 SO 239 VHF Sockets 70¢
 Relay Miniature 4 c/o\$2.95
 Valve Kits 5 New Valves \$1.00
 TAA 300 Audio AMPS \$4.50
 52 Ohm Dummy Load-Wattmeter Kit \$3.20
 Resistors $\frac{1}{2}$ Watt 4¢ ea.
 1674 Circuits 50¢
 AWA Mr20 B Handbooks50¢
 QSL Stickers - 40 per sheet 5
 WIA Badges Full and Associate80

The following components are on order and will be available shortly.

Fibre Glass Blanks for H.F. and 5/8 2M Whips
 Fibre Glass P.C. Board
 SE 1001 Transistors
 Tis 88 FET
 MPF121 FET
 2N3819 FET
 2N3563 Transistors
 HP 2800 Hot Carrier Diodes
 EM404 Diodes
 EM408 Diodes
 Neosid Coil Assemblies
 Trimmers 1-9 PF 1-12 PF
 Low Voltage Ceramic Caps

Available by order only are all VK3 Division Kits i.e. 6MX, 423 MHz Converters and 6MX and 2MX pre-amps. IGL have offered us a discount on orders over \$200.00 so we'll take orders for them as well, prices available from 7ZAH or 7JV.

REPEATER FUND

The fund is progressing very nicely and donations are as follows:-

7ZGJ	\$2.00	7PD	\$2.00
7KK	2.00	7ZLD	1.00
7JV	2.00	7LZ	2.00
7ZNR	4.00	7AX	2.00
7RR	2.00	7UX	2.00
7RK	1.00	B. CLARE	2.00
F. CLARK	1.00		

Thus it stands at \$25.00. We hope to have more names to publish next month.

Shown is the circuit of a E.H.T. supply originally designed for the 5FP7 for use in SSTV. However this could be used for any other C.R.T. The 3,000 volt A.C. which is developed across the winding L3 is voltage doubled to 6KV D.C.

The circuit is a simple feedback one using a tuned base winding (to approx. 20KHz) and an untuned secondary.

The E.H.T. supply was constructed on a commercial T.V. line output transformer L3 was left in its original condition and formed the necessary voltage step up. (Note this simple circuit is self excited). L2 and L1 were wound on each leg of the core. The forward biasing resistor R1 is in fact 2.2K Ohm in value. This is not a mistake. The phasing of L2 is so arranged as to give the position of minimum collector emitter current drain. This circuit produced clean sine waves making it free from annoying harmonic radiation.

For any further information contact

TREVOR VK7TB.

