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## First Meeting for 2014 Friday 7th February, Doors Open 7.30pm Ern Rose Memorial Pavilion, Seaver Grove, Reservoir

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Rod's dog, Bronski, had to enjoy biting his ball as WANSARC members enjoyed feasting food, at the annual Family Day at the park. Another great day in perfect wether, read more page 2...

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## WANSARC Family Fun Day

For the eleventh straight year, the clubs family day was held at WANSARC Park (a.k.a. Bundoora Park, by some) in perfect weather. Of course the lead up to the event was a hot run of days, but that was just a good excuse to 'chill out' and enjoy some food and chat. Mick VK3CH televised the events as usual to VK3RTV, with the repeater having some antenna changes. Getting ready for the Family Day was an event in itself, with Mick relocating work, so most of the ham gear was hastily packed into boxes, with some bits yet to be found again. One item missing was the esky, the kids took to the beach and it never came back. Arriving at 6.01am, the rotunda was claimed, an announcement of that was made at 6.02am, on 146.450, but no one replied back...!

ATV antennae setup



Johnno operating as club station VK3AWS



ATV "OB" Van setup, ready at 7.05am, a new record for setup speed, I think...



The ATV gear was run on batteries this year, starting live coverage at 10am, right after the WIA broadcast. Some ongoing changes to the RX antennae at VK3RTV saw a greatly reduced power need to get a stable picture back. Previously about 14 watts (DVB-S) was needed, using 4.4 amps, but this year just 3.3 watts gave perfect results all day, just a 2.2 amp current draw by the ATV TX, allowing the battery to last much longer. All up with TV, ATV TX, Camera and On Screen Display Unit, it was 10 amps constant drain on the battery for the days events.

After setting up the ATV gear it was time to have an early feed of snags...



The beer and meat collection...



I reminded Johnno that he was able to run the club call of VK3AWS at full power, that sure put a smile on him...!  
As the crew arrived as the lunchtime hour approached, it was time to prepare the 'Roast of the Day', being Pork Belly and Potatoes.

Spiced up, ready to go...



The finished meal, about 2 hours later...



Rod also had a selection of gourmet sausages and Buffalo chicken wings. The wings were gobbled up quite promptly...



Mick's Piripiri Wings, cooked on live ATV...





Most of the day was spent relaxing, dinning and chatting, with call-ins on 2 meters, others watching on ATV such as Russel VK3XC . Graeme VK3PGK even sent in a report, as he was watching the live streaming on VK3RTV1 on the internet, feeling hungry as well...

Some even found time to play radio... A small suitcase houses the HF transceiver, ATU and battery, a true portable setup.



And some had to entertain others...



The roll call for the day was;

Mick VK3CH, Johnno VK3FMPB, Wilfred VK3DWA, John VK3FEZZ, Graeme VK3NE, Pam VK3NK, Rod VK3FAB and Chris, Guy VK3GUY, Greg VK3CN, Sam VK3JCD, Frank VK3FADI, Allen VK3SM, Carlo VK3FGXL, Lou VK3ZLD and Marl VK3PI with Gayle.

A few stayed until about 2pm, with the ATV gear going back to storage about 1pm. Audio was off on the ATV this year, some folks forget about the live transmission, things can go from 'PG' to 'MA' now and then (hi) As always, when starting at 5am, it was a long day, but still worth the effort. The roast meal had many complimenting on the taste.

This years menu was a variation from the usual BBQ, the actual park BBQ lay dormant unused the entire day...! Thanks to the committee and those offering their catering services for the day.

~Mick VK3CH

## EXPLOSIVE LITHIUM

You think this may be a reason why the US Postal Service will not ship electronic devices that contain lithium batteries any longer? GPS was placed in its bracket in the windshield and left in the sun. The battery overheated and exploded! ~Internet



## VK3RTV ANTENNA UPDATE

VK3RTV has a new transmit antenna and also a spot 23 cm receive antenna for SE and a new 23 cm receive antenna for VK3RTV1. The new VK3RTV1 receive antenna does not seem to be quite as good as the old one, but is likely to have a better beamwidth. The 1250 Mhz analogue and the 1276 Mhz receive systems have nice band pass filters (donated years ago by VK3BCU). There is no noise in the VK3RTV2 receiver with no signal input as compared to about a 38% baseline for VK3RTV1. I am now investigating Interdigital Filter design. If anyone has a 23 cm filter and would donate it to the repeater, please let me know. Also interested in reports on receive signal strength from individuals. ~ Peter Cossins VK3BFG

## COMPUTER SOUNDS GIVE YOUR SECRETS AWAY

That murmur coming off your computer gear may mean more than just noise.

Researchers have found it is possible to tell what software is running on a computer and decrypt email messages by analysing the high-pitched whining sounds computers generate. The sounds are made by vibrations of electrical components in the power supply circuitry as computers crunch through heavy processes.

Researchers from Tel Aviv University and the Weizmann Institute of Science in Israel said the acoustic emanations were more than a nuisance, they could leak sensitive information.

Encryption programs, like Pretty Good Privacy (PGP) and others, are commonly used to encrypt email messages and documents to protect data from prying ISPs, government spies, law enforcement, competitors and employers. They rely on a pair of keys to create a secure envelope that should be impossible for anyone but the holder of the private key to open. So long as no one else knows the keys, contents should remain sealed, even if the envelope itself has been intercepted.

But the researchers, including Adi Shamir, a co-inventor of the widely-used RSA encryption algorithm, have shown how within one hour it was possible to extract a 4096-bit RSA private key used to decrypt email from a laptop running the OpenPGP-based mail encryption tool, GNU Privacy Guard.

The attack they detail in the paper RSA Key Extraction via Low-Bandwidth Acoustic Cryptanalysis is well within the capabilities of spy agencies and can be pulled off with common hardware, such as a cheap bug or even a smart phone placed near the target.

Extracting the private key involved sending specially crafted encrypted emails to the target and listening for the "acoustic signature" of their decryption, which due to the extra effort a computer makes at that point are different from sounds made by normal processes.

A patch was subsequently released for the vulnerable system, however the researchers warn other untested systems may also be vulnerable to the attack.

The steps can easily be packaged into an Android app, which is what the researchers did to test the viability of the HTC Sensation, Samsung Galaxy S2 and Samsung Galaxy Note II for key extraction from a distance of 30 centimetres.

Though it sounds like a stretch to get the device near enough to the target computer and have it ready to capture the sounds as it decrypts the message, the researchers outlined a number of scenarios business should consider when trying to protect their data.

The attacker could install the app on their own phone, set up a meeting with the victim and casually place the phone on a table next to the victim's laptop. Alternatively, infect the target's own smart phone and wait for them to place it near their laptop.

They said a remote attack, in which a computer is made to spy on itself after an attacker remotely hijacks its microphone settings, was also possible.

Server rooms and co-location facilities could also be vulnerable if an attacker sent their server to the facility because protections such as Faraday cages and air gaps were fairly transparent to acoustic emanations, they noted. ~Internet

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**WANSARC NET**  
Tuesday Night, 8pm Check In  
**VK3AWS**  
146.450MHz FM Simplex

## The Keith Roget Memorial National Parks Award

The aim of this award is to encourage portable operation in Victoria's 45 National Parks. So goes the blurb on the WIA website. I think it could actually be a conspiracy between the WIA and the petrol companies.

Since I started the Roget award I have driven to Echuca, Warrnambool, The Mornington Peninsula, The Grampians, the Alpine national park where I supported my mast and VHF vertical by pushing them into a snow mound of about 4 or 5 feet high. It did the job too.

I've been to our park, Bundoora park, and Kinglake more times than I can remember also. I've been North, South, East and West in our beautiful state.

I've met heaps of hams in the process, spent heaps on Petrol and Gas and had lots of fun too. I reckon I've done close to a couple of thousand Ks cruising around our state to the various parks too.

In my travels, I have seen 50 feet high trees and snowy mountains, beaches and traffic.

I've seen an Echidna walking across the highway without a care in the world. Seen lots of dead roos too.

Slept in a motel that I couldn't sleep in because the trees were banging on the roof all night.

I've eaten lots of junk food and it shows too I bet.

In the process however, I have learned lots about our glorious state that I had no idea about before I got an F call and a ICOM 706.

I've seen sights from mountain tops that are so beautiful they take your breath away.

I've seen snow, rain, ocean, highway, mountains, small country towns, met and chatted to and been helped by Aussies all over the place too. I suppose we all know that the most asked question you get asked is "Is this like CB or two way radio?"

Then you explain well sort of but not really.

I've seen some history of our state and there is plenty more to come too.

Hang on, Perhaps the KRMNPA is not all about radio, not all about drive, stop, set up, talk, pull down and drive some more. Then repeat that same process 45 times just to activate all the parks in Victoria. That would make it an awfully mechanical pastime I reckon.

The Keith Roget Memorial National Parks Award just may be about learning about our state?

Meeting people, I've met a heap of different people in my travels over the state since 2008 or so.

Getting to appreciate the beauty of nature and wanting to preserve it a little.

Perhaps there's a hidden agenda here?

I wonder if the WIA are trying to turn me into a greenie?

Well, I've done my 25 parks now so I get award no 1.

When I get to 45 parks and the real award I'll let you know if I have turned into a greenie or not.

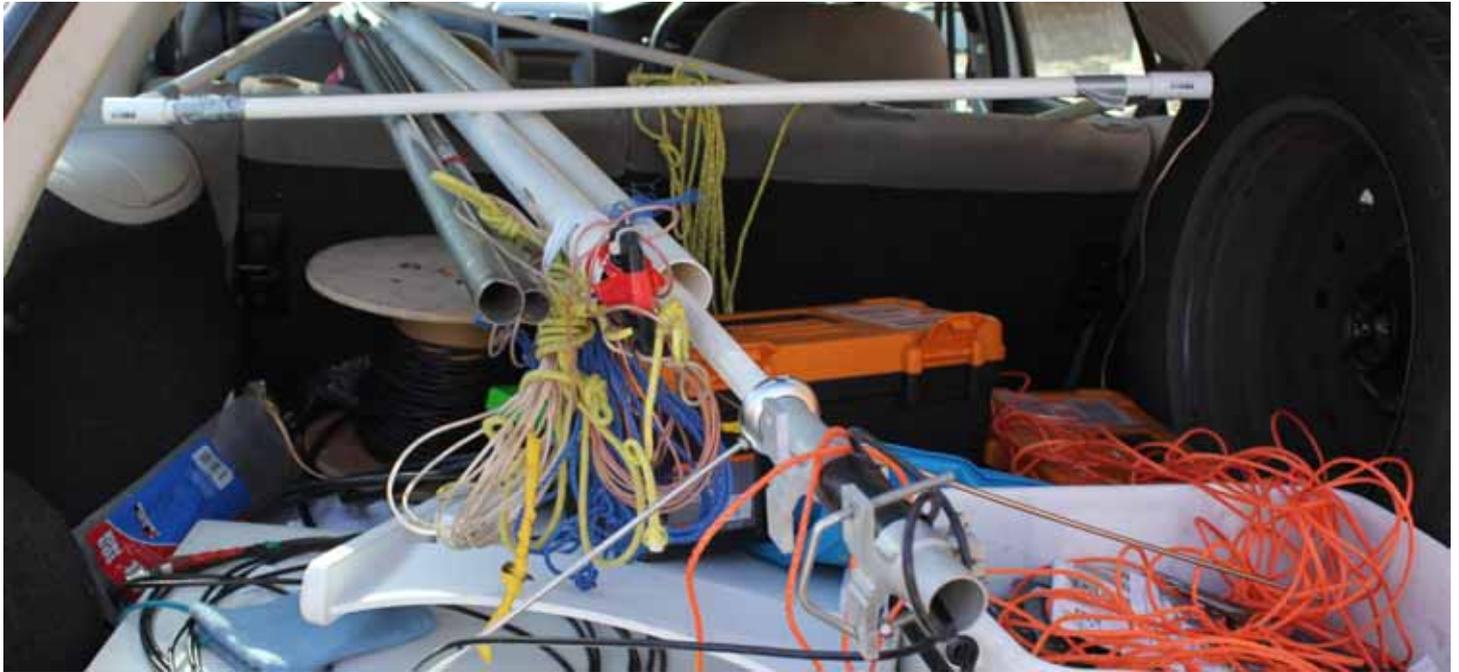
Having said that, I certainly do have a new appreciation of the beauty of our glorious state and the Flora and Fauna within it.

I can't wait for the chase for the rest of our parks to start now. I just gotta work out which ones I still need.

Cheers Johnno VK3FMPB



In the park, (where else) with the recently awarded Keith Roget Memorial National Parks Award, for 25 Parks



Just some of the items bouncing around in Johnno's car.

With his recent award for activating 25 National Parks around the State, some of these antennas must work!

## WANSARC VK3AWS

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### WANSARC CLUB PROFILE

#### History

The Western and Northern Suburbs Amateur Radio Club (**WANSARC**) was first formed in 1969 and since then has served the needs and interests of amateur radio operators, short wave listeners and those interested in hobby radio and electronics. The club is not gender specific, having both female and male members. Members come from all walks of life with a mix of experience, young and mature, novice and technical. The most important aspect of the club is the willingness of all members to share their knowledge for the benefit of others. Members mainly reside in the west and north of Melbourne; however membership is encouraged from all interested. **WANSARC** is an affiliated club of **The Wireless Institute of Australia**.

#### Meetings

Meetings held at the **Ern Rose Memorial Pavilion, SEAVER GROVE, RESERVOIR** (Melway Map 18 D5) on the **1st Friday of each month** (excluding January) commencing at **7.30pm local time**. Talk in on **146.450MHz FM**—call club station **VK3AWS**.

#### Benefits

Free technology and related presentations, sponsored construction activities, discounted (and sometimes free) equipment, network of likeminded radio and electronics enthusiasts, excellent club facilities and environment plus an informative monthly newsletter for members to post articles, news, classifieds for all radio, test equipment, etc, featuring Amateur Radio news from WANSARC, ARV, WIA, ACMA, Melbourne Clubs, VK and Worldwide.

#### Club Nets

**146.450MHz FM** each Tuesday evening commencing **8.00pm local time**. Net Control Station - **VK3AWS**

**Website:** [www.wansarc.org.au](http://www.wansarc.org.au)

**Postal:** **WANSARC PO Box 336 RESERVOIR 3073**

***A proud tradition of supporting hobby radio and electronics enthusiasts since 1969***

All editors' comments and other opinions in submitted articles may not always represent the opinions of the committee or the members of **WANSARC**, but are published in the spirit in which they were submitted; in any case anything stated is to promote interest and active discussion on club activities and the promotion of Amateur Radio in general. Contributions to **WANSARC** are always welcome from any part of the world. Email attachments of Word™, Plain Text, Excel™, PDF™ and JPG are all acceptable. You can either post material to the Post Office Box address at the top of this page, or email your submission to the editor direct at [vk3ch@wia.org.au](mailto:vk3ch@wia.org.au). Email attachments not to exceed 5 Mb in file size. Attachments of (or thought to be) executable code or virulently affected emails will not be opened. Other persons or radio clubs may edit or copy out such as they like from the magazine but a reference to **WANSARC** is appreciated, except copyrighted (©) material or as otherwise indicated. Other articles that are credited to outside sources should be asked for their permission if they are used. While we strive to be accurate, no responsibility taken for errors, omissions, or other perceived deficiencies, in respect of information contained in technical or other articles. Any dates, times and locations given for upcoming events should always be checked with a reliable source closer to the event – coming up on the **WANSARC Tuesday evening NET** on **146.450 MHz** starting at **8:00 pm Local** is recommended to discuss and confirm information and any dates. The club website has current information on planned events and scheduled meeting dates. **WANSARC** News written with Word™ 2007, published with Adobe Acrobat™ 10. You can get the WIA News sent to your inbox each week by simply clicking a link and entering your email address found at [www.wia.org.au](http://www.wia.org.au). The links for either text email or MP3 voice files are there as well as Podcasts and Twitter. This service is FREE.