

OFFICIAL NEWSLETTER FOR THE WEST AUSTRALIAN VHF GROUP(INC)
P.O. BOX 189, APPECROSS WA 6153.

MEETINGS ON THE FOURTH MONDAY OF EACH MONTH AT WIRELESS HILL
TELECOMMUNICATIONS MUSEUM, ALMONDBURY RD, ARDROSS

VK6WH

VK6WH

PATRON MR. F.W. DAWSON

PRESIDENT	BOB BLINCO	VK6KRC H277 7049	SECRETARY	BOB PINE	VK6ZFY H 339 3273
VICE PRES	PETER TAIT	VK6ZPT	TREASURER	BERT MEUWISSEN	VK6ME H 457 3892
COUNCILLOR	TERRY LEITCH	VK6ZLT H332 7008	BULLETIN ED.	JACK BORTHEN	VK6KDX H 447 5933
COUNCILLOR	BRUCE DOUGLAS	VK6BMD	MUSEUM REP.	BOB PINE	VK6ZFY
COUNCILLOR	FRITZ BERBER	VK6UZ	MUSEUM REP.	TOM BERG	VK6ZAF
ACTIVITIES	TERRY LEITCH	VK6ZLT	PUBLICITY	JACK BORTHEN	VK6KDX
MATERIALS	COLIN MURRAY	VK6ZCR	LIBRARIAN	ILMAR BELTS	VK6AIB

CALENDAR

NOV	16	COMMITTEE MEETING	JAN	18	COMMITTEE MEETING
	21	FOXHUNT		23	FOXHUNT
	23	GENERAL MEETING		25	GENERAL MEETING
DEC	6	BBQ and TAILGATE SALE			

NOVEMBER 92

XMAS BBQ and JUNK SALE

DECEMBER 6

Tailgate Sale Starts 11 AM

Bring Your JUNK To Sell

BBQ is BYO

Location is at Peter's Place
55 Linton Street North
BYFORD

For The Satellite Watchers

AO-10
1 14129U 83 58 B 92303.92902999 -.00000008
00000-0 99998-4 0 9354
2 14129 26.9254 56.8175 6020671 28.9253
353.8842 2.05877256 70529
UO-11
1 14781U 84 21 B 92298.60061378 .00000542
00000-0 97016-4 0 3809
2 14781 97.8388 329.1583 0013179 32.5963
327.6053 14.68700323462132
RS-10/11
1 18129U 87 54 A 92304.04943318 .00000175
00000-0 18085-3 0 4482
2 18129 82.9273 48.7106 0010549 233.7101
126.3064 13.72298194268280
AO-13
1 19216U 88 51 B 92301.31864191 -.00000053
00000-0 18241-3 0 5320
2 19216 57.2919 353.3735 7287854 299.7200
7.7409 2.09720326 33478
FO-20
1 20480U 90 13 C 92304.24538366 -.00000008
00000-0 95630-5 0 4297
2 20480 99.0583 197.6213 0539902 247.3254
106.9913 12.83214268127820
AO-21
1 21087U 91 6 A 92302.56273863 .00000048
00000-0 44589-4 0 5992
2 21087 82.9455 224.2142 0034685 309.4100
50.3981 13.74496862 87622
RS-12/13
1 21089U 91 7 A 92303.42582448 .00000053
00000-0 50500-4 0 3818
2 21089 82.9234 93.2486 0030043 328.4773
31.4582 13.74003851 86836
UO-14
1 20437U 90 5 B 92303.76025587 .00000201
00000-0 86114-4 0 6867
2 20437 98.6317 24.4155 0011322 135.5551
224.6053 14.29687316144500
AO-16
1 20439U 90 5 D 92304.05005176 .00000191
00000-0 82087-4 0 5316
2 20439 98.6365 25.3939 0012237 134.3745
225.8442 14.29750298144553
DO-17
1 20440U 90 5 E 92295.73373979 .00000164
00000-0 71512-4 0 5299
2 20440 98.6386 17.2979 0011258 157.4238
202.7441 14.29875717143373
WO-18
1 20441U 90 5 F 92297.37994197 .00000140
00000-0 62289-4 0 5298

2 20441 98.6384 18.9704 0012011 152.9616
207.2177 14.29865085143614
LO-19
1 20442U 90 5 G 92299.42553833 .00000143
00000-0 63560-4 0 5291
2 20442 98.6384 21.1316 0012406 146.7742
213.4217 14.29950957143919
UO-22
1 21575U 91 50 B 92297.12021199 .00000200
00000-0 74934-4 0 2298
2 21575 98.5001 10.7648 0007651 292.0432
67.9939 14.36711603 66627
KO-23
1 22079U 92 52 D 92290.05778054 .00000823
00000-0 34392-2 0 803
2 22079 66.0876 115.3464 0015049 255.3447
104.5494 12.86275789 8514
NOAA-9
1 15427U 84123 A 92300.90816421 .00000015
00000-0 18545-4 0 2325
2 15427 99.1322 330.7150 0016101 104.7885
255.5120 14.13442083405827
NOAA-10
1 16969U 86 73 A 92300.91639306 .00000090
00000-0 46994-4 0 802
2 16969 98.5309 316.7331 0012255 278.0308
81.9488 14.24714379317410
MET-2/17
1 18820U 88 5 A 92304.25811583 .00000197
00000-0 16606-3 0 8337
2 18820 82.5408 21.8007 0019173 51.6549
308.6331 13.84659290240026
MET-3/2
1 19336U 88 64 A 92303.23469825 .00000063
00000-0 14514-3 0 15
2 19336 82.5454 25.3787 0016960 315.9250
44.0515 13.16951756204819
NOAA-11
1 19531U 88 89 A 92300.89100755 .00000150
00000-0 10168-3 0 9839
2 19531 99.1001 266.4863 0012427 18.4145
341.7476 14.12759103210733
MET-2/18
1 19851U 89 18 A 92303.80207906 .00000054
00000-0 43179-4 0 7826
2 19851 82.5184 258.5729 0015255 91.7386
268.5534 13.84302209185317
MET-3/3
1 20305U 89 86 A 92303.60120918 .00000043
00000-0 99999-4 0 6820
2 20305 82.5511 327.5469 0017192 333.5421
26.4822 13.16004865144772
MET-2/19
1 20670U 90 57 A 92303.52379955 .00000063
00000-0 50808-4 0 5325
2 20670 82.5471 321.5925 0017089 21.9666
338.2224 13.84144295118214
FY-1/2

CTD PAGE 4

Ron (Flash) Mould - VK6FM

There is one time when it is forgivable to put aside the buzzwords of current super-technology and cast memory back to the time of valves-for-everthing, Amplitude modulation, no commercially built black boxes, no repeaters, no TV etc. The time is the early 1950's - nearly forty years ago.

The place is the residence of Ron and Gina Mould where a group of Perth VHF operators and SWLs gathered together - mainly for a pleasant chat about their mutual interest in things to do with "VHF Radio".

Ron had been a major advocate of getting these people together with the main aim of forming a "Western Australian VHF Group" modelled on the then existing similar bodies in other states. He and Gina readily offered their hospitality for this and other future similar occasions.

From these social gatherings came the organization that we still enjoy.

It is reason for some thought that the W.A.VHF Group these days is the only survivor of the other interstate groups.

6FM was a real enthusiast. Ron was always planning something bigger and better; either the largest antenna, the highest power amplifier or the most difficult propagation exercise. For example one project of his at the time was to construct a five over five over five antenna system for six metres. Maybe it never got built but there was plenty of discussion and infectious enthusiasm about the details of the "super antenna" on the air.

Ron's employment as Communications Officer with the Department of Civil Aviation took him away from Perth in subsequent years to locations including Melbourne, New Guinea and Derby. At Derby he was OIC and in that capacity

on one occasion he and Gina were required to play host and hostess to the State Governor during a flight through the area. Clearly a slightly nerve wracking time. However the same afternoon coincided with the passage through Derby Airport of one of the founding members of the W.A. VHF Group whom Ron had not seen for some twenty years. It is a measure of the sort of guy he was that somehow time was made to meet the routine aircraft and for a "rag-chew" in between pressing official duties.

In latter years Ron retired to live at Waikiki south of Perth and commenced work on his ultimate "biggest and best" project. This time a 10 metre diameter parabolic dish, with associated steering drives, transmitter and receiver gear, pre-amps and computer. The aim was to end up with a first class station for EME work on 1296 MHz. Nothing was too much trouble for Ron, either in the electrical, electronic or mechanical aspect of the project. There was no completion date; it all had to be right.

In the meantime 6FM maintained activity on 2 metres, keeping skeds with people like VK6WG in Albany.

The best laid plans.....In recent years Ron's health became a problem. His capacity to continue at full pace with the Big Dish slowed as debilitating illness progressed. His irrepressible interest and that incurable enthusiasm was unabated however as he continued to attempt to share planning details with fellow amateurs even in recent weeks.

Ron died on Wednesday, 14th October, 1992 after a long illness.

He is survived by his wife Gina and daughter Corrina and family, to whom the Group extends sincere sympathy.

So Long Flash.....VK6FM DE VK6VF SK.

1 20788U 90 81 A 92298.41866192 -.00000034
 00000-0 -11454-4 0 4791
 2 20788 98.8930 325.3014 0014545 244.4711
 115.4953 14.01301192109565
 MET-2/20
 1 20826U 90 86 A 92303.84087449 .00000059
 00000-0 47550-4 0 5324
 2 20826 82.5225 259.6301 0012628 283.5678
 76.4071 13.83515495105430
 MET-3/4
 1 21232U 91 30 A 92303.82303476 .00000043
 00000-0 99999-4 0 3342
 2 21232 82.5424 230.6161 0017443 250.9429
 108.9803 13.16811897 73000
 NOAA-12
 1 21263U 91 32 A 92300.87655132 .00000192
 00000-0 10392-3 0 4344
 2 21263 98.6848 328.8741 0013142 166.0615
 194.0931 14.22126137 75488
 MET-3/5
 1 21655U 91 56 A 92303.67425545 .00000043
 00000-0 99999-4 0 3827
 2 21655 82.5591 177.3102 0012477 245.9910
 113.9906 13.16811411 58080
 MIR
 1 16609U 86 17 A 92303.58798921 .00022211
 00000-0 32731-3 0 6703
 2 16609 51.6239 296.1140 0002383 29.1479
 331.0030 15.55318777383183
 HUBBLE
 1 20580U 90 37 B 92302.69294761 .00001795
 00000-0 15865-3 0 9422
 2 20580 28.4679 115.3346 0004789 135.8281
 224.2696 14.91896195136905
 GRO
 1 21225U 91 27 B 92303.04125974 .00023337
 00000-0 24868-3 0 7380
 2 21225 28.4621 170.2376 0006613 359.7511
 0.3064 15.62397085 88915
 SARA
 1 21578U 91 50 E 92303.75507950 .00000933
 00000-0 32196-3 0 3817
 2 21578 98.5006 17.8477 0004296 274.7817
 85 14.37986695 67608
 UARS
 1 21701U 91 63 B 92285.73873856 .00002170
 00000-0 21073-3 0 2295
 2 21701 56.9837 97.2908 0005089 106.1617
 253.9976 14.96447242 59109
 FREJA
 1 22161U 92 64 A 92302.62927226 .00000231
 00000-0 15796-3 0 836
 2 22161 63.0107 1.0823 0771060 262.1923
 89.0964 13.21478413 2957

IMPORTANT NOTICE

**If you have not paid your
subscription yet this will be the last
bulletin you will receive.**

FOR SALE

4CX1000A
 Full rating to 110 MHz
 Brand New
 Still in original Eimac Seals
 All reasonable offers considered.

Collins Linear Amp 30L1
 includes 4 spare tubes
 matched 811A's
 230 Volts
 \$1000

4-125's Brand New
 original cartons
 \$15.00

813's used
 \$10.00 ono

Contact BOB on 2777049

2 Metre GRID PACK Parabolic Dish

Suit 1296 MHz

Low windage

\$300 ono

Jack 447 5933

For the XMAS Hols

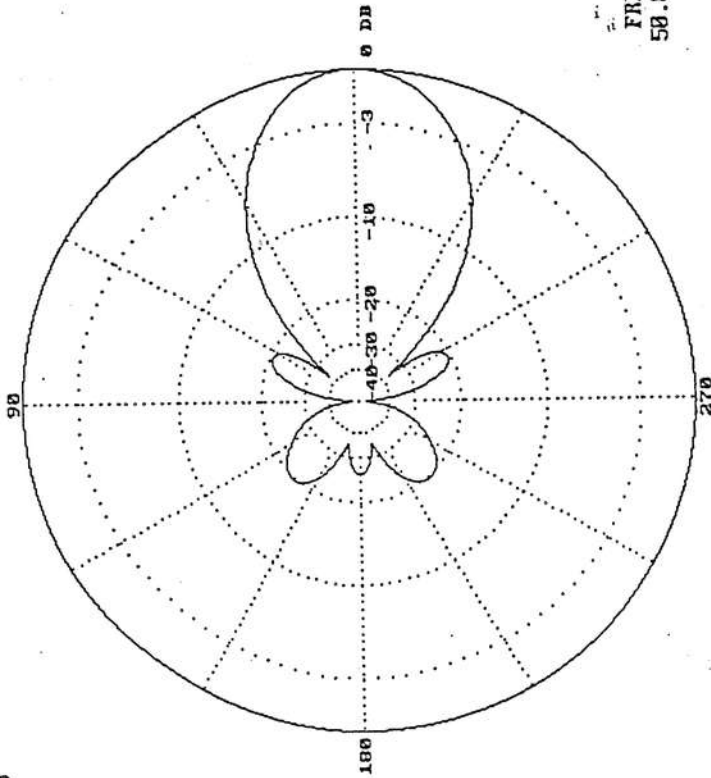
Here are a couple of antenna designs that you may wish to play with over the XMAS hols. I have built the two metre one and had a good result. This design works well with a folded dipole. I used 0.375 inch elements and a 1 inch square boom. It is from the Orr VHF Handbook.

The six metre design is the NBS design which is supposed to be the most optimum design. Your challenge is to work out the feed method, the element and boom arrangements.

Have a great XMAS and a happy and prosperous new year.. From the Group committee.

NORMALIZED AT 12.16 DBI

FREE SPACE E-PLANE PLOT OF 6 EL YAGI
FILE: NBS658



FREQUENCY
50.858 MHZ

07:57
11-12-1992

USE <PRI SCR> FOR HARD COPY

ELEMENT LENGTH (IN.)	ELEMENT POSITION (FT.)	CG (FT.)
113.552	REF 0	
109.750	DE 3.93	
100.831	D1 8.83	
98.946	D2 13.74	
98.946	D3 18.65	
100.831	D4 23.56	

ELEMENT POSITION (FT.)
CG = 11.44 FT.
Filename: NBS658.INP

YAGIMAX 2.21

°FREQ (mHz)	GAIN (dBi)	F/B (dB)	IMPEDANCE (ohms)
50.000	12.11	27.70	22.63+j18.49
50.025	12.13	26.61	22.36+j19.05
50.050	12.16	25.60	22.1+j19.63
50.075	12.18	24.65	21.83+j20.22
50.100	12.20	23.77	21.57+j20.81
50.125	12.22	22.96	21.31+j21.42
50.150	12.24	22.19	21.05+j22.04
50.175	12.26	21.48	20.8+j22.67
50.200	12.28	20.81	20.55+j23.31
50.225	12.30	20.18	20.31+j23.97
50.250	12.32	19.58	20.06+j24.63
50.275	12.34	19.01	19.83+j25.3

REF	ELEMENT LENGTH (CM.)
0	106.000
DE 48.30	99.100
D1 68.60	93.300
D2 119.40	93.000
D3 159.90	92.700
D4 200.70	92.400
D5 241.30	92.100
D6 282.00	91.800
D7 322.60	91.400
D8 363.30	91.100

YAGIMAX 2.21

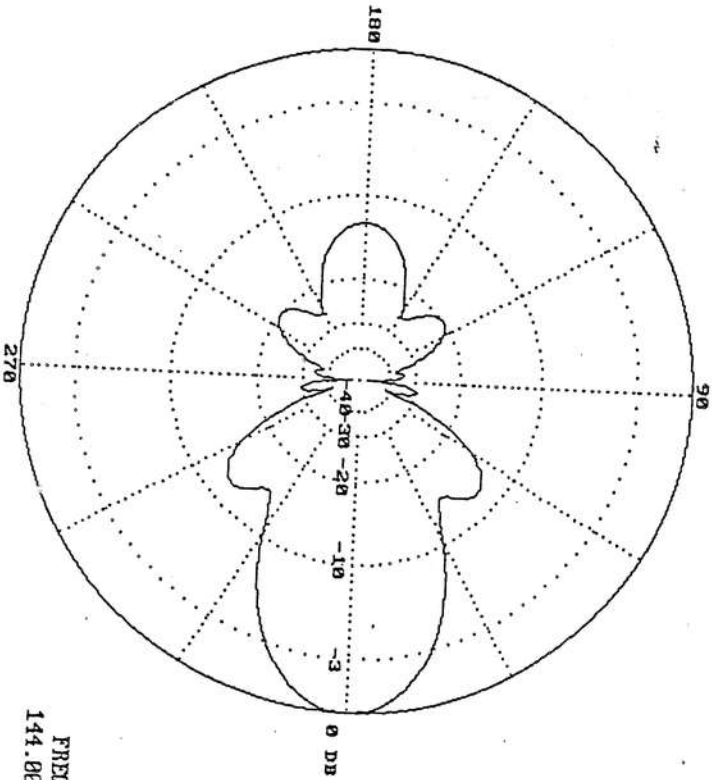
ELEMENT POSITION (CM.)

CG = 180.35 CM.

Filename: ORR273.INP

FREE SPACE E-PLANE PLOT OF 10 EL YAGI
FILE: ORR273

NORMALIZED AT 12.14 DBI



YAGIMAX 2.21 BY K4UX

FREQUENCY
144.000 MHz

07:45

FREQ (MHz)	GAIN (dBi)	F/B (dB)
144.000	12.14	12.64
144.100	12.08	12.42
144.200	12.02	12.21
144.300	11.96	12.02
144.400	11.90	11.83
144.500	11.83	11.66
144.600	11.77	11.50
144.700	11.70	11.36
144.800	11.63	11.22
144.900	11.56	11.10

IMPEDANCE (ohms)	VSWR
76.41-j19.54	1.04
75.95-j22.14	1.00
75.08-j24.75	1.04
73.81-j27.27	1.08
72.16-j29.65	1.12
70.14-j31.81	1.17
67.81-j33.71	1.22
65.23-j35.3	1.27
62.45-j36.54	1.33
59.54-j37.44	1.40

VK5 Kits

The following kits are available from the Group, ie
They are in stock in Perth.
Call Bob 2777049.

NEW ***** VK5 UHF PREAMPLIFIER ***
Rating = 2 \$40.00

432MHz companion to the popular VHF kit. 70 x 50mm PCB features on board RF relay. NF 1.5dB at 70cm, Gain 15dB. Uses CF300 DG GaAsFET. All on board Components supplied, Connectors and box required to complete.

NEW ***** VK5 6 metre Transverter ***
Rating = 3 \$150.00

New design single board all mode transverter. Primarily for use with any low power (3W) 2m transceiver eg. FT290, optional 28MHz to 50MHz version available. Features BF981 receive front end, SBL-1 mixer for both Tx/Rx, RF sensed switching and No tune PA for 15Watts RMS out. Simple alignment. Requires misc. hardware and box to complete. Please specify IF required when ordering.

NEW ***** VK5 1250 MHz ATV Converter ***
Rating = 2 \$25.00

Simple design that requires no test gear to align other than a multimeter! Converts 1240-1260MHz ATV (AM or FM) signals to Channel 22 (485.25 MHz) UHF TV IF. 4db noise figure, only requires a box and connectors to complete.

VK5 VHF PREAMPLIFIER 6M/2M Rating = 2
\$30.00

Receive preamp, 70mm x 50mm PCB, with relay switching. Kit is universal for 50-200MHz. Approx. noise figure is 1dB, using a BF981. All on board components supplied. Hardware, connectors and box required to complete.

Also available without relays
\$18.00.

VK5 5AMP 12V POWER SUPPLY Rating = 1
\$20-00

Uses discrete components, with over voltage and current protection. To complete you will need an 18V transformer, a 10000uF 40V filter cap (see under caps), and heatsink

UHF and ABOVE KITS Rating = 3

The following kits are available for the 432MHz and above. They are linear and are suitable for all modes. Kits use a common 144MHz IF to give 4MHz segments above the indicated frequency. Transverters, transmit converters need 1-3W drive at 2m. Relayless R/T change over via PIN diodes, Local oscillators are high stability Butler types, and the transverters feature the "no tune" LO from May 89 QST. (available separately). Various options are available including different IF's link freqs, etc, linear amps. use Mitsubishi modules.

1296 MHz Transverter 3dB NF, 1.0W out
\$195.00

1296 MHz Transverter NEW driver design 12Watt
out \$300-00

2304 MHz Transverter 4dB NF, 0.5W out
\$200.00

RLC540 QST 5/89 Local OSC. with XTAL
(Specify) \$70.00

OSC-1 Extra oscillator for transverters for
\$25.00

All on board components included, you add hardware and box.

THE WEST AUSTRALIAN V.H.F. GROUP BULLETIN

NOVEMBER

1992



The West Australian V.H.F Group (INC)
P.O. BOX 189 APPLECROSS W.A. 6163