OXTALES

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Newsletter of the Oxley Region Amateur Radio Club Inc.,
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Club Website: www.orarc.org

ORARC's Forty-second Anniversary Year

Club Nets on VK2RPM
146.700MHz
(CTCSS 91.5Hz)
Every Sunday at 0830
Every Thursday at 1930

November 2013

Compiled by VK2AYQ & VK2TT

PRESIDENT:	Henry Lundell	VK2ZHE	6582 0534
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TREASURER:	Keith Anderson	VKFKJA	6586 3988
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President's Report

November 2013
President's Report

On Saturday the 19th of October club members set up two stations for the 56th annual Jamboree on the Air (JOTA). VK2BOR operated from the club's communications caravan adjacent to the Port Macquarie Sea Scouts Hall. The second station was set up in the communications caravan of Lyle Smith VK2FCVI which he set up the Camden Haven Scout Hall at Laurieton.

JOTA was very popular this year with Scouts and Guides at both locations very keen to make their on -air contacts. HF was poor at Port Macquarie on the 5 band trap vertical antenna on the caravan but the group at Laurieton were able to erect horizontal antennas which greatly improved the strength of the HF signals at their station. It was very convenient to have the two stations within VHF range as this enabled the Scouts and Guides at both locations to talk to each other for their contacts. Of course there were more Scouts and Guides at Port Macquarie so many of the Camden Haven Scouts and Guides, and their leaders made multiple contacts and became very proficient in the art of carrying on intelligent conversations. It is a pity that HF propagation did not enable contact to be established with overseas

(continued on page 3)

ORARC VHF/UHF Repeaters

MIDDLE BROTHER
VK2RPM 2 metre (Voice - CTCSS 91.5Hz)
O/P 146.700MHz - I/P 146.100MHz

VK2RPM 70 cm (Voice - CTCSS 123Hz)
O/P 438.525MHz - I/P 433.525MHz

VK2RPM-1 (APRS Digipeater)
SX 145.175MHz 1200bps

TELEGRAPH POINT
VK2RCN 2 metre (Voice)
O/P 147.000 MHz - I/P 146.400 MHz

VK2RCN 70 cm (Voice - CTCSS 123 Hz)
O/P 438.425MHz - I/P 433.425MHz

VK2RCN-1 (APRS Digipeater)
SX 145.175MHz 1200bps

In This Issue :

Down The Coax

Monthly meetings & Friday Nights held in the S.E.S. Building Central Road, Port Macquarie.

Monthly General Meeting
Saturday 2 November 2013 2:00 pm

Friday Night Get-Together
Friday 15 November 2013 7.00 pm

34th Annual Beechwood Billycart Classic
Sunday 17 November 2013

ORARC Christmas Party
And Monthly General Meeting
Saturday 7 December 2013
Settlement Point Park
From 9 am for set up.

Bunnings BBQ
Sunday 8 December 2013
Bunnings Port Macquarie
From 7.00 am set to 4.00 pm

Friday Night Get-Together
Friday 20 December 2013 7.00 pm

Monthly General Meeting
Saturday 4 January 2014

E-Mail Directory

Do you have an item for sale? Why not advertise it here in Oxtales. You can even submit your own artwork for example see the item for sale that Bruce VK2HOT has put in on page 15 of OXTALES.

Net Controllers' Roster

Nets on Voice Repeater VK2RPM 146.700 MHz

Sundays (0830 Local)		**Thursdays** (1930 Local)	
	November 2013		
VK2TT	**Nov - 03**	**VK2EM**	**Nov - 07**
VK2CHC	**Nov - 10**	**VK2ZHE**	**Nov - 14**
VK2TT	**Nov - 17**	**VK2PPP**	**Nov - 21**
VK2CHC	**Nov - 24**	**VK2EM**	**Nov - 28**
	December 2013		
VK2TT	**Dec - 01**	**VK2ZHE**	**Dec - 05**
VK2CHC	**Dec - 08**	**VK2PPP**	**Dec - 12**
VK2TT	**Dec - 15**	**VK2EM**	**Dec - 19**
VK2CHC	**Dec - 22**	**VK2ZHE**	**Dec - 26**
VK2TT	**Dec - 29**		
	January 2014		
VK2CHC	**Jan - 05**	**VK2PPP**	**Jan - 02**
VK2TT	**Jan - 12**	**VK2EM**	**Jan - 09**
VK2CHC	**Jan - 19**	**VK2ZHE**	**Jan - 16**
VK2TT	**Jan - 26**	**VK2PPP**	**Jan - 23**
		VK2EM	**Jan - 30**

Email Directory (continued)

(from page 1)

JOTA Caravan set up at Port Maquarie

David VK2FRAB and Bill VK2ZCV operating the JOTA station.

JOTA stations from Port Macquarie. Some of the Scouts and Guides had lined up contacts with Japanese JOTA stations via JOTI but there were no DX signals to be heard on 20 and 15 metres. We will look further into the possibility of contacting some of these JOTA stations via EchoLink for next year as HF is unlikely to improve by then. We all wistfully remember the great HF DX contacts that we took for granted during previous solar cycles.

At Port Macquarie the 1st Port Macquarie Sea Scouts set up several outdoor activities and a sausage sizzle which proved to be very popular throughout the day. The outdoor activities nicely complimented JOTA and JOTI and ensured that there was plenty to keep all the participants busy. In past years there has been a sleepover at the Sea Scout Hall but this was not possible this year due to the early start of the Half Iron Man Triathlon on the Sunday morning needing to use the grounds. Everything was packed up by 5pm on Saturday.

Hoist up the sails and have a go at getting over the pole!

Thank you to the many members who helped to make JOTA such a great success. At Port Macquarie, thank you to hard working secretary David Hogan VK2FRAB who helped Henry Lundell VK2ZHE hitch up the club's Communications Caravan at 5:45 am, and to Richard Court VK2CHC who joined us at the Sea Scout Hall at 6 am to set the caravan up in record time. The reason for the unseemly early start was that the car park was closed between 7 am and 9 am by the Triathlon organizers and we wanted to ensure that the caravan would be in its allocated space. Thank you to Bill Sinclair VK2ZCV, Mark McGuire VK2FMGM and John Winchester VK2NJJ who made up the rest of the Port Macquarie contingent. A special thank you Bill and David who so patiently mentored a seemingly endless stream of JOTA participants to make their on-air contacts.

At Laurieton, a big thank you to Lyle Smith VK2FCVI for making his well equipped communication caravan available, and for towing it to the site early on Saturday morning to set up the Camden Haven JOTA station.

The Laurieton JOTA Station

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Thank you to Alex Dorahy VK2HBF, Ross Davidson VK2NUD, Keith Anderson VK2FKJA, Keith Bayliss VK2FPTL and Dennis Meade for helping Lyle to make the Camden Haven JOTA station such a great success. Their effort in erecting horizontal HF antennas paid a handsome dividend in enabling contacts to be made on HF. It was amazing to see the much greater than expected improvement in signals on the horizontal antenna compared to the signals on their vertical. They are to be congratulated for their forethought in coming equipped to set up the horizontal antennas. Those of us at the Port Macquarie station were most envious.

Inside the Lyle's radio palace. Lyle VK2FCVI, Dennis Meade and Ross VK2NUD operating the JOTA station

As already mentioned, the Camden Haven station very patiently recycled their participants, including leaders, to enable all the Port Macquarie participants to make their on-air contacts on VHF. The Telegraph Point VK2RCN 147.0 MHz repeater worked overtime!

The JOTA patch.

A special thank you goes to the Camden Haven Sea Scouts for making the ORARC members so welcome in setting up a JOTA station at their hall. They have already asked that we come back to do it again next year.

(Billy Cart Derby 2010)

This year the Beechwood Classic Billy Cart Derby is being held a month later than usual. The date is Sunday the 17th of November 2013. This event is run down the longest course in Australia. It is about 5 kilometres long. ORARC has been invited to again provide the safety communications for the event. The safety communications is critical to the running of the derby. Richard Court VK2CHC is co-ordinating the many volunteers who are needed to man all the check points, and to set up and operate the communications for the commentary vehicle, the finish and public address interface, the net control and the liaison with first aid. Richard still needs several more volunteers. If you are available for a couple of hours on the morning of Sunday the 17th of November, and haven't already confirmed your availability, please contact Richard as soon as possible. ORARC has a long tradition in supporting this annual event.

Members and their families and friends are cordially invited to attend the club's 2013 Christmas Party under the covered area at Settlement Point Reserve on Saturday the 7th of December 2013. Settlement Point Reserve is the park just beyond the Settlement Point ferry ramp on the southern side of the Hastings River. To get to Settlement Point just head north along Park Street past Settlement City and follow the road all the way past the ferry ramp. Set up time at the park is from 9am. Finishing time will be approximately 2pm. As usual the club will provide a free sausage

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sizzle lunch from the on- site barbeques. Please bring your own salads and other nibbles. A fruit salad and ice cream dessert will be provided free, as will tea and coffee together with soft drinks. The club communications caravan will be on site. Tea and coffee and soft drinks will be available from the caravan.

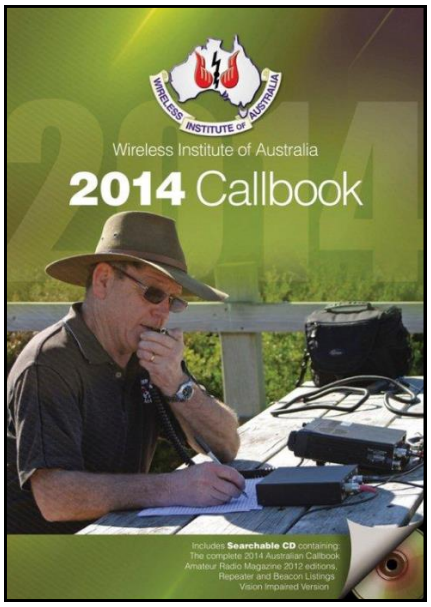
A short December club monthly general meeting will be held at Settlement Point Reserve at 11:30 am in conjunction with the Christmas Party.

A special invitation is extended to members and visitors to bring along items for "show and tell" at the Christmas Party. It will be a great opportunity to demonstrate items that you have built for portable and emergency communications.

On Sunday the 8th of December the club will be running its first Bunnings sausage sizzle. This is an opportunity for members to help ORARC to earn some valuable funds. Please contact Secretary David Hogan VK2FRAB if you are able to assist. David is organizing a roster to enable the workload to be shared so that volunteers will only have to work for a few hours each on the day. The sausage sizzle will run from 8 am to 4 pm. Being a Sunday only two weeks before Christmas, we expect to serve a great many sausage sandwiches and soft drinks to hordes of hungry shoppers. This is a major fund raising event for your club so please assist if you are able.

Yes, we will be holding a monthly general meeting in January. The first Saturday falls on the 4th of January 2014 so our meeting is a week after the New Year. Visitors will be particularly welcome at this meeting. January 2014 Oxtales will be published at about the same time as the meeting. Please send your contributions to John Hansen VK2AYQ who is compiling this issue. Your photos of the Beechwood Classic, the Christmas picnic, and of the Bunnings sausage sizzle will be particularly welcome. Please take your camera to the events, and please email your photos to John immediately after each event. His email address is hansenjo@ozemail.com.au .

The club has a limited number of copies of the 2014 Amateur Radio Callbook available for $25 each. Please contact me, Henry Lundell VK2ZHE, to obtain your copy. My mobile phone number is



2014 Callbook pay for your copy now.

0427 947 921. Any spare copies will be available at the Christmas party on Saturday the 7th of December 2013, and at the Friday night get togethers on the 15th of November and the 20th of December, and also at the January monthly general meeting on Saturday the 4th of January 2014. Please secure your copy as soon as possible as the Callbook is very popular and they always sell out.

The club's 2014 calendar is almost ready for printing. It has been a very exacting task to fit in all the member photographs now that we have a record 80 members. We are indebted to Trevor Thatcher VK2TT for producing the calendar this year. Thank you, Trevor. The calendar will be available for purchase at the Christmas party on Saturday the 7th of December, and at subsequent meetings. The annual calendar has become highly sought after. It's a must-have. It is the perfect way to put a face to members' callsigns. The calendar is marked with all the club meetings, get togethers and club nets.

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(from page 5)

On the afternoon of Tuesday the 29th of October 2013, a wide area of Port Macquarie experienced severe thunderstorms with damaging hail. Hail as large as golf balls was reported in some places. A large number of cars and buildings were damaged. Broken skylights on buildings and caravans and motor homes were particularly numerous. Commiserations to those members who suffered damage. Fortunately, the club's Communications Caravan received only very minor hail damage.

The VK2RPM 146.7 MHz two metre repeater has been experiencing intermittent interference which reduces its sensitivity. Work is underway to determine the cause of the problem. Hopefully, it will be possible to restore the sensitivity. In the meantime, if you are unable to access the VK2RPM repeater, please remember that the Telegraph Point VK2RCN 147.0 MHz two metre repeater provides good coverage in most of the Port Macquarie and Wauchope areas.

I wish all members and their families and friends a safe and happy Christmas and best wishes for 2014.

Henry Lundell VK2ZHE
President

NSW SES Port Macquarie team takes out National Disaster Competition Title

With over 50 years' experience in general rescue, road crash rescue, and flood rescue between them, the Port Macquarie NSW SES team showed they had all the right skills to defeat rescue crews from around Australia to score their first victory at the prestigious National Disaster Rescue Competition in September 2013.

The NSW SES Port Macquarie team travelled to the County Fire Authority Training College in Fiskville, Victoria to compete at the biennial event. During the event, the team were faced with seven emergency scenarios where they were judged on how they responded to each situation. The simulated events were based around an earthquake that had resulted in a train derailment, collapsed buildings, minor flooding, an aviation accident and a mass casualty incident.

The team proved themselves as a highly skilled and professional team, defeating a strong contingent from the other states and territories. They are to be congratulated for this achievement which is the product of years of dedicated training and hands on emergency experience.

Kevin Sherwood was also was recognised as the most outstanding Team Leader of the competition. Kevin's calm and quiet attitude was praised by the judges, as was his analytical management style that allowed him to keep full control of the situation, whilst ensuring his team were confident in their direction.

Scoring the highest combined total for skills, technique, first aid, task completion and leadership quality, the team has certainly showed the country that NSW SES volunteers are indeed confident people, with clear intent, prepared for anything.

The Port Macquarie winning team comprised Kevin Sherwood as team leader, Michael Ward VK2FMDW as deputy team leader, with team members David Chandler, Michael Brumby, Peter Young, Peter Burke, and Ashley Bell as team manager.

The Oxley Region Amateur Radio Club congratulates Port Macquarie SES for winning the prestigious National Disaster competition title. This is a truly remarkable achievement.

In order to participate in the National Competition, Port Macquarie had to first win the NSW State championship as was reported in September 2013 Oxtales.

Acknowledgement: Most of the text of this article, and the accompanying photograph, were obtained from the SES website. Henry Lundell VK2ZHE

Port Macquarie SES National Disaster Rescue Competition 2013

Summits on the Air (SOTA) is an award scheme which encourages hilltop portable amateur radio operation. But the award scheme is not just for mountaineers, anyone can be involved. There are awards for activators who ascend the summits and also for chasers who can score points by contacting the summits.

Summits score points from 1 to 10, depending on the height above sea level. Awards for 100, 250, 500 and 1000 points are available. At 1000 points Activators achieve "Mountain Goat" status and Chasers/SWLs are "Shack Sloths".

For activators the rules are simple. The entire radio station must be carried up to the summit. This includes antennas and power supply. And while on the summit the station must not be connected to a vehicle, building, generator or external power supply. But this is not necessarily a pastime for the fit and energetic. The rules state that the top 25 vertical metres of a summit is the activation zone and entry to the activation zone must not be by motorised transport. So those of us who are not as athletic as we would wish can find a summit with vehicle access close to the activation zone, drive some of the way and walk the final part.

SOTA was started in the United Kingdom in 2002. Since then many other countries have joined the scheme. In Australia each state is run as a separate association. A group of volunteers have surveyed the summits and listed all those which qualify. A summit (or group of summits) must be at least 300 metres above sea level and have 150 metres prominence from the surrounding landscape. There are around 1100 qualifying summits in VK2 alone. Here on the mid north coast this has led to a number of well known high spots not being included in the summits list as they are on the edge of the tablelands. So you must check the summit list before starting to plan activation.

VK3 was first to “go live” and join the award scheme. Followed by VK5, VK1 and VK9. VK2 and south VK4 became part of SOTA on 1st September 2013. Surveying VK7 will be completed soon. I am part way through surveying VK8 and as yet VK6 has not been started. But these states will join the award scheme in due course.

Since Australia became active in SOTA there have been summits on air most weekends. Listen on and around 7090KHz. Most activators are using 40m band although other bands are regularly used. Especially 30m, 20m and 2m. To become a chaser and score points is very easy. You don’t even have to send in logs or QSL cards, it’s all done on the internet. When you work a summit, log the contact in the usual way but make sure you get the summit reference number. This is in a state/region-number format. E.g. VK2/MN-066. VK2 for New South Wales (obviously), MN for mid north coast and 066 is the number for Middle Brother.

A full list of all qualifying summits worldwide can be found on the excellent SOTA website at www.sota.org.uk. To find our local summits, click on Database, Summits, List of all Summits. Select VK2 association and MN region. You’ll see my name and email address on there as regional manager, so if you have any questions about specific summits or SOTA in general, drop me an email and I’ll do my best to help.

To start scoring chaser points you must start an online log. First go to the website and click on Logon so you can register in the usual website manner. Then click on Database, Submit log, Submit chaser entry. You can then enter the contact details. Remember times are in UTC. The website will then compare activators logs to chasers logs and automatically confirms the contact and awards the points. Go to View Results, My Results, My Chaser Log to view your log. The online log is so good it’s worth being a summit chaser just to be able to use it.

There is a lot of advice on the website about activating summits. You can make it as hard or as easy as you want. Find a local qualifying hill and take a 2m band hand held is enough to be an activator. But contacts must be simplex, repeaters are not allowed. You need to make at least 4 contacts to claim the points. And you can only claim points for each summit once a year, although there is nothing stopping you activating that summit many times to give away a few chaser points. An anomaly that benefits us is that a day’s activation starts at 0000z so a chaser can work you before and after 0000z and score double points. This is an advantage to living in Australia that those in Europe and USA don’t get.

So if you hear anyone calling CQ SOTA from a summit and not getting an answer, reply to them, you may be the fourth contact they need to claim the points.

Unsurprisingly the ubiquitous FT817 has become the activators choice. And the collapsible squid pole used as a walking stick/antenna support. The squid pole has now become such an established part of amateur radio it's hard to imagine it ever had anything to do with squid. But if you don't have an FT817, any radio for any band that fits in a back pack with antenna and battery will activate a summit. Just remember water, map, compass and clothing for unexpected weather. Safety comes first, even before amateur radio.

The great thing about SOTA is that anyone can join in at any level whether you are a mountaineer, a Sunday afternoon walker or an armchair chaser. It's not a contest. The points you earn show your achievement. SOTA encourages healthy outdoor activity, technical ingenuity and communication with other active radio hams. Give it a try. The more the merrier.

A SOTA station

SOTA website http://www.sota.org.uk/
Aussie SOTA mailing list http://au.groups.yahoo.com/group/SOTA_Australia/

SOTA VK2 mid north coast regional manager
Jack Cook VK2AXL mm0axl@hotmail.com

Are you a member of the WIA? If not why not join today.

MORSE CODE IS ALIVE..!

It has just changed its place in society.

I've been a keen CW operator for over 65 years. However in recent years I have been ribbed and told that MORSE CODE was dead. Most readers will probably endorse that statement, but let me assure you it is very much alive. It has just changed its slot in society from being a digital means of communication to something much more important in life. You have to step outside the box.

I'm sure you have all heard of Professor Stephen Hawking in the UK. He is the holder of the Lucasian Chair of Mathematics at Cambridge University. The highest award known to a scientist. Primarily a cosmologist, his life in entirely dedicated to the study of the origin, nature and the dynamics of evolution of the universe. He suffers from DMD (degenerative muscle disease) and over the years his mobility is progressively degrading. He has little or no movement in the muscles of his body. His communication has all been through computer technology and painfully slow.

Ten years ago he was down to five words a minute and eventually reduced to one word per minute.
It was then the medical profession realized that if you could only move a muscle in your cheek, an eye-brow or any facial movement, that, using code, such as Morse Code, it was possible to communicate. One company involved is Intel, a world leader in microprocessors.. Hawking is once again able to communicate using facial recognition and code. His speed is back past ten words a minute but has the capability of reaching 18 to 20 words per minute. Intel has perfected the translation from code to speech and Hawkings doesn't sound like a "Dalek".

So, in anticipation you may want to talk to me, learn Morse code….it may be useful one day and is not difficult to learn compared with say Chinese!

Dave VK2AYD

Visual Response Aid's (VRA's)

By Dennis Meade

In my last job as a Technician for the Deaf Children's Support Team in Bradford I was tasked to help an Audiologist come up with a way to semi automate VRA equipment.
The first problem was the Audiologist having to manually activate a VRA which could be a flashing light or a moving toy as a reward for a Child pressing a button in response to hearing a tone from an audiometer activated by the Audiologist!

The main problem especially with younger Children and those with learning difficulties was false activation.
The problem was solved by building an electronic switch (see Photo 1) which was in series with the Childs button.

Photo 1 Unit

The switch was basically a multivibrator circuit which on receiving an output from the audiometer activated a relay that was acting as a switch in series with the Childs button, when this was closed at the same time as the relay a VRA was activated (the VRA's were time activated as well to keep them going longer for better visual impact)

This was a simple but effective way of reducing false actions and gave a good visual reward to the Child

Another problem was the Nursery at the School where my workshop was based had a problem with hearing their Office phone when the Nursery was full due to the high background noise.

There were two adjoining open plan rooms where I had to try to resolve this problem. The first problem was easy to solve by setting up a xenon phone activated unit which had long enough leads to put into the nearest open room. For the next room, I solved by making another multivibrator circuit which was activated by an LDR (see Photo2) situated next to the first xenon light, when activated this also switched a relay which sent a 12vdc supply to another xenon situated in this open room. When the Nursery Office phone rang both open rooms had visual indicators and Staff were happy that they could now answer the phone without waiting for messages!

Photo 2

RANDOM WIRE UNUN FOR MULTIBAND USE WITH BUILT IN AUTOTUNERS - THE "UNTENNA"

The following article was a project by KC8AON and could be of great interest to those member who are contemplating working QRP mobile with random wire antennas.

KC8AON was using this with an ICOM 703 however the principles would be the same for many other transceivers.

"*..I just finished making a trial run on an experimental multiband antenna for use with my 703. What I Had been wanting was a simple endfed wire that I could use with the 703's internal autotuner and get coverage on several bands. I had tried several random lengths of wire alone with the 703 but could only get a few bands at best. Then I tried different lengths with 1:1 and 4:1 baluns between the radio and wire with only slightly improved coverage. I even built and tried a switchable 1.1/4:1 balun so I wouldn't need to physically change them each time I needed a different ratio. Then I was looking thru (sic) my notes and found the diagram for a "UNUN" and since a random endfed wire would be an unbalanced load, I figured I would experiment a little with them to see if I could get one to work in the way I wanted it to. The only problem with my notes, was the fact that I had forgot to list the type of core material used to make the Unun with! I have and FT114-43 core on hand and tried winding one on it first but could not get the coverage I wanted and even noticed some slight core heating at 10 watts which I figured meant some loss being introduced by core saturation. I tried winding it with several different numbers of turns but couldn't get it to work the way I wanted it to. Then I happened to remember a T130-2 powdered iron core I had and decided to try that. So I started by winding the T130-2 core with as many bifilar turns of #20 insulated wire that I could fit on the core figuring I could remove some of it if needed. I ended up being able to get 18 bifilar windings of the plastic insulated hook-up wire on the core and if that wasn't enough I could switch to magnet wire to allow more turns, didn't want to waste the magnet wire unless it worked....I got it all wired up and mounted it in a mint tin .... And took it outside to try.*

I started with a 23' wire connected to the hot side
(continued on page 10)

(from page 9)

of the Unun and another 23" wire connected to the ground side for the counterpoise wire. Used a 20' pole as a support and connected the far end of the antenna to the top of the pole and set it up far enough away from the radio so that the wire was deployed in a sloper fashion with the counterpoise stretched out on the ground under it.

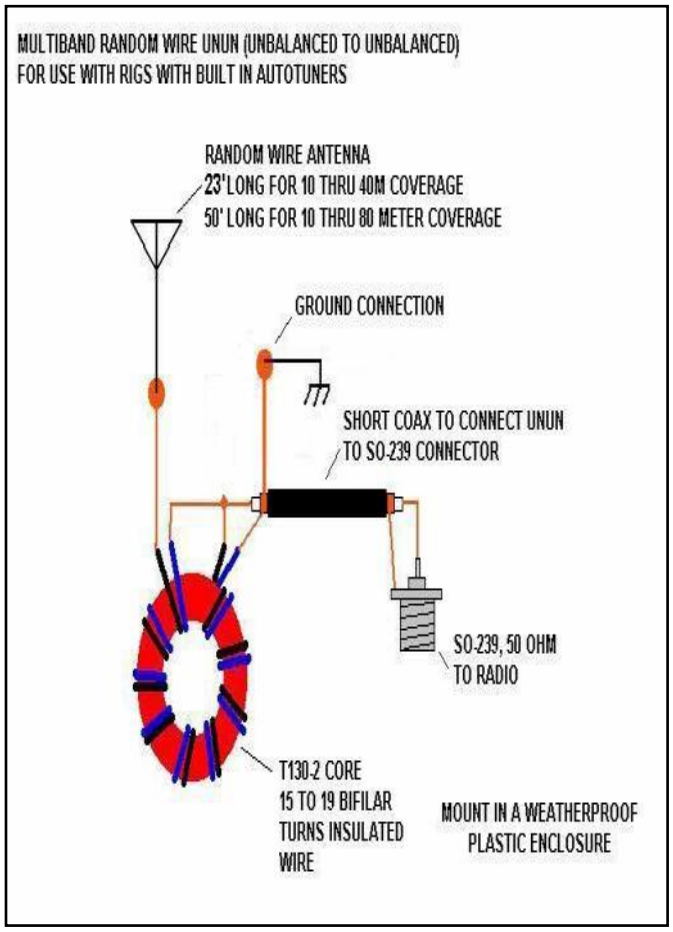
Tuned to the low end of 40 meters and hit the tune button and got an instant match with lots of CW signals booming in! Didn't take the paddles out and didn't want to spend a lot of time out there in the cold breeze, so I tuned up band to the phone portion, hit the tune button and again got a perfect match.

Made a couple of quick contacts and gave a couple of contesters a contact and got signal reports in exchange. One guy was in Virginia and the other was in Texas with a 55 and 57 respectively, not too bad for a short wire and 10 watts. Then I went up through the bands to see if I could get a match on any of them. I am happy to report that I got a solid match on every band from 40 meters up to and including 10 meters and made short contacts on 40, 20, 17, and 15 and could not find anyone on 12 and 10 meters but again got an instant match with the 703's autotuner anywhere I stopped the dial from 40 to 10 just what I wanted!

I speculate that the Unun will allow me to use a 50' wire 10 thru (sic) 80 meters…. I plan on trying it all out with the wire low horizontal and with longer lengths to see if I can work 160 meters too.

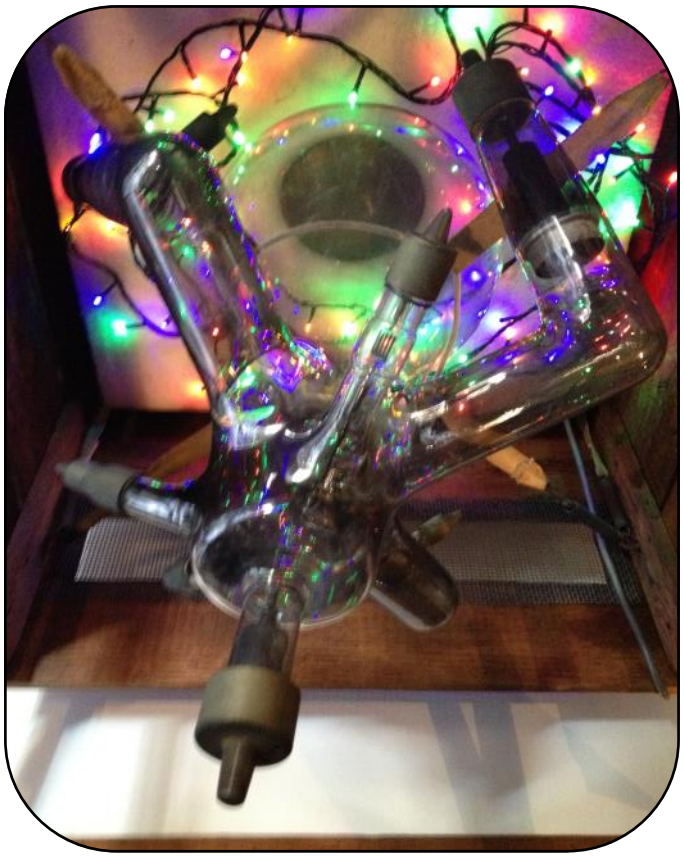
You will see a diagram showing how to wire up the UNUN. It is fairly easy to do and allows you to use a 23' wire antenna and a 23' counterpoise and get complete 10 to 40 meter coverage.

Update: I finally got the time to play with this system some more and found that I can use a 50' wire and 50' counterpoise and it will tune to a good match on all bands 10 thru (sic) 80 meters. Haven't actually made any contacts with it yet but at least it will tune anywhere I want it to even 60 meters! I had it deployed as an inverted L with the first 20' supported by a 20' fishing pole and the other 30' horizontal and tied to a nearby tree.



Below is a picture of my UNUN showing how it is laid out and you may see the schematic pasted inside the lid of the box. The antenna wire connects to the red binding post and the counterpoise wire connects to the black post. Try to get the antenna wire up with as much of it vertical as possible and the rest of it horizontal in an inverted L fashion or you can use it as a sloper just as mentioned above.

Note that the units used for the lengths of the wires in the article are in feet and not metric.



Can you guess what the above photograph is? It is mercury arc rectifier that I saw at the Tamworth Powerstation Museum.

Article by John VK2AYQ

Mercury arc rectifiers were invented by Peter Cooper Hewitt in 1902 and further developed through the 1920's and 1930's by researchers in both Europe and North America.

A mercury-arc rectifier (also known as a mercury vapour rectifier or mercury arc valve) is one type of electrical rectifier used for converting alternating current into direct current.

Rectifiers of this type were used to provide power for industrial motors, electric railways, trams and electric locomotives, as well as for radio transmitters and for high voltage direct current power transmissions. They were the primary method of rectification before the advent of semiconductor rectifiers such as diodes.

Before the advent of semiconductor devices, mercury arc rectifiers were one of the most efficient rectifiers. Mercury arc rectifiers or converters were used for charging storage batteries and in arc lighting systems where they were found to be more efficient than rotary converters.

The Tamworth Powerstation Museum has a collection of interesting electrical objects housed in a museum on the original site of Tamworth's first PowerStation. The PowerStation was built to provide electric light to the city of Tamworth which was the first city in Australia to install electrical street lighting.
Some of the other fascinating electrical items on display include the following.
A collection of electrical light bulbs.

Reel to reel tape recorders.

Old valve car and portable radios.

And home brew crystal sets!

Amateur Equipment then and Now

Yaseu FT DX 401

Introduced in the early '70's, this transceiver featured all-tube circuitry. Covers 10 - 80 meters plus 10 MHz receive. 560 watts pep input on SSB. 430 Watts DC input on CW 90 Watts DC input on AM Circuitry uses 13 transistors, 4 fets, 43 diodes and 20 tubes Features VOX, crystal calibrator and optional narrow CW filter.

Henry VK2ZHE supplied an interesting footnote and photograph regarding amateur VK2PA and the FT DX401.

Peter Alexander VK2PA in his then new Port Macquarie shack in Hill Street in 1971 before he built at Rollands Plains.

Note the FTDX-401 in pride of place at his left hand. The receiver at his right hand is his home built HF receiver with the signature Eddystone dial.

No 1970s shack was complete unless it sported a teleprinter for RTTY (by the way the Editor has a model 16 Teletype to give away free of charge to any member who cares to take it away).

Blast from the Past

The following was taken from Oxtales March 1990.

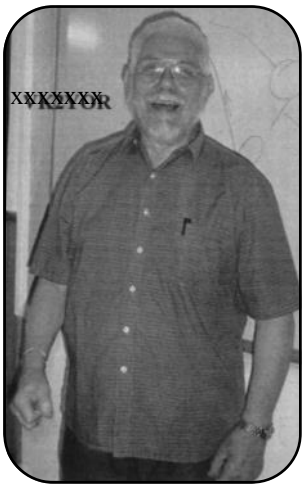
TEST YOUR THEORY

If you think that examinations are tough these days try this one from an I.E.E of October 1926;

- *. . The resonant curve of a spark transmitter is found to have two resonant peaks, one at 590 meters and the other at 620 meters. Calculate the coefficient of coupling between the primary and secondary circuits . . .*

From Oxtales January 2004

Friday night get-together in the old SES building talk on printing processes. Who is this member and what is his callsign?



The first person to guess the answer and to send an email to the editor at hansenjo@ozemail.com.au will be mentioned in the next edition of OXTALES!

The Editor was thinking that the person would win a prize of the old model 16 teletype mentioned earlier!

The above object was found in the Tamworth Powerstation Museum. It was used to turn electric stoves on and off before the advent of electronic timers.

From the Wireless Institute of Australia Website

Bushfires and WICEN

Author : Jim Linton - VK3PC
The immense devastation caused by the bushfires in New South Wales has destroyed more than 220 homes, caused the evacuation of thousands and on insurance claims alone cost $100 million. Although cooler weather with a southerly change dampened many fires, it still was one of the largest ever outbreaks in New South Wales.

At the height of the disaster a State of Emergency was declared. The Volunteer Rescue Association (VRA) activated WICEN NSW on Tuesday fearing the worst. WICEN's job was to help the VRA with manpower for police type duties like road blocks, advice to residents and evacuations.

WICEN Publicity Officer Julian Sortland VK2YJS said on Thursday that due to an improvement in conditions in the Lithgow region, WICEN has been stood down. Julian VK2YJS said while members of other Volunteer Rescue Association squads did work overnight on October the 23rd, it appears no further involvement is required.

The VRA was very impressed by WICEN's ability to provide personnel at such short notice.

(Jim Linton VK3PC, Chairman IARU Region 3 Disaster Communications Committee).

What will be Amateur Radio in the future?

Author : PR4AmateurRadio
Are you happy with the way things are now, without giving deep thought how, over the years, Amateur Radio has truly evolved?

First we had wireless experimenters dabbling in the scientific oddity of spark-gap telegraphy, then came valves, amplitude modulation, radio broadcasting and shortwaves opening up the world, satellites and more. A lot has happened, not to mention television, the Internet and the use of a plethora of digital modes and weak signal working.

Do visionaries that look to the next 5, 10 or 20 years still exist? A declining number of newcomers can pose a real threat to Amateur Radio, and it could happen in Australia. An unknowing community has rarely heard of Amateur Radio, or thinks we're old fashioned, bypassed by computer and information technology, and does not provide new challenges.

Think about how best you can promote Amateur Radio - sure we need to reflect on the past, but we also need to emphasise the now and the future. The WIA through its clubs and individuals has the PR4AmateurRadio Expo in April. Details about it can be read now on www.wia.org.au and visiting the What's On section.

The Wireless Institute of Australia - It's For You!

Congratulations
In becoming a radio amateur, you have joined the ranks of some 15,000 Australian radio amateurs and a worldwide fellowship of some 3 million, from all walks of life.

Your Voice Since 1910

The WIA - A single, national organisation run by radio amateurs for radio amateurs.
Join, benefit and contribute. See what you get and what you can do - open up!

Baofeng UV– 5R Manual

There are a few club members who have purchased the Baofeng UV-5R hand held.

Here is a link to a better written operation manual for the radio, and looks like there will be more manuals available in the future.

Its open source so there are no download fees.
Web address: radiodoc.github.io/

From
John VK2KC

Amateur Radio And Electromagnetic Radiation Issues

As radio amateurs we have a duty to be aware of electromagnetic radio from our stations and the need to comply with the relevant government regulations regarding emission.

The Wireless Institute Of Australia has published an in formative article on these issues and on how we may comply with the relevant regulation. This will be presented over the next few issues of OXTALES for our members information.

What is EMR ?

Electromagnetic radiation is familiar to us all as sunlight, heat, X-rays and radio waves. Electromagnetic radiation (EMR) conveys energy from a source to distant places. For example, the Sun radiates light, heat and other varieties of electromagnetic energy, which is received here on Earth. Your amateur transmitter conveys radiofrequency (RF) energy via your antenna to other amateurs' antennas and their receivers detect that energy and convert it to sound.

Whenever you go on the air, your station antenna generates an electromagnetic field that radiates in all directions, with the antenna often designed or arranged to radiate more energy in particular directions and less in others.

Because there is some public concern about possible health effects on humans of radiofrequency (RF) electromagnetic energy (EME) emissions, generally focused on mobile phones and their base stations, the Australian Government's Australian Radiation Protection and Nuclear Safety Agency available via this Link – ARPANSA – has developed standards for protecting the health and safety of people, and the environment, from the harmful effects of ionizing radiation (eg. X-rays) and non-ionising radiation (eg. RF electromagnetic energy emissions).

Understanding Electromagnetic Radiation Compliance for Amateur Radio Stations

Since 2003, the ACMA has required all transmitting stations to assess the status of the risk that a station presents in relation to human exposure to radiofrequency electromagnetic fields, generally termed electromagnetic radiation (EMR) or electromagnetic emissions (EME).

This requirement was included in the Radiocommunications Licence Conditions (Apparatus Licence) Determination 2003, Parts 3 and 4 (see footnote, below).

The ACMA's EMR Compliance regime attempts to ensure that RF exposure levels within a station, and any publicly accessible areas around the station, do not exceed the general public exposure limits
(to be continued in future issues of Oxtales)

Equipment for Sale

MANSON POWER SUPPLY FOR $100 OR THE RADIO &

BOTH P/S PL US THE 2M RADIO FOR $600

$150

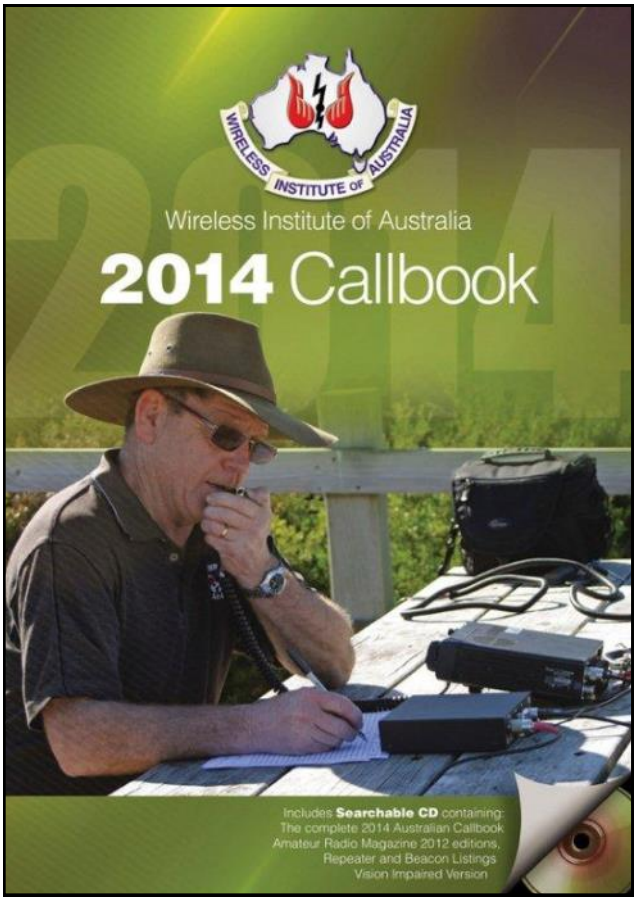
Manson SPS-9250 25A deluxe regulated power supply High current, regulated and variable output voltage 25A power High current, regulated and variable output voltage 25A power supply.

WAS $100

NOW ONLY $50

The Kenwood TM-201B 2 meter mobile was designed to be the ultimate in compact size and lightweight. Frequency range is 144-148 MHz with power output selectable at 45 or 5 watts. THIS RADIO DOES NOT HAVE THE REPEATER CTCSS ACCESS CODE (91.5) AND IT CAN NOT BE FITTED TO THIS RADIO.IT CAN STILL BE USED ON ALL NON CTCSS ACCESS CODE REPEATERS.**CONTACT BRUCE VK2HOT ABOUT THIS EQUIPMENT 65838360 OR 0408251949 bw_vk2hot@yahoo.com.au**

Items for Sale



The WIA 2014 Callbook is now available for $25. They are selling quickly so please see Henry VK2ZHEwith your money to secure your copy.

The Club Calendar will also be on sale at the Christmas Party. This becomes a very desirable item and you can easily put a face to a call sign

Stop Press

From Bill VK2ZCV

Echolink will not be available on VK2RPM till further notice due to a change in venue. Also Bill has sent an email about and update to VK3UM's EMR calculator. Details will be in the next issue of OXTALES.

There will be a Foundation Licence and Assessment weekend on Saturday and Sunday 9 and 10 November.

It is not too late to register your interest with Larry VK2CLL.