

VK3AWS



WANSARC NEWS September 2008

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

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A WIA Affiliated club

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



You're never too old to be active!! That's the motto of Laurie VK3DPF.

Laurie has been a member of WANSARC for over 25 years and in that time Laurie has staunchly supported WANSARC.

Recently Laurie made a significant cash donation to WANSARC and this, coupled with his contributions in the past, will further enable our club to service our local community, short wave listeners, amateur radio and electronics enthusiasts for many years to come.

With WANSARC's recent move back to our old "home", Laurie's support at this time is very timely and at our August meeting a unanimous vote of thanks was recorded for Laurie's efforts.

So next time you hear Laurie on the air, dip your hat and say your thanks to a real "club" man. Thanks Laurie from all members.

NEXT MEETING
FRIDAY September 5, 2008 at the **ERN ROSE CLUB ROOMS**. Meeting commences at 1930 hours.

Guest speaker this month is our very own Mick VK3CH. Mick will be educating the mere radio mortals on "D" Star with a "twist".

Come along and hear Mick talk of "D" star then share your stories over a biscuit, tea or coffee.

(See Page 2 for more details)

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Just when you least expect it... by Julie Hannah

I've been dragged at a slow pace into the world of amateur radio over the past 13 years – married to a *ham*, it's unavoidable. While Trevor insists on explaining the ins and outs of what he is making or planning on doing, I make acknowledging sounds while my eyes glaze over and my mind drifts off into another sphere. The world of electronics and me are a complete mis-match. Although after all this time, it's amazing what you pick up, what sticks....and what doesn't.

So, when I agreed to be Trevor's navigator to get to Reservoir for the Western and Northern Suburbs Amateur Radio Club meeting on Friday night, I did so mentally geared up to be the only female there, to be totally ignored by a roomful of men, to not understand a single word spoken, and to just melt into the background, despite wearing a bright red wind fleece.



These Kiwis stick together—Left to right Dan VK3DWH, Julie and OM Trevor VK4KWT/ZLIUO

How wrong was I!?!?

Whilst it was all men, they were more than welcoming and extremely inclusive – being a visitor with a New Zealand call sign attracts attention anyway. Dallas's talk on *RF noise* was really interesting, and I understood most of it. It's amazing the *noise* modern day (and not so modern day) electronics give off – I hate to think of the health implications that go with this.

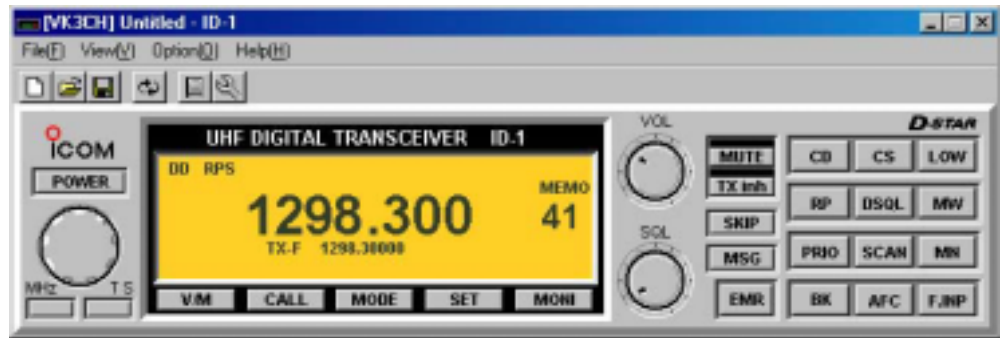
After the meeting, the team invited us out for a bite to eat and what a fantastic evening I had! An awesome bunch of guys, great conversation and loads of hysterics – I haven't laughed so much in ages. I will never view Russell Crowe quite the same way again thanks to Johnno.

Thanks for a great time guys – I'm looking forward to keeping in touch when Trevor gets on the airwaves and you may have even inspired me to get my foundation licence...maybe...

Cheers Julie Hannah

NEXT CLUB MEETING FRIDAY SEPTEMBER 5, 2008

What is this you say? It's a D-Star screen, that's what! Come along to the next meeting as Mick VK3CH explains and demonstrates the newest mode on the block – fast—data D-star. Web browsing, file transfer, video e-mail, text messages and multimedia messages. – all via amateur radio..



TAKING BACK THE HANDS OF TIME.....

The compilation of historical materials for the writing of the club history has commenced with the scanning of photographs that I have. Lo and behold, what should surface, but a photograph of the Italian pasta master blaster, Frank VK3ZO. Frank can be seen in his East Preston shack, circa 1979, with an FT-7, ATV receiver running plus an assortment of gear which he has kept to this very day. Who can forget the beautiful AM sound on 80 metres with his home brew transmitter.....ah, those were the days. Frank will be assisting me by giving me a story or two around this photograph, so why don't you do the same? Hunt for those old photographs and send a copy to me or catch up for a chat....I want to include your stories! Thanks already to Geoff VK3JDG, an ex club member, for a photograph and Trent, VK4TI for some information on the original holder of the club callsign, VK3AWS. The compiling has only just started, but you may have a valuable piece of the club history jigsaw puzzle. All contribution welcomed. 73

de Mark VK3PI

Cosmic DX by Peter VK6YSF PART 1 of a two part article

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

In 1894 Percival Lowell with his 450mm refractor telescope near Flagstaff Arizona described a network of canals which he believed he could see and which he felt was a clear sign of intelligent life on the planet Mars. And with H. G. Wells *The War of the Worlds* published shortly after it was easy for the general population to believe that an intelligent and possibly even hostile alien civilization existed on the relatively near by red planet.

By the mid twentieth century while there was still optimistic hope that there may be some kind of life on Mars, as Mars is the most Earth like planet in the Solar System it was clearly not a highly developed life and not an extraterrestrial civilization!

If there is no other intelligent life on Mars and by extension within our Solar System perhaps with there being somewhere between 200 to 400 billion stars in our Milky Way galaxy alone and perhaps with a large percentage of there stars having planetary systems and with the possibility of even a very small percentage of these planets harboring life, it is easy to imagine the possibility of thousands of highly developed civilizations out there.

It was clear from the start that we or they would find it near to technically impossible to physically travel the enormous distance too or from even the nearest stars. With nearest star to earth being the faint Proxima Centauri at a distance of 4.3 light-years and a light-year translating into about 9,460,000,000,000 kilometers, we will without some fundamental break through in technology never traverse these distances physically.

The obvious choice was not to go there personally, but instead send or listen for a message from the distant civilizations. With the refinements in radio technology in particular sensitive VHF and microwave technology developed for radar during World War II we had a method.

How many civilizations could really be out there? (*The Drake equation*)

Astronomer Frank Drake penned an equation in 1960 as part of his preparation for what was known as the Green Bank meeting: that established SETI (Search for Extraterrestrial Intelligence). The equation aimed to get handle on the odd of there being extraterrestrial civilizations within our galaxy and to create some order to the issues that needed to be discussed at the conference. The equation has since taken on a life of its own and is quoted in most books and web sites on the subject and is the corner stone of much scientific discussion within SETI.

The equation is as follows:

$$N = R^* \times f_p \times n_e \times f_e \times f_i \times f_c \times L$$

Where:

N is the number of civilizations in our galaxy that may be capable of contact.

R^* is the average rate of star formation in our galaxy.

f_p is the fraction of those stars that have planets

n_e is the average number of planets that can potentially support life per star that has planets

f_e is the fraction of the above that actually go on to develop life at some point.

f_i is the fraction of the above that actually go on to develop intelligent life.

f_c is the fraction of the above that develop a technological civilization that emits detectable signs of their existence into space. i.e. radio

L is the length of time such a civilization emits detectable signals into space.

There is obviously great debate over what values should be placed in the equation as perhaps only R^* and f_p can be estimated on the bases of real scientific observational data.

The values used by Drake and fellow scientist in 1960 were:

$R^* = 10/\text{year}$ (ten new stars are formed on average per year over the life of the galaxy)

$f_p = 0.5$ (half of all stars will have planets)

$n_e = 2$ (stars with planets will have 2 capable of supporting life)

$f_e = 1$ (100% of these planets will develop life)

$f_i = 0.01$ (1% of which will develop intelligent life)

$f_c = 0.01$ (1% of which will emit detectable signals into space)

$L = 10,000$ (This civilization will emit signals for 10,000years)

$$N = 10 \times 0.5 \times 2 \times 1 \times 0.01 \times 0.01 \times 10,000 = 10$$

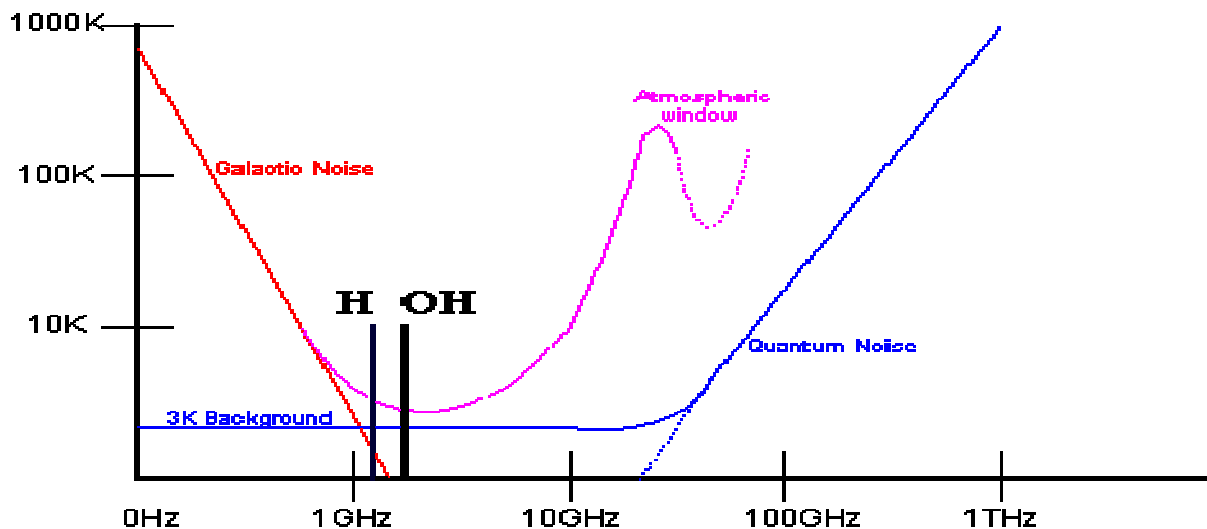
The galaxy is still big place and most or all of the 10 may still be well out of radio range. The bottom line is that most of the numbers are little more than a guess and you can get all sorts of results from less than 1 to thousands subject to what you think the values could be. We are certain that the number should be at least one!

The most recent *guestionation* has produced a result of two. Them and us would you believe!

What is the call frequency?

The radio spectrum is enormous if you are aiming to detect a very weak and very narrow band signal. Nature has determined that a band of frequencies from just above 1000MHz to about 10,000MHz is galactically quiet and that atmospheric absorption is low, this is the terrestrial microwave window. This is also still a large amount of spectrum that is also increasing be used for all sorts of human communications from mobile phones to wireless broadband etc.

A frequency known as the hydrogen line at 1420.40575 MHz has been chosen as it is a frequency or call channel that is universal and would be known by any technically advanced civilization. It is for this reason that the frequency range from 1400.00MHz to 1427.00MHz have been assigned exclusively to radio astronomy and no other activity is allowed.



In April 1960 astronomer Frank Drake performed one of the first modern experiments named "Project Ozma" used a 25-meter-diameter radio telescope at Green Bank, West Virginia, to examine a small number of stars near the 1.420 gigahertz marker frequency. A 400 kilohertz band pass was scanned around the marker frequency, using a single-channel receiver with a bandwidth of 100 hertz. The information was stored on tape for off-line analysis. He found nothing of interest.

A few years later during 1967 a large radio telescope was conducting experimental observation at 81MHz of the effects of the Sun's solar wind on distant Quasar radio sources. An odd radio signal was identified and when plotted on a chart recorder revealing a continuous series of pulses spaced perfectly every 1.337 seconds. The signal was confirmed as coming from deep space, but nothing like this had been seen before. It had to be seriously considered as a message or perhaps an extraterrestrial beacon. The signal was labeled LGM1 which stood for "Little Green Men" first contact.

Evidence including the fact that there was no Doppler shift that would have be expected if the signal was coming from a planet of satellite orbiting a distant star. The source was in fact coming from a star its self, a rapidly rotating neutron star. A neutron star is the remnant core of supernova, an exploding giant star. As the star explodes throwing of massive amounts of material the core is driven inward along with the collapse of the remaining star material. A super dense object only several tens of km in diameter remains. As a result the object spins up and can be rotating as much 50 times a second. The highly compressed magnetic fields produced by the neutron star channels light and radio waves like a rotating search light. These object tuned out not to be an extraterrestrial radio beacon, but rather the discovery of one of natures strangest objects, the Pulsar. Over a thousand Pulsars have now been identified.

Part 2 continues in the OCTOBER issue of WANSARC NEWS.....our thanks to Peter for his continued fine articles...VK3PI

Tropospheric Propagation update. From VK2KRR.

The current state of the troposphere is.... very very bad! I have been monitoring the gradual decline in tropospheric radio enhancement for the past 4 years or so from here at The Rock, Sth NSW, appearing to coincide with the decline in rainfall in the region over the same period. What was often noted to be the case was at least one or two good openings a month to VK5. At the peaks of the good strong stuff, I have been able to pull out FM stations with omni verticals at roof height on 70cm at 760 Km +/- . I've worked to Port Lincoln using a 5/8 vertical and 20W on 2m FM from here at 1023 Km approx. Mobile stations 750 Km away on 70cm FM. Renmark TV smashing the S meter here with no pre-amp at 600 Km. I used to be able to RX Adelaide 2m beacon almost 24/7. Worked 5BC/p 917Km away on 70cm with Brian using a 5 ele yagi almost at ground level. Worked 5BC and 5ZK on amateur SSTV on 2m at 760 Km. Pulled out FM stations using handhelds up to 500 Km away. The more active VK5 stations would also attest to the current decline of conditions. Especially Brian VK5BC I should think as we regularly used to make contact often, but now struggle at the best of times. Openings to VK5 have gone from 2 a month to 2 a year. There had been no VK6 openings for the past 2 seasons until I recently got a path to Esperance in the middle of winter. There used to be a reliable indicator, which was a link from the VK5 SE repeater system used to start causing interference to the Yarrowonga repeater some 200 km from me. This interference issue has now been eliminated, but up until it was resolved—the frequency of occurrence had dramatically declined. Generally I have a very large area in which under normal conditions I can work out too. I can or could work out to the 900 Km area anytime using JT44/JT65 on 2m. Particularly with Bill VK5ACY on Kangaroo Island. While I currently still appear to be able to hear the Mt Gambier 2m beacon most times, other usual indicators are becoming very weak. Mildura beacon, Adelaide beacon, Broken Hill beacon. And in general, more difficulty in accessing repeaters generally used as indicators such as Mt Macedon, Otway Ranges, Ararat, Grampians, Charlton, Robinvale, Murray Bridge. Also I was getting some very rare Fata Morgana Mirages visible here too (superior Mirage), which are produced from temperature inversions, but they are hardly ever seen at this point also. So all in all things are very down hill at the moment. **Leigh VK2KRR on the Australian National DX Group web forum**

Reservoir Rotary has thanked WANSARC for its support in the 2008 raffle. WANSARC has received a cheque from Reservoir Rotary for \$232. Unfortunately none of our members or their ticket buyers were successful in winning any of the 11 prizes. The first prize went to F. Lennox, 2nd H. Proud and 3rd R. Harrison. It is worthy of note that the number of tickets sold by our club increased again this year meaning a healthier return of funds to WANSARC. Thanks for your participation and please support the 2009 effort. 73 Mark VK3PI, Secretary, WANSARC.

FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR SALE FOR

The club will again have a variety of disposals gear available for members at very good prices – usually a gold coin donation. If you have something to donate to the club, or you want your pre-loved gear to go to a great home of a club member, bring it down. This month Mark VK3PI will be bringing along a variety of items available to members for a gold coin (or two) donation, together with some other items that you may have to pay a little more for. This will include a fluorescent workbench light, fully protected in a cage and working for only \$20. Be early to snap up any bargains!!

BITS AND PIECES

The VK3RGL repeater (147.000MHz negative offset) is now fitted with CTCSS and can be accessed using a sub-audible 91.5Hz tone. Users are advised to avoid over deviating their transmissions as that is likely to interfere with the reliable opening of the repeater. From **Peter Andjelkovic VK3APJ**

If you are driving down St. Georges Road and see a vertical with a tilt, don't worry, Mick VK3CH has it under control.....but if it goes any further than the 45 degree tilt at present, let him know!!

The WANSARC Christmas dinner will again be held on the first Friday in December.

Trevor VK3FTDX and Gordon VK3YOD are in charge of organisation, so watch this space for details of this year's bash.

As always, a great turn out is anticipated.

Good to hear a few club "strangers" on the net, including Graeme VK3PGK who has taken some leave from work and SES to play radio! And best of luck to Dallas VK3EB who has been suffering the dreaded cough!!





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—

VK3APJ, VK3FTDX, VK3CH, VK3DPF, VK3PI, VK3DWH, VK3PGK, VK6YSF, VK2KRR and Julie Hannah

Thanks folks de Mark VK3PI, Editor/Producer.

WHAT ABOUT THIS ? Contributions from members

Crikey mate! Which way do I go now?

From Trevor VK3FTDX



THE SEX OF A FLY

From Graeme VK3PGK

A woman walked into the kitchen to find her husband stalking around with a fly swatter.

"What are you doing?" she asked.

"Hunting Flies" he responded.

"Oh. ! Killing any?" she asked.

"Yep, 3 males, 2 Females," he replied.

Intrigued, she asked, "How can you tell them apart?"

He responded, "3 were on a beer can, 2 were on the phone."

LOOKING FOR LAND?

From Dan VK3DWH

Here is a handy website to assist in working out what size wire antennae you can fit in your backyard.

<http://services.land.vic.gov.au/maps/interactive.jsp>



The site has a range of search features, including the ability to measure your block of land boundaries—what size antenna can you fit into the backyard?

It is amazing to see how linear some of our suburb designs are—very boring! On the other hand some of the blocks of land are a very odd shape and one can only imagine the size and type of structures built around the amount of land, or so little of it, available!



WANSARC VK3AWS

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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.

Meetings

FIRST Friday of each month except January at the Ern Rose Memorial Pavilion, SEAVAR 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 5 September , 2008

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

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stamp here**

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

MEMBER SPOTLIGHT



Who is this young looking bloke?
Yes, it is Bob VK3EL, circa late 1979 or so. Bob is a life member of the club, active on the Committee and our master of ceremonies on the VHF club net each week. Bob and a gaggle of others were very active on 10m at the time and this is a photo of Bob mobile on 10 metres. Now, have you kept the cardigan, Bob? They are back in fashion!!

TO: