Amateur Radio

Volume 82
Number 9
September 2014
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WIRELESS INSTITUTE OF AUSTRALIA

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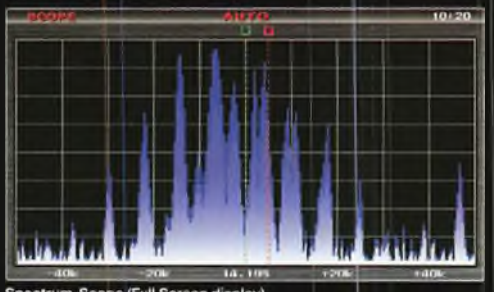

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Amateur Radio

The Journal of the Wireless Institute of Australia

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General

Technical

Columns

This month's cover

Our cover this month shows the station set up by Joe VK3YSP and Julie VK3FOWL outside the Melbourne Museum for the International Museums Weekend. Read all about the preparations and execution of this activity which promoted our hobby to the broader public in the story commencing on page 8.

Contributions to Amateur Radio

Amateur Radio is a forum for WIA members' amateur radio experiments, experiences, opinions and news. Manuscripts with drawings and/or photos are welcome and will be considered for publication. Articles attached to email are especially welcome. The WIA cannot be responsible for loss or damage to any material. Information on house style is available from the Editor.

Back Issues
Back issues are available directly from the WIA National Office (until stocks are exhausted), at $8.00 each (including postage within Australia) to members.

Photostat copies
If back issues are unavailable, photocopies of articles are available to members at $2.50 each (plus an additional $2 for each additional issue in which the article appears).

Disclaimer
The opinions expressed in this publication do not necessarily reflect the official view of the WIA and the WIA cannot be held responsible for incorrect information published.

Amateur Radio Service

A radiocommunication service for the purpose of self-training, intercommunication and technical investigation carried out by amateurs; that is, by duly authorised persons interested in radio technique solely with a personal aim and without pecuniary interest.

Wireless Institute of Australia

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The Australian Amateur Radio Service
Member of the International Amateur Radio Union

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Editorial

Peter Freeman VK3PF

A new Secretary for Publications Committee?

Within a few days, the Publications Committee loses its long-standing Secretary. Ernie Walls VK3FM has been Secretary the whole of my tenure as Editor, which began back at the end of 2005. Having recently passed a significant birthday, Ernie has decided to retire from this role, leaving him free to indulge other interests without the burdens of dealing with all the correspondence associated with the production of *Amateur Radio* magazine.

Ernie signalled his intentions back at the June meeting of Publications Committee, noting that the September meeting would be his last. I noted this in my July Editorial and called for expressions of interest for anyone who might be interested in taking up the role. On that front, there has been deafening silence! No volunteers have yet put up their hand.

All input for the magazine – articles, regular columns, Club news items and Hamads – are processed by the Secretary. All the articles, columns and Club news items are recorded on an Article Register. The Secretary undertakes an initial editing of the material before it is sent on to the next step for processing.

For all technical articles, the material will go to one of the technical editor team for checking of the technicalities. Of course, there may need to be communication back to the author, another role undertaken by the Secretary. Occasionally, he may need to "crack the whip" with a technical editor to finish processing an article.

The articles are collated by the Secretary and then sent on to me as Editor. I will read through all material and hopefully find any errors that may have been missed. When I am happy with the article, it will be added to the collection of material ready for publication, and I will send the Secretary an email indicating that the status should be recording as being at Production – another entry onto the Article Register.

There are also the tasks of taking meeting Minutes and preparing each Agenda for the quarterly Publications Committee meetings.

I am sure that Ernie will introduce a new Secretary into the role. But first we need to find a person willing to contribute some time and energy. Ideally, we need someone located within comfortable driving time of the WIA Office in Bayswater. A reliable internet connection is also required. Feel free to contact me if you are interested.

Articles needed

We always need articles for publication, both general and technical. Details on how to contribute can be found on the *AR magazine* page on the WIA website – look under "For Members". The articles may take several months to work their way through our review system, but we usually publish almost all contributions – rarely do we reject a contribution. So tell us about your latest project, or encourage your club to report on their activities. Of course, you might also encourage the knowledgeable speaker at your club meeting to consider preparing an article for publication....

Until next month.

Cheers,

Peter VK3PF

WIA comment

Phil Wait VK2ASD

Repeaters and Beacons - Again

Back in April this year, seemingly an eon ago, I asked the question "should amateur repeaters run 120 watts", largely in response to a few comments received criticising the way the WIA handles amateur repeater applications. Several people had difficulty with the fact that WIA Coordinators were modifying their application for a repeater licence to show a lower power delivered to the antenna, typically from 120 watts (pY) to 50 watts (pY), and asking (often in fairly blunt terms) why the discrepancy, and why shouldn't an amateur repeater be allowed to run the full power specified in the amateur LCD for Advanced licensees.

At the time I explained that the WIA had been able to avoid a very large fee increase for amateur repeaters and beacons by having volunteer WIA Coordinators doing much of the evaluation work that would otherwise have been done by the ACMA, so the ACMA would only have to check the repeater or beacon application for potential site interference prior to issuing a licence. The WIA is not a delegate of the ACMA as far as this work is concerned, so the WIA can only make recommendations about an amateur repeater or beacon licence application.

Responses to my April President's Comment were fairly mixed, some suggesting that the WIA had overstepped the mark and had been implementing an overly restrictive policy, and others suggesting that the issues of spectrum reuse and the protection from cross-interference were the most important considerations.

Tellingly, the responses tended to mirror the location of the responders, with those in rural or low usage areas arguing for less restriction, and those in urban or high usage areas thinking the policy setting was about right.

The issues are certainly complex, and go to the principles of spectrum management that attempt to allocate scarce spectrum in a way that provides the greatest overall benefit. The WIA believes the limited spectrum allocated in the amateur band plans for repeaters should be available to as many groups as possible, and power should be used as a tool to limit the range of repeaters and maximise spectrum reuse, especially in high density areas. Most clubs have gone to considerable trouble and expense building and maintaining their repeaters, and are now paying quite expensive site fees, so understandably they would be quite upset if another repeater was causing them interference, even if only occasionally.

However, where I live in Sydney, our 2 metre repeater spectrum is supposedly quite full, but when I tune across the band it's mostly vacant space - even though there are probably ten repeaters within range of my QTH! The obvious question is, by applying a fairly rigid policy regarding spectrum reuse, have we manufactured our own brand of spectrum scarcity?

There is no use-it-or-lose-it element to a repeater licence, and a licensee will normally have exclusive use of a frequency pair as long as the yearly fees are paid. So if a club sits on a repeater licence without actually building one, or if it maintains a repeater with very low usage, that club will effectively tie up a valuable frequency-pair forever, within several hundred kilometres of the repeater site.

So, when you consider the spectrum engineering issues, and the fact that many amateur repeaters are located on co-shared sites with commercial services where issues such as cross-interference and inter-modulation are serious concerns, you can see that the job of the WIA Repeater Coordinator and the ACMA in balancing all these competing issues is not easy, and not helped by a good deal of public criticism.

On the other side, somebody living in Kalgoorlie WA might think that this is all academic, and they should be able to do whatever they like within the provisions of the amateur LCD, given that the nearest big town is 550 km away.

To clarify the position we have released a draft WIA Repeater and Beacon Recommendation Policy for comment. The draft policy attempts to achieve a flexible balance between spectrum reuse and interference protection, and uses the ACMA spectrum density maps, (which divide the country up into high, rural and remote spectrum density areas), to tailor the policy to the differing regional requirements.

The requirements for beacons are altogether different, as beacons act as propagation indicators and attempt to achieve the greatest possible range. Also, beacons are typically located near major population centres where the greatest numbers of radio amateurs live. For those reasons spectrum reuse with beacons is not really possible, but luckily there are not too many of them.

I encourage readers to take a look at the draft WIA Repeater and Beacon Policy in the "Hot Issues" section on the WIA website, and also take a look at the other issues such as the Amateur Band plans review and the 2.3 GHz and 3.5 GHz spectrum re-farming. Please do let us have your comments on these all critical issues.

Phil Wait VK2ASD
President

WIA news

Geelong Amateur Radio Club activate historic site

At the invitation of the First Shot Organising Committee, the Geelong Amateur Radio Club Inc. were invited to establish a radio station within the Fort Queenscliff precinct in recognition of the role played by terrestrial and wireless telegraphy during WW1.

The Commemoration and Memorial Service took place in the Fort at 10.30 am on Tuesday 5th August, 100 years to the hour when a shot was fired across the bow of the German merchant ship SS Pfalz, to stop the ship from leaving Port Phillip Bay.

The Federal Department of Veteran Affairs and the Australian Communications and Media Authority granted the Geelong Amateur Radio Club, through the Wireless Institute of Australia, authorisation to use a special event callsign VI3ANZAC: the first allocation of a callsign representing the ANZAC Centennial Commemoration.

Communication by wireless telegraphy, the transmission of messages by Morse code, from this historic site is particularly significant, as it was in the vicinity of this location that the first Shore to Ship transmission in the Southern Hemisphere occurred on 5th May 1901, when Henry Walter Jenvey sent a message to the ship Ophir carrying the Duke and Duchess of York and Cornwell, for the opening of the first Federal Parliament.

On the 12 July 1906 the first wireless transmission from the Australian mainland to Devonport was carried out by the Marconi Company, in the presence of the Governor General, Prime Minister Deakin and many other dignitaries.

Preserving a future for our 9 cm band – WIA submission to ACMA

The WIA has lodged a submission on 30 July 2014 with the Australian Communications and Media Authority (ACMA) in response to its current inquiry into future licensing arrangements in the "3.5 GHz band", which extends from 3400 MHz to 3600 MHz.

The 9 cm Amateur band, which only Advanced licensees are permitted to use, extends from 3300-3600 MHz, with 100 MHz of the band restricted on a geographic basis, as set out in Section 2 of the current Amateur Licence Conditions Determination.

On 18 June, the ACMA published a consultation paper seeking comments on possible future licensing arrangements in the 3.5 GHz band. Titled "Transitioning the 3.5 GHz band for future opportunities", the paper outlined overseas trends that are starting to put pressure on current Australian allocations in the 3.5 GHz band, to which the Authority determined that "the ACMA's response to the complexity and growing pressures associated with the 3.5 GHz band is to look at implementing new arrangements that will maximise the band's future flexibility." Sounds ominous. It seems the future envisioned might mean more Apparatus licensing in the 3.5 GHz band, rather than great swathes of Spectrum licensing (although that's also an option).

On 22 June 2014, the WIA sought input from all interested Australian amateurs, and encouraged individual submissions to the ACMA's inquiry.

The Institute's submission details the impact of loss of Amateur access to 3400-3600 MHz and puts forward a strong case to preserve future access to this section of our 9 cm band. You can see what the WIA had to say by downloading the PDF from the WIA web site.

Temporary Reassignment of Commercial Services into 70 cm

The 400 MHz spectrum review process held in 2010 identified a need for using part of the 70 cm amateur band, on a temporary basis, for the orderly repacking of 400 MHz commercial services.

The ACMA have now advised that, as part of the on-going 400 MHz band plan review, it will be necessary to temporary move some commercial services into the 442.5 -444 MHz and 446.5-448 MHz segments of the 70 cm band.

Commercial services will be assigned on a secondary basis (i.e. equal status with the amateur service) and the reassignment will be required from August this year to the end of 2015.

The ACMA will co-ordinate frequency assignment to avoid interference issues with existing licensed amateur services. Clubs that currently hold licenses for repeater links, or other purposes in this segment, should contact the WIA for further information.

Using inexpensive TV USB dongles and VideoLAN (VLC) to view amateur digital TV

Steve Ireland VK3VM/VK3SIR - vk3vm@wia.org.au and the users of VK3RTV

Most software within TVs, DVB-T set top boxes and supplied with DVB-T USB dongles scan from 177.5 MHz – 227.5 MHz and 474 MHz – 858 MHz missing our typical amateur DVB-T frequency of 446.5 MHz.

The limitation is not, in most cases, with the devices but with the consumer software/firmware loaded onto the devices.

Some TVs and set top boxes have hidden alignment menus that can be researched and settings altered to change the band scanning limits. Information on these settings can be found by searching the web. *I would not recommend this pathway* – or at least would urge extreme caution before you consider this course of action. Most amateurs are aware that our modern transceivers also have hidden menus and configuration settings and that it is dangerous to tinker with these configuration settings. In most cases these alignment settings do not have defaults and a wrong setting may render the device useless and therefore expensive to get fixed.

In previous *Amateur Radio* magazine articles *(AR)* we have seen how simple USB dongles can be used as quite powerful 20 MHz – to around 1.7 GHz software defined radios (SDRs) using software such as SDR#. The key for using such dongles for SDR usage reception is to replace the drivers and software. Likewise, to be able to overcome limitations of the supplied consumer software we should replace it for our ATV purpose with the powerful yet free tool VideoLAN – commonly known as VLC.

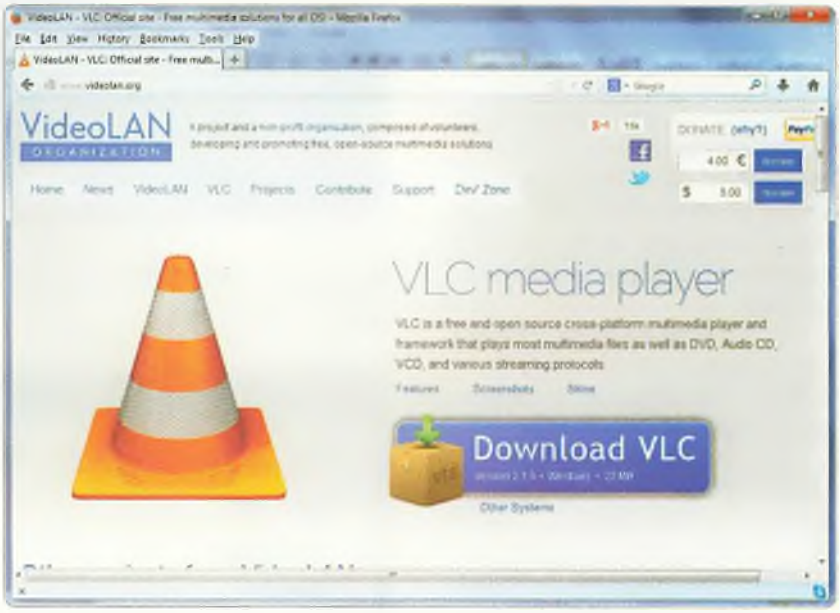

Figure 1: The latest version of VideoLAN can be downloaded at http://www.videolan.org

Photo 1: One example of a suitable dongle. Source: http://www.leadtek.com/eng/product/6/407/intro.aspx accessed 26/2/2014.

This article will utilise the WinFast DTV Dongle Gold as the example dongle. This product is now considered end-of-life, but can still be found at many Australian and international retailers ranging from Big W to your local computer shop.

I have also verified procedures outlined here using tuners based around the Realtek RTL2832U chip (as usable with SDR#).

Photo 2: The WinFast DTV Dongle Gold dongle. Source: http://www.essexham.co.uk/news/realtek-sdr-pc-dongle-for-under-20-pounds.html accessed 4/2/2014.

Note that you will need to use the native driver for the Realtek chip as available from Windows Update rather than the ZADIG 'replaced' WinUSB version driver.

While proofing this article I discovered that only one set of driver packages should exist on the machine that you are installing the dongle onto. As an example, this means that if you previously had a WinFast device installed and you changed it to a Realtek RTL2832U based dongle then you would need to completely remove the WinFast device driver package via the 'Control Panel' option 'Add/Remove Software' before you could install the RTL2832U-based driver package.

Note that all the steps provided here assume that you have a suitable TV antenna that is zeroed in on the digital ATV transmitter.

VLC can also be installed on Linux and OSX, and drivers are available for both Linux and OSX for many TV dongle technologies and chipsets. This article will be limited to MS-Windows installations and has been tested on Windows 7 and Windows 8.1.

Procedure

Step 1: Install the DVB-T dongle's software and drivers.

- Remove any previous driver versions or previous manufacturer's drivers first via 'Add/Remove Software' from the Windows 'Control Panel'.
- Follow the steps for the installation of your current dongle as per manufacturers' instructions with the latest set of drivers. Reboot the machine on completion.
- Ensure that you can scan, tune and receive 'standard' free-to-air TV via the dongle and its standard software.

In a brief on-air conversation Ralph VK3LL reminded me that these dongles are cheap and do not have in many cases good front end amplifiers. The 'cheap' antenna supplied with these devices will be inadequate except in perhaps the strongest signal areas.

Yet I have found that when near 'resonant' antennas for the frequencies that we are examining are used with these devices then results are often quite good. I plug my WinFast and RTL2832U dongles into my main TV antenna and amateur antennas when the dongles are used for other purposes.

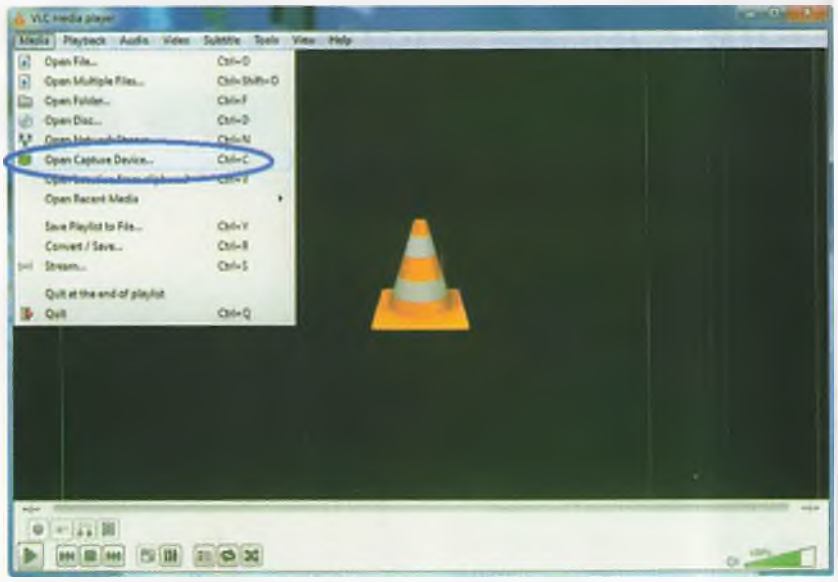

Figure 2. Refer to text.

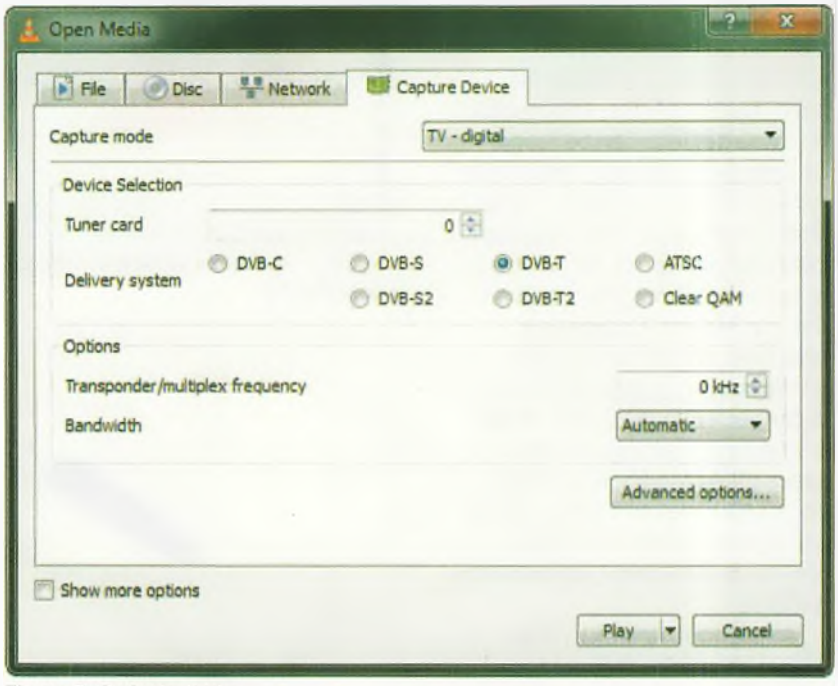

Figure 3. Refer to text.

My main TV antenna is, by luck, within the beam-width of VK3RTV as well as the Melbourne Mount Dandenong TV transmitters.

Step 2: Download and install VideoLAN (VLC).

- The latest version of VLC can be downloaded from *http://www.videolan.org*
- Follow all defaults for installing the product.

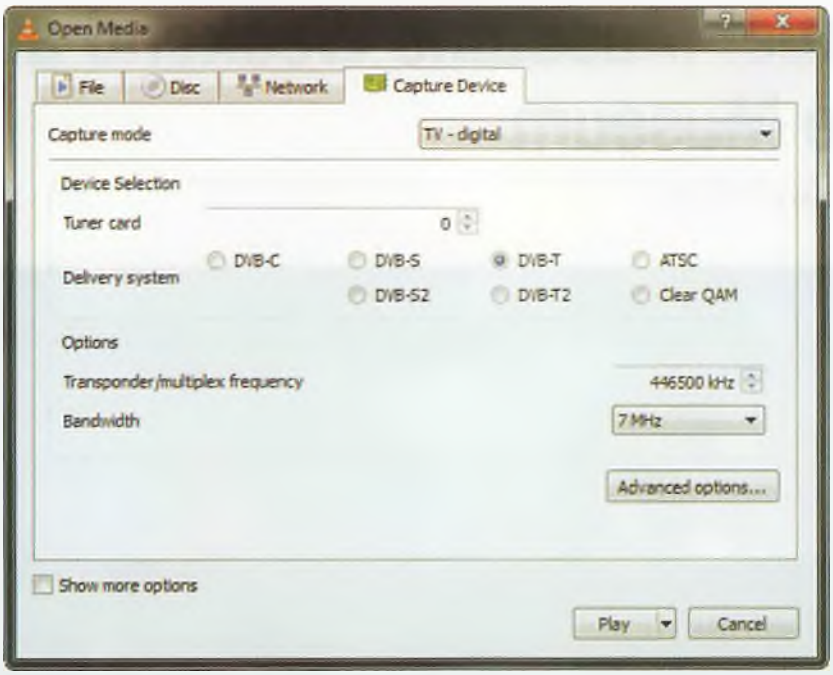

Figure 4. Refer to text.

Step 3: Configure VLC to accept signals from the DVB-T dongle.

- Start the VLC media player.
- Select 'Media'/'Open Capture Device'. Refer *Figure 2.*
- Select the 'Capture Device' tab. Refer *Figure 3.*
- Under 'Capture Mode' select 'TV–Digital'.
- Under 'Options' enter the 'Transponder/multiplex frequency' in kilohertz. Refer *Figure 4.*

The most common amateur DVB-T frequency in Australia (and that for VK3RTV) will be 446500 kHz.

I have also noted better results if you manually set the bandwidth (7 MHz).

Note that for most cards you will not have to adjust 'tuner card' from '0'.

- Click 'Play'.

Be patient. You may need to wait a few seconds for an image and/or sound to appear.

If there is a signal on the amateur transmitter then you should see it displayed. Refer *Figure 5.*

Changing 'programs'

DVB-T TV standards employed within Australia permit multiple digital channels to be broadcast on the same frequency. VK3RTV as an example system also supports multiple channels – supporting one digital channel input (via DVB-S) on 1.255 GHz (VK3RTV-1) and a second digital input (via DVB-S) on 1.276 GHz (VK3RTV-2). More information on all inputs (digital and analogue) and output frequencies and standards for this device can be found at *http://www.vk3rtv.com*

It is my understanding that other planned devices across the country may also support multiple digital channels from multiple DVB-S inputs.

By default VLC will display the data stream that has the lowest 'identifier' number. Refer *Figure 6.*

The channel to be viewed can be selected/changed via the 'Playback'/'Program' menu.

Shown above is the program input via VK3RTV-2 viewed with VLC that John VK3DQ placed on VK3RTV while I was writing this article. Refer *Figure 7.*

References and thanks

- *http://www.vk3rtv.com*
- *http://www.videolan.org*
- *http://www.leadtek.com/eng/product/6/407/intro.aspx*
- *http://www.essexham.co.uk/news/realtek-sdr-pc-dongle-for-under-20-pounds.html*

- And also special thanks to Amateur Radio Victoria, Peter Cossins VK3BFG, John Fisher VK3DQ, Ralph Parkhurst VK3LL and the VK3RTV distribution group for their comments and assistance.

Figure 5. Refer to text.

Figure 6. Refer to text.

Figure 7. Refer to text.

The International Museums Weekend at the Melbourne Museum

Joe Gonzales VK3YSP and Julie Gonzales VK3FOWL

Photo 1: Joe VK3YSP and Julie VK3FOWL at the operating desk in the gardens outside the Melbourne Museum.

Abstract

Husband and wife team Joe VK3YSP and Julie VK3FOWL head off on another adventure to the Melbourne Museum for the International Museums Weekend (IMW). They learn a lot about planning and setting up for portable operations, including rigs, antennas, power supply and safety. They explain the benefits of public amateur radio demonstrations and the history of the IMW. They have a historic QSO with the Mayor of Melville in WA and work many others eager to make contact with a museum station.

The International Museums Weekend (IMW) is an annual amateur radio event held over the third and fourth weekends in June. The purpose of the event is to promote the educational and cultural significance of museums in the community using amateur radio. Portable amateur radio stations are set up at the museums by local clubs, societies and individuals and operated over the weekend with the aim of contacting other interested stations. The public are free to observe and even participate in the operation by picking up the microphone and having an on-the-air conversation. The museum benefits from having a working exhibit promoting the museum itself.

The museum station, its antennas and equipment, including that unmistakable sound of short-wave radio, attracts a lot of attention. Many people are genuinely surprised that amateur radio is still so active given the plethora of broadband mobile and internet communication options available today. They are astonished at seeing an 'old-fashioned' telegraph key and hearing their name sent in Morse code. They are intrigued that amateur shortwave communications is free and requires no fixed infrastructure. They are amazed that they can call into a net and be welcomed personally with intelligent conversation from friendly people they have never met before.

The museum venue attracts people with enquiring minds, and many stop at the museum station to ask questions. They ask about what

amateurs do, what equipment is needed, how much it costs, if a big antenna is required at home and how one might get involved. They are pleasantly surprised that amateur radio has become a sport of sorts with many outdoor activities and contests. They can see pictures of clubs, meetings and events with amateurs of all ages and gender participating. They can obtain brochures and contact details, venues and dates for the next Foundation licence courses. They all seem to get the simple message that amateur radio is fun and easy to get involved in.

The IMW event itself came about though somewhat unlikely circumstances. It originated in the UK in 2002 when an outbreak of foot and mouth disease restricted public access to many rural areas causing the cancellation of the popular 'Mills On The Air' weekend. The IMW was actually the brainchild of Harry M1BYT. Museums taking part in the IMW have included ships, castles, air museums, Napoleonic forts, pumping stations, wireless museums, racing museums and many others. The event appears to have grown steadily, but this year's participation of over 100 museums surprised everyone by nearly doubling the turnout of recent years.

Also this year, in Australia, the IMW played host to a historic event at the Wireless Hill Telecommunications Museum near Perth. Cr Russell Aubrey, the Mayor of Melville, was invited to officiate at the opening of the Western Australia VHF Group's premises at the museum. The signing of a five-year lease was the culmination of some 35 years of association by group members with the museum.

To commemorate the occasion, there was an on-air IMW contact between the Wireless Hill Museum station VK6WH, operated by Bob VK6KW and Denis VK6FADF, and the Melbourne Museum station operated by Joe VK3YSP and Julie VK3FOWL. Speeches were exchanged with the Mayor, including call signs, signal strength reports, details of the equipment, locations and propagation conditions, the significance of the museum, the purpose of the IMW, thanks to all involved and gratitude to the traditional owners of the country.

The IMW is a great opportunity to really participate in amateur radio, not just as an individual, but as part of the community. Of course it requires some planning and preparation; more or less depending on the size of the museum.

In the case of the Melbourne Museum, which had not previously hosted this event, planning started in early February. Initial contact was made with Museums Victoria Public Relations department. A plan introducing amateur radio and outlining the purpose, location, duration, format, benefits and history of the IMW event was positively received. This was followed up by answers to questions and more details showing an image of the station, superimposed on the front lawn of the museum.

The issue of public safety was of utmost importance to the museum and precautions would need to be in

Photo 2: Julie VK3FOWL operating the station.

place to mitigate any potential hazards.

The association of the proposed museum station with the Wireless Institute of Australia was crucial here. Mal VK3FDSL from the WIA National Office provided a letter of introduction for the two licensed operators. He also provided a complete PR pack including posters, magazines and brochures.

Finally, a letter of permission was drafted, sent to the museum and returned printed on the museum's letterhead. Only then was it possible to register for the event and to prepare the museum station.

Registration for the IMW was a simple matter of entering the museum and station details on the IMW web site. A web site had to be created and linked to provide further details of the museum station and its operations. Introductions were made via the IMW forum. Harry M1BYT responded and Dave M1TWO sent an IMW certificate.

Advertising the event locally was as simple as contacting Jim VK3PC, who included the event details in the WIA News broadcasts. As well, QSL cards had to be designed and printed via an on-line service and then registered with the WIA QSL bureau.

Next was to prepare the museum station itself. The IMW is conducted over a 48 hour period each weekend of which 24 hours would be operational. There would be no accommodation, shelter, facilities, power or antenna support structures available on the museum lawn site. Everything would have to be transported in and out with maximum efficiency.

It was decided that the station would be based around a single 4WD vehicle with a side awning to provide shelter for two operators. Tables would be set up for the radio equipment and amateur radio displays. There would be WIA and Melbourne Museum brochures, copies of *Amateur Radio* magazine, the **Your introduction to amateur radio** book, a World Call Sign Map and a Morse practice key and code chart. An A-Frame sign bearing the famous WIA 'Calling CQ' poster and 'amateur radio Frequently Asked Questions' would be placed beside the station on the lawn.

To be heard both locally and all around the world would be tricky for a portable station setup during the winter months in Melbourne. The trade-off between sufficient power and battery life; and between portable antennas and efficient antennas would be really challenging. But the IMW is not a contest and the museum promotion is not just DX. The trick would be to find the right balance.

It was decided that the station would be designed for simultaneous operations on the 80, 40, 20 and 2 metre bands, and the 70 cm band. The radio equipment would include a Barrett 2050, Icom IC-7200, Elecraft KX3, Yaesu FT-7900 and two FT-60R handhelds.

Photo 3: An antenna support mast set up in the gardens. Note the safety signage and warning tape.

The HF antenna would be a tri-band, half-wave, fan dipole, suspended 8.5 metres above the ground between two guyed, telescopic, aluminium masts. The antenna would be fed through an HF triplexer connected to the three HF rigs. The VHF/UHF whip would be mounted on the vehicle. An automatic CQer and a laptop computer would be available, the latter being for digital modes BPSK31 and JT65. Logging would be via a HamLog app on a smart phone. Electrical power for the equipment would be provided by a roof rack mounted 12 V 200 W solar panel into a 240 Ah battery.

For safety, caution tape would be placed around the guy-points with a 'No Entry' sign at the base of the antenna masts. A copper ground stake, lightning arrester and earth cables would be installed. The awning would be secured with sand-bags and all cables would be stowed well out of the way to avoid trip hazards.

The museum station would be operated on Saturday and Sunday from 9 am to 9 pm Melbourne time on both weekends. The overlap with any UK museums would be barely two hours each day. It would occur between 7 pm and 9 pm, which would be tricky on 20 m.

When the time came, the museum station was set up and operational within an hour of arriving on site. The Museum security guards were completely satisfied with the official letter and the safety precautions provided. Not surprisingly, all the planning and preparation had paid off.

Operations commenced on 80 and 40 metres in the morning moving to 40 and 20 metres by mid-afternoon and 80 metres at night. Sufficient solar power proved to be an issue due to the almost continuous overcast conditions in Melbourne. Accordingly the transmit power had to be wound back to 10 or 50 watts to permit operations over the 24 hour period. The digital modes worked all day and night and proved to be the best bet for DX contacts, albeit with a more substantial drain on the batteries. The 2 metre and 70 cm repeaters and hand-helds were used very effectively for enticing members of the public on the air. The Sunday morning WIA broadcast and callback was regarded with surprising interest.

In all, there were 135 'relaxing' QSOs around Australia and overseas including HB0 Lichtenstein and CU3 Azores.

WIA brochures and magazines were handed out to literally dozens of interested people with many staying at the station for over ten minutes to observe operations and ask questions. The contact with the VK6 Wireless Hill museum was definitely the highlight of the IMW. Disappointingly, however, no other museum stations were worked. In hindsight, the simple reason for this was a failure to pre-arrange QSO schedules via the IMW forum; a problem which can easily be corrected next year.

Digital amateur television in the upper Spencer Gulf

David Carwana VK5DMC

When I was VK5NOQ I often thought about my days working in the broadcast television industry in the late 1970s and early 1980s. I realised that I still had a strong interest in the technical aspects of television, but what about this digital stuff? It looked all very interesting to say the least, but with only a Standard licence it would remain a dream. The thought of obtaining an Advanced licence was attractive, but being reasonably isolated from technical help living in regional South Australia it was soon realised that just getting the Advanced licence was not going to be easy, let alone building digital ATV equipment with failing eye sight and modern surface mount components to contend with. It all seemed to be a daunting project with perhaps limited value. Who would be interested in receiving such a signal. Who could?

First things first, it was decided the first step would be to obtain the Advanced licence, so after many nights with the nose in the books and working on the computer the exam was sat with success and VK5DMC was born. With this achievement under the belt and a bit more confidence, it was full steam ahead looking at digital ATV; many

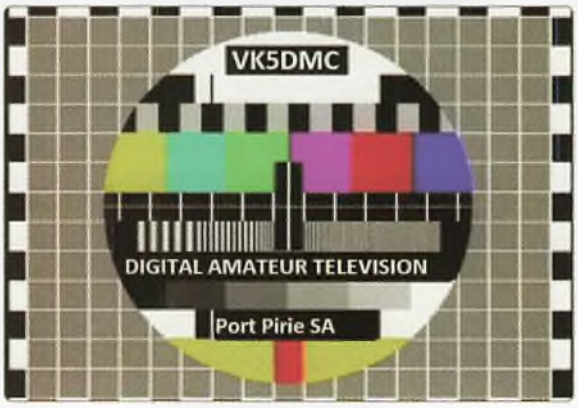

Figure 1: The test pattern at VK5DMC.

searches of the internet failed to provide much information other than that found on the VK3RTV web site. This gave some information but not enough. What would be the best band, mode and frequency; all of these questions were asked, many other amateurs were consulted with a great variety of responses, ranging from 'what the hell would you want to do that for' to great advice and information. One person who must rate a mention here is Peter Cossins VK3BFG. Peter was very helpful with information regarding pitfalls and things to look out for. Thanks for all your helpful advice Peter.

After listening to a lot of ideas and debate it was decided to build a repeater for DVB-T (digital video broadcast - terrestrial) with an output on 446.500 MHz. It was thought that some of the old analogue ATV operators may be interested and may still have some equipment kicking around, so it was decided to provide an input for these blokes on 1275.00 MHz analogue and a digital input on 1290.00 MHz DVB-S (digital video broadcast - satellite). This would mean an analogue satellite receiver and a digital satellite receiver for the up-link with associated pre-amps, switching and control equipment. That was no issue as I had some of those sitting in the shed left over from the days when I installed commercial satellite television and data systems.

Photo 1: The damaged amplifier deck kit.

Now that the format was decided, equipment availability was investigated and some boards were procured, assembled and tested. The boards were of SR-Systems origin from Germany and

The Ultimate in Portable Antenna

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Dipoles, Slopers, Vees, Verticals or 'you name it' are just some of the antenna configurations possible with **Buddipole** components.

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- 2 x 280 mm Anodized aluminium arms
- 1 x Stainless steel telescopic whip
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- 1 x Compartmentalized portfolio bag
- 1 x Operating manual

The Buddistick deluxe kit also includes:

- 1 x Vertical antenna clamp
- 1 x Additional stainless steel whip

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- 1 x Rotating arm kit- change configurations
- 3 x Extra coil clips
- 1 x Additional telescopic whip
- 1 x Antenna system bag – padded nylon with shoulder strap
- 10 page modeling report

Accessories

Long (5.48 m) telescopic mast, Low band coils and extended whips, Shock cord whips and Shock cord masts, Light weight mini coils, Knurled whip protection sleeves, Switchable 1:1 2:1 4:1 baluns, Capacity hats.

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once assembled a whopping 1 mW was produced. This provided a nice picture across the room using two 11 element 70 cm Yagi antennas but not much further, so where to from here? More power required. A small amplifier kit was purchased and assembled, and this boosted things to about three watts and we managed to get a signal across town, some six km; this was some achievement and finally it seemed like we were getting somewhere!

More power required. It is well known that digital transmissions require very linear amplification, so how could I achieve a decent amount of power to reach other amateurs in the areas further afield, like Whyalla 50 km to the west and Port Augusta some 90 km to the north of Port Pirie? Further searching on the net revealed a nice 600 watt UHF linear amplifier produced in either kit form or turnkey by Jim W6PQL in the US. A kit was duly ordered and the wait began, then after about five weeks the kit turned up but, alas, was smashed in transit. That is the only way to describe it, it looked like it had been run over by a truck.

Insurance was claimed and another kit ordered; another wait of another five weeks, but at least this time it arrived in good condition. Now to build the thing, and see if I can make it go. Other parts were collected and the full construction commenced. After much metal working and building the linear was ready for the smoke test and, you guessed it, yes the smoke got out. Blinking thing, although that's not what was really said. You see even after a very careful inspection was carried out a very fine piece of braid from the coaxial shield put a short across the MRFE6VP5600H destroying it at a cost of $260.00 and another wait. Some four weeks later the new MRFE6VP5600H

Figure 2: Predicted ATV repeater radiation pattern.

turned up, was installed, and on start up all was good. After some extensive testing into a dummy load the linear was connected to a Diamond 510N 12 dB vertical with 100 watts for an on air test with great results around town and the district. Sometime later a strong signal was received some 50 km away by Alex VK5ALX using a Yagi and a DVB-t dongle in his laptop at a very windy location on Mount Laura just north west of Whyalla.

Further tests are being conducted with Lee VK5LE and Peter VK5CI transmitting good quality analogue pictures and sound on 1275 MHz. These signals were received across town by VK5DMC and retransmitted out on 446.500 MHz DVB-T. Testing has also commenced on DVB-S 1290 MHz with good signals across town with an output of about 12 watts. Once up on the hill in its final resting place the repeater antennas will consist of two phased arrays similar to the Hills CA16 for the 70 cm transmit and a vertical collinear for receive on 23 cm. Control will be taken care of with the use of a Raspberry Pi and Android interface and DTMF on two metres for back up or master control.

Permission has been obtained to locate the repeater at the TRAX FM site on the top of the Flinders Ranges at about 730 metres above sea level and 14 km east of Port Pirie. This location should provide reliable coverage of Port Pirie, Port Augusta and Whyalla in the north and west, and Kadina/Wallaroo to the south.

A repeater licence has been applied for and we are waiting on the ACMA to process the application.

Figure 2 shows the predicted repeater radiation pattern; it can be seen that coverage of the desired areas should be reasonably achieved.

Further updates will be provided in future additions of progress made and developments as they come to hand.

Silent Key

Lyle Patison VK6ALU

Lyle Patison VK6ALU passed away on Thursday the 17th July after a long illness. He was a member of the Peel Amateur Radio Group for several years and had not long ago been made an Honorary Life Member. He was originally from Wollongong with his callsign being VK2ALU.

While over in the West his interest was still on EME and Satellite tracking, he manufactured an antenna for this purpose, but unfortunately due to illness he could not complete his project.

He was well known to many for his early work on EME projects during the 1970s, using an ex-CSIRO dish in Wollongong.

All his gear has been made by him from "scratch" as there is not a high level of microwave interest in the country.

Lyle appeared on the EME scene in early 1974 on 432 MHz using the CSIRO 30 ft (9 m) dish located at Wollongong NSW giving many their first QSO with VK under the call VK2AMW. In 1984 he added a 1296 MHz EME capability, again giving many stations a VK QSO.

Unfortunately the remote site was vandalised but Lyle being an indomitable Aussie he rebuilt it all and got back on. This was in the days when you built everything; however, when this happened the second time he abandoned the remote site and built a remarkable 10GHz EME system with a 3.8 m dish mounted on a trailer which he operated from home.

Below is some interesting reading of his efforts.

During the spring of 1995, Lyle Patison VK2ALU (seen here on the left) met up with Charlie Suckling G3WDG (far right) at the G3WDG/G4KGC home QTH at Rushden, Northamptonshire. Charlie's large dish, used for what was then a world record 10 GHz EME contact with Lyle on the 18th August 1996, is visible behind the group. Between the two EMEers is Barry Chambers G8AGN, a co-editor of the RSGB's Microwave Newsletter and a corresponding member of the RSGB Microwave Committee. The "little 'un" is G3WDG's junior operator...

Lyle VK2ALU, Barry G8AGN and Peter G3WDG in 1995.

Lyle VK2ALU at the EME operating position in the basement garage.

The dish set up in the driveway, pointing through the gap in the ridge line to work Europe.

Doug VK4OE, Lyle VK2ALU and Peter VK3KAI during a visit to Wollongong in 2001.

A brief description of the VK3AQZ EMR measurement demonstration, and sampler DVD disc, showing some applications of the VK3AQZ RF power meter kit.

Lou Destefano VK3AQZ

Photo 1: The DVD label, showing all relevant information to the user.

The high power trial recently conducted by the ACMA concluded that some amateur radio operators did not have sufficient understanding of EMR safety matters and their obligations under the amateur radio Licence Conditions. As a result approval was not given for the use of higher power in radio amateur stations.

Lou VK3AQZ has produced some short video demonstrations showing the use of an RF power meter and pickup antenna to measure, with a reasonable amount of accuracy, electromagnetic field strength values around an amateur radio station. It is hoped that the demonstrations may help amateur radio operators, in some small way, to obtain a better understanding of EMR measurement and safety levels as required by the ACMA.

The links to the EMR demonstration videos are available at *www.vk3aqzkits.com* The videos are also available on YouTube under VK3AQZ. However, if you wish to have a higher quality version of the videos, Lou can provide a DVD copy for the cost of postage. This may suit radio clubs who may want to show the video at club meetings.

The DVD disc contains 11 video files, the most important being the three files illustrating the measurement and calculation of electromagnetic field strength radiating from a HF centre loaded mobile antenna. The three files illustrate, step by step, how to arrive at an accurate value of electromagnetic field strength using an accurate RF power meter, simple pickup antenna, and freely available field strength calculators.

Lou uses a prototype RF power meter, and a simple loop antenna, with known antenna factor and gain, as the pickup device. The measured signals, in dBm, are converted to field strength values in volts per metre for comparison with the published ACMA EMR safety limits and graphs. As a check

Photo 2: The front of the prototype RFPM1 power meter.

Photo 3: The RFPM1 power meter together with the VK3AQZ homebrew calibrator.

of the measurement accuracy, Lou's figures are compared to the calculated theoretical values using web-based field strength calculators.

The pickup antenna used in the demonstration was designed by Owen Duffy VK1OD (now VK2OMD), who has made the details of this design available on his website.

Owen also has a spreadsheet which allows the user to alter the antenna parameters to suit the particular frequency of interest.

The use of a pickup antenna of known accuracy is a vital part of the measurement. If you wish to use a different pickup antenna you will need to know its antenna factor to a high level of accuracy.

Although Lou uses a homebrew prototype RF power meter, any accurate RF power meter or instrument, calibrated in dBm, can also be used.

The remainder of the sampler disc contains 10 files which demonstrate the use of an RF power meter to measure oscillator levels, low pass LC filter and crystal filter amplitude response, use of stepped attenuators, tuned circuits, amplifier gain, and a brief description of the prototype RFPM1 power meter kit and associated calibrator. An accurate RF power meter, such as the RPM1, can be a very useful tool in any radio shack and these demonstrations are just a few examples of its use.

The Oceania DX contest - a competition within a competition

Tony Burt VK3TZ - Deputy Chair Oceania DX Contest

The Oceania DX contest will soon be upon us once again. The southern hemisphere will rise out of the winter doldrums and DX will abound on the airwaves once more! Come early October, the Oceania DX contest is a great opportunity to work some new ones and best of all – to BE the DX. For once you can work some DX when their beam is actually pointed at you.

Many European DXer's relish the opportunity to work some DX in Oceania and perhaps work something on a new band or new mode. It's not as crowded as the majors, only lasts for 24 hours so you don't have to go without sleep for a whole weekend to be competitive, and it can improve your DXing skills as well as increase your DXCC totals.

And the contest is winning friends - a couple of months ago, the Oceania DX Contest Committee was very pleased to receive a note of thanks from Marvin N5AW. Marvin won the 2012 CW High score from North America and sent an unreserved thank you to both the committee and the sponsor of this particular plaque, The Oceania DX Group (ODXG).

Marvin was so pleased he wanted to personally send a note of thanks to the ODXG and took the time to take a photo of himself in the shack, proudly displaying the new addition to the shack wall. Marvin writes:

No one was more surprised than me when I found I had the high CW score from North America in the 2012 Oceania DX Contest. I would expect one of the high power stations from the US west coast to win - not a 100 watt station from Texas! Even better, a very nice plaque arrived in the mail a few days ago which I understand ODXG sponsored. My sincere thanks mates! It is already proudly displayed in my shack. I will send you a photo of me with the plaque but not sure it can be done with the email form on your website.

Thanks again!

73 - Marvin (Marv) Bloomquist N5AW

Photo 1: Marv N5AW in his shack with his Oceania DX contest plaque – very pleased and proud, by his own words.

So then, what is the competition within a competition? Well, there are now quite a number of plaques and awards on offer in the Oceania DX contest. The number of plaques, sponsored by individuals, radio clubs, DX clubs and associations, as well as the WIA and NZART, has swelled over recent years. And one of these plaques is a little bit unique.

That is, the *Australia Club Competition Plaque*. Is your club the best DXing and contesting club in the country? This award might just answer that question.

I think it is a great award and could be the impetus for the fiercest rivalry between clubs all over the country. Spurring local clubs and their members to bigger and better things in amateur radio. Why? Because relative to some of the other national contests where clubs can compete against each other, the Oceania DX contest and the Australia Club Competition Plaque is won by making contacts only on the HF bands, and mainly for DX. The other competitions focus mainly, if not entirely, in the VHF/UHF arena which can create a very uneven playing field, as well as being focussed on different types of contesting skills and participation paradigms.

True, even in HF contesting, there are some geographical

Photo 2: The Australia Club Competition Plaque – this one won in 2008 by the EMDRC.

advantages, as the low latitudes certainly have advantages with propagation on 10 and 15 metres. The VK6s generally do enjoy better, longer SP openings to Europe where multipliers abound. But the southern/eastern states also have better low band conditions with less thunderstorm noise and better European LP openings. There is no advantage for the city areas, so country amateurs are not disadvantaged as they might be with some VHF/UHF type contests. I think the playing field is about as naturally level as it can be.

The Australia Club Competition Plaque is also a club competition. It is not about individuals, and it is not about operating simply from the one station as a multi-operator contest station. It is about getting as many operators on air, from your club as possible, for both the CW and SSB legs of the Oceania DX contest. It's about raising the level of activity in Oceania. Have your club members got what it takes to work DX from the home or even a remote or portable location, as individuals?

The award is not based on the scores from the contest per se, but the total number of club members (who must be financial members at the time the contest) who submit a log and have more than 50 valid QSOs per entry. Operators can have a log in both the CW and the Phone contests. It is worth making more than 50 QSOs because quite often mistakes and Not-in-Log QSOs, duplicates or bad exchanges can rule out not only one QSO, but several due to penalties for inaccuracy.

Take a look at the Oceania DX Contest web site at *www.oceaniadxcontest.com* for the contest rules and see *http://www.oceaniadxcontest.com/Plaque%20rules%20rev%207.pdf* for the rules for winning the Australia Club Competition Plaque. Note the ZLs now have a similar award going. To date, the Eastern and Mountain District Club (EMDRC) have won this award several times and last year the Geelong Amateur Radio Club won the award. Can your club knock them off their perch. Why not contact your committee and get cracking on some new antennas, logging software, computer-radio interfacing and refining skills.

The complete list of awards and plaques for the Oceania DX contest is as follows:

Oceania

Top entrant from Oceania in PHONE Single Operator All Band category – Ron Wills ZL2TT Memorial trophy sponsored by ZL2GI, ZL2AL, ZL1AZE, Wellington Amateur Radio Club and NZART.

Top entrant from Oceania in PHONE Multi-Op Single Transmitter (M1) category – Neil Penfold VK6NE Memorial Plaque sponsored by the Northern Corridor Radio Group.

Top entrant from Oceania in PHONE Multi-Op Two Transmitter (M2) category – sponsored by the South Pacific Contest Club.

Top entrant from Oceania in PHONE Single Operator 40m category – sponsored by Mike Mather ZL2CC.

Top entrant from Oceania in CW Single Operator All Band category – sponsored by Chris Chapman VK3QB.

Top entrant from Oceania in CW Single Operator All Band Low Power category – sponsored by Pacific Dxers.

Top entrant from Oceania in CW Single Operator 40m category – sponsored by Mike Mather ZL2CC.

Top entrant from Oceania in CW Multi-Op Two Transmitter (M2) category – sponsored by the South Pacific Contest Club.

Top entrant from VK in CW Single Operator All Band category – Frank Hine VK2QL Memorial trophy sponsored by the WIA.

Top entrant from VK in PHONE Single Operator All Band High Power category – sponsored by Tony Hambling VK3VTH.

Top entrant from VK in PHONE Single Operator All Band Low Power category – sponsored by the Central Coast Amateur Radio Club CCARC.

Top entrant from VK5 in PHONE Single Operator All Band Low Power category – sponsored by

the Adelaide Hills Amateur Radio Society AHARS.

Top entrant from VK5 in CW Single Operator All Band Low Power category - sponsored by the Adelaide Hills Amateur Radio Society AHARS.

Top club from Australia - plaque sponsored by the VK Contest Club - see VKCC plaque rules.

Top club/group from New Zealand-sponsored by Phil Holliday ZL3PAH - see NZCC plaque rules.

Asia

Top Entrant from Asia in PHONE Single Operator All Band category - sponsored by Lee VK3GK.

Top entrant from Asia in PHONE Multi-Op Two Transmitter (M2) category - sponsored by QRO Communications and OM Power.

Top Entrant from Asia in CW Single Operator All Band category - sponsored by Wes Printz W3SE/ ZL3TE.

Top entrant from Asia in CW Multi-Op Two Transmitter (M2) category - sponsored by QRO Communications and OM Power.

North America

Top Entrant from North America in PHONE Single Operator All Band category - sponsored by N6RO.

Top Entrant from North America in CW Single Operator All Band category - sponsored by the Oceania Amateur Radio DX Group Inc.

Europe

Top Entrant from Europe in CW Single Operator categories - Frank Vander Drift VK3COF Memorial Plaque sponsored by Mirek Rozbicki VK6DXI.

Top Entrant from Europe in PHONE Single Operator All Band category - sponsored by the Oceania Amateur Radio DX Group Inc.

It you hear any of the sponsors on air, why not say hello and thank them for their valuable contribution to your hobby. Getting on air during the Oceania DX contest reminds the rest of the world that there are DXers and contesters down here... and they can work us if they try.

Be active during the contest and some of those same DXers/ contesters will remember to point the beam south next time they head to 3C0, VP8, CY9, BS7 or some other rare DX location.

Cheers, happy DXing and have fun contesting - Tony VK3TZ.

The Garlands of Brisbane: an interesting father and son

Peter Wolfenden VK3RV

Photo 1: David James Garland, John Oxley Library, State Library of Queensland, Neg: 28069-0001-0001.

Photo 2: David John Garland, John Oxley Library, State Library of Queensland, Neg: 28069-0001-0003.

David James Garland was a student when he became interested in wireless. Born in Perth during 1896 and lacking funds, David assembled most of his equipment from basic components and hand made the essentials to enable him to receive and perhaps even get the odd spark transmission onto the air. This was about 1910/11 when David would have been about 14 or 15 years old. In those days, there were many school-boys tinkering with the new science of wireless telegraphy in their back yards spending much of their time on just getting receivers and aerials to work! Although the Australian Wireless Telegraphy Act had come into force in 1905 and under it, you required a licence to simply erect an aerial; there was little control or policing in centres away from Sydney and Melbourne. There is only sparse primary information about David's early Queensland activities but this was not the case when he moved with his family to New Zealand. References 1, 2, 7 and 10.

David was the son of David John Garland who became a major player in the ANZAC movement. More about this later. David's father was deeply involved in what became the Anglican Church in Australia and as a clergyman was appointed to many positions within the church in New South Wales, Western Australia and

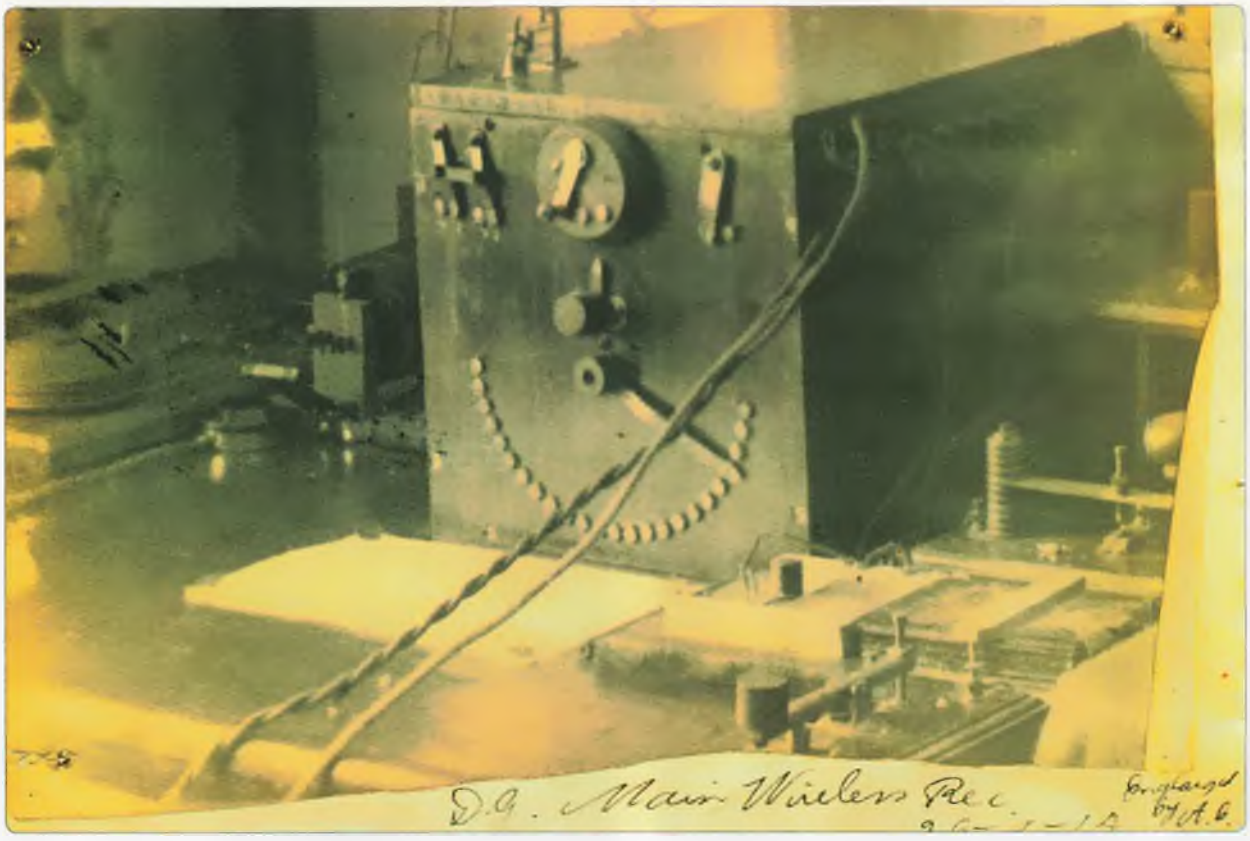

Photo 3: Photo of David James' early wireless equipment in NZ. WIA Archive.

Queensland; hence young David's limited pocket money. David senior had a great interest in religious education and was never loath to mix the spiritual and the secular! In July 1912, he was asked to testify to a New Zealand government inquiry into religious instruction. Consequently the family left for NZ in late 1912. Garland's advice was accepted and in 1914 he published the relevant testimonies given to the inquiry. Reference 3.

In Wellington NZ, David (junior) continued his interest in wireless with some activities involving his school, Wellington College. While at the school, David wrote to the Editor of the Wellington Dominion newspaper complaining about post office control over wireless:

'It seems peculiar that an occupation tending to raise a youth and increase the knowledge of the world should be forbidden, while youths who waste their time frequenting picture palaces, etc., are not discouraged' and further into the letter David attempted to take on the local authorities over the closure of experimenters there due to alleged interference to government stations – a situation which almost occurred in Australia! *'...There are many stations continually working in England, yet they are not 'jambed' by the amateur. Surely New Zealand ether with only four official stations disturbing it, will not be overcrowded if amateurs are allowed to have the use of it under certain necessary conditions? Has not everybody a right to use the ether? You might just as well legislate to prevent people using sunlight.'* David signed the letter 'Wave-meter' and according to an annotation on an original copy of the newspaper held by the WIA Archive, it was 'DJG's first public writing'. Reference 4.

World War 1 broke out while the family was still in Wellington and David received a *'Closure letter'* dated 5th August 1914, from the Telegraph Engineer's Office of the Dominion of New Zealand to close down his station and to *'dismantle both in respect of aerials whether inside or outside and all apparatus.'* The obverse side of the letter has a hand written note which states: *'A man arrived and inspected house for instruments - 6/8/1914.'* Reference 1.

Because of the war, the family moved back to Brisbane and David, now about 19, attended university. An engineering career must have appealed to him and perhaps some influence was brought about by his involvement in the cadets because in early February 1916, he prepared a sketch for a man-driven generator pack *'for use with Calvary.'* This was a pipe framed, collapsible device, in which a man sits on a bicycle seat and pedals a chain driven generator.

The WIA Archive holds this original pencil drawing. In March 1916, as a university engineering

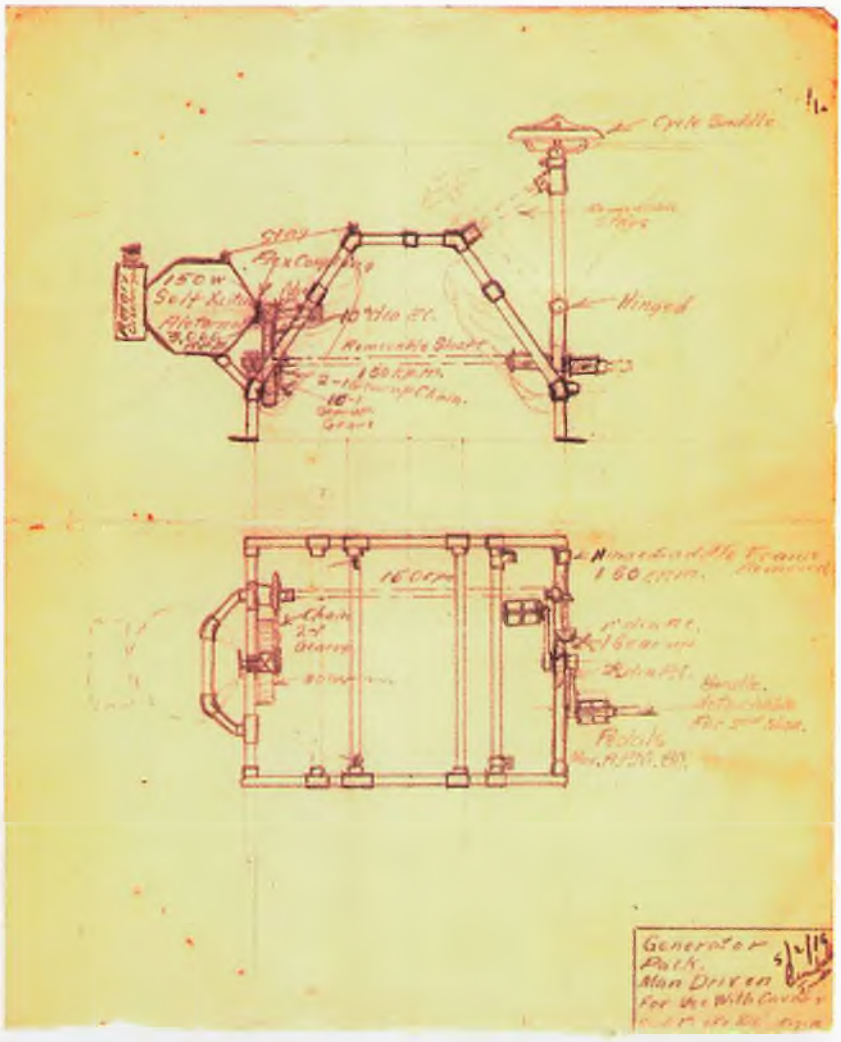

Photo 4: David James' pencil sketch of a portable man powered generator. WIA Archive.

student, he enlists with the AIF. According to his enlistment papers he had already served three years as a cadet and while in NZ, one year as a naval cadet. During World War I he served with the Australian Wireless Squadron in Mesopotamia, leaving the services in October 1918. David also served with the Royal Australian Engineers at Australian Headquarters in Melbourne during WWII. Reference 5 and 6.

March 1919 saw a meeting of amateurs at the Chamber of Commerce in Brisbane called to re-form the Queensland Wireless Institute after WWI. At this meeting SV Colville was elected secretary and treasurer and David was elected to the council. At that same meeting, rules were discussed and adopted. A printed copy of the Queensland Wireless Institute Rule Book, complete with David's name hand written on it, is held in the WIA Archive. Interestingly the rule book is headed 'Founded 1919.' Reference 7 and 8.

It appears that David never held an Australian amateur licence or callsign. At the time he was active prior to WWI, he was mainly in NZ and if he had an early Australian callsign, he missed the 1914 Callbook. He is not shown in any of the pre 1930 callsign listings, so it is fair to assume that he did not hold a licence here after the war and while serving on the VK4 council. This is not absolute as occasionally licences held for short periods slip through the system. But his career then suddenly took control of his life! The Main Roads Department of Queensland employed him as an engineer and he rose through the ranks until he reached the position of Chief Engineer in 1953. He held that position until his retirement in 1961. From 1945-49 he was foundation and sub-structure engineer for the Burdekin River Bridge. He also visited India in 1946 to investigate the problems associated with the erection of bridges over wide sandy river beds. Reference 2.

Returning briefly, but importantly, to David senior. Prior to the war, he acted as a Chaplin to defence volunteers in both WA and Queensland and followed his son into the Army, enlisting in November 1917 as a Chaplin. He saw service in the Middle East where he founded eight 'clubs' for Australian troops. He has also been described as the architect of ANZAC Day. He is credited with initiating the ANZAC Day march, the returned soldiers' luncheon, the two minutes silence, the wreath-laying ceremonies at memorials and the special church services. He also began a trust to use money raised from the sale of ANZAC Day badges for the care of soldiers' graves at home and abroad. He was awarded the OBE in 1934. This may have all taken place because David junior enlisted! We may never know the detailed facts. Reference 3, 9 and 10.

As to when and where the first ANZAC services were held, there is still debate.

It appears that the first ANZAC Day Commemoration Committee was formed in Brisbane on 10th January 1916. This was at a public meeting chaired by the premier of Queensland. There are also claims of a dawn requiem mass being held at Albany, WA on 25 April, 1918. Reports also exist of a wreath laying and commemoration service taking place at dawn in Toowoomba in

1919. At the 1921 State Premiers' Conference, it was decided that ANZAC Day would be observed on 25 April each year. It is understood that the first year in which all Australian states observed some form of public holiday in recognition of the fallen was on Anzac Day 1927. Reference 11.

So in the Garlands of Brisbane (and here perhaps we should include New Zealand), we can see individuals who became involved constructively in a number of fields and while not contributing in any grandiose manner to amateur radio, both father and son contributed expertise and exerted some positive influence on society in this part of the world!

As a nation, we would have been poorer without the Garlands of Brisbane!

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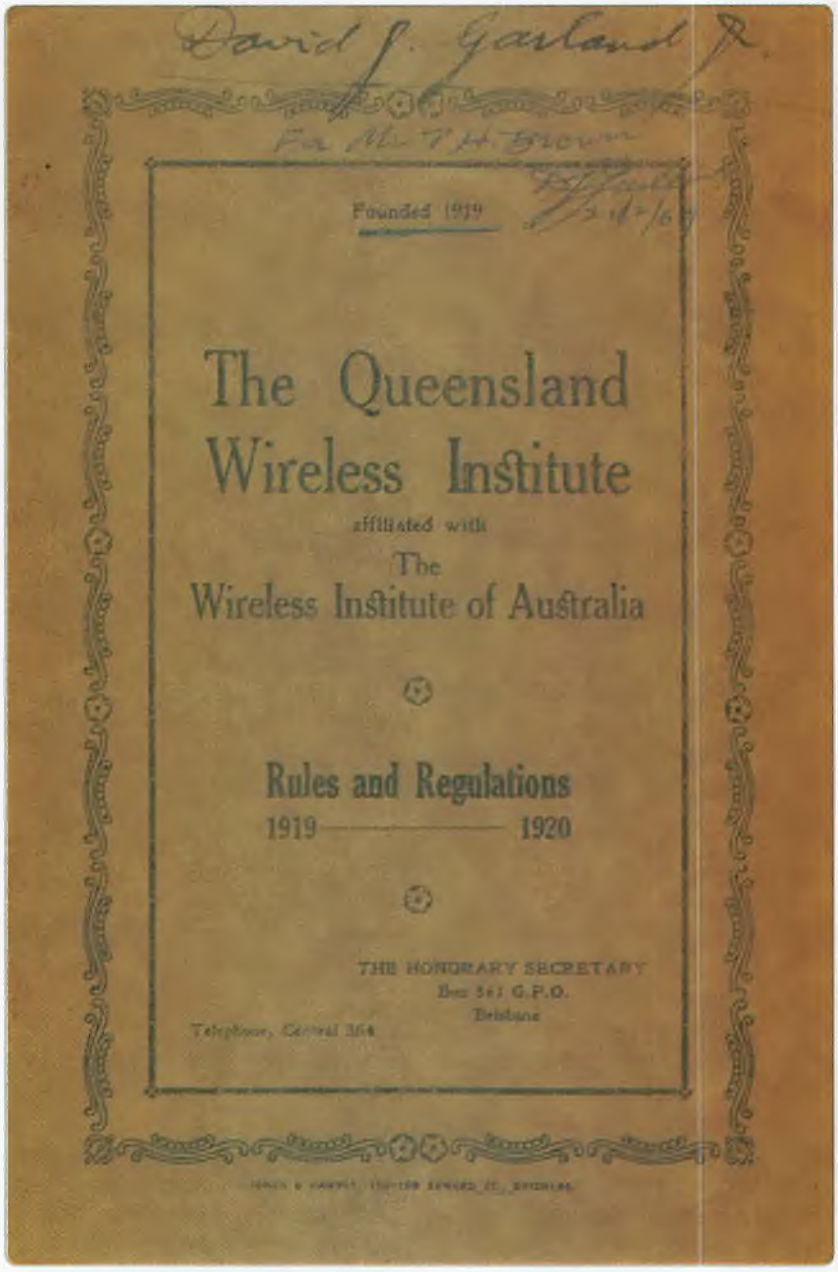

Photo 5: David James' WIQ Rule book 1919, WIA Archive.

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SOTA News

Allen Harvie VK3I IRA

It has been another intense month for SOTA. July started with some of the best snowfalls and wettest days for a decade. There are still gale force winds with predictions of snow down to 500 metres for the first weekend of August.

Activators are still going out. Whist there have been some cancellations due to the weather, other activators are well in their element. Based at Mount Hotham for the winter ski season, Brian VK3MCD has claimed 14 summits in the north east and east Gippsland regions. VK2 activators are leading the charge into the hills, with both VK2TWR and VK2QR having activated at least 10 summits each in the Snowy Mountains, south west slopes and southern tablelands.

Amateur Radio Victoria held a 'Portable Master Class' on July 19 at ARV headquarters in Ashburton. This well attended event was designed to educate and encourage amateurs of all licence levels to get 'out and about' and enjoy the popular and growing activity of 'going portable.' Peter VK3ZPF, Joe VK3YSP, Julie VK3FOWL, Terry VK3UP and finally Tony VK3VTH gave presentations relating to all aspects of portable operations, including SOTA, as well as the various award programs that are becoming increasingly popular in VK. This was the first ARV 'Portable Master Class' and it is expected to become an annual event with the sole purpose to entice amateurs to 'Go Portable.'

Whilst on the subject of encouraging operators to go portable, KRMNPA recently saw both Peters VK3ZPF and VK3PF, who both have been involved with SOTA in VK from the start, receive awards for chasing and for activating all 45 Victorian national parks. This is the result of several months (years) effort involving travel across the entire state.

The big event for this month was the VK1 Party day.

The VK1 SOTA Party planned for Sunday 27 July 2014 was well received and attracted attention from all VK associations in Australia. Organised by Andrew VK1NAM, this started in the VK1 Yahoo forum with a request for activators interested in a SOTA VK1 mass activation and eventually grew into the most active SOTA day we have had in VK, if not SOTA complete. It was not a SOTA party, it was SOTA frenzy. Of the 130 activations for this month, 32 were during this event. This involved activations from all states and at least three national parks thrown into the mix.

Many took advantage of the UTC roll over to pursue S2S contacts. The run up to UTC rollover was bedlam with the band full of activators managing small pileups of 'summit to summit' calls coming back from other activators and chasers seeking every window to gain contacts.

The reports of activity are still coming in but activators are recording 60 to 100 QSOs across at least six states and up to 32 S2S contacts. This will end up with in excess of 800 Activator QSOs and 500 S2S exchanges. There were 104 spots recorded during the Party period averaging one every two minutes.

Highlights: Matt VK1MA and Compton VK2HRX recorded the first S2S contact on 23 cm. There were 10 Andrew to Andrew contacts. The finest piece of advice for any Activator involves not cuddling the wildlife unless you like wombat poo.

Sunday was the biggest SOTA event for VK, to quote Ron VK3AFW a 'SOTA Super Sunday.' Special thanks to all activators on the mountains and peaks, some braving the chilly and icy cold conditions, and to the chasers that made it a huge success. A big thanks to Andrew VK1NAM for the initiative, organising, promoting and participating in the SOTA Party. The consensus amongst Activators is this event should become an annual SOTA winter event.

73 for now. Allen VK3HRA.

The official SOTA trophies for Shack Sloth and Mountain Goat, together with the hand-made equivalents from Jenni VK3FJEN, presented to Peter VK3PF at GippsTech for his contributions to our hobby.

DX- News & Views

Luke Steele VK3HJ
e *vk3hj@wia.org.au*

July on the bands

July continued with rising solar activity, peaking out in the second week over 200 for both daily sunspot number and solar flux index, however it dropped away quickly and on the 17th the daily sunspot number was zero! This was the first time since August 2011 that the daily sunspot number was zero. Activity picked up slightly towards the end of July and into August.

The sunspot number average for the month of July was 113.6, slightly higher than in June which was 107.8. In the longer view, the three-month moving average to the end of July was 112.8, down slightly from the three months to the end of June which was 118.4.

Twenty metres continues to offer good DX, with little happening on the higher bands. Forty and thirty metres are quite good from around sunset until after sunrise. Eighty metres hasn't had a lot of DX activity and 160 metres has been very patchy, but a little bit of As'a, Pacific, and North America can be worked some evenings. Central and South America has not been very active on 160 metres but conditions have allowed some contacts, including a good opening for VK4MA who worked some Brazilian stations on the evening of 22nd July. This is particularly notable, as this is a difficult path going through the auroral region of the South Pole.

Africa has had some activity, with some Germans visiting Namibia, Vlad RK4FF was active from Senegal as 6V7S for the IARU Championship, Takao JE1WVQ was in The Gambia as C5JA, and Bruce ZD7VC in St Helena Island pointed his beam to VK and was very loud on 20 metres long path. Closer to home, there has been activity from Nauru C21BN, Cocos-Keeling VK9EC and Christmas I VK9EX, Timor Leste 4W/NB3MM, Vanuatu YJ0UO and Tonga A35UO.

One interesting event station worked was NU5DE, the Naturist

Some upcoming DX operations

The following table summarises some of the DX activations that may be of interest to VK operators.

Date	Call	QSL via	Information
1 - 9 September	TX4A	Club Log	New Caledonia, Matthew I OC-218. VE3LYC, KD1CT, 40 – 10 m, CW, SSB.
5 - 12 September	3A/YO2MSB	YO2MSB	Monaco, Monte Carlo. YO2MSB, HF portable.
8 September	CY0C	VE1RGB	Sable Island NA-063. WA4DAN, N0TG, 20 and 17 m.
11 - 14 September	P29VCX	SM6CVX	Papua New Guinea, New Britain OC-008. G3KHZ, K5WQG, SM6CVX. 20, 15 m, mainly CW, some RTTY and SSB.
11 - 16 September	ZL7X	LotW	Chatham I OC-038. JH1HRJ, JE1SCJ, JH1TXG, JA0VSH. 160 – 6 m, CW, SSB, Digital.
12 - 22	VK9NT	OQRS	Norfolk I OC-005. VK3QB, VK3CBV, VK3GK, VK3HJ, 160 – 10 m, CW, SSB.
11 Sept – 8 October	FO/DF1YP	DF1YP	French Polynesia, Moorea I OC-046. DF1YP, HF, holiday-style.
12 - 26 September	3D2AG/P	3D2AG	Rotuma OC-060. 3D2AG, 40 – 6 m, mainly CW.
15 - 20 September	P29NI	G3KHZ	Papua New Guinea, Kranket I OC-258. G3KHZ, SM6CVX, K5WQG. 20, 15 m, mainly CW, some RTTY and SSB.
18 Sept - 2 October	VK9AN	LotW	Christmas I (OC-002. N7QT, 80 – 10 m, CW, SSB, Digital.
21 - 25 September	P29VCX	SM6CVX	Papua New Guinea, Kiriwina I OC-115). G3KHZ, K5WQG,SM6CVX. 20, 15 m, mainly CW, some RTTY and SSB.
23 Sept - 5 Nov	9N7CJ	F3CJ	Nepal. F3CJ, callsign requested.
25 - 30 September	P29NI	G3KHZ	Papua New Guinea, Loloata I OC-240. G3KHZ, K5WQG, SM6CVX. 20, 15 m, mainly CW, some RTTY and SSB.
27 Sept - 6 October	5V	LotW	Togo. OK6DJ (5V7DB), OK1FPS (5V7PS), OK1FCJ (5V7ST). 160 – 10 m, CW, SSB, Digital. Dates tentative.
28 Sept - 14 Oct	C21GC	Club Log	Nauru OC-031. LZ1GC, 160 – 10 m, CW, SSB, RTTY. Callsign requested.
29 Sept - 2 Nov	PJ6/G4IUF	G4IUF	Saba & St Eustatius, Saba I NA-145. G4IUF, 80 – 6 m, SSB, CW, RTTY.

Amateur Radio Club. The club was on air from Star Ranch Nudist Resort, near Austin Texas, for Nude Recreation Week. They were operating 'barefoot', naturally!

TX4A, **New Caledonia**. Cezar VE3LYC and Bob KD1CT will be operating for four days between 1 - 9 September from Matthew Island. The island is an active volcano, approximately 500 km east of Noumea, and was last activated 17 years ago. Bob and Cezar plan activity on 40 – 10 m, with CW and SSB. As is typical of Cezar's many IOTA activations, this is a particularly difficult operation. For more information see: *http://tx4a.yolasite.com/*

VK9NT, **Norfolk I.** A team of four operators: Chris VK3QB, Brenton VK3CBV, Lee VK3GK, Luke VK3HJ, and possibly one or two others will be operating 160 – 10 m, with three stations, CW and SSB. Some SOTA activity is also planned. For more information see: *http://vk9nt.odxg.org/*

3A/YO2MSB, **Monaco**. Bizzu YO2MSB plans to operate from Monte Carlo on HF, near the harbour.

CY0C, Sable I. Murray WA4DAN and Randy N0TG plan a one-day trip to Sable I. They will only be able to operate between 1300 - 2100 UTC, as they need to arrive and leave in daylight. Murray will operate SSB and Randy on CW, using 20 m and 17 m Yagis. As usual with Sable I, their trip will be subject to the weather. For more information see: *http://www.cy0dxpedition.com/*

P29VCX/P29NI, **Papua New Guinea** IOTA DXpedition. Derek G3KHZ, Hans SM6CVX and Eddy K5WQG will be visiting four islands of PNG. First stop will be New Britain as P29VCX, then Kranket as P29NI, then Kiriwina as P29NI and finally Loloata as P29VCX. This operation will be mainly on 20 and 15 m CW, but there will be a station daily on SSB, and some RTTY. For more information see: *http://p29ni2014.weebly.com/*

ZL7X, Chatham I. A team of four Japanese operators plan to activate Chatham, 160 - 6 m, CW, SSB and Digital modes. QSL via LotW, or JH1TXG direct, OQRS or eQSL.

FO/DF1YP, **French Polynesia**. Heinz DF1YP plans a holiday-style activation from Moorea I on HF bands. QSL preferred via Bureau, but direct is ok too. Please include SAE and 2GS. No IRC! For information see: *http://www.qrz.com/db/FO/DF1YP*

3D2AG/P, **Rotuma**. Tony 3D2AG will be visiting Rotuma again, and expects to be on 40 - 6 m, mostly using CW, with a Yagi and inverted vee antenna. When visiting Rotuma, Tony operates using 100 watts barefoot, powered by solar power and batteries. For more information see: *http://www.qrz.com/db/3d2ag*

VK9AN, **Christmas I.** Robert N7QT and Melanie AB1UH will be activating Christmas I, on 80 - 10 m, using CW, SSB and Digital modes.

9N7CJ, **Nepal**. Joel F3CJ plans a six week trip to Nepal where he will be spending some time on radio in Kathmandu (24 September - 6 October), then climbing the 8164 m high Mt Manaslu (7 - 23 October), then back in Kathmandu for some more radio activity (24 October - 4 November). For more information see: *http://www.qrz.com/db/f3cj*

5V, **Togo**. With David OK6DJ, Pavel OK1FPS and Petr OK1FCJ as 5V7DB, 5V7PS and 5V7ST respectively. Approximately 12 days activity planned on 160 - 10 m, SSB, CW and Digital modes. Will be on air for the CQWW DX RTTY contest (27/28 September). For more information see: *http://www.cdxp.cz/*

C21GC, **Nauru**. Stan LZ1GC plans activity from Nauru on 160 - 10 m, CW, SSB and some RTTY. Callsign to be confirmed. For more information see: *http://www.c21gc.com/*

PJ6/G4IUF, **Saba & St Eustatius**. Mike G4IUF will be operating from Saba I, 80 - 6 m, SSB, CW and RTTY.

After a quiet winter, the above list of offerings shows that we are back into DXpedition season. Enjoy the longer days, and hopefully improving radio conditions and lots of DX!

Special thanks to the authors of The Daily DX, 425 DX News, DX World, NG3K's Announced DX Operations, and QRZ.DX for information appearing in this month's column. Interested readers can obtain a free two week trial of The Daily DX from *www.dailydx.com/trial.htm*

Over to you

630 m band plan

Any band plan needs to meet at least three criteria. Firstly it needs to allocate the available spectrum so that users of different modes can operate without significant interference with each other and secondly to not be so prescriptive as to prevent reasonable experimentation and on-air testing of new modes. Thirdly it must be acceptable to the overwhelming majority of band users.

While it is eminently sensible to have a plan that is compatible with adjacent regions it is not sound policy making to adopt another regions plan without a thorough examination of local needs and conditions.

Many modes are in use at present on 630 m in the SE of Australia and there have been only one or two cases of minor interference which were quickly resolved. To claim that there is a serious situation demanding immediate resolution is an overreaction.

The present Australian users have expressed a strong desire to allow for wide band modes, something the ACMA allows us to do. A question on the Yahoo 630 m users group asking if bandwidths greater than 500 Hz should be banned came back with many writers saying they wanted to be able to use modes up to the maximum 2.1 kHz. No one supported a ban on a broad band transmission.

Region 1 has no allowance for this in their interim 630 m band plan which is being promoted by a couple of people as what we should adopt here. Yet, clearly many amateurs would not accept the Region 1 proposal in its entirety.

Can a compromise be achieved? Yes, of course. Here is one proposal which of course may be improved upon.

This version of the band plan starts with the Region 1 proposal and amends it to meet the expressed desire for a wide band segment.

It keeps the same frequencies for WSPR (a basic necessity) and for CW (but with no mandated operating frequency) but has one 2.1 kHz assignment for broad band modes such as narrow SSB, DV, EasyPal, etc.

The broadband channel best fits at the top of the band and overlaps some of the Region 1 nominated frequencies for other modes.

There are two solutions, both compromises.

Timeshare option

This proposal is for the broadband modes to have priority during daylight hours and for the Region 1 allocations to apply in the dark hours. For Australia taking into account the East West differences, 7 am EAST (2100 UTC) to 7 pm EAST (0900 UTC) is suggested. An allocation for CW rather than one mandated frequency is given and includes provision of CW beacons. These may be narrow FSK and slow speed.

472.0 – 474.1 kHz: CW
474.1 – 476.9 kHz: Narrow band (digital) modes
476.9 – 479.0 kHz: Broad band modes (<2.1 kHz). Has priority in daylight, defined as 2100 UTC to 0900 UTC.

Notes:

1 CW International calling frequency 472.500 kHz
2 473.0 kHz to 474.1 kHz CW beacon sub-band, 100 Hz spacing
3 WSPR Set dial to 474.2 kHz USB (occupied bandwidth 475.6 - 475.8 kHz)
4 ROS Set dial to 476 kHz USB
5 QRSS 476.175, 478.900 kHz
6 WSJTX Set dial to 477.0 kHz USB (occupied bandwidth 478.0 - 478.5 kHz)
7 Opera Set dial to 477.0 kHz USB (occupied bandwidth 478.5 - 478.8 kHz)

This proposal has the disadvantage that there is no protection for the digital modes other than WSPR during daylight when some operators might want to use modes other than WSPR but it probably meets most of the expressed needs for the broadband community.

Primary & Secondary option

This proposal provides for 24 hour interference free operation of all modes based on Primary and Secondary mode allocations. The Primary mode has "right of way" at all times and secondary modes must accept any interference if both operate at the same time.

472.0 – 474.1 kHz: Primary: CW
474.1 – 476.9 kHz: Primary: Narrow band (digital) modes
476.9 – 479.0 kHz: Primary: Broad band modes (<2.1 kHz).
Secondary: digital modes.

Notes for primary modes:

1 CW International calling frequency 472.500 kHz
2 473.0 kHz to 474.1 kHz CW beacon sub-band, 100 Hz spacing
3 WSPR Set dial to 474.2 kHz USB (occupied bandwidth 475.6 - 475.8 kHz)
4 ROS, use dial set to 473.0 kHz USB (occupied bandwidth 474.4 - 474.6 kHz)
5 QRSS, use dial set to 473.2 kHz USB (occupied bandwidth 474.2 - 474.3 kHz)
6 WSJTX, use dial frequency of 474.0 kHz and USB (occupied bandwidth 475.0 – 475.5 kHz).
7 Opera, use dial to 473.2 kHz USB (occupied bandwidth 474.7 - 474.9 kHz)

Notes for secondary modes:

1 WSPR Set dial to 474.2 kHz USB (occupied bandwidth 475.6 - 475.8 kHz)
2 ROS Set dial to 476 kHz USB
3 QRSS 476.175, 478.900 kHz
4 WSJTX Set dial to 477.0 kHz USB (occupied bandwidth 478.0 - 478.5 kHz)
5 Opera Set dial to 477.0 kHz USB (occupied bandwidth 478.5 - 478.8 kHz

Notes for both proposals

1 Broadband modes up to 2.1 kHz bandwidth includes analog and digital modes such as narrow SSB, Digital Voice, EasyPal etc.
2 Interference to other operators to be prevented by careful frequency selection of modes not listed and suppression of signals out of the necessary bandwidth. Frequencies other than those suggested here may be used if no interference to others occurs.
3 No 630 m operation is permitted in the zone defined as follows:

   2000 km radial distance from the Timor NDB located at latitude 10° 37' 21" S, longitude 126° 02' 00" E in the Timor Sea; and

   1000 km radial distance from the Exmouth NDB located at latitude 21° 26' 07" S, longitude 114° 03' 57" E off the coast near Exmouth, Western Australia.

   (This NDB is no longer listed on the ACMA register and the restriction should be lifted).

EOE
30 July 2014

Ron Cook VK3AFW

ALARA

Margaret Blight VK3FMAB – Publicity Officer

ALARA birthday celebration

ALARA recently celebrated its 39th birthday. This important organisation for women radio operators in Australia will reach the milestone of 40 years since its inception in July 2015.

Such an auspicious occasion needs to be especially noted. We have a number of the original members who remain active as well as many others who have joined our hobby over the past 39 years. Our quarterly newsletter has an important role in keeping people abreast with what has been happening in the various ALARA groups around the country and, in some cases, if older members are no longer operators themselves, they still like to hear about the activities of other ALARA members. To all these people, members past and present, we send an invitation to join in the celebrations with us next year.

The main event will be a special luncheon to be held at the Novatel Hotel, Glen Waverley, Victoria, on 25th July, 2015. If there is sufficient interest, additional events may be organised over the entire week-end. ALARA was originated in VK3 (Victoria) so it was considered appropriate to hold the main celebrations there.

VK3 news

A number of VK3 ALARA members and their friends enjoyed a Christmas in July dinner at a venue in the eastern suburbs. Although the weather was chilly outside, inside there was much laughter and merriment.

On 19th July, the Gippsland Gate Radio & Electronics Club held their annual White Elephant sale. A number of ALARA members were present and many were involved in the catering. Again another chilly winter's day but the numbers were good and the wide variety of food was much appreciated.

ALARA's 39th birthday was celebrated at a luncheon held in Tooradin. Two tables were occupied by ALARA members, OMs and friends. Everyone agreed it was a fine venue with good meals, certainly enough to cheer all on a winter's day.

VK5 news

Christine VK5CTY

After several quiet months we had almost a full house at our regular luncheon in the city in June. We haven't seen Maria for some time because of ill health in the family and we missed Marilyn while she was away overseas but this month there were nine YLs.

Before lunch a group of us went to the SA Museum to look at the beautiful display of old and new lace held by the Museum. Shirley VK5YL and Tina VK5TMC in particular are very busy preparing for an International Lace Convention in Adelaide. They have arranged lace displays at many venues around the city so as many people as possible can see the wonderful hand work. We have some very clever people within ALARA so it is good to have the opportunity to 'show off' some of their work.

Licence size - A member's opinion

Bambi VK4AYL – with thanks to the ALARA Newsletter.

Have you ever had to take your licence with you on mobile or portable operations? Did you find the A4 paper sheet totally inappropriate and flimsy for such a purpose? Well you are not alone.

The A4 sheet that the Australian Communications and Media Authority (ACMA) provides for a station licence, presumably, is made to be placed in a frame in a base station scenario. These days with more stations being mobile and portable it is just not a practical size to carry around.

The ALARA VK5 luncheon, from left to right – Tina VK5TMC, Myrna VK5YW, Christine VK5CTY, Maria VK5BMT, Lesley VK5LOL, Jeanne VK5JQ, Jenny VK5FJAY, Shirley VK5YL and Marilyn VK5DMS.

In an emergency situation, where perhaps you have to grab your equipment and move it elsewhere (fire and flood) I am sure one of the last things to be remembered is the licence hanging on the wall.

Perhaps it is time we campaigned for driver sized licenses. As readers will know many countries have had these sized licences for 10s of years. Canada amateur radio operators receive an A4 sheet *and* a credit card licence. Not only would a driver's licence size be practical, and water resistant, it would also have a photo of the licensee on it. I can't see why the current drivers licence technology could not be used for radio amateurs. In addition multiple years should be a choice allowed as it is with driver's licences, with a lower fee for that choice. *(Editor's note: A multi-year licence is available)*. We all pay a premium (much more than a yearly driver's licence fee) for our licences and I feel we need better than a paper A4 sheet.

Silent Key

Maggie Iaquinto VK3CFI

Maggie was once described as 'a passionate woman with the enthusiasm of someone who wants to spread that passion to everyone she meets'. Originally from Connecticut in the USA, she came to Australia in 1977. In Colac (Victoria) she taught at Trinity College, and later, as Head of Information Technology, she taught at Bialik College in Hawthorn, in suburban Melbourne.

It's not known how or when Maggie's interest in amateur radio started, but she was one of the early members of ALARA. In late 1975 it was decided that the monthly meetings of ALARA, which up to that time had been held in the WIA offices, would in future be held in member's homes. A list of members who hosted these meetings included 'Maggie Iaquinto,' who was then VK3NQQ, located at Bentleigh, but the year is uncertain. In December 1979 Maggie became ALARA Publicity Officer and the Amateur Radio columnist until November 1980.

In 1991 she was featured in an article in the Colac Sunday Sun, after she made contact with the Russian cosmonauts on the Mir Space Station. The crew were surprised when she spoke to them in Russian, which she had been studying for several years. The Russians called her Margarita (Rita) Ivanovna. Over the next five years she contacted them on a regular basis and became firm friends with a succession of crew members. A video of Maggie giving a vibrant talk to the EMDRC of her experiences with the Mir Space Station can be seen on http://youtu.be/CZdFOPek_eY I recommend a viewing.

In February 1992, in recognition of her work with the cosmonauts, she was awarded the Ron Wilkinson Achievement Award by the WIA.

Maggie VK3CFI and Musa U2MIR, in Melbourne, 2 December, 1992.

Although many amateurs worked Mir, one particular contact proved to be a ground breaking communication. According to an article in the Bayside Leader of November 2nd 2004, one of the cosmonauts was interested in testing some packet data software, but he wasn't sure how to use it as the technical manuals he had were in English. Maggie's knowledge of computers, and her ability to speak Russian, made her the perfect teacher. When the historic exchange popped up on her screen, it read 'Connected to the Russian Space Station Mir.' It was only there for a second or two, but it was the first ever transfer of this type of information between two computers, one in space and one on Earth. The Mir packet station went on to become possibly the most widely known and worked packet radio station ever.

When Musa Manarov U2MIR visited Melbourne on November 30th 1992 to attend an international conference on state-of-the-art communications, he asked if it would be possible to meet Maggie. Musa was Maggie's original contact on Mir and the guy with whom she had done all that early work. For the following week a series of social activities took place, which included Maggie's husband Lou VK3DFI, David VK3UR, Peter VK3CPO, Bob VK3ZBB, Jim VK3PC and Bill VK3JT, amongst others. The full story of that week is told in an article by Bill Magnusson VK3JT in Amateur Radio, February 1993.

The photo shows Maggie VK3CFI and Musa U2MIR in the foyer of the Sheraton Towers Southgate Hotel, Melbourne on Wednesday, 2 December 1992, holding Musa's certificate of Honorary Life Membership of the WIA (Victorian Division) presented to him that evening by divisional President Jim Linton VK3PC. The photo reproduced from Amateur Radio was taken by Peter Ormerod, then VK3CPO.

Contributed by Jennifer Wardrop VK3WQ/VK5ANW - ALARA Historian.

VHF/UHF - An Expanding World

David Smith VK3HZ
e *vk3hz@wia.org.au*

Weak Signal

Winter VHF-UHF Field Day

The results for the Winter VHF-UHF Field Day at the end of June have been released and VK5 stations have featured highly in the standings. Congratulations to all who participated. Hopefully, the full results are printed elsewhere in this issue.

This field day was the first to run under two parallel sets of rules – Division 1 using the traditional grid square scoring method and Division 2 using distance-based scoring. As the Winter VHF-UHF Field Day has traditionally the lowest number of participants, due in no small part to the weather, it is difficult to come to any definitive conclusion as to the popularity of each division. Analysis of the results shows that a large number (60%) of stations submitted logs for both divisions of the contest. 22% submitted a log only for grid square scoring, while 18% submitted a log only for distance-based scoring. Given the very vocal campaign and seemingly overwhelming support for a change of the rules to distance-based scoring, these results show a somewhat different preference.

Whether the VHF-UHF Field Days continue to be run with two divisions is yet to be seen. The current WIA manager for the VHF-UHF Field Days has indicated that he may be moving on so, if this is the case, we will see what his replacement will do.

Lyle Patison VK2ALU/ VK6ALU SK

Sad news recently that a pioneer of EME in Australia – Lyle Patison VK2ALU, later VK6ALU – has passed away. Doug VK3UM writes:

It is sad to report the passing of a true gentlemen and pioneer of EME, Lyle Patison VK6ALU (VK2ALU). He was instrumental in the early operation on 432 MHz EME from the CSIRO dish in Wollongong and later he had some of the very first EME QSOs on 10 GHz. His persistence with his trailer-mounted equipment was testament to his dedication to the hobby.

He was a person of considerable knowledge and one that was always willing to share this knowledge and help others. He will be sadly missed by all who were fortunate to know him and leaves a legacy of his pioneering work in EME and many other fields of his endeavour.

Ed: See Silent Key Notice on page 15.

Please send any Weak Signal reports to David VK3HZ at *vk3hz@wia.org.au*

Digital DX Modes

Rex Moncur VK7MO

Portable 10 GHz operation from the QTH of VK2KRR

On 19 July, Rex VK7MO operated portable from the QTH of Leigh VK2KRR at QF34mr. 10 GHz JT4f tropo-scatter contacts were made to VK3HZ, VK3XPD, VK3PY, VK3NX, VK3QM and VK3HY in the 320 to 420 km range and SSB to VK3ES and VK3HZ. Aircraft scatter SSB contacts were made with VK3PY, VK3NX and VK3QM. 10 GHz tests over longer distances to VK3ZQB and VK5KK gave no evidence of signals. Nothing at all was seen on 24 GHz with VK3NX. As a number of these stations were running only a few watts, the operation did demonstrate that from Leigh's QTH routine 10 GHz operations into Melbourne and the Geelong area over 300 to 400 km are viable.

10 and 24 GHz JT4f EME Grid square tour

In conjunction with attending GippsTech, Rex VK7MO commenced a grid square tour on the mainland running both 10 and 24 GHz. Recently Rex upgraded his 24 GHz system by phasing up two 10 watt Khune PAs to produce 17 watts output to a 1.14 metre dish. This has taken his 24 GHz portable system from being only useful in very good conditions to being useful under just average conditions, but not in poor conditions. Conditions on 24 GHz EME relate to the amount of water vapour at both ends, the elevation angle at which signals pass through the atmosphere, the spreading of the signal and the distance of the moon called degradation. These effects combine to add extra losses which under good conditions are no more than 8 dB, rising to around 12 dB under average conditions and anything over 15 dB is poor. The initial activation, on the night before GippsTech, was from the Morwell Hotel/Motel (QF31) with both 10 and 24 GHz QSOs to W5LUA, followed by QF32 from the QTH of Rhett VK3GHZ (W5LUA 10 and 24 GHz and OK1KIR 24 GHz). Next activation was at the QTH of Leigh VK2KRR (OK1KIR 24 GHz and incomplete 24 GHz with G3WDG). One of VK7MO's 24 GHz

Photo 1: Rex VK7MO with his 10 GHz 77 cm dish alongside Dave VK2JDS's five metre 1296 MHz system.

PAs then failed while undertaking an unsuccessful aircraft scatter test with Dave VK3HZ so it seemed like operations would be restricted to 10 GHz. Off to the QTH of VK2JDS (10 GHz EME to W5LUA and OK1KIR).

A quick trip to Sydney airport to send the failed PA off to Khune but with not too much hope as they were about to go on summer holidays. Then after discussion with Doug VK4OE he very kindly agreed to provide his 24 GHz PA - so a quick trip up to Brisbane. With the assistance of Doug and his test equipment the dual PA was set up and the phasing adjustments complete, then joy when the new arrangement produced 22 watts, a 1 dB improvement. The new arrangement is still to be tested.

Extreme grids - 10 GHz terrestrial

On 29 July Rex VK7MO and David VK3HZ completed a 777 km QSO from Pyalong in central Victoria up to near Coonamble in north central NSW (QF49) using ISCAT-B. This contact was right at the extreme for 10 GHz aircraft scatter and it was necessary to plan the locations so as to ensure that both ends had visibility to the aircraft and to also find an aircraft path that crossed near the middle with aircraft flying near 12,200 metres. The only such path was the Sydney to Adelaide/Perth flights which cross at right angles giving maximum Doppler and scatter signals for only very short periods.

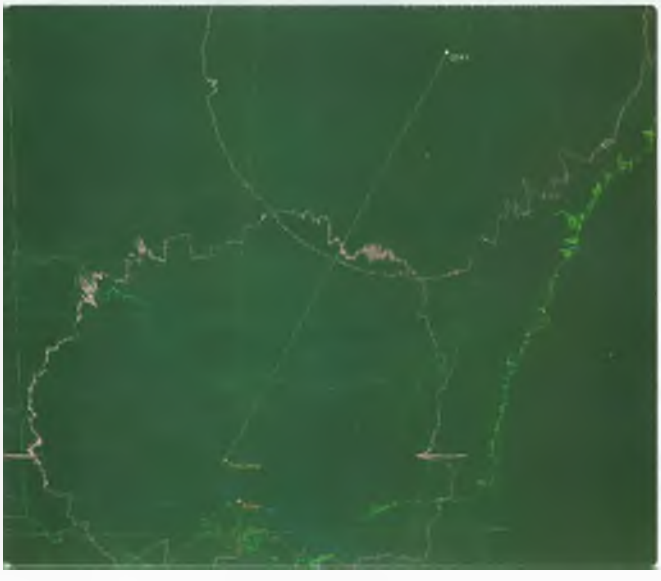


Figure 1: ADS-B radar display showing radio path and limits of aircraft coverage.

A recent improvement to the Heywhatsthat Path profiler allows a two dimensional picture of line of sight to an aircraft. Dave VK3HZ was able to bring these files into Google Earth and also the ADSB system to produce a clear picture of where propagation is possible in relation to aircraft paths. Refer Figure 1.

Initial tests using ISCAT-A gave good signals but no decodes and thus we moved to ISCAT-B. Previously we have had good success with ISCAT-A which is one dB more sensitive and uses half the bandwidth and can thus cope better with the Doppler shift of crossing aircraft and stay within an SSB passband. The downside is that ISCAT-A is half the speed and it appears that in this particular situation the aircraft scattered signal was so broken that ISCAT-A was unable to gain sync whereas the faster ISCAT-B gives twice as many opportunities to gain sync and was thus successful. So at this stage the jury is out on whether ISCAT-A or B is preferred for aircraft scatter and more testing is required.

WSPR – Part 4: Propagation by Leigh Rainbird VK2KRR

The best attribute of WSPR is its ability to monitor propagation conditions and its convenience for the busy operator, hence the name – Weak Signal Propagation Reporter.

While we do have Morse code beacons in a handful of locations in Australia which are very useful, propagation can be very selective at times and some openings can be missed. To have 50 or more home stations all running WSPR on a single frequency provides a lot more data about propagation and a much better picture on what the propagation is doing. It's also much more convenient and able to be viewed world-wide online as it occurs.

We had some great fun using six metre WSPR over the past summer to monitor propagation, not only nationally, but also internationally.

Figure 2: The six metre propagation map.

The sporadic E openings we were able to observe were quite amazing, we also saw numerous openings to Japan, New Zealand, some to the USA and even Russia. The more stations that take part globally, the greater our chances of discovering rare and unheard of openings.

If you wish to go on and make voice contacts after using WSPR to identify a path, you really need to be using low power, say 10 watts, and you're looking for WSPR signal strengths greater than about +5 dB. But you will need to have power in reserve and be able to go up to at least 100 W to be able to make a comfortable voice QSO.

The next thing that six metre WSPR is handy for is to identify areas of high MUF, which may be high enough to propagate two metre signals. There are a couple of things to look for:

- Unusually short paths on six metre WSPR, mostly with high signal strength.
- Areas of 'fat' or spread signals, where six metre WSPR signals are being backscattered by a highly charged area of the E layer.

If you observe six metre WSPR signals via sporadic E which are shortening up with large signals at around 700 km distance or less (from QRP) then there is a good chance that the E-MUF could be approaching the two metre band at a greater distance, around 2000 km away for example.

Two metre band – On the two metre band we are looking at mostly observing Tropospheric Ducting, or during the weeks either side of the sun's most southerly travel there is also the chance of two metre Sporadic E. Both propagation methods are easily observed using WSPR.

If you're able to run two metre WSPR regularly, you will soon get used to what average signal strengths look like from others around your area, and who you can usually get a signal from and who you can't. When a big tropospheric opening comes along you will observe numerous dB increase in signals from average and begin to get signals from stations you may not always hear. Now that you know that the band is improving, you can look for other QSOs on voice or other digital modes.

Sporadic E signals on the two metre band will decode just as well as they do for the six metre band, as long as the station's radio is stable at two metres.

Power – It's a good idea to try settle on a QRP power level and keep it rather consistent. It's an idea to get in the mind-set that you're not trying to make a path to someone every time, but that you're trying to observe differences from poor to above average signal strengths to pick out when the bands are improving or 'open'. Let the propagation do the work for you. Having said this, there may be times where, on really long paths, higher power levels may be justified to fully test a path. But if using higher power be aware of other stations around you and the effect it may be having on them. On the other end of the scale, the Bight Path has been bridged from Perrin VK3XPT in Melbourne to Derek VK6DZ near Albany using only 20 mW and covering 2464 km, demonstrating that when the bands are truly open, you don't need much.

To further interact with other WSPR users, you can usually find them on the VK Logger chat pages and there are a few WSPR threads in the VK Logger discussion forums. See *www.vklogger.com*

Please send any Digital DX Modes reports to Rex VK7MO at *rmoncur@bigpond.net.au*

Meteor Scatter

Dr Kevin Johnston VK4UH

For VHF operators in the northern hemisphere, one of the 'Holy Grails' has for a long time been to bridge the Atlantic on 144 MHz. The Irish Radio Transmitters Society IRTS, the equivalent of the WIA in Eire, many years ago established the Brendan Awards for the first confirmed two-way contact across the Atlantic, anywhere between 'The Americas' and Europe, without the use of EME, satellites or aircraft reflections. To date, despite many attempts with high power and massive antennas, this has still to be achieved.

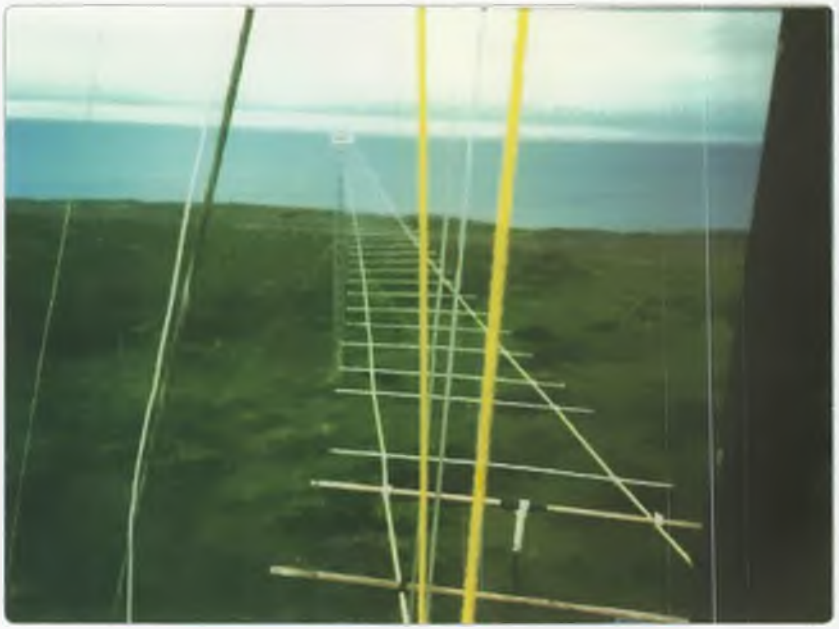


Figure 3: The 43 element two metre Yagi at VC1T. It is 30 metres long, suspended on Kevlar cords at 8.5 metres AGL.

It seems however that the first award date is getting closer. In July 2014 a series of attempts to cross the Atlantic was made by Canadian Expedition Station VC1T operating from Pouch Cove Newfoundland (GN37os) using high power and a 100 foot long 43 element horizontally polarised two metre Yagi, suspended between two eight metre towers on two parallel lengths of Kevlar cord, spaced 60 cm apart. The Yagi was centred on a bearing of 62 degrees favouring a path to Ireland (3040 km at shortest path). This Yagi was estimated to have a forward gain of 23.9 dB, FB 32 dB and horizontal beamwidth of 5.6 degrees, vertical 4.6 degrees at the -3 dB points. Refer Figure 3. The initial mode used was FSK441 using 30-second sequences.

As reported in the RSGB journal RadCom, on 6 July 2014 at 1341 UTC, John G4SWX at Woodridge UK (JO02rf) successfully decoded the FSK441 CQ from VC1T on 144.155 MHz via enhanced Meteor Scatter, at a range of 3829 km. Well beyond the 'normal' 2300-2500 km maximum range for non-enhanced MS propagation. The authors of the British report suggest that this was possibly achieved via a combination of MS and Sporadic E (Es) rather than by tropo enhancement. Whatever mode of propagation was enhancing meteor scatter, this one-way contact represents the first positive identification of an amateur two metre signal traversing the Atlantic without lunar or man-made satellite assistance. Regrettably despite many hours of trying, the return signal was not decoded at the Newfoundland end. The evidence is clear however that the path is achievable. Close but no cigar.

The much awaited Southern Delta Aquarlids (SDA) meteor shower occurred at the end of July, just before this article was being prepared. Delta Aquarii, the SDA radiant, is one of the brightest stars in that constellation. The SDA shower is one of the main events on the meteor scatter calendar, a class-one major shower and was expected to peak on the 28-29th July. This shower occurs as the

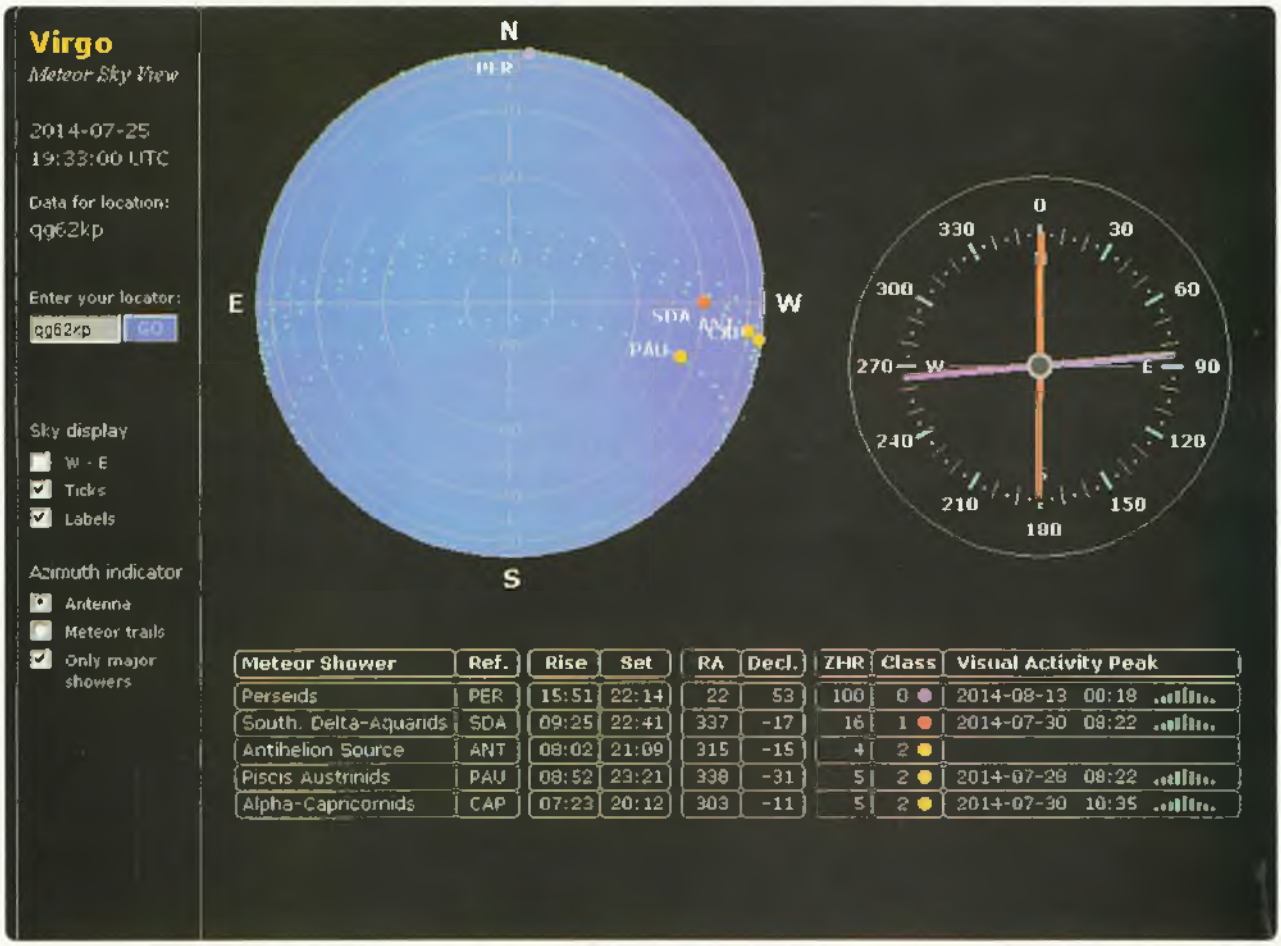


Figure 4: Virgo meteor sky image during SDA 25.7.14 (NB east – west reversed).

earth passes through clouds of particles streaming after the passage of the Marsden and Kratcht Sungrazing comets. The SDA peak was therefore expected during the working week for many operators but its effects were apparent over the preceding weekend's activity session 24-26 July.

A number of MS operators have reported their activity over this period:

Robert VK4LHD (QG63ng) wrote: *'With the excitement of knowing about the SDA meteor shower should bring some good contacts I was up early on the Saturday morning to make the most of the conditions and at the start I was not disappointed with a very quick completed QSO with Arie VK3AMZ. It was still very early in the session with no one else around so Arie and I just compared our ping return rate and it was looking promising with six to eight pings per frame every frame being observed. Before long KJ, VK4UH came on air and it was decided to have a go at 70 cm. I monitored 70 cm for a few minutes before TXing on the band but unfortunately for me after about 45 mins of TXing I was not being heard down south or seeing any pings from the south so a quick QSY back to two metres found two VK5 stations calling. I put out a report to both VK5APN and VK5PJ but it seemed to be all one way traffic with me RXing plenty of pings from VK5 and VK5 not hearing much from me. Eventually I completed with VK5APN right at the end of the session only making two completed QSOs for the morning session before I had to go QRT. I was hoping for a better morning but it wasn't to be. The Sunday morning started off very quiet with only a few but very weak pings seen. With a few late starters the pings started to roll in but they were still short and weak making them hard to decode. I did eventually complete with VK1WJ who I haven't completed with for a while and a short time later completed with VK3HY before turning the beam to VK5. VK5APN had the best and strongest pings of the morning with the occasional burn but an S5 noise level at his QTH was making decoding difficult. All up, the SDA shower did increase the ping rate but not the strength of the pings as a lot of the pings were very weak and short making decoding difficult. I won't call the SDA shower a bit of a fizzer but it did make for an interesting weekend*

although a few more completed QSOs would have made it a better weekend for me. On Monday morning I got out of bed early in the hope that someone may be on FSK441 to try the peak of the SDA shower and I found Peter VK5PJ calling. It seems as though someone had turned the one way traffic sign from yesterday as my signal was screaming into VK5 with all the return pings although plenty of them were weak but good enough to decode and a quick QSO was made between Peter and myself. Gavin VK3HY arrived a little later in the session and I noticed a higher ping rate return from him than usual and a QSO was completed in around 10 minutes instead of the usual 45 minutes to an hour that it takes us on a normal weekend M/S session. Being a Monday more of the usual players were at work only leaving me with a couple of completed contacts but it was still evident that the SDA shower was producing more pings but they still were not strong pings with no real burns recorded for the three days that I was working the SDA shower.'

Peter VK5PJ (PF95mk) wrote: 'Up at 5 am local time both days, ran through to 07.30 local on Saturday and gave up well before then on Sunday to chase ZL1RS on EME. Generally not any better than back ground meteors for me, so unless Monday and Tuesday show any improvement it's another non-event from here. There were no memorable burns and what pings were there represented a mixed bag of short to very short pings.' During the following few days however Peter changed his opinion and wrote 'After my less than flattering assessment of the shower in progress on Saturday and Sunday, it would seem that Monday and Tuesday have shown marked improvements in ping intensity although the ping rate was not overly high, the pings were wider and stronger than at the weekend. A near miss SSB contact with Grant VK2MAX on Monday set the excitement level to high, then a little while later, Grant was able to complete his first FSK441 contact. On Tuesday there were some window rattling pings received from both VK4LHD and VK2XN but the completions still took a while as there was not an overly high ping rate. I guess it was a case of quality rather than quantity.'

John VK4JMC was visiting Brian VK3CCR (QF22jc). He wrote: 'I spent some time this Sunday with Brian VK3CCR assisting with the setting up of his system for MS. All is now working but limited in antenna size and TX power but some average burns and a couple of good burns were observed today. Although we saw some stations we were not seen. Perhaps Brian will be inspired to try some more and give us another VK3.'

Jim VK3II (QF21rn) wrote: 'For what it's worth this is my short M/S report for Saturday 26 July (UTC 2135 - 2300 25 July). In the period I operated there were quite a few good burns then it seemed to quieten down, meteors or people going QRT? Positive FSK441 decodes received here on 144.230 MHz were: VK2DVZ, VK2MAX, VK2XN, VK4LDH, VK4MIL and VK4UH. I completed with VK2DVZ, VK4MIL and VK4UH.'

Arie VK3AMZ (QF22fe) added his thoughts: 'Signals on two metres were much enhanced above what I call ambient. I could tell by the duration and intensity on those signals on two metres however that 70 cm was going to be very tough. It was great to make a two way on 70 cm with Kevin VK4UH. I received one of the best burns I have ever decoded on that band. Pings on 70 cm are so much to be treasured, every one of them counts! Despite the relatively poor ZHR figure 70 cm QSO is a real possibility, it just needs a bit of encouragement. 100 watts and a single 13 element Yagi will do it, big antennas come with smaller apertures and that can work against you. Frequency errors are the single most important thing for a successful 70 cm M/S QSO. The rest is patience! To complete a QSO in an hour and a half on 70 cm is quick! During my early attempts two and a half hours without success was the norm. I encourage as many stations as possible to get on 70 cm, it happens more often that it is believed! It's easier than EME.'

From the VK4UH QTH (QG62kp) it was apparent that there was an increase in return rates for several days before the predicted SDA peak, possibly as early as the preceding weekend activity session. Commencing operation at 1845 UTC (04.45 local) on Saturday 25 July I was able to complete with Arie VK3AMZ (QF22fe) on 144 MHz in just 'three sweeps', with multiple pings in every FSK441 frame, in less than two minutes. Since meteor activity was so enhanced we invested the best part of that operating session in attempting an MS contact on 432 MHz FSK441. The contact was completed with extreme difficulty, requiring 80 minutes of prime operating time. The final confirmation being sent using the ST (short-text/single-tone) mode in FSK441. As described in earlier articles, on 432 MHz, since the wavelength is roughly 1/3 of that at two metres then the duration of the pings is roughly 1/(3^2) or 1/9th of the length expected on two metres and the amplitude of returns is expected to be 1/(3^3) or 1/27th or 15 dB weaker. The strongest 432 ping from Arie was only 2 dB above the noise with a duration of only 120 ms. On the Sunday morning session, meteor activity remained enhanced at least on north-south paths until well after the VK4 sunrise. I completed easily with Gavin VK3HY (QF62kp), Darrell VK2BLS (QF55kk) and Waldis VK1WJ (QF44mt) with frequent loud and prolonged hyper-dense burns. I then repeated the exercise with Darrell VK2BLS on 50 MHz FSK441 where the burns were enormous and even more prolonged. Interestingly I received no decodes at all from either of the VK5 stations

I knew to be on air, and was not heard at that end either. This reflects the observations of the others as above. Although north-south propagation was being strongly enhanced presumably by meteors from the SDA shower, this did not occur for east-west propagation. (Adelaide is on an azimuth of around 235° from VK4). The Virgo meteor shower view at that time (Figure 5) may offer some explanation. The SDA radiant (red spot) was virtually due west of this QTH at 1930 UTC at an elevation of around 40 degrees. Meteors from this shower would therefore be expected to be crossing from west-east with propagation being enhanced at right angles to this trajectory hence the north-south path only. The diagram shows that when the SDA radiant had been in a position to enhance a path at 235 degrees then it was at over 80 degrees of elevation, too high in the sky to have been any use for MS propagation.

Thanks to all those who came on-air during the shower and activity periods and also to those contributing to this month's report. As Arie VK3AMZ reminded me the next meteor shower events to mark on the calendar include the Leonids, peaking around the 18th November and the Geminids, arguably the best of the year, around the 14th December.

Please send any reports, questions or enquiries about meteor scatter in general or the digital modes used to Kevin VK4UH at *vk4uh@wia.org.au*

Spotlight on **SWLing**

Robin L Harwood VK7RH
vk7rh@wia.org.au

Winter is truly here and as I am compiling the column, Tasmania has been hit by severe winds and heavy rainfall, which has resulted in flash flooding. It is certainly much safer indoors as well as comfortable.

There has been quite a deal of activity during July. The situation in eastern Ukraine sharply escalated when another Malaysian airliner was apparently shot from the skies from a missile. 298 innocent people were killed including 38 from Australia. Over half of the passengers came from the Netherlands. European monitors have been hearing some Russian speaking voice communications via HF over many weeks together with plenty of CW and digital traffic.

Almost simultaneously the Middle East erupted when Israel and the Palestinians decided to slug it out again. The flashpoint is Gaza and already thousands have been killed in this on-going tit for tat conflict that has its roots back in biblical times. As well the situation in Iraq quickly degenerated in a bloody civil war. All these conflicts came together almost at once. You would think that shortwave radio would be alive with many voices and signals. Alas this did not seem to be the case. For example, the VOA in Washington decided at the end of June to cease broadcasts in English and other languages. In fact the decision to cease was only made 48 hours prior to the cessation and no announcements were forthcoming. One of the axed languages was Kurdish and this was at the time when the Iraqi civil war was being waged around the Kurdish region in the northwest of the country. Apparently fighting spilled over from nearby Syria with a terrorist group of Sunni fighters easily overrunning the northern part of Iraq, leaving the Kurdish enclave to protect itself. The US administration quickly reversed cuts to Kurdish programs via the VOA.

Radio Australia may also disappear from shortwave this month. The Australia Television Network which absorbed RA last year, is to cease after the Federal Government cancelled the contract. It is unclear what will happen to the shortwave service with speculation that it may end up relaying ABC domestic programs fulltime. Across the Tasman, Radio New Zealand in Wellington seems to also be cutting back transmission hours on shortwave. DRM was being used to feed Pacific Island broadcasters but, apparently, Vanuatu is the only remaining island broadcaster using it. Other broadcasters now have satellite links. However shortwave will be continuing as there is still a sizeable audience listening to RA and RNZI within the Pacific Rim.

I also note that the Solomon Islands are back on shortwave with an improved signal. The Japanese installed a new sender which has produced a much improved signal here on 5020 from 0500 till sign-off at 1100. I believe in the local daytime from 2200 to 0459 the SIBC in Honiara is back on 9545.

Well that is all for now. Keep listening as there is always something popping up on shortwave.

Contests

James Fleming VK4TJF
e *vk4tjf@wia.org.au*

My picks for the month of September are a couple of SSB contests. So get your microphones, voice callers and vocal cords warmed up for the All Asian DX contest and the Worked all Europe contest. It should not be too difficult to hit up most of the Asian amateurs as they are fairly close. Europe might be more of a challenge; however they will be looking for that rare Australian multiplier.

The All Asian DX phone contest runs for 48 hours across the 6th - 7th September, 2014. The contest starts at 0000 UTC on the 6th and runs to 2400 UTC the next day. Bands for the contest are 160 (CW only), 80, 40, 20, 15, and 10, that is, all except the WARC bands. Entry categories for DX stations are single operator all bands or single band and multi-operator single transmitter or multi-transmitter. Note that there is no entry category for power thus if your licence permits, use 400 watts. The contest call is 'CQ AA contest'. The exchange for old man stations is RS and the operator's age, for YL stations it is the RS and the operator's age or, if she does not want to give her age, then it is '00'. For multi-operator stations the exchange is the RS plus the average age of the operators or the age of the active operator. Points are awarded for contacts with Asian stations, and multipliers are the total number of different Asian prefixes on each band. Working 160 metres will net you three points per contact, 80 metres and 10 metres two points and all other bands one point. Submit your log to *aaph@jarl.org* in Cabrillo format.

The next contest that I will highlight this month is the Worked all Europe DX SSB contest that starts on 13 September at 0000 UTC and finishes on the 14th at 2359 UTC. Bands of operation are all except for the WARC bands. Categories are single operator low (100 watts), single operator high (100-400 watts), and multi-operator, and no power classification. Single operators may only operate 36 out of the 48 hours of the contest. Thus there is a bit of time to sleep and eat. Off times must be a minimum of 60 minutes. The use of DX spotting nets is allowed in all categories. Exchange is RS plus a progressive serial number starting with 001. Only a QSO with a European station counts for points. Multipliers are the number of countries defined in the WAE country list. For European stations every non-European DXCC entity counts as a multiplier plus, in Australia, each call area counts as a multiplier. Country multipliers are weighted by band; multiply the number of countries worked on 80 metres by four, 40 metres by three, and 14/21/28 MHz by two. Additional points can be obtained by a QTC, a report of a contest QSO back to a European station. Submit your log in Cabrillo format to *waessb@dxhf.darc.de*

Contest Calendar for September 2014 - November 2014

Month	Date	Starts at	Spans	Name	Mode
September	6th - 7th	0000 UTC	48 hours	All Asian DX contest	SSB
	13th - 14th	0000 UTC	48 hours	Worked All Europe DX contest	SSB
	20th - 21st	1200 UTC	24 hours	Scandanavian Activity contest	CW
	27th - 28th	0000 UTC	48 hours	CQ WW DX contest	RTTY
October	**4th - 5th**	**0800 UTC**	**24 hours**	**Oceania DX contest**	**SSB**
	11th - 12th	**0800 UTC**	**24 hours**	**Oceania DX contest**	**CW**
	18th - 19th	1500 UTC	24 hours	Worked All Germany contest	CW/SSB
	25th - 26th	0000 UTC	48 hours	CQ WW DX contest	SSB
November	1st - 2nd	1200 UTC	24 hours	Ukrainian DX contest	CW/SSB
	8th - 9th	0000 UTC	48 hours	WAE DX contest	RTTY
	22nd - 23rd	**0100 UTC**	**24 hours**	**Spring VHF/UHF Field Day**	**CW/SSB**
	29th - 30th	0000 UTC	48 hours	CQ WW DX contest	CW

Rules for most contests may be found at *www.hornucopia.com*, courtesy of WA7BNM.

Plan Ahead

Adelaide Hills ARS Hamfest	2 November
Yarra Valley ARG Hamfest	9 November
Southern Peninsula ARC Hamfest	30 November

RAOTC QSO Party 2014

All licensed Australian Amateur Radio Operators are Invited to participate in the annual QSO Party sponsored by the Radio Amateurs' Old Timers' Association Inc.

The event this year is in the form of a contest. Please don't let that stop you from joining in!

This event was originally referred to as the "Old Rigs Contest" because, as amateurs with many years' experience, many have older radios still in working order. Here is a good opportunity to give them an airing. However, do not feel afraid to use the latest "do everything" radio!

Date

Saturday, 13th September, 2014

Time

0400 – 1200 UTC

The **object** will be to make as many contacts as possible, especially with members of RAOTC.

Bands will be 160, 80, 40 and 20 metres.

Modes

CW; AM; SSB

Suggested Frequencies

160 metres AM 1843 kHz, SSB 1850 kHz

80 metres CW 3520 kHz, SSB 3570-3590 kHz, AM 3560 kHz

40 metres CW 7020 kHz, SSB 7080-7090 kHz, AM 7120 kHz

20 metres CW 14040 kHz, SSB 14160-14170 kHz

Exchange callsigns; serial number starting at 001 and incrementing by one for each contact whether RAOTC member or not.

Score *one point per contact

*add 25 points to total score if using a radio 25 years or more old

Special Segments

CW 40 metres on above frequency 0430 – 0515 UTC

20 metres on above frequency 0600 – 0645 UTC

80 metres on above frequency 1000 – 1045 UTC

AM 40 metres on above AM frequency 0530 – 0615 UTC

80/160 metres on above AM frequencies 1030 – 1115 UTC

Logs must show callsign of station worked; time; mode; exchange sent and received; callsign, name and postal address of operator submitting log; whether using an older radio or not.

Send Logs to: Secretary, RAOTC, PO Box 107, Mentone, Vic, 3194

or via email to *raotc@raotc.org.au* by Friday, 26th September, 2014.

If sending by email and no acknowledgment is received, please resend.

Certificates will be issued to

- scorer with highest total contacts;
- highest scorer using an old rig;
- highest scorer in each special segment

Find these Rules on the Web: *http://www.raotc.org.au/*

Over to you

RD Contest and International Lighthouse Lightship Weekend conflict

Hello Peter,

We have just completed another weekend at the Timeball tower for the 10th ILLW event. Because the date conflicts with the ILLW and the RD Contest again this year, it was yet again another frustrating event.

Having to promote public interest in amateur radio and lighthouse preservation while all the public can hear is the "10 word exchange of numbers" for the RD is not helping the cause: I was asked several times "why do you bother with that?" It is of no significant interest to the public at large. Both events are important but to very different audiences with conflicting interests. Personally, I am not interested in chasing "wall paper" or contesting in general, and the low power portable nature of the ILLW puts us at a disadvantage compared to some home based stations with permanent antennas etc. Why do these two events have to occur on the same weekends? It is not that the RD contest is held on the 15th of the month anniversary of the cessation of hostilities generally, so putting it on the previous weekend as it is three or four years of seven anyway is of no real significance is it?

I think the WIA and the ILLW people need to get together and rationalize the arrangements to the benefit of both events. We are not enhancing the participation in either event when they coincide, so let's fix it now. I won't operate the Timeball Tower for the next two years on the current timing. I find it is just too much effort for too little result trying to compete with the RD Contesters on the same bands at the same times.

Ian VK3LA

Editor's response: The conflict is likely to continue to arise. The ILLW always falls on the third full weekend of August, due to international events. The RD Contest is scheduled for the weekend that falls closest to the anniversary date – August 15. The events are likely to conflict in the future, unless someone can convince one group or the other to change their pattern. Peter VK3PF.

Winter VHF-UHF Field Day 2014: Results (Division 1)

Contest Manager: John Martin VK3KM

Division 1 Results Summary

Section	A	B	C	D	E	F
Top scoring stations (all bands)	VK5KK	VK5NE	VK5LZ	VK3ALB	VK3MY	VK5ZT
Top Scoring F Call Stations	-	VK5FSKS	-	-	-	-

This time the top places in four of the contest sections went to VK5, and the other two went to VK3. As usual, the Home Station category was quite popular in the cooler parts of the country! Congratulations to all.

There have now been 49 VHF-UHF Field Days. The first was held in 1989 and managed by Frank Beech VK7BC. Since I inherited the job in 1991, there have been 24 more Summer Field Days, 16 Spring events and 7 Winter Field Days.

Over the years there has been a steady growth in activity, especially on the higher bands, and I am glad that the contest has helped to contribute to this growth. I am also glad that the contest has had a broad appeal for amateurs with stations ranging from very small to very big. The aim has been to keep the emphasis on the activity rather than on the scores.

But circumstances change, and earlier this year the WIA decided that in the future the Field Day should have two different scoring systems and two sets of results. I have given this plenty of thought, and I feel the best option would be for me to move on.

Call	Name	Location	VHF - UHF Bands					Microwave Bands							All
			50 MHz	144 MHz	432 MHz	1296 MHz	Sub Total	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	47 GHz	76 GHz	Band Total
Section A:	**Single Operator, 24 Hours**														
VK5KK	David Minchin	PF94, PF95	47	273	455	664	1439	810	810	810	780	450	-	-	5109
VK5TE	Simon Brandenburg	PF94	52	333	450	520	1355	470	370	370	450	-	-	-	3015
VK4OE	Doug Friend	QG61, QG62	48	228	370	488	1134	440	210	-	420	220	-	-	2421
Section B:	**Single Operator, 8 Hours**														
VK5NE	Paul Roehrs	PF94	23	228	365	480	1096	580	580	580	560	220	-	-	3616
VK5TE	Simon Brandenburg	PF94	47	234	365	488	1094	360	370	370	450	-	-	-	2684
VK3HY	Gavin Brain	QF22	63	360	315	336	1074	-	-	-	540	-	-	-	1614
VK4ADC	Doug Hunter	QG61	51	168	-	320	539	220	220	220	220	-	-	-	1419
VK3YFL	Bryon Dunkley-Smith	QF22	41	288	280	328	937	-	-	-	340	-	-	-	1277
VK5OQ	Keith Gooley	PF95	21	159	195	264	639	210	210	-	-	-	-	-	1059
VK5NI	John Ross	PF95	43	192	295	176	706	220	-	-	-	-	-	-	926
VK3YE	Peter Parker	QF21	55	402	410	-	867	-	-	-	-	-	-	-	867
VK5FSKS	Scott Jackson	QF21	-	405	420	-	825	-	-	-	-	-	-	-	825
VK5VAB	Bruce Gauci	PF95	34	195	390	176	795	-	-	-	-	-	-	-	795
VK5FBAA	Bob Jelsman	PF95	-	198	380	-	578	-	-	-	-	-	-	-	578
VK3AUQ	Kevin Phillips	QF22	55	210	275	-	540	-	-	-	-	-	-	-	540
VK3FEZZ	John Witte	QF22	-	72	125	-	197	-	-	-	-	-	-	-	197
Section C:	**Multi Operator, 24 Hours**														
VK5LZ	Elizabeth ARC	PF95, PF96	71	324	530	768	1693	890	910	880	860	700	-	-	5933
VK3ALB		QF11	62	492	655	776	1985	860	820	820	830	-	-	-	5315
VK3KQ		QF22	110	768	775	1032	2685	440	390	500	370	-	-	-	4385
Section D:	**Multi Operator, 8 Hours**														
VK3ALB		QF11	59	327	405	488	1279	580	580	580	590	-	-	-	3609
VK3KQ		QF22	69	483	540	728	1820	360	350	450	230	-	-	-	3210
VK4CZ		QG62	48	228	355	392	1043	460	220	220	450	-	-	-	2373
VK4WIE	CBRS	QG62	67	243	360	504	1174	340	-	-	350	-	-	-	1864
VK4WIS	SCARC	QG63	79	285	340	512	1216	250	-	-	230	-	-	-	1696

Call	Name	Location	VHF - UHF Bands					Microwave Bands							All
			50 MHz	144 MHz	432 MHz	1296 MHz	Sub Total	2.4 GHz	3.4 GHz	5.7 GHz	10 GHz	24 GHz	47 GHz	76 GHz	Band Total
Section E:	**Home Station, 24 Hours**														
VK3MY	Ross Keogh	QF22	79	654	775	800	2308	510	-	-	-	-	-	-	2818
VK3QI	Peter Forbes	QF22	42	123	155	288	608	270	260	260	260	-	-	-	1658
VK3JV	Mike Subocz	QF22	89	402	470	408	1369	-	-	-	-	-	-	-	1369
VK4KLC	Ron Melton	QG62	65	252	365	608	1290	-	-	-	-	-	-	-	1290
VK3JTM	Tim Morgan	QF12	-	341	912	-	1253	-	-	-	-	-	-	-	1253
VK3BQ	Andrew Scott	QF22	58	297	430	456	1241	-	-	-	-	-	-	-	1241
VK4ZDP	David Purkis	QH32	53	246	395	264	958	-	-	-	-	-	-	-	958
VK1KW	Rob Quick	QF44	43	378	216	256	892	-	-	-	-	-	-	-	892
VK5DT	Darren Jury	PF95	38	237	355	168	798	-	-	-	-	-	-	-	798
VK3WWW	Jack Bramham	QF22	-	147	235	216	598	-	-	-	-	-	-	-	598
VK4MJF	John Morris	QG62	21	105	175	272	573	-	-	-	-	-	-	-	573
VK5DF	Daniel Flakelar	PF94	22	198	345	-	565	-	-	-	-	-	-	-	565
VK4ALH	Leicester Hibbert	QG63	-	99	165	256	520	-	-	-	-	-	-	-	520
VK3ZHQ	Eric Warren-Smith	QF22	43	204	145	-	392	-	-	-	-	-	-	-	392
VK2ID	Gerard Hill	QF56	34	120	195	-	349	-	-	-	-	-	-	-	349
VK2BJ	Barry Simpson	QF56	34	117	180	-	331	-	-	-	-	-	-	-	331
VK4TGL	Gerard Lawler	QG62	46	144	120	-	310	-	-	-	-	-	-	-	310
VK2IUW	Hilary Bridel	QF56	25	93	140	-	258	-	-	-	-	-	-	-	258
VK3ND	Greg Smith	QF22	-	81	140	-	221	-	-	-	-	-	-	-	221
VK3ER	Greg Smith	QF22	-	72	110	-	182	-	-	-	-	-	-	-	182
Section F:	**Rover Station, 24 Hours**														
VK5ZT	Tim Dixon	PF84, PF85, PF86, PF96, PF95, PF94	75	336	575	832	1818	1000	1000	1000	1010	650	-	-	6478
VK3PY	Carlo Gnaccarini	QF11, QF12, QF21, QF22	65	261	330	608	1264	540	550	540	650				3544
VK3QM	David Learmonth	QF01, QF02, QF21	-	63	105	256	424	550	670	550	550				2744
VK5AR	Alan Raftery	PF94, PF95	49	213	400	-	662	-	-	-	-	-	-	-	662

Notes

VK3KQ Ralph Parkhurst VK3LL, Damian Ayers VK3KQ

VK3ALB Lou Blasco VK3ALB, Nik Presser VK3BA, Jenni Blasco VK3FJEN, Michael Blasco VK3FMIC

VK4WIE City of Brisbane Radio Society: VK4CRO, VK4MJF, VK4PI, VK4MIL

VK4WIS Sunshine Coast ARC: Leicester Hibbert VK4ALH, Robert Garland VK4LHD, May Hampton VK4IMH, Don Hampton VK4FAAR, Trent Sampson VK4TS, Al Shannon VK4SN, Mike French VK4FMGF

VK4CZ Scott Watson VK4CZ, Kevin Johnston VK4UH, John Maudsley VK4YJV

VK5LZ Elizabeth Amateur Radio Club: Iain Crawford VK5ZD, Damien Clissold VK5FDEC

VK4news QTC

Mike Charteris VK4QS
e *mikevk4qs@gmail.com*

Hi everyone. Welcome to the September 2014 edition of VK4news - QTC, my last edition of QTC as I will be hanging up the boots as of this month. It's now time for someone else to take up the mantle and hold the torch high in the name of Queensland and the radio clubs of Queensland. It's not that hard, as all you have to do is email all the clubs once or twice a month and ask them if they have any news. They will be kind enough to email you with perhaps a high resolution photo or two, and Bob's your Mother's brother. You then set it out in your own style and send it off to *Amateur Radio* magazine. You are required to write several weeks in advance for the next issue, but you will get used to it.

In my tenure as the VK4 news hound I have endeavoured to build relationships with the clubs as well as venturing to offer a few pearls of wisdom along the way. I have tried encourage the club themselves to embrace this publicity aspect of the hobby by requesting news items that may indeed see them attract new members to their doors. I trust that in some small way I have been successful in achieving this goal through the words published on the pages of VK4news - QTC.

Between this edition and the next time you see VK4news, there might well be a time gap depending on how long it takes for the next news hound to 'volunteer' to take up the mantle of this great job. I have got to the stage where I will be relinquishing all my WIA responsibilities, including that of Chairman of the QAC. From this day forward I will just be VK4QS, VK4XQM, WIA member, and amateur radio operator. I would like to take this opportunity to thank all those who have supported me in these roles over the past many years; you know who you are and I am indebted to you all. In particular I would like to sincerely thank both Ewan McLeod VK4ERM, and Alan Shannon VK4SN for their untiring support in good times and bad, I could not have done it without you both.

Yours sincerely,
Mike Charteris VK4QS/VK4XQM.

This month it's a happy 21st birthday to the *Southside Amateur Radio Society*, established in 1993. Now it's over to the club President, Clem Skerman VK4XCS, for a few words.

We as a club have come of age this year – we are 21 years young.

The Southside Amateur Radio Society (SARS) was formed in 1993 by a few local amateur operators who saw the need for a club for those who lived in Logan City. Logan City is approximately 23 km south of the city of Brisbane and north of the Gold Coast in south east Queensland.

We obtained a clubhouse with the help of Meakin Park Scouts but after a 2009 agreement by the members of the time that due to the rising costs, primarily high insurance, that the club would rescind its incorporated status.

These days SARS has a regular monthly meeting on the first Wednesday of the month at the premises of FM 101, at Railway Parade, Logan Central, starting at 7 pm. On the third Wednesday of the month, we meet socially at various members homes in the evening.

Wayne VK4EU, one of the club's foundation members and now honorary life member has, over many years tirelessly assisted with the running of the club and organising events like JOTA, as well as performing the exams as a WIA examiner for members to get their licence. Wayne has now retired and moved to Hervey Bay, however contact is still maintained via amateur radio.

In past years the club has presented ourselves for JOTA events, and remain available for Scout dens to assist them at JOTA time. We have conducted radio courses with the help of Chris VK4YE and exams with the help of Wayne VK4EU and John VK4JDF. These days we have both Brendan VK4BLP and Charlie VK4CMC as our clubs WIA accredited examiners who are able to assist those wanting to get in to our great hobby of amateur radio.

The club has its own two metre repeater VK4RAX, on 147.075 MHz, situated on Mount Cotton, east of Brisbane. The repeater manager is Martin Powell VK4JVC who has built and maintained the repeater over many years; many thanks to Martin for his continued support.

The club holds its weekly Tuesday evening two metre net on our club repeater at 7.30 pm and all are welcome.

The club's web page at *www.southsidears.org.au* is designed and maintained by Brendan VK4BLP, our email address is *vk4wss@southsidears.org.au* and postal address is PO Box 294, Woodridge, Qld. 4114.

A special thanks to all past and present members for all their help since the club was formed. Regards from John VK4JDF.

VK2news

Tim Mills VK2ZTM
e *vk2ztm@wia.org.au*

Welcome to spring. Later this month will be the next Foundation course and assessments at ARNSW over the weekend of the 20th and 21st September. Bookings to be made by an email to *education@arnsw.org.au* The following Sunday, the 28th is the bi-monthly Trash & Treasure and Home Brew gathering. All activities are held at the VK2WI site, 63 Quarry Road, Dural. ARNSW is establishing an Education Team to share knowledge and assist newcomers and amateurs advises Paul VK2APA, the class supervisor. Inquire via the education email address. The bi-monthly assessments could benefit the many VK2 assessors who may not be currently doing any assessments. Waverley ARS also have a Foundation course and assessments this month – on 13th/14th September – at their Rose Bay club rooms. Email them at *education@vk2bv.org*

Another month passed and VK2WI was still without its final roof. It was completed in early August and the suspended services are now back on line. What was interesting were the inquiries about the absence of the 3699 kHz Morse practice transmission. It should be back now with additional higher speeds of 20 and 25 wpm together with additional text. With several beacons and repeaters on the VK2WI site, the annual power bill is now well in the four figure range and it would be nice if amateurs were to indicate if they are making any use of the services. Send an email to *callbacks@arnsw.org.au* to encourage the continuing operation of the Morse and beacon services. Most antennas on site had overhead co-ax feeds and these had to be removed to allow the renovations to proceed. We had not planned for the extended delays. Work is proceeding to place most HF antenna feeds underground.

The next ARNSW technical event is scheduled for Sunday 9th November with the theme of CW being planned. ARNSW almost gained a new neighbour in early July when a property at the rear went to auction. However it was passed in when interest did not reach the $2.75 million reserve.

Oxley Region ARC held their AGM early last month, a report later. The club was one who recently received Development Funds from ARNSW which enabled them to obtain and commission a dedicated EchoLink node on VK2BOR to serve the region. Previously it was done with borrowed equipment. They have also been working on their planned six metre repeater which will operate from the VK2RCN site, 53.800 MHz, located between Wauchope and Kempsey. It is now only nine months until the 40th annual field day, in June, which will have to find a new venue as the popular Tacking Point Surf Lifesaving Club hall is scheduled for renovations from April until September 2015. The club has already booked the hall for 2016.

Westlakes ARC will have their annual field day on Sunday 14th September with a 9 am start at their site in York St, Teralba. There is no cost to set up a stall, but take your own tables; ring and leave a message on 02 4958 1588, to book a spot. The October meeting of the Hunter Radio Group on Friday 10th will be a "Do It Yourself" technical project night. So get that technical project completed and bring it along to the October meeting advises Secretary Rodney VK2CN. They meet at 8 pm at the NBN TV Studios, Mosbri Crescent, Newcastle.

This month the Manly Warringah Radio Society hase their second Flagpole Contest, right after the International Talk Like a Pirate Day. The club meets weekly on Wednesday evening at the 1st Terrey Hills Guide Hall, Beltana Avenue, Terrey Hills. If you need directions, call in on the club's two metre repeater on 146.875 MHz or visit the club's web site at *www.mwrs.org.au*

WICEN NSW has the Trek for Timor on 20th September in the Blue Mountains. During September and October there are Alzheimer's Australia Memory Walk and Jog events in the Hunter, inner western Sydney and North Wollongong. These are fairly short events. WICEN NSW is planning an Introduction day at ARNSW on Sunday 7th September. Details for all events to be found at *www.nsw.wicen.org.au* The annual Hawkesbury Canoe Classic is over Saturday night the 25th October.

VK3news Geelong Amateur Radio Club

Tony Collis VK3JGC

GARC presentations

Whilst the GARC is primarily about all aspects of radio communication, from time to time the presentation syllabus includes items reflecting a duty of care by the executive for the membership.

Such was the presentation given on men's health by Adele Ryan, as a follow on from Geelong's Men's Health Week.

Photo 1: Adele receiving a thank you gift from Nik VK3BA.

Adele is a registered nurse and diabetics educator with a Bachelor of Health degree and has worked for several pharmaceutical companies in the field of diabetes and has addressed problems with patients in medical practices thereby improving their diabetes management. Her power point presentation covered all aspects of men's health, primarily for the over 40's and closet diabetics, with no punches pulled in the somewhat 'sensitive' areas. The interactive response from the attendees was very positive and a lot of useful information was made available via pamphlets that Adele brought with her.

The GARC Minima Project

Following on from the hugely successful group antenna build a couple of months ago, the club is now turning its attention to another construction exercise of a more sophisticated nature. This will involve a QRP sideband transceiver build based on the Minima Project, designed by Sandeep Lohia VU3SXT. The system design schematic and functionality details can be found following the link *http://www.hfsignals.org/index.php/Minima*

This project will provide participating club members with the opportunity to get involved in both the construction and microprocessor programming, under the expert guidance of Lee VK3PK. The transceiver itself is based around the universally available microcontroller, Arduino. The receiver part is a superhet design that will range up to 30 MHz, with an IF at 20 MHz. It will be easy to use with a single knob that will tune the entire HF band, with the appropriate sideband selection being automatic. The transceiver has a deep notch at the IF of 20 MHz so it will work everywhere in the HF bands, except at 20 MHz.

It is planned that these units will be built and group tested in a number of stages under the tutorage of Lee VK3PK, who is also sourcing all the components and PC boards for those participating Whilst the receiver will cover up to 30 MHz, the transmitter aspect will be programmed by individual builders for which amateur bands they wish to operate on. The output will be less than one watt so at some stage a linear amplifier will be required. Currently the plan is for 15 to 20 of these units to be constructed.

Outcome of the GARC 2014 AGM

In accordance with procedures, Secretary Jenni VK3FJEN read the minutes from the last AGM before

Photo 2: The 2014 GARC Executive - Russell VK3KRS, Lou VK3ALB, Vanessa VK3FUNY and Tony VK3JGC.

handing the floor to President Nik VK3BA. The outgoing president, in his end of year report, then reflected on what had been accomplished in the preceding year, and thanking his executive for the support they had provided him during that period. In response it was agreed by all present that Nik had provided the club with both excellent leadership and competence in the handling of a number of difficult situations that arose in the last 15 months.

President Nik then declared all GARC posts vacant and handed over the chair to Barry VK3SY to announce the nominations for the new 2014 GARC Executive. The following were then elected to the GARC executive and sub-committee:

President Lou VK3ALB, vice President Tony VK3JGC, Secretary and Public Officer Vanessa VK3FUNY, Treasurer Russell VK3KRS, and sub-committee members Bruce VK3HAV, Calvin VK3ZPK, Nik VK3BA, Barry VK3SY, Chris VK3ACG and Courtney VK3FGIR.

Photo 3: The Ray Cowling Award presented to Bruce VK3HAV by President Lou VK3ALB.

President Lou VK3ALB then presented the Ray Cowling Award to Bruce VK3HAV for the individual that club members voted *'has contributed the most to amateur radio and the GARC in the preceding year.'*

AMSAT-VK

AMSAT Co-ordinator
Paul Paradigm VK2TXT
email: *coordinator@amsat-vk.org*

Group Moderator
Judy Williams VK2TJU
email: *secretary@amsat-vk.org*

Website:
www.amsat-vk.org

Group site:
group.amsat-vk.org

About AMSAT-VK

AMSAT-VK is a group of Australian amateur radio operators who share a common interest in building, launching and communicating with each other through non-commercial amateur radio satellites. Many of our members also have an interest in other space based communications, including listening to and communicating with the International Space Station, Earth-Moon-Earth (EME), monitoring weather (WX) satellites and other spacecraft. AMSAT-VK is the primary point of contact for those interested in becoming involved in amateur radio satellite operations. If you are interested in learning more about satellite operations or just wish to become a member of AMSAT-Australia, please see our website.

AMSAT-VK monthly net

Australian National Satellite net

The net takes place on the 2nd Tuesday of each month at 8.30 pm eastern time, that is 0930 Z or 1030 Z depending on daylight saving. Check-in starts 10 minutes prior to the start time. The AMSAT-VK net has been running for many years with the aim of allowing amateur radio operators who are operating or have an interest in working in the satellite mode, to make contact with others in order to share their experiences and to catch up on pertinent news. The format also facilitates other aspects like making 'skeds' and for a general 'off-bird' chat. In addition to the EchoLink conference, the net will also be available via RF on the following repeaters and links.

In New South Wales
VK2RBM Blue Mountains repeater on 147.050 MHz

In Queensland
VK4RIL Laidley repeater on 147.700 MHz
VK4RRC Redcliffe 146.925 MHz IRLP node 6404, EchoLink node 44666

In South Australia
VK5TRM, Loxton on 147.175 MHz
VK5RSC, Mt Terrible on 439.825 MHz IRLP node 6278, EchoLink node 399996

In Tasmania
VK7RTV Gawler 6 metre repeater 53.775 MHz IRLP node 6124
VK7RTV Gawler 2 metre repeater 146.775 MHz IRLP node 6616

In the Northern Territory
VK8MA Katherine 146.700 MHz FM

Operators may join the net via the above repeaters or by connecting to EchoLink on either the AMSAT or VK3JED conferences. Past experience has shown that the VK3JED server offers clearer audio. The net is also available via IRLP reflector number 9558. We are keen to have the net carried by other EchoLink or IRLP enabled repeaters and links in order to improve coverage. If you are interested in carrying our net on your system, please contact Paul via email. Frequencies and nodes can change without much notice. Details are put on the AMSAT-VK group site.

Become involved

Amateur satellite operating is one of the most interesting and rewarding modes in our hobby. The birds are relatively easy to access and require very little hardware investment to get started. You can gain access to the FM 'repeaters in the sky' with just a dual band handheld operating on 2 m and 70 cm. These easy-to-use and popular FM satellites will give hams national communications and handheld access into New Zealand at various times through the day and night. Currently only SO-50 is available.

Should you wish to join AMSAT-VK, details are available on the web site or sign-up at our group site as above. Membership is free and you will be made very welcome.

VK1news

Andrew Moseley VK1NAM

Photo 1: The dual band Yagi ready to be connected, looking out from Castle Hill, VK1/AC-032.

VK1 SOTA Party

The ACT is blessed with having 12 local summits, some with easy drive up access and others that require a reasonable level of fitness to climb 200 to 300 vertical metres over five km. Several require a bigger effort to reach. The VK1 SOTA Party is an initiative of Andrew VK1NAM with the assistance of the VK1 Activators group, to promote and showcase amateur radio to the public on hilltops around Canberra.

The second aim of the day is to promote the Summits on the Air (SOTA) awards program and QRP operations to members of the Canberra Region Amateur Radio Club (CRARC). *The latter was achieved in part with one Foundation member accompanying an activator and a second Foundation member will activate Mt Taylor VK1/AC-037 on 3rd August, 2014.*

Background

This year is the second running of the VK1 SOTA Party. Last year the event was held in August and attracted eight activators within VK1 and two activators from the NSW central coast. Interest in the event came from VK3 and VK5 with three and two summits activated respectively. Details can be found at *AR* September 2013, page 26.

2014 SOTA Party

This year the VK1 SOTA Party was planned for Sunday, 27 July 2014 commencing at 2300 UTC 26 July 2014 through to 0200 UTC 27 July 2014 or 0900 to 1200 Australian Eastern Standard Time. Could this be the busiest SOTA day on record in VK?

VK1 SOTA activators taking part in this year's SOTA party were:
Ian VK1DI, Mt Coree, VK1/AC-023.

- Al VK1RX, Mt Tennent, VK1/AC-025.
- Andrew VK1NAM, Castle Hill, VK1/AC-032.
- Robert VK1RW, One Tree Hill, VK1/AC-035, 2 m only.
- Andrew VK2FAJG, Tuggeranong Hill, VK1/AC-038.
- Paul VK1PAW, Mt Ainslie, VK1/AC-040.
- Matt VK1MA, Black Mountain, VK1/AC-042.
- Mark VK1EM, Mt Stromlo (north hump), VK1/AC-043.

- Compton VK2HRX/1, Mt McDonald, VK1/AC-048.
- Andrew VK1MBE/4 activating Tallai Range in SE Queensland VK4/SE-094.

With the VK1 volunteers selecting a local summit the next phase of the activity was to seek interest from the broader VK SOTA community to join in on the party. This started in the VK SOTA Yahoo forum with Andrew VK1NAM seeking interest from activators within the current active SOTA associations VK2, VK3, VK4, VK5 and VK8 to join in on the VK1 SOTA mass simultaneous activation. Initially interest and take up was slow, most likely due to the recent span of cold weather across the south east of Australia, however with a promise from the BOM seven day forecast for a fine sunny day across the eastern states interest grew quickly to make the event the largest SOTA day for VK since SOTA began in VK3 on 1 February 2011.

Notable VK1 activations

First time activators from Canberra were Paul VK1PAW and Robert VK1RW. Paul activated Mt Ainslie on two metres and 70 cm simplex plus 14 MHz using a homebrew MST20. Robert activated One Tree Hill on two metres simplex.

Compton VK2HRX from Sydney offered a summit-to-summit challenge to anyone that would activate a peak on 23 cm. Matt VK1MA accepted the challenge and committed to carrying a base station Icom IC-910H part way up Black Mountain.

Al VK1RX ascended 780 metres over 6 km to the summit of Mt Tennent at 1384 metres ASL. Mt Tennant is on the north-east edge of the Namadgi National Park. The ascent takes two hours. Ian VK1DI travelled 50 km to the base of Mt Coree, navigated a precarious 2.5 km 4WD drive track before tackling the final 200 metres on foot. The summit is a dominant feature on the Brindabella Range skyline at 1421 metres ASL. Ian and Al rightfully claimed the three point winter bonus.

Photo 2: Some of the group at the lunchtime gathering to celebrate the activations.

Joining the party

Activators from other VK associations joining the SOTA party were:

- Garry VK2GAZ and Gerard VK2IO, Mount Tootie, VK2/CT-082.
- Rob VK2QR and Rod VK2TWR, South Black Range, VK2/ST-006.
- Sam VK2AFA and Ben VK5TX, Winns Mountain, VK2/MN-067.
- Scott VK2AET, Browns Knob, VK2/NR-038.
- Scott VK2SWD, Mount Walker, VK2/CT-019.
- Andrew VK3ARR, Mt Buninyong, VK3/VC-018. Andrew is a keen 'Andrew 2 Andrew' summit to summit chaser.
- Brian VK3MCD, Mt Hotham, VK3/VE-006.
- Glenn VK3YY, Mt Donna Buang, VK3/VC-002.
- Mike VK3XL, Arthurs Seat, VK3/VC-031.
- Nick VK3ANL, Mt Wombat, VK3/VU-002.
- Robbie VK3EK, Mt Budgee Budgee, VK3/VT-041.
- Ron VK3AFW, Mt Macedon, VK3/VC-007.
- Tony VK3CAT, Flinders Peak, VK3/VC-030.
- Mark VK4IL, Mt Campbell, VK4/SE-035.
- John VK5BJE, Mt Lofty, VK5/SE-005.
- Nigel VK5NIG, Mount Gawler, VK5/SE-013.

Would this SOTA Party be the busiest SOTA day since 1 February 2011?

On the summits

It was not a SOTA party, it was a VK SOTA frenzy involving 26 QRP activations from five active SOTA associations and at least three national parks were thrown into the mix. The higher mountain peaks in VK3 were complete with a cover of snow while 26 dedicated chasers covering all VK regions were comfortable in their radio shacks enjoying tea or coffee with toast and croissants.

In Canberra the early morning climb to the summit started with an ambient temperature of -2 degrees; now was the time for the winter bonus points but sadly the local summits whilst windy and cold are below 1200 metres ASL. In Victoria Glenn VK3YY activated Mt Donna Buang at 1295 metres ASL with a light cover of snow and Brian VK3MDC had a whale of a time in

the snow at Mt Hotham at 1861 metres ASL.

On Castle Hill I had the company of a potential SOTA recruit, Min. Min and I set up two transceivers (FT-857D and FT-817ND) plus a dual-band HT and three antennas (10/20/40 m link dipole, two metre Slim Jim and a 2 m/70 cm dual-band Yagi). At 2250 UTC we were ready to go, monitoring two metres simplex on the HT.

Some activators made an early start to avoid the eventual pile up on 40 metres. The first chase started at 2230 UTC (all times noted are UTC) with Mike VK3XL activating Arthurs Seat, rising above the Mornington Peninsula. At 2255 the bulk of VK1 activators were ready to press the radio 'On' switch for the simultaneous activation of 10 summits. Earlier in the week the VK1 crew discussed the pros and cons of holding a two metre sked at 2315. The plan was to be on air by 2300 UTC, work 40 metres for 15 minutes or so, while monitoring two metres simplex on the HT for Rob VK1RW and local VK1 chasers. Two VK1s were heard to make a S2S contact ahead of the agreed sked, the thought of missing out on a summit got too much for most, including me, and so we had an impromptu unscheduled two metres mini pile up. This caused some confusion for the volunteer net controller; sorry Matt, we got a little ahead of ourselves, and thanks for your patience.

Some shack chasers noticed the sudden disappearance of the VK1 crew from 40 metres and checking SOTAwatch provided no clues; we didn't plan on posting a spot for two metres. By now the main body of 29 activators were on air and looking for a clear 3 to 5 kHz slot on 40 metres. If you were sitting back in the shack scanning 40 metres you could be excused for thinking you had missed the start of a major VK competition. It was a frenzy of activity above 7.070 MHz, in 5 kHz steps. Those that couldn't find a clear slot to work shack chasers, like me, decided to seek out fellow activators and call 'summit to summit' to gain priority access ahead of a shack chaser. Meanwhile the Android phone app RRT crashed under the strain of a waterfall of SOTA spots. The automated voice announcement couldn't keep pace with the volume of incoming spots. I gave up on RRT and switched to the browser to check SOTAwatch in real time. On SOTAwatch the spots were dropping off the bottom of the list every 30 seconds. With little idea as to the operating frequency of each activator, I resorted to manual scanning rotating the FT-817 VFO knob listening for a familiar activator voice. When I found an activator it was a matter of waiting for a QRZ then calling S2S to crash in. I wasn't on my own as most other activators were doing the same, all in good spirit.

After working 19 activators in 15 minutes, I found clear air on 7.161, and parked there for 20 minutes working 11 shack chasers including Mike VK6MB on 20 metres with five watts output from the FT-817ND into a half wave link dipole, then four more activators for 20 summit-to-summits before 2359.

This process of activators chasing activators was repeated minute-by-minute by 28 other activators leading up to UTC midnight and date change. UTC date change is commonly known or expressed as 'UTC Rollover'. At UTC Rollover, 0001 27 July, the pursuit of summit points continued in a second round of frantic activity to work all 29 activators. Activators described the on air action as a frenzy of activity, competing with other activators and chasers for precious summit points. The casual observer would have noticed the good-natured behaviour of all players.

In the meantime chasers in the shack were calling at every opportunity to peg an activator, however narrow the opportunity. The experienced activators made lists of activators & chasers working through the list to ensure chasers didn't miss out on the fun and summit points. Chasers were faced with making decisions to wait for a few one point contacts or wait for one contact worth 4 or 6 points. That choice does not occur often, Sunday was an exception for all chasers.

Highlights from the Peaks

Compton VK2HRX and Matt VK1MA recorded the first VK and VK1 SOTA 23 cm summit-to-summit contact over 14.7 km between Mt McDonald and Black Mountain. Congratulations to Compton and Matt.

Gerard VK2IO and Garry VK2GAZ on a dual activation of Mt Tootie recorded a VHF DX QRP summit-to-summit contact with Andrew VK1NAM on Castle Hill. A distance of 262 km, not bad for five watts and a homebrew three element 'tape measure' Yagi. Check out Gerard's video on YouTube, search for VK2IO.

Mark VK4IL, formerly VK3DEE, activated Mt Walker near Toowoomba, putting out a challenge to all VK4 amateurs to 'stand tall' and take up SOTA.

Ron VK3AFW was offered the finest piece of advice from an experienced activator 'don't cuddle the wildlife unless you like wombat poop'.

Andrew VK3ARR set a new personal best with 10 Andrew to Andrew contacts, while on the drive home he thought he could defy the car's flashing petrol warning light. The thought of running out of petrol got the better of him.

Activator and Chaser goals were achieved and some exceeded Chaser, Chaser Uniques and Summit-to-Summit milestones.

Preliminary data provided by SOTA MT confirms the frenzy of radio signals radiating from mountain peaks with 829 Activator QSOs and 528 S2S exchanges. SOTA logs are still being loaded. As for spots posted on SOTAwatch between 2230 to 0200 UTC, 104 spots were

recorded an average of one every two minutes. The tempo between 2330 and 0030 UTC would have been higher, perhaps close to one spot every minute.

At 0210 it was time to pack up the gear, descend 200 metres to the car, and head to Café Gaudi in Woden, to meet up with the VK1 crew for lunch and tall stories of the day's activity.

Summary

SOTA is an awards program designed for the pursuit of individual goals. The program is open to disabled and able-bodied amateurs. SOTA is not a competition of operator versus operator although on this occasion you may have thought otherwise.

All activators and chasers participated in the spirit of SOTA, everyone was good-natured, displaying a positive attitude and great levels of humour, while patience was a key commodity for chasers. The self-regulated management of pile-ups on 40 metres pre and post UTC rollover reflects well on all SOTA participants.

Acknowledgments: Contributions to this article include a 'Chaser's' view from Andrew VK1DA and Activators' experiences and anecdotes from SOTA blogs prepared by Ian VK1DI, Gerard VK2IO, Andrew VK3ARR and Glenn VK3YY. Thanks also to Allen VK3HRA for prompting me to put fingers to keyboard.

Plan Ahead

OCEANIA DX Contest Phone	4 October
OCEANIA DX Contest CW	11 October
Ballarat Amateur Radio Group HAMVENTION	19 October
2014 HAMFEST on the Gold Coast	25 October

Silent Key — Craig Huth VK2ISS/VK4SSB

It is with great sadness that we record the passing of Craig Huth VK2ISS/VK4SSB on 30 June, 2014, at only 47 years of age, in the Royal North Shore Hospital in Sydney, following a stroke.

Craig was a well-known and admired announcer at 2RE and MAXFM in Taree, NSW.

Craig grew up on the land at Bundaberg. He began his radio broadcasting career in Darwin before moving to Wangaratta, Deniliquin, Moree and then to 2RE at Taree nine years ago.

Craig was a great worker for the community. He was the driving force behind 2RE's Christmas Train that raised more than $200,000 in five years for the children's ward at Manning Hospital as well as retirement homes in the area.

Craig was very active on air. Many amateurs had the privilege of regular

on air contacts with him as VK4SSB and more recently as VK2ISS. As well as HF, Craig was active on VHF, UHF and microwaves. His callsigns reflected his passionate interests. He was a regular on the Great Lakes, Taree and Port Macquarie repeaters.

The International Space Station had special significance to Craig, having worked the ISS. He created a great deal of interest in the ISS on his radio program last year when he had 10 students from Chatham Public School speak live on air with Commander Mike Finke on board the International Space Station via a telebridge from Goddard Space Centre.

Craig regularly promoted amateur radio as a hobby on air. He kept abreast of local and international activities. Craig will be sadly missed by both the amateur radio fraternity and the wider community. He is survived by his partner Christine and two children along with his parents and siblings, to whom we extend our deepest sympathy.

Vale Craig Huth VK2ISS/VK4SSB.

Submitted by Henry Lundell VK2ZHE.

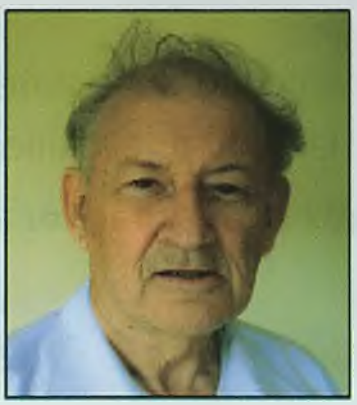
Silent Key — David Tarrant VK2TBC

Members of Oxley Region Amateur Radio Club Inc., were recently saddened to learn of the passing of a highly esteemed and long-term member of our club, David Tarrant, of Iluka N.S.W. David passed away on Monday, 26th May 2014 at the age of 84.

David, with his wife, Aileen, were previously residents of the Hastings District for quite some years, living on their rural property, "Trentwood", near Hyndmans Creek, 15 km westwards of Wauchope.

Prior to retirement, David's career extended over many years as a Technical Instructor with the NSW Department of Technical Education, teaching students who were studying subjects within the Electrical Trades curriculum.

It is interesting to note that a lengthy part of his teaching career involved teaching from within a mobile "classroom" and "workshop", both of which were specially equipped carriages of a stationary railway train that served to accommodate the electrical trades' learning needs



for regional areas, on a time-shared basis. David's particular locations for teaching were those of Taree, Wauchope and Kempsey. A third carriage formed part of the "mobile" facility, providing accommodation for the instructor, David.

Obtaining his amateur licence following retirement, David operated his amateur station from his rural property (initially under call sign VK2HBC - later upgrading to an Advanced licence, under call sign VK2TBC).

Within the activities of the amateur radio hobby, David's interests encompassed VHF & HF Packet Radio experiments, in addition to the operation of HF SSB. He was also a keen and productive "Home-Brewer" of amateur radio related test-equipment.

Having some hectares at his disposal, David took advantage of this rural space within which to participate in experiments with antennae of various designs.

David was an active member of the Oxley Region Amateur Radio Club Inc. He served two terms as the club's Secretary and a term as Vice President/Public officer.

In 1999, David and Aileen moved to Iluka, and since then, until his sad passing, David had remained a Distant Member of ORARC.

He is survived by his loving wife Aileen, and their three children, Alan, Leanne, and Stephen. The ORARC Membership extends its sincere sympathy to Aileen and her family.

Submitted by Trevor Thatcher VK2TT.

VK6news

Keith Bainbridge VK6RK
e *vk6rk@wia.org.au*

As I'm compiling the notes, Hamfest is only a few days away, and panic is setting in! A full report will be in next month's notes, maybe with some decent pictures. There has been a great response to table requests so hopefully there will have been a good turnout.

This month I'm starting off with something a little bit different to the usual. Larry VK6NOL gave me a clipping from his local newspaper so I did a bit of digging around and here is the result.

Old telegraph museum back in business

The old Telegraph Station Museum at Hamelin Pool, Shark Bay, 800 km north of Perth received a significant boost to its exhibition resources when former Postmaster General telegraphist Barrie Field VK6BR handed over a collection of newly built and restored Morse code transmission and receiving equipment.

Photo 1: Barry VK6BR with the display ready to go to the museum.

Barrie, a born and bred West Australian, worked as a telegraphist within the Postmaster General's Department from 1944 until 1952, passing his 28 words per minute Barrier examination at the early age of 19. He later took up a position with the engineering division of the PMG and remained with the department as it went through many changes, eventually retiring as State Manager of the Department of Communications in 1988.

Now a resident of the RAAFA Memorial Estate at Cambrai in Perth's northern suburbs, Barrie was approached by the curator of the Old Telegraph Museum to help in trying to re-equip the museum. This was following the theft of a large amount of the stations original telegraphic equipment, and as an avid member of the Morsecodeans Fraternity, Barrie decided to give it a go.

The museum had indicated, however, that in keeping with modern museums, it wished to have a pro-active slant to the exhibition, rather than simply a collection of items in display cases. This added to the challenge Barrie faced.

A year on and that challenge has been met thanks to Barrie's efforts in acquiring original components from a wide range of sources, some of it simply bits in varying degrees of dilapidation. Much of Barrie's work has called for hours of painstaking dismantling, straightening and restoring of dozens of tiny parts and, of course, getting them to a condition where they could be operated by visitors to the museum.

In April, Barrie and his son travelled up to Hamelin Pool to install the equipment for a very appreciative curator.

So when you pass through Hamelin Pool on your way to Monkey Mia don't forget to pop in and have a look and a play with the exhibition, proudly telling your family or friends that all this was done by a fellow radio amateur. Thanks Barrie VK6BR – and thanks to Barrie and the original author Stu Usher for permission to edit and share this with you all.

Now normal service will be resumed starting with the **Bunbury Radio Club.**

A major activity this month was arranging a series of assessments for Foundation and Standard licences. The end result was that two club members were deemed competent for the Foundation licence and one for the Standard Certificate of Proficiency. Also a ham from Nannup was deemed competent for the Foundation certificate. The paperwork has been lodged and all are anxiously awaiting their respective certificates and licences. As, I believe, that

Photo 2: The PARG at the Shipwreck Museum.

this was the first time for a long while that assessments had been run in the south-west, the process represented a steep learning curve for the assessors. Next time they are confident it will be a lot smoother.

At the July AGM the following officers were elected:

President:	Neil VK6FNKS
Secretary:	Brian VK6TGQ
Treasurer:	Bob VK6TJ
Vice president:	Darren VK6FGWN
Office bearer:	Fergy
Office bearer:	Rick VK6MLO
Office bearer:	Dan VK6FDRW
Office bearer:	Alek VK6AP

Following on from previous discussions, it was agreed that the monthly meeting time will be 2 pm. The club will look at ways to streamline the meetings, so that we complete them in under an hour. It is intended that there will be more time for the social part of the meeting. This should also include a short talk by a club member or an external speaker.

Recognising that the club has a growing number of members in the wider south-west region, the club decided to hold four meetings a year outside of Bunbury. These will be in February, May, August and November. Shaun VK6FSAP is arranging the venue for the August meeting in Busselton. Other meeting locations could be Manjimup, Collie, and Harvey. Given the changing demographics of club membership it was decided that it be informally known as The Bunbury Radio Club - supporting south-west regional radio enthusiasts.

A small contingent will travel to the NCRG Hamfest in August to represent the club and hopefully sell a few items surplus to requirements - according to one wife we will probably return with more than we took!

Any south-west based amateur is more than welcome to join and participate in our activities. The annual fee is only $25.00. Hams wishing to join can contact the club via our Secretary Brian Andrews VK6TGQ on 0403 975 953 or *vk6brc@wia.org.au* Also if passing through put out a call on our repeaters on 146.650 MHz or 438.650 MHz.

Thanks Norm, keep up the good work down there.

A return to the fold this month, Michelle VK6MLW from the **Peel Amateur Radio Group** (PARG) with an update.

International Museums Weekend – Peel Amateur Radio Group VK6ARG

On the weekend of 21st June PARG participated in the International Museums Weekend at the Shipwreck Galleries in Fremantle. We are pleased to say that we had a very good day at the Galleries once again, despite the poor weather which deteriorated after lunch and forced us to draw stumps earlier than we would have liked.

We arrived at approximately 8.30 am for set-up. The day started off with the sun shining and not too windy, but with us knowing that there were storms forecast for the day. By 9.30 am we were able to set up our communications trailer in the dry, and waterproof the operating positions before the rain set in. We managed to make quite a few contacts on both VHF and HF even

with the weather starting to set in. By midday the storm had hit with a vengeance. At 12.30 pm we were treated to the sight of a waterspout which formed offshore and adopted the classic funnel tornado shape as it stretched from sea level into the cloud base. It tracked inland to the south of us, making landfall somewhere between Coogee and Rockingham. The rain then came in and we sat and waited undercover until it had passed. We could not make many contacts as the storm was so loud we could not hear much at all, so we all sat drinking tea and coffee and having a chat with the members and the few visitors that dropped in for cover.

At approximately 2.30 pm the next lot of storms were starting to develop, so after a great lunch of fish and chips and many warm cups of tea, we took this as a sign that things were not going to improve weather-wise, and so we broke camp and departed at about 3.45 pm.

During the day we made 20 contacts across Australia, and 13 more worldwide, four of which were into the United Kingdom. We also welcomed several visitors who had heard of the event through our WA news broadcasts, together with a sprinkling of tourists who simply wondered what we were up to.

As usual the Shipwreck Museum had generously supplied us with all the power we needed, toilet facilities and free parking, which was very much appreciated as the power let us keep the kettle hot and of course run our radio gear!

Sounds as though it was an eventful day! Thanks Michelle. Also from the **PARG**, a sad SK notice:

Norma Watson VK6PNS passed away on Thursday 10 July after a long illness. Norma had been a member of the PARG for 25 years, during which time she served as secretary and president and she was made an honorary member in 2010.

JOTA was one of her loves, and she would spend hours talking to Guides and Scouts around the country, and we would keep the cups of tea coming.

Norma was also a long serving member of the Mandurah SES, as a welfare officer feeding the troops in the field and at HQ. She was also an accomplished operator in the communications section. Norma also monitored for the local sea rescue group in its early days at Mandurah and for the Exmouth group when they headed north for the winter.

Norma was a good friend and a highly valued member of the Peel Amateur Radio Group, she kept us on the straight and narrow. RIP Norma Watson VK6PNS.

The Peel area also lost one of amateur radio's gentlemen Lyle Patison VK6ALU. See full notice on page 15.

News from **HARG - The Hills Amateur Radio Group**

The HARG AGM was held on Saturday, 26 July at the clubrooms in Lesmurdie. The meeting was well attended with 20 members enjoying hot dogs in rolls at 1.00 pm followed by a successful AGM at 2.00 pm. The new office bearers for 2014/2015 are as follows:
President: Miles Burke VK6MAB
Vice President & Webmaster: Martin Stretton VK6ZMS
Secretary: Richard Grocott VK6BMW
Treasurer: Cliff Bastin VK6LZ
Publicity Manager: Bill Rose VK6WJ
Technical Officer: Craig Lamb VK6FLAM
Shack Manager: Allan Wood VK6AN
QSL Manager John Hawkins VK6AU
Committee Member: Ian Cook VK6PXF

Thank you to all those members who have volunteered their time and expertise to help run their club for the next twelve months. A special welcome back to Richard VK6BMW who served in various positions on the committee for many years over the life of the club but who took a well-deserved break from official duties over the last few years. Richard's experience will be invaluable as the club grows in the future. Welcome back also to John VK6AU who was one of the founding members of the club over 30 years ago.

The new committee is keen to hear suggestions from members and others for practical activities and technical talks at future meetings. The official contact point for the club is *secretary@harg.org.au* or PO Box 367, Kalamunda. WA. 6926. The club has an 'Anniversary Shield' which is used to record the names of those members who have worked particularly hard for the club in recent years. Richard VK6BMW's name was engraved in 2009 and I was very surprised and embarrassed at the AGM to be told that the recipient for 2014 was a 'Bill Rose VK6WJ.'

HARG meetings are held twice a month at our club rooms near the corner of Brady and Sanderson Roads in Lesmurdie. Our social and practical meeting is held on the second Saturday of the month and our general meeting, often with a technical talk, on the last Saturday of the month. Doors open at 1.00 pm for a barbecue lunch and the meeting starts at 2.00 pm. More information at *www.harg.org.au*

Cheers and 73 until next time from Bill VK6WJ, Publicity Manager for HARG.

Thanks Bill and good luck to the new committee.

It's a busy month this month, news from the Scouts as well!

Scout Radio and Technology Camp - from Bob VK6POP

In June the Western Australian Scout Member Amateur Radio team conducted a camp for Scouts at the Manjedal Activities Centre south of Perth. The theme of the camp was Radio and Technology. The program was based on a similar activity conducted in South Australia, brought to us by Sam VK6KSA. 48 scouts and 15 adults registered

and arrived on Friday evening, and were settled into the bunkhouse, given a warming meal and introduction to the camp, then settled in for a movie.

The activities began Saturday morning and continued through to Sunday morning, although we did interrupt the program with eating and sleeping. Scouts were divided into patrols, or teams, of six to eight members. There were six activities, and I'll briefly describe them.

1. The amateur radio activity involved building a mast out of pole and ropes, erecting an antenna, and assembling an amateur radio station.
2. The foxhunt used handheld equipment to navigate a course by locating six electronic foxes in sequence.
3. A radio controlled treasure hunt involved using a handheld radio to receive navigation instructions, and to relay information found at each treasure site.
4. A codes and ciphers activity introduced Scouts to the history of codes and ciphers, the history of the telegraph and used worksheets to encode and decode Morse messages, and to make and use two kinds of ciphers - those being the Caesar Cipher and the PigPen, or Masonic cipher.
5. An electronics activity saw the scouts build a Picaxe based kit, learning soldering and basic electronic parts. They also built their own programming cable.
6. The final activity was plugging the electronic project into a computer and programming and reprogramming their Picaxe device to make lights flash or to send sounds through a speaker.

All of the activities assisted the scouts to make progress towards gaining up to four achievement badges. We were very pleased with our effort, which was very much assisted by scout people outside of our team who attended and pitched in with the activities. The program is portable and adaptable and can be conducted anywhere, and plans are already being made.

Photo 3: The Scout's workshop.

Well Bob you and the Scouts have certainly been busy.

Finally this month the **NCRG** gets a go.

Well there isn't actually a lot to report, Hamfest has consumed our time so I'll do a full report in next month's magazine.

One thing I do have to report is the passing of a club member Graeme Wilson VK6BSL, after a long illness.

Ed: See Silent Key Notice on page 58.

More next month, so keep the reports rolling in, remember deadline is two days before the end of the month.

73 Keith VK6RK.

Coming Events

SUNFest Sunshine Coast Amateur Radio Club Hamfest	13 September
Shepparton and District ARC HAMFEST	14 September
MWRS Flagpole Contest	20 - 21 September
The Townsville Amateur Radio Club Cardwell Gathering	3 October
JOTA/JOTI	18 - 19 October

VK7news

Justin Giles-Clark VK7TW
e *vk7tw@wia.org.au*
w *groups.yahoo.com/group/vk7regionalnews/*

Both Rex VK7MO and the author attended and both presented at another successful GippsTech at Churchill in the Latrobe Valley, Victoria. A huge thank you to the Eastern Zone ARC and convenor Peter VK3PF who put on a great weekend. The author was privileged to help Rex VK7MO on the Friday and Saturday nights with 24 GHz and 10 GHz EME (also assisted by Dave VK5DG) contacts with Al Ward W5LUA.

We can also report that the small team consisting of Peter VK3PF and the author have completed the mapping and checking of candidate summits for the Summits On The Air - VK7 Association and submitted them to the SOTA team in the UK. We ended up with 695 summits pending final confirmation. We split VK7 up into eight regions – north west, north central, north east, west coast, central highlands, east coast, south west and south coast. Dependent on the height of the summit there are score points for activation with bonus points for summits over 1200 metres between 15 June and 14 October each year. We hope to be able to bring you more news about when VK7 will go live in the near future.

Photo 1: Rex VK7MO setting up for a 24 GHz EME contact before GippsTech. Photo courtesy of Justin VK7TW.

Repeater and IRLP node news

Hayden VK7HA reports that VK7RTC on Mt Wellington has been experiencing outages due to severe winter weather caused by masts snapping due to ice build-up and greater than 100 km/h winds! I am sure by the time this goes to print these issues would have been resolved. Hayden also reports that WIA and VK7 Regional News broadcasts are now being rebroadcast on a Tuesday night from 8 pm on VK7RTC and VK7RML on Mt Lloyd in the Derwent Valley.

IRLP Node 6739 on repeaters VK7RAD/RHT has been updated to an IRLPi using a single board Linux computer called a RaspberryPi. This substantially reduces the power consumed by the IRLP node and with no moving parts it should continue to operate for many years. The intention is to also use this node as a broadcast audio file playout node.

Photo 2: REAST IRLP node 6739 using RaspberryPi single board computer. Photo courtesy of Justin VK7TW.

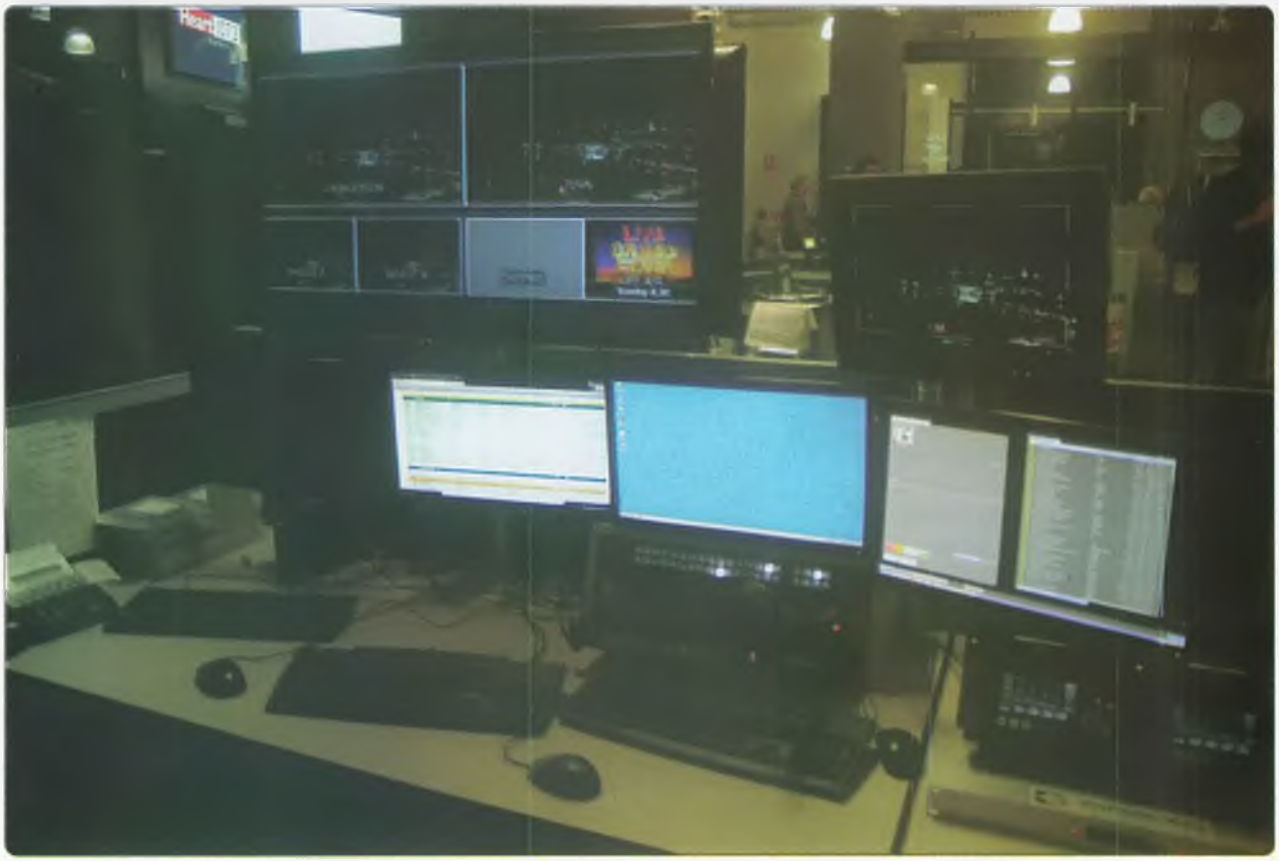


Photo 3: Southern Cross Austereo video ingesting facility. Photo courtesy of Justin VK7TW.

Cradle Coast Amateur Radio Club

At the time of writing the Foundation course being run at the Burnie Scout hall was going very well with three candidates attending. On Saturday 26th July the author presented medium and low frequency amateur band experimentation in Australia and New Zealand. There was a great roll-up and lots of questions from the attendees and so we hope some 630 metre signals will soon be transmitted from the north west of VK7.

North West Tasmanian Amateur TV Group

Tony VK7AX let the author know that he has been experimenting with direct streaming of video for VK7AX nightly broadcasts. Tony suggests this provides higher and more consistent quality and all you need to do it point your video player like VLC to the address: *http://203.24.120.13:8080* Reports to Tony VK7AX are welcome. For more information take a look at the group's web site at: *www.vk7ax.id.au/atvgroup*

Northern Tasmania Amateur Radio Club

Congratulations to Edward (son of Frank VK7DX) and Kevin who successfully passed their Foundation licence assessment recently. Please make them welcome when you hear them on air.

NTARC assisted with communications for the annual Equine Endurance event at Lebrina. The weather was not kind and heavy rain and freezing conditions greeted communications operators and horse riders. 47 riders braved the 80 km ride and 16 riders undertook the 40 km ride. Thanks to Rick VK7RI the NTARC Asst. Community Communications Coordinator for the organisation along with Idris VK7ZIR, Peter VK7KPC, Andre VK7ZAB, Ken VK7KKV, Andrew VK7AAB, Stuart VK7FEAT, Wayne, Yvonne VK7FYMX and Meg and Kay for a constant supply of warming food.

Radio and Electronics Association of Southern Tasmania

Congratulations to Don and Trent who recently passed their Foundation licence assessment and will be sporting new Foundation licence callsigns very soon.
REAST's July visit was a guided tour of the brand new facilities of Southern Cross Austereo in Hobart. The facility houses the Hobart studios of Heart 107.3, SEA FM 100.9 and Southern Cross Television. Our tour was hosted by Steve VK7OO who is senior station technician and started with a presentation on the Axia IP network based audio system from Telos Systems. We then moved through the studios, editing suites, master control, journo area and video ingesting area. A huge thank you to Steve for showing us through this very impressive facility.

Our DATV Experimenter's nights have seen some great show and tell with remote solar powered test equipment, GippsTech wrap-up and pictures, VK3XDK Agile PLL, VK3XDK 10 MHz distribution board, Geoff VK7HAL describing his HF and six metre screwdriver antenna construction from the design by Maurice Jones VK2CD, quietening noisy fans through use of a turbulator and how vacuum fluorescent displays work. Our videos included recent episodes of Ham Radio Now from Gary Pearce KN4AQ and to celebrate the 45th anniversary of the Apollo XI moon landing we were privileged to have a special video from the guys at Honeysuckle Creek tracking station which included both the video and audio from the moon landing including the Net2 communications channel. Thanks to all who contribute to these nights.

Silent Key

Allan Madigan VK2OA

Allan Madigan VK2OA of Wauchope passed away quietly but suddenly on Sunday, 30 June, at his home in Bruxner Ave, Wauchope. Allan, aged 88, had been enjoying good health, and his passing came as a great shock to his family, and to the members of the Oxley Region Amateur Radio Club Inc (ORARC) of which Allan had been a member for the past 17 years.

His working career extended over many decades within what was then the Postmaster General's (PMG) Department. Beginning work at the age of around 15, as a telegraph messenger at Tumut, NSW, he progressively worked his way through the higher ranks as telegraphist, postal clerk grades, and ultimately reached the level of postmaster long before he reached retirement age. Allan retired in the mid-1980s, as the postmaster at Wauchope. In fact, during his lengthy career he served as postmaster at a total of 32 post offices throughout NSW and Victoria.

In his career within the PMG he was a particularly keen and competent telegraph operator, and he entered retirement carrying these acquired attributes with him as a life-long hobby.

During the Bi-centennial celebrations in 1988, Allan participated as a contestant in a Morse telegraphy contest that was organised by the Sydney Morsecodian Fraternity and held at the Wauchope historic theme park, Timbertown. This event attracted many contestants from various communications organisations, including the Australian armed services, from far and wide throughout Australia. It came as no surprise to those who had worked with Allan at the distant end of a telegraph circuit when he emerged from the contest as the overall winner.

Following the contest, Allan joined the local volunteer group, The Friends of Timbertown, participating as an operator of the theme park's Morse Telegraphy Exhibit that was, at that time, installed between the Timbertown railway station and Timbertown post office store.

It was during his activities at the theme park that he came into contact with members of the (ORARC) and was 'enticed' to join. In this club he undertook training to gain his amateur radio licence, first gaining his Standard licence, under the call sign VK2MAI, in 1998. Allan later undertook further training and gained his Advanced licence in January 2000, under the call sign VK2OA.

Allan's love of Morse telegraphy meant that his primary mode of operation on the amateur bands was CW. He utilised this mode almost exclusively in his daily activities within his 'ham shack', keeping daily schedules with many of his old work colleagues who had also gravitated to the hobby following their retirement.

ORARC members, and amateur hobbyists in general, will sadly miss the presence of Allan. Expression of sincere sympathy is extended to his loving wife, Dawn, and the admirable, supportive Madigan family.

Submitted by Trevor Thatcher VK2TT.

Silent Key

Graeme Wilson VK6BSL

After struggling with illness for some time, Graeme Wilson VK6BSL passed away peacefully at his home on 18th July. He was 80 years old.

Graeme was born in Auckland, New Zealand in 1934. He served an apprenticeship as an electrician after which time he went to sea with the merchant navy as ships electrical officer.

Graeme joined the amateur radio ranks in the 1970s as ZL1BSL and I recall working him many times, usually on 80 metres, a band he was particularly fond of and where his interest in home brewing equipment was mostly centred. Graeme loved low power QRP operation and he built dozens of double sideband transceivers. The Practical Wireless magazine became his bible along with the G-QRP publications and some may recall the Chelmsford transceiver, the circuit of which Graeme knew off by heart. He was usually on air participating in the NZART 'Sangster Shield', an annual CW contest in ZL, QRP section of course!

On my arrival in Perth in late 1988, I was surprised to hear Graeme on 80 metres with his new callsign VK6BSL. He had made the move the previous year to join his family in Perth. He was still using his homebrew radios. Now that we were living somewhat closer than when in ZL, I saw Graeme much more frequently and we both became members of the NCRG.

Graeme was always there to help other 'homebrewers' and you could always call him and at any time and ask 'hey mate, would you have a 150 uH RFC or an MPF102 I could borrow'; he had the best junk box in town!

His love of children made him a regular participant in Jamboree On The Air. Nothing was too much trouble while helping the Scouts and Guides make contacts around the world - when conditions allowed. He also made an amateur radio display that was circulated around many public libraries in Western Australia to encourage others to join the amateur ranks, which featured many of his rigs and gadgets he had made; a wind up torch made from a stepper motor and ultra-bright LEDS come to mind.

He is survived by his wife Margaret, a daughter and two sons.

The amateur fraternity has lost a true, down to earth Gentle Man whose motto was 'Build it, get it on the air and make contacts'. Rest well old mate.

Wayne Johnson VK6EH (ex ZL1DP).

Foundation Corner 26

Chasing down interference

Ross Pittard VK3CE

A major part of the Foundation syllabus covers interference that amateur operators may cause to the community at large by incorrectly adjusted radios or antennas. There is another facet of interference not covered in the manual and this is interference that can occur to the amateur radio operator by electrical noise. This can be localised, that is, around the home or sometimes they can affect an entire neighbourhood.

With the widespread introduction of digital television, power pole interference is not always eradicated as quickly as it used to be for the simple reason that DTV is relatively immune to this form of interference. Unfortunately this is not the case for the amateur radio operator and it is possible you are the only person complaining about it. Interference is more obvious to AM or SSB signals but in severe cases it can also affect FM reception.

Photo 1: Example of internal filter installed in most modern equipment.

First we need to determine if the problem is local or affecting a wider area.

If your radio is battery operated try turning off the power to your home at the fuse box. If the problem disappears, try with the power restored, going from room to room and turning appliances off at the wall to further localise the problem. Many appliances are in 'sleep' mode when switched off by the remote control and need to be turned off at the power point for this exercise.

Some likely causes around the home are:

If the interference is intermittent but in a regular pattern try looking for thermostats in fridges, air conditioners, electric heaters or fish tanks. This usually indicates sparking in worn contacts as they open and close.

If the problem is continuous, usually in the form of a ragged buzzing sound, try looking at light dimmers or electric motors. If the interference occurs at regular intervals across an entire HF band it is most likely coming from switch mode power supplies in TVs or computers, not forgetting their monitors. Low voltage lighting is increasingly becoming a problem as most used small switched mode power supplies. Small clip on ferrite beads are available from most electronic shops and may help provided they are placed on the mains cable as close as possible to the entry point of the appliance.

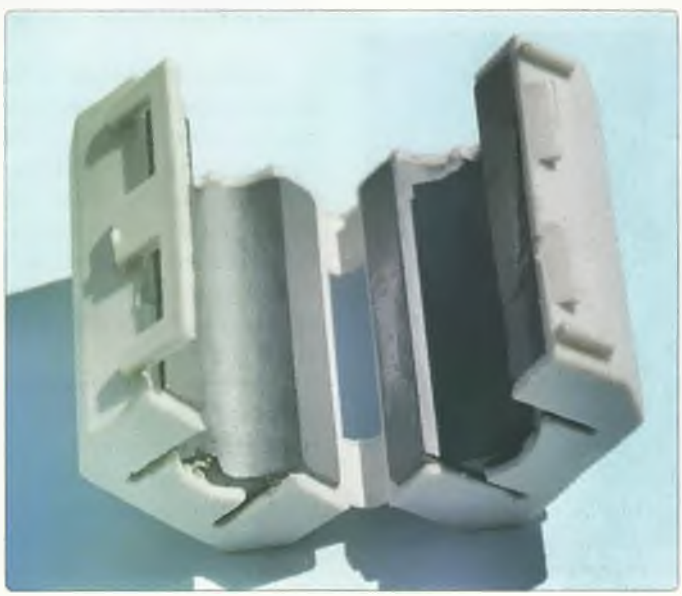


Photo 2: Ferrite opened ready for cable.

All of the above examples are usually localised interference and will usually be heard close to the source. For this reason the source is most likely to be in your own home.

If you have a hand held radio with AM reception on the aircraft band this can be used as a 'sniffer' to localise any source of interference.

Remember once the source of the interference is found under no circumstances should you attempt any internal repair of the

Photo 3: Lightning damaged insulator.

faulty appliance; either replace it or have it serviced by a licensed electrician.

There are two main interference sources outside the home that can affect wider areas of your neighbourhood. The first is power line system faults and more recently the introduction of solar power invertors. There appears to be a number of Chinese inverters that generate oscillations on the 40 metre and 20 metre bands. Discussing this with your neighbours requires a certain degree of diplomacy and any solution is not easy to arrive at but there are avenues available with ACMA to have these problems resolved.

Photo 4: Modern concrete pole and hardware knuckle insulators.

Power line interference can manifest itself in several ways, continuous, sometimes only on windy days or only after a severe dry spell. The main source of interference in the Victorian electricity grid comes from the 22 kV lines. The 240 volt lines do not arc easily and the higher voltage distribution lines are fewer and probably better maintained.

The common problems can be loose pole hardware, cracked insulators, usually the result of a lightning strike, or dirty insulators; this results in a carbon track across the insulator for current to flow to earth. Tracing the whereabouts of faults can be a challenge but the rule of thumb is the higher the frequency the closer to the source of interference you are. If there is arcing on dusty insulators usually after some rain things will be settle down for a while; if the interference is on windy days this could indicate loose hardware. Sometimes the knuckle insulators at the end of the line do not have enough tension on them resulting in the movement of the cable and the knuckle which can result in arcing.

Photo 5: Mount ferrite as close to equipment as possible.

Again, a simple tool for tracking down power faults is the amateur hand held, preferably in AM mode and try the two metre band. If you think you have found the pole try thumping it - if there is loose hardware you will hear a noticeable change in the 'buzz' on your radio.

Fortunately power supply companies have a process for consumers to report interference so try having a look at your providers' web page. Note that the supply company is usually different from the retailer from whom you buy electricity.

Interference to our bands will increasingly be a challenge that all amateurs need to be aware of and not be afraid to bring to the attention of the appropriate agency as soon as possible.

An excellent source of information on interference is provided by the US Navy Training Authority and can be freely downloaded at Reference 1.

Photo 6: Old timber pole with loose cross arm supports.

Photo 7: Pole hardware damaged by lightning.

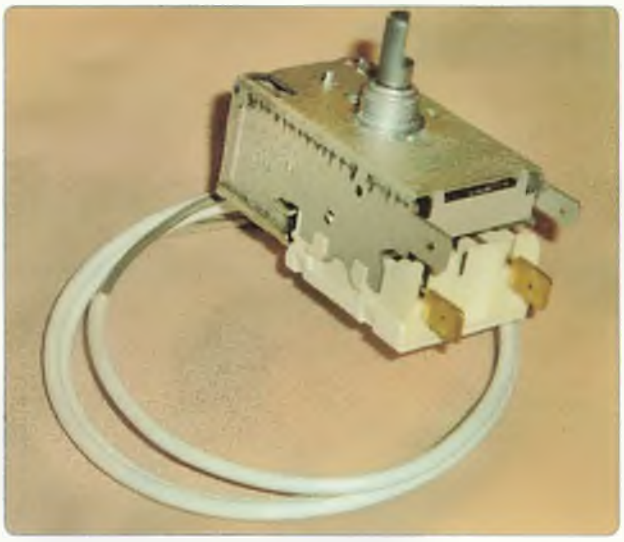


Photo 8: Typical fridge-freezer thermostat.

Reference

1. *http://www.arrl.org/files/file/Technology/pdf/ExternalNoiseHandbook.pdf*

Hamads

WANTED - NATIONAL

Seeking information about Amateurs who served

The official badge of the RAAF Wireless Reserve authorised in 1935.

On behalf of the History and Archive Committee, I wish to thank all who have made contact and/or passed on information about amateurs who were involved during the various conflicts. I also wish to thank those who have prepared material and articles for possible publication in AR or on our website. So far articles have been received from Deane VK3TX, Lloyd VK5BR and Jim VK3PC and not to forget the contributions from members of the committee. A great range of topics is currently in the pipe-line but we still have many gaps, particularly relating to the more recent conflicts.

We are also lacking information about amateurs who were involved with the Coast Watchers although they are often referred to in books and stories about the coast watching activities in the New Guinea area during WWII. To date only a few involved can be confirmed as licenced amateurs prior to the war however, it could also be that some held licences in countries other than Australia. We only have Australian records to work with, so if you do have any leads in this area, the committee would be pleased to hear from you.

Another area of interest is that of amateurs performing specialist tasks during the wars. For example, during WWII some form of Civil Defence communications network seems to have existed in VK2, VK5 and VK6. Presumably similar groups existed in other states. Can anyone help with information relating to these sorts of activities?

We would also like to know how many amateurs operated their station as an official monitoring station during the war. A 1951 South Australian newspaper cutting was recently received from Helen Burt (Daughter of Ron Burt VK5NON (later VK5ON) and Grand Daughter of Chas. Othen VK5ON). The newspaper report stated that: "G.B. Ragless VK5GR and I. Thomas VK5IT gave outstanding service on important observation duties for the security services in connection with monitoring illicit transmissions and other signals of enemy origin". Can anyone help out with more information about this sort of "amateur" activity during the war?

Keith VK4MMC, QTHR was with the RAF in Aden and would very much like to hear from others who served there, particularly if they were in the RAF.

Please forward comments or material for this project to the History and Archive Committee c/o the WIA Office or contact the WIA Historian, Peter Wolfenden VK3RV via email *vk3rv@wia.org.au*

FOR SALE – VIC

Linear amplifier for the 10, 11, 12 and 15 metre bands, 200 watt PEP, top performer, $80.00.

MFJ-1899T portable telescopic antenna covers 80 metres to 2 metres, $60.00.

Super RM80S 80 metre resonater to suit Hustler 4BTV-4 and 5BTV-5 verticals, hardly used, excellent condition $50.00.

Contact Stan VK3BNJ on 03 9743 6708.

WANTED – NSW

Systron Donner 6241a, 6242a, 6243a and 6244a frequency counter, for parts. In particular 40 pin LSI chip SD055095. Let me know what you have.

Contact Chris VK2CY on email *vk2cy@wia org.au* or phone and leave message on 02 9763 1407.

FOR SALE – NSW

FT-1000MP HF dual 100 watt transceiver with matching FL-7000 kW linear amplifier. Both have inbuilt ATU's. $2,500 the pair.

Three element Wilson tri-band beam with 10 metre four section tower with rotator and remote controller, $600. Or $2,750 the lot.

Contact David VK2AYD near Port Macquarie on 02 6585 2647 or *dvdplly@midcoast.com.au*

Shack clearance. Yaesu FT-301 12 volt transceiver, make an offer.

HP1710B 200 MHz oscilloscope. One channel not working but other is perfect. Free to a good home.

Contact Arthur VK2DKF QTHR on 02 4739 8695 or email *arthur.forster@bigpond.com*

FOR SALE – SA

The VK5JST Aerial Analyser (*AR* May 2006). Over 10,000 built, and still available from the Adelaide Hills Amateur Radio Society.
For full details see *www.ahars.com.au*

ADVERTISERS INDEX

Contributions to *Amateur Radio*

AR is a forum for WIA members' amateur radio experiments, experiences, opinions and news.

Your contribution and feedback is welcomed.

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WIA Functional Committees

The WIA is a membership organisation with a very wide range of complex functions and member services. Core functions and services are administrative in nature (general administrative functions, membership services, examination and callsign management, financial etc...) and are performed by salaried staff.

Volunteers perform a diverse range of highly specialist functions (ACMA liaison, Frequency Co-ordination, Standards liaison, Interference issues, technical support and training and assessment etc.). These volunteers provide the majority of member services, however they have been loosely organised and often overstretched.

The new committee system attempts to structure the WIA's non-core activities into 10 broad functional areas, each comprising a team of volunteers under the direction of the WIA Board. This structure is intended to spread the workload on our volunteers, improve communications between members and the WIA Board, improve services to members, and encourage more people to become involved in the WIA.

WIA Committee Charters

Spectrum Committee

(Regulatory, ACMA, ITU, IARU, Repeaters & Beacons, Standards, Interference & EME, Monitoring Service)
Geoff VK3AFA, Phil VK2ASD (Director), Peter VK3MV, Roger VK2ZRH (Director), Brian VK3MI, Dale VK1DSH, Peter VK3APO, Richard VK2AAH, Gilbert VK1GH, Rob VK1KRM, Noel VK3NH, Doug VK3UM

- Perform all ITU and IARU liaison activities.
- Liaise with, and act as the 1st point of contact for, the ACMA.
- Advise the Board, and enact Board policy in relation to all radio communications regulatory issues and the LCD.
- Represent the WIA to State and Local Government
- Represent the WIA to Standards Australia
- Provide specialist technical advice and coordinate repeater and beacon licence applications and frequency allocation.
- Develop responses to significant and prolonged harmful interference issues affecting amateur radio operations.
- Provide an information resource for EMC/EMR issues.
- Administer the IARU Monitoring Service in Australia
- Provide a technical resource to other committees and the WIA Office.

Technical Advisory sub-Committee (Tech support, Band plans etc.)

John VK3KM, Doug VK3UM, Rex VK7MO, Paul VK5BX, Walter VK6KZ, Barry VK2AAB, Bill VK4XZ, Peter VK3PF, Paul VK2TXT, Peter VK1NPW, John VK1ET, Peter VK3BFG, Eddie VK6ZSE, Peter VK3APO

Administrative Committee

John VK3PZ (Treasurer), Greg VK2GRJ (Assistant Treasurer), David VK3RU (Secretary), Mal VK3FDSL (Office Manager), Phil VK2ASD (President), Chris VK5CP (Vice President)

- Responsible for the efficient and correct operation of the WIA office.
- Responsible for staffing and workplace safety.
- Provide a specialist administrative resource to the WIA office as required.
- Manage contractual agreements.
- Manage business relationships.
- Ensure compliance with the ACMA Business Rules
- Prepare yearly budgets
- Prepare quarterly financial reports for the Board
- Prepare independently reviewed YE financial reports and balance sheets for circulation to the membership prior to each Annual General Meeting.
- Manage insurances and to be responsible for currency of insurance policies.
- Maintain a complaints register.
- Ensure complaints are handled in accordance with WIA policy and any contractual agreements.

Affiliated Clubs Committee

Ted VK2ARA, Mal VK3FDSL (Office Manager), John VK3PZ (Treasurer), Phil VK2ASD (Director)

Communications, Marketing, Publications and AGM Committee

Robert VK3DN (Director), Phil VK2ASD (Director), Jim VK3PC, Graham VK3BB (Broadcast), Roger VK2ZRH (Director) Publications sub-Committee (AR Magazine, Callbook etc): Peter VK3PF (Editor AR), Peter VK3PH (Editor Callbook), John VK3PZ (Treasurer), Emie VK3FM, Peter VK3AZL, Evan VK3ANI, Ewan VK3OW, Bill VK3BR

- Communication with members and the public:
- Communicate with the membership.
- Publicise WIA activities and initiatives.
- Develop strategies and resources for the promotion of Amateur radio to the public.
- Develop strategies and resources for the promotion of WIA membership to the Amateur community.
- Supervise and/or perform promotional activities.
- Co-ordinate the yearly AGM activities

Education Committee

Fred VK3DAC (Director), Owen VK2AEJ, Ron VK2DQ, Mal VK3FDSL (Office Manager)

- In association with the WIA's RTO and affiliated clubs offering training services, develop and administer the WIA's training and assessment systems.
- In association with the Spectrum Strategy Committee, develop and maintain the various licence syllabi and associated question banks.
- In association with the Community Support Committee and the RTO, develop and maintain the Emergency Communications Operator scheme.
- Ensure the confidentiality and security of all personal information, question banks and examination papers.

Radio Activities Committee

Chris VK5CP (Director), Geoff VK3TL

Contests sub-Committee

Alan VK4SN, Denis VK4AE/3ZUX, John VK3KM, Tony VK3TZ, Kevin VK4UH, Colin VK5DK, James Fleming VK4TJF

Awards sub-Committee

Bob VK3SX, Marc VK3OHM, Laurie VK7ZE, Alan VK2CA, Alek VK6APK, David VK3EW, Paul VK5PAS, ARDF sub-Committee: Jack VK3WWW, ARISS sub-Committee: Tony VK5ZA

- All activities associated with actual radio operation, such as: contests, awards, distance records, QSL services, ARISS, AMSAT, ARDF etc.

QSL Card sub-Committee

Geoff VK3TL, Alex VK2ZM, John VK1CJ, Max VK3WT, Ray VK4NH, Stephan VK5RZ, Steve VK6IR, John VK7RT, Craig VK8AS

Historical and Archive Committee

Peter VK3RV, WIA Historian, (Leader), Drew VK3XU, Linda VK7QP, Martin VK7GN, Ian VK3IFM, Will VK6UU, David VK3ADW, Jennifer VK3WQ/VK5ANW, Roger VK2ZRH (Director)

- Develop, maintain and preserve the WIA's historical and archive collection
- Encourage access to the collection by WIA members and those seeking historical material for publication.

IT Services

Robert VK3DU (Director), Tim VK3KTB

- Provide an IT resource to other committees and the WIA Board.
- Be responsible for the off-site data back-up of all IT systems information.
- To update and maintain the WIA website as required.
- Advise the Administrative / Financial committee in relation to the MEMNET Cloud Service contract.

Community Service Committee

Fred VK3DAC (Director), Greg VK2GRJ (Assistant Treasurer), Ewan VK4ERM (Director), Paul VK5PH

- Develop, promote and co-ordinate all WIA community support activities

New Initiatives

Phil VK2ASD (Director), Robert VK3DN (Director), Roger VK2ZRH (Director), David VK3RU (Company Secretary)

- Think-tank ideas and initiatives to advance amateur radio and WIA membership.
- On approval by the Board, run proof of concept trials.

Club Grants sub-Committee

Reg VK7KK, Peter VK3KCD, Bill VK4ZD

- Manage all arrangements between the WIA and WIA Affiliated Clubs
- In cooperation with the Administrative / Financial committee, manage the Club Insurance Scheme
- Encourage stronger relationships and communications flow between the WIA and WIA Affiliated Clubs
- Encourage increasing WIA membership ratios in Affiliated Clubs
- Manage the Club Grants Scheme
- Identify and bring regional Affiliated Club issues to the attention of the WIA Board.

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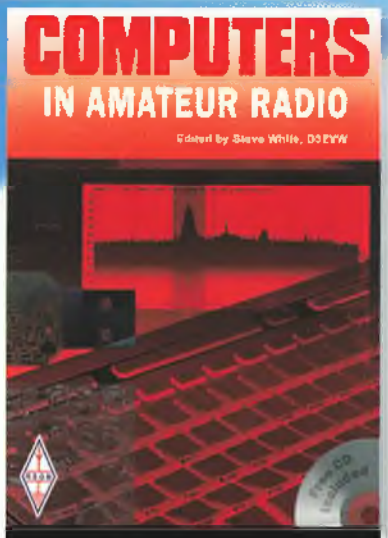

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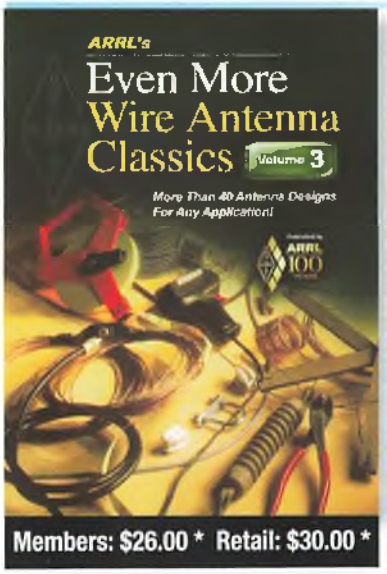

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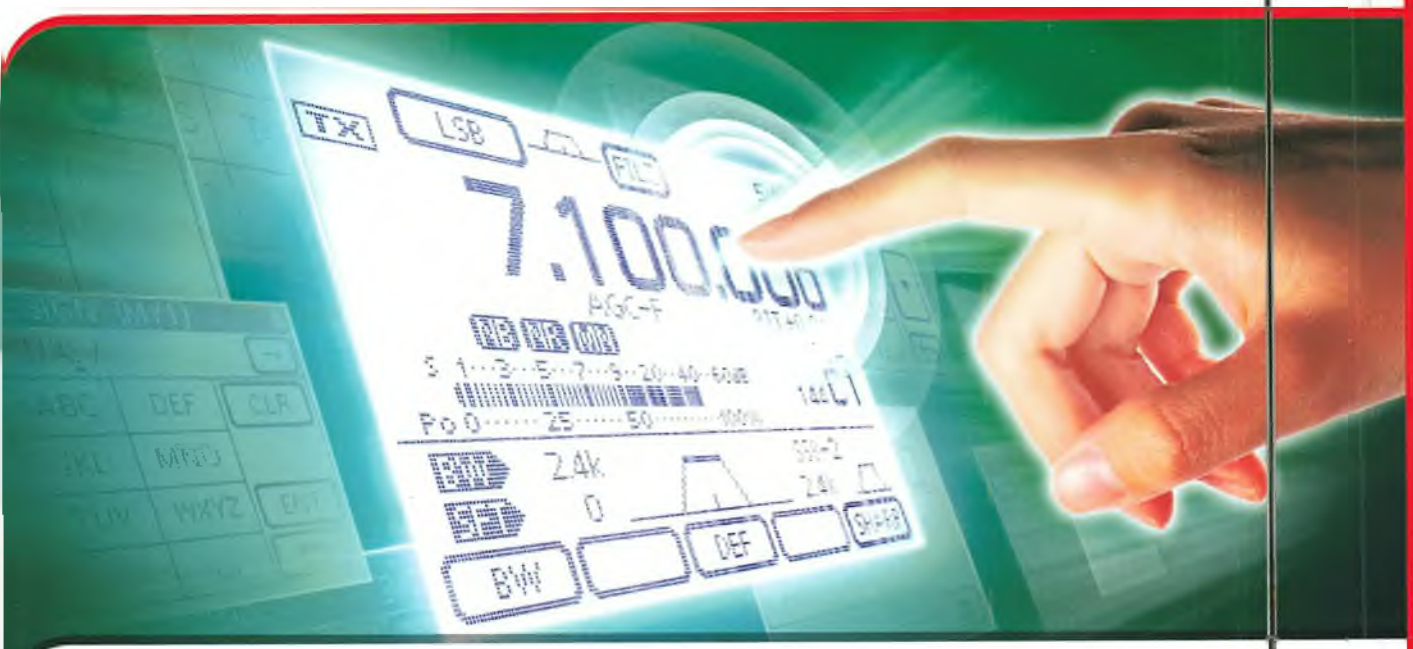

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