

THE PROPAGATOR

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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

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NOTICE OF MONTHLY MEETING - SEPTEMBER 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, 12 September 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 Keith VK2OB will demonstrate another of his construction projects - a low value capacitance bridge used to calculate the values of low value capacitors against known standard values.

Keith will have a circuit available at the meeting if anybody is interested in constructing this bridge.

Moonbounce Report - September 1977.

Repairs were made to the dish surface during the month. The main part of the Clavin feed was made up and installed. Initial tests showed a small improvement in gain, but the required impedance matching arrangement has yet to be installed to give the lowest SWR.

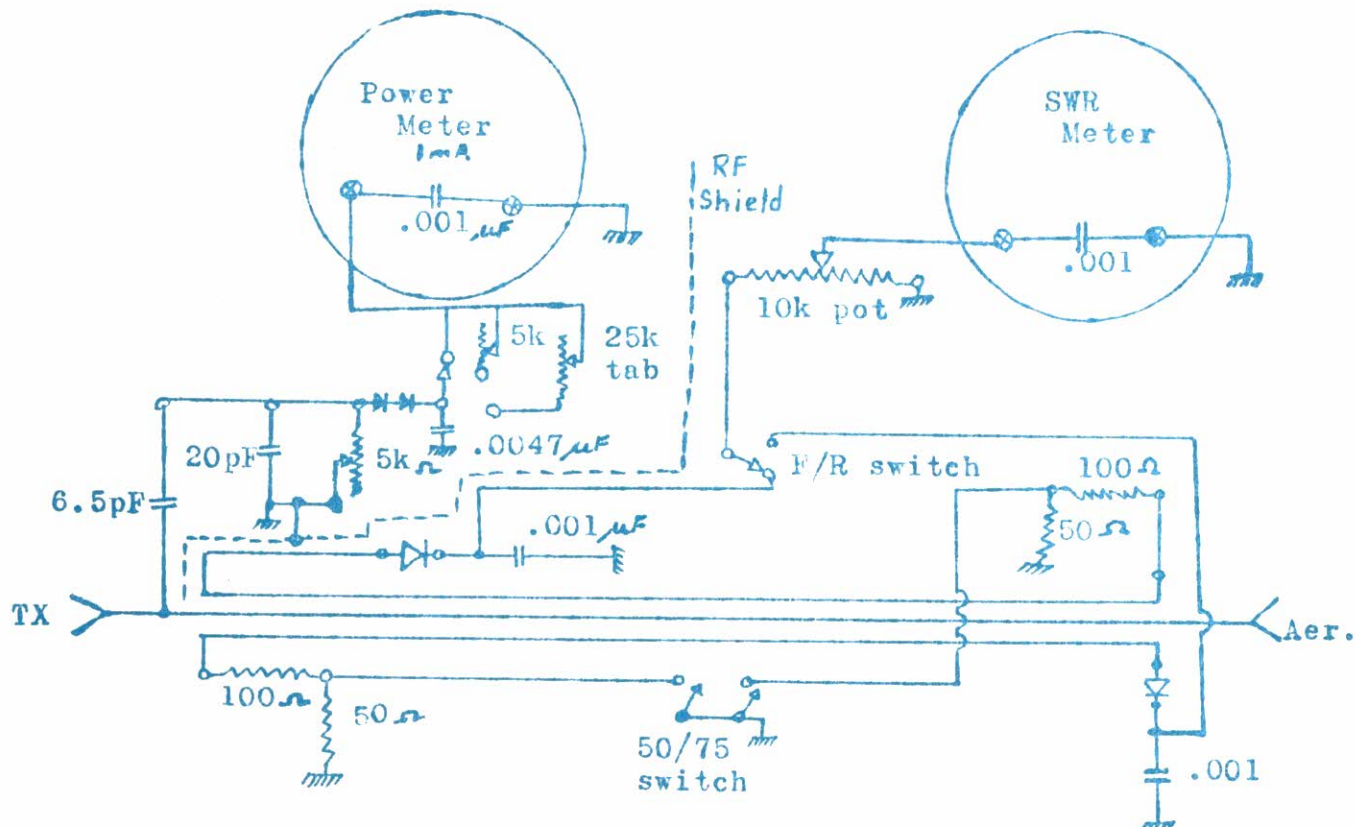
An ETE test on 2/9/77 was scheduled with two stations. SM5BFX was not heard and F2TU was contacted with 'M' reports both ways.

As the test period was nearly over the transmitter bias supply transformer failed. The safety interlock should have operated to prevent damage to the driver and PA tubes.

Further damage has been caused to the moonbounce site buildings by vandals but essential equipment has not been damaged.

Lyle VK2ALU.

COMBINED SWR BRIDGE AND 5 - 50 - 500 watt POWER METER. (1mA FSD Meter).



The values of the components used in the above circuit are for a 1mA FSD meter. If you use a 100 uA meter the SWR circuit needs no changes, the power circuit will however. The 6.5pF cap from the RF feed line must be 5pF and the 5K tab pot between the feed to the 2 diodes and deck should be changed to 30k. The rotary switch connections which have direct feed to the meter on the 5W range goes up to a 5k pot, the next step (50W) goes up to 25k and the 500W range goes up to 50k ohms.

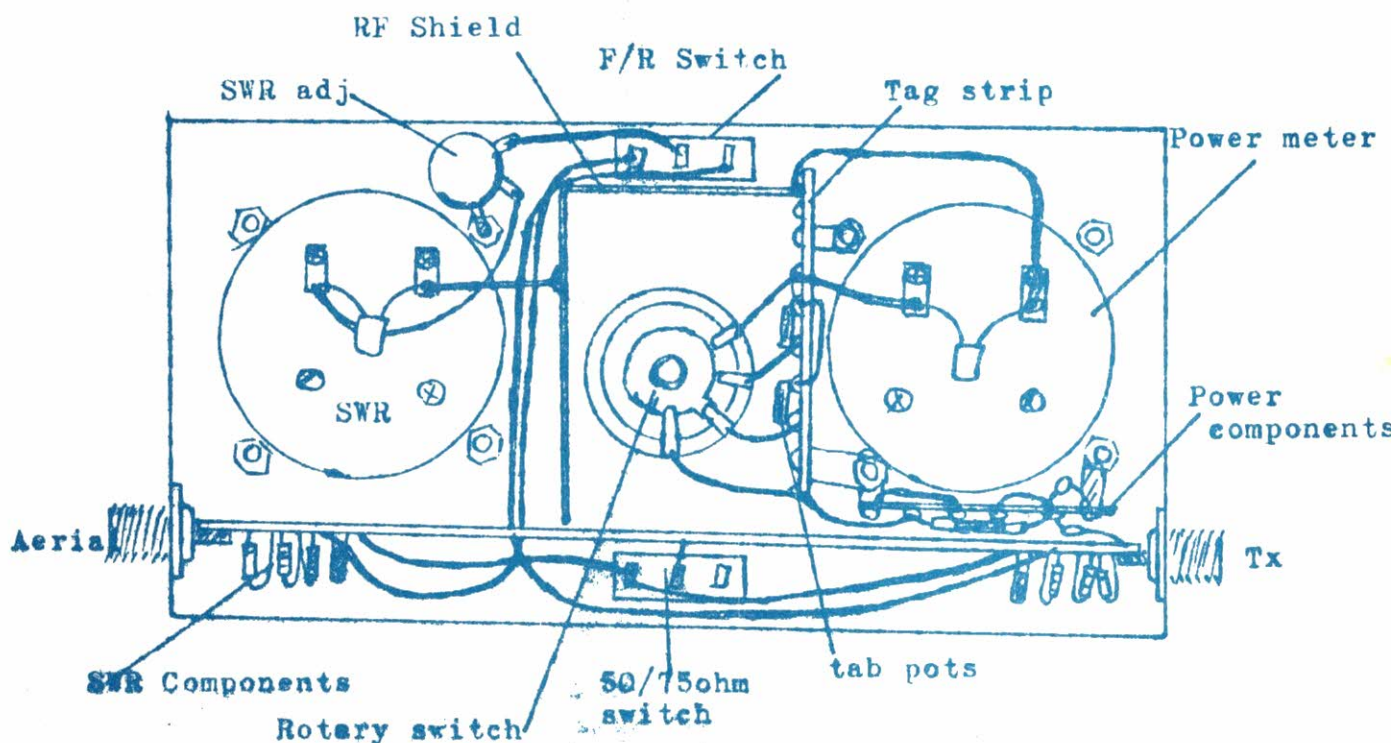
Tab pots used in the prototype meter were printed circuit type but they fitted OK on the tag strips used. The tag strips were very conveniently set up to fit the meter mounting bolts as the two earth tags fitted with practically no bending.

SWR components are soldered underneath the PCB (helps shielding from RF) and all SWR and power components are separated by a thin RF shield. This must be ferrous based. A lump of jam tin will do at a pinch. The diodes used were ordinary glass signal diodes and 2 are series connected for the power unit.

Size is fairly critical for the unit and the spacing between the carrier strip and F/R pickup strips is also important. The length of the prototype is 15cm from terminal to terminal and the spacing is 1 mm. This can be varied but if it is, the resistance in the SWR circuit should be changed to suit.

To calibrate the unit, series connect it with a known power meter and mark off the readings. The face of the meter can be sprayed over and re-drafted if you want it to look really good.

KEITH VK2OB.



Rear View of unit showing component layout.

JAMBOREE - ON - THE - AIR 1977

The 20th Jamboree-on-the-air will be conducted this year over the weekend of 15-16 October.

Would any persons who are able to assist in this exercise please contact the IARS Secretary. Brian Baseley VK2BCI either at the meeting or by completing the attached form and posting to The Secretary, IARC, Box 1838, Wollongong. Brian can also be contacted on Phone No 284088

Brian would like to know the times that you can operate and the number of scouts you can accommodate at a time so that this information can be passed to the Scouting movement.

JAMBOREE-ON-THE-AIR 1977

NAME

CALL

I am able to operate during)
the following periods)

I am willing to operate)
at the following location)

MID SOUTH COAST AMATEUR RADIO CLUB

Mt Ginini Repeater Access

The Mid South Coast Amateur Radio Club has made an unusual contribution to mobile VHF operators travelling the Princes Highway on the Coast of NSW.

This is the planned provision of "access points" in various locations to enable amateurs to reach repeaters not normally accessible when mobile.

The first of these points, giving access to VK2RGI on Mt Ginini has been installed in the Milton - Ulladulla District (233 km south of Sydney).

An eight-element beam antenna ("Quagi" refer QST April 1977) has been mounted about 20' high on a convenient tree and the co-ax feeder brought underground to a strong steel box fastened to a fence post on the side of a little used track.

The gain of the antenna is estimated to be about 12 db. The loss in the cable is about 2.5 db. The SWR is less than 2:1. Provided propagation conditions are reasonable the ten watts or so from the average transceiver will get a good signal into VK2RGI.

The box is padlocked but the lock can be by-passed and the box opened by inserting a pencil, or stick into a hole in the front lid. Within is about 13' of co-ax feeder terminated with a PL259 connector for connection to your rig. The box is painted green with the letters G.I.N.I.N.I. printed thereon to give an official appearance (not that such would stop determined vandals).

To find the box, turn off the Princes Highway at the Ulladulla Post Office (opposite the harbour) and travel west along Green Street for 1½ km. This is a straight sealed road with 5 white posts at the end. Skirt around these posts and locate the green GININI box about 100 metres further on (opposite the next power pole).

Prospective mobiles should make a note of the above against the time they are travelling in this area.

The club is making surveys to provide more access points for Ginini and Wollongong repeaters at widely separated locations.

It would be appreciated if visitors would fill in the log book and securely lock the box.

From the Club President

Frank VK2HQ

STOLEN

Again this month we have another report of a MULTI-7 stolen from a parked car.

This MULTI-7 was removed from Richard Fox VK2ZFO's car while it was parked inside his yard in the drive way.

If you have any information on this set please contact Richard Fox at 57 Barton Street, Oak Flats.

Again make sure all your equipment is identifiable and as secure as possible. - If your set is easy to remove - remove it before someone else does.

ALARM SYSTEMS

Paul Gardner has developed an alarm system for mobile sets but for obvious reasons we will not publish details. If you are interested in constructing one of these, contact Paul or Geoff ZHU.

BAR-B-Q

The proposed BAR-B-Q to be held on the first Saturday in November will be on the foreshores of Lake Illawarra, in the area adjacent to the Illawarra Power Station. The cost will be \$2 per head or \$5 per family unit. Could we have an indication at the next meeting of the numbers interested so we can start to plan the catering.

FOR SALE

AWA 50 WATT Base Station on 2 metres. Complete with crystals for several channels. Cost \$50. Contact Jim Walker VK2AJT C/O Telephone Exchange Nowra Phone 04426111.

DISPLAY OF AMATEUR RADIO

On Saturday, 17 September Burelli Street between Keira Street and Church Street will be converted into a Mall for a display of Recreational Activities. The IARC will have a display of Amateur Radio and we are looking for volunteers to assist in erecting the display and also to operate both HF and VHF equipment - we also require people at home to give us as many contacts as possible. Please contact the Secretary Brian VK2BCI if you can assist.

NSW DIVISIONAL WIA CONFERENCE

A conference of combined Clubs and Groups will be conducted in Sydney during November and your representative Geoff VK2ZHU will be attending. If you have any areas or questions you would like discussed etc please contact me as soon as possible so I can submit Agenda Items.

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 cent

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 $1\frac{3}{8}$ " x $5\frac{1}{8}$ "	\$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

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

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.



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 "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 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.

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:

.....

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Newsletter of the Illawarra
Amateur Radio Society



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2500

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