

THE PROPAGATOR

NO 11/77

NOVEMBER 1977

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THE MONTHLY NEWSLETTER OF THE
ILLAWARRA AMATEUR RADIO SOCIETY

A Member Club of the Wireless Institute of Australia.
Published by the Illawarra Amateur Radio Society

PO Box 1838
WOLLONGONG NSW 2500

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Brian Boseley VK2BCI
Figtree Hotel
FIGTREE 2525

NOTICE OF MONTHLY MEETING - NOVEMBER 1977

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, 14 November 1977 at 7.30pm.

AGENDA

- 1 Apologies and welcome to visitors.
- 2 Minutes of previous General Meeting.
- 3 Correspondence.
- 4 Financial Report.
- 5 General Business
- 6 Lecture.

LECTURE

This month we have John Milton our local Radio Inspector who will talk to us about the "Roll of the Radio Amateur". As we always have a large attendance when John gives us a talk, I would advise you to be early to ensure a good seat.

Geoff 2ZHU

MOONBOUNCE REPORT - NOVEMBER 1977

There are no EME tests to report this month. The mail situation appears to be getting worse, as last month's 432 EME News arrived after the EME test weekend and this month's EME News has not been sighted. As this weekend was probably the test weekend it looks as if we have missed out again.

Peter ZE5JJ, has sent some preliminary information on a new type of hybrid matching system for achieving circular polarisation. If more details become available then we will consider using it to revert back to circular polarisation for the antenna of VK2AMW.

The WAC Certificate has been received to confirm that VK2AMW has Worked All Continents on the 70 cm band. Without a doubt the first WAC on UHF (or VHF for that matter) for any station in this part of the world!

SATELLITE COMMUNICATION NEWS

Oscar 7 is working well. It has now done over 13600 orbits and both Mode A (2 metres to 10 metres) and Mode B (70 cm to 2 metres) have been listened to. Good clear signals are heard on both Modes. Stations have been heard from VK2, 3, 4, 5 and 6, as well as ZL on Mode B. Signal reports of up to 10 db over S9 have been received on tests carried out on Mode B at VK2ALU. However, lower power will normally be used, which provides S6 and S7 reports.

The new satellite antenna system at VK2ALU was put up with the help of VK2's ZEN, ZRK and BRE. It is doing a good job, but a programmable control system is now being worked on, to make tracking of the satellite that much easier. Mode B contacts have been made with a number of stations in VK and ZL. One was with a station operating mobile and using whip antennas on the car!

LYLE VK2ALU

BARBECUE

The long awaited barbecue will be held, not at the venue previously stated, but at the Koonawarra Bay Sailing Club at the end of Kanahooka Road in Dapto.

The date is 20 November, the Sunday after this meeting. The clubhouse (no booze or pokies, only hot water) will be open after 10 am.

Bring your own eats and drinks. A gas barbecue will be provided and boiling water for tea or coffee will be available. No charge.

There is a good launching ramp so bring your sailboat or power boat if you have one.

To get there, go south down the Princes Highway past Kembla Grange, cross the bridge where four traffic lanes merge into two and turn left into Kanahooka Road at the traffic lights. Follow Kanahooka Road for as far as it goes and you will see the A frame sailing club building on your right.

W A R C - 7 9 - F U N D - R A F F L E

STOP-PRESS - URGENT - PLEASE NOTE - RUSH

This is the last month that we can accept postal requests for tickets in this raffle.

So far, requests for tickets by mail has been almost non existent! So what about helping to back the support that the IARC is giving to WARC-79 and send us \$1.00 NOW!

There will be no monthly RAFFLE this month but we ask the meeting to support this WARC-79 RAFFLE.

As you are aware WARC79 is drawing closer and the WIA are planning to send a representative with the Australian Delegation to enable us to get the best conditions possible for Amateur Radio.

The committee of the Illawarra Amateur Radio Society have decided to assist with the expenses of sending our representative to WARC79 and have organised the following fund raising guessing competition.

The 1st prize is a single beam CRO - TRIO "CO1303D" with a 75 cm tube and is good to 5MHZ.

The 2nd and 3rd prizes have been donated by Macelec Pty Ltd of Kenny Street, Wollongong.

2nd prize is a Texas-Instruments Progromable Calculation.

3rd prize is a Texas-Instruments Digital Watch.

Tickets will be \$1 each with a maximum of 1000 tickets to be sold. We hope to have the tickets printed and available at the next meeting.

It is proposed to conduct the draw for these prizes on the 12 December - our last meeting for the year.

For those of you who cannot get to our monthly meetings the following form can be completed and returned to the Treasurer who will then forward the tickets to you.

WARC79 - GUESSING COMPETITION

Please fill in the missing letters

O _ C _ L _ A _ C _ P _ ,

Please send me _ tickets at \$1 a ticket. I enclose \$ _ to cover the cost of the tickets.

NAME:

ADDRESS:
.....

AMATEUR RADIO COURSE, 1978

In 1978, the School of General Studies within the Wollongong Technical College will be running an approved course in Electronics, which will cover all the work needed to obtain a Novice, Limited, or Full Amateur Licence.

TIME: The course starts on Friday 17th February, at 6 p.m. to 9 p.m.
It will then continue weekly at the same time.

LOCATION: Wollongong Technical College, Matthews Building, Room 213
(see map below).

ENROLMENT DETAILS: Enrol on the first night of the course, Friday 17th February, at room 213. (If you miss the first night, enrol on the second night.) Fee is \$2 .

COURSE INFORMATION:

The Novice section of the course assumes no previous knowledge of electronics or radio. Starting from scratch, it will prepare you for the Novice Licence Examination in October.

Recommended Novice Study Materials: (Available at the class)

"Questions and Answers for the Novice Licence" - published by Westlakes Radio Club. \$3-50

"Handbook for Operators of Radio Stations in the Amateur Service" - published by P & T Department. 30¢ .

Beginner's Morse Code Cassette. \$2-00

The Advanced Section of the course starts where the novice section finishes, so you can upgrade your novice licence to a limited or full licence at the August examination.

Note - If you have a limited licence, you can take morse code by itself to upgrade to a full licence.

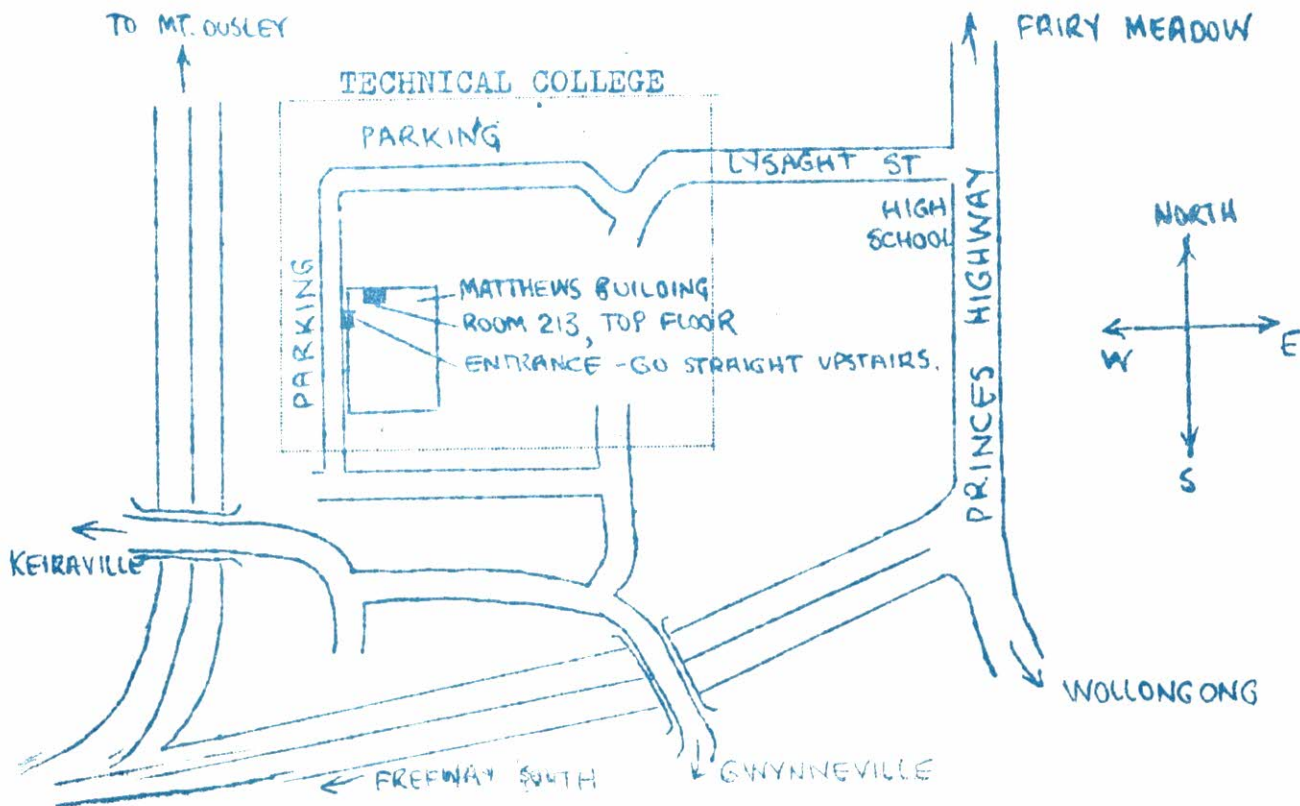
Recommended Advanced Texts:

The R.S.G.B. Handbook.

The A.R.R.L. Handbook.

FURTHER INFORMATION:

Contact Brian Wado, VK2AXI. Phone (after hours) 84-1381 .



TIME CONVERSION

G.M.T. is "Greenwich Mean Time"

Local Time is "Australian Eastern Standard Time"

<u>Local Time</u>	<u>G.M.T.</u>	<u>Local Time</u>	<u>G.M.T.</u>
12 midnight = 0000	1400	12 noon = 1200	0200
1 a.m. = 0100	1500	1 p.m. = 1300	0300
2 a.m. = 0200	1600	2 p.m. = 1400	0400
3 a.m. = 0300	1700	3 p.m. = 1500	0500
4 a.m. = 0400	1800	4 p.m. = 1600	0600
5 a.m. = 0500	1900	5 p.m. = 1700	0700
6 a.m. = 0600	2000	6 p.m. = 1800	0800
7 a.m. = 0700	2100	7 p.m. = 1900	0900
8 a.m. = 0800	2200	8 p.m. = 2000	1000
9 a.m. = 0900	2300	9 p.m. = 2100	1100
10 a.m. = 1000	0000	10 p.m. = 2200	1200
11 a.m. = 1100	0100	11 p.m. = 2300	1300

For calls made between 12 midnight and 10 a.m. local time, QSL cards should bear the previous days date, i.e. the date at Greenwich.

e.g. a contact made at 8.30 in the morning of April the 20th 1977, would be entered on a QSL card as follows :-

Date : 19/4/77 G.M.T. : 2230

VK2NHG.

Sideband Electronics Sales

HF TRANSCEIVERS

ASTRO - 200 digital solid state 200 W.P.E.P. \$1000

TRIO KENWOOD new model TS-520-S
160 to 10 M, with optional digital
readout connected externally. Can be
used as a frequency counter self contained
separately powered by 12 volt DC.
Price will be shortly announced.

TRIO KENWOOD model TS-820S AC only
160 to 10 M with digital readout. \$1000

TRIO KENWOOD model TS 820 AC only
160 to 10 M. \$850

TRIO KENWOOD model MC-50 Microphone. \$ 49

TRIO KENWOOD model TS - 700 - A FM-AM-
CW-SSB transceivers. Full 144-148 MHz
coverage, 10-Watt output, VFO controlled,
self-contained, AC-DC operation. \$650

TRIO KENWOOD model TS-600-A FM-AM.
SSB transceiver full 50-54 MHz coverage 10
Watt output variable from 1 Watt to full power.
VFO controlled AC-DC operation. Styling as
TS-700-A. \$650

TRIO KENWOOD model TR-7400 2 meter
FM transceiver 10 to 25 watts output.
Frequency range 144.00 to 147.995 MHz No.
of channels 800. Double conversion super-
heterodyne sensitivity better than 0.4 UV for 20 DB. \$385

Universe 224 model 15 watts pep 23
channel AM SSB for as low as \$215

Universe base 240V and 12V DC. The
best value for money only \$260

ICOM

VHF TRANSCEIVERS SSB

ICOM model IC-202 2 M SSB portable trans-
ceiver 144-144.4 MHz \$215

ICOM 22-S synthesized 22 channel 2 M
transceiver 10 channel pre programmed.
Supplied with 50 extra diodes for the
programming. \$269

ICOM model IC-502 6 M SSB portable trans-
ceivers 52-53 MHz. \$215

YAESU MUSEN model FT-101-E AC-DC
transceivers 10 to 160 M with speech processor \$800

YAESU MUSEN model FT-301. \$960

YAESU MUSEN model FT 301 - D \$1140

YAESU MUSEN model FT - 301 - S \$660

YAESU MUSEN model FL-2100-B Lineal Ampl. \$525

YAESU MUSEN model FP - 301 \$165

YAESU MUSEN FR G-7 Uses Wadley loop princ. \$300

YAESU MUSEN FT221-R 2 meter all
mode transceiver. \$628

FREQUENCY COUNTERS

YAESU MUSEN model YC-500 E-S J P.O.A.

AUSTRALIA'S SOLE DIST. OF KLM PRODUCTS

KLM SOLID STATE POWER AMPLIFIERS

(MHz) 144-148 PA10- 80BL 80 OUTPUT (watts)

" PA10-140BL 140 "

" PA10-160BL 160 "

" PA 2- 70BL 70 "

400-470 PA10- 70CL 70 "

PA 2- 12-B 12 Watts

PA 2- 25BL 25 Watts

P.O.A.

HY-GAIN ANTENNAS

18AVT WB 10-80 M. verticals, 23' tall no guys \$ 95

TH3MK3 10-15-20 senior 3 el. Yagi 14' boom \$220

TH6DXX 10-15-20 senior 6 el. Yagi 24' boom \$250

HY-QUAD 10-15-20 cubical quad Yagi 8' boom \$250

TIGER ARRAY 204BA 20M4 el. Yagi 26' boom \$250

BN-86 balun for beam purchases only \$ 25

MARK MOBILE ANTENNAS

HW-80, 6' long for 80 M. \$ 28

HW-40, 6' long for 40 M. \$ 25

HW-20, 6' long for 20 M. \$ 23

Swivel mounts & chrome-plated springs for all \$ 13

CUSH CRAFT ANTENNAS

A144-11-11 Element 2M-Yagi \$ 45

A147-11-11 Element 2 M Yagi \$ 45

A147-20 combination horizontal vertical 2 M \$ 70

ANTENNA ROTATORS

Model CDR Ham 11 for all hf beams except
40 M \$200

Model CDR AR-22 L junior rotator for small
beams \$ 65

KEN model KR-400 for all medium size hf
beams with internal disc brake \$110

All models rotators come complete with 230-
volt AC indicator-control units.

6-conductor cable for
KR-400-500 65 cents per metre

COAX CABLE CONNECTORS

PL-259 \$1.20

SO-239 Chassi Mount \$1.20

Male to male joiner \$1.20

Female to female joiner \$1.20

Angle connector \$1.70

T-connector \$2.00

COAX CABLE

RG-8-U foam filled per metre \$1.20

SWR METER

Twin meter model: Y.M. I.E. 3.5 to 145 MHz
prof quality \$ 28

DRAKE TV-3300 TV I lowpass filter \$ 31

SSR-1 Receivers \$270

CRYSTAL FILTER, 9 MHz, similar to

FT-200 ones. With carrier crystals. Soon Avail. \$ 15

APOLLO 3 position co-ax switches

All prices quoted are net SYDNEY, N.S.W., on cash-with-order basis, sales tax included in all cases, but
subject to changes without prior notice. ALL-RISK INSURANCE from now on free with all orders over
\$100; small orders add 50c for insurance. Allow for freight, postage or carriage, excess remitted will be
refunded.

Sideband Electronics Sales

For personal attention: 24 KURRI STREET, LOFTUS

P.O. BOX 184, SUTHERLAND, 2232

OPEN ON SATURDAYS TILL 12 NOON

TELEPHONE: 521-7573

PETER SCHULZ, VK2ZXL

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WIRELESS INSTITUTE OF AUSTRALIA

Application for membership forms are available from
Geoff Cuthbert, VK2ZHU, or direct from The New South Wales
Division of the W.I.A., 14 Atcheson St., Crows Nest, NSW. 2065.

An organisation is only as strong as its members, so lets
see what you can do towards reaching the target membership
of 8000.

FOR SALE

KENWOOD SSB Transceiver. T.S.520, complete with a DC-DC converter.

Ten months old - \$575 - no offers.

Contact Ian Miller VK2NJM on 83 2653

FOR SALE

MR10 converted for 2 metres - complete with crystals for 146.00 MHZ (channel 40).

Contact Richard VK2ZVX phone 29 8079 after hours

WANTED

Adds for this page - especially for equipment you are not using that could assist a novice to get on the air.

Contact G Cuthbert VK2ZHU at the meeting or Post Office box 1838, Wollongong

FOR SALE

Kenwood trio communications receiver 9R-59DS.
Accurate calibration. Has been tested and needed no tuning at all. Complete with 60' horizontal aerial if required and handbooks - \$130 ono.

A McEwan 7 Nioka Avenue, Keiraville 2500 - phone 297636

**Frankston & Mornington
Peninsular Amateur
Radio Club Seminar
19-20th November, 1977**

Venue: PRINCE OF WALES HOTEL
- ST. KILDA

Theme: ANTENNAS AND PROPOGATION

PACKAGE NO. 1 INTERSTATE DELEGATES ONLY

includes:

Two night's accommodation, Twin Share Basis;
Morning & Afternoon Tea, both days;
Lunch, both days;
Dinner, Saturday Night. **\$ 44**
Also bound copy of papers.

PACKAGE NO. 2 INTRASTATE DELEGATES ONLY

includes:

One night accommodation, Twin Share Basis; **\$ 38**
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MAIL TO:

**SEMINAR SECRETARY
P.O. BOX 38
FRANKSTON
VICTORIA 3199.**

COMPONENTS FOR SALE

ADDITIONAL ITEMS IN STORE.

BC.109	20 Cents.
MPF.131	85 cents.
5486 FETS	65 cents.
1N4148	10 cents
OA91	12 cents

DISC CAPACITORS.

.001	6 cents
.0047	6 cents
.01	6 cents
.022	6 cents
.047	8 cents
.1	10 cents

TANTALUM CAPS.

.47 MF	17 Cents	10 MF	25 cents
.1 MF	17 Cents	22 MF	45 cents
4.7 MF	18 cents	47 MF	65 cents

Pair meter leads with alligator clips	50c
Vernier dials 35 mm. 4 turns knob for $\frac{1}{2}$ turn dial	\$1.50
DPDT slide switches	25c
Four pin plug and socket - pair	15c
Alligator clips - large, insulated. Red or Black	20c
Ground Plane Antenna Base	\$1.00
Edge connectors	\$1.00
Tag strips	10c

CONDENSERS

Ceramic trimmer, mica insulation	30c
Small solder type feed through capacitors	5c
Wire wrap type trimmers	10c
Ceramic bolt-down trimmers	10c
25V Electrolytics, double ended	
4.7 uF	6c
100 uF	12c
220 uF	15c
470 uF	20c

"BELLING LEE" MOBILE ANTENNA BASES \$4.00 EACH.

NEOSID

Formers	8c
Balun formers - small	12c
- large	15c
Cans - single	10c
- double	12c
Slugs - F 16,	7c

METERS

S Meter 400uA $1\frac{7}{8}$ " x $5\frac{5}{8}$ "	\$2.50
Level Meter dual 200uA meters, illuminated	\$3.00
0 - 1 mA Meter 50mm square	\$4.00
0 - 1 mA Meter 75mm x 50mm.	\$5.00

RESISTORS

Bag of 160 $\frac{1}{2}$ watt resistors.	
10 each of values 10, 47, 68, 100, 220, 470, 680, 1K, 2.2K, 4.7K, 6.8K, 10K, 22K, 47K, 68K, and 100K.	\$4.00

ANTENNA WIRE

Bronze alloy wire, single strand, 1.2mm diameter. See sample at meeting.
Lengths cut to order 5c/metre

The I.A.R.S. Store is stocked with selected purchases of good quality components. A small profit is marked up on these items yet prices are very reasonable. The profit goes towards expanding the range of items kept in stock.
Bring your money on meeting nights and keep stocked up with those often needed components.

NEW STORES ITEMS.
3 - 13pF trimmers for PCB mounting 10c ea.
12" x 6" approx. fibreglass PCB. \$1.00 ea.
Coil former complete with can 10c ea.
2" sq. 100mA centre zero meters. \$6.00 ea.

MACELEC
99 KENNY STREET WOLLONGONG
PHONE 29 1455



TS 820	H. F. Transceiver 10-160M.....	\$960.00
DGI	Digital Display for TS820.....	\$160.00
TS 520S	H.F. Transceiver 10 - 160M.....	\$699.00
DG5	Digital Display / Frequency Counter for TS 520	\$170.00
TS 600	All mode 6 metre Transceiver.....	\$734.00
TS 700	All mode 2 metre Transceiver.....	\$675.00
SP 520	Extension Speaker to suit TS520-820.....	\$ 36.00
TR2200A	2 metre FM Portable.....	\$192.00
TR7200	2 metre FM Mobile.....	\$249.00
TR3200	70CM FM Portable.....	\$291.00
TR7400A	2 metre FM Digital 25W Mobile.....	\$444.00
R300	Communications Receiver.....	\$260.00
MC 50	Desk Microphone.....	\$ 49.00
MC 10	Hand Microphone.....	\$ 13.00
HC 2	Ham Clock.....	\$ 32.00
M 25	2 Metre Hi-Gain Mobile Antenna.....	\$ 17.25
MB	Mobile Base only.....	\$ 3.62
M25T	2 Metre Hi-Gain (Top Only).....	\$ 13.75
Hansen FS5	SWR - Power Meter.....	\$ 36.00
Hansen SWR - 6	Field Strength - SWR Meter.....	\$ 26.00
B & K 1827	6 Digit Auto Ranging Frequency Counter.....	\$228.85
	100 HZ - 30 MHZ.	



We also stock a range of Audio Generators - Signal Generators
Digital Multimeters - Power Supplies ETC.

MACELEC
99 KENNY STREET WOLLONGONG
PHONE 29 291455 OR CONTACT BARRY HARTLEY VK2FE

*Prices subject to change without Notice,

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Amateur Radio Society

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CATEGORY B.

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WOLLONGONG
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