

THE PROPAGATOR

NO. 8/76

AUGUST 1976

NO. 8/76

THE MONTHLY NEWSLETTER OF THE
ILLAWARRA AMATEUR RADIO SOCIETY

Published by the
Illawarra Amateur Radio Society
P.O. Box 1838
WOLLONGONG. 2500

PRESIDENT & EDITOR.
Ian Bowmaker. VK2ZJA.
PO Box 1433,
Wollongong. 2500.
Phone: 29 2158.

SECRETARY.
Keith Curle. VK2ZYI.
24 Beach Drive,
Woonona. 2517.
Phone: 84 2469.

NOTICE OF MONTHLY MEETING

AUGUST 1976.

Members are advised that the monthly meeting of the Illawarra Amateur Radio Society will be held at the Wollongong Town Hall Meeting Room on Monday, 9th August 1976, at 7.30 p.m..

Note that visitors are always welcome to attend.

AGENDA.

1. Apologies and welcome to visitors.
2. Minutes of previous General Meeting.
3. Correspondence.
4. Financial Report.
5. General Business.
6. Film and Talk.
7. Sale of components and raffle.

RAFFLE PRIZE - Standard SCOPE soldering iron with Instrument tip.

FILM & TALK. State Emergency Service.
See elsewhere in this issue for details.

CHANGE OF ADDRESS.

Please take note that the postal address for all mail is now -

P.O. BOX 1838, WOLLONGONG. 2500.

FOR SALE.

1. Lafayette Model HA-600A 150KHz to 30MHz
Solid state Amateur and Shortwave receiver.
In New Condition.
2. PRECOR model No. 826, AM, FM, HF & VHF receiver.
Also in new condition.

Contact K. Skulimowski, 26 Bukari St., West Wollongong.
Phone - 289390.

FOR SALE.

FOR SALE.

REALISTIC DX 160 RECEIVER. \$ 150.

Contact - Richard Hill, 2/12 Meadow St., Tarrawanna.

FOR SALE.

FOR SALE.

FOR SALE.

MORE BARGAINS EX VK2AFF

The bits and pieces from Kevin's shack sold last month realised \$63.
Mrs. Brady has asked us to sell the remainder of the odds and ends
this month.

Among the items to be sold are :
length of coax,
Xtal oscillator for lining up carphones,
TV power transformers,
speaker transformers,
potentiometers,
plugs and sockets,
knobs, speakers and so on.

There are still some larger items for sale at 24 Barellan St. Dapto.
Phone Mrs. Brady 61 4287.

The SSB transmitter with 400 W linear is not sold yet. It is rather
large, but nicely made. Any offers?

A THOUGHT FOR THE MONTH.

If you are a member of the W.I.A. you will
receive AMATEUR RADIO, which contains all sorts
of interesting information and circuits as
mentioned elsewhere in this issue.

Think. If enough people are not members of
the W.I.A., the W.I.A. will not have enough
political weight to stave off the commercial
interests who want our radio bands, and the
hobby as we now know it will dissapear....

AUGUST MONTHLY MEETING. MONDAY 9th AUGUST 1976.

FILM & TALK.

This item will be on the subject of Emergency Communication. We have arranged to have a film and representatives from the State Emergency Service for the meeting. This should be interesting and a suitable follow up to our successful W.I.C.E.N. exercise which was held on Sunday, 25/7/76.

BROADCAST----ILLAWARRA AMATEUR RADIO SOCIETY----BROADCAST

The Committee has decided to introduce a regular monthly broadcast by means of Wollongong Repeater, Channel 5.

The broadcast will take place on the Sunday prior to the monthly meeting night, commencing from Sunday, 8th August, at 7.15 pm.

The initial broadcast will be conducted by John, VK2BH0.

Please note that it is not permitted to broadcast any 'for sale' items, but 'wanted' items are permitted. Any items for inclusion in the broadcast should be directed to John.

NOVICE LICENCE.

To hand is a copy of the Westlakes Radio Club Novice Manual. The sample copy may be examined by contacting Charles VK2ZEN.

As mentioned in the May issue of the Propagator, this Manual costs \$2.00 plus postage, and at that price it is certainly worthwhile for those contemplating sitting for the Novice Examination.

Q.S.L.

So far the response to the Questionnaire and Application Form for delivery of QSL cards has been poor.

It may well appear that, although we have heard a lot of complaints about the poor service, members of IARS are not interested in getting QSL cards.

If this makes you think, forms may be obtained from either Ian, VK2ZJA, or from the QSL Officer, Geoff, VK2ZHU.

FUTURE MEETINGS.

A reminder that meeting nights for the remainder of 1976 are as follows :-

13th Sept, 11th Oct, 8th Nov, & 13th Dec, 1976.

For talks at meetings we are in the process of arranging a talk on Maritime Communications Systems, and also a talk on OSCAR, the Amateur Communication Satellite. Further information will be published when details have been finalised.

W.I.C.E.N. Exercise. Sunday, 25th July 1976.

The mobile exercise held by Illawarra W.I.C.E.N. group on Sunday, 25th July, proved to be a most successful and enjoyable outing.

The planning of this trip started about three months ago when we began looking for a suitable occasion to hold a mobile exercise in convoy escort communications. The Illawarra Vintage Car Club agreed with our request to participate on one of their regular motoring outings.

The departure point - Figtree Hotel car park - came to life at 9 am on 25/7/76 with first arrival being Ian VK2ZJA followed by Jim VK2BBG, Richard VK2ZVX and Bill VK2DJ. After assembly of some of the Car Club cars the convoy of IVCC cars moved off in groups being shadowed by IARS mobiles.

We picked up Charles VK2ZEN, Jim VK2YCH and John VK2ZJX in Kiama, and continued on to Nowra. During the trip, Jim VK2BBG acted as "WICEN CONTROL" and each mobile reported position and progress. Also participating from his home QTH was Graeme VK2AGV, and whilst we were in the Nowra area we were assisted by Bill VK2ZBM.

The convoy finished up at HMAS ALBATROSS where we were shown over the helicopter hangar - there is no truth in the rumours that the helicopters are now short of radio equipment.

By this time all the OM's, XYL'S and Harmonics were getting a bit dry and hungry, so next stop was the Senior Sailor's Mess. Brian Bosley was heard muttering when he observed the prices! John VK2ZJX had great trouble getting his steaks to thaw, and was still going by the time the rest of us had our cooking finished. Unfortunately a storm descended on us and we adjourned indoors to finish off our eating. The Sailors didn't seem to mind too much that we were disturbing their quiet Sunday afternoon ale.

Our next inspection was the Naval Aviation Museum, which houses photographs, models and exhibits showing the history of Naval Aviation. Then on to the hangar of 724 Squadron to see the Skyhawk jets and Macchi trainers.

In all, the fleet of vehicles which made the trip to Nowra numbered 23. 14 being from the Illawarra Vintage Car Club and 9 from the Illawarra Amateur Radio Society.

The exercise was successful in that we managed to keep track of all the vehicles in the convoy and nobody became lost, although one of the vintagants took a wrong turn but was observed to rejoin the convoy, and also one of our number, who shall remain nameless, suffered receiver problems.

Our sincere thanks have been conveyed to all the Navy Officers who escorted us on the base, and also to the Illawarra Vintage Car Club. Altogether a very successful day, and we hope we may be able to have similar exercises in the future.

Thanks are due also to Jim VK2BBG for his efforts in getting us all organised and keeping us well behaved on channel 40.

Ian, VK2ZJA.

SIMPLE CIRCUITS

A REGULATED 12 VOLT DC POWER SUPPLY.

If you want to operate a mobile type transceiver in the shack, you need either a battery which is messy to look after or a 240V AC to 12V DC power supply capable of delivering up to say 10 Amps.

Such a supply is expensive to buy, but can be quite cheap to build, and do a reliable job.

For suitable circuits, look up Amateur Radio for July 1974 or June 1976. A regulated power supply with short circuit protection and controllable output voltage is not complicated. The 1974 circuit works well with a 2N3055 driver and two (or three) 2N3055's as bypass transistors.

Major components required are :-

Transformer - T.V. power transformer -
connect two 6.3V windings and maybe the 5V winding, in SERIES.

Available ex VK2AFF at August meeting.	2.00
Potentiometer for voltage setting. ex VK2AFF	.10
4 Diodes on heat sink - Cavion's.	2.00
3 Power transistors on large heat sink. Cavion's.	3.50
1 large Electrolytic condenser, say 30,000mf. Cavion's.	1.00
723 voltage regulator I.C. - Dick Smith.	1.20
1 Voltmeter. - 0-1 mA meter, IARS Store.	4.00
1 Ammeter. - 0-1 mA meter, IARS Store.	4.00
(for economy, you could use a balance meter for voltmeter & ammeter at 3.00)	

A first class power supply for about \$ 20.00 or less.

TWO METRE CHANNEL ALLOCATIONS

Note that although there has been a change in the repeater channel numbering, there is no change of frequencies, but there has been one additional channel listed.

SIMPLEX:- National channel 50 which is 146.500 mhz.
Secondary channels 49 which is 146.45
51 " " 146.55
52 " " 146.6 (also national RTTY freq)

REPEATERS:-

There are 7 existing and one additional channel at present in the system. The need for additional channels is currently under investigation by the Federal Repeater Committee.

Present operational repeaters.

Ch No.	Input freq	/ Ch No - Output freq.	Was old ch	New Ch	Used by
41	146.05 mhz	53 146.65	-	1	Not yet allocated
42	146.1	54 146.7	1	2	Orange, Port Macquarie.
43	146.15	55 146.75	5	3	Gosford, Wagga.
44	146.2	56 146.8	2	4	St. George ⁺⁺ , Lismore.
45	146.25	57 146.85	6	5	Wollongong.
46	146.3	58 146.9	3	6 -	Newcastle, Waverley
47	146.35	59 146.95	7	7 +++++	Canberra city.
48	146.4	60 147.0	4	8	Dural.

W.I.A. NOTES

Compiled by Geoff VK2ZHU

During this month we received a medium sized envelope of communications from Tin Mills regarding W.I.A. Activity - some of which has come from the Federal Office in Melbourne.

1. The VHF Advisory Committee are proposing that the primary beacon windows should be 52.4 - 52.5, 144.4 - 144.5, 432.4 - 432.5 with 5KHZ spacing between each channel. Full details of this will be supplied when they become available.
2. It has not yet been confirmed but it is most likely that we will be able to use the AX Calls for the duration of H.M. the Queen's visit in March 1977. (May be able to use some of those old AX QSL cards).
3. In the "DAILY TELEGRAPH" 12/6/76 there was a report of an unlicensed operator being fined \$100. Unfortunately the word "Amateur" was used to our disadvantage. "Amateur wireless operators were jamming radio channels used by bush fire brigades and the police' and '.... that amateurs jamming radio signals could cost lives and cause a disaster'. This is the sort of publicity we can do without!
4. On the subject of Repeaters the N.S.W. Division is attempting to sort out the number of repeaters now operating in and around Sydney. During this investigation an interesting concept has resulted whereby a repeater service area can be greatly enlarged by increasing output of the transmitter and setting up a ring of remote receivers so that for example, a mobile with 10W who can hear the repeater but not get in would be able to use the repeater.

73'S
GEOFF

GO MOBILE - STEAM PROPELLED

Most Amateurs either mourn the passing of the steam engine or haven't seen one. Therefore, a visit to the steam railways museum at Thirlmere near Picton is very well worthwhile. It is open each Sunday.

There are two main attractions, a twenty minute ride behind a steam engine from Thirlmere station and a visit to the museum. The museum covers several acres. There are probably thirty or forty engines to be seen, ranging from old 1800's models to the latest 38 class and an unbelievably long Garratt loco.

There is a canteen inside and a shop where you can purchase posters, timetable, tickets etc. at reasonable prices - just like the I.A.R.S. store.

It makes a nice round trip to go via Mt. Keira or Mt. Ousley and come back via Bowral. If you stop on top of Mt. Giblett (Gerry APG's contest location) you can work some exotic DX on 2 metres.

Charles, VK2ZEN.

Moonbounce Report - August 1976.

A scheduled EME test was made on 3rd July. Those present were VK2ALU, VK2ZEN and Ken Grimm. A visitor also present was Eric Jamieson, VK5LP, who was in Wollongong for the weekend with his wife Myrna, for discussion on dishes and general moonbounce matters, mainly to assist in his design for a 28 ft. dia. dish for EME work.

The first EME test was with SM5LE and a contact was almost made. He gave us an 'M' report but we could only give him a 'T' report due to interference experienced from auto ignition.

The next test was with PA0SSB, who was worked with 'M' reports both ways. His signal peaked to 8dB. above noise at the start of the test but faded during the half hour.

The final test was with LX1DB, who was not heard. Our echoes peaked at 7dB. above noise.

SM5LE has requested EME tests on 30th, 31st July and 1st Aug. which we will try to carry out. A problem may be that one of the dish Hour Angle readout selsyn drive gears stripped at the end of the last tests and a replacement gear may not be made and installed in time. If the Moon is visible then we can get by without the readout.

A special and somewhat unusual EME test is also sheduled with VK2AMW involved on 1st August. This is with HK1TL in Columbia, Sth. America which is a portable operation, with all the moonbounce equipment, antenna and personnel coming from W3CCX in USA. They advise, in a letter received today, that all is still 'go' and that their portable gear weighs 1368lbs. All this to be airfreighted?!!

A QSL card was received from WJAA for our first EME contact with him, made in June. He is our second longest distance contact, with a point-to-point distance of 10110 miles (16270KM.)

By the way, we are always happy to have visitors come along to Moonbounce tests at Dapto, but it is a big help if they make sure that they arrive before tests start - or do the last couple of hundred yards on foot, as our receiving system is very sensitive to auto ignition noise!

Lyle VK2ALU.

Late News

We had the first VK-SM 70cm. contact with SM5LL on 30th July. Signals were 'M' copy both ways.

We did not hear any signals from HK1TL during the test on 1st. August. Another station was heard near the frequency but the callsign could not be fully identified.

An Electronic Hidden Word Puzzle

BY JOHN D. PETRIKAS, WA9TUI

So you think you're pretty good at digging the weak ones out of the QRM, eh? Well then, try your hand at digging 21 fairly common electronic terms out of the alphabetic QRM below. They may be spelled horizontally, vertically, diagonally, forward or backward. Average time for finding them all is 25 minutes. To make your life a little easier we've even listed 20 of the 21 words below. Good luck!

PROPAGATION	ELECTRONIC	RESISTANCE	TELETYPE
FREQUENCY	MICROWAVE	SUN SPOTS	REFRACTION
MODULATION	CAPACITANCE	RELUCTANCE	MAGNETISM
IONOSPHERE	MULTIPATH	SIDEBAND	TELEGRAPH
AMPLITUDE	REFLECTION	RADIATION	REACTANCE

```

F L R O C T I O N M S I T E N G A M N P
Q R E R E E C N A T I C A P A C L I D R
Y X E W L R A I P D K A I J C Z H C B T
O M F F G M O D U L A T I O N V G R D I
P Y N W L I O M V O K I G C E I G O F K
R H X B H E N C E D U O I C B W S W E O
E N O I T A C I N U M M O C M E D A L N
L Z F T E S O T E L E G R A P H R V E O
U F C J D H Z I I O N O S P H E R E N A
C R N X U A R O V O J E L K F E B A O J
T E I O T I O N Q L N L Y R G E N Q I L
A Q H M I D N U N S K U A D A C O I T V
N U P Y L Q Z O I O S C T A M N E H A Q
C E X S P T I D K R T I O N T A P O G E
E N T J M T E R T I O N V F W T Y O A N
I C Y R A B V I O X P O W D I C T N P C
L Y C I A Z E N C E S E S B C A E E O R
R A D N O J B E C I N O R T C E L E R T
U A D H T A P I T L U M Q P D R E G P R
R E S I S T A N C E S A C P E A T E B I
E R M K J R O S T I O N K I T Y A N C E

```

Reprinted from CQ • July, 1975

This item is reproduced from the monthly bulletin of
the Moorabbin & District Radio Club.

COMPONENTS FOR SALE

BOOKS - Basic Electronics A very useful book, especially for beginners.
Published by Electronics Australia. \$3.00

Projects and Circuits Over thirty Electronics Australia projects
combined into a book of 112 pages. \$1.50

ELECTROLYTICS - The cheapest prices you'll ever see. A special purchase
of 25V axial lead electrolytics.

4.7 uF	6c each
47 uF	10c "
100 uF	12c "
220 uF	15c "
470 uF	20c "
1000 uF	25c "

A bag of 5 each of all except 47 uF \$3.90

NEW STOCK - At very low prices.

Pair meter leads with alligator clips	50c
Vernier dials 35 mm. Four turns knob for $\frac{1}{2}$ turn dial	\$1.50
DPDT slide switches	25c
4 pin plug and socket - pair	15c
Alligator clips - large insulated. Red or black	20c
Coax sockets UHF.	40c

<u>METERS</u>	<u>S Meter</u> - 400 uA $1\frac{3}{8}$ " x $5/8$ "	\$2.50
	<u>Level Meter</u> - dual 200 uA meters, illuminated	\$3.00
	<u>0-1 mA Meter</u> - 50 mm square	\$4.00
	<u>0-1 mA Meter</u> - 75 mm x 50 mm	\$5.00
	<u>0-10 A Meter</u> - 75 mm x 50 mm	\$5.00

GREENCAP CONDENSERS

.0047, .01, .002	8c each
.047	12c "

RESISTORS

Bags of 130 $\frac{1}{2}$ W resistors plus 4 greencaps \$3.00 per bag
10 each of 13 values 22, 47, 82, 100, 470 ohm
1K, 12.2K, 10K, 22K, 47K, 100K plus 4 greencaps

OLD FAITHFULS - Still in demand

10K A and 15K A potentiometers	50c each
500 K C switch potentiometers	60c "
.0068 mf feed through capacitors	10c "
Ceramic trimmer, mica insulation	30c "
Ground Plane Antenna Base	\$1.00 "
Edge Connectors.	\$1.00 "
Tag strips	10c "
Ceramic bolt-down trimmer.	10c "
Twin wire lead fitted with 2 1.5mm plugs.	50c "
Small solder type feed through capacitors.	5c "
Wire wrap type trimmers.	10c "

NEOSID

Formers	8c each
Balun formers - small	12c "
large	15c "
Cans - single	10c "
double	12c "
Slugs - F 29, F 16, long ferrite beads.	7c "

I.A.R.S.
P.O. BOX 1838,
WOLLONGONG. NSW. 2500.

MR.L. PATISON VK2ALU
98 HEASLIP STREET
WOLLONGONG
2500
34

THE PROPAGATOR.
Newsletter of the Illawarra
Amateur Radio Society.

