

# Amateur Radi

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## ARDF in Mongolia

In the land of Genghis Khan



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11



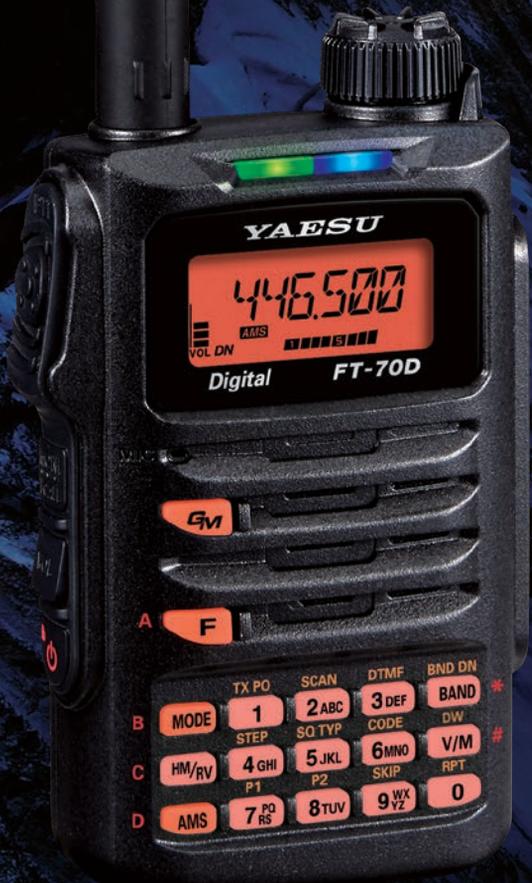
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# Amateur Radio

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## General

**Amateur Radio from a retirement estate** 12

Paul Roehrs VK5NE

**ACMA Inspector inspecting my J-Pole** 16

Carsten Bauer VK6PCB

**STEAMing ARDF** 17

Jack Bramham VK3WWW

**International ARDF Competitions 2017** 18

Jack Bramham VK3WWW

**Winter 2017 VHF-UHF Field Day results – bingo!** 24

Roger Harrison VK2ZRH

**IARU Liaison Report #5** 59

Jim Linton VK3PC

**WIA QSL Bureau** 61

John Seamons VK3JLS

## Technical

**A 35 to 4400 MHz Signal Generator** 6

Jim Henderson VK1AT

**Use for a Bread Bag Clip** 60

Peter Parker VK3YE

## Columns

ALARA 46

Board Comment 3, 5

Contests 22, 24

WIA Awards 34

DX Talk 36

Editorial 2, 5

Hamads 63

Silent Key 58, 62, 63

SOTA & Parks 27

VHF/UHF – An Expanding World 29

WIA News 4, 16

VK2 News 42, 55

VK3 News 41, 53, 57

VK5 News 44

VK6 News 38



### This month's cover:

The Australian contingent at the Eleventh IARU Region 3 ARDF Championship in Mongolia pictured in local costumes in front of the large statue of Ghengis Khan. L to R: Kristian VK3FDAC, Peter VK3ADY, Jenelle VK3FJTE, Ewen VK3OW and Jack VK3WWW. See the story starting on page 18. Photo supplied by Jack Bramham VK3WWW, photographer not identified.

## 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

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### 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.

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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.

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## Editorial

Peter Freeman VK3PF

### Technology advances and the “joys” of noise

We all know that technology advances and that suppliers/retailers will sell anything that they believe will give them a profit. Combine these factors with a lack of tight regulatory conditions and we see potential impacts on the noise floor, especially in urban environments where one has many neighbours with many devices in their homes. One often hears comments on air about “plasma TV noise” and other QRM sources.

I seem to have had one noise recently disappear. One consistent but long term interference source here was the ADSL modem, which produced a birdie at 7.100 MHz. If a station that I was chasing was at a low receive level here, I would turn off the ADSL modem. Often that was sufficient to be able to complete a contact with the station that I was chasing. Back in mid-March, NBN became available in the local area. I initially declined invitations to sign up for the new service, delivered here as Fibre to the Node (FTTN). Part of the delay was that I had been reading accounts of interference to amateur communications due the VDSL technology used for FTTN. I was aware that the traditional “landline” service delivery would eventually be withdrawn, so telephone and ADSL internet services would no longer be an option. This withdrawal of the older technology is reported to occur within 18 months of the commencement of availability of NBN services.

This all sounds reasonable. I voiced my concerns with my ISP on a couple of occasions about potential interference which might affect my hobby – amateur radio.

I recently finally made the decision to move to NBN, knowing that the decision would eventually be enforced. It took a couple of weeks for all the arrangements to fall into place. Almost three weeks later I was connected via the VDSL technology at a much higher download speed than previously experienced. Initially, all seemed to be good.

Expecting some delays in restoring all services, I was not initially concerned that the telephone service was not working. I later called the ISP support staff who assisted me to change the modem settings so that the telephone worked, now over VOIP.

One minor issue a couple of days later was that my main PC was suddenly experiencing very slow internet connectivity. The tech support team at the ISP was very helpful, sending me a series of tests to conduct. The results were poor on the “main” PC, but excellent on another PC. Logic suggested an issue with the PC. The tests indicated a marginally acceptable upload speed, so I have just received a new modem to try – on the list of tasks for tomorrow.

This all sounds okay. BUT, whenever the modem is switched on, I have S5-6 noise across the whole 40 m band! Occasionally, transmitting on 40 m will cause the modem to drop out and reset, requiring several minutes to reconnect the various services. My solution for chasing weaker portable stations (SOTA and/or Parks Activators) is to actually turn off the modem – and the noise disappears.

Continued on page 5



# Board comment

Justin Giles-Clark VK7TW

## Volunteering opportunities abound

In 2016, Volunteering Australia commissioned a major research report on the state of volunteering in Australia (1). The report confirms statistics from the ABS that found volunteering rates declined for the first time in 20 years.

More than 95% of the WIA's work is undertaken by volunteers and volunteer committees. The committee structure is currently being reviewed and over the next few months many committee opportunities will be advertised. The research from Volunteering Australia is being considered to ensure we use best practices to attract and match the right roles with the right skill sets and provide not only solutions for the WIA but also opportunities for the volunteers.

The research identified that there was a major disconnect between the volunteering roles that people are interested in and the roles that organisations are offering. Systems are needed to make better connections between organisations and these volunteers. The WIA is addressing this through the development and advertising of Role Descriptions that enable it to match volunteers with the skill sets required.

In the research, 46% of volunteers undertook volunteering in the last 12 months. The WIA is looking for teams of volunteers to address single point sensitivity and will provide flexible support structures for volunteers.

One finding of concern is that 86% of organisations involving volunteers are struggling to get the volunteers they need, with

volunteers deterred by factors such as personal expense, onerous compliance requirements, red tape and a lack of flexibility. A positive result from the research includes that 99% of current volunteers indicated they intend to continue to volunteer in the future.

The WIA is looking to reduce red tape and administrative overheads, provide easy insurance coverage and promote virtual volunteering where possible (e.g., helpdesk function and video conferencing) and where reasonable, cover out-of-pocket expenses. The WIA is also willing to consider how it breaks down barriers that may inhibit volunteers from helping the WIA.

Many volunteers are not getting timely responses from organisations and this is deterring them from volunteering. This is one reason why the WIA is using Seek Volunteer (<https://www.volunteer.com.au/>) as this allows a more timely response and contact to be maintained with the volunteer pool. Online recruitment linked with social media was identified as the preferred method of recruitment for a high percentage of volunteers. Other engagement mechanisms are being developed to ensure a pool of suitably skilled volunteers is available.

The WIA has had some recent success with the Strategy Advisory Committee, Privacy and Complaints Team and QSL positions and is about to advertise many more roles. I encourage you - members and non-members - to take a look at the roles as they are advertised and to seriously consider how your skill set matches that being sought.

It is good to see that the recent

Board decisions on *AR* magazine are being discussed on various forums. The first decision to move to six issues a year from January 2018 will enable the Board to start to address the WIA's financial situation. It also provides an opportunity to transition the content in the magazine. The second decision the Board took was to ask the Strategy Advisory Committee to start engaging with the membership and Amateur Radio community on a revitalisation of *AR* magazine. There are many ideas flowing in about how to improve the magazine, make it more engaging to a wider audience, provide a range of different formats and media, and attract and harness higher levels of advertising and revenue. This second revitalisation phase is on a longer time frame with a number of stages and proof of concept steps in the mix.

The Board is also undertaking a discovery process and is asking each of the existing WIA committees to outline its role, composition, activities and contributions. This will enable the Strategy Advisory Committee to analyse the current organisational and governance structures and see how they fit into the future. This is all about making the organisation more effective and efficient with a principle that if it is not broken and it fits with the new structures then we won't be "fixing it"! However, there are some principles we are employing along the way, these include: addressing single-point sensitivity, clarifying Terms of Reference, getting a diversity of membership views from the widest demographic possible and spreading (and balancing) the administrative load.

The Board is always focused on improving the membership situation

(1) <https://www.volunteeringaustralia.org/research-publications/stateofvolunteering/>

Continued on page 5

## Reinvention of Amateur Radio

Lack of growth in radio amateur numbers, and how to make Amateur Radio attractive and relevant to young people, is very much on the minds of many International Amateur Radio Union (IARU) member societies, including the Wireless Institute of Australia (WIA). A common practice is for any organisation, commercial or otherwise, to reinvent itself about every 10 to 20 years. Think about this process that happens in the business world, and with community and social activities.

In Australia, we introduced the Limited licence – fondly dubbed the Z-call, after the first callsign suffix block issued – then the Novice, and later, the Foundation licence. These responded to the need for reinvention in their eras. That time has come again, only more quickly, driven by the exponential growth in technology. A few years ago, the WIA began work with the regulator, the Australian Communications and Media Authority (ACMA), to plan a future for Amateur Radio. Recently, the WIA consulted widely with members and non-members on the future Licence Condition Determination (LCD). A review and reform of the LCD is now expected to begin soon, to be finalised in 2018. Keeping in mind that a new LCD could remove the barriers that hamper the use of existing and future technologies, we must also broaden the scope of Amateur Radio to make it an obvious choice for today's tech-savvy young people and for future generations.

It's time for current radio amateurs to more than ever think about the future, and take action to recruit technically-minded or inquisitive people interested in exploring what the dynamic and diverse activities Amateur Radio offers now, and will continue to

develop in the years ahead.

The recent IARU Region 1 General Conference held a workshop on 'The Future of Amateur Radio', and discussed many things that the WIA has been exploring to make the hobby more attractive and relevant to today's technology-rich society. The Region 1 workshop has provided many ideas from member societies in Europe, Africa, the Middle East and Northern Asia. Reprising the Region 1 initiative, "Attracting youth to Amateur Radio" will be the theme for the late 2018 Conference of IARU Region 3, comprising member societies across Asia and the Pacific.

The WIA agrees with the two challenges that came out of the Region 1 workshop:

- Increasing the inflow to Amateur Radio – particularly from young people
- Making member societies the "must join" organisations for all radio amateurs.

A clear message from the workshop was that, attracting young people needs to be led by young people. This meant that the use of Twitter, Facebook and other social media, for example, must be driven by young people.

At the Region 1 Conference, IARU Region 3 Director, Peter Young VK3MV, spoke about the School Amateur Radio Club Net, showcasing its website ([www.sarcnet.org](http://www.sarcnet.org)) as a resource centre. He also mentioned the STEM – science, technology, engineering, maths – connection to Amateur Radio and how radio amateurs can assist teachers in schools with the technical details and leave the teaching to the professionals. The WIA may consider that things like experimentation, research and pioneering – things Amateur Radio was widely known for once, but now overshadowed by techno-

information overload – could be revived with a broader modern appeal for the hobby.

At the same time, Amateur Radio has to be fun, a way of learning in a classroom setting and through self-learning, and broadened to embrace pursuits such as IT-wireless, radio astronomy, radio control, mesh networks and the like.

The Australian Government's support of innovation, the STEM initiative in education, the newly-launched national space agency, as well as existing Maker activities, are all potential pluses for Amateur Radio. With those dynamic potential changes, Amateur Radio could be a larger and meaningful part of the community, instead of retreating to a fading 'thing' of the past.

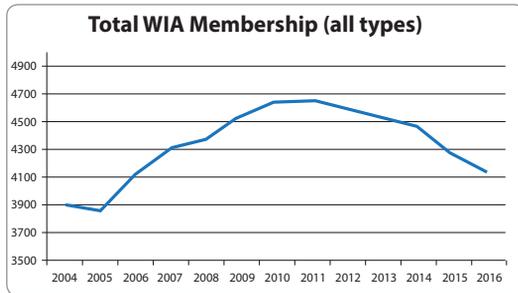
## IARU Watching Wireless Charging Technology

The International Amateur Radio Union (IARU) continues to consider the issue of Wireless Power Transfer (WPT) as it prepares for the ITU World Radiocommunications Conference in 2019 (WRC-19). Agenda item 9.1.6 is about Wireless Power Transmission (WPT) for electric vehicles. It will consider the effect this will have on radiocommunication services, and through harmonised frequency ranges seeks to minimise any impact on existing services.

WPT is promoted as being able to recharge the batteries of electric vehicles that are stationary, or in motion, without a direct electrical connection. Energy is transferred using a wireless link. WPT systems are likely to use high power levels, so they have the possibility of causing harmful interference to radiocommunication.

Continued on page 16

## Board comment Continued from page 3



and as part of this focus it has reviewed past records and activities to inform actions going forward.

The chart above shows the total membership numbers since the creation of the National WIA. The peak of just under 4700 was the result of the successful WIA centenary year in 2010.

The Board is seeing a slow improvement in membership numbers now, but we all need to do much more. The Board is working on developing membership engagement mechanisms that include:

- making amateur radio a more attractive and valued hobby
- discovery of membership

processes, systems and statistics

- analysis of the capability of the Memnet system automation and integration
- refinement of the membership entry and growth processes
- enhancement of the new member process and information packs
- encouragement to gain higher qualification licences
- improvement of the membership renewal, reminder, final notice processes
- identification of lapsed members and initiation of a re-engagement campaign
- review of incentives to join or rejoin
- web and social media campaign to encourage members to rejoin and re-engage
- regular communications with Affiliated Clubs

- regular communications with members via Memnet, *Amateur Radio* magazine and social media.

I would like to take this opportunity to publicly thank Robert Broomhead VK3DN, for his many years of service and dedication to the WIA. Robert has decided to step down from the IT Services role and leaves a substantial legacy that the Board would like to build on and enhance.

To assist in this process the WIA will soon be advertising for volunteers to join the IT Services Committee. The Board is seeking skill sets in Information and Communication Technology including website design and maintenance. The Board realises that the revitalisation of the WIA website, membership and supporting systems is a major and complex body of work. This project will need careful management to ensure ongoing level of service and to introduce new functionality for members.

**Justin Giles-Clark VK7TW** on behalf of the WIA Board.



## Editorial Continued from page 2

Once a contact has been completed, I switch the modem back on and wait for internet services to be reinstated. Not really a satisfactory situation! I have raised these concerns with the ISP. I am not hopeful of a satisfactory resolution soon, given the operating band used by VDSL. I am aware that the RSGB is collecting information from amateurs in the UK regarding VDSL interference.

This is different to a common issue of poorly designed and filtered switch mode power supplies, as the VDSL system uses frequencies up to 12 MHz.

We have also seen reports from overseas of interference from “in-home internet over powerline” or

“Ethernet powerline” systems.

Regulators around the world seem to be willing to allow such equipment to be imported, sold and installed, thereby allowing significant increases in the noise floor, especially in urban environments. All of this bodes poorly for the amateur radio operator, as we appear to be insignificant in the eyes of the regulators; we simply have to suffer increased noise levels.

The IARU and several major member societies have been active in the past in raising concerns regarding intrusive technologies. A notable challenge occurred with regard to Broadband over Powerline (BPL) technologies. A likely battle

coming in the near future will be over the use of “wireless charging” technology proposals, where RF signals from high power generators are proposed to be used to charge electric vehicles whilst they are stationary or in motion. The likely transmitter power levels are sure to be high, thus creating the potential for significant increases above the ambient level of radio frequency “noise”. IARU is already closely watching proposals and developments.

More challenges for all amateurs!

Until next month,  
Cheers,  
Peter VK3PF



# A 35 to 4400 MHz Signal Generator

Jim Henderson VK1AT

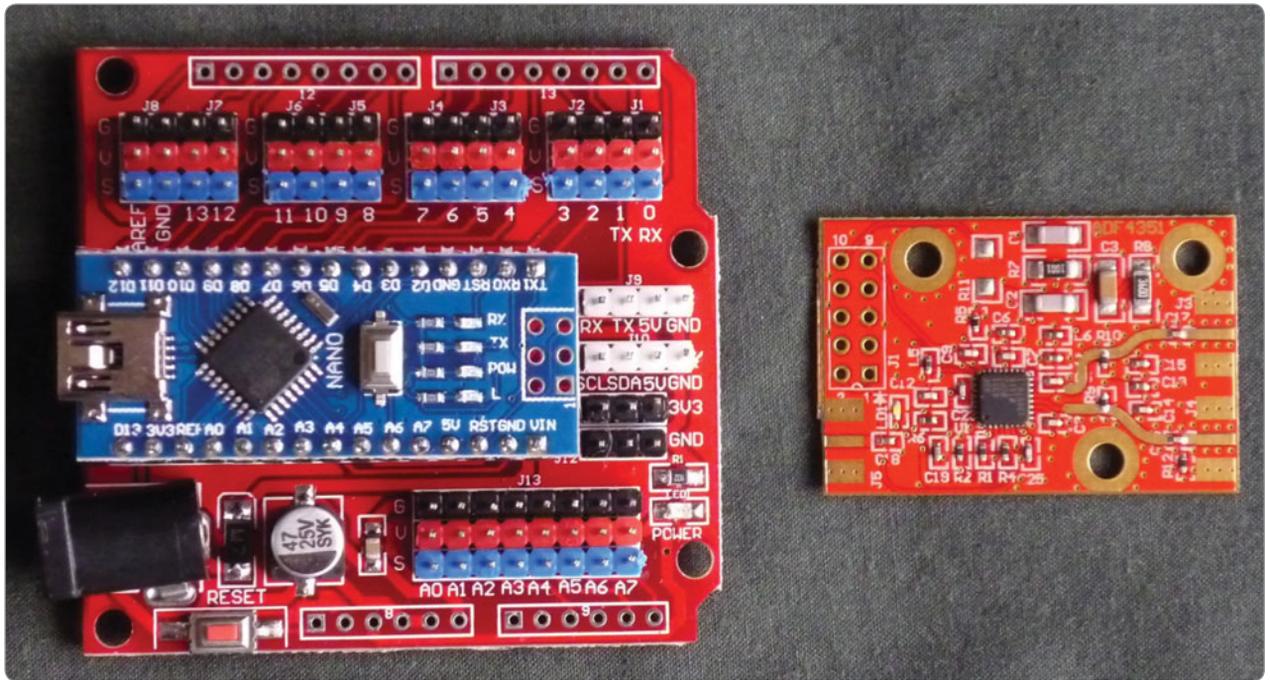


Photo 1: Arduino Nano, Breakout Board and ADF4351 module: Arduino Nano mounted on breakout board and SV1AFN ADF4351 module.

## Introduction

The time had come to replace my aging Hewlett Packard 606 and 608 signal generators. The simple solution would have been to buy a “low cost” commercial signal generator but the cost was more than my budget would allow.

I had previously replaced my HF signal generator with an Analog Devices AD9954 DDS based kit. I selected the AD9954 as it covers the 2 m band but unfortunately it warbles at 2 m which is probably due to the internal VCO which quadruples the external reference clock. It is fine as a signal source for testing components but unsuitable as a signal generator for testing receivers.

I have been following David VK5KK's series of articles in AR discussing the state of the art for microwave local oscillators. The

Analog Devices ADF4351 sounded like a good candidate for a VHF/UHF/SHF signal source covering the frequency range 35 to 4400 MHz. I was also interested in constructing a 2 m SDR transceiver and was looking for a candidate local oscillator (LO). I thought if I built a prototype ADF4351 signal generator, if was not good enough as an LO, it would be fine as a signal source for testing components.

## Signal Generator Components

The ADF4351 has an internal VCO core which operates in the frequency range from 2200 to 4400 MHz. An internal divider (1 to 64 in binary steps) enables the division of the VCO output to produce RF output frequencies ( $F_{out}$ ) in the range 35 to 4400 MHz. The separate

divider which outputs to the phase detector allows VCO RF output frequencies ( $F_{vco}$ ) to be set that are a fraction of the phase detector frequency ( $F_{pd}$ ). Three registers determine the division ratio:

$$F_{vco} = F_{pd} \times (\text{INT} + (\text{FRAC}/\text{MOD}))$$

$$F_{out} = F_{vco}/\text{DIV}$$

Where:

DIV is 1/2/4/8/16/32/64

FRAC is 0 to MOD-1

MOD is 2 to 4095

INT is 75 to 65,535 (with 8/9 pre-scaler set).

The input reference frequency is divided down to the phase detector frequency by a divider which implements an integer division ratio in the range 1 to 1023.

Noting David's comments on the quality of modules purchased through eBay, I searched the web

and found a module designed by SV1AFN. Examining the circuit diagram it appeared to have all the right bypassing, so I purchased two modules at US\$29.00 each. About a week later the modules arrived from Greece.

The module did not include a reference oscillator, which was one of the attractions. It meant I could experiment with reference sources. At some point I would like to try and build a disciplined GPS reference for locking LOs. For the prototype I built a Colpitts Oscillator and buffer amplifier using an 11.25 MHz crystal I had in my box of crystals. If a reference below 10 MHz is to be used, the data sheet recommends a minimum slew rate. A sinusoidal reference may not achieve the required slew rate.

The ADF4351 has a number of programmable dividers and a range of other parameters to set. In total, six 32 bit registers have to be programmed. The registers are programmed via a serial SPI interface. This was a daunting prospect so I searched the web for Arduino libraries to drive the ADF4351. I came across a design for a signal generator with Arduino Uno code to drive the ADF4351 by Alain Fort F1CJN. Using his code as a base, I included additional code to calculate the divider values given a defined reference frequency and variable frequency step and output frequency. I replaced his operator interface code with my own keypad entry and LCD display code based on Arduino libraries. As I have a stock of Arduino Nanos (\$4 on eBay) I modified the code to operate on a Nano.

The unit constructed operates from an external 12 V DC source. The ADF4351 operates from a 3.3 V supply and draws around 160 mA. A 3.3 V regulator was constructed using an LM317T adjustable regulator. The Arduino Nano is a 5.0 V device which has an on-board regulator to regulate the input voltage down to 5 V. The three digital outputs in the Nano which interface to the ADF4351 require voltage dividers to step the Arduino 5 V logic outputs to 3.3 V. The Nano provides access to the regulated 5 V supply but I built a separate 5 V regulator to drive the LCD display. The Nano plugs into a Nano breakout board which can be purchased on eBay for around \$4. The Arduino mounted on the breakout board and the ADF4351 module is shown in the photo.

## Operation

When the moment of truth arrived, I was most surprised that a carrier at 432.1 MHz popped up on the spectrum analyser. The output power level is flat from 35 MHz to 1.5 GHz (the limit of my calibrated spectrum analyser). Connecting the output to my uncalibrated microwave spectrum analyser, the module produced an output up to 4400 MHz. The output power level can be configured through setting a register value. With the power level set at the maximum value the measured output at the primary RF output is -1.0 dBm. The module circuit diagram shows the complementary output terminated

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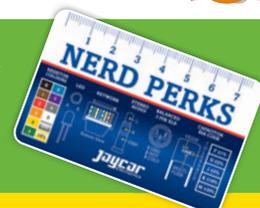
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Photo 2: VHF-UHF-SHF Signal Generator: Signal Generator set to 432.1 MHz, note relative levels of fundamental, second harmonic and third harmonic.

in 50 ohms as recommended in the data sheet. The data sheet states that the maximum output level is 5 dBm in differential mode; consequently the output level is reduced 6 dB when operated single ended.

When operating at 432 MHz, the third harmonic is 10 dB down on the fundamental while the second harmonic is 35 dB down, which is to be expected at the output of a digital divider. If a lower frequency is set and the output is displayed on the spectrum analyser the full spectrum of odd order harmonics typical of a square wave is evident. The square wave output is fine when driving a double balanced mixer, sweeping narrow band pass filters or testing the sensitivity of receivers.

The frequency resolution for the

signal generator is set at 100 Hz. To test the feasibility of using the module as a transceiver LO, I set the resolution to 10 Hz. I connected the output to a 432 MHz receiver (through a 90 dB attenuator). On SSB, a 432.1 MHz carrier sounded like a pure tone. Using an audio oscillator as a reference, I monitored the 1 kHz receiver output as a Lissajous figure on the oscilloscope. The phase stability appears to be similar to that achieved by a conventional multiplier chain using a 12 MHz crystal multiplied to 432 MHz. On the basis of this quick test, it appears that it may be feasible to use the ADF4351 module as an LO without modifying the loop filter or changing the current setup.

I decided not to include an MMIC amplifier internal to the signal generator to boost the output.

The output appears to be very flat across the output frequency range. Preserving this flat response when using a readily available MMIC amplifier across the full output frequency range would be difficult.

To calibrate the frequency output, set the reference oscillator to the reference frequency using the trimmer capacitor. Set a nominal output frequency (say 1000 MHz) and measure the output frequency. With an 8 digit frequency counter connected, the frequency measured will differ from the nominal frequency. To adjust the output frequency, scale the nominal reference frequency set in the Arduino code. This is easier than trying to adjust the reference oscillator frequency using the trimmer capacitor.

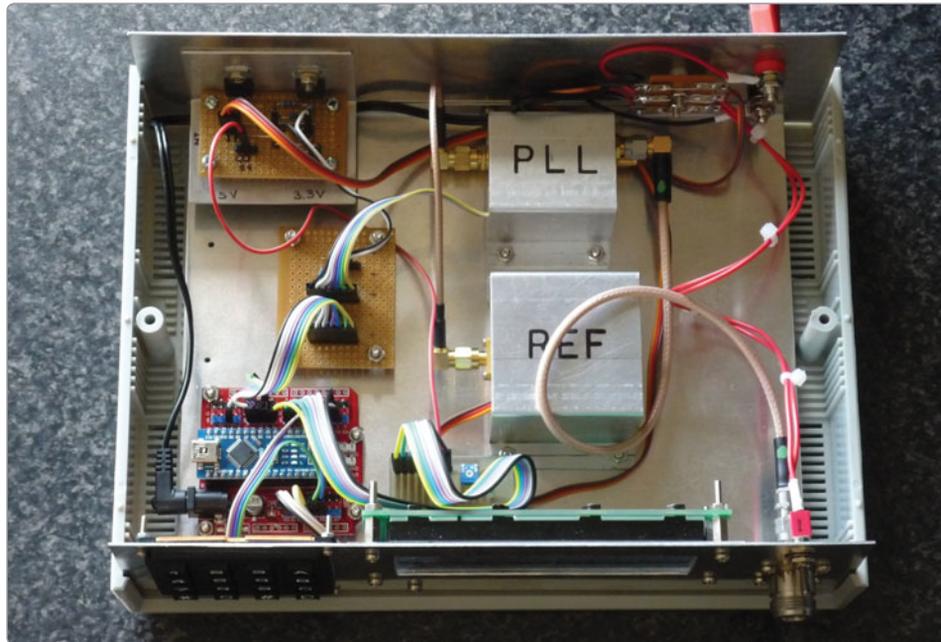


Photo 3: Component Layout: Component Layout in aluminium chassis.

steps). Currently there is no sweep function.

### Construction

The project is constructed in a standard ABS instrument case with an aluminium chassis fabricated to fit in the case.

The regulators, level translator and reference oscillator were constructed on Vero board and the reference oscillator and ADF4351 module were housed in custom aluminium boxes to minimise RF leakage. All connections between modules are made using 0.64 mm pin headers and jumper plugs. (The female

to female jumper plugs can be purchased from hobbyking.com.)

SMA patch cables are used for internal RF connections (purchased from MiniKits).

### Operator interface

The keypad input allows the operator to set the frequency in Megahertz to 100 Hz resolution,

toggle keys to increment or decrement the frequency and set the frequency increment/decrement step (100 Hz to 1 MHz in decade

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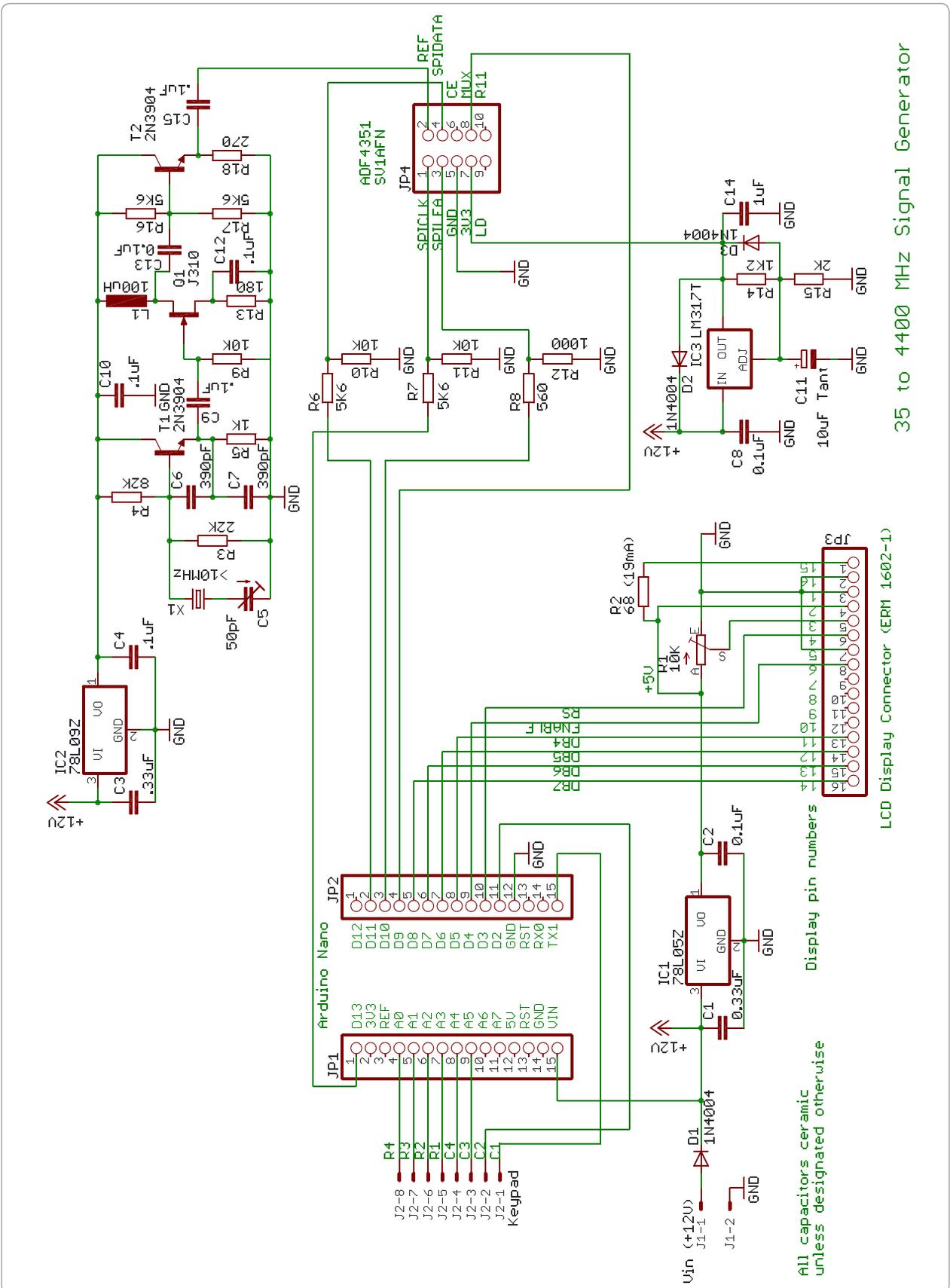
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35 to 4400 MHz Signal Generator

LCD Display Connector (ERM 1602-1)

All capacitors ceramic unless designated otherwise

Figure 1: VHF-UHF-SHF Signal Generator Schematic: Schematic diagram, showing reference oscillator, regulators and module interconnections.

Note that when programming the Nano via the USB port disconnect the +12 V external power source connected to the 2.1 mm dc connector on the breakout board. The Nano on board regulator may not take kindly to the simultaneous connection of the two supplies.

The ERM1602-1 LCD display used in the project has 10 mm digits to provide an easy to read display. Note that the pinout order is a little different from a standard LCD display.

The schematic diagram which details the reference oscillator and regulator designs and component connections is shown in the attached drawing. (The one connection omitted in the diagram is the ADF 4351 module RF output.)

### Hardware and Software Procurement

The major items of hardware are listed below. The components used in the reference oscillator and regulators can be purchased from Jaycar or MiniKits. The software developed by F1CJN was on the web but has been difficult to find recently. If you would like a copy of my version of the software along with a description of the keypad functions, please email me at [VK1AT@wia.org.au](mailto:VK1AT@wia.org.au)

### Major Components

ADF4351 Module: SV1AFN ADF4351 PLL Synthesiser Module ([www.SV1AFN.com](http://www.SV1AFN.com))

Arduino Nano Breakout Board: Deek Robot DK-Nano-003 V3.0 (eBay)

Arduino: Nano (eBay)

LCD Display: ERM1602-1 (MiniKits)

Keypad: Standard 4 x 4 keypad (MiniKits)

Instrument Case: HB-5910 (Jaycar)

### Conclusion

The ADF4351 produces a high performance VHF/UHF/SHF signal generator at a total cost of around \$100. Building the signal generator is not complex; the majority of the work is associated with the mechanical aspects of the project.

The ADF4351 is a capable but complex device. I have taken a minimalist approach in configuring the ADF4351 and have only scratched the surface in terms of understanding its capabilities. There is certainly significant scope for future experimentation.



### Participate

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# Amateur Radio from a retirement estate

Paul Roehrs VK5NE



Photo 1: Mast with Mag loop, small 23 cm beam and 2.4 GHz transverter.

Moving to a retirement estate need not be the end of your hobby. Radio amateurs would all like a large block near or on a hilltop, well away from high voltage power lines and plasma TVs. As we get older, looking after a large block can become more time consuming leaving less time for the hobby we all love so we need to consider one of the biggest decisions of our life, which is to downsize. Just downsizing can be just as time consuming in the long term as staying where you are, but a move to a retirement estate can dramatically reduce the amount of home maintenance work freeing up plenty of time for your hobby.

There can be some huge advantages such as no more gardening, no more home refurbishing or painting



Photo 2: NBS tilt-over mast.

and the ability to just lock the door and go away for weeks. However, you have less space for antennas, little scope for home modification to incorporate a radio shack and the close proximity of neighbours. None of these really need to be a barrier to your hobby.

Due to the close proximity of homes in a retirement estate, even free to air TV signals are usually distributed by fibre which means no more TVI problems. When you first sign up to enter a retirement estate, you will be dealing with a salesperson who is desperately trying to make a sale, so that is the time to negotiate permission to put up antennas. You will also need a block backing onto an internal boundary fence so that any antennas are not standing up in the



Photo 3: Antennas for 14 bands.

middle of the estate. Get your permission to raise antennas in principal included in your contract of sale. I did not go into detail at this stage and consider I was very fortunate to later get permission to put up a mast; however, if this is your intent you should really get quite specific regarding your intentions before you sign your contact.

Of course you will have to be rather conservative in your tower and antenna selection so that your setup will keep the management and other residents as happy as possible. The TH6DX had to go and so did the 160 metre dipole. I started my negotiations

by asking for a single 10 metre self-supporting pole (NBS tilt-over) topped with a commercial magnetic loop antenna (MFJ-1786) for HF as my main and most visible construction. As I expected the usual bureaucratic obstacles to be raised by management, I submitted my application to raise a tower and attached a copy of the certified engineering specifications for the tower as well as a copy of the state regulations which permitted me to put up a 10 metre tower without council approval. I then hoped for the best. Approval from management came within weeks without any further questions.

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6X4	\$12.50	12DK6	\$9.00
6U8/A	\$9.00	12BZ6	\$20.00
6SK7	\$10.00	12BY7/A	\$20.00
6SH7	\$8.00	12BE6	\$13.00
6SG7	\$8.00	12BA6	\$13.00
6SC7	\$17.00	12AX7/	
6SA7	\$8.50	ECC83 UK	\$32.00
6K6GT	\$10.00	12AU7	\$23.00
6JH8	\$9.00	12AT7	\$18.00
6H6GT	\$9.00	12AZ7	\$12.00
6GK6	\$14.00	1T4(NIB)	\$5.50
6EW6	\$9.00		
6EV7	\$9.00		
6DC6	\$14.00		
6D10	\$19.00		
6CX8	\$8.00		
6CA4	\$25.00		
6BZ6	\$10.00		
6BV8	\$12.00		
6BN8	\$15.00		
6BE6	\$8.50		
6AW8	\$8.50		
6AU6A	\$10.00		
6AQ5A	\$10.00		
6AN8	\$10.00		
6AF4	\$9.00		

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As the estate was still in the construction state the management even provided the means to install the tower base, which involved a 500 mm by 2 metre concrete filled hole.

My house, or villa as they like them to be called, was carefully chosen from their selection of optional designs to include a double garage so that there was enough room for a small workshop and it also had a bedroom at the rear

suitable for a radio shack. We have a 3 bedroom villa so that the XYL also has her hobby room (well away from the radio shack).

The next problem was to work out how to feed coax and control wires from the tower to the shack without modifying the infrastructure. I constructed a hollow aluminium box which slotted into the window frame and allowed the window locking system to lock it in place. Coax and control wires were fed into this box at the top outside the window and out of the bottom inside the window. A few experiments using cable ties resulted in a reasonably tidy way of attaching the cable run to the back veranda without modifying the structure.

Of course a single tower is never enough and I did have some veranda posts for more antennas. I improved my HF capability by adding a Comet broadband vertical to cover 80 m, 10 m and 6 m which could not be tuned on the magnetic



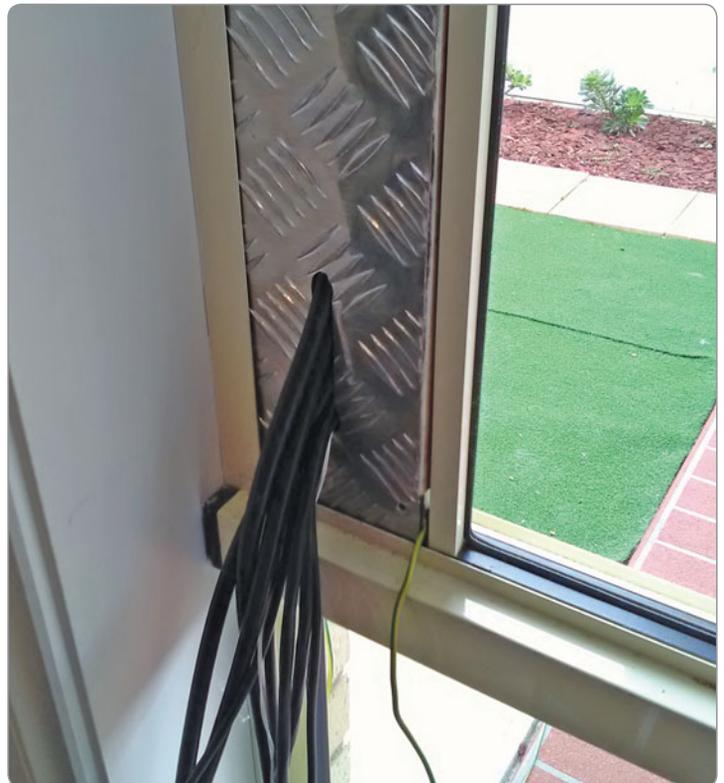
Photo 4: No modification of the infrastructure.

loop. A collinear vertical for VHF/UHF was also added to another veranda post. As I felt that I could not drill any holes into the veranda posts some heavy steel strapping,

a large vice and a big hammer were used to fashion some clamp grips to clamp onto the veranda post to mount the base poles for the vertical antennas.



Photos 5 & 6: How to feed Coax and Control Cables without modifying the infrastructure.



I soon added a 23 cm beam and a 2.4 GHz panel transverter to the tower and a separate mounted 23 cm fixed beam for a distant repeater. The broadband vertical will tune up to 160 m using an antenna tuner, so I now have all the HF bands from 160 m to 10 m, plus 6 m, 2 m, 70 cm, 23 cm and 9 cm bands.

It would be great if HF band conditions would make things easier. I have had to move from PSK31 to JT65 as my main digital mode. I would love to see more activity on Olivia as it is much more fun than JT65 and almost as good for weak signals. VHF/UHF contesting has been quite good as I am surrounded by lots of good high spots for the portable operators. I am now considering more microwave equipment as it is easily placed on the tower. A larger HF antenna is not really possible due to the limited swinging space for beams as the tower is too close to the property boundary.

If you are planning your future in the hobby and a retirement estate is on the horizon, don't despair, but make the move as soon as possible while you are still fit enough to fight the bureaucratic battles and carry out the physical work you need to do. A rapid move to a retirement estate or assisted living can mean almost the end of your hobby but a planned move can make a huge difference.

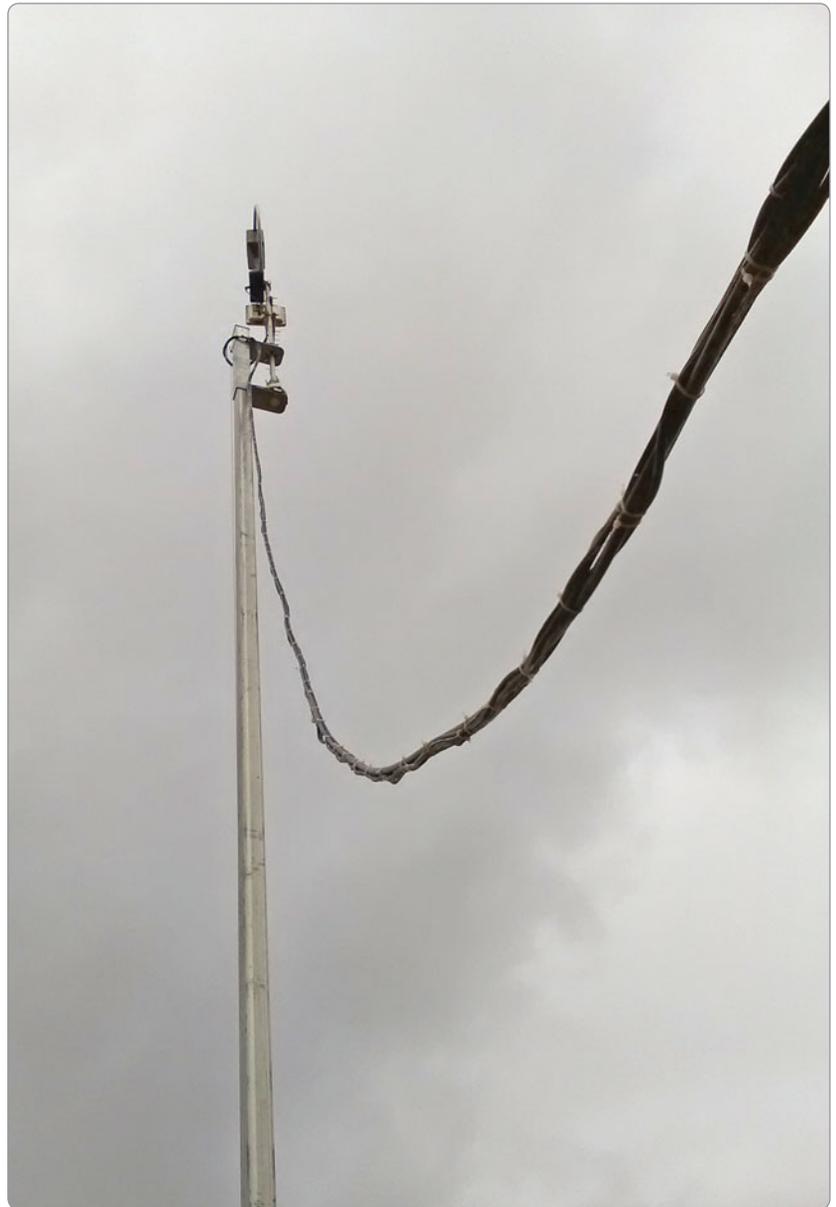
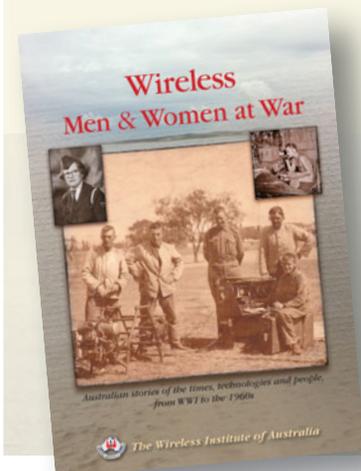


Photo 7: The feeders and control lines from the magnetic loop antenna, 2.4 GHz panel antenna and rotator.



## Wireless Men & Women at War

Young men and women who behind the scenes, were able to successfully use their developed skills in such a way as to make a difference – sometimes a big difference brought about largely by their interest in private radio communications. Read more...

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Work has been under way at the ITU for some time and a report on it is available. Just Google ITU report SM.2392-0 "Applications of wireless power transmission via radio frequency beam". This report provides a lot of information on WPT systems and it is currently being revised to include material directly relevant to WRC-19.

### **HAM-TV ground stations ready Downunder**

The International Space Station HAM-TV facility has again been used, this time by Astronaut Paolo Nespoli IZ0JPA who sent his greetings and congratulations for the European Researchers Night.

Gaston Bertels ON4WF of ARISS-Europe says the transmission was done with the HamVideo transmitter in the frame of video QSOs originated by Paolo. HAM-TV which adds a visual element from the ISS usually needs a longer time with a series or chain of ground stations whose vision can be seamlessly stitched together.

Gaston ON4WF has advised that both "Europe and Australia" will be part of a future HAM-TV transmission. Quietly watching events unfold over recent months have been the Australian operational HAM-TV ground stations of Martin VK6MJ, Tony VK5ZAI, Joe VK5EI, and Shane VK4KHZ. These four

have been able to give HAM-TV signal reports that have lead them to now be seriously considered for future use of the new facility. ARISS Australian Coordinator, Shane Lynd VK4KHZ says this is "extremely encouraging" news as Australian ground stations continue to experiment with different dish sizes, feeds and rotator systems. All it needs now is a decision and a suitable pass of the International Space Station for Australia to be part of a HAM-TV transmission.

The video recording of this event is available via the WIA website or at:  
<https://youtu.be/8qLNxsT5jao>



## **ACMA Inspector inspecting my J-Pole**

*Carsten Bauer VK6PCB*

I was sitting at my computer desk when I heard a hell of a racket outside: squawking and wing-flapping noises.

I went outside onto the Balcony to see a Tawny Frogmouth on my balcony floor with 2 crows chasing it. I scared the crows away and the Tawny Frogmouth was quite happily sitting on the floor resting.

He later flew up and perched himself on my 2/70 J Pole antenna, where he has been for the last few hours. He may be injured or maybe waiting for his enemies to go away so that he can get to his daylight home.

Cheers,  
 Carsten



**Don't forget to register for MEMNET.**

# STEAMing ARDF

## (Science Technology Engineering and Mathematics)

Jack Bramham VK3WWW

Local VK3 ARDF participant Monica LoPresti VK3FFAB is a school teacher based at Dromana College located on Victoria's Mornington Peninsular. As part of the STEAM project, she was asked if she could talk a bit about Amateur Radio, especially ARDF (Amateur Radio Direction Finding).

Here is Monica's report of the event:

*Dromana College offers a STEAM enhancement class for Year 7 and 8 students before school once a week. This term, students began to look at some of the basics of electronics and even built their own crystal radio from a kit. As part of this program, one of the teachers*

*in charge asked me if I could run a session based on my experiences with amateur radio and ARDF. As a result, on Tuesday 8 August 2017 I was able to speak to the students about what Amateur Radio is and the activities that those with and without an amateur licence can participate in.*

*After running through the basics and showing a short video from one of the Mount Gambier fox-hunting championships, students were shown a fox (a transmitter) and how to use a sniffer to find it. I set up a course of five transmitters that were hidden around the school that students then worked in pairs to find. There were varying levels of*

*success with most groups finding at least two transmitters, while some were able to find all five. Some groups also struggled as an unknown source was transmitting a signal in one corner of the course.*

*Overall students had lots of positive feedback for the morning. Many commented on how much fun they had, along with enjoying the practical nature of the event and excitement of finding the transmitters.*

Well done Monica. I am sure you have left a lasting impression with some of the participants.

VK3WWW Jack Bramham  
WIA ARDF Coordinator



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# International ARDF Competitions 2017

Jack Bramham VK3WWW



Photo 1: 2 m Event competitors in quarantine before the start.

2017 has been a very busy year for a small band of ARDF competitors from Australia.

From July 24 to 28, Ewen VK3OW and XYL Jenelle VK3FJTE headed to Asheville North Carolina USA for the North Carolina International ARDF Championships and Training Camp organized by the Backwoods Orienteering Klub. Also attending were about 50 Chinese competitors who belong to The Guangdong ARDF Radio Sports Club in Guangdong China. This event was held as a prelude to the 9<sup>th</sup> IARU Region 2 ARDF Championships to be held in the Harrison Ohio area close to the Kentucky border.

The Ohio event also offered training for competitors from July

31 until August 2. Joining Ewen and Jenelle for the Region 2 event training was Jack VK3WWW. Weather for this event was quite warm in the high 20s and low 30s and coming from a Melbourne winter it was quite a shock, especially, when we needed to cover up as much skin as possible to keep the chance of being infected by Lyme Disease after a bite from one of the local ticks in the surrounding forests. After three days of training in Harrison the remainder of the competitors arrived from all over the USA, some International competitors from Canada, Germany, Ukraine and the 50 plus team from Guangdong China. Competition was over the next 4 days and included the Sprint, FoxOr, Classic

2 m and Classic 80 m ARDF events. Along with the Region 2 Championship there was the annual USA ARDF Championship. As we were competitors from outside of Region 2 and non-US citizens, we were only eligible to compete in the International Visitors section. Consequently, our team of 3 was able to win medals in all four events. In total we collected 7 Gold and 4 Silver Medals. Quite a haul which we did not expect prior to the event! We all enjoyed our time in the USA and wish to thank the hosts, the OH-KY-IN Amateur Radio Society and ARRL. After Ohio Ewen and Jenelle headed back to Melbourne and I headed off to New York so I could catch up with one of my children who lives there.



*Photo 2: Typical Mongolian landscape.*

Our next ARDF event was only a few weeks after the USA event. This time it was our Regional Championship. Ewen and Jenelle travelled from Melbourne along with Kristian VK3FDAC and Peter VK3ADY. I had left New York for Mongolia via Moscow arriving in Ulaan Baatar one week before the event so I could get some altitude training in. Ulaan Baatar is 1350 m ASL and the proposed competition area was from 1500 - 1800 m ASL. MRSF (Mongolian Radio Sports Federation) were the hosts for the 11<sup>th</sup> IARU Region 3 ARDF Championships. Accommodation was at the Nairamdal International Children's Centre North of Ulaan Baatar. We were housed in shared rooms mostly four persons per room. The weather had changed and was looking to be quite wet for the first event later in the week. Day one was the opening ceremony followed by receiver testing. With

eight IARU Societies totalling over 180 attendees it was quite a sight to witness all the teams lined up at the outdoor opening ceremony. We were entertained with plenty of traditional dancing and a brass band. This was followed

by an indoor concert where we were entertained by singers and musicians.

Following the opening ceremony, transmitters on both 2 m and 80 m were set up around the grounds of the accommodation

*Photo 3: USA Champs 80m receivers in quarantine.*





Photo 4: USA Champs. Photo courtesy Homingin.

centre allowing competitors a great opportunity to check their receivers. For this championship, there were to be only 2 ARDF events contested, 2 m Classic and 80 m Classic. First was the 2 m event. We nearly did not make it to the competition area as the weather had turned really nasty. It was quite cool and had been raining most of the night. We had a convoy of four tourist buses lead by a police car with lights and siren going the whole time. After quite a long time and a few potential attempts at bogging a few of the buses, we finally made

it to the 2 m competition site. Weather for most of the event was cold but dry except for the forest. Those who have attempted 2 m RDF in pine forests will know what the reflections are like. Also, if the pines are wet as well, reflections are even worse. Near the end of the event, the rain started again with an accompanying thunderstorm and the last competitors who finished were dripping wet. Some of our team did okay but not well enough to win a medal. The exception was Kristian who received two Gold Medals in M21 (open category): one

for Region 3 and one for the overall. Well done Kristian! We arrived home very late after the 2 m event extremely tired and grubby. All of us had a quick shower followed by dinner and an early night.

Wednesday was a cultural day so, with our trusty Police escort, we went off to partake in some cultural activities and shopping in Ulaan Baatar. We visited the impressive Genghis Khan monument (an amazing 40 metres high), were treated to a traditional Mongolian BBQ lunch and given an opportunity for retail therapy at one of the State Department Stores.

Thursday was the 80 m ARDF event. But this time no Police escort was required, as we were lead to the start point just walking distance from our accommodation. We were happy this was a dry day and even though the weather was colder and after starting, it was not too long before you were pretty warm. Finish location was at the rear of the accommodation and that made it very easy getting back to our rooms. Results: We all did pretty well with three of the team just missing out on individual medals. However, the M60 team (60-70 years) was placed second and was very pleased with their silver medals. Competition over, it

Photo 5: Kristian Ruuska VK3FDAC Gold Medal. Photo VK3FJTE.





Photo 6: VK3FDAC, VK3ADY, VK3FJTE, VK3OW and VK3WWW: snow shot.

was time for the much-anticipated banquet; beautifully presented food and refreshments and socializing until late into the night.

On Friday morning (departure day) Kristian and Peter stayed in Mongolia for some touring, Ewen and Jenelle headed to Europe to compete in the Region 1 Championships to be held in Lithuania in early September (See note below).

During the Region 3 event, all of the Region 3 ARDF Directors met to discuss the 2019 Championships. At this stage CRSA (China) are planning to hold the Championships but they can't confirm until sometime later in 2018. If CRSA cannot hold the 2019 event, the WIA has offered to host it.

Thank you to the MRSF and the many volunteers for hosting this event. It was very well organised. They set the bar very high for future Region 3 ARDF Events. In closing, I would like to thank the Victorian ARDF Group ([www.ardf.org.au](http://www.ardf.org.au)) who has been very generous over many

years by subsidising some of the costs to send a team overseas.

Jack Bramham VK3WWW  
WIA ARDF Coordinator

### Postscript

Following Region the 3 ARDF Championships in Mongolia, Ewen and Jenelle had the opportunity to attend the Region 1 ARDF Championships in Lithuania. These were held in the Druskininkai Spa area in southern Lithuania.

Photo 7: VK3WWW, VK3FJTE and VK3OW: USA Medals.



Competition consisted of four events, namely FoxOr, Sprint and 2 m and 80 m classic events. Over 300 competitors took part in the championships. Lithuania is renowned for its runnable forests, but the competition area included native forest, plus cleared plantations and some areas of regrowth which were not so runnable. The courses were of a very high standard. The ARDF courses were particularly challenging, making the choice of

transmitter order a difficult one. Attending this event was definitely worthwhile, and provided another opportunity to hone our skills. We would like to thank our hosts from the Lithuanian Amateur Radio Society for making us so welcome.

Ewen Templeton  
VK3OW.





# Contests

Trent Sampson VK4TS  
e vk4ts@wia.org.au

## Contest priorities for November 2017

Contest	Date (UTC)	Rules	Difficulty	Software	Modes
WAE DX Contest, RTTY	000Z, Nov 11 to 2359 Z, Nov 12	<a href="http://www.darc.de/der-club/referate/referat-conteste/worked-all-europe-dx-contest/en/">http://www.darc.de/der-club/referate/referat-conteste/worked-all-europe-dx-contest/en/</a>	Easy	N1MM TR4W Writelog	RTTY
CQ WW SSB	0000Z, Nov 26 to 2400Z, Nov 27	<a href="http://www.cqww.com">www.cqww.com</a>	Easy	VKCL TR4W N1MM Writelog	CW

### Contest tip of the month

#### Research and quantify

Whether you read books or use the mighty google – research and quantify are the best way to improve your ongoing performance. We have found rate - QSOs per ten minutes (rather than per hour) is an important guide to operator competencies - and then gauge by way of overall results. With the UBN from the CQ contests you can further gauge accuracy.

In a multi op setting, those with higher error rates can be moved to quieter times to ensure they keep the bands ticking over without the problem of lost points and penalties.

#### Compared to what?

“Compared to what?” is a phrase we love to use when we are told about a new all dancing antenna or other product. Remember that the purchaser or builder of the product has to convince themselves they have made the right decision.

#### Remembrance Day and other VK Contests

#### How would you improve the VK Contests?

Open to suggestions – one suggestion is to add club categories to the RD to encourage local based activity. Would that be a fail with

manipulated contacts? We have had over the years several who sit comfortably with the manipulated contact of club members without contacting outside the club.

We feel that this is against the spirit of a contest and both parties should be disqualified.

#### Contester of the month

##### Stu Dunk VK4SDD

Stu has been licensed and on air since 1985 but only started in contests in 2011 entering the CQ

WW SSB SO AB HP categories.

**What is your favourite Contest?**  
CQ WW SSB, it brings out a lot of operators from all over the world, there are many categories, it runs 48 hours so there is ample opportunity to use different bands and take advantage of different propagation modes. After the initial rush (first 5 hours or so), it calms down and becomes a more casual steady stream of contacts.

Photo 1: Stu VK4SDD in his shack.



**What is your favourite rig?**

*I use an Elecraft K3; nothing so far has worked as well in the crowded conditions of a HF contest. The ability to still hear weak stations when there is someone 5 kHz away, over modulated and running megawatts still amazes me. Couple that with good mono band Yagis and getting contacts is a lot easier.*

**What is your favourite contest band and why?**

*During high sunspot number years, I really like 10 and 15 m as they have been my bread and butter bands; as the sunspot numbers die down I will still utilize the higher bands but to get points I will have to use 20, 40 and 80 m much more.*

**What is your preferred Contesting Software?**

*N1MM is the contest logging program I use. It has the contest templates already set up, it integrates seamlessly with the K3 and is easy to use during the contest and easy to format and send the logs in after.*

**What is your preferred Mic?**

*Heil ProSet and FS-2 footswitch. I have only used them in the last two CQ WW SSB contests; before that I used the K3 hand-mic and Akai*

*ASE-11 headphones. It is so much easier to make contacts and log with the Heil setup!*

**What is your “not so secret” weapon?**

*I like to take regular breaks. When the contact rate slows or the band dies out, I have a nature stop if needed or go for a walk around the yard before trying the next band. I think the main thing is to have fun and enjoy the on-air time.*

**What is your best tip to a newbie contester?**

*First thing prepare for the contest well in advance, make sure your gear is right and you know how the logging software works. When the contest starts there will be a rush, try not to get flustered, take your time and make sure you get the call and the exchanges right. Above all have fun enjoy it, that’s what it’s all about!*

**What are your aspirations in contesting?**

*Lots and lots of wall paper! Just kidding, I like to improve on my score from the previous year’s contest, that is really the most important thing to me, as well as making sure I beat any score Dale VK4DMC amasses!!*

**What would you like to improve in either your skill and or station?**

*My aim is to have steerable antennas from 10 down to 40 m; at the moment I only have 10, 15, 20 m Yagis. I hope to have some type of steerable wire arrays for 40 and 80 m for CQ WW SSB 2017.*

**Who is VK4SDD?**

*I am a semi-retired Fitter Machinist; my electronics and radio knowledge has been mostly self-taught, I started getting interested in short wave reception around seven years old and always wanted to have a transmitter of my own. CB in the mid-70s gave me the chance to get behind the mic and then the realization there was something better: amateur radio. It took quite a few more years before finally sitting my exams and being issued with VK2ZSD then a few more for the Morse and VK2JSQ, finally the move to QLD and VK4SDD. A couple of years ago, after 30 odd years of amateur radio, I sat the practical exam so I could be issued with an AOCP Advanced certificate; the things you do for a hobby!*

**Contest Terms**

**Dupe:** Duplicate contact

**NIL:** Not in Log

**Busted:** incorrect logging

**Unique:** callsign in one log only

**UBN:** Unique callsign, Bad callsign,

**NIL:** report from contest committee

**M2 (Multi Two):** Multiple operators  
Two Transmitters

**MM (Multi Multi):** Multiple Operators  
Multiple Transmitters

**Lockout:** A device that stops multiple transmitters keying at once outside contest rules

VK4TS Trent is the administrator of VK Contest Club (VKCC) web ([www.vkcc.com](http://www.vkcc.com)) and Facebook pages and has been an active contester since the 1970’s.

Emails can be sent to [vk4ts@wia.org.au](mailto:vk4ts@wia.org.au)

Photo 2: A view of antennas.



# Winter 2017 VHF-UHF Field Day results – bingo!

Roger Harrison VK2ZRH

Well, well, well. For the first time since the Winter 2014 event, when distance-based scoring was introduced (Division 2), the number of Division 2 entrants exceeded the number of Division 1 entrants (grid-square based) with this event. And the margin between entrants is not a slim one. I'll get back to all that a little further on.

Congratulations to all the section / sub-section winners in each Division, set out in the Results Summary here.

Commiserations go to Barrie VK6ADI, who suffered a tragic loss of his log with a computer hard drive crash at a crucial juncture (not quite so amusing as "the dog ate my log sheets", but getting there), and also to Geoff VK4KJJ, who submitted a log after the deadline. It was able to serve as a check log.

Three Foundation operators entered logs this event. Two Field Day stalwarts, Christine VK3FCEK and Bob VK5FBAA, were joined by newcomer Pat VK2FAAD, who took out the gong for Top-scoring Foundation station operator in both Divisions. Well done, Patrick!

The VK2s have been stepping-up their game over the past three years, with more stations participating and more operators entering logs. Rising from five entrants for the Winter 2014 event, to seven for Spring 2016, then 14 for this event, newcomers swelled the entrants' ranks from VK2 this

## Haiku

On turning a corner

The corner sneaks up

Like the hunter in winter

A ghost in the night

time. Notably, Rob VK2ELH, Pat VK2FAAD, Lindsay VK2FD, Graeme VK2QJ, Mark VK2ZB, and Rhod VK2TTL.

In VK3, some 20 to 27 stations have ventured to enter logs over the Winter 2014 to Winter 2017 events, while VK5 entrants swung from a low of four entrants (Spring 2016) to a high of 17 (Winter 2014). For this event, 11 VK5s entered logs. Is this variability influenced by the weather, or competing attractions (cricket, football, tiddledywinks)? Similarly, VK4 entrants have been consistently inconsistent! Only five submitted logs for this event (but VK4KJJ's log could not be included, as noted above), but 13 VK4 entrants were recorded for the Winter 2014 event, 11 for Summer 2015 and only five for the Spring 2016 event. C'est la vie!

There were no digital log entries for this event - "thankfully," commented log checker Mike VK3AVV. In the meantime, however, Joe Taylor K1JT has released FT8 for WSJT-X, which offers 'fast completion of reliable, confirmable QSOs' with 15-second Tx/Rx

sequences and robust weak signal detection capabilities. This development may well influence future contest operations.

No rover stations ventured out for this event. As the weather was generally "balmy" (comparatively speaking) over the 24-25 June event dates across VK2-VK3-VK5, where rover enthusiasts generally reside, that couldn't have been an issue, or maybe it was - there are many competing activities to attract one on a balmy midwinter weekend (a few bevvies in the sunshine, for a start)!

More multi-operator portable stations had a go this year, with three venturing out - VK3KQ, VK3ND and VK2MB - compared to last year's event, when only VK3KQ braved it. Each adopted a different strategy, which paid off for them. In the 24-hour 'top stress' league, VK3ND solicited the help of some unseasoned operators and the team claimed top-score in the Four-bands sub-section for both Divisions. A trio of well-seasoned field-dayers put VK3KQ into top-scoring in the All-bands sub-section for both Divisions.

Meanwhile, members from the Manly-Warringah Radio Society, VK2MB, realising that the club had not entered a VHF-UHF Field Day for a couple years, mounted a 6 m-2 m-70 cm-23 cm multi-operator station near its VK2RWN repeater site in Terrey Hills, on Sydney's

2016 Spring		2017 Summer		2017 Winter	
51 logs submitted		71 logs submitted		51 logs submitted	
Division 1	Division 2	Division 1	Division 2	Division 1	Division 2
43	38	54	50	34	41
84.3%	74.5%	75.0%	69.4%	66.7%	80.4%
Submitted both Divs = 30 (58.8%)		Submitted both Divs = 32 (45.1%)		Submitted both Divs = 24 (47.1%)	

Table 1. VHF-UHF Field Day entries compared over the past three events, showing the "turning of the corner" from Division 1 dominance to Division 2.

North Shore. They battled it out with Hornsby and District Amateur Radio Club's station VK2MA on 6 m-2 m-70 cm, to take out top-score in the Division 2 Four-bands sub-section. Unfortunately, VK2MB had no success on 23 cm, despite trying, even though the VK2RSY beacon at Dural was a good signal. C'est la guerre!

Also in the 'top stress' league, portable single operator 24 hr (Section A1), new-hand Graeme VK2QJ concentrated on the Four-bands sub-section to rack up top scores in both Divisions. In the same Section, stalwart Doug VK4OE took out top scores in the All-bands sub-section on both Divisions.

As in past contests, the Single-band category can pay off for entrants; 2 m being well-plumbed for contacts in this Winter's event. Jim VK1AT managed top-score in Division 2 Portable 8-hour, while Peter VK3YE did it for Division 1. Single-band operator is also popular with Home stations, as John VK2YW near Wagga Wagga in south-west NSW, pulled-off top-scores in both Divisions; no competing logs were entered, so John's strategy paid off.

Mike VK3AVV reported a short 6 m opening via Winter Sporadic-E on the Saturday afternoon between VK3 and VK4, "although the submitted logs do not show many contacts during that time. VK3 to VK4 contacts do wonders for the score on 6 m", Mike said.

## A corner turned

As I have observed over the past few years, collectively, entrants have been having something of an each-way punt between 'traditional' grid square-based scoring and distance-based scoring. The difference in log entries from event to event has varied quite a bit, with the weight of entries falling on the side of Division 1 grid-based scoring, but never by a decisive amount. As Table 1 shows, there has been a 'drift' in log entries towards Division 2 distance-



*The Manly-Warringah club's VK2MB Field Day station setup at Terrey Hills – 6 m wire antenna held up by the squid pole, with 2 m, 70 cm and 23 cm Yagis on the other mast.*

based scoring over the past three events, culminating in more entries in Division 2 for this event. Hence, bingo! – expressing "satisfaction at a sudden positive event or outcome", according to the Oxford Dictionary.

However, one could not confidently or decisively call this a "win" for moving the contest rules to distance-based scoring in future VHF-UHF Field Days. Doubtless

there are some participants who wish it were that simple. But, recall that, for the previous nine events, the weight of entries has been for Division 1. Since the change introduced in 2014, there has been some development in the contest rules and the nature of operators' participation in these Field Days. The long-foreshadowed formal consultation will now have to be organised and publicised.

## Some statistics and comments

Contest log-checker Mike VK3AVV notes that, while 51 stations submitted a log, some 20 fewer than the Summer event's entries, it is up by 12 on the two previous Winter events. As usual, many more stations participated than submitted logs. Mike comments that there were at least 144 other station participating (so, close to 200 total participants!), many making only one contact, but there were also at least 41 stations that made 10 or more contacts (achieving

respectable scores) but did not submit a log. It's easy to see from the Results Summary that, if you select your sub-section carefully, you may be a winner in that sub-section with fewer than 10 contacts, Mike observed. In similar events in other countries, it is also reported that many more stations participate ('hand out numbers') than enter logs, so Australia's not unique in this regard.

In all, 5152 contacts were logged. Of these, 2990 of the logged contacts were checked, making 58%. Mike notes that logging accuracy improved to

some extent in this Field Day, "although there is plenty of room for improvement." Some of the accuracy issues can be put down to operating procedure at either or both ends of a contact, but there is also obvious lack of checking logs before they're submitted.

As usual, big thank you is due to Mike VK3AVV for a superlative job in his development of the log-checking software and the detailed checking of all log entries, along with preparing the individual and consolidated results. Thanks for assistance are also owed to Colin VK5DK and Michael VK3ALZ.

# 2017 Winter VHF-UHF Field Day Results Summary

Division 1	
<b>Section A1.</b> Portable station, single operator 24 hrs	
<i>Four-bands:</i> Graeme Battistuzzi VK2QJ	1391
<i>All-bands:</i> Doug Friend VK4OE	2820
<b>Section A2.</b> Portable station, single operator 8 hrs	
<i>Single-band:</i> Peter Parker VK3YE	165
<i>Four-bands:</i> Bob Jeisman VK5FBAA	314
<i>All-bands:</i> Iain Crawford VK5ZD	2009
<b>Section B1.</b> Portable station, multi-operator 24 hrs	
<i>Four-bands:</i> Greg Smith VK3ND	466
<i>All-bands:</i> Damian Ayers VK3KQ	5074
<b>Section B2.</b> Portable station, multi-operator 8 hrs	
<i>No logs submitted.</i>	
<b>Section C1.</b> Home station 24 hrs	
<i>Single-band:</i> John Eyles VK2YW	132
<i>Four-bands:</i> Robert Black VK2BBR	1180
<i>All-bands:</i> Ross Keogh VK3MY	3444
<b>Section C2.</b> Home station 8 hrs	
<i>Four-bands:</i> David Rolf VK3JL	364
<i>All-bands:</i> Doug Hunter VK4ADC	1016
<b>Section D1.</b> Rover station 24 hrs	
<i>No logs submitted.</i>	
<b>Section D2.</b> Rover station. 8 hrs	
<i>No logs submitted.</i>	
<b>Top-scoring Foundation station operator:</b>	
Patrick Doolan VK2FAAD. Division 1. Section A1, Portable, single operator 24 hrs, Four-bands: 718.	

Division 2	
<b>Section A1.</b> Portable station, single operator 24 hrs	
<i>Four-bands:</i> Graeme Battistuzzi VK2QJ	59,533
<i>All-bands:</i> Doug Friend VK4OE	28,480
<b>Section A2.</b> Portable station, single operator 8 hrs	
<i>Single-band:</i> Jim Henderson VK1AT	371
<i>Four-bands:</i> Mark Regan VK2ZB	3862
<i>All-bands:</i> Peter Westgarth VK3APW	10,348
<b>Section B1.</b> Portable station, multi-operator 24 hrs	
<i>Four-bands:</i> Greg Smith VK3ND	9769
<i>All-bands:</i> Damian Ayers VK3KQ	130,082
<b>Section B2.</b> Portable station, multi-operator 8 hrs	
<i>Four-bands:</i> Manly Warringah ARS VK2MB	1885
<b>Section C1.</b> Home station 24 hrs	
<i>Single-band:</i> John Eyles VK2YW	604
<i>Four-bands:</i> Robert Black VK2BBR	28,957
<i>All-bands:</i> Ross Keogh VK3MY	42,174
<b>Section C2.</b> Home station 8 hrs	
<i>Single-band:</i> Jim Wilson VK3ZAP	458
<i>Four-bands:</i> Rhod Rowe VK2TTL	2406
<i>All-bands:</i> Doug Hunter VK4ADC	10,616
<b>Section D1.</b> Rover station 24 hrs	
<i>Single-band:</i> Charles (Bill) Field VK3CWF	1966
<b>Section D2.</b> Rover station. 8 hrs	
<i>No logs submitted</i>	
<b>Top-scoring Foundation station operator:</b>	
Patrick Doolan VK2FAAD. Division 2. Section A1, Portable, single operator 24 hrs, Four-bands: 23,985.	

Multi-operator stations' listed operators  
 VK2MA: VK2DAY, VK2PX, VK2ZOO, VK2AAV, VK2KAZ  
 VK2MB: Nick VK2FS, Greg VK2XE  
 VK3KQ: Damian VK3KQ, Andrew VK3BQ, Ralph VK3LL  
 VK3ND: Greg VK3ND, Michael VK3MHY, Emma VK3MUM,  
 Jacklin Grace de Mamiel SWL



# SOTA & Parks

Allen Harvie VK3ARH

An active sun gave us a great start to September: <https://www.nasa.gov/feature/goddard/2017/active-region-on-sun-continues-to-emit-solar-flares> however the rest of the month settled into the normal general lack of NVIS propagation on 40 m which affects portable activations. Activators usually could reach the VKFF 10 Hunters or SOTA 4 Chasers but chasers have often been sitting listening to the further away chasers and unable to hear the activator. Closer-in contacts have been made throughout the day on 80 m when the activator has had the capability.

Activators should consider adding an 80 metre antenna or extensions for a 40 metre antenna to give 80 m capability. An alternate

might be a non-resonant antenna plus an antenna matching unit.

Of 170 unique sites activated, 50 were SOTA activations leaving 120 WWFF sites activated.

Gerard VK2JNG continues to activate the lion's share of parks accounting for at least 26 alone.

Phil VK2JDL is steadily working towards Mountain Goat under SOTA, needing only a few more activations to reach the mark. He may well be there by time you read this.

Wal VK2WP, David VK2NU and Crompton VK2HRX were most active in VK2 with Brian VK3MCD hunting summits in VK3/VE and David VK3IL taking care of the Hotham area.

Despite or because of the

unstable weather, the WWFF program has continued to support and high level of activity. The improved access and operating conditions permitted for Parks activations allow for higher powered radios and improved aerial systems over the typical SOTA activation.

As the national parks in VK3 have been well and truly worked under the KRMNPA program, recent activity has been directed at the newly listed reserves and areas often close to the activator's home.

The solar activity early in the month led to the weekend of the 8/9/10 September seeing over twenty new references activated. 40 m propagation was unusually good on the Friday which led to 10 new sites on that day alone.

*Photo: Gerard VK2JNG operating from Kattang Nature Reserve VKFF-1947. Great location with a great view!*



Peter VK3TKK has been activating newly added Parks in VK3, often several in one day by reaching the VKFF qualification level and then moving on to a new reference.

Normally quiet, there were 22 parks in VK4 with Bill VK4FW, Neil VK4HNS, Mark VK4SMA and Rob VK4AAC leading the charge. Even VK6 was active with Phil VK6ADF & Michael VK6MB, Hans VK6XN and Nick VK6FSEA.

Joe VK3YSP and Julie VK3FOWL spent a week in VK7 with at least 10 Parks activations, including several Parks that have not been previously been activated. They have been mainly using 40 m, but have often been inaudible in southern VK3 - frustrating for those desiring to work new references.

Now a short piece from Gerard VK2JNG describing how he got involved in activating National parks and State conservation areas:

*"We (my wife VK2FJNG and I VK2JNG) decided to attend the WIA AGM in Hahndorf this year. We met lots of other amateurs and the event was well organised and we enjoyed ourselves very much.*

*On the Sunday morning, one of the activities was to get some hands-on experience on activating parks. I didn't know too much about it all but decided to put my name on the list led by Paul VK5PAS. We met at around 9:00 am and Paul took us all (there were four of us) to Mark Oliphant Conservation Park. Before I knew it, I had a microphone in my hand and I was calling CQ Parks and in no time I had 10 contacts and qualified the park. Paul did warn*

*us that the experience could be addictive. Let me tell you, he was very right. It is great to turn your radio on in beautiful surroundings with no QRM showing on the S-meter on receive.*

*I enjoyed the whole experience very much and started to think if this was something for us to continue with.*

*I already have a Spiderbeam squid pole, an Elecraft KX3, a Kenwood TS480SAT, a SOTAbears Linked dipole for 80 m, 40 m, 30 m and 20 m, 120 Ahr solar charged battery and also a couple of excellent End-Fed dipoles like the HyEndFed for 40 m, 20 m, 15 m and 10 m.*

*So, we decided to give it a go as we travel almost full-time around this great brown land and come near National Parks and Conservation Parks in just about all states and I have to say that it has been a lot of fun.*

*A good thing is you get better at everything required as you go. I mean I almost had a 12 m spider beam squid pole falling over because the base slipped away sideways which is easily solved by a couple of tent pegs. Luckily, my wife VK2FJNG was standing at the base and managed to stop the 12 m pole from falling onto the ground and possibly damaging it.*

*So, after Hahndorf on our way back to NSW we set out to our first National Park in Victoria called "Little Desert" and activated it with a result of 14 contacts. I was rapt. Since then we have activated a further 35 National and State Conservation Parks. Doing so led us*

*to places we would have otherwise never gone to.*

*There have been a few occasions where people came up to us and wondered what on earth it was we were doing. Most were astonished to hear that I could have contact with stations in other states many miles away. This includes two NPWS officers, who pulled up and showed a lot of interest in what we were doing.*

*So, in conclusion, why don't you give it a go?*

*73, 44,  
Gerard VK2JNG/P*

Don't forget the following upcoming weekends:

**Friday 10 November - Monday 13 November** is the annual KRMNPA activation weekend.

In 2016 we managed the record result of 41 VK3 National Parks "On-The-Air". This year, given the greater interest in parks, we should be able to get all 45 on over the weekend.

Contact Tony VK3XV on [vk3vth@wia.org.au](mailto:vk3vth@wia.org.au) to be added to the Activations to the list. Remember all 45 VK3 National Parks are also eligible for the VKFF Award!

**Saturday 25 - Sunday 26 November 2017** is the annual VKFF Activation Weekend.

If you do intend to activate a park that weekend, please drop Paul VK5PAS an email at [vk5pas@wia.org.au](mailto:vk5pas@wia.org.au) with your intentions, so you can be placed into the activator spreadsheet.

*73, 44  
Allen VK3ARH*



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# VHF/UHF - An Expanding World

David K Minchin VK5KK

## Introduction

This month we have Leigh VK2KRR's regular WSPR report as well as details of the new 10 GHz EME World Record between VK7MO/6 and WA3LBI/P. There is a new LimeSDR on its way and we have Kevin VK4UH's regular Meteor Scatter Column.

## New 10 GHz EME World Record

Rex VK7MO report... "On 9 September 2017 Rex Moncur VK7MO and Jim Malone WA3LBI completed a 18949.4 km QSO with QRA64D to extend the existing World Record held by DL7FJ and ZL1GSG, using CW, of 18337 km by around 600 km."

"The key to this result was to find locations with almost zero degrees take-off which essentially means across water. VK7MO operated from OF76nk at Meelup Western Australia and WA3LBI operated from FM28lo in Delaware on the East coast of the USA. Both stations operated portable to maximize the distance at locations with good take-offs over water. It is of interest to note that "Meelup" is a native aboriginal word meaning "Place of the rising Moon" because they could see the Moon rising out of the water, so the native people were well aware of the potential of this location for EME."

"Stations: Rex VK7MO ran 50 watts to a 1.13 metre dish, linear polarization, as shown in Photo 1.

Jim WA3LBI ran estimated 125 watts to a 2.4 metre dish, RKI feed by Bert Moderman, circular polarization, mounted on a trailer as shown in Photo 2.



Photo 1: VK7MO's 1.13 metre dish set up at Meelup beaming across the water.

*The loss in going from linear to circular is somewhat less than the expected 3 dB due to depolarization at the Moon surface (probably around 2 dB)."*

*"The time was chosen to maximize the Moon window when spreading was low at 34 Hz and Lunar degradation low at 0.8 dB. It can be seen that WA3LBI was first*

Photo 2: WA3LBI's portable 2.4 metre dish on location.



decoded at -23 dB at 1317 when the Moon was at zero degrees and only partly visible and ground noise would be an issue. He later peaked at -19 dB when the elevation was around 2 degrees at VK7MO. In addition to the basic requirements of a QSO some text messages celebrating the record were also exchanged.”

“After that, Al Ward W5LUA was worked with strong signals up to -14 dB and then a second QSO completed with WA3LBI when signals peaked at -17 dB dropping to -23 dB at 1353 when WA3LBI lost the Moon. It is seen that it was possible to exchange messages with WA3LBI from 1317 to 1353 which from the Moonsked data above is from zero degrees elevation at the VK7MO end to zero degrees elevation at the WA3LBI end. After the window to WA3LBI closed, W6YX operating as N9JIM in California was worked with 125 watts to his 4.6 metre dish and signal levels up to -10 dB.”

“In conclusion, the critical factors which made this World Record possible were both stations being able to work portable and select locations with zero take-off, the use of the very sensitive



Photo 3: Operating Position at WA3LBI.

QRA64D mode and selecting a time when the common window was maximized and spreading and lunar libration were low.”

Congratulations to both Rex and Jim on extending the 10 GHz EME Record to the almost maximum geographical and lunar astronomical distance possible!

## WSPR September 2017 Propagation Report

Leigh Rainbird VK2KRR reports on WSPR activity for September 2017...

“Despite the efforts of many dedicated operators, the bands have been very quiet in regards to propagation, particularly for 2 m WSPR. We are noticeably in the transition period between winter and summer propagation for both Tropo and Sporadic E hence there is not much to report on for the month of September 2017.”

“50 MHz WSPR: In the afternoon of 3 Sept, VK4TVL in Townsville

Photo 4: More modest operating position at VK7MO.



Photo 5: QSOs and JT4 Decodes at VK7MO.

UTC	dB	DT	Freq	Message	
1317	-23	2.6	998	::* VK7MO WA3LBI -24	3
1319	-21	2.6	997	::* VK7MO WA3LBI RRR	0
1321	-20	2.6	998	::* VK7MO WA3LBI 73	0
1323	-21	2.6	995	::* CONGRATS REX	0
1325	-21	2.8	1002	::* WR 18950 RM	0
1327	-19	2.6	996	::* WR 18950 RM	0
1329	-20	2.5	996	::* AWESOME REX	0
1331	-19	2.6	997	::* A SPECIAL DAY	0
1333	-21	2.6	997	::* VK7MO WA3LBI FM28	0
1335	-16	0.7	989	::* VK7MO W5LUA EM13	0
1337	-14	2.9	997	::* VK7MO W5LUA EM13	0
1339	-14	2.8	992	::* VK7MO W5LUA R-15	0
1341	-14	2.9	992	::* VK7MO W5LUA 73	0
1343	-14	2.9	995	::* TNX QSO REX	0
1345	-20	2.6	994	::* VK7MO WA3LBI FM28	0
1347	-21	2.6	994	::* VK7MO WA3LBI -24	0
1349	-17	2.6	989	::* VK7MO WA3LBI R-23	0
1351	-19	2.5	991	::* VK7MO WA3LBI 73	0
1353	-23	2.7	988	::* VK7MO WA3LBI 73	3
1355	-22	-1.0	1428	::*	
1357	-23	1.6	1318	::*	
1359	-22	2.4	1114	::*	
1401	-13	2.8	965	::* VK7MO N9JIM CM87	0
1403	-10	2.6	955	::* VK7MO N9JIM R-15	0
1405	-10	2.6	930	::* VK7MO N9JIM 73	0

1316	-24	2.5	1014	WA3LBI VK7MO OF76	0
1318	-20	2.5	1011	WA3LBI VK7MO R-23	0
1320	-20	2.5	1010	WA3LBI VK7MO 73	0
1322	-21	2.5	1015	WR 18950 KM	0
1324	-20	2.7	1013	WR 18950 KM	0
1326	-20	2.6	1014	TNX JIM 73	0
1328	-21	2.6	1011	CONGRATS JIM	0
1330	-18	2.6	1012	CONGRATS JIM	0
1332	-21	2.6	1008	WELL DONE JIM	0
1334	-22	2.6	1010	WA3LBI VK7MO OF76	0
1335	-12	0.7	999	VK7MO W5LUA EM13	0
1336	-19	2.6	1005	W5LUA VK7MO OF76	0
1337	-13	3.0	1000	VK7MO W5LUA EM13	0
1338	-19	2.6	1003	W5LUA VK7MO -14	0
1339	-13	2.7	997	VK7MO W5LUA R-15	0
1340	-19	2.6	1005	W5LUA VK7MO RRR	0
1341	-12	2.8	1001	VK7MO W5LUA 73	0
1342	-21	2.6	1008	W5LUA VK7MO 73	0
1344	-22	2.5	1009	TNX AL 73	0
1346	-23	2.6	1010	WA3LBI VK7MO OF76	0
1348	-21	2.6	1009	WA3LBI VK7MO R-21	0
1350	-20	2.6	1008	WA3LBI VK7MO RRR	0
1352	-23	2.6	1008	WA3LBI VK7MO 73	0

Photo 6: QSOs and JT4 Decodes at WA3LBI.

was heard by VK6DF in Karratha between 0436 and 0618z over 3134 km, signal peaked at +0 dB. On the same date, VK8ZI in Darwin was also heard by VK4TVL and VK6DF over 1898 km and 1694 km respectively”.

“Some very sporadic spots on 4 Sept with VK4TVL being heard by VK2XN, VK2FAD and VK5MR. On 5 Sept, Andrew VK5MR at Roxby Downs pulled out one from Rob VK1KW at 0210z. On 9 Sept, VK6DF at Karratha decoded both VK8ZI and VK8RR over a 30 minute period. On 15 Sept, Andrew VK5MR pulled one again from VK4TVL, -9 dB over 1600 km. On 27 Sept, another single decode by VK5MR, when he decoded VK2HC over 1380 km. On 30 Sept, around lunch time in the eastern states, VK4TVL was heard by VK1KW, VK2KRR and VK2DVM, max distance 1779 km.”

“144 MHz WSPR: During September there were no significant openings on 2m WSPR that I am aware of. This is the same as what happened in September last year, the change of seasons is not a good time for Tropo

so it would seem.”

“Meantime, an opening from further half way around the world but on similar latitude: on 12 Sept, Phil FR5DN on Reunion Island had a good Tropo opening out to 2640 km with some South African stations. Phil worked ZS5DJ, ZS5HV, ZS5LEE on SSB and digital modes. Phil also states that his 162 MHz AIS receiver had reception out to 2521 km at the time.”

All contributions on propagation and WSPR are welcome; just email Leigh VK2KRR at vk2krr@wia.org.au

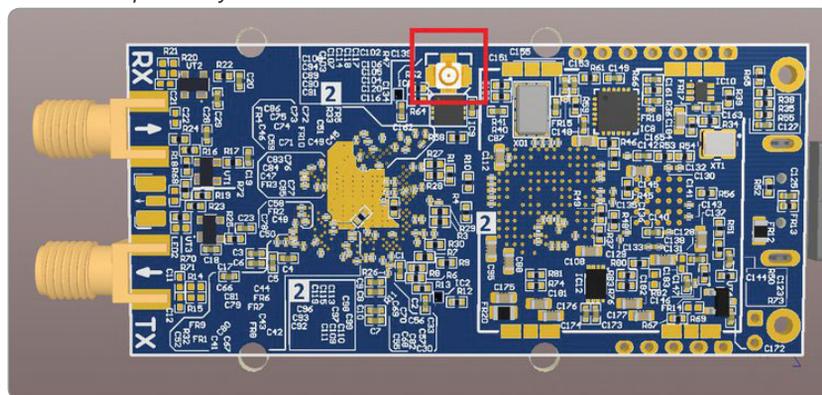
## LimeSDR Mini... The “Diet” version!

The LimeSDR has been an interesting SDR development we have discussed a few times before as a possible “basis” to build a VHF/UHF SDR. Progress has been slow as the LimeSDR has a very steep development curve to take it from a bare board to something like a complete standalone transceiver. Plenty have been bought them in Australia but it is a bit like a council road project for most of us... it’s in the planning stage still waiting for someone else to start it! One brave amateur in the USA proposed (perhaps naively) a “crowd funding” project to do development towards a complete Transceiver. He soon realized it would require employing people i.e. more than the average “Ham” with long pockets would subscribe to!

Now we have the “LimeSDR Mini” to consider. This is currently in the crowd funding stage with a proposed Launch date sometime in January 2018. The main differences are it’s half the size (69 mm x 32 mm) and is just a two port transceiver (vs. the original 4 ports). It uses a smaller Altera Max 10 FPGA but the same Lime LMS7002M radio transceiver. It is still a full duplex device with a quoted RF encode/decode bandwidth of 30.72 MHz (vs. 61.44 MHz).

The RF ports appear to have very simple broadband matching

Photo 7: Proposed layout for the Lime SDR Mini.



networks to cover 10 MHz to 3,500 MHz (see Photo 7). As with the original, it will need some serious bandpass filtering to have anywhere near decent performance in a modern RF environment. It is not clear if the two ports are configured to use the two different on chip PLLs or just one. Importantly (for us), the board still has provision for an external reference to be connected as well as similar USB, GPIO and JTAG connections.

Its currently US\$139 + \$10 P&P ... less than half the price of what the full size version now sells for. Is this the one we should have waited for? For more information Google "LimeSDR Mini". BTW: If you are part way along with a LimeSDR project and would like to share your progress please drop me an email!

### In closing

Feel free to drop me a line if you have something to report. Contributions regarding club projects or proposed activities are always welcome. Just email me at [david@vk5kk.com](mailto:david@vk5kk.com) and I'll include in the column.

73

David VK5KK

## Meteor Scatter Report

*Dr Kevin Johnston VK4UH*

I am reminded this month that I have been compiling this column for five years. As might be predicted, it can be challenging to find content that is fresh and interesting each month particularly during periods of the year, like now, when meteor scatter propagation and activity are at the low-point of the annual cycle. Many of the older activity reporting functions of the column have been replaced by the near immediate facilities of the VK-logger and our own VK-ZL Meteor Scatter pages on Facebook. It is still gratifying however to see new call signs and operators appearing during the

weekend MS operating sessions. Repeating information, intended for those trying out this mode of propagation for the first time, is intentional and hopefully productive in encouraging new operators to try their hands at VHF MS.

The number of usable meteors follows a highly predictable pattern through the 24-hour day and also through the seasons of the year. The mechanisms resulting in the daily variations in meteor returns, peaking around dawn, were discussed in a recent column. Superimposed on this diurnal variation is a much slower sinusoidal variation across the seasons of the year. There is an annual peak occurring around the Autumnal Equinox in March each year, in the Southern hemisphere and a corresponding null around the time of the Vernal Equinox each September.

This year that "Vernal Null" has been deep and long-lasting. MS conditions have remained very poor for several months, indeed the worst that I can remember. It is apparent that many operators are going straight to 50 MHz rather than starting around dawn on 144 MHz or, worse still, have not come on-air at all during this rock drought. At the time of writing this report, the Vernal Equinox has just passed. Hopefully we will experience an upward trend from here on in through the summer period.

All has not been doom and gloom however. Mirroring changes in Meteor Scatter operating procedures in other regions across the world, operators here in Australia and New Zealand have almost totally adopted the new MSK144 forward-error-correcting digital mode in place of the traditional FSK441 mode which had held pride of place since its release to the amateur community in 2001. Our colleagues across North America and throughout Europe have adopted MSK144 to almost 100%. In many ways VK-ZL MS operators were very smart and innovative in their use of FSK441. In

particular, with our local protocols for identifying originating and destination call signs this allowed us to conduct QSOs with two or more stations at the same time. Despite losing this ability the clear benefit of MSK144 in successfully decoding pings that are both short and weak, has secured that mode swap. In the very high "station density environment", in the European MS scene for example, it is normal practice to designate an alternative frequency to QSY to, to respond to a CQ. Operators here may have wondered about the use of the TX (6) box in WSJTx and TX (7) in MSHV software platforms, (i.e. CQ 237) 144.237 MHz being the frequency to move to in order to reply to that CQ.

The lower density of stations in VK and ZL makes such frequency changes unnecessary and indeed unwanted. Keeping all active stations on the common activity frequency increases the chance of completing contacts. Some additional "practice points" for efficient MSK144 operating are offered below. Also of interest, the European and North Americans MS stations have adopted the 15 second period option as the normal default standard whereas we have persisted with the 30 second periods, perhaps just as a throwback to FSK441. The added option of using the automatic message sequencing facility in both WSJTx and soon to be implemented in MSHV would make 15 second periods easier to handle. The whole community would have to make that decision by consensus and move en-block. Stations running a mixture of 15 and 30 second periods would cause intolerable mutual Interference if all on the same frequency.

As discussed earlier, the transition from FSK441 to MSK144 has "cost" the ability to conduct QSOs with more than one station at a time. MSK144 does not allow the flexibility in the message strings to make that possible as most of

the structured messages are fixed in format. I offer however a number of suggestions that may speed-up conducting QSOs, even though they can only be one at a time.

### Practice Points for MSK144 during weekend activity sessions:

#### 1. Spend less time calling CQ and more time calling stations.

Obviously there has to be a CQ somewhere at the start. However, once a station (e.g. VK3ABC) is decoded, even if they are already in QSO, go straight to Tx2 i.e. call and report (VK3ABC VK4XYZ +6) even if the VK3 is still in QSO. He can add you to his list and when he is clear will respond to VK4XYZ with Tx3 (VK4XYZ VK4ABC R10) – one step saved. The response then goes straight to Tx4 (VK3ABC VK4XYZ RRR) and completion.

#### 2. Never repeat steps.

If you decode a report to you then the response is always R-report, if you receive an R-report then the response is always RRR i.e. we go alternate steps down the Tx strings; repeating steps just wastes time and delays completions for everyone trying.

#### 3. No 73s or free text comments.

During activity sessions, these steps just waste time and delay others from completing QSOs. As soon as an RRR is received then you can go straight to call the next station on your list with an R-report (Tx3), (or CQ if your list is clear). Another step saved. Once the partner station sees your R-report to another station or your new CQ then he will know that he is complete. The same function as a 73 but keeping the process moving forward. Further I suggest all stations immediately

post all completed QSOs on the VK-logger as soon as an RRR report is received. This saves confusion and time and in no way, compromises the validity of the QSO.

### Meteor Showers

The next major shower on the calendar will be the Orionids expected to peak around 22 October and then the Leonids around 18 November.

### Activity Sessions

The weekend activity sessions run on Saturday and Sunday mornings from before dawn until propagation fails.

2 m 144.230 MHz, 6 m 50.230 MHz MSK144

Contributions for this column are as always welcome. Please e-mail to [vk4uh@wia.or.au](mailto:vk4uh@wia.or.au).

Kevin Johnston VK4UH  
Brisbane



## AMSAT-VK

AMSAT Co-ordinator  
Paul Paradigm VK2TXT  
email: [coordinator@amsat-vk.org](mailto:coordinator@amsat-vk.org)

Group Moderator  
Judy Williams VK2TJU  
email: [secretary@amsat-vk.org](mailto:secretary@amsat-vk.org)

Website:  
[www.amsat-vk.org](http://www.amsat-vk.org)

Group site:  
[group.amsat-vk.org](http://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 Australian National Satellite Net is held on the second Tuesday of the month (except January) at 8.30 pm eastern, that's either 9.30 or 10.30Z depending on daylight saving. Please note we will be taking check-ins from 8.20pm-ish. 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. Operators may join the net via EchoLink by connecting to 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 numbers 9558. 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**  
VK4RRC Redcliffe 146.925 MHz -ve offset IRLP node 6404 EchoLink 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 2 m. Repeater Stowport 146.775 MHz. IRLP 6616

**In the Northern Territory**  
VK8MA, Katherine on 146.750, CTCSS 91.5, IRLP Node 6800

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.

Participate

The Rosebud RadioFest | Sunday 12 November 2017



# WIA Awards

Marc Hillman VK3OHM/VK3IP

Below are listed all New awards issued in August 2017, plus all updates to DXCC awards.  
Go to <http://www.wia.org.au/members/wiadxawards/about/> to use the online award system.

## New awards

### 2017 AGM

#	Call	Name	Category
32	VK5BC	Brian Cleland	General Award

### Antarctic

#	Call	Name	Mode
98	VK3JLS	John Seamons	Open

### DXCC Multi-band (1)

#	Call	Name	Mode	Band	Count
181	NS3L	Stephen Nordahl	Open	15 m	212
182	NS3L	Stephen Nordahl	Phone	10 m	147
183	NS3L	Stephen Nordahl	CW	15 m	175
184	NS3L	Stephen Nordahl	Digital	20 m	105

### DXCC Multi-band (3)

#	Call	Name	Mode	Band	Count
108	NS3L	Stephen Nordahl	Open	20-15-10 m	599
109	NS3L	Stephen Nordahl	Phone	20-15-10 m	433
110	NS3L	Stephen Nordahl	CW	20-15-10 m	483

### DXCC Multi-band (5)

#	Call	Name	Mode	Band	Count
76	VK5BC	Brian Cleland	Digital	40-30-20-17-15 m	562
77	NS3L	Stephen Nordahl	Open	20-17-15-12-10 m	916
78	NS3L	Stephen Nordahl	CW	40-20-17-15-10 m	703
79	VK3EW	David McAulay	Digital	40-30-20-17-15 m	702

### DXCC Multi-band (7)

#	Call	Name	Mode	Band	Count
38	NS3L	Stephen Nordahl	Open	40-30-20-17-15-12-10 m	1149

### DXCC Multi-mode (CW)

#	Call	Name	Count
253	NS3L	Stephen Nordahl	243

### DXCC Multi-mode (Digital)

#	Call	Name	Count
70	NS3L	Stephen Nordahl	173

### DXCC Multi-mode (Open)

#	Call	Name	Count
457	NS3L	Stephen Nordahl	271
458	VK3LDB	David Burden	100

### DXCC Multi-mode (Phone)

#	Call	Name	Count
620	NS3L	Stephen Nordahl	214

### Grid Square

#	Call	Name	Mode	Band
310	NS3L	Stephen Nordahl	Open	HF
311	NS3L	Stephen Nordahl	Phone	HF
312	NS3L	Stephen Nordahl	CW HF	
313	NS3L	Stephen Nordahl	Digital	HF
314	NS3L	Stephen Nordahl	Open	6 m
315	NS3L	Stephen Nordahl	Open	2 m
316	NS3L	Stephen Nordahl	Open	70 cm
317	NS3L	Stephen Nordahl	Phone	2 m
318	NS3L	Stephen Nordahl	Phone	70 cm

Wanted



Articles and high quality photographs  
for *Amateur Radio* and *Callbook*.

See <http://www.wia.org.au/members/armag/contributing/>

## DXCC updates

### DXCC Multi-band (1)

#	Call	Name	Mode	Band	Count
168	VK3FZ	Roger Stafford	CW	10 m	118
183	NS3L	Stephen Nordahl	CW	15 m	175
152	VK6DW	Ian Cook	Digital	20 m	112
164	VK5BC	Brian Cleland	Digital	20 m	137
17	VK6WX	Wesley Beck	Open	20 m	202
20	VK3SX	Bob Robinson	Open	20 m	322
55	VK5BC	Brian Cleland	Open	20 m	255
90	VK6DW	Ian Cook	Open	20 m	162
166	VK3FZ	Roger Stafford	Open	10 m	202
181	NS3L	Stephen Nordahl	Open	15 m	212
21	VK3SX	Bob Robinson	Phone	20 m	322
37	VK5BC	Brian Cleland	Phone	20 m	211
39	VK6WX	Wesley Beck	Phone	20 m	161
151	VK6DW	Ian Cook	Phone	20 m	112
167	VK3FZ	Roger Stafford	Phone	10 m	169
182	NS3L	Stephen Nordahl	Phone	10 m	147

### DXCC Multi-band (3)

#	Call	Name	Mode	Band	Count
24	VK3EW	David McAulay	CW	30-20-17 m	883
110	NS3L	Stephen Nordahl	CW	20-15-10 m	483
66	VK3EW	David McAulay	Digital	30-20-15 m	480
104	VK5BC	Brian Cleland	Digital	30-20-15 m	356
30	VK3SX	Bob Robinson	Open	20-15-10 m	683
48	VK5BC	Brian Cleland	Open	20-17-15 m	701
97	VK6DW	Ian Cook	Open	40-20-15 m	407
102	VK3FZ	Roger Stafford	Open	20-15-10 m	563
108	NS3L	Stephen Nordahl	Open	20-15-10 m	599
31	VK3SX	Bob Robinson	Phone	20-15-10 m	676
49	VK5BC	Brian Cleland	Phone	20-15-10 m	596
103	VK3FZ	Roger Stafford	Phone	20-15-10 m	450
109	NS3L	Stephen Nordahl	Phone	20-15-10 m	433

### DXCC Multi-band (5)

#	Call	Name	Mode	Band	Count
21	VK3EW	David McAulay	CW	40-30-20-17-12 m	1367
35	VK7CW	Steven Salvia	CW	40-30-20-17-15 m	1124
78	NS3L	Stephen Nordahl	CW	40-20-17-15-10 m	703
79	VK3EW	David McAulay	Digital	40-30-20-17-15 m	702
31	VK5BC	Brian Cleland	Open	20-17-15-12-10 m	1114
47	VK3SX	Bob Robinson	Open	40-20-17-15-10 m	944
72	VK3FZ	Roger Stafford	Open	30-20-15-12-10 m	831
77	NS3L	Stephen Nordahl	Open	20-17-15-12-10 m	916
33	VK5BC	Brian Cleland	Phone	20-17-15-12-10 m	928
52	VK3SX	Bob Robinson	Phone	40-20-17-15-10 m	924

### DXCC Multi-band (7)

#	Call	Name	Mode	Band	Count
10	VK3EW	David McAulay	CW	80-40-30-20-17-15-12 m	1756
14	VK7CW	Steven Salvia	CW	40-30-20-17-15-12-10 m	1475
15	VK7CW	Steven Salvia	Open	40-30-20-17-15-12-10 m	1566
24	VK5BC	Brian Cleland	Open	40-30-20-17-15-12-10 m	1484
35	VK3FZ	Roger Stafford	Open	40-30-20-17-15-12-10 m	1053
38	NS3L	Stephen Nordahl	Open	40-30-20-17-15-12-10 m	1149

### DXCC Multi-band (9)

#	Call	Name	Mode	Band	Count
12	VK3EW	David McAulay	CW	160-80-40-30-20-17-15-12-10 m	2073
1	VK3EW	David McAulay	Open	160-80-40-30-20-17-15-12-10 m	2777

### DXCC Multi-mode (CW)

#	Call	Name	Count
222	VK5BC	Brian Cleland	185
246	VK6DW	Ian Cook	123
249	VK3FZ	Roger Stafford	223
253	NS3L	Stephen Nordahl	243

### DXCC Multi-mode (Digital)

#	Call	Name	Count
20	VK3EW	David McAulay	280
29	VK5BC	Brian Cleland	206
33	VK7CW	Steven Salvia	139
41	VK6DW	Ian Cook	135
65	VK3FZ	Roger Stafford	120
70	NS3L	Stephen Nordahl	173

### DXCC Multi-mode (Open)

#	Call	Name	Count
388	VK5BC	Brian Cleland	301
407	VK6DW	Ian Cook	200
451	VK3FZ	Roger Stafford	292
457	NS3L	Stephen Nordahl	271

### DXCC Multi-mode (Phone)

#	Call	Name	Count
573	VK6WX	Wesley Beck	213
582	VK5BC	Brian Cleland	285
599	VK6DW	Ian Cook	151
617	VK3FZ	Roger Stafford	249
620	NS3L	Stephen Nordahl	214



Participate

**AHARS Hamfest**

12 November 2017



# DXTalk

Luke Steele VK3HJ

The end of August saw the appearance of a large sunspot group designated R2673. Not only was this one of the largest sunspots to be seen for some time, it was also the most active in the whole of solar cycle 24 so far. It produced more than 25 M-Class and four X-Class flares, including an X9.3, the largest of the cycle. As a result of the coronal mass impact from the X9.3 flare, there was a severe geomagnetic storm around 8 September. R2673 produced an X8.2 flare on 10 September, as it rotated off the west limb of the sun and disappeared from view. The end of September saw further geomagnetic activity resulting from a coronal hole high speed stream. Solar indices rose for most of September, and there was some good DX activity reported on the 15 m band, and higher.

The periods around the equinoxes tend to improve DX conditions, and this one has seen a refreshing uplift in conditions. The fairly reliable 20 m band has been quite productive; 15 m has seen some activity across Asia, Pacific and North America, and even 10 m has shown some DX activity to Asia and North America. Top Band has been good to Asia, Pacific and North America most evenings.

DX worked or heard at the author's station includes E6AG Grant in Niue, 3D2AG Tony in Fiji, H40GC Stan in Temotu Province, 5W0RA Alan in Samoa, HD8M DXpedition in Galapagos Islands, FP/ DXpedition in St Pierre and Miquelon, 5T5OK DXpedition in Mauritania, A5A DXpedition in Bhutan, and FT5XT/MM Gildas near Kerguelen Islands.

Thanks to John VK3JLS for the following report:

*"During September, conditions generally were not great, but there were a few openings. During the month, I concentrated mainly on FT8 while doing other things in the shack. My new role with the WIA is taking a bit more time than I anticipated! (John is the new WIA Incoming and National QSL Manager.)*

*There was a really good 20 m opening to Europe on 31 August. Countries worked on FT8 included LZ2HA, DF2PI, E75C, OK1JPO, LX1HD, OE3OOG, UT2MA, F6DKQ, ON4CJU, 9A2AA.*

*On 7 September, it was great for David 9G1SD in Ghana to pick me out from the pileup calling him on 20 m FT8. I emailed David afterwards, and he indicated it was great to see the VKs and that he would be spending more time on 20 m.*

*On the ANZA net (14.083 at 0515z), Frankie VP2MNI made a couple of appearances, with 59+ signals in early September, and Rig, HI8RD also made a few appearances on the net.*

*7 September, an early opening to North America; at 2330z FT8 band was full of strong signals, but it died at 0000z.*

*12 September, good signal 59 from HI8RD (Rig) on the ANZA net again today. Good opening to Europe long path on 20 metres from 0530 to 0730z. VKs calling CQ were swamped with European responses, with strong signals both ways. Best opening seen for some time by me. It had been almost 10 months since I last had a rag-chew with Peter G2YT."*

## Upcoming DX

DXpedition activity scheduled for October includes the following.

**VK9MA Mellish Reef** (OC-072), 3 - 16 November. A team of nine operators will be on 160 - 10 m with a focus on 160 - 20 m. CW, SSB and RTTY. QSL via Club Log, LotW, eQSL, or via N7QT bureau or direct. For more information see website: <https://vk9ma.com/>

**9U4M Burundi**, 6 - 17 November. A large group of Mediterraneo DX Club members will be active from Bujumbura on 160 - 10 m CW, SSB, RTTY and FT8, with five stations. QSL via LotW or via IK2VUC, bureau or direct. For more information see website: <http://www.mdx.org/9u4m/>

**VP2MDL Montserrat** (NA-103), 6 - 20 November. A group of seven operators will be on 160 - 10 m CW, SSB, RTTY and PSK31. QSL via LotW or DL7DF, bureau or direct. For more information see website: <http://www.dl7df.com/vp2m/>

**VK9AR Ashmore Reef** (OC-216), 7 - 10 November. Mike AB5EB, Mike AD5A and Craig VK5CE will activate Ashmore Reef, ranked fifth Most Wanted on the IOTA List. They plan to operate on 40 - 15 m CW and SSB. For more information see website: <https://ashmorereef.wordpress.com/>

**5K0T San Andres & Providencia** (NA-033), 12 - 25 November. A group of six operators will be on air from San Andres Island on HF. QSL via LotW, eQSL or via LU1FM. For more information see website: <http://tarjetasqsl.com.ar/5k0t/index.html>

J5T **Guinea Bissau**, 13 - 25 November. The Italian DX Team will be activating Bubaque Island (AF-020) with four stations on 160 - 10 m CW, SSB and RTTY. QSL via LotW, OQRS or via I2YSB. For more information see website: <http://www.i2ysb.com/idt/>

TO2SP **St Barthelemy** (NA-146), 16 - 30 November. A Polish team of six plan operation on 160 - 10 m CW, SSB and RTTY with two or three stations. They plan participation in the CQ WW CW Contest. QSL via LotW, Club Log or via bureau to SP6IXF. For more information see

website: <http://to2sp.dxing.pl/>

9G5W **Ghana**, 20 - 29 November. A team of seven operators is planning activity on 160 - 10 m CW, SSB and RTTY. They will have four stations and a focus on Low Bands. QSL via S59ZZ and LotW after six months. For more information see website: <https://ghana.si/>

#### Other news

#### CY9C St Paul Island DXpedition

In the planning stage is a DXpedition to St Paul Island, near Nova Scotia, Canada. Dates

of operation 1 - 9 August 2018. Operators include WA4DAN, N0TG, K4ZLE, AA4NC, N8AA, VAE1R, WW2DX, W2RE, N2IEN and N5TG. They plan operation on 16 - 6 m SSB, CW, RTTY, EME, Satellite and maybe FT8. For information see website: <http://cy9c.com/index.html>

Please email me with any DX related news for inclusion in this column. I am particularly interested in hearing about DX worked or heard in other states.

[vk3hj@wia.org.au](mailto:vk3hj@wia.org.au)

73 and good DX,  
Luke VK3HJ



## Ballarat Amateur Radio Group Inc. (BARG)

# HAMVENTION

## Sunday 5 November 2017

At the Ballarat Greyhound Racing Club's Function Room, Rubicon St. Redan, Ballarat

### Display and Sales

Traders \$6.00 per person, Trade Tables \$10.00  
(Space for 70+ tables, this is the big one!)

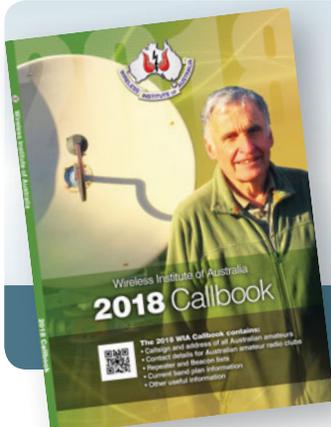
General Admission \$ 6.00 (under 15 free)

STRICTLY 10:00 AM START

Food and drink will be available on the premises

Enquiries To:

Roger VK3ADE Email: [hamvention2017@barg.org.au](mailto:hamvention2017@barg.org.au)  
or BARG on the web [www.barg.org.au](http://www.barg.org.au)



Wireless Institute of Australia

# 2018 Callbook

## Coming soon

## Northern Corridor Radio Group (NCRG)

It has been a huge month for NCRG in September. We held our first monthly tech evening on Tuesday 12 September where Steve VK6SJ gave a presentation on Simulcast Networks on 2 m. Appended to the presentation was an impromptu fireside style discussion with Rex VK7MO who, along with Keith VK6KB, set a new world distance EME 3 cm band record with a contact between Meelup Bay in SW WA and Delaware USA. The presentations were well received and we agreed to continue these presentations on a monthly basis (second Tuesday of each month). These presentations were inspired by a similar monthly event carried out by the Manly Warringah Radio Society (VK2MB) that Steve VK6SJ has attended (and presented at) a few times. Next month's presentation will be provided by Wayne VK6EH.

On Tuesday 26 September,

we held our AGM with Tim VK6EI elected President, Wayne VK6EH Vice President, Chris VK6LOL Secretary and James VK6FJA returned as Treasurer.

During the month we had a number of storms pass through Perth resulting in our 15 m Yagi and tower being damaged to the point of being condemned, as well as taking down our 80 m 4-square array and also damaging our 40 m 3-element Yagi. The 15 m Yagi and tower has now been taken down. We are hoping to have all our antennas except possibly the 80 m 4-square array back up in time for the CQWW.

We held our Hamfest Weekend late this month and most agreed that it was a great event. Gerald Youngblood (K5SDR) gave a fantastic live presentation via video conference and had everyone wanting to trade in their old rigs for a new SDR rig (making the author a happy chappy)! Steve Ireland VK6VZ followed this up with an excellent presentation on the

history behind SDR in amateur radio. Trent Sampson VK4TS made the trip across from Brisbane to deliver his Contest University presentation – similar to the one given at the WIA AGM. Following this were two presentations on DMR provided by Matt McDonough VK6ML and Andrew Albinson VK6IA.

Our Gala dinner, whilst only having 30 attendees was a great success and everyone enjoyed themselves immensely – but not too much given most of us were setting up for Hamfest the next morning. Stu VK6BG was presented with an award for NCRG club member of the year. Tributes were also given to a number of well deserving organisations and amateurs including Ham College, WARG and NewsWest.

Hamfest on Sunday 1 October was a huge success despite numbers being slightly down on previous years. Wayne VK6EH was the lucky winner of the first prize in the raffle, winning a Flex 6400.

Photo 1: The Hall at Hamfest.





Photo 2: VK6EH winning a Flex6400 SDR transceiver.

Another highlight of the month was receiving the final scores for the RD contest where we won top score for MM and broke the previous record by 200+ points.

73s from Steve VK6SJ

### Hills Amateur Radio Group (HARG)

The end of September in VK6 saw

the last long weekend for the year and the group made the most of it, heading out for one of our RF campouts. We headed south east of Perth to a site called Pumphrey's Bridge, located on the Hotham River. Thanks to the early arrival of John and Jodie (VK6FJON and XYL), we were able to secure a great spot with a large shed that was the

old pavilion for a disused cricket oval. This kept us and the radio gear nice and dry all weekend. We were lucky with the weather. While Perth had rain and hail, we got away with a few showers and missed the really bad stuff. We suffered again with the invertors from other campers, but managed some really good contacts on our portable setup.

Photo 3: HARG at Pumphrey's Bridge RF Campout.



We strung up a horizontal loop in a triangular shape this time and fed it with homebrew ladder line from a corner. We managed to get it about 15 m in the air. Due to the tree locations, we couldn't put up a monster, so had to be happy with 80 m and up.

We have started tinkering with a remote station to give the members the ability to use the club's gear from home. A work in progress, but thanks to Allan's (VK6AN) work in organising a suitable internet connection; we have been testing a setup using the Remote Hams software. So far it is going well, but limited to one antenna and three bands. Over time we are hoping to have all bands and all antennas available with remote control of the rotator.

We would like to congratulate (and do a little bit of trumpet blowing) Ian VK6DW. Ian went to his letterbox to find two awards from the WIA. Ian had won the WIA DXer of the Year for 2015 (Digital) and 2016 (Phone). With Steve VK6IR winning the same award in 2014 that makes three years running that a HARG member has taken them out. Congratulations to both, certainly a great achievement!

HARG has two officially set meeting days each month on the second and last Saturdays. We have access to the shack on most other Saturdays in the month as well. The last Saturday of the month contains the general meeting with all other occasions left open for social and practical activities. Even the Saturday with the generally meeting is a social event. Doors officially open at 1:00 pm but you'll usually find someone there a little earlier. We usually kick off with a sausage sizzle. Visitors are always welcome. Get some more information at our website [www.harg.org.au](http://www.harg.org.au) or our Facebook page @hillsarg.

73, Ray VK6ZRW

## Ham College

Ham College held its AGM on 12 September with Steve VK6SJ voted Chairperson, John VK6FB voted Secretary and Treasurer, Andrew

VK6AS voted Enrolments Officer.

Ham College is now asking for expressions of interest for Standard and Advanced courses for 2018. Expressions of Interest can be submitted through the contacts page on the website at <http://hamcollege.com.au> or by phone to Andrew on 0411463530.

73 from Andrew VK6AS

## The Capes Lighthouse Radio Group

Last month, I reported on some history regarding the AXB transmitter at Cape Leeuwin. I incorrectly stated that Anthony VK6AXB had refurbished the transmitter. Anthony sent the following detail on this transmitter:

All the credit for refurbishment of the AXB transmitter belongs to historical radio enthusiast Don Mantack (ex-VK6LF) who obtained one of the original transmitters from AMSA and painstakingly restored it. Anthony assisted Don with transporting the restored unit to site.

The photo shows Don standing next to the restored transmitter, which is a Commonwealth Electronics type T50. These were used at the Cape Leeuwin NDB from approximately the mid-1960s until the beacon was decommissioned in 1992. Initially the antenna was a 60 metre guyed mast with capacitive top-hat as the vertical radiator; in 1975 this mast was removed and replaced by a folded flat-top vertical wire antenna, strung between two free-standing 40-metre towers.

Cape Leeuwin are in the process of updating their interpretive centre



Photo 4: Cape Leeuwin beacon with Don Mantack, 2013.

and are seeking more information about the beacon, and generally about the lighthouse's history and the people who worked there; if anyone has stories to share I am happy to put you in touch, email me on [axb@iinet.net.au](mailto:axb@iinet.net.au)

## West Australian Repeater Group

WARG continues to meet on the first Monday of the month, or second where the first is a public holiday, at our new meeting venue, the 1<sup>st</sup> Pelican Point Sea Scouts facility located at 12 Australia II Drive in Crawley, adjacent to the Royal Perth Yacht Club. Doors are usually open at 1900 for a 1930 start, with tea, coffee and refreshments available. Remaining meeting dates for 2017 are October 2, November 6 and December 4.

WARG's regular on-air technical and general net continues every Sunday, at 1030 local time, on VK6RLM, 146.750. New members are welcome, contact WARG at [secretary@warg.org.au](mailto:secretary@warg.org.au)

73 from Anthony VK6AXB.



Jim Linton VK3PC

e [arv@amateurradio.com.au](mailto:arv@amateurradio.com.au)

w [www.amateurradio.com.au](http://www.amateurradio.com.au)

## KRMNPA weekend this month

The seventh annual Keith Roget Memorial National Park activation weekend is from Friday 10 to Monday 13 November, with the primary aim of assisting and encouraging both Activators and Hunters.

There are 45 National Parks in Victoria. Some of the 'rarer' ones will be on the air across the four day period. Peter Watkins VK3TKK will be at Wilsons Promontory, the southernmost part of Victoria on the Friday and then travelling to the French Island National Park on Westernport Bay.

This is an ideal time to chase and activate those most needed VK3 National Parks as you work towards the prestigious Merit and Grand Slam Awards.

Full KRMNPA details are on our website at: <https://www.amateurradio.com.au/awards>

A regularly updated list of National Parks to be activated is in the files section of the Yahoo group site at: <https://au.groups.yahoo.com/neo/groups/krmnpa/info>

## VK3RTV vacates Mt Dandenong

It was with nostalgia and a bit of sadness that the digitised television repeater VK3RTV closed and left its home since 1981, to be mothballed while a new location is sought.

It began in September 1978. By 1981, it moved to the elevated site at the Olinda site to serve Melbourne and Geelong.

There it had black and white conversion to colour, then in June 2009 went digital as commercial stations were coming to grips with the then new technology. It has been the centre-piece of the popular annual World Digital ATV QSO Parties.

VK3RTV will soon have experimental tests from Surrey Hills and from potential other sites, as

it looks at the options for a new home.

## Foundation licence course

Enrolments are now being taken for the Foundation licence training course and assessments to be held on 9-10 December at 40g Victory Boulevard, Ashburton.

The entry level licence continues to be the most popular way to get into Amateur Radio. A prerequisite is a copy of the study and operational practice guide book for the Foundation Licence that is available for \$35 from our online shop.

To enrol or obtain any further details please contact Barry Robinson VK3PV, the Education Team Leader [foundation@amateurradio.com.au](mailto:foundation@amateurradio.com.au) or 0428 516 001.

Congratulations also to those who attended the six week Standard Licence Bridging Course run by Kevin Luxford VK3DAP/ZL2DAP that ended last month. We will be hearing new callsigns following this upgrading opportunity.



## Gold Coast Amateur Radio Society HAMFEST 2017 Saturday 11 November 2017

*Venue: Albert Waterways Community Hall, Corner Hooker and Sunshine Boulevards, Mermaid Waters.  
(Just behind Pacific Fair Shopping Centre)*

- Doors open to the public at 08:30 (Table holders can set up from 06:30).
- Everything is under cover.
- On-site parking.
- Entry only \$7:00 per person or \$10 Family.
- Great Raffle Prizes.
- Further info <http://www.gcars.com.au/hamfest-2017>
- Table bookings please contact [hamfest@gcars.com.au](mailto:hamfest@gcars.com.au)

**See you there!**



## VK2news

Tim Mills VK2ZTM  
e vk2ztm@wia.org.au

The planned change next year of this magazine becoming bi-monthly will require some of the input material to be planned with longer lead times. Maintaining our print form magazine is, I believe, important for retaining a record of our history. Is long term storage and retrieval in the computer world as secure as the paper printed word? I recently came across this item in an Australian magazine that had a life span of fifteen years from 1935 to 1950. It was 'The 'Australasian Radio World' which was produced by AG Hull, the brother of the

famous Ross Hull. It was produced in Victoria.

An editorial in December 1949 caught my eye. Many of our older readers will remember or have been involved with the surplus radio equipment which was released after WW2. The editorial noted that the Wireless Institute was heavily involved in the purchase of this surplus, ex-army, disposal gear which had turned over many thousands of pounds, then a lot of money. There was concern expressed that this money would have been better spent in

buying the production output from the many struggling radio and component industries. The editorial concluded on the comment that the 'cream of the disposal business has now been skimmed' and it was expected that the industry trading conditions will be greatly improved during the coming year.

For the life of the magazine it had, along with contributors, been solely produced by Mr. Hull. In November 1950 it was advised that being a 'one man business' it had become too much and that it had been sold to a Sydney

*Photo: ARNSW President Mathew VK2YAP (Left) presenting the ARNSW 2017 Development Fund Grant.*



company, effective 1 December 1950. The new owner was a Mr. Lay W Cranch who held the call sign VK2XC [only during 1950]. He also had VK3 calls of VK3CF and VK3T [an experimental one]. This was a short venture. The last issue was 20 December 1950. Copies of this magazine are held in the National Library in Canberra. More bits of history in future notes.

### Summerland ARC

The Summerland ARC is an active club in the far north coast region of VK2, based at Lismore. They maintain a group of repeaters for the region. They are active in digital modes which are reported in their weekly internet newsletter. They have a Standard licensee course planned for the week 6 to 11 November, 9 am to 5 pm. Inquiries [vk2src@gmail.com](mailto:vk2src@gmail.com) Their Xmas lunch is planned for Saturday 9 December.

### Radio Club News

This year's Trek for Timor event with **WICEN NSW** was cancelled due to the high bush fire danger at the planned event site.

**ARNSW** has this year's final Foundation course weekend on 18 and 19 November. Bookings and inquiries to [education@arnsw.org.au](mailto:education@arnsw.org.au) The Upgrade course on Monday evenings will conclude on 14 November. The next will most likely be starting in March 2018. The final ARNSW Trash & Treasure for year on Sunday 26 November 2017.

**Manly Warringah RS** were this year's recipients of the ARNSW Development Fund Grant to upgrade their field day and public display ability. The funds were

presented to the Project Leader Greg VK2XE at the September ARNSW Home Brew gathering – a function of the bi-monthly Trash & Treasure – by ARNSW President Mathew VK2YAP.

The VK2WI 80 metre Morse code training facility has its transmitter held on frequency by a 3699 kHz crystal. Recently an interesting problem occurred when a signal also appeared on half the frequency on 160 metres. A high SWR was noted and traced to being with the antenna, which appeared visually OK. Replacing the antenna wires cleared the problem. So, even bits of copper seem to wear out.

On the mid north coast of VK2, the **Coffs Harbour** club recently commissioned a 6 metre repeater on 53.750 MHz VK2RCB located near Dorrigo - reports requested. The **Chifley ARC** in Western Sydney moved into their new club rooms, still at the same location in Plumpton but in a new building. They meet every Saturday afternoon. [www.carc.org.au](http://www.carc.org.au) **Waverley ARS** have a Foundation weekend on 25 and 26 November. **St. George ARS** have a Foundation weekend on 18 and 19 November and then in 2018 on 17 and 18 February. **Fishers Ghost ARC** have planned a Foundation and assessment weekend for 11 and 12 November.

The **Oxley Region ARC** on the mid north coast has had various field activities including the RD Contest at the Camden Haven airfield, the Light House and Light Ship event at the Tacking Point Lighthouse and have the Xmas function planned for the monthly

meeting on Saturday 2 December. Their membership is kept up to date with a 12 or more page bi-monthly electronic newsletter – OxTales. **ORARC** are working towards establishing their 6 metre repeater. The recent three club picnic at Fitzroy Falls in the Southern Highlands with Illawarra, Mid-South Coast and Goulburn attending attracted an attendance of over sixty. A report is elsewhere in this issue. Another gathering could occur in the near future.

**Westlakes ARC** is another club with an extensive informative 24 page monthly electronic newsletter. Obtaining a US licence at exams held in Sydney has become a regular event with one successful candidate in September. HADARC had a fund raising auction night last month and have Xmas lunch planned for Saturday 3 December. They keep their members informed with a 6 page monthly electronic newsletter – QUA.

### Museum

Where does one see the WW2 radio equipment mentioned at the start of this month's notes? One location is the Kurrajong Radio Museum conducted by Ian VK2ZIO. Open over the weekend and also on week days by arrangement, it has something of interest for all the family. There was recent publicity in the Hills to Hawkesbury fortnightly magazine which helped increase attendances during the September school holidays. Visiting Sydney? Include the museum in your sightseeing. [vk2zio@yahoo.com.au](mailto:vk2zio@yahoo.com.au) 02 4573 0601.

73

Tim VK2ZTM.



## Participate

**Keith Roget Memorial National Parks Weekend**

11-13 November

**VKFF Activation Weekend**

25-26 November



# VK5news Adelaide Hills Amateur Radio Society

Christine Taylor VK5CTY

## Basic Arduino Electronics Course held at our radio shack on 23/09/2017

The Adelaide Hills Amateur Radio Society (AHARS) held, what appears to have become, an annual 'basic' Arduino electronics course for its members and those interested in learning what is being taught in, at present, 1.5 million schools throughout the world. It was run yet again by one of its stalwart members, Graham Dicker, who has taught this course so many times, that he has accumulated boxes of components, which he allows those doing the course, free access. A great monetary savings for the club! All that people had to supply in this 9 am to 4 pm course was a laptop computer with its power source. Graham handed out USB sticks with the Arduino program and all the exercises used throughout the day.

### Safety first

The very first thing that began this short course was a PowerPoint presentation and video on safety to be observed when using electronic/electrical equipment, even though the Arduino only uses a safe 5 V direct current power source. If a person uses a 5 volt Arduino to turn on a 240 volt appliance, then some safety feature **must** be in place. Anyone doing so should seek help from an electrical engineer before proceeding into this field of higher voltage and current, which is fraught with danger.

### The activities undertaken

Graham sold each member present an Arduino 'micro' for a mere \$5. This was the main instrument around which each of the exercises was based – flashing a LED, then two, then strips of LEDs; altering time constants with first a potentiometer, then a light dependent resistor and quite a few other 'sketches' (programs) as well. The final exercise was for people to consult the Morse code alphabet, find the code for their initials, and then write code to have their initials flash away repeatedly on a LED. Each exercise was accompanied by an Arduino 'sketch' which people could take home on their laptops to carry out further experiments.

### Additional helpful materials

In addition, a number of 32 GB USBs were on hand with 27 Arduino tutorial videos, 36 videos on the use of each of the sensory units which can be bought off BangGood.com for a very low price; videos and text for a plethora of programs on each sensory transducer that can input to an Arduino Unit; a tour of the Arduino factory in Italy; and finally, as many projects gathered and written up from books, to fill the USB stick. There were also quite a number of books displayed

that the members could consult for learning and ideas on projects. Hence members could build their own 'libraries' to 'scissor and paste' sketches into their own project sketches.

It was quite a valuable learning experience for a total cost of \$5. Advanced courses are in the offering in the near future. Graham has done advanced courses for us as well and his next advanced course will be on the use of DDS units and their programming.

### After the meeting

As is so often the case, some of the most important events occur after the meeting has ended. Several interested members, dedicated to promulgating their own club ideals and STEM activities (Science Technology, Engineering and Mathematics) stayed behind and were emphatic that this course should be offered to school children and more importantly, their teachers, to help them gain empowerment in this field by people who have so much, and are so willing to give. The reader will hear more of this exciting development in the future.

Trevor Molde VK5NIX

Thanks Trevor.

### SK Darcy Hancock VK5RJ (A Significant Silent Key)

Missing his 107<sup>th</sup> birthday by just a few days, we regret the death of Darcy Hancock VK5RJ. Darcy was interested in amateur radio right to the end, ringing a friend just a few days earlier to discuss some aspect of PSK applications he had come across. He has been a legend



Photo 1: Graham running the Arduino Course.

in VK5 for many years and will be sadly missed by those who have been in amateur radio for long years. Until the last year or so he attended the Old Timers' luncheons.

A minute's silence was held at the beginning of the September meeting of AHARS.

(See Ian Sutcliffe VK5IS's notes on Darcy on page 62.)



Photo 2: Members taking part in the Arduino Course.

## The September topic

Rod VK5ZRK introduced us to the developments in portable batteries using some material written by John VK5BJ (which is available on the Peaks and Parks website).

John has had enough experience of climbing to a peak with a heavy battery while Rod has been using portable batteries for his remote control aircraft where the weight of everything you carry with you is of significance, so the research John has done is of interest to us all.

In the realm of portable batteries, the NiCd was a marvellous development, compared with anything before. However, experience showed that the NiCd had some issues. Unless the cells were totally discharged each time before they were recharged, they developed a 'memory' and would not accept a full charge. The 1.2 volts per cell compared to 2 Volts for lead-acid, with which we were familiar, increased the number of cells to be carried.

Lead-acid in the form of gel cells/SLAB (sealed lead acid batteries) was an advance but they were still heavy.

Then Lithium-ion cells arrived, often built into our handhelds. They were small and had a better capacity than before. A definite improvement.

Rod then spoke of the lithium polymer cells built for the radio control market. These cells do not have solid

(heavy) cases; they are built into pouches. Rod showed us a LiFePO<sub>4</sub> (lithium-iron phosphate polymer) cell that weighs only 650 grams and has a capacity of 8400 milliampere hours. The voltage of the LiPo cells is 2.7 V discharged and 4.23 V fully charged. They are also protected during the charging process by limiting the voltage to 4.235 volts per cell. LiPo cells must not be overcharged, or charged too fast. Rod made it quite clear that a good charger will take care of that. He gave us a marvellous demonstration of the versatility of the Turningy charger. He had a camera aimed at the control board of this charger as he changed from charging a NiCad cell, through a Lead-acid, to a LiPo cell, with the display changing to suit.

What is also interesting about this charger is that once you choose what kind of cell you are charging, it offers you a number of options specific to that type of cell. You do not need to do anything except select the particular parameters from those offered by the display.

Another aspect of the charger is that individual cells can be selected to check their voltage and/or to charge individually. This can be important when a number of cells are used in tandem to give the required voltage for the equipment in use.

Altogether it was an interesting and informative talk, and one that will be of use to our members.

## Parks and peaks activities

This valuable look at the state of the art batteries will be a great help the next time you decide to become a "mountain goat" or visit a park to do some portable operating. Please remember the iPhone app written by Sue VK5AYL that can tell you the nearest peak or park to your current

location.

AHARS is sponsoring this activity and we are very pleased with the number of amateurs participating. Keep on keeping on and be sure to report your logs and claim your certificates.

## The Shack activities

The Arduino session was run at our Shack in Blackwood and by the time you read this we will have had another exam session. There will also have been a Busy Bee to deal with the grass that has grown during the winter. The shack is being used as we hoped it would be.

## The Christmas dinner and the January picnic dates

This year the Christmas Dinner will be at the Belair Hotel, on 3 December, at 12 o'clock. Please give your name to someone on the committee and please, if you say you are coming, do let us know if you have to cancel at the last minute. We have to provide numbers and pay for you if you are not there.

The January Picnic will be at the Bridgewater Lions Park Grounds as usual and again we would like you to give your name and numbers to the committee in time so we can arrange the catering. More details will be available at the next meetings.

73

Christine





# ALARA

Diane Main VK4DI



Photo 1: At RFDS Cairns are Cheryl VK3FCYL, Lyn VK4SWE, Kevin VK5KZ, Peter VK3RV, Charlie VK3ZD, and Rod VK5SX with Jenny VK3WQ, Tina VK5TMC and Jenny VK5FJAY in front before the RFDS Aircraft (Photo courtesy VK4SWE).

## ALARAMeet: 8 - 10 September 2017

49 Ladies and OMs descended on Cairns for ALARAMeet 2017. The majority stayed at the Cairns Colonial Club whose staff embraced our ideas with enthusiasm. Some members arrived early in the week and were impressed with the warm weather we had ordered.

### Thursday

On Thursday, a group of early arrivals were invited to the RFDS site.

Thursday evening saw a small group “stuffing” our distinctive ALARA Bags with Nerada Teabags, locally grown Chocolate coated coffee beans, lanyards, programs, beautiful Kumihimo braided key rings (thanks Tina VK5TMC), a “33” Bookmark, ALARA Pens, locally made soaps and an anti-depression



Photo 2: On duty at the ALARAMeet Bletchley Display is Jenny VK3WQ (Photo courtesy of VK4ZM).

kit to name a few. Thanks to our assistant Bill VK4ZD.

### Friday

Friday registration opened in the beautifully appointed Queenslander style Conference Centre with its sweeping staircase leading upstairs to our meeting area. Displays of handcrafts, lace making, handmade jewellery mixed with a brag table with members Awards and certificates, a fabulous Bletchley display from June VK4SJ with Jenny VK3WQ suitably outfitted in a WWII uniform. Lyn VK4SWE and Lyndall VK4ZM had various Morse keys on display. The history table was another interesting display with photos of members over the years.

A vintage radio display was set up in the entrance hall. Lunch and afternoon tea was provided on the verandas around the building.

Shirley VK5YL ran the EchoLink Net with 43 check-ins and five countries.

Friday night saw us in tropical splendour attempting a crossword puzzle with both Ham Radio and Queensland questions on a white board: much hilarity ensued as some numbers were duplicated! There was no winner, just a load of fun and many thanks to Lyn for organising the quiz.

### Saturday

Saturday was the official opening by President Shirley VK5YL and attendees were invited to pose for photo.

Many of the OMs and some YLs attended the Armoury Museum Tour and thoroughly enjoyed it. Lyndall VK4ZM demonstrated how to participate in the “Fox Hunt” being conducted in the grounds. The sight of groups of three ladies wandering around the lush grounds searching



Photo 3: ALARA President Shirley VK5YL on EchoLink Net for ALARAMeet 2017 (Photo Courtesy VK2DB).

for the four “radioactive” bananas had a few of the resort’s other guests scratching their heads.

Linda VK7QP and Diane VK4DI gave a short overview of contest logging and associated programs for everyday computer logging, with some interactive demonstrations.

There was a session on using a multimeter from the Townsville Radio Club (TREC).

Shirley VK5YL, Tina VK5TMC, Lyn VK4SWE and Lyndall VK4ZM were interviewed on air by the ABC Radio in Cairns and thoroughly enjoyed the experience.

Sat Night was “Irish Night” at the resort and Lyn had organised some Irish Themed hats and vests etc. The food was Irish themed as well.

Lyn VK4SWE surprised all of us by joining the musician on the Bodhran (Irish drum) ensuring we all had a great night.

Photo 4: At the Colonial Club from their majestic staircase, the ALARAMeet First Day Crowd (Photo courtesy VK4ZZ).





Photo 5: Foxhunting practice in the Gardens with Jean VK3VIP, Pat VK3OZ and Linda VK7QP (Photo courtesy VK4ZZ).



Photo 6: What they were trying to "catch"- one of four bananas (Photo courtesy VK4ZM).

Photo 7: At ABC Cairns being interviewed are Tina VK5TMC, Lyndall VK5ZM and Shirley VK5YL (Photo Courtesy VK4SWE).

## Sunday

Sunday saw an early start as we headed to the train station to board the train to Kuranda with some members choosing the Skyrail instead.

After a short stroll through Kuranda we boarded our coach.

Our trip from Kuranda was taken in an air-conditioned coach. We travelled through the Atherton Tablelands. Our local driver took us on a comprehensive overview Taste of the Tablelands, pointing out highlights along the way; Coffee plantations, Bananas, Mangoes, and Sugar Cane etc.



We stopped for lunch at Mareeba Heritage Centre. We were given a tour of the interesting exhibits on local history, including equipment from the first licensed amateur radio station in Queensland XQA. Ron VK4EMF gave an informative talk on "XQA" whilst we shared a delicious lunch with freshly brewed coffee.

Afternoon tea at Lake Barrine with its famous Scones was delightful.

VI4ALARA was activated on the bus by Lyn and we had loads of fun and laughs making mobile to mobile contact via 2 m simplex with each other. Reports of 5/7 were given to those at the back of the bus due to the distance!

Sunday night's Gala "Pirate" Themed dinner saw the room decorated with Pirate Chest table's centres filled with a "gold ingot" and some chocolate coins; helium filled pirate balloons floated above the chests. The Lectern was draped in a Pirate Flag as well.

The majority of the attendees had taken the time to dress accordingly and we saw a dazzling array of male & female costumes.



Photo 8: Irish Leprechauns – The organisers of ALARAMeet: Di VK4DI, Lyn VK4SWE and Janelle VK4ZM (Photo Courtesy VK4ZZ).

Our MC for the night was “Captain May Larkey” aka Alizah VK4FOXE.

There were a number of prizes awarded in the night. The Foxhunt winners were Margaret ZL2YF, Alizah VK4FOXE & Diane VK4DI and each received a cute toy Fox.

The wooden spoon team won a compass each to help with the next Foxhunt!

The resort staff chose the best costume of the night and Malcolm partner of Roseanne VK7NAW took home a bottle of Bounty Rum as the male winner. Ladies prize went to Diane VK4DI.

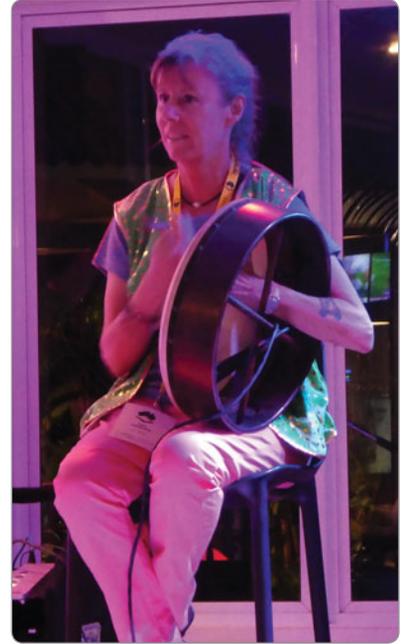


Photo 9: Irish Night at the Colonial Club and Lyn played the Bodhran beautifully (Photo courtesy VK2DB).



Photo 10: On Kuranda Rail, ALARAMeet travellers saw this view; one of many (Photo courtesy VK4SWE).



Photo 11: At the Museum in Mareeba, Lyn VK4SWE found another Morse key – not one to take home (Photo courtesy VK4SWE).



Photo 12: At Lake Barrine, the ALARAMeet Group climbed off the bus for afternoon tea. (Photo courtesy VK4ZZ).



Photo 13: Pirate Christine VK5CTY  
(Photo courtesy VK4SWE).



Photo 14: Pirate Lyndall VK4ZM  
(Photo courtesy VK4SWE).

David Box VK5DB stepped in at short notice to award the Mar's Bars prizes for "notable actions" from the members. The recipient of the award had to "walk the plank" and collect their gold wrapped bar from the Treasure chest at the front of the room. The "walks" resembled something from Monty Python's Ministry of Silly Walks much to everyone's delight.

President Shirley presented two Life Memberships on the night: the first to Jenny Wardrop VK3WQ and the second to Dot Bishop VK2DB. Congratulations Ladies.

During the night we were advised that Morgan, one of the staff at the Cairns Colonial Club was involved in the Cardiac Challenge to raise funds to assist locals to stay in Cairns for treatment rather than being transported to Brisbane. Members donated funds via the treasure chests on the tables and these were then given to Morgan.

Morgan completed the challenge and thanks ALARA for their support.

Admiral Shirley AKA President Shirley VK5YL announced that the next Meet will be in Bendigo in 2020 and thanked the VK4 Committee for a job well done.

Members also received a commemorative Metallic Gold USB drive with a compilation of everyone's photos. Thanks to Gavin VK4ZZ and Bill VK4ZD who helped behind the scenes. Gavin hid the foxes and compiled the photos and Bill transferred them to the USB drives.

## Monday

As many guests were staying on after the weekend, we arranged some Optional Tours for the Monday. Eight members signed up for the Rainforest Tour and 18 signed up for the Reef Tour. We chose to travel with Reef Magic Cruises as we have known the owner (who established the

business in 1996) for many years. He recently sold to an Australian company so this is still one of the few Australian-owned companies operating to the Reef.

There was a choppy easterly wind blowing which we had to head-butt on the 45 km run out to Reef Magic's Marine World Pontoon. The large catamaran is very stable but due to the choppy conditions quite a few succumbed to



Photo 15: Pirate Di VK4DI, Bill VK4ZD and Alizah VK4FOX  
(Photo courtesy VK4SWE).



Photo 16: Pirates Meg VK5YG and David VK5DB (Photo courtesy VK4ZM).

seasickness on the way out...

At the reef platform things were quite stable and our group busied themselves between snorkelling, glass-bottom boat and submersible as well as lizard lounging exercises. Several members put their hands



Photo 17: Pirate Bev VK6DE (Photo courtesy VK2DB).

up for the Helmet Dive – whereby you trod along a platform, with a big helmet on your head (your hairdo and glasses intact!) whereby compressed air is pumped from the surface through a tube through your helmet. Unfortunately the sea conditions on the day were too swelly and we were likely to have our helmets tipped sideways, losing our air = not a good idea! So they wisely decided to cancel the Helmet Dive! Meanwhile some of our team went below to the Underwater Observatory to view the fishes and were lucky enough to have their image captured by the skilled videographer who was also noticeably bobbing up and down in the rough swell! Meanwhile again, Dot VK2DB went out in the Glass Bottom Boat and took out the inaugural prize for Finding Nemo, finding not one but TWO Nemos! (Clownfish) – Well done Dot!

All in all, a good day out on the reef! On our way back in to port we suddenly heard “All VK to the wheelhouse!” so in we went and were treated to a special tour by our engineer AJ who explained how the company uses handheld radios for boat comms and how the main company comms are handled via Townsville. He agreed with us that HF is king hihi...

33 de Lyn VK4SWE

Lyn has put a slideshow of photos from the meet on the ALARA website: [www.alara.org.au](http://www.alara.org.au)

### The CLARA Birthday Bash

We, John VK2ZOI and I, arrived in Winnipeg on Monday 17 July and after settling in to the Best Western Plus Winnipeg Airport Hotel, walked around the area to suss it all out. The official party began the next day but by Monday evening quite a few of the group had also arrived so we met to eat in Dalton’s Restaurant in the hotel. After dinner



Photo 18: Pirate Tina (Photo courtesy VK2DB).

we congregated for a noisy get together in room 644, where we had nibbles and drinks and the partying had begun. I was delighted that three of my sponsor radio sisters were attending the Bash too – Ann VE3HAI, Rose-Marie KB4RM and Sarla VU2SWS.

Tuesday saw about ten of us take the bus to The Forks, a historic site where the Red and Assiniboine rivers meet. We roamed the markets, had a river cruise to hear Winnipeg’s history, took a long walk along the river bank and then back to the markets for lunch, finishing off with a large ice cream as the weather was very sunny and warm. By the time we arrived back at the hotel many more guests had arrived and the lobby was filled with happy



Photo 19: On the Reef Tour: Christine VK5CTY, Tina VK5TMC, Shirley VK5YL and Marilyn VK5DMS ready to go snorkelling in wetsuits (Photo courtesy VK4SWE).



Photo 20: Hand-held radios for Reef Boat Comms (Photo courtesy VK4SWE).

meeting and greeting. We all met for the buffet dinner of baked salmon and sliced chicken with heaps of vegies. The side tables were covered with the raffle prizes and another table had a great CLARA display with history and photos. Talk went well into the night until we all just HAD to go to bed.

Wednesday was the busiest day. After breakfast was the photo session. The sunshine and heat of Tuesday didn't last until Wednesday. Instead it was cloudy and breezy. The photo session was held in front of the hotel with a backdrop of trees and shrubs and naturally

Photo 21: In the wheelhouse on the Reef Tour: Jean VK5TSX, Cheryl, Diane VK5FDNE behind Bev VK6DE, John VK2ZOI, Dot VK2DB and the engineer AJ (Photo courtesy VK4SWE).



there was a lot of lining up, posing and laughter. The bus, with driver Lawrence, arrived to take us to the Royal Aviation Museum of Western Canada. The guide at the museum, Keith VE4VO, one of the co-founders of the museum, welcomed us and led us into the huge hangar. Here we wandered, heard history and photographed the many planes of all vintages and purposes; helicopters, again all vintages and purposes; an Avrocar that looked like a flying saucer and an ornithopter that flapped its wings. We were even shown through the area where volunteers fix and restore the exhibits and also restore planes and parts for other museums. We were then led upstairs for a welcome speech by the CEO and a good lunch.

The air travel theme continued after lunch with a visit to the NAV Canada Air Traffic Control Centre. We were split into two groups and had to be very quiet - for once! The huge room was filled with rows of work stations (probably about 60) with 4 monitors for each Air Traffic Controller. It's a very stressful job so they have frequent breaks. In the busy seasons they work for one hour and then have a half hour break. Supervisors are close in case of a problem. We all found this area fascinating, especially the activity on the monitors.

Dinner that night was Slow Roasted Alberta Round Beef and

Cheesy Ravioli, again with a good selection of vegies and great dessert. The after dinner speaker was Sarla VU2SWS with an interesting and humorous presentation of her latest DXpedition and exhorting us all to try at least one DXpedition in our life.

Thursday was the Ladies' Only Meeting where we discussed many ideas about getting and keeping members in the club.

The afternoon was free to prepare for the banquet. That night everyone dressed up and the room and tables were decorated beautifully. The Winnipeg Police Choir spoilt us with great singing and we all were swaying and foot tapping with the rhythm. Then came the banquet; Chicken Wellington with it all. What a feast. The special birthday cake was Val's favourite; three layers of light cake on a shortbread base, covered with icing and chocolate curls and the CLARA Birthday Bash logo on the top - not too heavy and very easy to want seconds.

Guest speaker was David Rosner VE4DAR who gave more ideas on getting and keeping new members. The donated door prizes were called and everyone chose at least two gifts, there was a lovely varied selection of things to choose. The raffle was drawn and Sarla won the lovely pink hand held radio. Suzanne VE3IM and Dot VK2DB were thrilled, and were the envy of everyone, when they won the two red and white handmade maple leaf quilts.

Next day was a quite a scene at breakfast as many hugs and farewells took place. After the International Meet in 2016 we'd decided 'no more overseas trips' but then we hadn't been to Canada.

CLARA's Birthday Bash was so well planned and so much fun, I'm glad we attended it.

Dot Bishop VK2DB

## VI4ALARA

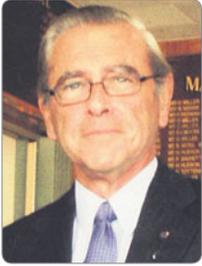
On Saturday 30 September the final contacts were made on SSB with a fantastic 4.5 hour run on 20 m into Europe, followed by a great 40 m run into Europe and the USA.

A total of 1,783 contacts on SSB & CW with some FM were made and 8,791 QRZ Lookups were recorded.

The final log has been uploaded to ClubLog and QSL cards will be sent out shortly.

The ALARA Contest Results will be published next month  
Diane VK4DI.





# VK3news Geelong Amateur Radio Club

Tony Collis VK3JGC



Photo 1: Marconi Hut.

The GARC fielded two teams for the ILLW, one at **Pt Lonsdale White Lighthouse (AU0028)** and the other at the **Queenscliff Maritime Museum (QMM)** adjacent the **Black Lighthouse AU0050**

## ILLW Contest at Queenscliff Black Lighthouse

**Dallas VK3DJ** managed to get set up in the Marconi Hut at the Queenscliff Maritime Museum (QMM) with the help of **George VK3AGL** and **Calvin VK3ZPK**. With the three of them working like a well-oiled machine, it only

took about 40 minutes to get on air.

Noise levels have steadily been getting worse over the 10 years that Dallas has operated at this location, this has largely been due to the increased commercial activity in the area. In all he only managed 18 contacts for the day, eight of these being other lighthouse locations and on 20 m and 40 m. several VK4, VK2 and a couple of VK7s were heard and they had very good signals lifting them well above the noise. This was the first year Dallas hadn't worked any overseas stations.

It was unfortunate in that the QMM promote this activity hoping it would bring more people through the museum door. This year only one group came to the museum, because it was so cold and wet. Dallas himself ended packing up early and heading over to the other club station at Pt. Lonsdale and enjoyed the company of the GARC club members and some refreshments.

In all some eight GARC Club members visited the QMM station on the Saturday.

Photo 2: Dallas VK3DJ operating.



## ILLW Contest at Point Lonsdale

Following the normal organization which is required before the ILLW, six Club members arrived at 9 am at the Point Lonsdale Board Riders club, which is at the base of the dunes where the Point Lonsdale lighthouse is situated. A member of the board riders was there to welcome them to their club rooms with a nice wood fired heater already roaring hot. Previously the GARC had always operated in the paddock adjacent to this building, but Ian VK3ZIB had the vision in the previous year to chat with the board riders to see if we could use their facilities. They were delighted to host the GARC and share their facilities.

A 20 m elevated vertical was set up by Bert VK3TU and a half wave 40 m dipole was set up by Ken VK3DQW. Electricity was provided by a Honda E20 alternator and a BBQ lunch was provide for all present.

Quite a few contacts were initially made in the first six hours or so both on 20 & 40 metres. However, there did not appear to be much activity due to the inclement weather. Furthermore during the evening fewer contacts were made as there appeared to be no propagation at all.

Three people stayed overnight; the building itself is quite conducive to 8- 10 people staying over if sleeping facilities are brought.

On Sunday morning there were a few contacts, but once again there seemed to be little activity and signals were weak. As a result the team at Point Lonsdale were packed up & ready to go by midday.

Altogether only about 80 contacts were made, but the GARC made its presence felt as usual.

Members of the public came along during the weekend to have a look at what was going on. Some very interesting conversations took



Photo 3: Point Lonsdale Lighthouse.

place and the GARC members did introduce themselves to some amateurs who have holiday homes in the region.

Several GARC members came along during Saturday & Sunday morning, each bringing some fire wood to feed the roaring wood fire. What was not used was left for the Board Riders and they were extremely pleased with that.

### A New 3.4 GHz EME Record

The following new record has been added to the W.I.A. list:

3.4 GHz EME: VK3NX - GB6GHY on 28/08/2017, a distance of 17,263.8 km.

Details provided by GARC Club member **Charlie VK3NX**: GB6GHY using **32 m dish** at the Goonhilly Earth Station facility in Cornwall. Main operator was Brian Coleman G4NNS. Charlie VK3NX using 100 W to 3.7 m dish with CP feed (scaled version of RA3AQ).



Participate

**Gold Coast ARS Hamfest** | 11 November 2017

## Goulburn Amateur Radio Society Mid-South Coast Amateur Radio Club Illawarra Amateur Radio Society



Photo 1: 18 m Telescopic Pole erection.



Photo 2: Presidents - Rob VK2XIC (IARS), Bill VK2AIY (GARS) and Martin VK2VOM (MSCARC).

### Tri-Club Picnic

An inaugural Tri-Club Picnic was held on Saturday 9 September 2017 at the Fitzroy Falls Reservoir Picnic Area near Robertson on the NSW Southern Highlands. This was a get together of members from three nearby radio clubs; they being the Goulburn Amateur Radio Society, the Mid-South Coast Amateur Radio Club and the Illawarra Amateur Radio Society along with quite a few additional Amateurs who heard about the event and joined-in. The weather was fantastic with 61 people attending including kids, partners and Amateurs themselves.

Upon arriving, many assorted antennas were hoisted into the air including beams, verticals, dipoles and G5RVs hanging off handy tree branches or telescopic squid poles. The "showing-off" of newly built projects on car tailgates and



Photo 3: Tri-Club Group Photo.

tables included beacons, power supplies and emergency deployment radio systems.

The BBQs were then fired-up with some excellent sausages and home-made rissoles being cooked but the Mid-South Coast ladies out-did themselves with some delicious cakes, slices and assorted salads for everyone to enjoy.

Afterwards, a group photo was taken with the three Club Presidents thanking everyone for attending, with particular thanks directed to the many patient partners who came along.

The hoisting of a long-wire antenna was then attempted with the help of 40 helium balloons. All was looking great but the wind then decided to direct the antenna into the nearby gumtrees. Fortunately, after many well-intentioned and mainly good-natured suggestions, the antenna was retrieved.



Photo 5: Some of the Tri-Club Picnic attendees.

With the combination of antennas, a radio, good food and excellent company, the day was a terrific success. All agreed that another picnic day should be planned in the very near future.

Submitted on behalf of all three radio clubs by Rob VK2MT.



Photo 4: Discussing Antenna designs at Tri-Club Picnic.





# VK3news Southern Peninsula Amateur Radio Club

Timothy Conboy VK3TJC  
www.rosebudradiofest.com

## Rosebud RadioFest

Sunday 12 November 2017

Can you believe another year has passed since the last Rosebud Radiofest? Once again the Southern Peninsula Amateur Radio Club (SPARC) will be holding its annual Rosebud RadioFest on Sunday 12 November 2017 starting at 9.30 am at Eastbourne Primary school, Alambi Avenue, Rosebud.

Last year's Radiofest was attended by a record crowd of over 200 people and more than 50 vendor tables providing a relaxed and fun social environment for all. Sales by vendors and amateurs, lectures on interesting topics and outside displays made up the

day's events. The 2017 Rosebud Radiofest will have a similar format to previous years and is sure to be another great event for amateurs and their families alike on the Mornington Peninsula.

Tables for vendors are still available (see below), but be quick as only limited numbers remain for those amateurs keen to sell their boat anchors, test equipment, components or any other items that may be a gem to a fellow amateur.

A key aspect of the event will be the very interesting range of technical forums and displays, including a comprehensive update by the ACMA on the changing regulatory environment and a look at their methods and equipment for

solving Australia's interference and illegal operation problems.

This year we will have, for the first time, Future Systems who are the newly appointed Australian agents for the Flex 6000 series products. Future Systems will be demonstrating and conducting a forum on the Flex 6000 series, including the new 6500 and 6400, the amazing Maestro, and remote operation of the Flex equipment. As well Icom Australia is hoping to demonstrate the soon to be released IC-7610 SDR and RF Solutions will have their SPE Linear, antenna analysers and new Icom products on display.

Once again the amazing Peter Parker VK3YE, master of ingenuity



## ROSEBUD RADIOFEST SUNDAY NOVEMBER 12, 2017 BOOK YOUR TABLES NOW!



Eastbourne Primary School Auditorium Allambi Avenue Rosebud Victoria  
Talk in on VK3RSP (146.675) from 8.00 AM - Melways Ref: Map 169 K5  
More information on [www.rosebudradiofest.com](http://www.rosebudradiofest.com)

Traders set-up from 7.00 am  
Outdoor displays, Food, & Entry ticket sales from 8.00 am  
Entry to the Auditorium and Equipment Sales area from 9.30 am until 1.30 pm  
Technical Forums commence at 10.30 am (Including an exciting update from ACMA)  
Mystery Major Door Prizes drawn at 12.00 midday (Last year an ICOM transceiver, this year ?)  
Entry \$6.00 (Under 12's free) - Includes one entry into the Door Prize  
Additional Door Prize Tickets \$1.00 each (optional)

Excellent Catering - Disabled Facilities - Parking Onsite - All Weather Event

Traders Tables available @ \$10.00 each  
Bookings only available via the online portal at :  
[www.rosebudradiofest.com](http://www.rosebudradiofest.com)—follow the prompts

Enquiries: Mark VK3PDG  
Phone 0407 844 063  
[markybradio@gmail.com](mailto:markybradio@gmail.com)  
Or Grant VK3GDC  
Phone 0418587424  
[treasurer@vk3bsp.org](mailto:treasurer@vk3bsp.org)

Featuring:  
Technical Forums  
Commercial Traders  
Pre-Loved Gear  
Door Prizes  
Ham Radio Vehicles  
Emergency Services Comms  
Vintage Radio Displays  
ALARA  
Home Brew Equipment  
WICEN  
Software Defined Radio  
W.I.A.

and low cost QRP technology, will be delivering a presentation on his newest hi-tech low cost project. Peter is renowned for his wide range of technical eBooks and will be sure to deliver a most interesting lecture.

Apart from the sales and presentations there will be displays of various equipment, vintage radios, WICEN and emergency services. Raffle tickets will provide some lucky winners with valuable

and interesting prizes - so don't miss out! Catering will be provided throughout the event by the Lions Club starting at 8.30 am for those needing breakfast or good coffee.

As the Rosebud RadioFest is located on the Mornington Peninsula with very easy access from Melbourne via the Peninsula Link, the days out to the Rosebud RadioFest can also provide entertainment for the whole family through the wide range of

nearby tourist attractions.

We look forward to seeing you all on Sunday 12 November, starting at 9.30 am (ticket sales at 8.30 am). For further details or table booking information refer to the advertisement in this issue of *AR* magazine or go to the web site: [www.rosebudradiofest.com](http://www.rosebudradiofest.com)

73 from VK3BSP, The Southern Peninsula Amateur Radio Club.

Tim VK3TJC



Attendees at Rosebud RadioFest eagerly awaiting raffle prize draw.



## Silent Key

Kevin Connelly VK3ARD

Mr. Kevin Connelly VK3ARD of Melbourne Australia signed off for the last time in February 2017 at the age of 92.

Kevin was a remarkable man and a brilliant electrical/electronic engineer and business manager. Australians often have a sense of being isolated "down under" but Kevin reached out to the world, making friends throughout the globe, including close and lasting friendships in California, Texas, Oklahoma, and Illinois. His radio contacts led to travel from Melbourne to these states (and other places, including Europe). In turn, his friends travelled to Melbourne to reciprocate.

Kevin spent a career at the State

Electricity Commission of Victoria (SECV) where he started as an electrical engineer and wound up as its Chief General Manager (CEO). Much of his career involved designing complex high voltage electrical transmission systems and associated controls. He was brilliant in these designs, and his management capabilities were recognized by the Board during a period of power shortages in 1980 whereupon they hand-picked him to investigate and solve these problems, which he did in short order. This led to his being elevated to Chief General Manager (CEO) a few years afterwards. During his retirement he was very active in developing and overseeing

the installation of traffic safety systems for the Victorian Transport Accident Commission (TAC), including modern breathalysers, photo traffic control devices, and automobile simulators for teaching the young to drive safely.

He was preceded in death by the love of his life, wife Jean. Kevin remarried after her death to Valerie who survives him. He and Jean are survived by five children and countless grandchildren and great-grandchildren. He was interred in private ceremonies next to his late wife Jean.

Leonard R Wass  
Captain, USN (Ret).



Plan ahead

## Ross Hull Memorial VHF/UHF Contest

January 2018



# IARU Liaison Report #5

Jim Linton VK3PC  
e [iaru@wia.org.au](mailto:iaru@wia.org.au)

## International Beacon Project Upgrade

All five Northern California DX Foundation (NCDXF)/IARU HF propagation beacons in IARU Region 3 are being upgraded.

The main part of the upgrade is the NCDXF 2.0 beacon controller. It was based on the well-known Arduino platform making it easier to support and open for future enhancements.

Completing this upgrade are VK6RMB West Australia and 4S7B Sri Lanka. Both now welcome reception reports.

Walt Wilson N6XG of the NCDXF said VR2ZRE Hong Kong was also on air with a new antenna and meeting beacon performance expectations. HARTS was to install the new hardware, but some technical issues remain on long coax runs.

In other progress, new hardware has reached JA2IGY. The JARL International Section Manager, Ken Yamamoto JA1CJP said permission has been gained from the administration for the upgrade and planning was under way.

Walt N6XG reports that after further discussions, the ZL6B beacon run by the NZART was next on the list. ZL6B Beacon Coordinator Robert Lambert ZL2BFY said it had been running for the past two years with known faults but expected the replacement to be installed this year.

IARU R3 International Beacon Coordinator Joz Sefriano YD1JZ, in his annual report, had all five beacons in 'normal operation', with this being shown by a screenshot from [www.ncdxf.org/beacon/index.html](http://www.ncdxf.org/beacon/index.html)

All beacons transmit CW at 22 wpm on 14.100, 18.110, 21.150, 24.930 and 28.200. The callsign and

the first 'dash' are sent at 100 W, with three dashes following at 10 W, 1 W and 100 mW respectively.

When a beacon ends its transmission, the next in the sequence begins transmitting, while the beacon moves to the next higher band. The network has 18 beacons synchronised to repeat their band transmission every three minutes.

The others are ZS2DN, 5Z4B, 4XTU, RR89O, OH2B, CS3B, LU4AA, OA4B, YV5B, 4U1UN, VE8AT, W6WX and KH6RS.

Thanks to the NCDXF and volunteers for the upgrading and more information is at: [www.iaru.org/beacon-project.html](http://www.iaru.org/beacon-project.html) and [ncdxf.org/pages/beacons.html](http://ncdxf.org/pages/beacons.html)

## IARU Region 3 Directors Meeting

Directors of the IARU region that covers the Asia-Pacific met at the JARL Headquarters in Tokyo on 4-5 September 2017, to discuss a range of matters and review annual reports.

They were Professor Rhee HL1AQQ, Peter VK3MV, Don ZL2TLL, Wisnu YB0AZ, Shizuo JE1MUI and Chairman Gopal VU2GMN, with Secretary Ken Yamamoto JA1CJP, joined by Tim Ellam VE6SH, the IARU President.

In a news release, the meeting previewed the 17th IARU Region 3 Conference on September 10-14, 2018, to be attended by Member Societies in Seoul, Korea.

The Directors decided that in keeping with the focus of promoting Amateur Radio to young persons, the theme for the Conference would be '*Engaging Youth for the future of Amateur Radio*'.

The ITU World Radiocommunications Conference or WRC-19 agenda matters of interest to the amateur service and amateur satellite service were discussed.

IARU Region 3 Directors Shizuo

JE1MUI and Wisnu YB0AZ were at the July meeting of the Asia-Pacific Telecommunity (APT) Preparatory Group in Indonesia and made presentations.

Reactivation of Amateur Radio in Fiji and the other Pacific islands is still of interest with a potential development soon.

The reformatting of Region 3 Band Plans has been done and, after comments from Member Societies and the other IARU Regions, the final Band Plan document will be put up for adoption at the Region 3 Conference around September 2018.

## IARU targets Amateur Radio promotion

At selected opportunities the International Amateur Radio Union (IARU), often working with local member societies, raises awareness and understanding of Amateur Radio.

The latest major IARU promotion was on August 7-9 2017 at the Mexico City World Trade Centre. The IARU Region 2, together with the ARRL and the FMRE, delivered a very successful Amateur Radio Administration Course.

Public servants attended from Mexico, Colombia, Costa Rica and Honduras. They are in charge of administering communications and spectrum regulation.

The course included the legal framework for Amateur Radio in the ITU, our spectrum, reciprocal licenses, emergency communications, the IARU and its member societies.

There were also presentations to explain how we operate, which included DXpeditions, contests, digital communications and moon bounce.

The event ended with a visit to a radio station where participants could better understand everything they learned and had the opportunity to make some contacts.



# Use for a Bread Bag Clip

Peter Parker VK3YE

A problem with some portable equipment is that it can accidentally switch on while being carried. This results in disappointment as you arrive at a portable site with depleted batteries.

Sometimes, this is due to bad equipment case design. A switch that protrudes rather than is recessed is more at risk of accidental use.

If this is a problem with any of your equipment, you can make its switch harder to bump by gluing a plastic surround around it. Possible materials include rubber, fibreglass printed circuit board material or plastic.

Shears, a knife or a nibbling tool can be used to cut it to shape.

I used a plastic bread bag clip, supplied with almost every supermarket loaf. The photos show how this was cut and its use on a Digitech AR1780 portable receiver.

Some interesting facts about bread bag clips appear on Wikipedia at [https://en.wikipedia.org/wiki/Bread\\_clip](https://en.wikipedia.org/wiki/Bread_clip)

*Editor's comment: If using a knife as shown in the photos, protective gloves should be worn and due care taken when using the tool.*

AR



Photo 1: The original plastic clip.

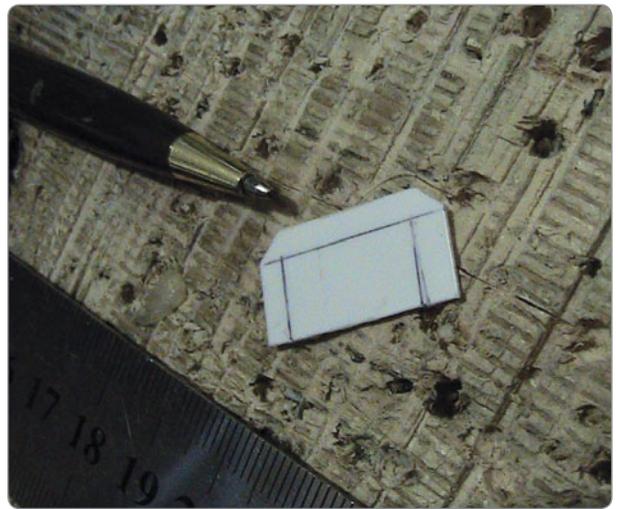


Photo 2: The clip marked up and the first cut made.

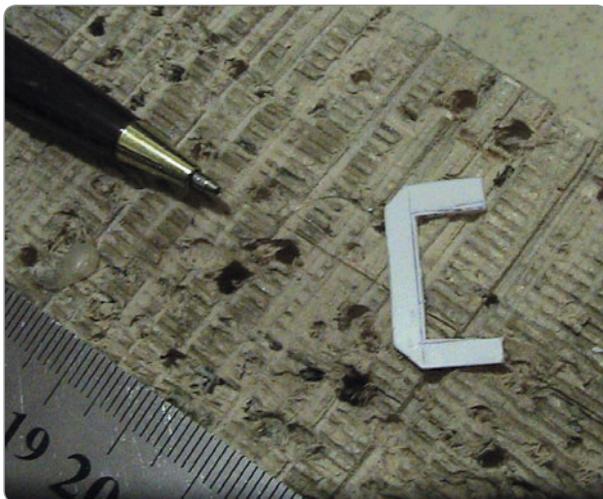


Photo 3: The clip close to the final required shape.

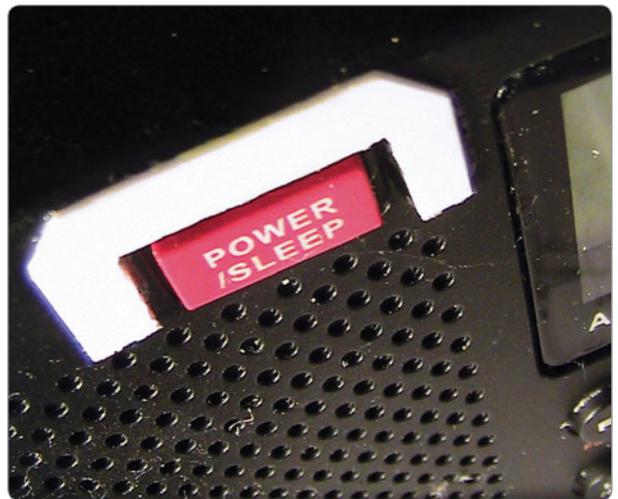


Photo 4: The clip glued into the final position on the equipment.

# WIA QSL Bureau

John Seamons VK3JLS  
e vk3jls@wia.org.au

Welcome to what I hope will be a semi-regular column devoted to aspects related to the WIA QSL Bureau, as the WIA QSL Card Committee considers a number of issues related to how we might be able to improve the service provided by the Bureau.

The WIA QSL Bureau continues to provide a much needed service to both our members, as well as to worldwide amateurs. Last year, the Bureau handled in excess of 90,000 cards, and this last month alone we have distributed over 9000 cards to the incoming State and Territory Bureaux; a clear indication that even though usage of eQSL and LoTW continues to grow, many amateurs still desire to have hard copy QSL cards.

This month, I would like to concentrate on one aspect of the incoming QSL Bureau, and that is cards received for DXpeditions, specifically in VK0 and VK9 locations. My comments here are mainly directed to the organisers of such DXpeditions; however the DX chasers seeking that rare QSL from the likes of Macquarie Island (VK0M), Heard Island (VK0H) or Mellish Reef (VK9M), as well as others, are also impacted.

So, let's say you've just made a contact with VK9XYZ; in much haste, you write out your card, mark it "PSE QSL", send it off to the VK inwards Bureau at Bayswater and wait for the return card. Guess what? The likelihood is that you may never see a return card.

Why not? Because your card, along with many other cards from overseas locations, arrived at the Bureau and was sorted into the VK9 and VK0 piles. The individual callsigns were then checked against QRZ.com to see who the

card should go to. In the case of VK9XYZ, let's say QRZ.com stipulates "Direct only to WA9ABC, NO Bureau cards accepted".

In that case, all the incoming cards for VK9XYZ could end up in the round filing cabinet under the desk. The WIA Bureau spends a lot of time sorting these cards only to then have to dispose of them if the end user does not want them.

"That can't happen," I hear you say, "I always check QRZ.com to see how to QSL my contacts." Well guess what, the Bureau receives hundreds of cards that fit exactly into the above situation, where QRZ.com has been totally ignored.

So how can this be improved?

1. We are looking at a process whereby when an application is made for a DXpedition callsign in VK9 or VK0, Petra in the WIA office will require the applicant to also provide a callsign for the QSL manager of the expedition;
  - a. If this is an Australian led DXpedition, we should ideally have a VK amateur as the QSL manager and we can forward Bureau cards (if they are to be accepted), to that point.
  - b. Where an overseas QSL manager is nominated, we will be able to redirect those cards to the overseas QSL Bureau, albeit at the expense of the WIA.
2. All such requests for VK9 and VK0 DXpedition callsigns will also be asked to clearly state on their QRZ.com (or other) page, whether they will accept Bureau cards or not; if they will accept Bureau cards, they must clearly state that Bureau cards must be forwarded via the QSL manager's Bureau whether that

is the VK Bureau, or an overseas Bureau. If it is an overseas Bureau, we would request the organisers to clearly state on QRZ.com "Do not send Bureau cards to the VK Bureau". We will rely solely on the DXpedition organisers to make this point.

3. We would request that all amateurs sending cards for VK9, VK0 and VI special event callsigns read the QRZ.com page for the particular callsign before blindly sending cards to the VK Bureau. If it states NO BUREAU CARDS (which a lot do!), don't waste your money sending that card to the Bureau.

However, even if these three steps are followed, there is still little we can do for the overseas amateur who visits an Australian territory and operates as, say, VK9M/WA1XYZ. We can only hope that he makes it clear on his QRZ.com page that any Bureau cards should go to his country's Bureau and not the VK Bureau.

I should state that Point 3 above, is more of an issue for overseas amateurs than ourselves and I will be approaching various overseas bureaus with this same message. Out of a recent arrival from Japan of 7000 incoming cards, around 300 cards were for VK9 and VK0, which take a long time to sort, work out where to send them and then it costs the WIA postage to our outwards bureau and postage again in sending them to overseas locations – where they all should have been directed in the first place!

One other associated point on DXpeditions is related to our outgoing QSL Bureau and how we might handle cards from WIA members who are involved in DXpeditions; a single DXpedition

can generate 1000s of outgoing cards in one delivery to the outgoing bureau, thereby significantly increasing postage costs by an unforeseen amount. This is an area where we may possibly have to look at a cost recovery aspect to offset the additional cost incurred. It could mean that the WIA Bureau may have to look at a different approach for DXpeditions compared to the “normal” operator, be they heavy or light users of the Bureau

service. While it is appreciated that the Bureaux are there for the use of WIA members, is it fair that the additional Bureau costs because of the DXpeditions are an impost on all WIA members, regardless of whether they use the Bureau service or not? A tough question not yet been addressed.

Other aspects and issues around the Bureaux operations are also being examined and I will continue to update members

through AR and other mediums, when there is something to report. In the meantime, if any member wishes to raise any aspect of the operation of the QSL Bureau service, I would welcome their emails to me at the address below.

Good DX, and I wish you many QSLs.

John Seamons VK3JLS  
National and Inwards QSL  
Manager



## Silent Key

Darcy Hancock VK5RJ

18/12/1910 - 27/08/2017

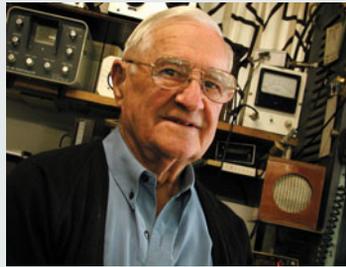
Darcy was born in Kadina South Australia on 18 December 1910. He was one of the first students to attend the Kadina Memorial High School in the 1920s.

Darcy remembered the first wireless coming to Kadina in the late 1920s and noted that the signal was mostly crackle and pop through the horn speaker as the owner was trying to receive 2FC from Sydney.

He had a keen interest in electronics and in 1927 became one of Australia's youngest amateurs at 16 years of age with the call sign VK5RJ that he held for 90 years.

In the early days, amateurs could transmit music and locals took great delight in taking Darcy their records so they could be heard “over the air” on their wireless receivers. Darcy was, as all amateurs had to be in those days, a great innovator, and he salvaged a big cast iron disk record player from the local cinema when it changed to “sound on film”, that he converted into a disc recorder.

Darcy married Jean McDonald in 1946 and they shared 61 years together with three children Bruce, Grant and Gail.



Darcy ran his own electrical business in Kadina, “Hancock’s Radio Sales and Service” which he later expanded with musical instruments and sheet music. Music was Darcy’s other great love. He was an accomplished musician who led his own dance band “The Rhythm Kings” who played throughout the York Peninsula. He played piano and banjo amongst others but his favourite instrument was the saxophone.

In 1964 Darcy and his family moved to Adelaide where he worked in the electronics retail and wholesale trade supplying spare parts for radio and television. He completed his working life at the Brighton Technical

College maintaining the workshop machinery.

In Adelaide Darcy continued playing his saxophone with son Bruce on piano. At the time Bruce, who is a professional musician in his own right, became friendly with pianist Ray Carney. Bruce introduced Ray to Darcy and so began a long musical relationship. Darcy played professionally with Ray and the two became the nucleus of the resident band at Port Adelaide Waterside Workers Association where Darcy played well into his late 80s.

Darcy took great pride in his amateur radio family as his son Bruce is VK5TRJ and his grandson Ian is VK5LRJ. He had many amateur radio friends in the earlier days as part of “The Northern Net” on AM and in later years with regular daily skeds until well after the age of 105. He was very proud of being Australia’s oldest radio amateur.

Darcy celebrated his 106th birthday on 18 December 2016 in Resthaven Aged Care Facility at Marion where he passed away peacefully just four months short of his 107th birthday.

Vale Darcy.



## WIA DX & operating Awards



WIA offers a range of operating awards, including DXCC, VHF & UHF and many other awards.

Details can be found at: <http://www.wia.org.au/members/wiadxawards/about/>

# Silent Key

Mike O'Burtill VK3WW



Michael VK3WW (on the microphone) in the middle of a contest session, with Peter Cameron undertaking logging duties.

Mike and I joined the RAAF as Radio Apprentices almost at the start of the RAAF Apprentice scheme in 1949 (Intake #3). Mike and I were very keen on Amateur Radio as a hobby initially at VK3APP the Apprentices station, which incidentally led us willingly along the path to a lifetime of aviation electronics.

Although in different years, Mike and I served in Japan and Korea with the RAAF. Mike re-mustered to aircrew upon return to Australia eventually retiring to join the old Department of Civil Aviation, teaching incoming enlistees.

Mike retired to live out his time in Heathcote in mid-Victoria after raising a

family of four with his dear wife May.

Amateur Radio then took a lot of his time and "three Willie Willie" was active almost each day on 40 m and 80 m passing the time of day with regular skeds and a bunch of on-air mates for many years. One of his last comments before going into care at Heathcote was that his antennas were not working as they had done during his on-air time and he was unable to climb up to fix them.

Mike is survived by his beloved May and their four children along with eight grandchildren and two great grandchildren.

Vale Mike SADLY MISSED.  
Jack Taylor VK3NS.



## Hamads

### FOR SALE – VIC

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Howard ex-VK3ADI P/h 0408998910

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FT-208 2 m HH with handbook, \$100.

Kenwood TH205A 2 m HH no handbook, \$50.

Mirage 2 m B108 linear amplifier with remote control & instructions, \$200. All gear as is. Prices firm.

Call Brewster VK3YBW on

03 9527 2661 after 6 pm and before 10 pm EAST. If no answer, please leave a message.

### FOR SALE – VIC

Yaesu FL2100Z Linear Amplifier (with Manual). Very good condition 500. Freq. coverage: 160 - 10 metre amateur bands. Plate input power: 1200 watts PEP SSB, 1000 watts CW, 400 watts AM/FM/FSK. Mass: 20 kg (out of Melbourne buyer to pay any freight charge). Call: Alex VK3AMX 03 9850 7493.

### FOR SALE – NSW

For sale 2 Philips FM 900 transceivers. Any reasonable offer will be accepted. Australian Radio Service manuals

numbers 3, 4 & 7 in good condition...offer me a reasonable price.

Icom 2metre transceiver model IC22a offer me any reasonable price. Scotty VK2KE QTHR  
[gsc08077@bigpond.net.au](mailto:gsc08077@bigpond.net.au) Graeme Scott VK2KE.

### WANTED – NSW

Handbook / Manual for the Paton Electric Valve Tester Model VCT- V. Does any member of the WIA have a working valve tester for sale, maybe even an AVO One? Mobile 0438 218 897. Email is [gsc08077@bigpond.net.au](mailto:gsc08077@bigpond.net.au) Scotty VK2KE QTHR.

### FOR SALE – SA

VK5JST HF/VHF Aerial Analyser kit (see AR article December 2015, and VK5JST website- <http://www.users.on.net/~endsodds/aamk7.htm>).

Build yourself an extremely useful item for your ham shack and improve your HF antenna efficiency.

For more details see AHARS website <http://www.ahars.com.au/kits.html> or email [vk5srp@wia.org.au](mailto:vk5srp@wia.org.au)

### WANTED – QLD

User manual (or photo) copy of Tradipper user manual model TE-15. All expenses paid.

Phone or reply to Merv VK4DV nights QTHR  
0749 285537 or [vk4dv1@gmail.com](mailto:vk4dv1@gmail.com)





## Contributions to Amateur Radio

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

Your contribution and feedback is welcomed.

Guidelines for contributors can be found in the AR section of the WIA website, at <http://www.wia.org.au/members/armag/contributing/>

Email the Editor:  
[editor@wia.org.au](mailto:editor@wia.org.au)

### About Hamads

- Submit by email (**MUCH PREFERRED**) or if written and mailed please print carefully and clearly, use upper AND lower case.
- Deceased estates Hamads will be published in full, even if some items are not radio equipment.
- WIA policy recommends that the serial number of all equipment for sale should be included.
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- Copy to be received by the deadlines on page 1 of each issue of Amateur Radio.
- Separate forms for For Sale and Wanted items. Include name, address STD telephone number and WIA membership number.

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