

WANSARC NEWS



Volume 40 Issue 1— February 2009

Western and Northern Suburbs Amateur Radio Club VK3AWS
Incorporated in Victoria A7611S

HAPPY BIRTHDAY IN 2009 TO WANSARC



Congratulations WANSARC members—welcome to our **40th Birthday year!** The club was born in **1969** and has stood the test of time, remaining a focus for many amateur and short wave radio enthusiasts living in the north and western suburbs of Melbourne. Two stalwarts of the club are pictured in 1989 cutting our 20th Anniversary cake —on the left **Ted VK3ZKP** (Silent Key) and **Ted VK3ZZO** (Silent Key). It is ironic that this picture was taken at the Ern Rose Memorial Pavilion, the home of the club at the time and now our home again! If you have any photographs and memories you would like to share with all club members, please contact Mark VK3PI and leave your details. To the two Ted's and all of our founding members, your memory and efforts live on in the club.

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Calendar for February 2009

- Tuesday **February 3, 10, 17, 24**—Club VHF Net 1930 hours 146.450MHz FM
- **Friday February 6**—CLUB MEETING
- **Sunday February 21**—Club day (to be confirmed)



Wansarc is an affiliated club of the Wireless Institute of Australia

Presidents 2009 Message



Welcome to the start of the formal club year. I hope everyone was able to relax over the holidays and not fried to a crisp last week.

2008 was an interesting year for the club. We saw an increase in membership and a move back to the clubhouse we used prior to 1998.

The "new" clubrooms mean we now have greater flexibility in the hours of use. We had one planning day at the end of last year and the family day this month. The family day was a great success due to good attendance and the ex-

cellent work by Trevor and the BBQ team.

Most of you will remember that the club subscription fees have not increased for several years due to the healthy state of the clubs finances. A "trigger point" was decided on, and the fees would not be increased until we reached the trigger point.

During last year we reached that point. The committee will be making a formal recommendation on the new fee structure at the February general meeting. A motion

on the 2009 subscription level, based on the discussions in February, will be put to the AGM in March.

2009 will be an interesting, and I hope, satisfying year for all members.

Graeme McDiarmid, VK3NE
President, WANSARC

The WANSARC Family Day 2009 by John VK3FMPB and Rod VK3MRT

This was the great WANSARC Family Day with BBQ, radio and more importantly get to meet and talk to as many new people as you can. The venue this year - our brand new "old" QTH. What a great day it was too, the weather was just right. Not too hot and no rain.

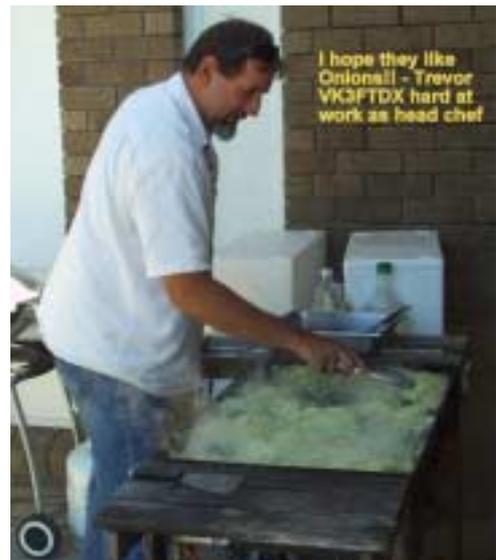
Who remembers last year when we were at Bundoora park in the rain and cold and mud? If not, I have pictures of radios full of water to prove it. Mine included. No-one can say that we are not a diverse club. There was always something going on to please everybody and anybody.

Some of our activities included a computer stand, radio gear to the max, 146.450, 23cm, 70cm, ATV, food and drink tables, coffee and tea tables, duck feeding and tadpole catching competitions, see Mick's daughters VK3FAME and VK3FIRE for more info on who did what in those departments.

Some of the bands we worked were on the day were VHF and UHF, voice and Amateur TV. **Mick VK3CH**, had his trusty Icom 910H out and was working 2m, 70 cm and 23 cm at 100W mind you. Mick also provided Amateur Television with a reasonable picture into the VK3RTV repeater. Some of the more technical specs of the equipment Mick used are thus; antenna for voice was a Diamond X7000. ATV TX @ 10 watts, using 23 cm loop Yagi, receive antenna was a 70 cm beam, TX antennae fed with 9913 hard line coax. ATV is 1250 MHz outbound or TX to mountain (VK3RTV) and back or RX as 444.250 MHz.

Other activities also included a fantastic meal put on by Trevor VK3FTDX and his trusty BBQ which churned out a pretty good meal. With lunchtime approaching, Trevor as head chef and Rod and Johnno providing backup, we cooked the snags and burgers. Before long they were ready and we fed the hungry masses! Lunch was quite a treat, if we may say so, everyone tucked in to a good feed. There was plenty of food and drink to be had, and boy did we have them. Salads, both potato, vegetable, and pasta, burgers, snags, and soft drinks, I don't think anyone went hungry on the day. Afterwards Johnno did the rounds and sold the raffle tickets, whilst everyone took a break after lunch with a cold drink. Winner of the UHF antenna was Martin VK3FMJP and winner of the bottle of red wine Craig VK3XOR. Well done folks!

It was a very successful day and everyone seemed to thoroughly enjoy themselves. **Johnno VK3FMPB and Rod VK3MRT**



The WORKED ALL VK SHIRES AWARD

This award is administered by [Oceania Amateur Radio Dx Group Incorporated](http://www.odxg.org) (www.odxg.org)

Amateurs and SWLs may apply for this award under the requirements set out below:

This award is available in various levels. The first level may be applied for after the applicant has worked **50** of the listed local government councils.

After the initial award, you will require a further **50** shires each time you apply Eg 50, 100, 150, 200 , 250 etc

Any amateur operating in any VK shire shall be permitted to count it as a worked shire for themselves providing they have logged other operators.

Modes and bands of operation are **SSB, CW and RTTY** on **all HF only bands**. Cross band or repeater contacts are not permitted.

Applications must be accompanied with a log extract detailing the stations/shires worked. Electronic logs as well as paper logs are accepted.

Applications must be accompanied with payment for the postage of the certificate. For VK amateurs that fee is \$5 AUS and Dx amateurs the fee is \$10 AUS or 5 IRC's.

All contacts after 31st Dec 2008 shall count for this award.

Please be aware that most of VK call areas have an award for their area.... Eg The VK4 award has been going since 15th Mar 2008. Information on these various awards is available from VK4DMC.

The official web site for the VK Shires is

www.vkshires.info

There is also a yahoo forum at

<http://groups.yahoo.com/group/vkshires>

Award Manager Details:

VK Shires Awards Manager

PO. Box 612

Childers, 4660

Australia

Club net on VHF goes from strength to strength



The Tuesday night VHF club net is going from strength to strength under the direction of net controller **Bob VK3EL**. Members and supporters of WANSARC are invited to pop into the net each Tuesday evening, commencing at **1930 hours** local time, on **146.450MHz FM**.

Participants are reminded that overs should be kept short to allow everyone on the net a chance to provide comments. So join in and put your **"two bob's worth in!!"**

What are the real challenges of VHF? By Mike Bosch ZS2FM

When new Radio Amateurs come on the air, they invariably start off with a 2 metre rig, a vertical antenna and establish two-way contacts via repeaters. After a while they arrive at the conclusion that this is all there is to VHF. They are unaware that there is another VHF world out there; they only had to start looking for it! Terrestrial repeaters of course, do have their uses such as mobile work and social chatting within the repeater range, but the degree of difficulty is zero!

Satellites on the other hand are also repeaters, but they are in the sky or more correctly inner space. The challenge and the degree of difficulty are obviously a lot greater than terrestrial repeaters and therefore it is a good way to start more serious VHF work.

But the real VHF world is vast and lies just beyond the radio horizon and will startle you once you get weaned from repeaters. It is highly technical and very challenging, just like Amateur Radio when it first started over 100 years ago which was based on experimentation, pioneering and research. The biggest challenge at the time was to extend the range on the various VHF bands and above. In the early days it was believed that the maximum range on VHF was limited to line of sight plus about 30 per cent. Ross Hull of the ARRL proved that the range on 5 metres (60 MHz) could be extended to 160 km and a few years later to several hundred kilometres. He accomplished this by building more sensitive receivers, more efficient VHF transmitters and added beam antennas for greater ERP, and in the process discovered Tropo propagation. Since then many new types of propagation have been discovered on VHF especially 50 MHz, and most of them were pioneered by Radio Amateurs. Beginners could start with simple equipment and gradually work up the scale as their know-how increases.

Today the maximum terrestrial ranges achieved on VHF and UHF are as follows:

50 MHz (6M) - 19921 km on F2 (ZL to EH)
70 MHz (4M) - 4406 km on Es (SV2 to CU8)
144 MHz (2M) - 7784 km on TEP (I4 to ZS3)
432 MHz (70cm) - 4150 km on Tropo Ducting (KH6 to XE2)
1296 MHz (13cm) - 4150 km on Tropo Ducting (KH6 to XE2)

On microwaves the terrestrial record was set up on the 10 GHz (3cm) band and currently stands at 2079 km via Tropo Ducting (4X to I).

The maximum range achieved so far on Tropo Ducting on 144 MHz is 4754 km (Hawaii to USA). The 144 MHz, 432 MHz and 1296 MHz records of 4150 km were established between the Hawaii and Mexico by the same two stations and on the same day.

EME (Earth-Moon-Earth) was the most difficult and challenging mode on VHF and above for many years. It required low noise masthead amplifiers, high power and very high gain Yagi arrays. Initially moonbounce contacts were only made on 144 MHz and above on slow speed CW mode.

With the advent of Digital Data communications the degree of difficulty on EME has been greatly reduced so that many more amateurs can now make EME contacts with modest equipment even on 50 MHz. The Joe Taylor Digital data modes can detect a signal well below the noise floor i.e. -20db to -30 dB; the efficiency of the digital modes cannot be questioned!

What are the real challenges of VHF? continued

The question now arises are there anymore challenges left for VHF Amateur Radio?

The answer is yes there are lots of exciting and thrilling pioneering contacts to be made! For example, on VHF, UHF and Microwaves there are many records that can be conquered, all that is required is the improvement of equipment and perseverance. It will also call for the sharpening of your technical skills to upgrade your receiving and transmitting systems, the construction of high gain horizontally polarized Yagi arrays and the study of the vagaries of many different types of propagation on VHF and above.

On the terrestrial level the greatest challenge and degree of difficulty currently exist during Tropo Ducting across the oceans: the Pacific Ocean (Hawaii to USA) - 4754 KM, the Atlantic Ocean (USA to Europe) (?) and the Indian Ocean (RSA to Reunion Island) - 2875 km. All the above records have been accomplished with analogue modes and could be broken. VK VHF amateurs believe that it should be possible to work the RSA via Tropo Ducting over the 8000 km sea path on 144 MHz. This could be the supreme terrestrial test for VHF amateurs and will require very efficient equipment and high ERP to accomplish such a feat, but digital modes would be a prerequisite.

Who will be the first to set up this record?

When the first settlers arrive on the Moon in the year 2020, then quite a bit of traffic could develop in space between them and us Earthlings. Communications could be accomplished on VHF with analogue modes because the path loss and therefore the degree of difficulty would be greatly reduced. Ordinary EME could completely disappear in time.

NASA expects to make the first Martian landings around 2030. This could open up the most challenging SHF communication path for us and most certainly will have the highest degree of difficulty. This Earth/Martian space path will call for the most sensitive receivers on microwaves, possibly 10 GHz (3cm), Travelling wave tube (TWT) transmitters, dish antennas and only Digital Data and Voice modes would cover the distance of 56 million km to the planet Mars at perigee.

I believe that Radio Amateurs of the future will meet the challenge. Amateur Radio is not just a little hobby as some uninformed may believe, but is a challenging and ever growing experimental field in radio science!

**73 Mike Bosch ZS2FM
PORT ELIZABETH**

From the anvdg yahoo group Digest number 597

A reminder to club members that SQUID POLES are still available from the club. For those that ordered and have not picked them up, come down to the next meeting. If you did not order one and require one for experimentation, come on down and purchase one. And if you have any equipment which may be useful for others to play with because you have finished with it, why not donate it to a newcomer in the club?



BITS and PI-eces

The club frequency of 146.450 has been running hot of late. Some of the callsigns heard lately include EL, VCL, FTDX, FXDX, FJPM, FMJP, FSGC, XOR, XC, KBL, KBA, ZCW, PI, HKV, EB, FXDX (now DTS), CH and OP, to name a few! Bob VK3EL has been playing with his new rig, an IC7000. Wayne VK3VCL and Mark VK3PI have been testing old but new Kenwood TS660 quad bander rigs. So much so that an AM net appeared on 10 metres recently!! Frank VK3ZO has pulled his key out of the cupboard and Mark VK3PI and Frank enjoyed a 40 minute CW QSO recently. Trevor VK3FTDX has had some troubles with antennae falling out of the sky, but things are on the improve.

**73 de Mark
VK3PI**

A new use for the humble Gutter mount By Martin VK3FMJP

Given that most vehicle manufacturers seem to feel the need to make cars without gutters, many of us will have an odd gutter-mount floating around unused (or like me – given one by a kind sponsor).

I thought – how can I use this nice piece of engineering? I wanted something for my car to use with my little FT60 handheld. Keeping things simple is my aim. I had an old CB magnetic base that 'would come in handy on day' and a nice gutter mount.



A few moments of thought and here we are – see photos.

Some gaffer tape on the base to protect the duco, a bolt through the lower bracket base and a 'bit of reinforcement for the base' rounds things off.

I thought the extra aluminium would spread any stress around the bolt – although minimal - and allow the grub screws to be snugged up to provide a little more rigidity.

Overall, a nice little unit that is easily removed and doesn't mean drilling any holes in roof-racks or too much fiddling. You could use the principle to mount to 3mm aluminium plate and 'u-bolt' it to a roof rack or whatever. Lots of options with the saving of a dollar or two.

Hope you find this interesting/useful.

Regards, Martin VK3FMJP



New Seat belt laws effective December 1 2008 from Bob VK3UY

The National Highway Safety Council has done extensive testing on a newly designed seat belt. Results show that accidents can be reduced by up to as much as 45% when the belt is properly installed.

Correct installation is illustrated at **right**. Please pass on to family and friends.

**This could save a
live !**



Irish Joke of the Year from Graeme VK3PGK

An Irishman walks into a bar in Dublin, orders three pints of Guinness and sits in the back of the room, drinking a sip out of each one in turn.

When he finished all three, he comes back to the bar and orders three more.

The bartender says to him, 'You know, a pint goes flat after I draw it; it would taste better if you bought one at a time.'

The Irishman replies, 'Well, you see, I have two brothers. One is in America, the other in Australia, and I'm here in Dublin. When we all left home, we promised that we'd drink this way to remember the days we all drank together.'

The bartender admits that this is a nice custom, and leaves it there.

The Irishman becomes a regular in the bar and always drinks the same way: he orders three pints and drinks the three pints by taking drinks from each of them in turn.

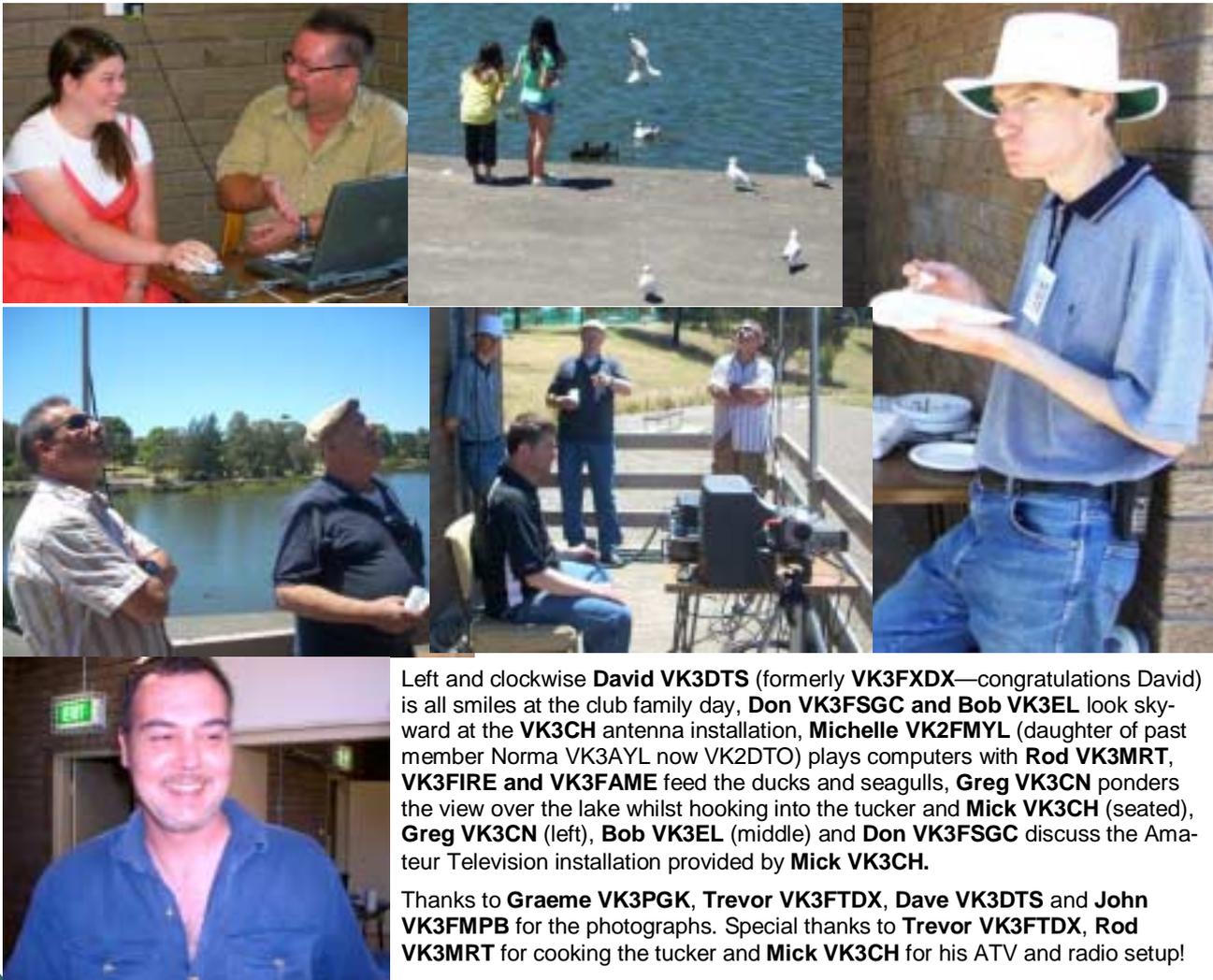
One day, he comes in and orders two pints. All the other regulars in the bar notice and fall silent.

When he comes back to the bar for the second round, the bartender says, 'I don't want to intrude on your grief, but I wanted to offer my condolences on your great loss.'

The Irishman looks confused for a moment, then the light dawns in his eye and he laughs.

'Oh, no,' he says, 'Everyone is fine. It's me.....I've quit drinking!'

Photographic roundup of the WANSARC Family Day



Left and clockwise **David VK3DTS** (formerly **VK3FXDX**—congratulations David) is all smiles at the club family day, **Don VK3FSGC** and **Bob VK3EL** look skyward at the **VK3CH** antenna installation, **Michelle VK2FMYL** (daughter of past member **Norma VK3AYL** now **VK2DTO**) plays computers with **Rod VK3MRT**, **VK3FIRE** and **VK3FAME** feed the ducks and seagulls, **Greg VK3CN** ponders the view over the lake whilst hooking into the tucker and **Mick VK3CH** (seated), **Greg VK3CN** (left), **Bob VK3EL** (middle) and **Don VK3FSGC** discuss the Amateur Television installation provided by **Mick VK3CH**.

Thanks to **Graeme VK3PGK**, **Trevor VK3FTDX**, **Dave VK3DTS** and **John VK3FMPB** for the photographs. Special thanks to **Trevor VK3FTDX**, **Rod VK3MRT** for cooking the tucker and **Mick VK3CH** for his ATV and radio setup!

Your business tag line here.

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.

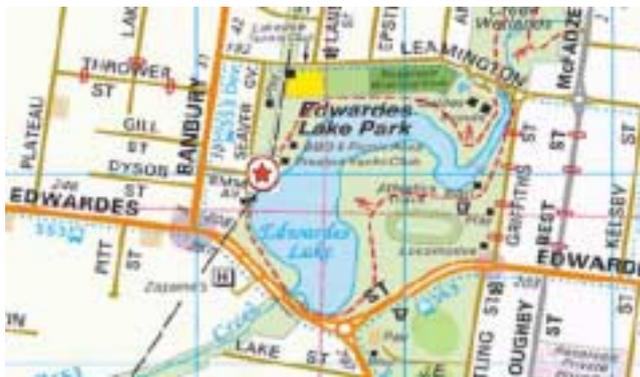
Meetings

FIRST Friday of each month except January at the Ern Rose Memorial Pavilion, 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



**Some of the faces of
WANSARC at the club rooms
and in the field. Why not come
and join the club ?**

Next meeting Friday February 6 , 2008

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

**Australia Post stamp
here**