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.

PRESIDENT	SECRETARY	EDITOR
Keith Curle, VK2OB 24 Beach Drive Woonona 2517	John Doherty, VK2NIA, 7 Risley Road FIGTREE 2525	Keiran Kennedy 166 Osbourne Parade WARILLA 2528

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.
VK2RUW, 70cm, Channel 1.

LARS MONTHLY BROADCAST

The Monthly Broadcast takes place on the Sunday preceeding the Meeting Night each month, at 1900 Hours EAST.

Frequency used by VK2AMW for the broadcast is -
Repeater Channel 5, or Simplex Channel 40.
Relay on 28.460 Mhz, 20 cm Channel 1.

LARS CLUB NETS

6 Metre.	8.30am Sunday,	52.525 MHz	FM.
10 Metre.	8.00pm Sunday,	28.460 MHz	USB.

June
1979

THIS MONTHS MEETING

MICROPROCESSORS **Monday, June 11**

This month Mr Rod Witworth will give a talk on the operation of Microprocessors. He will also discuss their application with regard to amateur use.

There will also be a display of equipment.

LOCATION - NOTE

WILL BE HELD IN THE CONGRECATIONAL HALL
COOMBE STREET WOLLONGONG
(opposite old post office)

COMMITTEE NOTES

The resignation of Gerry VK2APG from the Club Committee was tendered and accepted at the last Committee Meeting held on Tuesday 22 May 1979.

DUAL BAND FOX HUNT

Note the Time and Date!

11.30 am Sunday 17 June 1979.

Starting at Wollongong Lighthouse. Foxes will be on 146.00 MHz and 28.460 MHz.

One Prize of Trophy and $5.00 open-order on Club store for the first hound to find either fox.

Here is an excellent opportunity for both Novice and Limited Class operators to meet socially outside the Club Meetings. (Until such time a common band is introduced).

It is customary to hold a bar-b-q at the conclusion of the Fox hunt, weather permitting. Please remember everyone is welcome to compete and/or attend Bar-B-Q.

NAME BADGES

John Doherty is still holding some name badges which were ordered quite some time ago. It would be appreciated if all Members who have ordered the badges, and not collected them consult John at the next Club Meeting.

CONFERENCE OF CLUBS

The first Conference of Clubs was held at the Wireless Institute Centre, Crows Nest on Saturday 26 May 1979. A total of 18 clubs from NSW took part in the discussions which went from 10.00 am till 6.30 pm. Requests and decisions from this meeting will be passed to the NSW Division for their consideration and in turn through Federal to the Authorities. Following is a brief outline of the major topics discussed and the decisions made.

A. NOVICES

A series of requests for increased privileges for novices such as RTTY, F3, SSTV, increased band allocations as well as a common band for novice and limited calls were fully discussed.

It was explained to the conference by the NSW Council that the WIA were against any increase in the privileges of the novice for the following main reasons:

1. Most important is that it would increase the possibility of the PT, creating a 4th class of Amateur licence on us in 1982 "The COMMUNICATIONS LICENCE".

2. It would increase the complexity of the exam making it harder to get.

3. It would lessen the gap between the Novice and the Full Call and therefore lessen the incentive for its novice to get his full call.

On the subject of the common band it was suggested that 27 MHz in 1982 would assist with the return of this band.

B. EXAMS

It is understood that the P T Dept will conduct the Morse exam for the full call at a character speed of 12-13 WPM and the Novice Morse exam at a character speed of 8 WPM.

The Conference of Clubs has recommended that the novice also be increased to the same character speed as the full call to assist novices to continue on and do the A.O.C.P.

As the next AOCP theory exam will be a multiple choice exam the P T Dept are considering conducting 4 theory exams for both novice and AOCP each year instead of the 2 each at present.

C. CHANNEL 5A AND 0

These channel allocations were discussed and the conference will send a letter of protest to the minister on both of these issues. The minister has stated that no other 5A allocation will be made after the current batch of 4, for which monies have been allocated, are completed.

D. OTHER TOPICS

Some of the other topics discussed were:

1. Restoration of the 6M Band (50-52 MHz).
2. Provide more exam sites at Tech Colleges etc.
3. WIA to resist moves to abolish CW.
4. For the return of 27 MHz in 1982.
5. There were also items pertaining to the operation of the Conference of Clubs and the NSW Division.

E. NEXT MEETING

The next Conference of Clubs will be held at ORANGE early in November 1979.

73's

Geoff VK2ZHU

FOR SALE

UHER Stereo cassette recorder, Model 124 portable AC/DC with some accessories. $200.00

Contact George Meldrum PHONE: 84.3153
(Club Badge: George SWL).

FOR SALE

FRG7 Communications receiver with narrow SSB Filter fitted, mint condition. $260.00 O.N.O.
PHONE: John Thurstun (042) 83.3509 VK2VFQ

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. Antennaes (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. "Sidebander" 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 DR7600 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.

NOVICE NOTES NO.2 ERFFS

Earths are propably the most taken for granted items in your shack. So the object of this months article is to make you aware of the whys and the hows of external earths. I will leave the internal earth to a future article (to be called "Chassis, Deck or Whatever").

Most Amateurs know that you must have an earth. Most don't know why, so here are seven good reasons:

1) To minimise the changes of you or your gear being zapped by lightning (2000 MW is a lot of power to dissipate).

2) To earth metal casings and fittings that may become live accidentally.

3) To anchor the neutral point of your power distribution system so that the potential of the neutral doesn't vary.

4) To allow protective devices to operate rapidly in cases of electrical faults.

5) To prevent cases of RFI. Nobody wants to be made to go QRT.

6) To provide a metallic path to ground for stray currents to minimise electrolytic corrosion.

7) To eliminate the risk of sparks and subsequent risk of fire and explosion.

TO MAXIMISE YOUR SAFETY CHANCES THE RESISTANCE OF YOUR EARTHING SYSTEM MUST BE AS LOW AS YOU CAN POSSIBLY GET IT.

The most effective earthing (both in cost and results) is obtained by using deep driven rods or tubes. Such a system (Compared to buried plates or wires) uses up less ground surface area and can thus be used in small areas or even inside your shack. As well the voltage gradient is down the rod and so it is possible to reach the deep, low resistance areas where the greatest drops in earth resistance are obtainable, and because of the depth, seasonal variations are minimised (a buried wire system is ok if you want to water your lawn every day).

The best rod is a heavy gauge copper rod or tube or one of the commercial earth rods made of copper steel (these are obtainable from Electrical Merchants). If one rod doesn't satisfy you then use multiple rods which are properly bonded together. But be aware that if one rod gives you 50 ohms then two <u>won't give you 25 ohms</u> - ohms law doesn't apply in this case.

You <u>MUST</u> bond all joints properly - <u>that means solder them</u>. Every joint adds resistance. Also remember that the length of the cable run on your earth system should be kept as short as possible (50 foot or so of earth wire may give you a delightful aerial at 80 metres).

Remember also to ground your tower - it makes a great target for lightning. The rules for the type of cable for you to use in your system are simple.

<u>BIGGEST IS BEST</u>

Use the heaviest copper wire you can find or afford (which ever come first). If possible also run a copper bus-bar along your shack as well to facilitate your earthing requirements.

Finally if you have an RFI problem check all your earths especially the joints it may be the difference between DX CC and enforced QRT operation.

73s
DENNIS VK2VDM

CONVERTING CB SETS TO 10 METRES

Rick Hill, VK2DAP.

Recently I was involved in conversion of C.B. transceivers to 10 metres. The phase-locked-loop frequency synthesiser used in this particular type of rig is intriguing, as it allows frequencies to be generated at 5 kHz steps using a single 10 MHz crystal. This article is a simple description of how the system works.

The number of frequencies the system can generate is limited by the (divide by) factor of the dividers in circuit. In practice the range is limited by the Q of the tuned circuits in the rig. A one megahertz segment is the maximum as power output and sensitivity suffers if a wider band is covered. This corresponds to 100 channels.

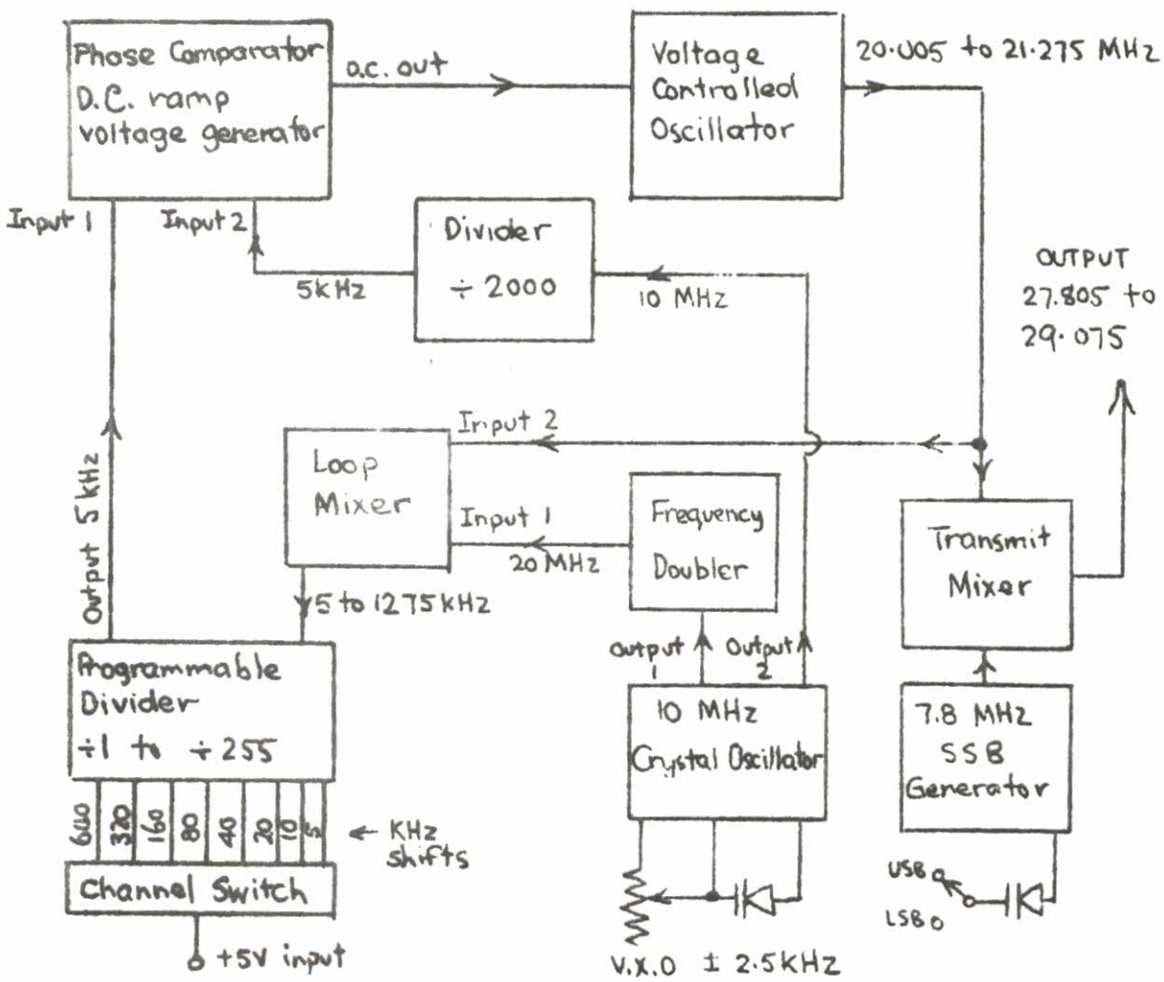
The required frequency is normally selected by a rotary 18-channel switch. This switch selects a binary code which controls the frequency divider. This switch has 8 outputs which are either at a "1" state (5V) or a "0" state (0 Volts). The limiting factor is the number of channels pre-programmed by the manufacturer of the switch - e.g., 18, 23 or 40. In theory the maximum number of frequencies available is 256 (i.e., 2^8) with 8 dividers available. The following chart shows how this can be done.

The simplest way to obtain the maximum range of frequencies is to replace the channel switch with 8 miniature toggle switches; the only problem is trying to work out where you are in the band.

The heart of the PLL system isthe Phase (read frequency) Comparator. This device is part of an MC14568 intograted circuit in this rig. It produces a D.C. voltage which controls a varicap tuned oscillator keeping it locked to the crystal reference oscillator to better than 0.005%. Referring to the block diagram will hopefully explain the mode of operation. Note that the rig uses a 7.8 MHz I.F. with the V.C.O. operating near 21 MHz for 10 metre operation and 19 MHz for the C.B. band. The "turnover" frequency for the V.C.O. operation is 20 MHz.

BLOCK DIAGRAM OF PLL SYNTHESISER OPERATING IN 10 METRE BAND:

Similar to SBE, Liner and Johnson Viking.



Typical Binary Instructions

kHz Shift								VCO Output MHz	Transmitter Output Mhz
5	10	20	40	80	160	320	640		
1	0	0	0	0	0	0	0	20.005	27.805
0	1	0	0	0	0	0	0	20.010	27.810
1	1	0	0	0	0	0	0	20.015	27.815
0	0	1	0	0	0	0	0	20.020	27.820
1	0	1	0	0	0	0	0	20.025	27.825
..	..	..	..	..	..	..	..	..	.
0	0	0	0	0	0	0	1	20.640	28.440
1	0	0	0	0	0	0	1	20.645	28.445
0	1	0	0	0	0	0	1	20.650	28.450
..	..	..	..	..	..	..	..	..	..
1	1	1	1	1	1	1	1	21.275	29.075

As can be seen, this system is ideal for digital electronic switching. I have built a very basic scanner using two 74191 ic's and a 555 timer. Details will be available if anyone is interested.

Table 17

Air-Core Inductors

MODEL NUMBER	*COIL DIAMETER (IN.)*	*TURNS PER INCH*	*LENGTH (IN.)*	*WIRE SIZE*	*INDUCTANCE (APPROX.) (μH)*
3001	1/2	4	2	18	0.40
3002	1/2	8	2	18	0.96
3003	1/2	16	2	20	3.2
3004	1/2	32	2	24	13.7
3005	5/8	4	2	16	0.56
3006	5/8	8	2	18	1.4
3007	5/8	16	2	20	4.9
3008	5/8	32	2	24	19.2
3009	3/4	4	3	16	0.94
3010	3/4	8	3	18	2.9
3011	3/4	16	3	20	10.9
3012	3/4	32	3	24	42.5
3013	1	4	3	16	1.9
3014	1	8	3	18	4.8
3015	1	16	3	20	19.9
3016	1	32	3	24	73.0
3017	1-1/4	4	4	14	2.56
3018	1-1/4	8	4	16	9.4
3019	1-1/4	16	4	18	37.5
3020	1-1/4	32	4	24	145
3021	1-3/4	4	4	14	4.5
3022	1-3/4	8	4	14	17.2
3023	1-3/4	16	4	18	72.0
3024	1-3/4	32	4	24	280
3025	2	6	10	12	33
3026	2	8	10	14	60
3027	2	10	10	16	92
3029	2-1/2	6	10	12	52
3030	2-1/2	8	10	14	92
3031	2-1/2	10	10	16	142
3033	3	6	10	12	74
3034	3	8	10	14	135
3035	3	10	10	16	200

Courtesy Barker and Williamson Co.

Toroid Core Tables

Moonbounce Report - June 1979.

Preliminary work on foundations is continuing at the new site for the dish being used by VK2AMW.

The weekend skeds between VK2ALU and ZE5JJ on 21230KHz at 0630Z has now grown to an EME roundtable which includes VK5MC, VK3ATN and ZL3AAD.

VK5MC continues to have 432MHz EME contacts, VK3ATN is working towards getting back on to EME and ZL3AAD has heard some stations via the moon on 432MHz. His transmitter is almost ready to go.

With the aid of Barry VK2ZAG, who obtained the items, sets of high grade coaxial trimmer capacitors are being made up to assist 432MHz EME experimenters to construct extremely low noise GASFET preamplifiers.

Microwave News.

Enquiries are being made to locate amateurs presently interested in getting on the 10GHz band. So far the following have been found in VK2.

With operational transceivers on the 10GHz band.

VK2AMC - Sydney, VK2YCN - Gosford.

With Gunnplexers for future use on 10GHz.

VK2BYY, VK2ZPC.

With other equipment being made up for reception or transmission on 10GHz.

VK2ZAC.

Others are known to have 'X' band gear, but not operational to transmit or receive in the Amateur 10GHz band.

I would be very interested to hear from any amateurs in VK2 who are working towards getting a transmitter and receiver on the 10GHz band.

The last two weekends have been spent in making adjustments to my 10GHz transceiver, with the aid of a 15 milliwatt Gunn diode signal source on loan from Des Clift VK2AMC (who can also help with Gunnplexers).

The latest checks have required the signal source to be moved some distance away to the QTH of VK2BRE in the western part of Wollongong. Signals are still S9++ over a visual path.

Tests between VK2's YCN, AMC and ALU will be made shortly.

Lyle VK2ALU.

COMMUNICATION DATA

LICENCING INFORMATION

The Post and Telegraph Department conducts during the year examinations for Amateur Operators certificate of Proficiency at centres throughout Australia.
There are three classes of licence:-
Type 1 – Amateur Operators Certificate of Proficiency (AOCP)
Type 2 – Amateur Operators Limited Certificate of Proficiency (AOLCP)
Type 3 – Novice Amateur Operators Certificate of Proficiency (NAOCP)
Requirements for this licencing are:-
A.O.C.P. Knowledge of Radio Communication, Operation and design of Receivers, Transmitters, Aerials and basic theory. Send and receive in plain language International Morse code to a speed of 10 words for a minute (WPM). The knowledge of the Regulations covering operation of Amateur Radio Stations;
A.O.L.C.P As above, but no morse code examination required;
N.A.O.C.P As per A.O.C.P. but of a lower standard with questions having multiple choice answers, morse code to 5 wpm and Regulations. This is a very easy exam to pass.

BAND USAGE
A.O.C.P. All Amateur bands (see details elsewhere).
Maximum power input 400 W PEP 150 W AM
A.O.L.C.P. All amateur bands above 52 MHz
Maximum power input 400 W P.E.P. 150 Watts AM
N.A.O.C.P. 3.525 to 3.625
21.125 to 21.200
28.100 to 28.600
Maximum power input 30 Watts P.E.P. 10 Watts AM
Crystal locked on transmit.

2 METRE FM CHANNELS SIMPLEX CHANNELS

CHANNEL	FREQUENCY
40	146.00
49	146.45
50	146.50
51	146.55
52	146.60

AUSTRALIAN 70cm REPEATERS

CHAN. (VK 2)	FREQ IN	FREQ OUT	LOCATION
1	433.225	438.225	Wollongong
3	433.325	438.325	Newcastle
5	433.425	438.425	Weverly
7	433.525	438.525	Sydney
11	433.725	438.725	Gosford
VIC (VK3)	433.525	438.525	Melbourne
QLD (VK4)	433.525	438.525	Brisbane

REPEATER CHANNELS

Channel	in	out	Channel	in	out
1	146.05	146.65	11	147.75	147.15
2	146.10	146.70	12	147.80	147.20
3	146.15	146.75	13	147.85	147.25
4	146.20	146.80	14	147.90	147.30
5	146.25	146.85	15	147.95	147.35
6	146.30	146.90	602	146.025	146.625
7	146.35	146.95	607	146.075	146.675
8	146.4	147.00	627	146.275	146.875
9	147.95	147.05	632	146.325	146.925
10	147.70	147.10	722	147.225	147.825

AUSTRALIAN 2 METRE REPEATERS

STATE	CHANNEL	LOCATION
A.C.T		
VK1	6	Canberra City
	7	Mt. Ginini
N.S.W.		
VK2	1	Oberon (Mt. Binda)
	2	Orange/Port Macquarie/Ulladulla
	3	Gosford/Wagga/Bega
	4	Lismore/Heathcote
	5	Wollongong/Griffith/Guneden
	6	Newcastle
	7	Moree
	8	Sydney North Dural
	9	Blue Mountains
	10	West Lakes
	11	Sydney City (WICEN)
	12	Upper Hunter
	13	Hornsby
	14	Reserved
	15	Forster/Mittagong
	602	Maitland (RTTY)
	607	Sydney (RTTY)
	627	Manly
	632	Gladesville
	722	Hornsby (SSTV)
VIC		
VK3	2	Mt. Dandenong
	3	Ballarat
	4	Bendigo/Latrobe Valley
	5	Mt. Macedon
	6	Swan Hill/East Gippsland
	7	Grampians
	8	Mildura/Geelong/Wodonga
QLD		
VK4	2	Gold Coast/Townsville/Rockhampton
	4	Toowoomba/Bundaberg
	6	Ipswich
	8	Brisbane
S.A.		
VK5	2	Port Pirie
	5	North Adelaide
	6	Mt. Gambier
	8	Adelaide
W.A.		
VK6	2	Perth
	4	Perth City/Albany
	6	Bunbury
	8	Wagin/Kalgoorlie
TAS		
VK7	2	Hobart
	3	Ulverstone
	8	Launceston

AMATEUR BAND PLAN

1.80 Metres – 1.8 to 1.860 MHz.
1.800 to 1.815 MHz morse section.
1.815 to 1.860 MHz voice section.
1825 MHz national call channel.
1820 kHz also a popular crystal net.

80 metres – 3.5 to 3.7 MHz.
3.525 to 3.625 MHz is the Novice Band in Aust.
3.5 to 3.5550 MHz morse section.
3.550 to 3.7 MHz voice section.
3.7 to 3.75 MHz is the US Novice Band.
3.565 MHz is a popular Novice listening and working channel as is 3.565 MHz.

40 metres – 7.0 to 7.15 MHz
7.1 to 7.150 MHz is the American Novice Band.
7.00 to 7.035 MHz morse segment.
7.035 to 7.150 MHz voice segment.
7.060 MHz national listening channel.
Some AM stations but mainly morse and LSB.

20 metres – 14.0 to 14.35 MHz
14.0 to 14.1 morse, 14.1 to 14.35 voice.
14.1 to 14.2 popular into Europe
14.2 to 14.35 popular into the USA.

15 metres – 21.0 to 21.45 MHz
21.125 to 21.2 is the Novice Band in Australia.
21.0 to 21.180 is morse.
21.150 to 21.450 is voice.
21.1 to 21.2 is the US Novice Band
In the US voice is 21.25 to 21.45 MHz. Morse is 21.0 to 21.25 MHz.

10 metres – 28.0 to 29.7 MHz
28.1 to 28.6 MHz is the Australian Novice Band.
28.1 to 28.2 MHz is the US Novice Band.
28.0 to 28.5 is the American morse section.
28.6 to 29.7 is the voice section.
28.5 is the national calling frequency in Australia.
28.55 MHz is a popular international channel.
28.6 MHz is the international DX listening frequency.
A 23 channel system is being organised for modifying 11 metre rigs on to 10 metres. The range will be from 28.3 to 28.590 MHz.

CHAN	FREQ	CHAN	FREQ
1	28.30	13	28.45
2	.31	14	.46
3	.32	15	.47
4	.34	16	.49
5	.35	17	.50
6	.36	18	.51
7	.37	19	.52
8	.39	20	.54
9	.40	21	.55
10	.41	22	.56
11	.42	22A	.57
12	.44	23	.59

AMATEUR BEACONS

10 metres – 28.2 to 28.25MHz

28.2 to 28.25 is the international amateur 10 m beacon band
These beacons transmit 24 hours daily providing an indication of propagation conditions for the 10 metre DX enthusiast.

BEACON		LOCATION	FREQUENCY
OA4VHF	–	Peru	28.185 MHz
9J2BBB	–	Zambia	28.2025 MHz
DLOIGI	–	West Germany	28.205 MHz
W4	–	U.S.A.	28.2075 MHz
3B8MS	–	Mauritius	28.210 MHz
ZD9GI	–	Gough Isl.	28.2125 MHz
VK2WI	–	N.S.W. Australia	28.2175 MHz
5B4CY	–	Cyprus	28.220 MHz
YU	–	Yugoslavia	28.2225 MHz
F3THF	–	France	28.2275 MHz
VE3TEN	–	Canada	28.225. MHz
ZL3MHz	–	New Zealand	28.230 MHz
VP9BA	–	Bermuda	28.235 MHz
PY1CK	–	Brazil	28.24 MHz
A9XC	–	Bahrain	28.245 MHz
WA1IOB	–	U.S.A.	28.250 MHz

Some of the above beacons such as Sydney are planned, others are changing to the above new frequencies.

6 metres – 52 to 54MHz

BEACON		LOCATION	FREQUENCY
VK0MA	–	MAWSON	53.100
VK2WI	–	SYDNEY	52.450
VK4RTL	–	TOWNSVILLE	52.600
VK5VF	–	MT. LOFTY	53.000
VK6RTV	–	PERTH	52.300
VK6RTU	–	KALGOORLIE	52.350
VK6RTW	–	ALBANY	52.950
VK7RNT	–	LAUNCESTON	52.400
VK8VF	–	DARWIN	52.200
JD1YAA	–	JAPAN	50.110
KH6EQUI	–	HAWAII	50.104
ZL2VHP	–	PALMERSTON NTH.	52.500
YJ8PV	–	PT. VILA	52.000

2 metres – 144 to 148MHz

BEACON		LOCATION	FREQUENCY
VK1RTA	–	CANBERRA	144.475
VK2WI	–	SYDNEY	144.010
VK2RHR	–	MITTAGONG	144.120
VK3RTG	–	VERMONT	144.700
VK4RTT	–	MT. MOWBULLAN	144.400
VK5VF	–	MT. LOFTY	144.600
VK6RTW	–	ALBANY	144.500
VK6RTV	–	PERTH	145.000
VK7RTX	–	LONAH	144.900
ZL1VHF	–	AUCKLAND	145.100
ZL2VHF	–	WELLINGTON	145.200
ZL2VHP	–	PALMERSTON NTH.	145.250
ZL3VHF	–	CHRISTCHURCH	145.300
ZL4VHF	–	DUNEDIN	145.400

CB LICENCING INFORMATION

Licences for CB equipment can be obtained from the Postal and Telecommunications Department for an annual fee of $25 per set. There are at present 18 authorised channels in the 27MHz HF band but by 1982 the CB service will be using a 40 channel UHF system. Channels 1 to 10 and 36 to 40 in the UHF band are already available, others will be available shortly. Stations may be fixed, mobile or portable. For further information contact the Department of Posts & Telecommunications Licencing and Regulatry Section nearest you. Full details are also given in Dick's book on CB.

AUSTRALIAN CB CHANNEL FREQUENCIES

NEW CHANNEL ALLOCATIONS AND SUGGESTED USE

New channel number (Australian)	Old channel number (American)	Frequency	Suggested Use
1	5	27.015	AM QSO (Club Broadcast)
2	6	27.025	AM QSO
3	7	27.035	AM QSO
4	8	27.055	TRUCKERS CALLING CHANNEL
5	9	27.065	EMERGENCY
6	11	27.085	AM PRIMARY CALLING
7		27.095	AM QSO
8	12	27.105	AM QSO (SECONDARY CALLING)
9	13	27.115	AM QSO
10	14	27.125	AM QSO
11	15	27.135	SSB QSO
12	16	27.155	SSB PRIMARY CALLING LSB, SECONDARY CALLING USB
13	17	27.165	SSB QSO
14	18	27.175	SSB QSO
15	19	27.185	SSB QSO
16		27.195	SSB QSO
17	20	27.205	SSB QSO
18	22	27.225	SSB QSO (Club Broadcast)

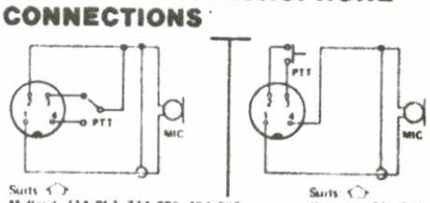
AUSTRALIAN NOVICE FREQUENCIES

3 525 – 3.625MHz
21.125 – 21.20 MHz
28.100 – 28.60 MHz
Suggested Novice 80 metre "net" frequencies
Channel 1 3.5350 MHz
Channel 2 3.5450 MHz
Channel 3 3.5550 MHz
Channel 4 3.5650 MHz

AUSTRALIAN AMATEUR FREQUENCIES

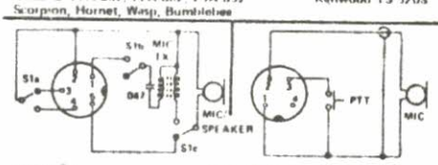
1.80	–	1.86 MHz	420.00	–	450.00 MHz
3.50	–	3.70 MHz	576.00	–	585.00 MHz
7.00	–	7.15 MHz	1215.00	–	1300.00 MHz
14.00	–	14.35 MHz	2300.00	–	2450.00 MHz
21.00	–	21.45 MHz	3300.00	–	3500.00 MHz
26.96	–	27.23 MHz	5650.00	–	5850.00 MHz
28.00	–	29.70 MHz	10000.00	–	10500.00 MHz
52.00	–	54.00 MHz	24000.00	–	24250.00 MHz
144.00	–	148.00 MHz			

TRANSCEIVER MICROPHONE CONNECTIONS



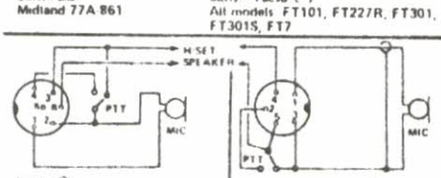
Suits Midland 77A 857, 77A 882, 79A 892 Scorpion, Hornet, Wasp, Bumblebee

Suits Kenwood TS 520S



Suits Midland 77A 861

Suits Yaesu All models FT101, FT227R, FT301, FT301S, FT7



Suits Midland 77A 963

Suits Midland 76A 886

CONNECTIONS SHOWN LOOKING AT FRONT OF MICROPHONE PLUG

THE PROPAGATOR

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