WANSARC NEWS



Incorporated in Victoria, 1985 Registration Number: A0007611S The monthly magazine of the

Western & Northern Suburbs Amateur Radio Club Melbourne. **Australia**



www.wansarc.org.au

146.450 MHz FM

VK3AWS

28.470 MHz USB



Volume No: 45

Issue 8

August

Next Meeting, Friday 1st August Doors Open 7.30pm

Ern Rose Memorial Pavilion, Seaver Grove, Reservoir



Mick's work, which is slowly starting to have as many antennae as the house, an aerial photograph, captured by Don's drone, the propellers visible at the top of the picture. Actual picture here was emailed compressed in size, the raw images obtainable at full file size are amazing. The mad scramble to get everything ready for the ATV QSO Party on August 30/31 is underway.

News WANSARC Club Profile 2

8

WANSARC Vol 45 Issue 08 2014

News

LAST MONTHS MEETING

The planned drone exhibition demo night got hijacked by a leaky aircraft (no, not the drone!) that prevented the host from being able to attend the meeting. So this may be presented in future.

Formal discussions were of several matters, but the important one was of course sorting and booking a venue for the December club Christmas dinner, which the committee will organise.

After the formal meeting, a couple of items were auctioned, two power supplies, which were sold, one to Peter VK3XCO and Johnno VK3FMPB, raising \$50 for the club, thanks guys.

John VK3FEZZ taking auction bids ↓



Not a bad buy at \$40 \

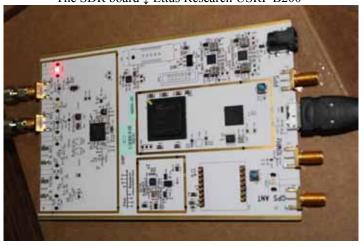


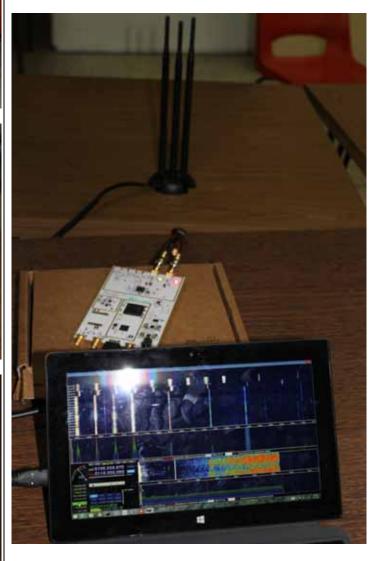
Johnno got this one for \$10 ↓



We also had a guest visitor, Enzo, who found us on the web and decided to visit, yet to get his licence, but has obtained copy of exam material, brought a compact SDR receiver to demo.

The SDR board ↓ Ettus Research USRP B200





See here https://www.ettus.com/product/details/UB200-KIT Its full duplex, 70mhz-6Ghz SDR, runs on USB 3, transmit power is about 100mw. It costs around \$900.

They have a video on line, which shows people going around the bay using it, page can be found here

 $\frac{http://www.ettus.com/blog/2013/09/interview-wireless-bay-area-adventure-with-usrp-b200-software-defined-radio}{}$

Thanks, Enzo for the interesting demo.

~Mick VK3CH

Remembrance Day Contest

Aug 16th, 2014 (Sat) -- Aug 17th, 2014 (Sun) 13:00 - 13:00 This contest commemorates the Amateurs who died during World War II and is designed to encourage friendly participation and help improve the operating skills of the participants.

This contest is unusual because the trophy goes to the Australian state or territory that scores the highest level of activity.

Amateurs in VK, ZL and P2 will attempt to contact other Amateurs in VK, ZL and P2.

VK, ZLK and P2 means Australia, New Zealand, Papua New Guinea and their external territories.

Points will only be awarded to Amateurs in VK, ZL and P2. http://www.wia.org.au/members/contests/rdcontest/

International Lighthouse Lightship Weekend



Aug 16th, 2014 (Sat) -- Aug 17th, 2014 (Sun) http://illw.net/

34TH A.L.A.R.A. CONTEST



30th – 31st August 2014

http://www.alara.org.au/contests/

4th Annual Worldwide DATV QSO Party





Friday 29th August, 9pm local - Local Melbourne stations, plus Interstate ATV Repeater links via Skype

Saturday 30th August 1pm local - Melbourne stations, plus USA and UK plus VK Interstate stations via Skype linkup.

Peter VK3BFG ~ ATV Net Control, Liaison, VK3RML Live streaming from www.vk3rtv.com & http://www.batc.tv/

GETTING READY FOR THE WORLD ATV QSO PARTY

Preparations are being made for the annual on air gathering of those involved in the visual mode of Amateur Television.

It will be on the Melbourne-Geelong VK3RTV repeater and streamed through the British Amateur Television Club.

This is the 4th annual World Digital ATV QSO Party which was originally a part of the centenary for Amateur Radio Victoria.

The event is on Friday the 29th and Saturday the 30th August involving anchors in England, the USA and Australia. Other countries are most welcome to join.

Friday night will be VK-only including links to new digital repeater VK5RDC at Port Pirie, and possibly joined by VK4RKC in Brisbane. Australians can work through their local ATV repeaters and net controllers are to provide the Internet links. Those ATVers not within repeater range may pre-arrange to Skype-in direct to master controller Peter VK3BFG.

On the Saturday there will be four net controllers - Peter VK3BFG, Don KE6BXT, Art WR8DMC and for the first time Noel G8GTZ. International repeaters are W6ATN, WR8ATV, GB3HV and possibly GB3SQ and GB3KM.

The event is basically a show and tell format that uses a combination of direct inputs for those within range of ATV repeaters, and contributions via Skype. ~ARV

SUPER WI-FI COULD EASE SPECTRUM CONGESTION

Telecommunications experts say Australia's communications regulator should consider carving out spectrum for so-called "Super Wi-Fi" technology to ease congestion on conventional Wi-Fi bands.

RMIT senior lecturer in communications and electrical engineering Dr Mark Gregory said the recent explosion of commercial-grade wide-area public Wi-Fi projects in Australian capitals marked a critical turning point for the public spectrum bands domestic radio devices rely on.

Currently, privately operated Wi-Fi networks are required to comply with power and signal management standards that minimise the potential for excessive interference.

Telstra will spend \$100 million setting up more than 2 million Wi-Fi hotspots across Australia.

Telstra will spend \$100 million setting up more than 2 million Wi-Fi hotspots across Australia.

However, Dr Gregory argues that the global trend toward offloading cellular traffic onto Wi-Fi networks means the public 5GHz and 2.4GHz spectrum bands that they rely on will become saturated, reducing performance.

Telstra announced in May that it would spend \$100 million to build a national commercial Wi-Fi network comprised of 8000 hotspots. In March, the Victorian government sought expressions of interest to provide free public Wi-Fi in Melbourne.

iiNet, Australia's third-largest ISP, partnered with the West Australian government to provide a free public Wi-Fi network in Perth and it recently picked up a tender to provide free Wi-Fi in Canberra. Its subsidiary, Internode, extended its free Wi-Fi network in Adelaide to the entire city's CBD last week.

"Is there a need for more bands? The answer would be, yes. We are at the point where it would be very good," Dr Gregory said.

Colin Griffith, the director of the CSIRO's Australian Centre for Broadband Innovation (ACBI), agreed that congestion would increasingly become an issue.

"For most homes you might be seeing from three to five competing Wi-Fi cells in the area that are overlapping with your signal, so it is an interesting issue.

"Wi-Fi does adjust and tend to find a spare frequency, but as you get more and more (devices) the ability to do that is reduced, so the idea of getting more spectrum for Wi-Fi makes sense," Mr Griffith said.

Dr Gregory pointed to efforts by the US Federal Communications Commission to use 600MHz bands for what the regulator has called "Super Wi-Fi" - a wireless networking standard that would use similar principles to Wi-Fi but operate at higher power and cover much larger distances. This would make it much more suitable for commercial-grade Wi-Fi offload networks, Dr Gregory said.

"(The FCC are) very much aware that we're at that turning point with commercial Wi-Fi systems where they're going to be complimentary to mobile cellular (networks) and the reason isn't about having free Wi-Fi. It's about the fact that the mobile cellular band is going to hit the wall," he said.

The situation should be no different here, he argued.

iiNet chief business officer Greg Bader agreed that achieving consistency of service in public bands was difficult particularly if competing providers built their networks in an inconsistent fashion.

He said, however, that private spectrum holdings came at too high a premium for government-sponsored networks and that Wi-Fi technology was improving rapidly.

"I'm comfortable that what we're building is going to be there," Mr Bader said.

The 600MHz band the US FCC is targeting has fallen into socalled "white space" in Australia ever since analogue broadcasting ended in December.

The official Wi-Fi Alliance has reportedly objected to use of Wi-Fi in the term Super Wi-Fi on technical grounds. Nevertheless, it

has won support from Microsoft and Google. They have been members of US broadband think-tank the Wireless Innovation Alliance (WIA) for at least three years.

In 2012 the WIA ran a project in rural America to demonstrate that Super Wi-Fi could deliver data at 20Mbps over distances up to 30 kilometres.

The Australian Communications and Media Authority (ACMA) appeared reluctant to comment on its approach to the development of alternative broadband technology for white space spectrum.

A spokesman for the regulator said the ACMA was "monitoring developments in this area".

There may be some reasons for its reluctance to share its views. "To some extent the mobile cellular operators have resisted that idea because they want to get customers to the point where their spectrum in their existing networks are completely full and loaded," Dr Gregory said.

"That's commercial reality."

~Internet

WHAT WILL WORK LOOK LIKE IN 2025?

Robots will probably be doing your existing job - and you'll be in a role that hasn't been invented yet.

Collaborative technologies, robots and artificial intelligence will transform the nature of work in the next decade, according to a new report. And many Australians are comfortable with that advance in technology if it means they can avoid going into the office every day.

The report, compiled by author, futurist and chief executive of Advanced Human Technologies Group Ross Dawson on behalf of Intel Security, shines a light on the way technology will shape our working lives, homes and health by 2025.

For one thing by 2025 "our work environments and interactions will be more global thanks to virtual reality," says Dawson.

It's a shift that will go hand-in-hand with a rapid increase in selfemployment as larger organisations cut the number of permanent employees and hire expertise from anywhere in the world only when they need it.

As the Safeguarding the Future of Digital Australia in 2025 report highlights there are likely to be big winners and losers from the technological change that will redefine our working lives.

It won't just be knowledge work that will be performed remotely, says Dawson. Everything from surgery to mining machinery operation will routinely be completed by people far away.

In the Pilbara mining machinery is already operated remotely and virtual surgery has been taking place for more than a decade in cases when a very high degree of specialisation is required.

"We're also seeing the robotisation of surgery," says Dawson. Robot-assisted prostate cancer surgery is now commonplace, for instance.

Automation is already affecting low-level functions such as data entry. Process-oriented roles in mining and financial services will also to continue to be among the losers from technological change. "For example, a lot of the work in financial processing – credit card processing or insurance processing – quite a lot of those jobs can either be done remotely or automated."

Although it's likely to take longer to have an impact, automation will affect jobs that involve driving as the technology for driverless cars is developed. Dawson says taxi-drivers are likely to be "most vulnerable" as developments such as Google's driverless cars give people the ability to make local trips without the need for someone at the wheel. Couriers and truck drivers are likely to be affected too.

Just as ATMs replaced many bank tellers, other low-value service jobs will become obsolete. For instance, Dawson says, providing service in fast-food restaurants is likely to be automated.

"Where people are able to get things cheaper as a result of having things automated that will also be replaced," says Dawson, adding that high-value service positions, such as those in a high-quality restaurant, are likely to survive.

The impact of technological change is likely to be slower in some fields such as plumbing and building trades. "Some of that you can't take away," he says, adding that even some of that work is being globalised. "One of the interesting developments that, for example, we are seeing is that we are getting prefabricated parts in China that are assembled in Australia where they are being built to specification."

Other jobs will rapidly emerge to replace those that disappear, with an emphasis on the creativity and relationship skills that machines will still lack.

They are changes that many Australians appear happy to embrace, according to a Newspoll survey of 1230 Australians included in the report. Almost half (46 per cent) of those aged 18-64 said they would be interested in using technology such as virtual reality to avoid going into the office every day. The figure was even higher among those aged 25-34, with 62 per cent saying they would be interested in using it for work purposes.

However, a quarter of Australians aged 18-64 said they were not interested in using such technology. Dawson says the result probably reflects the fact that some people "want to be physically present where they can pat somebody on the back or have a handshake."

He thinks that desire will lead to a change in the typical workspace. Rather than choosing between centralised offices or working from home, halfway houses such as co-working spaces will grow in popularity.

Ultimately, he believes, the shifts produced by technological change can provide opportunities for Australians to market themselves to clients around the world.

"There is an opportunity in a world of global work for Australians to be world-class at co-ordinating that.

For example, to have clients in Australia, to have clients in Europe and the US, to have the project management skills and the cultural skills to work and to bring together groups of people doing jobs remotely."

~Internet

OMEGA TOWER TO COME DOWN

Gippsland Times are reporting that the decommissioned Omega tower navigation facility at Darriman will be dismantled, subject to heritage restrictions.

Gippsland MHR and Parliamentary Secretary for Defence Darren Chester said the tower, Australia's tallest, was now surplus to Defence requirements. The tower was one of a set of nine other navigation towers located around the world, including the United States, Trinidad, Argentina and Japan.

The Omega navigation system was shut down in 2000 and used as a transmitter for unidirectional communications to submarines until 2008. Transmission equipment from the system is now on display at Port Albert's Maritime Museum.

The tower is said to be the tallest structure in the Southern Hemisphere attracting BASE jumpers. ~WIA

MELBOURNE AMATEUR RADIO TECHNOLOGY GROUP HAMFEST

The Melbourne Amateur Radio Technology Group will be holding their first Hamfest on Sunday Sept 28th

Located just 15 minutes from the Melbourne CBD the Hamfest will be held at the IKCA Social Club Rooms at Keilor East just off the Western Ring Road.

Plenty of parking is available so go and grab that bargain radio you been looking for with 30 plus tables made available to sellers including dealer section. There will be emergency services on display with door prizes every hour.

Food will be the delicious egg and bacon Barbeque sandwiches for breakfast and Free tea and coffee thought out the day.

For Bookings and full details please visit www.martg.net

Sellers book your table early! Entrance \$6.00

Peter Scodia VK3XCO says he "Hopes to see you there." (The MARTG group)

ILLW AT WHALER'S BLUFF LIGHTHOUSE

Whaler's Bluff Lighthouse is designed to guide ships past a treacherous reef into the Portland Harbour in southwest Victoria. It will be put on air for ILLW, by Johnno VK3FMPB.



IS DAB+ OLD HAT?

Recently it has suggested that the ABC an SBS drop its digital programs and rely on them being delivered by streaming on the Internet.

The Department of Communications efficiency review has suggested that significant savings over time could be made if digital terrestrial radio services were replaced with online and mobile alternatives.

The underlying thought is that DAB+ is was superfluous having passed its used by date. That has resulted in opposition to those now using terrestrial digital radio in capital cities, and the regional and community stations hoping that they too want to switch to DAB+.

The contention that the digital terrestrial broadcast of radio, or DAB+, is superfluous as listeners and would replaced by streaming radio via the internet.

The Australian Government has yet to form a view on the rollout of digital radio beyond metropolitan areas.

An estimated nearly 1.7 million Australians now have a DAB+compatible radio. ~ARV

WHAT A WASTE...

The world's 14 billion television set-top boxes, printers, game consoles and other electronic devices waste \$US80 billion (\$85 billion) of power a year due to inefficient technology. "Electricity demand of our increasingly digital economies is growing at an alarming rate," the Paris-based adviser to developed nations said in a report. By 2020, an estimated \$US120 billion will be wasted as many devices use about the same amount of power even on standby. Networked devices worldwide used about 616 terawatt-hours (TWh) of power in 2013, most of which was used in standby mode, according to the IEA. Of that amount, 400 TWh, or the amount consumed annually by the U.K. and Norway, was wasted because of inefficient technology, the agency said.

"The problem is not that these devices are often in standby mode, but rather that they typically use much more power than they should to maintain a connection and communicate with the network," Maria Van der Hoeven, the IEA's executive director, said in a statement accompanying the report. "Just by using today's best-available technology, such devices could perform exactly the same tasks in standby while consuming around 65 per cent less power." Power demand is increasing as network connectivity spreads to appliances and devices such as washing machines, refrigerators and lights, the IEA said. The use of network- enabled utensils is projected to expand to about 50 billion units by 2020 and 100 billion the following decade, the agency estimated in 2012. Improving the energy efficiency of networked devices in the coming years would save 600 TWh of energy, or the equivalent of shutting 200 standard 500 megawatt coal-fired power stations, the IEA said.

United Nations envoys are seeking to trim energy use and associated greenhouse-gas emissions to fight climate change. The negotiators are seeking to agree on a new global treaty next year that will come into force in 2020.

~Internet

A COLD WINTER

It was April and the Aboriginals in a remote part of Northern Australia asked their new elder if the coming winter was going to be cold or mild.

Since he was an elder in a modern community he had never been taught the old secrets. When he looked at the sky he couldn't tell what the winter was going to be like.

Nevertheless, to be on the safe side, he told his tribe that the winter was indeed going to be cold and that the members of the tribe should collect firewood to be prepared.

But being a practical leader, after several days he had an idea.

He walked out to the telephone booth on the highway, called the Bureau of Meteorology and asked, 'Is the coming winter in this area going to be cold?'

The meteorologist responded, 'It looks like this winter is going to be quite cold..'

So the elder went back to his people and told them to collect even more wood in order to be prepared.

A week later he called the Bureau of Meteorology again. 'Does it still look like it is going to be a very cold winter?'

The meteorologist again replied, 'Yes, it's going to be a very cold winter.'

The elder again went back to his community and ordered them to collect every scrap of firewood they could find.

Two weeks later the elder called the Bureau again. 'Are you absolutely sure that the winter is going to be very cold?' he asked.

'Absolutely,' the man replied. 'It's looking more and more like it is going to be one of the coldest winters ever.'

'How can you be so sure?' the elder asked.

The weatherman replied, 'Our satellites have reported that the Aboriginals in the north are collecting firewood like crazy, and that's always a sure sign.'

Smile, it makes people wonder what you are thinking

Want to know the endings of all the fairy tales?

Cinderella is divorced..



Snow-white has not been so lucky...



Little-Red-Riding-Hood hasn't seen the Wolf since...



Sleeping Beauty is still asleep...



The Little Mermaid has met a sad fate



Barbie celebrated her 50th Birthday, this year...



Batman and Robin are living it up at the Nursing Home...



Bands sound quiet?
Try calling CQ...
There may just be someone there...

Murphy's Technology Laws

Logic is a systematic method of coming to the wrong conclusion with confidence.

Whenever a system becomes completely defined, some damn fool discovers something which either abolishes the system or expands it beyond recognition.

Technology is dominated by those who manage what they do not understand.

If builders built buildings the way programmers wrote programs, then the first woodpecker that came along would destroy civilization.

The opulence of the front office decor varies inversely with the fundamental solvency of the firm.

The attention span of a computer is only as long as it electrical cord.

An expert is one who knows more and more about less and less until he knows absolutely everything about nothing.

Tell a man there are 300 billion stars in the universe and he'll believe you. Tell him a bench has wet paint on it and he'll have to touch to be sure.

All great discoveries are made by mistake.

Always draw your curves, then plot your reading.

Nothing ever gets built on schedule or within budget.

All's well that ends.

A meeting is an event at which the minutes are kept and the hours are lost.

The first myth of management is that it exists.

A failure will not appear till a unit has passed final inspection.

New systems generate new problems.

Any sufficiently advanced technology is indistinguishable from magic.

A computer makes as many mistakes in two seconds as 20 men working 20 years make.

Nothing motivates a man more than to see his boss putting in an honest day's work.

Some people manage by the book, even though they don't know who wrote the book or even what book.

The primary function of the design engineer is to make things difficult for the fabricator and impossible for the serviceman.

To spot the expert, pick the one who predicts the job will take the longest and cost the most.

After all is said and done, a hell of a lot more is said than done.

Any circuit design must contain at least one part which is obsolete, two parts which are unobtainable and three parts which are still under development.

A complex system that works is invariably found to have evolved from a simple system that works.

If mathematically you end up with the incorrect answer, try multiplying by the page number.

Computers are unreliable, but humans are even more unreliable. Any system which depends on human reliability is unreliable.

If you can't understand it, it is intuitively obvious.

The more cordial the buyer's secretary, the greater the odds that the competition already has the order.

If an experiment works, something has gone wrong.

When all else fails, read the instructions.

WANSARC NET

Tuesday Night, 8pm Check In

VK3AWS

146.450MHz FM Simplex

WANSARC VK3AWS

PRESIDENT: Frank Petrowitz SECRETARY: John Karr

VK3OP VK3FMPB vk3op@hotmail.com johnkarr@bigpond.net.au

All correspondence to be addressed to the SECRETARY: PO Box 336, RESERVOIR 3073

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 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 WordTM, Plain Text, ExcelTM, PDFTM 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 magazine@wansarc.org.au

Tou can entire post material to the Post Office Box address at the top of this page, or email your submission to the editor direct at <u>inadazine@wansarc.org.au</u>

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 The links for either text email or MP3 voice files are there as well as Podcasts and Twitter. This service is FREE.