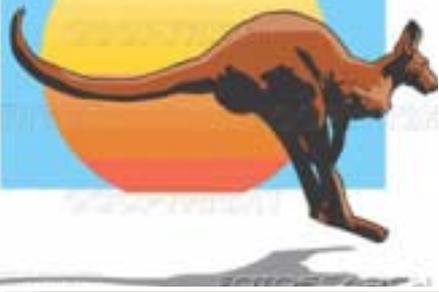


VK3AWS



WANSARC NEWS

October 2008

Western and Northern Suburbs Amateur Radio Club
(WANSARC)
Incorporated in Victoria
A7611S

Volume 39
Number 9



A WIA Affiliated club

News and views from the Western and Northern Suburbs Amateur Radio Club
VK3AWS—October 2008



WINNERS ARE GRINNERS—AFTER THE EVENT!!!

Who is this at the 14 metre level of his tower?
Our very own **Ken VK3YXC**.

Now he does not look too happy in the photograph but after the VK TASMAN CONTEST, Ken was all smiles.

Ken was placed 1st in the 160 metre section with a score of 1421 from 185 contacts.

Needless to say the fine tuning by Ken of his antenna system certainly paid off.

You can see the wires that form the V beams at the top of the pole at 24m. The 4 wires extend out 120m each, and are paired and fed with 450 ladder line.

Congratulations Ken from all club members!!



NEXT MEETING
FRIDAY October 3, 2008.

It's been awhile since we have had a natter night and general discussion—why not come to the next meeting and bring up your topic for discussion? Planning is underway for the Christmas dinner, so make your thoughts known. Or have you just built something? Why not bring it down to the club? Meeting commences at 1930 hours—see you there!!

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D-Star presentation postscript

Club member Mick, VK3CH, gave a very interesting presentation on D Star to members attending the September meeting of the club. Assisted ably by Ian VK3XIJ, Mick explained the basics of D-Star and provided information on D Star operation, configurations and features. The following is a postscript to Mick's presentation which will be of interest particularly to those that could not attend the presentation.

"After many months having passed since purchasing 23cm D-Star radio, Icom's ID1, Mick has finally sorted out how to get them to talk to each other, exchanging data. Three of these radios are operated by VK3CH, Home VK3CH D, Work VK3CH W and Mobile VK3CH M. The new D-star radios have modes of Voice Analogue FM, Digital Voice FM (using the D-Star standard) and Digital Data mode, which is TCP-IP data transmission, just like the internet. Mick has setup a website which is hosted on his local computer attached to the ID1.

Successful tests exchanging data between his home QTH and



'work' down the road, plus web browsing tests, including photos and PDF data, have worked well. Data was even transferred from the Car ID1, being possibly a first for VK (apart maybe from Icom Australia itself). Data rates are about 10 kilobits / second—an 800kB colour photo picture took 1.5 minutes, and a 1mB colour photo picture took 2.05 minutes and a 3mB PDF file transferred in 5.5 minutes. While this was just point to point, with D-star, you can route your data to any D-star amateur worldwide with the correct settings via D-star digital repeaters, which are going up worldwide at a fast pace. Mick tried unsuccessfully to get the radios going in data mode, finally the culprit discovered was Windows Vista not wanting to play ball with the TCP-IP packets for as yet some still unknown reason. Some older cheap computers running XP worked fine. D-star does not need much 'grunt' as far as PC's go, 486 and up will do just fine.

D-star is quite new and amateurs worldwide are virtually learning as they go, discovering new things along the way a

true marriage' of ham radio and computing. For those of you that might take the plunge and get onto 23cm D-Star, once you want to dabble with DD mode as it's known, let Mick VK3CH know, or ask him to fire the website up on 1298.1 MHz. Ian VK3XIJ is also testing out DD mode with VK3CH, running adhoc tests when we have time. Much more information on D-Star in VK can be found at <http://www.dstar.org.au/>

The Eastern and Mountain Districts Radio Club (EMDRC) run a D-Star Net each Thursday evening through the 2m DV Repeater VK3RWN C. The Net provides an opportunity to find out the latest Club information and to encourage D-Star activity amongst Club members and amateur radio operators in the Melbourne area. Visitors are welcome to join."

Thanks Mick, for your efforts on behalf of WANSARC members.

The presentation from Mick VK3CH provided WANSARC with an opportunity to road test a portable tower for the club. Recently two multi-section towers became available to the club and at our September meeting a section of tower was used to provide Mick with D-Star signals. At the commencement of the presentation no D-Star signals were present, however with a bit of grunt from Graeme VK3NE, a tower section was extended by a few metres to provide communications.

Pictured on the back balcony of the club rooms are members enjoying a cup of coffee with Graeme VK3NE in the foreground.



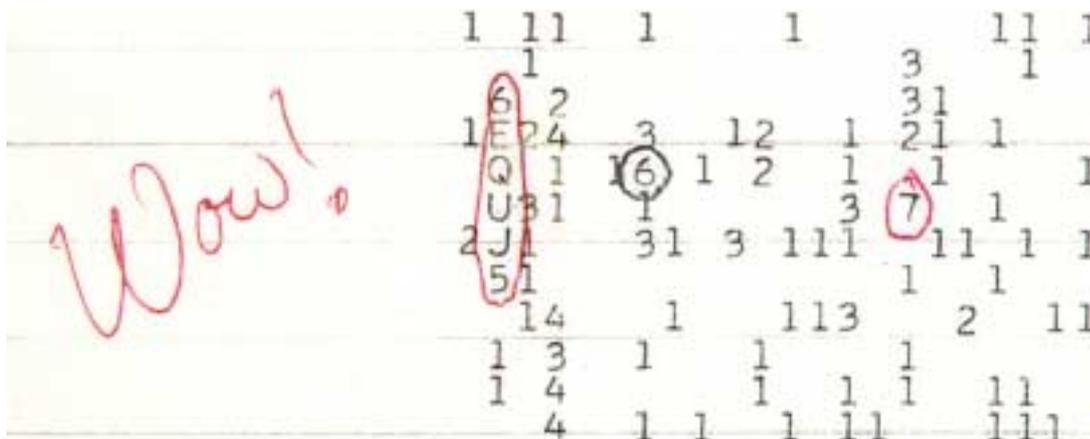
DON'T FORGET THE CLUB NET—Tuesday evenings commencing at 1930 hours local time, 146.450 MHz FM—net controller Bob VK3EL. All club members and on air "visitors" welcome.

Cosmic DX by Peter VK6YSF PART 2 of a two part article

A brief history of attempts to use radio in the search for extraterrestrial civilizations

The 'WOW' signal

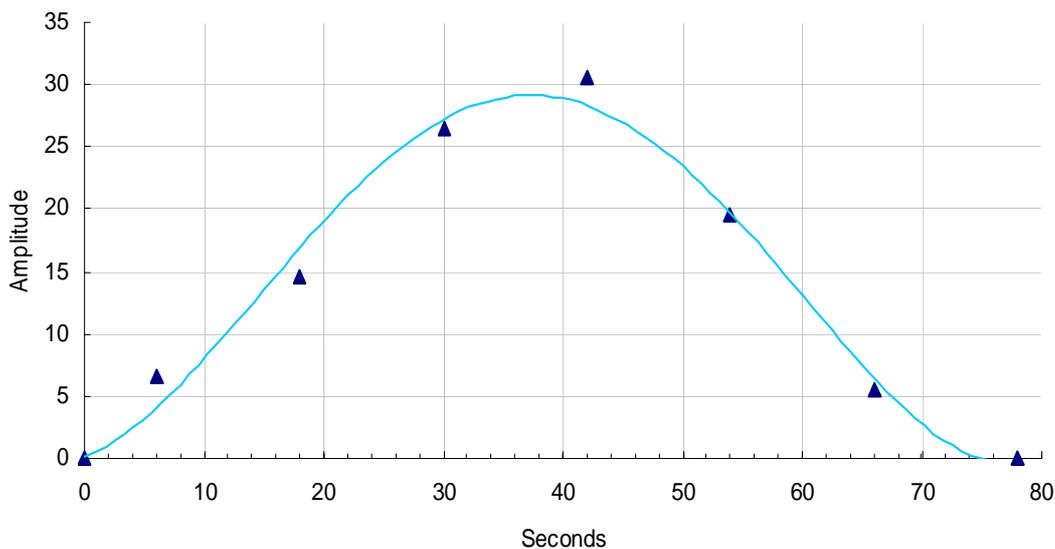
On 15 August 1977 Dr Jerry Ehman a project volunteer for the Ohio State University SETI project witnessed a startlingly strong signal from the radio telescope. He circled the characters on the printout and scribbled "Wow!" in the margin. This lone signal is considered by some as the most likely detection of an extraterrestrial signal ever received, but has not been detected again.



The circled character code on the print 6EQUJ5 represents the amplitude variation of the signal. A space denotes amplitudes of between 0 and 0.999; the number 1 denotes the amplitude between 1 and 1.999, 2 represents 2 – 2.999 and so on. 10 and above are represented by letters, 10 – 10.999 is displayed as A, 11 – 11.999 is displayed B etc. The value of 'U' representing an intensity of between 30.0 and 30.999 and was the highest value recorded. The intensity is a representation of the signal to general background noise.

The columns in the print out correspond to 10kHz-wide channels starting with channel 1 to the left and channel 2 with the signal of interest. The general frequency is around 1420.405MHz known as the hydrogen line.

I have plotted the values on the below graph to give a clearer view of the rise and fall of the signal.



Ohio State University's radio telescope known as Big Ear was a fixed antenna and used the Earth's rotation to scan the sky. The beam width of the antenna and the rotation of the Earth meant that the Big Ear could observe a given point in the sky for only 72 seconds. An extraterrestrial signal would therefore be expected last for exactly 72 seconds and peak after 36 seconds as the signal passed over the antenna's window and would then decay over the remaining 36 seconds.

While the WOW signal may have been an Earth-bound signal that simply got reflected off a piece of space junk the duration and shape of the signal and the fact that it was narrow band corresponds to what would be expected of a signal of extraterrestrial origin.

The case for the WOW signal being real!

The 1420.405MHz channel falls within the 1400-1427MHz protected allocation for radio astronomy and should therefore be free of transmissions.

Unless it was a fairly high orbiting piece of space junk the WOW signal should have had a different duration. Longer if the piece of space junk was tracking with the rotation of the earth or shorter if it were tracking in most other directions with relation to the rotation of the earth.

I have not been able to find any reports of checks for known space junk orbits, however as NORAD (North American Aerospace Defense Command) actively tracks tens of thousands of these objects I would have assumed that this would have been a relatively easy task.

It all hangs on this; the signal duration implies that it came from space well beyond earth. The signal was very narrow band implying that it was artificial. That's it!

The case for doubt for the WOW signal!

The two issues that cast serious doubt on the WOW signal are first that despite being relatively strong it has never been heard of again.

Second and perhaps more serious is this; the Ohio State radio telescope uses two focal points, situated side by side. Any cosmic radio source would be seen first by one for 72 seconds and then about three minutes later by the other for a period of 72 seconds.

Incredibly the WOW signal is after nearly 50 years of listening, the most tantalizingly possible signal heard thus far.

Making ourselves known.

Every hour of every day for more than half a century human civilization has been accidentally sending highly visible radio signals into space. From the viewpoint of a distant extraterrestrial observer the rotating Earth radiates bright pulses of electromagnetic energy across the radio spectrum. The flashes of radio emissions are a result of the rising and setting of hundreds of powerful radio stations, television transmitters, microwave links etc peppered around the globe. Although these transmitters generally radiate parallel to the surface of the Earth as these signals pass beyond the horizon they ultimately radiate out into the cosmos. In fact so much radiation is now leaking off into space that the Earth is near as intense a radio source as the Sun.

Therefore if anyone is listening for as far as 50 light-years from us, they already know what we're up to.

The big question is will our new space friends interpret *Big Brother* as a sign of intelligent life?

A more conscious effort was made in the 1970s with the launched four probes by the United States to survey the outer planets of the Solar System with a trajectory that has destined them to leave the Solar System and sail out amongst the stars for the rest of eternity. More an act of faith and symbolism the spacecraft have plaques that if found would communicate something about us to the finder. There was at the time some controversy about the information contained in the plaques as it depicted where we are, the fear was that if found something, possibly hostile would be able to locate us.

The probes Pioneer 10 and 11 probes launched in 1972 and 1973 carried a plaque depicting the location of the Earth and solar system within the galaxy and the form of the human body.

The Voyager 1 and 2 probes launched in 1977 carry two gold records that depict again the human form, our solar system and its location and also included are recordings of pictures and sounds from Earth.

Something to ponder is this; long after the human race is gone and the Earth its self is dead and lifeless these probes could be the longest lived indication that we ever existed.

As every amateur knows, if every one is just listing potentially good DX contacts will go unrealized, therefore in 1974 the Arecibo radio telescope, the largest radio telescopes in the world transmitted a series of messages in the form of digital images.

The Arecibo message was a 1679 pixel image with 73 rows and 23 columns. It shows the numbers one through ten, the atomic numbers of hydrogen, carbon, nitrogen, oxygen, and phosphorus, a figure of a human being and its height, the population of Earth, our solar system, and an image of the Arecibo telescope with its diameter.

What is happening now?

At present the SETI Institute a now privately funded organization has been focusing on a joint project with University of California Berkeley to building a SETI-dedicated array of telescopes that will equal a 100-meter radio telescope, the Allen Telescope Array. It is the forerunner of other larger radio astronomy arrays planned for later in the decade. It is possible that as the telescope and SETI technology advances we may be able to detect intelligence not by directed message but by the same kind of 'noise' we accidentally broadcast to the cosmos via radio, television and radar signals.

It is likely that SETI and the like is a waist of money and effort as the current best technology at our disposal requires that the signal be in cosmic terms very close, say 100 light-years at a stretch. This is only covering about 0.1% of our Milky Way galaxy. Remember the Drake equation that estimates between two and ten possible extraterrestrial civilizations within our entire galaxy. The odds are really stacked against success.

However the implications of an extraterrestrial contact on human culture and the way we see ourselves would be profound. Imagine if we were able to establish ongoing radio contact with an extraterrestrial civilization 20 light-years away. **Think about it, it would change everything**

For more information on the SETI Institute see: <http://www.seti.org/>

For more information on SETI Australia see: <http://seti.uws.edu.au/>

For more information on Pioneer 10 & 11: <http://nssdc.gsfc.nasa.gov/planetary/pioneer10-11.html>

For more information on Voyager 1 & 2: <http://nssdc.gsfc.nasa.gov/planetary/voyager.html>

Cheers from the wild-west **Peter VK6YSF** vk6ysf@arri.net

IN BRIEF

- **FREE** : TWO 17 inch color monitors, mint condition, 4 years old or less. Can deliver to club next meet and you collect, otherwise it's the bin – act now!! Contact Mick VK3CH vk3ch@wia.org.au
- Congratulations to TWO members of the club who were successful in the 2 letter call ballot. **Derek VK3AOF** is now **VK3NQ** and **Ian VK3XIJ** is now **VK3QL** - **Well done, chaps!**
- The Australian Historic Telephone Society will be holding a display day on **Saturday October 4, 2008**. The venue is the Preston Town Hall, Corner of High Street and Cramer Streets, Preston. The event will run from 10am—4pm. More information on the following website—www.ahts.org.au
- The “WANSARC HamFest” groupies waddled up the highway to Shepparton recently to try the wares. This time a number stayed in a local caravan park and played HF prior to the event. Trevor VK3FTDX had some car trouble on the way home, so hope all is OK now. Dave VK3FXDX scored a couple of steam radio bits, including one with an “807”.

A BLAST FROM THE PAST.....

The response to an appeal for contributions to the writing of a history of WANSARC is beginning to gain some momentum. Imagine my surprise at a recent club meeting when a photocopy of a photograph was handed to me showing a very much younger member of our club. Can you guess who this is?

This is a very focussed VK3BMR manning the controls of what undoubtedly is something to do with high power transmitters. For those newcomers in the club, Russell had a long career with PMG's Department which eventually became Telstra. Ask Russell about the 3LO/3AR radio tower at Sydenham.....he was the boss of that place and has a vast amount of knowledge of high power transmitters, aeriels and feeders.

Now Russell—where was this taken and how old were you at the time?? Here is another good story for the WANSARC history. To other club members—where are your photographs and stories?



THE SHEPPARTON HAMFEST by John VK3FMPB

September is footy finals time in Melbourne. September is also Shepparton Hamfest time. September is also the time most cars break down on country roads!

This will be a tale of tables full of radios, and cars full of people and cars running out of Volts and amps on the highway. We got to the hall early and waited, and waited. Talking to the people outside was actually fairly nice.

Rod MRT, Dave FXDX and Trevor FTDX had all gone up early and stayed at the caravan park. (no doubt partying all night)

We finally got in and it was very similar to every Hamfest I had been to before. Mick VK3CH made a bee line for the D-Star stuff while I looked for something practical to do. Alas, Terry Murphy's dipole factory was not there. I met up with Rod and Co. and did some browsing. All I bought this time was 5 PL 259 plugs \$1 each. I was waiting for the raffle because I knew I had a chance this year. Sadly for me, the prizes (both first and second were taken by the father and son team.

On the way home the fun began. We decided to leave Shepparton and head home. First off we went down the wrong highway and took off to the east instead of the South. 10 k later and we realized our mistake so we turned back. We finally got back to the highway and headed south. Trevor leading and Rod driving my car. That left Dave and I to chat on 146.450 which we had fun doing. After stop at a hamburger spot on the highway we continued. Cars are temperamental things, aren't they?

Suddenly Trev's car takes a swerve to the left and pulls up on the side of the road. We had no chance of stopping so kept going and turned around. The electricals in his car were playing up. No power to the battery to keep the car running. They stopped we stopped, they played under the bonnet and we got going again. We kept in contact on 146.450. Lucky we had our radios because it sure made things a lot easier than getting out of the car very time and playing around. This happened in total 5 times or so. Quite frustrating for us, Infuriating for Trevor, no doubt.

Did anyone hear if Trevor and Dave got home or not?

BITS AND PIECES

Thanks to **Bob VK3EL** for his donation to the club of a portable BBQ. Will come in handy for the coming summer for a few snags on the balcony! And to **Graeme VK3PGK** for his donation of American amateur magazines, including CQ. These are stored in the club cupboards and may be borrowed next month when a "loans" book is re-instituted, *On that note is anyone willing to "volunteer" as the Loans Officer? I will mark up a book if someone is willing to take responsibility for tracking outgoing and incoming loans?*

Thanks also to **Dallas VK3EB** for his donation of a few boxes of books!! These are yet to be sorted however it is anticipated that the books will be available for loan to members in the very near future. Thanks Dallas!!

Great to hear **Chris VK3HGX** on 40 metres working some interstate stations. As always, Chris has excellent audio. Many will know Chris has a pretty punishing work timetable but he still calls into the club net, when possible and pops up on the club frequency, 146.450MHz.

Thanks Chris!!





GET TO IT !!!!

DO YOU HAVE INFORMATION OR AN ARTICLE YOU WANT TO SHARE WITH MEMBERS?

Why not write it up for the magazine in word format, with pictures, and send to the club:

WANSARC, PO Box 336, Reservoir 3073.
or via email to vk3pi@optusnet.com.au

It's your magazine!!

Your magazine contributors this month include—

VK3YXC, VK3PGK, VK3NE, VK3CH, AR VICTORIA, VK6YSF, VK3BMR, VK3EB, VK3NQ, VK3QL.

Thanks folks de Mark
VK3PI, Editor/Producer.

WHAT ABOUT THIS ? Contributions from members

Toroids at Docklands

From Dallas VK3EB



So you are looking for some toroids for that new 137KHz transmitter and antenna combination?? Dallas VK3EB has the answer—here is one toroid at Docklands. Note Dallas is having a little bit of trouble balancing this on the bicycle for the trip home. Still, worth a try?

Dallas suspects that the permeability may be a problem, not to mention the wire gauge needed.

And I bet Melbourne Council paid big bucks for this art—or is the artist a ham?

RELATIONSHIPS

From Graeme VK3PGK

To my darling Husband—Before you return home from your business trip I just want to let you know about the small accident I had with the pick up truck when I turned into the driveway. For-



tunately it was not too bad and I really didn't get hurt, so please don't worry too much about me.

I was coming home from K-Mart and when I turned into the driveway I accidentally pushed down on the accelerator instead of the brake. The garage door is slightly bent but the pick up truck came to a halt when it bumped into your car. I am really sorry, but I know with your kind hearted personality you will forgive me. You

know how much I love you and care for you, my sweetheart. I am enclosing a picture for you. I cannot wait to hold you in my arms again. Your loving wife. XXX

P.S. Your girlfriend called.

Advanced Licence privileges to expand

Australia is set to join the 30-odd countries whose radio amateurs have been already given the new low frequency amateur band of 135.7 to 137.8 kHz. The Australian Communications and Media Authority has released its draft Australia Radio Frequency Spectrum Plan that is to come into force on the 1st of January 2009. It includes 135.7 to 137.8 kHz for the Amateur Service on a secondary basis that VK radio amateurs do not cause harmful interference to radionavigation service stations that continue to operate in a number of countries. The New Year should see VK's top ham licence type, the Advanced Licence, gain this band as a new operating privilege. *From Amateur Radio Victoria e-news*



WANSARC VK3AWS

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All correspondence to be addressed to the **SECRETARY: PO Box 336**

RESERVOIR 3073

WANSARC CLUB PROFILE

WANSARC is at
www.wansarc.org.au
Or www.wansarc.org

MEMBER SPOTLIGHT



WELCOME TO NEW MEMBERS

Last month Frank VK3ZFS and Stuart joined the ranks of the club—welcome.

The club has recently gained quite a few members and this is very pleasing.

Do you know someone who is keen to gain a licence, has recently passed their exams or has been on the air for many years? Why not bring them down to the club to experience the sharing of knowledge, experiences and a good time?

Club fees are the least expensive of any club in Victoria, if not Australia. For a modest annual fee you can experience club events such as guest lecturers, club outings and a plethora of new, used and pre-loved electronics, radio and computer equipment.

Come on down to WANSARC!!

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.

Meetings

FIRST Friday of each month except January at the Ern Rose Memorial Pavilion, SEAVER GROVE, RESERVOIR. See map).

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 like minded 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, WIA, ACMA, Melbourne Clubs, VK and Worldwide.

Club Nets

146.450MHz FM each Tuesday evening commencing 7.30pm local time. Also monitor 28.470MHz on 10 metres USB.

More Information: Website: www.wansarc.org.au Email: wansarc@wia.org.au

Postal: WANSARC PO Box 336 RESERVOIR 3073

Next meeting Friday October 3 , 2008

If not delivered within 7 days, please return to WANSARC, PO Box 336, Reservoir, 3073

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