

# THE PROPAGATOR

NO. 10/77

OCTOBER 1977

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THE MONTHLY NEWLETTER 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

PRESIDENT

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FIGTREE 2525

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SECRETARY

Brian Boseley VK2BCI  
Figtree Hotel  
FIGTREE 2525

NOTICE OF MONTHLY MEETING - OCTOBER 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, 10 October 1977 at 7.30 pm.

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 will have a TRADE DISPLAY which will be conducted by Barry VK2FE . Barry will show us some of the range of equipment available from MACELEC . These TRADE DISPLAYS are always popular so be early and bring youe money.

Moonbounce Report - October 1977.

No further EME tests have been scheduled since those covered in the September Report.

As all available time has been spent on the new satellite array for the home station, the moonbounce transmitter repairs have not yet been carried out. They will be completed this week.

As predicted earlier, terrestrial 432MHz activity is causing QRM to EME contacts. The large amount of EME activity is covering a frequency range of 432.000 to 432.060MHz. Moves are now afoot in the U.S.A. to reserve 432.000 to 432.050MHz for EME work only.

WANTED - Does anyone have available some sheet brass of thickness 0.025 to 0.035 inches and at least 9 inches square, which we could buy to make up the impedance matching disc for our new feed system for the VK2AMW dish? If so could you please contact me on home phone no.296984 of an evening or 611544 at work.

Lyle Patison VK2ALU.

# THE WIRELESS INSTITUTE OF AUSTRALIA

- INFORMATION
- EDUCATION
- FREE MONTHLY MAGAZINE "AMATEUR RADIO"
- VALUABLE MONEY-SAVING SERVICES:  
Components, disposals, surplus gear — Magazines and books  
QSL Bureaux — Sales and exchange facilities
- Modest membership target is 8000 for WARC 79.
- REPRESENTATION
- ADVICE
- SOCIAL ACTIVITIES
- CONTESTS
- AWARDS

## GET WITH IT — GET FACTS NOW

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.

SIMPLE CIRCUITS.

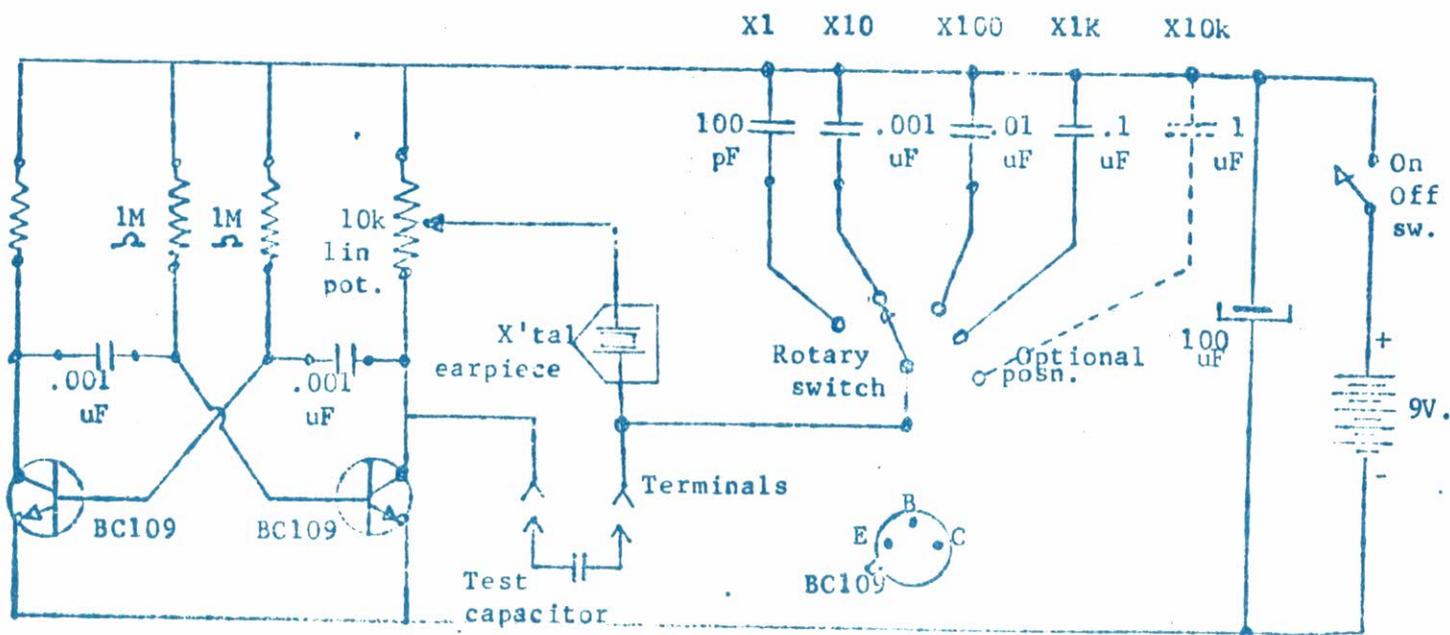
THIS IS THE CIRCUIT OF THE CAPACITOR BRIDGE I HAD AT THE LAST MEETING. IT IS BEST BUILT ON PCB OR MATRIX BOARD & THE LEADS KEPT SHORT TO REDUCE STRAY CAPACITY. THE 10K POT MUST BE LINEAR AND FITTED WITH A POINTER FOR CALIBRATING ACCURATELY.

AFTER BUILDING IS COMPLETE SWITCH THE UNIT ON - A 1KC TONE SHOULD BE HEARD IN THE EARPIECE. SWITCH ROTARY SWITCH TO X1 POSITION & TURN POT UNTIL A NULL IS REACHED. THIS IS THE ZERO POSITION OF BRIDGE AND SHOULD BE MARKED AS SUCH. NEXT CONNECT A 100PF CAPACITOR TO THE TEST TERMINALS AND THEN FIND THE NULL ABOUT MID WAY ON THE DIAL & MARK WITH 100. SWITCH TO X10 AND FIND THE NULL WHICH WILL BE NEAR THE ZERO AND MARK THAT 10. THIS PROCESS IS THEN REPEATED WITH A CAPACITOR OF 1000PF AND DIAL MARKED ACCORDINGLY. CONTINUE CALIBRATING WITH ANY VALUES YOU WISH - PREFERRED VALUES ARE IDEAL, UNTIL THE SCALE AROUND THE DIAL IS TO YOUR SATISFACTION.

FOR THE GREATEST ACCURACY 1 OR 2% CAPACITORS CAN BE USED BUT I FOUND THAT THE 5% MICA CAPS I USED WERE ALL WITHIN 2% ANYHOW. THIS UNIT CAN BE EXTENDED TO 10UF BY USING A 1UF 1% POLY IN A X10K POSITION ON THE ROTARY SWITCH.

KEITH VK2OB.

CAPACITOR BRIDGE.





COMPONENTS FOR SALE

ADDITIONAL ITEMS IN STORE.

BC.109	20 Cents.
MPF.131	85 cents.
5486 FETS	65 cents.
1N4148	10 cents
0A91	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

10c ea.  
\$1.00 ea.  
10c ea.  
\$6.00 ea.

"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

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

METERS

S Meter 400uA $1\frac{3}{8}$ " x $5/8$ "	\$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,	\$4.00
1K, 2.2K, 4.7K, 6.8K, 10K, 22K, 47K, 68K, and 100K.	

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.

MACELEC  
99 KENNY STREET, WOLLONGONG.  
PHONE 29 1455

TS 820S 160 thru 10 metres. FSK - SSB - CW complete with true digital frequency readout.

Variable I.F. Bandwidth - Full Speech Processing - Speech Monitor ETC ETC.

.....\$998.00 ea

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The new Kenwood TS 520S - Now has 160 metres thru 10 metres and Provision for Optional Digital Display. This unit has all the features of the Previous 520 except DC-DC Converter which is an option.

.....\$680.00 ea

\*\*\*\*\*

TR 7400A 2 metres F.M. Transceiver. Utilizing a Unique Squelch System - Digital Readout - Fully Synthesized with 5KHZ steps from 144 thru 148 MHZ

.....\$385.00 ea

\*\*\*\*\*

R300 Kenwood Receiver all Bands from 170 KHZ to 30 MHZ - Selectivity selectable 2.5 KHZ or 5 KHZ, Sensitivity Better than 0.3 microvolt. Inbuilt 500 KHZ marker AC or DC External or Internal Batteries.

.....\$260.00 ea

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HC2 Kenwood Hamclock. A must for every Amateur Operator or S.W.L.

Limited Stocks at.....\$ 29.50 ea

\*\*\*\*\*

2 Metre High Gain mobile aerial;

complete with Base.....\$ 17.25 ea  
Top only.....\$ 13.75 ea

\*\*\*\*\*

We also stock a range of Oscilloscopes, Signal Generators, Audio Generators, TVI Filters, ETC., As well as a limited stock of Selective 27 MHZ equipment.

MACELEC  
99 KENNY STREET, WOLLONGONG.  
PHONE 29 1455  
or Contact Barry Hartley VK2FE.

### QUESTION BOX NET

Designed to be of assistance to amateur radio enthusiasts who are also studying for any of the licences, the Question Box Net is conducted each Wednesday evening at 6.30 pm, on 3.574 MHz., with the Net Controller being Richard VK2MGL. Anyone is welcome to take part, and submit a question for discussion and answer. Non-licence holders may also participate on a listening-only basis.

Due to the success of the Net, Richard VK2MGL is currently considering extending the Net to a second session, probably on Saturday mornings at about 8.30 or 9.00am.

He is currently conducting a survey to determine a suitable time for the second session. Your views are welcome. He may be contacted via Radio Station 2VM, Loree.

### FOR SALE

Heathkit c.r.o. complete with hand book - works well but has a faulty C.R.T tube.

A.W.A. MR-6 2mtr transceiver fitted with x-tls for channel 40 good going order , works off 12V DC complete with manual.

\$50 the lot . contact Richard Fox at 57 barton ST Oak Flats or at the meeting.

### QUOTE FOR THIS MONTH

OUT OF THE GLOOM A VOICE SAID UNTO ME  
"SMILE AND BE HAPPY, THINGS COULD BE WORSE".  
SO I SMILED AND WAS HAPPY  
AND BEHOLD, THINGS DID GET WORSE.

# Sideband Electronics Sales

## HF TRANSCEIVERS

<b>ASTRO</b> - 200 digital solid state 200 W.P.E.P.	<b>\$1000</b>
<b>TRIO KENWOOD</b> 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.	
<b>TRIO KENWOOD</b> model TS-820S AC only 160 to 10 M with digital readout.	<b>\$1000</b>
<b>TRIO KENWOOD</b> model TS-820 AC only 160 to 10 M.	<b>\$850</b>
<b>TRIO KENWOOD</b> model MC-50 Microphone.	<b>\$ 49</b>
<b>TRIO KENWOOD</b> model TS - 700 - A FM-AM- CW-SSB transceivers. Full 144-148 MHz coverage, 10-Watt output, VFO controlled, self-contained, AC-DC operation.	<b>\$650</b>
<b>TRIO KENWOOD</b> 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.	<b>\$650</b>
<b>TRIO KENWOOD</b> model TR-7400 2 meter FM tranceiver 10 to 25 watts output. Frequency range 144.00 to 147.995 MHz No. of channels 800, Double conversion super- heterodine sensitivity better than 0.4 UV for 20 DB.	<b>\$385</b>
<b>Universe 224</b> model 15 watts pep 23 channel AM SSB for as low as	<b>\$215</b>
<b>Universe base</b> 240V and 12V DC. The best value for money <b>only</b>	<b>\$260</b>

## ICOM

### VHF TRANSCEIVERS SSB

<b>ICOM</b> model IC-202 2 M SSB portable trans- ceiver 144-144.4 MHz	<b>\$215</b>
<b>ICOM 22-S</b> synthesized 22 channel 2 M transceiver 10 channel pre programmed. Supplied with 50 extra diodes for the programming.	<b>\$269</b>
<b>ICOM</b> model IC-502 6 M SSB portable trans- ceivers 52-53 MHz.	<b>\$215</b>
<b>YAESU MUSEN</b> model FT-101-E AC-DC transceivers 10 to 160 M with speech processor	<b>\$800</b>
<b>YAESU MUSEN</b> model FT-301.	<b>\$960</b>
<b>YAESU MUSEN</b> model FT 301 - D	<b>\$1140</b>
<b>YAESU MUSEN</b> model FT - 301 - S	<b>\$660</b>
<b>YAESU MUSEN</b> model FL-2100-BLineal Ampl.	<b>\$525</b>
<b>YAESU MUSEN</b> model FP - 301	<b>\$165</b>
<b>YAESU MUSEN FR G-7</b> Uses Wadley loop princ.	<b>\$300</b>
<b>YAESU MUSEN FT221-R</b> 2 meter all mode transceiver.	<b>\$628</b>
<b>FREQUENCY COUNTERS</b>	
<b>YAESU MUSEN</b> model YC-500-E-S-J	<b>P.O.A.</b>

## 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	<b>P.O.A.</b>

### HY - GAIN ANTENNAS

18AVT-WB 10-80 M. verticals, 23' tall no guys	<b>\$ 95</b>
TH3MK3 10-15 20 senior 3 el. Yagi 14' boom	<b>\$220</b>
TH6DX 10-15-20 senior 6 el. Yagi 24' boom	<b>\$250</b>
HY-QUAD 10-15-20 cubical quad Yagi 8' boom	<b>\$250</b>
TIGER ARRAY 204BA 20M4 el. Yagi 26' boom	<b>\$250</b>
BN-86 balun for beam purchases only	<b>\$ 25</b>

### MARK MOBILE ANTENNAS

HW-80, 6' long for 80 M.	<b>\$ 28</b>
HW-40, 6' long for 40 M.	<b>\$ 25</b>
HW-20, 6' long for 20 M.	<b>\$ 23</b>
Swivel mounts & chrome plated springs for all	<b>\$ 13</b>

### CUSH CRAFT ANTENNAS

A144-11 11 Element 2M-Yagi	<b>\$ 45</b>
A147-11 11 Element 2 M Yagi	<b>\$ 45</b>
A147-20 combination horizontal vertical 2 M	<b>\$ 70</b>

### ANTENNA ROTATORS

Model CDR Ham-11 for all hf beams except 40 M	<b>\$200</b>
Model CDR AR-22 L junior rotator for small beams	<b>\$ 65</b>
KEN model KR-400 for all medium size hf beams with internal disc brake	<b>\$110</b>

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	<b>\$1.20</b>
SO-239 Chassi Mount	<b>\$1.20</b>
Male to male joiner	<b>\$1.20</b>
Female to female joiner	<b>\$1.20</b>
Angle connector	<b>\$1.70</b>
T-connector	<b>\$2.00</b>

### COAX CABLE

RG - 8 - U foam filled	per metre	<b>\$1.20</b>
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### SWR METER

Twin meter model: Y.M. - I.E. 3.5 to 145 MHz prof quality	<b>\$ 28</b>
DRAKE TV - 3300 TV I lowpass filter	<b>\$ 31</b>
SSR-1 Receivers	<b>\$270</b>

**CRYSTAL FILTER**, 9 MHz, similar to  
FT-200 ones. With carrier crystals. Soon Avail.  
**APOLLO** 3 position co-ax switches **\$ 15**

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**

WARC79-FUND-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 "C01303D" 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 Programmable Calculator.

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.

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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: .....

.....

WOLLONGONG, NSW 2500

P.O. Box 1838,

I.A.R.S.

MR. L. PATISON VK2ALU  
98 HEASLIP STREET  
WOLLONGONG  
2500  
60

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