



OXTALES

Newsletter of the Oxley Region Amateur Radio Club Inc.
PO Box 712 Port Macquarie 2444

[<http://portmacquarie.yourguide.com.au/viewclub.asp?clubid=1044&pageid=2012>]

March 2005

Compiled by VK2TT

PRESIDENT: Alan Nutt VK2GD 6582.3557
VICE PRES: Bill Brooke VK2ZCW 6581.0547
TREASURER: John Bailey VK2KHB 6582.2192
SECRETARY: Henry Lundell VK2ZHE 6582.0534

President's Report

I've always enjoyed designing things, although, to be strictly correct, "designing" is supposed to be the domain of the professional engineer. We poor 'umble technician types were not supposed to "design" anything.

What prompted my comment was a piece of rack-mount equipment handed to me recently and intended to form part of the studio control in one of our local radio stations. With the equipment came a photocopy of a very rough hand-drawn schematic and a brief verbal explanation of how it was all supposed to work, with the request, "Please, could you install it?"

Now, being the obliging chappy that I am, I spent a considerable number of hours trying to make sense of the schematic and redrawing it so that I could at least read it. What I discovered was that a relatively simple circuit intended to switch a couple of small relays, had been blown out into this conglomerate of Darlington relay drivers, sub-drivers and sub-sub drivers, none of which were really necessary. It took me hours longer to sort out the circuit and redraw what was illegible on the original than it would have taken me to design and build the whole thing from scratch, with a lot less components and a lot less hassle. But the device worked, even though it was a proverbial sledge hammer driving a tack.

I'm not having a shot at the well-meaning techo who built the device in the first place. What did concern me was that this device, which was originally designed and built for use in another commercial radio station down the south coast, had no explanatory

documentation or readable schematic which can make life very difficult for other poor techo's who may have to service such equipment in the future.

All too often, we put something together for a particular job, it works fine so we leave it, telling ourselves we'll get round to documenting it later - and it never happens! I must confess that I was as guilty as anyone but, I suppose in my time as a technical journalist, I came to appreciate how important accurate design, construction and performance information can be.

These days, even with relatively simple projects of my own, I try to provide at least a readable schematic and perhaps a circuit description, filed away where I can (hopefully) find it later. Not only for the benefit of those who might follow me, I might add, but for my own benefit further down the track. How many times have we gazed at some magnificent former project of our own making and found ourselves muttering "Now what the heck was that for?"

Alan Nutt VK2GD

El Presidente



In This Issue :

Item.	Page No.
President's Report	1
Down the Coax	2
Net Controllers Roster	2
Urunga Convention	2
E-mail Directory	2
A Masthead Pre-Amp	3
Make Your Own Baluns	4
What's This All About	4
The ORARC Field Day Weekend	5
Where Were the True Believers	6
Price's 1928 Advertisement	7
Next OXTALES Issue	7
Did You Know This?	7
Membership List	8

Down The Coax

Friday Night Get-together
Fri. March 11th

Urunga Convention
Easter Sat/Sun
26th & 27th March

April Monthly Meeting
Sat. 2nd Apr.
2.00pm

Friday Night Get-together
April 8th & 22nd
7.00pm

May Monthly Meeting
Saturday 7th May.
2.00pm

Net Controllers' Roster

Be Watchful! There are sudden changes!

Sundays		Wednesdays	
March 2005			
VK2OA	Mar-06	VK2GD	Mar-02
VK2AIF	Mar-13	VK2AYD	Mar-09
VK2BZD	Mar-20	VK2ZCM	Mar-16
VK2TT	Mar-27	VK2HOT	Mar-23
		VK2ZHE	Mar-30
April 2005			
VK2OA	Apr-03	VK2GD	Apr-06
VK2AIF	Apr-10	VK2EI	Apr-13
VK2BZD	Apr-17	VK2HOT	Apr-20
VK2TT	Apr-24	VK2ATM	Apr-27
May 2005			
VK2OA	May-01	VK2ZHE	May-04
VK2AIF	May-08	VK2AYD	May-11
VK2BZD	May-15	VK2EI	May-18
VK2TT	May-22	VK2HOT	May-25
VK2OA	May-29		
June 2005			
VK2AIF	Jun-05	VK2ZHE	Jun-01
VK2BZD	Jun-12	VK2GD	Jun-08
VK2TT	Jun-19	VK2ZCM	Jun-15
VK2OA	Jun-26	VK2EI	Jun-22
		VK2ATM	Jun-29
July 2005			
VK2AIF	Jul-03	VK2GD	Jul-06
VK2BZD	Jul-10	VK2AYD	Jul-13
VK2TT	Jul-17	VK2HOT	Jul-20
VK2OA	Jul-24	VK2ZHE	Jul-27
VK2AIF	Jul-31		
August 2005			
VK2BZD	Aug-07	VK2ZCM	Aug-03
VK2TT	Aug-14	VK2GD	Aug-10
VK2OA	Aug-21	VK2EI	Aug-17
VK2AIF	Aug-28	VK2ATM	Aug-24
		VK2AYD	Aug-31

Urunga Convention

Don't forget it. It's on Easter Saturday
and Sunday, 26th & 27th March!

E-mail directory.

Reflects ALL changes notified up to 28th Feb,
2005

VK2EI (Neil) neilsan@tpg.com.au
VK2GD (Alan) anut@midcoast.com.au
VK2JB (John) jebaylis@midcoast.com.au
VK2OA (Allan) possoa@tsn.cc
VK2TT (Trevor) grumps@felglow.com.au
VK2ATM (Arthur) arfamo@midcoast.com.au
VK2AYD (David) davpil@midcoast.com.au
VK2CHC (Richard) farmsale@midcoast.com.au
VK2CLL (Larry) lindsay@midcoast.com.au
VK2DDL (Stan) svellis@tsn.cc
VK2EJK (Bob) rbr01962@bigpond.net.au
VK2FSH (Charles) cpedmond@felglow.com.au
VK2ZCM (Craig) vk2zcm@dodo.com.au
VK2HOT (Bruce) vk2hot@tsn.cc
VK2XXU (Will) jamo@tsn.cc
VK2YOR (Roy) rborges@intercoast.com.au
VK2ZCV (Bill) bilsinvk@ecopost.com.au
VK2ZCW (Bill) cabrooke@tsn.cc
VK2ZHE (Henry) lundell@tpg.com.au
VK2ZIS (Graeme) admiral@midcoast.com.au
Jim Daniel jaidanl@bigpond.com
Barry Gilson gilson@austarnet.com.au

A Masthead Preamp

(By Bill [VK2ZCV])

Having recently decided to build a new GaAs FET preamplifier for 432MHz, I first searched all my books, then the WEB, for a suitable design and info on the best way to use these devices. What follows is a précis of the information located and implemented to complete the project, which uses a low power device available ex Melbourne.

- 1) Most devices for lowest noise figure require 10mA of drain current with a drain to source voltage of 2 to 3 Volts. Source self-bias may be used as this is simpler than generating a negative voltage for the gate and provides some current protection for the active device.
- 2) The input circuit must be of the lowest loss and use the best parts available, in order to obtain the lowest noise figure. For convenience in adjustment, the capacitance coupled tank circuit was chosen. This is ok providing the inductor and capacitors have a high "Q". If interference from strong adjacent transmission is experienced a high "Q" cavity input circuit may be used but with a power type GaAs FET. Physical size does pose some problems with this arrangement.

- 3) The recommended output circuit is a 4/1-balun type to aid in overall stability. DONOT use resistive loading of the drain. A diplexer circuit may be fitted to the output. This will aid in unconditional stability on lower and higher frequencies outside the required pass band. See circuit 2.
- 4) The preamp itself must be fully shielded. Tin, PCB, copper or brass are all suitable. The cover must be tight fitting as it affects the "Q" of the tuned circuit.
- 5) GaAs Fets are static sensitive so must be handled with extreme care. Using grounded tweezers handle by one of the source leads and solder with an ESD safe or earthed soldering iron. Earth yourself to the circuit before handling and soldering.
- 6) Q1 is a NEC device NE72084 = 2SK571. U1 = 78L05 regulator. CR1 = 5.1V zener. D1 & 2 = 1N4001 diodes.
- 7) This arrangement produces approx. 20dB gain with a noise figure of .5dB or less at room temperature, taken to be 17deg. C. To aid in keeping the temp. down when the amplifier is most mounted paint the outside of the enclosure with white automotive paint.

- 8) The final circuit used is based on the following from Ham Radio. NB. L2 was changed to a 4/1 balun. Fig 1.
- 9) The results have been most gratifying, signals have been received from Brisbane to the north and Sydney to the south from this QTH without excess background noise.

Bill Sinclair VK2ZCV 7-2-2005.

Key to Figures below:-

Fig1. Preamp

Fig 2. Diplexer/Terminator

XL 1= XC 1= RO*Q

XL 2= XC 2= RO/Q

RO=50 ohms in this case. Q may be between one and five.

L1-C1 series resonant at Freq. Out

L2-C2 parallel resonant at Freq. Out.

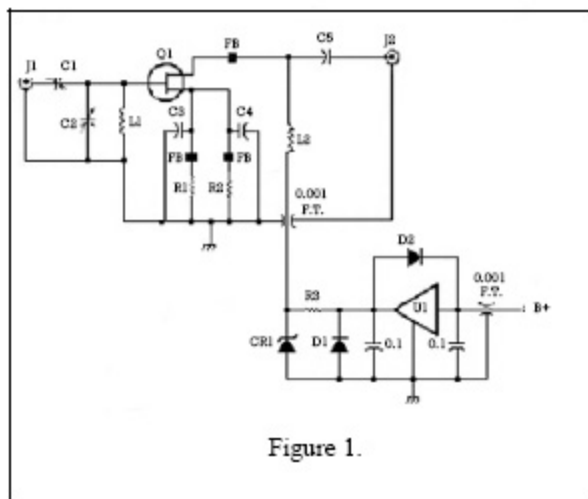


Figure 1.

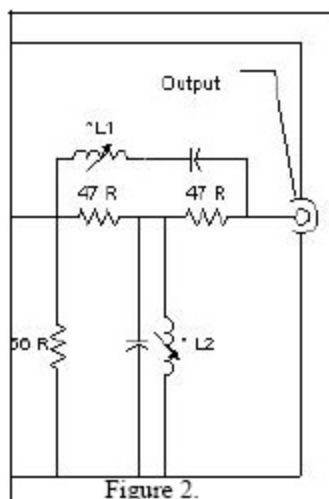


Figure 2.

The Homebrew Way to Make Your Own Baluns.

The most difficult part about making transmission line types or baluns is getting the spacing accurate between the wires. After much experimentation I found the best way to get it right was to use a length of wood, 4 small nails, a hot melt glue gun and non acetec (neutral cure) silicone sealant.

The procedure is quite simple, get a piece of softwood (Pine) and half hammer in 4 small nails.

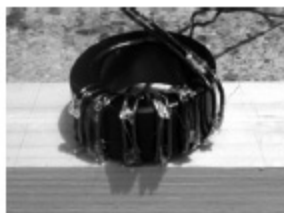


In this example I am making 150 ohm line, I am using No. 14 wire at one eighth of an inch spacing.



I give the wood a slight rub of silicone oil so that when I hot-melt glue the wires it will not stick to the wood. I have also put grooves in the wood by using a vernier caliper to scribe it, (this is the reason why I use pine). Pull the wires taught using pliers to bend the ends of the wire around the nails, then hot glue the wires every half inch to hold them in place.

The glue needs about a minute or two to cool down, then remove your wires and wind your toroid.



The hot-melt glue is not super strong so I suggest that when your toroid is wound you dab a little silicone sealant onto the wires to make sure they stay in place.



The Cordless Wire Stripper technique is also show below, why pay over \$600 for an electric wire stripper when your el-cheapo key-less chuck drill does the same job.



The above article, along with other Hints and Kinks is/are available on the Internet at

http://dxantennas.com/wst_page2.php

[I would not advise using the drill on high speed! Hi Hi . Ed]

What's This All About?

As a result of a shortage of membership contributions to fill this issue of OXTALES, I fell back to the last resort of scanning the packet BBS for material that could be interesting.

One bulletin posted on our local BBS, operated and maintained by John (VK2VY), caught my eye. It was a plea for help by a Dave (I have omitted his call sign for obvious reasons) and there were eighteen responses to his request. I took time out to read the "plea" and then some further time to take a look at the responses from around the world.

Dave's request for help was as follows, unmodified, in its entirety, verbatim :

Whereas it was easy to reformat a disk with Win98 fat 32, I cannot come up with a clue

to reformat WinXP Pro?

It seems that the NTFS file system, will do everything it can to protect itself? i.e. Booting up using a dos disc with format on it won't go and going to the windows dos prompt and asking format c: same answer.

One has said to boot up with the XP install disk, but although this is the procedure to format a new H/D, all that happens with XP installed, is that it will ask whether to update or install a new copy!

Please help de Dave

Now, I am not a computer Guru. I make use of the beasts to produce Oxtales and to perform other community oriented task for clubs and associations, but I am certainly *not* a Guru. However, I had a vague idea of what Dave *may* have been seeking to achieve, but his explanation of the problem only prompted more questions in my mind. For example, I was not aware that one could format an operating system as Dave's opening paragraph might have implied. There could be a whole new world of enlightenment awaiting me if I ventured into this previously unknown (to me, anyway) arena. Nevertheless, I pressed on to find out more about the progress of Dave's plea for help. What did intrigue me was the amount of responses he had received. It was obvious that there were people out there, not only willing to help, but who had apparently understood what Dave was seeking, and that I would now be able to learn something from all this.

The eighteen responses were made up of four from VK-land, nine from UK, two from The Netherlands, one from ZL, one from Norway, and one from South Africa.

After reading all responses it became perfectly obvious that there was no consensus on their understanding of Dave's apparent frustration... But ALL had given answers, or step by step procedures, no doubt intended to either dig Dave out of trouble, or possibly impress the other BBS readers like me, with their intimate knowledge of XP-Pro's magic.

One response advised Dave that it served him right for using the product from "Dinkytown", and to "go back to DOS6.01 which does not exhibit such troublesome behaviour", but the remaining seventeen responses varied widely in their advice. In summary, all of the answers reinforced my view that the respondents, like me, didn't really know what Dave was on about, but for reasons not stated, they chose to take a punt, and offered "help". Dave may have received personally addressed responses that solved his problem; I saw only those that were in the

public domain.

Maybe ONE of the responses that I read, did give Dave the correct steer, but there certainly were no matching responses to indicate that two or more had a common solution!

So, members might well ask the question, "Why did our Oxtales editor tell us all this garbage?" Well, there are two reasons.

One is that I believe that it is a fair, and humorous, example of how communication between individuals within groups can get off the rails unless we make sure that our questions, or responses to questions, are clearly stated. This is particularly so in the case of the written word as opposed to face-to-face situation where an occasional "Wodidjasay?" can keep things within the boundaries of comprehension.

The second reason is that member's contributions of items for this newsletter issue are, sadly, in short supply. Space had to be filled. This could be taken as a warning that items similar to the above might appear in future issues when content material runs low!

73 de Trevor (VK2TT)

The ORARC's 2005 Field Day Weekend

Member's are reminded that plans for our annual Field Day Weekend, scheduled for 11-12th of June, are currently being firmed up. The tireless workers who front up each year to undertake the preparatory work can do with some help to activate a team for the required tasks. If you have some time to devote to the preparations, and/or are able to assist on the day, then our Field Day Co-ordinator, Bill (VK2ZCW) would appreciate advice of your availability now for any task in which you can participate.

This year it seems that we are going enjoy a record number of sponsors for various events and services. This pleasing situation has been the result of much effort on the part of Wendy Monck who has been out and about in the community seeking benefactors. The list of sponsors, when you see it in print on our forthcoming programme sheet, will be quite impressive. Standby to be surprised. Thank you Wendy!

Where Were the True Believers?

A friend, doing some renovations on a very old dwelling, discovered beneath the vinyl tiles and a layer of ancient "Masonite", a few sheets of yellowed newspaper. He passed them on to me for a giggle. Examination revealed that they were from the Sydney Sun, of May 22nd, 1928. Although I was around on that day, I was only eighteen months old, and I can't recall reading the newspaper itself, let alone the item reproduced below, albeit in keeping with my long term interests. Below is the "recycled" item, but its content probably has been seen only rarely in the last 76 years, so I have no qualms about giving it another run in the sun... No pun intended ...
- Trevor (VK2TT)

WIRELESS & RADIO



(BY ALAN BURROWS)

WIRELESS SIGHT

CONTROVERSY IN ENGLAND

CHANCES OF TELEVISION REMOTE

That fascinating possibility of "seeing by wireless," as the result of television becoming more than an expensive laboratory experiment, is a question that has recently aroused a bitter discussion on the other side of the world.

Gear for "radio vision" sets is now of the market in England: and in Canada a radio picture, and a station for the broadcasting of wireless pictures, have sprung up. Before long, no doubt, unless it subsides before hand, the television wave will reach Australia.

Some of the optimistic claims, however, have been challenged. One of the foremost inventors, Mr. J. L. Baird, was offered £1000 if he could transmit a picture of several moving objects a distance of 25 yards. The challenge was not accepted.

Taking the view that the chances of success were being misrepresented, the technical journal, "Popular Wireless" made a genuine attempt to settle definitely just how much progress had been made by the experimenter who had advanced some of the most comprehensive claims. His refusal, of course, proved nothing either way, but it has had the effect of tempering the English public's enthusiasm.

Although, in the minds of most people, television and the transmission of still pictures are closely connected, there is in practice a wide gulf between them. The club and transmitting station in Saskatchewan, Canada, have for their object the broadcasting of still pictures, which can be picked up by anyone with the necessary gear. From this, the transmission of a picture, which is done now as a commercial undertaking across the Atlantic by different newspapers, to the sending of even the crudest image of a moving object, is an enormous step. New difficulties are met, and many times the amount of experiment is required. And now scientists, with a few exceptions, state definitely that, unless entirely new principles are discovered, television will probably never be possible, in an anyway practical sense.

"If anyone can show," said Dr. J. H. T. Roberts recently in 'Modern Wireless,' "within the next few years, by true radio television, moving pictures even remotely comparable with the pictures seen at the present-day cinema, something will certainly be accomplished which is entirely beyond the expectation either of myself or the many distinguished scientific friends who have expressed their views to me." Thus, in a few words, is the popular conception of "pictures by wireless" swept aside.

ROYAL COMMISSION!

THEY'LL BE APPOINTING ONE SOON, TO
INVESTIGATE HOW WE SELL IT FOR LESS!!!

Genuine Radiotron, U.X. 112a and 171 Valves 20/	"Titan" 2 amp. Charger, com- plete 60/
Genuine Radiotron U.X. 201a Valves 7/6	Jones' Non-solder Jacks— Single 1/6, Double 1/9
"Tefag" Adjustable Diaphragm Phones 14/6	Carborundum Crystal Detectors— 10/6
Emmco Triple-drum Control Condensers 85/	Engraved Terminals, all mark- ings 3d each.
Columbia Heavy Duty 45v. B Bat- teries 22/6	Pilot Tone Control 8/
Blow-lamp and Soldering Iron, complete 10/6	Loop Aerial Wire, all colors . . 3/9
Emmco and Advance Trans- formers 15/9	Pilot 0005 S.L.F. Condensers 13/
A.W.A. Transformers 17/6	Pilot 00035 S.L.F. Condensers 12/
	De-Jur 0005 S.L.F. Condensers 16/
	De-Jur 00035 S.L.F. Condensers— 15/6

OUR PRICE LIST WITH OVER 700 LINES IS
NOW AVAILABLE

PRICE'S RADIO SERVICE
"THE WINGELLO HOUSE
CORNER STORE" ANGEL PLACE, SYDNEY.
(B4146)

Many "Old Timers" will remember the above supplier who traded in Angel Place for quite some years after WWII. The above panel was scanned (and retouched a bit to compensate for silverfish chewings) from the Sydney Sun newspaper of the previously mentioned issue of 22nd May, 1928. Anybody out there know when this popular supplier ceased trading?

Next Oxtales Issue

Just a little commercial for the May issue of OXTALS. The 1928 copy of the Sydney Sun ran a fairly lengthy article about the future development of television (part of which is reproduced on the previous page. Next issue, assuming space is available after I have fitted in all the member's contributions, (Castles in the air??) the subject of "Insuperable Obstacles" will be reproduced... it paints a very drab picture! We should all thank our lucky stars that there were some "backroom boys & girls" who proved the pessimists to be wrong.

Did You Know This?

The first brewery in Australia was founded at Wilcannia.
(Info source: Bill's Tally-Ho booklet Encyclopaedia!)





OXLEY REGION AMATEUR RADIO CLUB Inc. MEMBERSHIP REGISTER.

(As at 28 February, 2005)

Cat.	Surname	Given	XYL Name	Call	Location	Tph
1	O	BAILEY	JOHN (FLORENCE)	VK2KHB	PORT MACQUARIE	02 6582.2192
2	L	BAYLIS	JOHN (MARY)	VK2JB	LAKE CATHIE	02 6585.5703
3	D	BELL	ALAN	VK2BEL	COOLONGLOOK	02 6554.1689
4	O	BLAKE	NEIL	VK2PV	COMBOYNE	-
5	L	BLYTH	BOB	VK2XIQ	PORT MACQUARIE	-
6	O	BRODIE	BOB (JO)	VK2EJK	PORT MACQUARIE	02 6582.0592
7	O	BROOKE	BILL (AILSA)	VK2ZCW	PORT MACQUARIE	02 6581.0547
8	O	BURGES	ROY W (JUNE)	VK2YOR	PORT MACQUARIE	02 6583.9349
9	O	COULTER	KEVIN (JUNE)	VK2MAM	PORT MACQUARIE	02 6583.8325
10	O	COURT	RICHARD (LINDA)	VK2CHC	BEECHWOOD	02 6585.6866
11	A	DANIEL	JIM	-	PORT MACQUARIE	02 6583.1933
12	O	EDMONDSON	CHARLES (PAT)	VK2F5H	PORT MACQUARIE	02 6584.0495
13	D	ELLIS	STAN (BETTY)	VK2DDL	TUNCURRY	02 6554.7996
14	A	GILSON	BARRY (FAY)	-	PORT MACQUARIE	02 6583.8814
15	O	GLEESON	BADEN (VALERY)	VK2MOQ	PORT MACQUARIE	02 6582.2018
16	O	GREEN	LEWIS (PAMELA)	VK2AG	PORT MACQUARIE	02 6584.9162
17	O	GREENWOOD	GRAEME	VK2ZIS	MCMAHONS POINT	02 6559.4836
18	L	HANLON	KEITH	-	PORT MACQUARIE	-
19	O	HANSEN	JOHN	VK2AYQ	PORT MACQUARIE	02 6582.7932
20	O	HARDING	DAVID (ISABELLA)	VK2AIF	WAUCHOPE	02 6586.4980
21	O	JAMIESON	WILL (CAROL)	VK2XXU	DUNBOGAN	02 6559.8622
22	L	LINDSAY	LARRY	VK2CLL	WAUCHOPE	02 6587.1155
23	L	LUNDELL	HENRY	VK2ZHE	PORT MACQUARIE	02 6582.0534
24	O	LUTTON	KEITH (GWEN)	VK2KDL	TELEGRAPH POINT	02 6585.0321
25	O	MADIGAN	ALLAN (DAWN)	VK2OA	WAUCHOPE	02 6585.2043
26	O	MARRIOT	JOHN (ROSE)	VK2CIF	NORTH HAVEN	02 6559.9245
27	O	MARTIN	CRAIG	VK2ZCM	SANCROX	02 6585.3452
28	O	MCLEAN	JOHN	VK2KCE	PORT MACQUARIE	02 6583.7400
29	O	MEEHAN	TERRY	VK2KL	PORT MACQUARIE	02 6584.2997
30	H	MONCK	WENDY (ARTHUR)	-	PORT MACQUARIE	02 6583.1311
31	L	MONCK	ARTHUR (WENDY)	VK2ATM	PORT MACQUARIE	02 6583.1311
32	O	NEWHAM	LAURIE (ROBIN)	VK2ELN	PORT MACQUARIE	02 6583.5387
33	O	NUTT	ALLAN (ELAINE)	VK2GD	PORT MACQUARIE	02 6582.3557
34	O	PILLEY	DAVID A (DEE)	VK2AYD	KING CREEK	02 6585.2647
35	O	ROTH	BILL	VK2CWR	PORT MACQUARIE	02 6581.1776
36	O	SANDFORD	NEIL (VERENA)	VK2EI	PORT MACQUARIE	02 6582.5830
37	O	SINCLAIR	BILL	VK2ZCV	PORT MACQUARIE	02 6583.9302
38	O	TARRANT	DAVID (AILEEN)	VK2TBC	ILUKA	-
39	O	THATCHER	TREVOR (PHYLLIS)	VK2TT	WAUCHOPE	02 6585.2278
40	O	WALKE	GARY	VK2UHF	PORT MACQUARIE	02 6584.4714
41	O	WALKER	BRUCE (GWEN)	VK2HOT	PORT MACQUARIE	02 6583.8360
42	O	WEBSTER	JIM	VK2BZD	PORT MACQUARIE	02 6582.4037

Category Key: O = ORDINARY A = ASSOCIATE D = DISTANT H = HONORARY L = LIFE