



THE PROPAGATOR

MONTHLY NEWSLETTER OF THE ILLAWARRA AMATEUR RADIO SOCIETY.

P.O. Box 1838. WOLLONGONG. N.S.W. 2500.

IARS is a Member Club of the Wireless Institute of Australia.

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MONTHLY MEETING Held on the Second Monday of each Month, at 7.30pm,
at the Wollongong Town Hall Meeting Room.

CLUB STATION - VK2AMW. CLUB REPEATER - VK2RAW, 2m, Channel 5.
VK2RIW, 70cm, Channel 1.

IARS MONTHLY BROADCAST

The Monthly Broadcast takes place on the Sunday preceeding the Meeting Night each month, at 1915 Hours EAST.

Frequency used by VK2AMW for the broadcast is -
Repeater Channel 5, or Simplex Channel 40.
Relay on 28.460 MHz, 70 cm Channel 1.

IARS CLUB NETS

6 Metre. 8.30am Sunday, 52.525 MHz FM.
10 Metre. 5.00pm Sunday, 28.460 MHz USB.

May
1979

Members are advised that the Monthly Meeting of the Illawarra Amateur Radio Society will be held at the Wollongong Town Hall Meeting Room at 7.30pm on

Monday, May 14

VISITORS ARE MOST WELCOME TO ATTEND.

WIA NOTES

The IARS has now become affiliated with the WIA and we are now about to join the "Conference of Clubs" which is to be held on Saturday 26 May. Your official representative for the IARS will be myself Geoff Cuthbert VK2ZHU.

If any of the members of the IARS wish to have any points raised at the Conference by me would you please see me at the next meeting.

I would also like to remind you all that I am the IARS's representative to the WIA on all other matters such as memberships and the distribution of WIA material. Also I am prepared to forward completed questionnaires to the WIA - so when these appear in AR please complete them and bring them to the meeting.

73's

Geoff VK2ZHU

COMMITTEE NOTES

The Club is looking for a volunteer to do the 10 meter broadcast on Sundays. If you think that you could do this Service, which is mainly for the benefit of the novices, please contact any of the Committee Members for details.

All members please note that the May Meeting will be held at the usual venue i.e: The Town Hall Committee Room at 1930 hrs Monday 14 May 1979.

10 M BLEEP

Heard on 28.230MHz at approximately 05:00 Z on 12 April 1979 apparently a Beacon emitting the following signal (C.W.)

TCF... $\bar{\cdot}$... EET $\bar{\cdot}$... $\bar{\cdot}$...A:

This signal was at regular and close intervals. VK2VGS would be interested to hear from anyone who can identify the source.

IAN

NOVICE NOTES

One of a series of a new articles in the 'Propagator' of interest to the Novice and budding Novice in the Illawarra Region. It has been felt for some time now that whilst the magazine is informative to the 'full - call' members, the Novice members have not had a voice to inform them of happenings on their allocated frequencies and activities that may be organised to suit their needs.

First news is the very good openings on 10 meters at the present time. Good signals of 5/9+ short path from Europe in the late afternoon have been heard. Malaysian stations are also opening more frequently. A rare South Korean station was worked mobile to portable. This HM9A, reportedly, is the only licenced portable station in South Korea and is considered hard to get by many. 15 meters is as usual full of QRM and "Woody Woodpecker" and is at its best for ZL - VK contacts during the day. Long path Europe is very good but their local QRM spoils it for us.

We all know 80 meters and its noise level, but it is steadily improving now that winter is upon us. So hand in there and get your CW speed up on 3.550. Now that VK5WI is booming in you have 2 hours to listen in.

The next item for consideration is the new IARS Net to be 'christened' on the first Sunday in May at 12.30 p.m. local time on 3.550. This is for a trial period to use in conjunction with the existing 10M Sunday evening net. This was organised because of the difficulties of some regular net users to hear signals on 10 metres for various reasons. Another advantage of the 80 metre net is that stations further down the coast and even Canberra are interested in coming in. This will liven up the net no end. At the moment only a handful of operators are using the 10 metre net. Some of the regulars are - NYI, AXI, DEP, VAV, VEK, ALK, VGS, NUF, VEJ. The full calls on the net are very helpful when a technical question is bandied around for discussion. I'm sure there are more novice calls than this in the area so come up and join in.

That's it for this month. Articles of interest to the novice would be appreciated for further issues.

73's

RON VK2NUF.

ELECTRIC MOTORS AND RADIO INTERFERENCE

A new EEC (European Economic Community) Directive on radio interference recently became law in the U.K. and will be implemented from 1 April. This Directive lays down important requirements for manufacturers, assemblers and importers of nearly all equipment incorporating electric motors. Enforcement of this regulation may include random Government tests on equipment purchased on the Commercial Market.

(Metal Construction, Feb.1979)

AWARD FOR A RADIO MAST

A Police H.Q. radio mast at Wootton U.K. received a commendation in the 1978 Structural Steel Design Awards. The mast is over 45 metres high and deflections had to be restricted to +/- 0.75 deg., to facilitate the use of dish aerials. The forces in the members and the deflection of the tower were obtained by computer analysis for all cases of wind load and direction.

(Metal Construction, Feb.1979)



MACELEC

P.O. Box 1375, Wollongong. 2500

99 Kenny Street, Wollongong. 2500

Phone : 29 1455

ELECTRICAL
MECHANICAL
MANUFACTURE
and
SUPPLY

KENWOOD

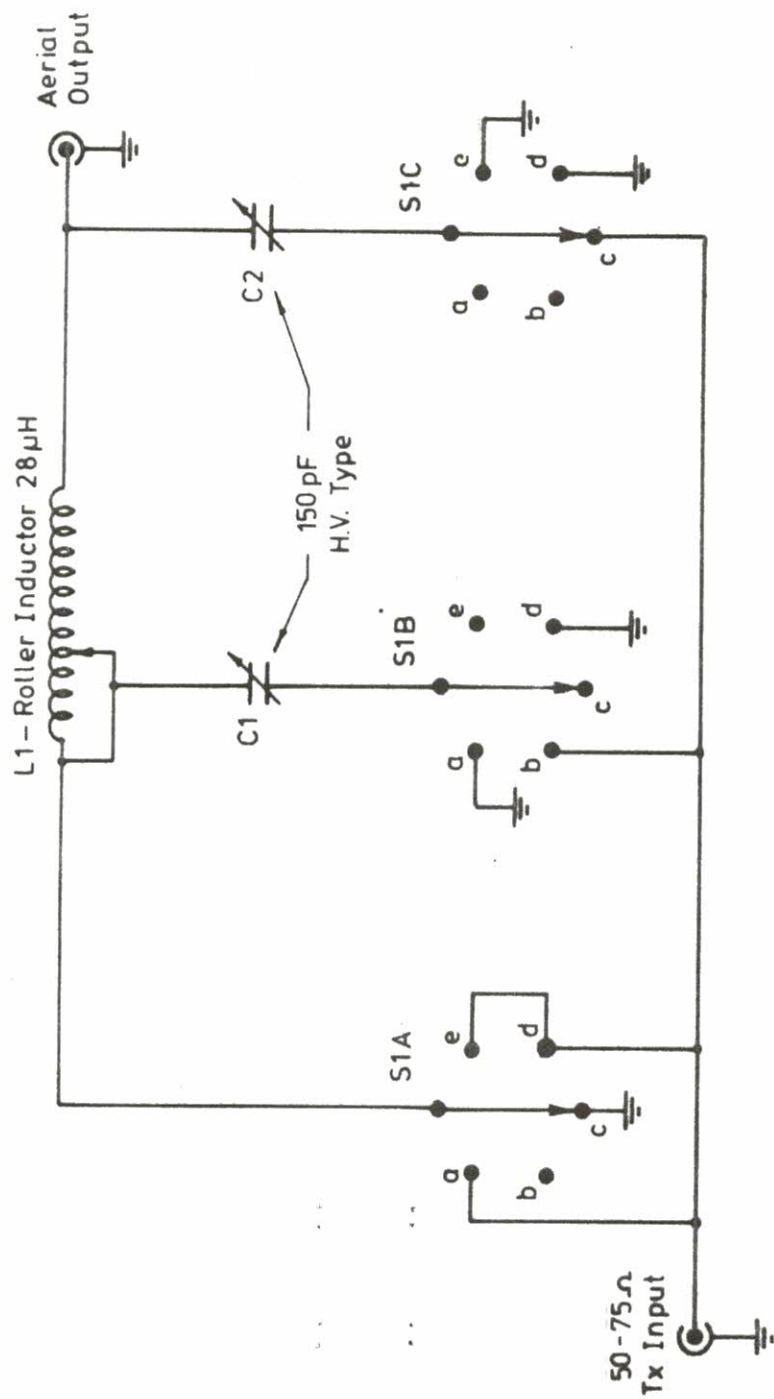
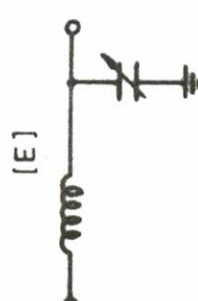
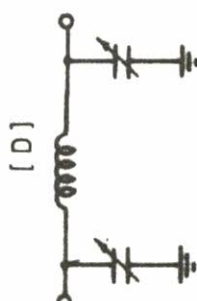
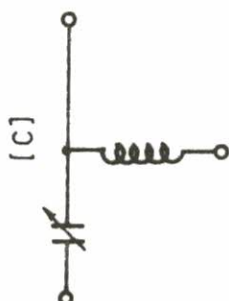
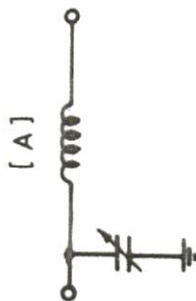
KENWOOD Range of Mobile H.F. Antennas	(P.O.A.)
KENWOOD SM220 Station Monitor - Oscilloscope (1 only).	\$ 310.00
KENWOOD BS5/BS8 Panoramic Adaptor for Above.....	\$ 57.00
KENWOOD TS820S - The Ultimate - (1 only).....	\$1175.00
KENWOOD TS520S - Most Popular -	\$ 799.00
KENWOOD TR7500 2 Metre P.L.L. Mobile (1 only).....	\$ 250.00
S.B.E. "Sidebender" 10 Metre Mobile.....	\$ 150.00
KENWOOD R300 All Band Communications Receiver.....	\$ 318.00
KENWOOD AT200 Antenna Coupler - S.W.R. - Power Meter- -Coax Switch.....	\$ 185.00
HANSEN Transformer Coupled Power Meter Reads True P.E.P. and R.M.S. to 200 watts.....	\$ 82.00
NAGARA V5JR Trap Vertical 80-10M.....	\$ 150.00
CUSHCRAFT ARX-2 2 Metre Ringo Ranger.....	\$ 49.00
HANSEN Dummy Load 30 watts up to 150 MHZ.....	\$ 15.00
DAIWA FD30LS Low Pass Filter Cut Off Frequency 32MHZ 3 Stages - Top Quality.....	\$ 20.00
HI-MOUND HK708 Morse Key.....	\$ 21.00
HI-MOUND HK702 Morse Key Marble Base.....	\$ 38.00
KENWOOD DG5 Digital Display for TS520S.....	\$ 187.00
DAIWA DR7500 Medium Duty Rotator Fully Approved C/W Circular Scaled Indicator.....	\$ 199.00
DAIWA DR7500 Heavy Duty Version Of Above.....	\$ 289.00
KENWOOD HC2 Hamclock.....	\$ 34.00
KENWOOD TS7005P All Mode 2 Metre Transceiver AC-DC Full Digital Readout.....	\$ 812.00
KENWOOD TS120V 80 Thru 10 Metre Mobile Styling Similar to TS820 But Much Smaller. Digital Display - I.F. Shift - Noise Blanker - Analog Dial 25KHZ Per Rev - Vox - R.I.T. - 30watt P.E.P.....	\$ 630.00
KENWOOD TS120-S 80-10 Metre Mobile Transceiver 200W PEPI/P	\$760.00
CONTACT BARRY HARTLEY VK2FE	

AS THE JAPANESE YEN IS STILL CHANGING
PRICES SUBJECT TO ALTERATION WITHOUT NOTICE.
ABOVE ITEMS NORMALLY AVAILABLE EX STOCK.

FLEXIBLE AERIAL TUNING UNIT

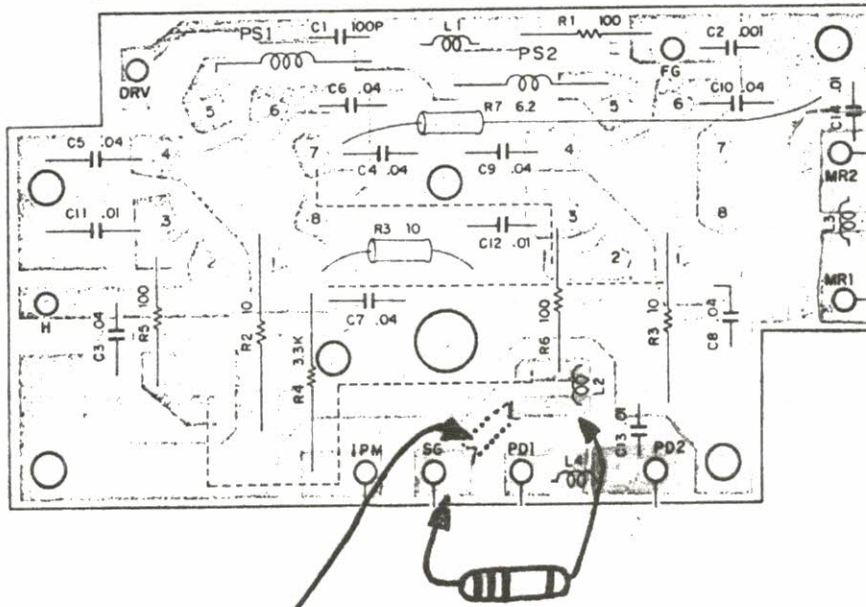
1-8 MHz - 30 MHz

[FROM R.S.G.B. AMATEUR RADIO TECHNIQUES
SIXTH EDITION PAGE 282]



MODIFICATION TO REDUCE POWER TO AUSTRALIAN NOVICE SPECIFICATIONS.

1. Remove bottom cover.
2. Locate FINAL BOARD (X56-1200-00).
3. Cut track as indicated in diagram below.
4. Solder a resistor in position indicated below, the value of this resistor should be between 56K to 68K and a power rating of 1/2 watt.
5. Replace bottom cover.
6. Switch on Power.
7. Switch MODE switch to USB of LSB, METER SWITCH to IP, MIKE GAIN CONTROL MIN., and adjust Bias Control so that METER READS 60MA (SEE HANDBOOK FOR LOCATION OF BIAS CONTROL).
8. This completes modification.



CUT TRACK
AND REMOVE
THIS PORTION

FIT RESISTOR BETWEEN
THESE POINTS

FOR SALE

KENWOOD HC2 Hamclock, as new \$20.00

KENWOOD SP520 Speaker as new \$20.00

Contact George Meldrum Phone: 84.3153 (Club badge: George SWL)

FOR SALE

FT 200 with A.C. Power Supply \$380.00

SBE 10M Mobile SSB/AM \$130.00

Contact Ian Piper Phone: 84.2400 VK2VGP

Moonbounce Report - May 1979.

Chris, VK5MC is now on 432MHz EME with the 20 foot dia. dish once used by Ron, VK3AKC. Chris has had quite a few contacts over the few weeks since becoming operational. It certainly demonstrates the progress in both number of stations on and equipment capabilities over the past 5 years.

By the time that this is printed it is hoped to have the prototype dual band disc feed from the University workshop, so that testing can be organised.

Microwave News.

Funny things can be made to happen on 10GHz. - like talking to yourself. At least it's one way to check out a 10GHz transceiver system. All that is needed is a field strength meter made up of a crystal diode, a short piece of X band waveguide for a xtal mount and a meter. A horn for the waveguide or a reflector increases the sensitivity of the field strength meter somewhat. Add 1 to 2 milliwatts of rf to the xtal diode at the same frequency (eg 30MHz) as the IF of the receiver section of the 10GHz transceiver and separate the field strength meter and transceiver by a couple of hundred feet. The transmitted signal comes back loud and clear as soon as the dishes are lined up correctly. Point the dish off by only 2 degrees and down goes the signal! Its great for tone and voice modulation, for adjusting the dish feed for optimum gain and making the optical axis of the dish coincident with the axis of the main lobe of radiation, lining up sighting telescopes etc. etc.

My 20 inch dia. dish beam pattern has been optimised and all is now ready for field tests.

The old klystron and valve type 10GHz transceiver has been reactivated and brought up to 10320GHz. It has been tried out as a translator for the new gear but unfortunately its bandwidth and stability is not up to the standard of the solid state gear, but it will allow checks to be made up to the maximum available line-of-sight local distance. 240volts AC is required for the klystron gear but the solid state gear is fully portable.

Who has a house on a hill?

Lyle VK2ALU.

I.C.'s at the right price.

(Premium "El-Cheapo's)

So you're just about to build the "deluxe super-duper", all singing, all dancing keyer (megabit of R.O.M.) Great, don't let the XYL see the IC cost or you're back to your ex P.M.G. brass monster.

Maybe you're not too enamoured with your local "Super-Richard" millionaire superstore (3 weeks for a 741 ??)

O.K. heres' the drill on how to get premium grade I.C.s and discrete components at rock bottom prices. - Import them. (I hear you saying "What about the duty"?) - Just read on....

There are a large number of firms in the States specialising in this sort of mail order business. (James, S.D.S. International, to name but a few). Prices are staggering - try these on for size :

3 MC4001 (Cmos)	15c
MC4016 "	35c
200V 1A Diodes	15 for \$1.00
IN 4148	100 for \$1.25
Red LED.	5 for 89c
Green LED's	4 for 89c

Great prices ! - how do you get them - Easy. Most American hobby magazines (73, W Radio Electronics etc.,) advertise. Pick your prices and pick the specials. I've never been ripped off yet.

Send your order by aerogramme with the amount required in a Bank Draft (not quite the A.P.O. thing but no problems so far). The parts you require will be airmailed within 24 hours, if still in stock, AT THEIR EXPENSE.

A couple of rules :

1. Minimum order is about \$10.00
2. Make sure you asked the supplier to split the order into \$10 lots. I have seen \$60 worth of parts sent in six packages. This ensures that you don't pay duty.

So there it is, cheaper than Tricky Richards, faster than him (or anybody else if dealt with in Australia) and PREMIUM GRADE components.

O.K. so you don't want premium grade stuff - great. Then you can get really "El-Cheapo" components. Try "Poly Paks" (P.O. Box 942 -All, 50 Lynnfield. M.A. 01940). You'll have to pay postage. (No hassles - at the prices you can afford it.)

Try these on for size. All prices are \$2.00 (Thats right \$2. not \$20) for \$2.01 you can double the amount you get (see Radio Electronics - Jan 1979).

15 LM340T regulators 5 -24 Volts
30 Clock chips (Untested and hobby)
30 Neon lamps
30 Volume Potentio-meters
15 Mixed readout chips
200 Resistors
100 TO - 92 Transistor

Some of these are untested, or have house numbers (and even the untested stuff has a guarantee of 50% yield). Give it a fly, you just can't lose (besides testing the components is education itself).

Denis VK2VDM

2 METRE REPEATER --- CHANNEL 5

THIS MONTH AN AUXILIARY RECEIVER WAS FITTED TO THE REPEATER, FOR THE PURPOSE OF AUTOMATIC RELAY OF THE W.I.A. BROADCASTS THROUGH THE REPEATER ON SUNDAY MORNINGS AND EVENINGS.

THE NEW RECEIVER IS, IN FACT, THE OLD RECEIVER WHICH WAS USED IN THE ORIGINAL WOLLONGONG CHANNEL 1 REPEATER.

THE BROADCASTS ORIGINATE FROM SYDNEY ON 145.6 MHZ, THIS FREQUENCY BEING INTENDED FOR RE-TRANSMISSION THROUGH REPEATERS. ALREADY CHANNEL 3 GOSFORD, CHANNEL 8 DURAL, PROVIDE THIS FACILITY.

THE AUXILIARY RECEIVER IS COMMANDED ON BY A TONE ENCODED SIGNAL FROM MY SHACK JUST BEFORE THE BROADCAST, AND IT SWITCHES ITSELF OFF AFTER THE BROADCAST SIGNAL HAS GONE. SIGNALS ON 145.6 MHZ. WILL NOT BE HEARD BY THE REPEATER AT ANY OTHER TIME.

WHILE THE BROADCAST IS IN PROGRESS, THE REPEATER WILL STILL FUNCTION NORMALLY FOR SIGNALS INTO ITS NORMAL INPUT. THIS GIVES IT THE ABILITY TO HANDLE SHORT CALLS OR EMERGENCY TRAFFIC DURING BROADCAST PERIODS.

PAUL VK2ZQT IS TAKING CALLBACKS AFTER TH BROADCASTS.

THE TIME-OUT PERIOD HAS BEEN INCREASED FROM FOUR TO SIX AND A HALF MINUTES. AS ACTIVITY INCREASES, THE TIME-OUT PERIOD WILL BE DECREASED, ALONG WITH COMMON PRACTICE.

IF YOU HEAR TWO TONES VARYING AT HIGH SPEED, IT IS PROBABLY AN RTTY QSO GOING ON, AND IF YOU WISH TO CALL ON THE REPEATER JUST REMEMBER THAT THE RTTY FELLOWS ARE LISTENING TO THEIR LOUDSPEAKERS, SO YOUR CALL WILL BE HEARD IN THE PAUSE BETWEEN TRANSMISSIONS. IN ANY CASE, THE RTTY OPERATORS SHOULD USE VOICE IDENTIFICATION WITH EACH TRANSMISSION, AND GIVE A CHANCE TO THE BREAKER TO HAVE A GO.

RTTY OR ANY MODE WHICH OCCUPIES A BANDWIDTH OF PLUS AND MINUS 5 KHZ. AND IS FREQUENCY MODULATED, WILL BE HANDLED BY THE REPEATER, AND IS NOT DISCOURAGED PROVIDED THAT NO INCONVENIENCE IS CAUSED TO NORMAL PHONE OPERATORS, AND THAT COURTESIES AND REGULATIONS ARE ADHERED TO.

REMEMBER, THE W.I.A. BROADCASTS ARE NOW ON CHANNEL 5.

TIMES : SUNDAY MORNINGS -----11 AM LOCAL TIME
SUNDAY EVENINGS ----- 7:30 PM LOCAL TIME

FREQUENCY: CHANNEL 5 REPEATER 146.850 MHZ.

GRAEME VK2CAG

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