

## November 2009

Compiled by VK2TT & VK2AYQ

PRESIDENT:	Henry Lundell	VK2ZHE	6582 0534
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## President's Report

Thank you to everyone who participated in the club's recent JOTA and Beechwood Classic activities. Thank you to Neil Sandford VK2EI for his written report on the JOTA opera-



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tion. Neil has further highlighted the need for headphone facilities in the club's communications caravan when attempting to operate simultaneously on more than one frequency. Hopefully at least an interim solution can be implemented in time for the Car Rally communications on Saturday the 28<sup>th</sup> of November 2009. Note that this is the day after the club's annual Christmas Party which will be held at the Port City Bowling Club at 6pm on Friday the 27<sup>th</sup> of November.

Participation is the key, not only to the success of our activities, but ultimately, to the continuing viability of our club.

John McLean VK2KC is co-ordinating the

club's safety communications network for the 28<sup>th</sup> of November car rally. John still needs more volunteers to participate in this important activity. He has advised that he has only the bare minimum number of volunteers so far. Indeed, just prior to the deadline for confirming that the club would be able to provide the communications, he had insufficient volunteers, and it was only after twisting a few a few additional arms that he was able to reply in the affirmative. Please contact John if you haven't volunteered yet, but are able offer your services.

I have observed that in recent months there have been fewer and fewer stations participating in the club's 7:30 pm Wednesday evening nets on the VK2RPM two metre repeater. Wednesday evenings are also the (*Continued page 3*)

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## **Down The Coax**

#### December Monthly Meeting Saturday 7 December 2009 2.00 pm

#### Christmas Dinner Friday 27 November 6.00 pm

## January Monthly Meeting Saturday 2 January 210 2.00 pm

### **E-mail directory**

*Reflects ALL changes notified up to* February 2009 VK2AG (Lewis) lewisgreen@bigpond.com VK2EI (Neil) neilsan@tpg.com.au VK2EM (Bruce) vk2em@tpg.com.au VK2GD (Alan) anu16734@bigpond.net.au VK2KC (John) vk2kc@bigpond.com VK2TT (Trevor) grumps@midcoast.com.au VK2ATM (Arthur) arfamo@midcoast.com.au VK2AYD (David) dvdplly@midcoast.com.au VK2AYQ (John) hansenjo@ozemail.com.au VK2BEL (Allan) belly@skymesh.com.au VK2BOR (ORARC) vk2bor@orarc.org VK2CJM (Chris) Chris@CalmDowns.org.au VK2CHC (Richard) yachtsman@midcoast.com.au VK2CLL (Larry) vk2cll@clearmail.com.au VK2DDL (Stan) svellis@tsn.cc VK2EVB (Peter) vk2evb@swiftdsl.com.au VK2KK (Steve) haddie\_007@hotmail.com VK2EJK (Bob) rbr01962@bigpond.net.au VK2GPG (Paul) pauliejane@bigpond.com VK2HOT (Bruce) vk2hot@tsn.cc VK2IEV (Joe) rbivona@bigpond.com VK2KCE (Charles) cpedmond@midcoast.com.au VK2TMG (Brett) breree@gmail.com VK2UPR (Paul) vk4upr@dodo.com.au VK2VIV (Jim) jim.neil@gmail.com VK2YOR (Roy) rjburges@bigpond.com VK2ZCM (Craig) vk2zcm@dodo.com.au VK2ZCV (Bill) wsi54224@bigpond.net.au VK2ZCW (Bill) cabrooke@westnet.com.au VK2ZHE (Henry) lundell@tpg.com.au VK2ZTM (Tim) c/- info@tvg.com.au VK2ZYZ (Charley) rameses32@yahoo.com VK2FABJ (Ailsa) cabrooke@westnet.com.au VK2FBRG (Barry) bgilson11@hotmail.com VK2FHKO (Horst) horstko@bigpond.com VK2FJKD (Jim) jaidanl@bigpond.com VK9FLHI (Des) lhibluelag@bigpond.com VK2FRTH (Bob) miastar@aussieisp.net.au Peter Fletcher. fletcher@physics.usyd.edu.au

## Net Controllers' Roster Nets on Voice Repeater VK2RPM 146.700 MHz

Sunday<br/>(0830 Local)Tuesday<br/>(1930 Local)November 2009

VK2OA Nov - 01	VK2EI	Nov - 04			
VK2VIV Nov - 08	VK2AYD	Nov - 11			
VK2TT Nov - 15	VK2ZCM	Nov 18			
VK2OA Nov - 22	VK2ATM	Nov - 25			
VK2VIV Nov - 29					
Dece	ember 2009				
VK2TT Dec - 06	VK2ZHE	Dec -02			
VK20A Dec - 13	VK2EI	Dec -09			
VK2VIV Dec - 20	VK2AYD	Dec -16			
VK2TT Dec - 27	VK2ZCM	Dec -23			
	VK2ATM	Dec -30			
January 210					
VK2OA Jan –03	VK2ZHE	Jan - 02			
VK2VIV Jan - 10	VK2EI	Jan - 09			
VK2TT Jan - 17	VK2AYD	Jan - 16			

,	0411 17		0411 10
VK2OA	Jan - 24	VK2ZCM	Jan - 23
VK2VIV	Jan - 31	VK2ATM	Jan - 30

### From the editors

We are always looking for OXTALES material. In this issue John VK2KC has been kind enough to contribute an article about his 'trials and tribulations' with the installation of equipment into a late model car.

Lewis VK2AG has submitted a fascinating article on Rainbows for a future OXTALES.

Please feel free to submit any material to Trevor VK2TT or myself John VK2AYQ. Photographs, technical articles, stories about older equipment such as on page 11 of this OXTALES or even a humorous radio cartoon, all would be appreciated.

OXTALE pages needs to be produced in multiples of four when producing a printed version. Thus the search to fill the last couple of pages!

## (Presidents report continued)

SES training nights and often five or so ORARC members are in attendance at the SES. One of those in attendance will

usually temporarily put on their ORARC hat for the duration of the net and operate the club's station, VK2BOR, as net control. It is a good opportunity to make use of the club station but we can't really call it a net if only one station checks in. I know many members aren't able to join the nets as they have family commitments on Wednesday evenings, but, if you are able to do so, it would be greatly appreciated if you could at least check in to the nets. The net controller will understand if you are unable to stay very long. Of course, if you have any constructive suggestions regarding the Wednesday evening nets, please let the committee know. Perhaps we could again consider changing the time of the net.

The re-introduction of interesting lectures and demonstrations at our monthly general meetings has been very popular. It is pleasing that the shortened business meetings have met with universal approval. The meetings are still providing ample opportunity to cover business without unduly delaying the lectures. Don't forget that there will be a December monthly general meeting this year. After the 5<sup>th</sup> of December meeting, Bruce Walker VK2HOT will talk about all aspects of QSLing. This is most timely as many of us get to spend a little extra time in the shack during the festive season. In any case, it might be good idea to make it a New Year's resolution to get your QSLs in order. I'm sure that Bruce will again remind us that many members have unanswered eQSLs waiting. If you're not sure what an eQSL is, the mystery will be revealed at the December meeting.

As this is the last issue of Oxtales for the 2009 calendar year,

I would like to take the opportunity to wish all members and their families a safe and happy Christmas.

Henry Lundell VK2ZHE President

## JOTA - JOTI 2009

ORARC members supported the Sea Scouts at the Buller St hall on Saturday 17<sup>th</sup> Oct from 1200 to 1730.

The ORARC caravan was moved by Barry 2FBRG from Henry's 2ZHE at 0630 catching Henry in bed. In spite of the early set up assisted by John 2KC, space was already limited with the only option being to park the van parallel to the rear of the building with the van door facing the Hall entrance.

The HF multiband antenna was erected at the front of the van and a 4 element 70cm antenna pointed north towards the Coffs Harbour and Dorrigo repeaters. Setup was completed well before 1200, however the local start was delayed until 1400. By midday Bill 2ZCW, Charles 2KCE and Neil 2EI were on site. Bill 2ZCV, otherwise occupied by his elder son's matrimonial mission on North Brother Mountain dropped in a couple of times to check Progress.

Bill 2ZCW and Neil 2EI spent about 3 hours endeavouring to set up the Sea Scouts 2 ancient laptop computers with Telstra wireless interface. The two wireless modems were provided free by Telstra for use between 1200 and 2400 on the Saturday. Both computers were supposed to be preconfigured but unfortunately again this did not happen. Also the single USB port on one computer was unusable rendering that unit inoperable. After many futile attempts we always ended up with the statement "Searching", clearly a network interface problem. About 1600 the Scout Leaders (*Continued on page 4*)

## JOTA JOTI continued)

managed to contact Telstra and after several attempts contacted a "Techo" who concluded there was a problem with the Sim card activation with the result....No JOTI again this year.

The radio side saved the day with 21 70cm contacts via the Dorrigo repeater with

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excellent support provided by Gary 2ZKT and Carol 2FSCR.

Dismal conditions existed on HF with little activity and very high local noise level from the vertical antenna. We need to resurrect the horizontal all band antenna that may have provided a lower noise level. However due to the high QRN and audio competition in the van from the 70cm precluded HF contacts. 2m was not possible due to RFI with the 70cm link. This will be a project for the Wednesday working bee to install suitable filters to enable simultaneous operation on both links. Also simultaneous operation on two or more links necessitates the use of headsets. I think Craig 2ZCM is constructing an interface unit to enable this operation. In fact two units should be provided

Another option next year is to activate PSK31 that would allow operation on HF from the keyboard as we have the digital interface unit.

Observed problems requiring resolution are:

1. The bottom section of the portable pole didn't fit.

2. All coax cables in the van require labelling.

3. Installation of 2m/70cm band pass filters

4. Four sets of headset/mic combination required

5. Two Audio interface units (2 headsets per unit)

6. Horizontal multiband antenna (G5RV or ZS6BKW preferred)

More members require familiarisation with

the van facilities and operation

And a final plea how about more activity from other members, operations are being left to a few "regulars".

Overall; the Leaders were very pleased with the ORARC operation and impressed with the van. They intend to obtain up to date computers and have them configured for next year.

We were treated to excellent fresh sandwiches for lunch and a tasty BBQ at the finish. Lets get it right for next year. Unfortunately no one had a camera to record this years efforts.

73 Neil VK2EI



The Billy Cart Classic held at Beechwood on Sunday 25th October 2009.

On Sunday morning, when most folks laze around or sleep in, 11 members of the ORARC, made their way to Beechwood to supply the communications for their annual Billy Cart Classic.

By 9:30am we had gathered to set up the mobile communications for the event. Roy 2YOR setup his 2m transceiver in the commentary vehicle to supply the running commentary. This vehicle preceded the Billy Carts down the hill and the mobile commentary was received at the control point where Trevor 2TT had patched his 2m transceiver into the PA system to allow the running commentary to be broadcast to the crowd of supporters and onlookers.



(*Trevor VK2TT, Bill VK2ZCV and Arthur VK2ATM setting up the PA link*)

The commentary frequency used 146.425 MHz simplex, and for the safety points 146.500 MHz. The balance of us were then dispatched to 7 points along the course to supply communications for any emergency situations that may have arisen to Bill 2ZCV who manned the communications centre and was situated at the finish point. Fortunately no incidents were reported, and all our members demonstrated the professionalism that is a hallmark of the amateur radio fraternity.

The road was closed at 11:00am, and the junior events were run over a short course in town and were completed by 11:15. At 11:30 the main event was run with the "big guns" being released from the top of the mountain at 20 second intervals.



(Strong finish by juniors)

For those of us manning the emergency reporting points the Billy Carts were in view for only a short time, but the speed of some was quite impressive, prompting a comment from Larry 2CLL, "3 wheels and streamlining is the way to go".At the time of writing this report no results were available for the event.

The Flag Marshall who was assigned to my position was very impressed with our communications and the professional way we communicated and commented, "It makes my UHF CB handheld look like a toy!"

Roy 2YOR reported that the speed of the commentary vehicle reached 90kmph as they made their way down the mountain! The occupants of the van were very impressed at they way the 2 way radio system worked flawlessly, again a great example of technical expertise and a "can do" approach that our club members demonstrate.

A big thank you to Arthur ATM, Charles KCE, Craig ZCM, Neil EI, Bill ZCV, Bill ZCW, John AYQ, Larry CLL, Trevor TT, Roy 2YOR and Lewis AG, who gave of their time to promote our sport of Amateur Radio.



Charles VK2KCE, Lewis VK2AG, Neil VK2EI, Alisa VK2FABJ, Bill VK2ZCW, John VK2KC, Arthur VK2ATM and Larry VK2CLL)

John McLean VK2KC The Trials and Tribulations of Fitting a Screwdriver Antenna to a Late Model Car

John VK2KC



Some 5 or more years back I bought a High Sierra HS1800 "screwdriver" antenna and a N2VZ Turbo Tuner with the intention of installing it in my 1994 Holden Commodore sedan. I got as far as manufacturing a mount for the antenna which utilized the towbar tongue and the towing ball to anchor it in place.

Looking at the complexity of the installa-

tion, I changed my mind and shelved the idea of installing it in the current vehicle and decided to wait until I purchased a later model vehicle.

Well as you know time flies when you are having fun! In 2007 after I had retired and lashed out and bought a brand new VE Commodore sedan, careful selection of the purchase was made because of the impending installation. It was another 2 years before I got the nerve up to install the IC-706Mk2G, a FT-8900 quad band transceiver and the High Sierra antenna.

The impetus was a pending trip to Perth to visit family, and my XYL finding out that there are some large spots across the Nullarbor that aren't covered by mobile phone service, "permission" was gained to install the hardware. The second bracket I had made to mount the antenna onto, using some 65 x 65mm Dura-Gal angle proved too flimsy, when the antenna was mounted to it, there was excessive movement and I realized that the angle bracket would fatigue and break off, not a desirable outcome, considering the cost of the antenna!

I then found the first bracket I had previously fabricated out of 75 x 10mm flat mild steel with a piece of galvanized pipe welded vertically to it and much to my surprise it fitted perfectly, so that was bolted on using the tow ball.

Now to the real part of the installation, I had made up out of sheet aluminium a mount for the IC-706, and also incorporated in that mount a 12volt fan to operate continuously whenever the transmitter was switched on. Much manoeuvring and trial fitting followed to see where I could mount it.

Next tricky part was to find out how I could strip out the rear seats and route the cabling for the control heads which I intended to mount in the driver's compartment somehow! All I had learned from 44 years in the automotive trade counted for naught because the VE Commodore didn't remotely follow any assembly conventions of the past models, and it took a lot of thought and effort to figure out how to remove the rear seats, and the body trim along the right hand side to allow routing of the cables. I was fortunate that I only had to use the radio installer's friend, super glue once!

Back to the boot, I found out how to remove all the trim and then followed many hours of lying down in the boot working in a very uncomfortable position to fit the IC-706 and also the Turbo Tuner, which was mounted up under the rear parcel shelf on the LH side. Oh! another discovery, the vehicle 12v battery is mounted on the passenger side in the boot, behind the rear wheel! Hey!, try to fit a 6 footer with a back problem into a boot proved to be very difficult, but not impossible, as I managed to work out a pretty good routine as to how to bunch myself up and roll into the boot and work myself into a working position!



(A tight fit for a 6 foot person!)

The battery position proved to be a bonus as I didn't have to run heavy duty wiring from the front of the car, but it did uncover another problem, because when I used the fused outlets on the positive terminal the vehicle computer disliked it intensely, threw up some fault codes so more looking and thinking, and I found that I could actually use the main positive battery terminal stud to mount the two power wires for both transmitters. What you ask? 2 transmitters, well I decided to use the FT8900 and boot mount it as well! The installation of the FT8900 proved to be the easy part!

When I cleared the fault codes from the computer, I realized that when I had run the negative leads to where the battery earthing point is located, right behind the battery, this then further bought up some more fault codes. A phone call to my friendly Auto Electrician proved fruitless as he hadn't worked on or was he familiar with the VE Commodore. On closer inspection of the battery earth cable I found that there was a device around the earth cable, and so when I re-routed the transceiver negative wires through the circular device, which I figured must measure the current, but why did it cause the computer to throw up fault codes had me puzzled. Maybe the computer compared the positive terminal current with the negative terminal current and because there was a difference, caused the computer the hiccup. Well that fixed the current problem.

OK, now the control leads to the front of the vehicle were run and I had decided to manufacture up a control head mount which fitted into the centre console just back from the gear lever. A 3" piece of PVC tubing was used and a few bits glued inside of it so I could bolt a piece of aluminium plate to accommodate the control heads, plus a place to hang the microphones on. This worked beautifully as it sits in a cup holder just at the driver's left, making adjusting of volume, frequency etc., a breeze. Then the thought hit me, hang on, I won't be driving all the way so I will need access to the control heads whilst I am a passenger! The mount can be swiveled, but its then I discover that I haven't brought enough of the wiring through to allow me to swivel the control heads to allow me to operate from the passenger seat.

Arghhhh! Better pull out the back seats (again!), the trims and pull some spare wire through so I can rotate the control heads! At least this time I knew how to remove the parts! So that was accomplished in only a couple of hours! Now I can swivel it around and operate from both seats!

OK now back to more wiring, the coaxial cables were then made up, the High Sierra antenna guru said I must have more than 6 meters of RG58 between the Turbo Tuner and the antenna, so that was made up, and as a precaution, two toroids were selected and ten turns of coax was wound through each toroid, but the one at the base of the

antenna looked terrible, so a plastic box was selected and the toroid was installed inside of it and zip clipped to the antenna mount with a small fly lead from the box to the feed point of the antenna.

Then I needed to have an earth point for the antenna, and the recommendation was for a minimum of 25mm wide copper strap, not braid (according to the Guru!), definitely NOT braid and the maximum length of the earth strap from the mounting bracket of the antenna to the body of the vehicle no more than 900mm, but there was no way that I could accomplish that, so I ran the 25mm copper strap from the earth point near the battery across to another earthing point near the boot latch. I measured the length of earth strap from that point to the antenna and I needed 1500mm to reach. An email to the High Sierra Guru, and he was insistent that 900mm was the maximum length I could use, any more than that and he wouldn't guarantee that the antenna would tune properly, but as reality prevailed I decided to go ahead with the 1500mm and made up an earth strap using multistranded tinned copper wire I had in my possession, and using a standard 10mm crimp terminal, I found that I could fit 8 of the stranded wires into the fittings, and crimped them using a hydraulic crimper at Hastings River Brake and Exhaust. Thanks Scotty!

Then I used heat shrink to cover the wires and drilled a 17mm hole (the only hole I had to drill, apart from ones for the screw for the transceiver mounts!) in the spare tyre compartment and fed the earth through a grommet and fitted it to the earth point. Where the wire was routed up from the spare well, and over a lip, where I was able to flatten out the earth cable for a perfect fit.

Now for the test transmission, 14.170 Mhz, hit the tune button on the IC706 and the antenna wound itself to the fullest extent and then back to resonance, I was mystified as to why it first decided to extend first and then come back to find the resonant point. Well a re-read of the manual indicated that the polarity of the 12v DC to the electric motor in the antenna was reversed, and checking the DC wiring from the Turbo Tuner to the antenna proved to be correct, but then in the instructions I spotted that the polarity can be reversed by moving a DIP switch, once this was accomplished, the antenna worked faultlessly.

Now for a test transmission, and much to my horror, more fault codes were displayed from the vehicle's engine management computer, 4 toroids were sourced from Henry VK2ZHE, and fitted to the control cables at each end and that stopped the rot.

Now for a serious test, a call to Henry who fitted his HF whip, and then almost ready to QSO when the radio shut itself off! Now what? A quick check on the FT8900 indicated that with all the testing, the vehicles battery had run down, but a warning on the dashboard had come up with "Service Charging System".

I was convinced I had caused damage to the charging system with the RF floating around, but what it turned out to be was that there wasn't sufficient voltage to start the engine, after all the testing had run the battery down so for then the serious on air test was thwarted by Murphy.

This vehicle is fitted with a calcium battery, and a phone call again to the auto electrician managed to find out that an ordinary battery charger would do the trick, and I hooked up the charger and let it run all afternoon, and found that I could start the engine and drive it into the garage for the night.

Another trip to town to get the battery load tested and the charging system analysed which much to my relief proved OK, with no damage. OK, and then to hook up the vehicle to the computer reader and remove the

## fault codes! All done!

Now all seemed well, on the way back from town, monitoring 14.116 Mhz, on the VK6 traveler's net resulted in excellent signals into VK5 and VK6, so all the hassles and trials and tribulations was worth it.

So I now have UHF, VHF and HF capabilities in a fully mobile situation and will be using it on the trip to Perth and back. When I am on the road, I will be monitoring the VK6 Travellers net on 14.116, and in the afternoons will be switching to 7.070 MHz.



(The installation from the driver's seat)

I have made contact with a few of the VK6 operators in the Northern Corridor Amateur Radio Club and will be attending one of their meetings whilst I am over there.

The installation proved to be very complicated and time consuming, all up it has taken me two weeks to complete the entire job, which included making the antenna mount, a transceiver mount and control head mount, a job not for the faint hearted!

Now the question should be asked, will I do it all over again? Let me do the trip to Perth and back and I will let you know!

John McLean VK2KC

## From Around the world

## **Preparing for emergencies**

IARU member societies and amateur radio emergency communications groups around the world are getting ready for next month's Global Simulated Emergency Test.

It will be on Saturday the 14th of November between 1800 and 2300 UTC, on or near the emergency centre of activity frequencies on the 80, 40, 20, 17 and 15 metre bands. These frequencies are now listed in band plans around the world.

GlobalSET is not a contest but a training exercise in the handling of emergency communications and testing of equipment.

It puts a world-wide focus on the training that regularly occurs in some countries in preparation for the time when amateur radio plays its role in providing communications in times of an emergency.

For more details check out the IARU Region 1 website under the Emergency Communications Working Group section.

From Amateur Radio Victoria

## Winter Olympics special event stations

Three special event callsigns have been issued and will be on the ham bands to celebrate the running of the Winter Olympics in Vancouver, Canada.

This is the initiative of the Vancouver Olympics Amateur Radio Group that has advised VG7V is on the air until 30 November, then VG7W will be on the air from 1 December until 31 January. VG7G will be on air from 1 February until 31 March 2010.

Commemorative QSL cards will be available.

# VK9 C, L, M, N, W & X deleted from DX equation

The Australian Communications and Media Authority (ACMA) has decided to discontinue the use of a VK9 callsign suffix letter to denote each of the six Australian external territories, each a DX entity.

The long-standing prefixes included VK9C for Cocos (Keeling) Island, VK9L Lord Howe Island, VK9M Mellish Reef, VK9N Norfolk Island, VK9W Willis Island and VK9X Christmas Island.

The Wireless Institute of Australia (WIA), under its role of providing ham licence examinations and issuing amateur certificates of proficiency, also recommends each and every amateur callsign issued by the ACMA.

On taking on new roles earlier this year it began to query the practices in relation to VK9 callsigns, then consulted the amateur radio community and came to the view that it could not support having a suffix letter as a geographic identifier in VK9 callsigns.

The ACMA itself has not stuck with the VK9 callsign tradition over the years when issuing licences and some DXers requested a callsign contrary to the historic or DXCC list suffix block.

VK9Y has also been used for Cocos and VK9Z for Mellish, and often, particularly recently, if a VK9 callsign was requested it would be issued.

The ACMA having not rigidly applied its own VK9 callsign policy, and wanting to eliminate where-ever possible administrative tasks related to the amateur radio service, decided that the historic VK9 callsigns are a thing of the past.

From 1 November, callsigns for the VK9 DX entities will fall in line with the practice

for issuing callsigns for all other VK call areas, with the suffix only to denoting the class of licence issued – Advanced, Standard or Foundation.

Licences with a VK9 callsign issued to visiting overseas radio amateurs will only be for a short-term if requested or for a maximum 12 months period, and not be automatically renewed.

A VK ham or visiting radio amateur does not necessarily require a VK9 callsign, although most do for DXing, contesting or QSLing purposes.

Under the provisions of the Amateur Licence Conditions Determination, portable operation is permitted with a radio amateur using their home callsign /VK9 and stating their location.

(Jim Linton VK3PC)

## Optical cloudbounce trans-Bass Strait record

A new NLOS (non-line of sight) optical communications distance record of 288km has been set with a one-way transmission between VK7 and VK3

The night-time contact on 27 October saw Joe Gelston VK7JG assisted by Paul Godden VK7KPG fire up a narrow beamwidth 60 Luxeon LED transmitter to scatter red light off the clouds.

The pair were on Mt Horror in northeast Tasmania at an elevation of 600m above sea level, a location that featured in a previous NLOS record.

Meantime Rex Moncur VK7MO was on Mt Liptrap in South Gippsland, Victoria at a height of 150m to receive their transmission.

George E. Smith, AA2EJ, Wins Nobel Prize (Nov 3, 2009) -- Around 5:30 on the morning of October 6, George E. Smith, AA2EJ, of Barnegat, New Jersey, got a phone call that changed his life: He had just found out he had won the Nobel Prize in Physics for 2009 "for the invention of an imaging semiconductor circuit -- the CCD sensor." Smith will share the prize money with two other recipients: Charles K. Kao, of Standard Telecommunication Laboratories in the United Kingdom and Chinese University of Hong Kong in Hong Kong, China, and Willard S. Boyle, of Bell Laboratories. Each recipient will receive a diploma, a medal and a document confirming their share of SEK 10 million (about 1.4 million US dollars); Kao will receive 50 percent, while Smith and Boyle will each receive 25 percent of the monetary award.



**Equipment from the past** *From the Heathkit Virtual Museum* 

From the 'old' days of Amateur Radio before SSB. Amateurs worked the world using AM modulation and CW.



• 6146 final amplifier for full 75-watt plate power input.

• Phone and CW operation on 80, 40, 20, 15, 11 and 10 meters. Pi network output coupling.

• Switch selection of three crystals provision for external VFO excitation.

• D'Arsonval movement panel meter indicates final grid or plate current.

The tube lineup features a 6CL6 Colpitts oscillator, a 6CL6 buffer, 6146 amplifier, 12AX7 dual-triode speech amplifier, 6DE7 dual-triode modulator, and a heavy-duty 5U4GB rectifier. The modulator circuitry features an audio frequency shaping network allowing a higher average output level on voice frequencies where it is required. Provision is made for three crystals. A fourposition switch selects any of the three crystals or a jack for external VFO. The crystal sockets are easily accessible through a "trap door" in the back of the cabinet. An external VFO (variable frequency oscillator) can also be used to excite the transmitter for the general or advanced-class ham. Power for the VFO is available at a socket on the rear apron of the chassis.

**Specifications—Power Input...** 75 watt CW, 60 watt peak controlled carrier phone. **Output Impedance...** 50-1000  $\Omega$ . **Output Coupling...** Pi network (coaxial). **Operation...** Crystal-VFO, CW, Phone. **Band Coverage...** 80, 40, 20, 15, 11, 10 meters. **Tube Complement...** 5U4GB Rectifier, 12AX7 Speech Amplifier, 6DE7 Controlled Carrier/Modulator, 6CL6 Crystal Oscillator, 6CL6 Buffer, 6146 Final Amplifier. **Power Requirements...** 117 volts AC, 60 cycles, 175 watts. **Cabinet Size...** 13" wide x  $8\frac{1}{2}$ " high x 9" deep. **Net Weight...** 21 lbs. **Shipping Weight...** 26 lbs.

## OXLEY REGION AMATEUR RADIO CLUB Inc. MEMBERSHIP REGISTER.

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(As of 1 November 2009)

Cat.	Surname	Given	Spouse Name	Call	Location	Tph	$\searrow$
1 0	BAILEY	JOHN	(FLORENCE)	VK2KHB	PORT MACQUARIE	02 6582.2192	
2 D	BELL	ALAN	· · · ·	VK2BEL	COOLONGOLOOK	02 6554.1689	
3 0	BIVONA	JOE	(ROSE)	VK2IEV	PORT MACQUARIE	(Mob) 0405040953	
4 L	BLYTH	BOB		VK2XIQ	<b>TELEGRAPH POINT</b>	-	
50	BRODIE	BOB		VK2EJK	PORT MACQUARIE	02 6582.0592	
60	BROOKE	AILSA	(BILL)	VK2FABJ	PORT MACQUARIE	02 6581.0547	
7 0	BROOKE	BILL	(AILSA)	VK2ZCW	PORT MACQUARIE	02 6581.0547	
80	BURGES	ROY	(JUNE)	VK2YOR	PORT MACQUARIE	02 6583.8801	
90	COURT	RICHARD	(LINDA)	VK2CHC			
10 0	DANIEL	JIM		VK2FJKD	PORT MACQUARIE	02 6583 1933	
11 0	EDMONDSON	CHARLES	(PAT)	VK2KCE	PORT MACQUARIE	02 6584.0495	
12 D	ELLIS	STAN	(BETTY)	VK2DDL	TUNCURRY	02 6554.7996	
13 0	FLETCHER	PETER			PORT MACQUARIE	02 6584.5191	
14 0	GILSON	BARRY	(FAY)	VK2FBRG	PORT MACQUARIE	02 6583.8814	
15 0	GREEN	LEWIS	(PAMELA)	VK2AG	PORT MACQUARIE	02 6584.9162	
16 0	HADFIELD	STEVE		VK2KK	PAPPINBARRA	02 6587.6160	
17 L	HANLON	KEITH		-	PORT MACQUARIE	-	
18 0	HANSEN	JOHN		VK2AYQ	PORT MACQUARIE	02 6582.7932	
19 0		DAVID	(ISABELLA)	VK2AIF	WAUCHOPE	02 6586.4980	
20 0	KOPPEL	HORST		VK2FHKO	LAKE CATHIE	02 6585.5992	
21 L	LINDSAY	LARRY		VK2CLL	WAUCHOPE	02 6587.1155	
22 L	LUNDELL	HENRY		VK2ZHE	PORT MACQUARIE	02 6582.0534	
23 0	MADIGAN	ALLAN	(DAWN)	VK2OA	WAUCHOPE	02 6585.2043	
24 0	MARTIN	CRAIG	(JENNY)	VK2ZCM	SANCROX	02 6585.3452	
25 D	McADAM	PETER		VK2EVB	COFFS HARBOUR	-	
26 0 27 0	McGUIRE Malean	MARK		VK2KC	PORT MACQUARIE	02 6583.8875	
27 U 28 D	McLEAN MILLS	JOHN TIM	(CORRINE)	VK2KU VK2ZTM	PORT MACQUARIE BEECROFT	02 6584.6220 02 9868.1434	
28 D 29 H		CHRIS		VK2EJ	HALLIDAYS POINT	02 6559.3516	
30 L	MONCK	ARTHUR	(WENDY)	VK2EJ VK2ATM	PORT MACQUARIE	02 6581.0960	
30 L 31 0	NEIL	JIM	(VENDT) (CAROL)	VK2VIV	PORT MACQUARIE	02 6581.2481	
31 0 32 0	NUTT	ALAN	(ELAINE)	VK2GD	PORT MACQUARIE	02 6584 9639	
33 0		DAVID	(DEE)	VK2AYD	KING CREEK	02 6585.2647	
34 0	ROTH	BILL		VK2CWR	PORT MACQUARIE	02 6581.1776	
35 0		NEIL	(VERENA)	VK2EI	PORT MACQUARIE	02 6582.5830	
36 L	SINCLAIR	BILL		VK2ZCV	PORT MACQUARIE	02 6583.9302	
37 D	TARRANT	DAVID	(AILEEN)	VK2TBC	ILUKA	-	
38 0		TREVOR	(	VK2TD0 VK2TT	WAUCHOPE	02 6585.2278	
39 D	THOMPSON	DES	(BETTY)	VK9FLHI	LORD HOWE ISLAND	02 6563 2152	
40 0	WALKER	BRUCE	(GWEN)	VK2HOT	PORT MACQUARIE	02 6583.8360	
41 0	WEBSTER	PAUL	(CAROL)	VK2BZC	PORT MACQUARIE	02 6582.3377	
		ry Key: $0 =$	, ,		= DISTANT $H = HONO$		