

WANSARC NEWS

Incorporated in Victoria, 1985 Registration Number: A0007611S

Closing Date for Articles and Advertisements for next issue in October is 29th September

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: 37

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September

2006

Next Club Meeting 19.30 hours - Friday 1st September at the TAFE

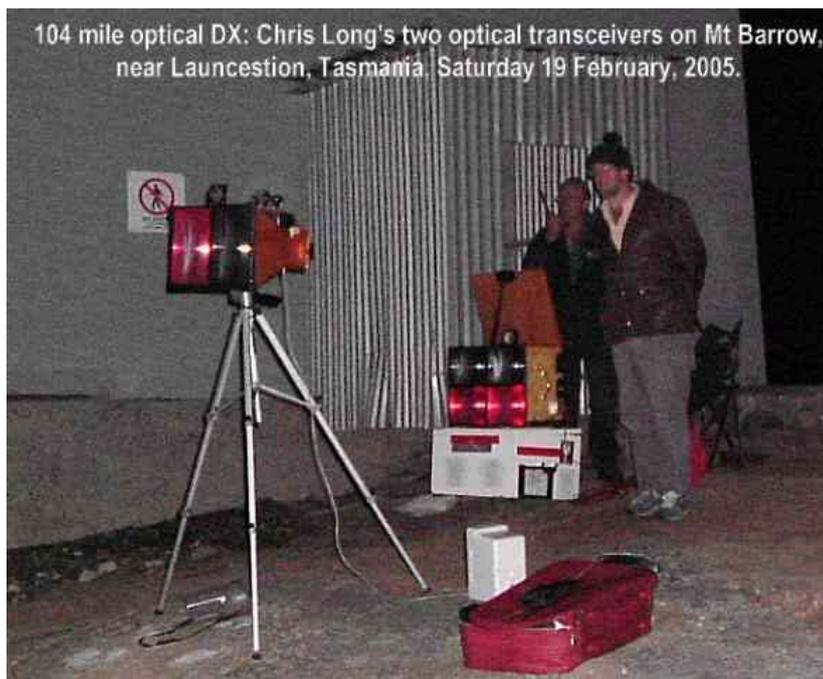
- Next Meeting at WANSARC -

A presentation of the excellent PowerPoint Show first shown at **GippsTech 2005** by Chris Long & Mike Groth (VK7MJ)

“Recent advances in optical communications”

DX light communication by Luxeon - A license-free, broadband and duplex wireless technology

On the evening of 19 February 2005 the authors spanned a 167 km (104 mile) path between Mount Barrow's South peak and Mount Wellington in Tasmania with audio modulated light beams. This was the culmination of about 35 years of intermittent experiments by the two authors. The suggestion to try the Barrow-Wellington path originated in a chance comment to Chris Long by Jason Reilly VK7ZJA, that Mount Wellington was visible from the top of Barrow. Jason is a technician for Optus, regularly visiting the transmitter site on Mount Barrow; otherwise we would never have known that crucial piece of information! Both summits are above the 1200 meter contour, and the earth's curvature on the land between only accounts for approximately a 600 meter bulge, with reasonable clearance all along the path. We were surprised to find that the expected rapid optical fading cycles caused by atmospheric turbulence over this long path were not too severe, presumably because the effect rapidly diminishes with elevation.



104 mile optical DX: Chris Long's two optical transceivers on Mt Barrow, near Launceston, Tasmania, Saturday 19 February, 2005.

Come and see a 'brilliant' presentation on communication by light, next meeting at WANSARC
Chris Long will have his Luxeon "Photo phone" on display and a very informative PowerPoint Show will be given.
Don't miss this very interesting talk that was one of the 'showcases' of GippsTech 2005.

Around the Shack

Harry VK3KBA - Practical tips on building a top loaded vertical for 160 Meters

Nik, VK3FNIK/DU8, visit to Zamboanga Peninsula, Southern Philippines

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Around the Shack

SPECIAL BULLETIN TO FOUNDATION LICENSEES

In response to four inquiries this week from members about Foundation Licensees using a repeater system that includes output on bands not permitted by that license, a clarification was obtained from the ACMA.

It states that if a radio amateur transmits the CTCSS tone that gives them access to a band for which they are not licensed then they (transmitting person) commit the breach of their license conditions.

The ACMA also rules that 'amateurs may only gain access to repeaters that have input and output frequencies within bands authorized under the amateur's own license.'

That is the latest from the ACMA. Earlier this year the ACMA had considered that maybe the repeater licensee was responsible, and some radio amateurs had relied upon that now discontinued position.

While the latest advice from the ACMA is clear, it also plans to clarify the situation in the next revision of the Amateur License Condition Determinations due for release before the end of 2006.

As I wish, as a WIA Assessor to help our new Foundation Licensees who are finding their way in the hobby, please pass this information on to them, either on the air, or by suggesting they check the information at ACMA, WIA or ARV websites.

- Mick, VK3CH, WIA Assessor 3-015, (Editor)

FOUNDATION LICENCE COURSE AND ASSESSMENTS

ARV - Super September, two sessions 9 & 10, 23 & 24

Foundation licence training and assessments are held at Box Hill North every month. For inquiries or to enroll contact Barry Robinson VK3JBR 0428 516 001 or arv@amateurradio.com.au

Foundation License manual

The study and operational practice guide book for the new Foundation Licence is available from Amateur Radio Victoria. Mail orders are being accepted with the cost including pack and post being \$19.50. Available via mail order from: Amateur Radio Victoria, 40g Victory Boulevard Ashburton 3147 Fax 9885 9298

1000, NOT OUT

There now seems little doubt that the WIA examination service will process more than 1000 successful candidates in the first full year of assessing foundation license candidates.

It is now also apparent that an increasing number of people are upgrading from foundation to standard and advanced and feedback from assessors and several clubs offering training confirms this trend will continue to accelerate over the coming months. Feedback from a growing number of clubs indicates that club membership and meeting attendance is growing also. July was a record month for the National WIA, we admitted 77 new members for the month and if this trend continues the WIA membership will pass 4000 at around the same time as we see 1000 foundation licensees reached.

Since the inception of the National WIA in May 2004 amateur numbers have grown by around 4% and WIA membership by 14%.

Thursday morning a breakdown of the existing, that is still to upgrade F calls, saw the almost 700 calls as;

VK1	24
VK2	166
VK3	246
VK4	70
VK5	98
VK6	39
VK7	44
VK8	6

-from WIA Secretary Chris Jones

ROTARY RAFFLE ADDENDUM

Last months magazine had 2 different ROTARY amounts stated, one in the early stages of text to the magazine and later in Marks article received.

The correct amount is in the "A Slice of 'PI'" article, \$172.55.

Sorry for any confusion.

- Mick (Editor)

500 KHZ UPDATE

Over the past few months, National WIA News has reported moves by amateurs to secure an allocation in the vicinity of 500 kHz, the old maritime Morse Code distress channel.

Of course, 500 kHz was replaced by the Global Maritime Distress and Safety System, or GMDSS, in February 1999. Ships are no longer required to monitor or use 500 kHz for distress calls.

The ARRL, the RSGB and now the Irish amateur radio society have submitted proposals to their radio regulators for a small amateur allocation in the region of 500 kHz. The UK radio regulator has indicated that they are considering the issue.

However, many former Merchant Navy Radio Officers are strongly opposed to amateur operation on 500 kHz. Their view is that 500 kHz must be preserved as a museum or historic frequency. The UK and the German Radio Officer associations have published papers to this effect.

So, what is the regulatory situation regarding 500 kHz?

At the moment, the international radio regulations still designate the band 495-505 kHz exclusively for distress and safety use.

This status can only be changed by a world radio conference.

Interestingly, there are still some coast radio stations monitoring 500 kHz.

In our region, Chinese and Indonesian stations maintain a distress and calling watch on 500.

So, in summary, there may be scope for a small experimental amateur allocation either above or below 500 kHz, but this could be some time off yet.

- Glenn Dunstan, VK4DU, WIA. News

ACMA NEWS

ACMA changes conditions on the class License for LIPD's ACMA has made variations to the LIPD class license and the changes are;

* authorize ultra-wideband short-range vehicle radar in the 22-26.5 GHz band;

* increase the maximum EIRP to 100mW for wireless microphones in the 520-820 MHz band;

* authorize RLANs in the 5470-5600 and 5650-5725 MHz bands; and

* reduce the minimum number of hop channels for wideband frequency hopping spread spectrum devices in the 915-928MHz band.

The variations were passed by the Authority without any changes on 20 July and is effective from 26 July 2006.

The instrument can be found at <http://www.comlaw.gov.au/>

GIANT BIG SCREEN TV

Matsushita Electric Industrial Co. says that it has started taking advance orders for a new 103-inch plasma display panel television set the company says to be the worlds largest. The 103-inch screen is about 2.3 meters wide, 1.3 meters high and slightly larger than a double bed.

According to The Japan Times, Matsushita `s plasma display panel plant in Hyogo Prefecture began turning out screens at full capacity in June with broadcasting companies expected to be among the first customers for the huge screen.

Matsushita officials say that shipments to the United States will begin in the fall. Europe and Japan will see the unit by the end of the year. The new big screen will cost anyone who wants one a cool \$70,000. -from WIA News

Around the Shack...

BPL INTERFERENCE - THE BATTLE CONTINUES

WIA Makes Presentation to Major Conference on BPL.

Recently the WIA delivered a major presentation, "BPL and Amateur Radio", to an IIR conference on BPL held in Sydney. The WIA presentation discussed the interference potential of BPL to both the amateur radio service and HF radio communications generally. The conference was attended by high level decision makers from the power and utility industries, the Department of Defense, the Australian Communications and Media Authority, ISPs, and others interested in providing access and in-house BPL equipment and services. The WIA presentation was very well received and we believe has increased delegates awareness of both the amateur radio service, and the interference potential of BPL technologies. Some interesting general themes emerged from the presentations:

Firstly, BPL is no longer considered a magic bullet providing universal broadband services. The technical difficulties of BPL are now well understood and the greatest market opportunities for access BPL appear to be fringe areas and niche markets where existing Telco's are not strong.

Secondly, BPL may be used extensively for electricity network management and demand side management, such as automatic meter reading and dynamic electricity pricing and load shedding. Electricity generation capital costs run at about \$600,000 per MW/H and a large amount of money can be saved by reducing peak demand. In Australia, the wholesale price of electricity is negotiated on the national electricity market in 5 minute segments. This price is hedged through the banks and averaged to arrive at the retail price to the consumer. The time may come when major home appliances, like air conditioners, washing machines, and refrigerators communicate with the power company to reduce their electricity use when demand, and the spot price, is high. It was also announced that NSW Energy supplier, Country Energy, is planning a commercial trial later this year in a location to be announced. Country Energy has indicated that the location chosen will have competition from existing ADSL services and will also have underground power reticulation. The WIA is continuing to work to ensure that all parties are fully aware of the potential of BPL technology to cause severe interference to HF radio communications, particularly amateur radio communications.

-from Phil Wait, VK2DKN, for the WIA.

APPLE SAYS NO MORE CRT

The folks who brought you the iPod and the Macintosh computer have said goodbye to C-R-T monitor. Burt Hicks, WB6MQV, reports; Apple Computer will completely rid its product line of cathode-ray-tube monitors. As such, the Cupertino California based manufacturer becomes one of the first major PC makers to sell only flat-panel displays. The move is part of an industry-wide trend both in computers and televisions toward the use liquid-crystal display, or LCD, monitors, which are sleeker, less weighty and more power-efficient than their older CRT counterparts. Apple was among the first computer companies to bet big on LCD in 2001 when it used the thinner technology to replace all of its CRT displays except for its candy-colored, egg-shaped iMac line. By January 2002, Apple replaced those CRT-based iMacs with a revamped, space-saving design featuring a swivel LCD display. The maker of Macintosh computers introduced an \$899 iMac specifically for schools and students, replacing the eMac, which was the company's last remaining CRT-based model. As an aside, with CRT based monitors and receivers being phased out all across the entertainment and data processing industries, replacement picture tubes are getting harder and harder to find. *- from WIA News*

2006 RD CONTEST – SUBMIT YOUR LOGS

Did you take part in the RD Contest this year? If so, remember to submit your logs – without logs – there is NO contest!

CTCSS ON KINGLAKE REPEATER – VK3RMN

To protect it from local interference from pagers, LIPD's etc the Kinglake repeater VK3RMN now requires a 91.5 Hz sub audible tone to access it. Other 2m repeaters, VK3RCR in particular, will soon be implementing this measure, and that 70cm repeaters will be changing from 123 Hz to 91.5 Hz also. *-WICEN News*

RADIO SAFETY- LOOK UP AND LIVE!!!

A high school football coach in Girard, Kansas, was electrocuted and a teenager severely burned. This, while trying to move a metal goal post near power lines on a High School practice football field. A Crawford County Sheriff's Department spokesman said that the two were moving the steel pipe goal post when it grazed a 7,200-volt line. Pronounced dead at the scene was the coach. The unidentified 16 year old boy was taken to St. John's Regional Medical Center in Joplin, Missouri.

This accident again points out the need to look up and be very vigilant when working near power lines.

Whether it's putting up a new antenna or just moving a tall metallic object, it only takes one slip-up to put you in the hospital or in your grave.

If you have any reservations about your ability, spend the money and call in a professional to do the job.

It's a decision that could save your life. *-WIA NEWS*

(Join a great radio club like WANSARC and have an enthusiastic resource of like minded hams to come and help you – provided an appropriate BBQ is on hand of course!!! – In all seriousness folks, especially with many new “F” calls arriving on the scene, please be careful and don't hesitate to ask for help. – I don't like writing ‘SK’ News – OK! - Mick, VK3CH ~ Editor)

AMATEUR NUMBERS CONTINUE TO GROW

For those who have not yet heard, the great news is out. We have finally reversed the trend of our declining amateur population and we are now in positive growth mode!!

Over the last 12 months The number of radio amateurs here in Australia has grown by just under 500 people or 3.44%, this compared to previous years where we were losing around 3 or 400 people per year, the main growth area being the new foundation license which commenced in mid October last year. However these foundation folk have not just been sitting around waiting for the bands to open up, already around 50 folk new to our bands have already moved on from foundation completed further studies and upgraded to a standard or advanced license. To see positive growth is indeed a very proud moment for Amateur Radio.

Our WIA has also been experiencing positive growth with a huge influx of new members, last month 77 folk showed their support by joining. If you haven't yet become a member there's never a better time than now, for the next month, the first 100 people to sign up for WIA membership will receive, at no extra charge a WIA Callbook. So not only will you receive AR monthly in your letterbox, your own WIA email address, members price at the WIA bookshop, free access to the WIA QSL bureau, plus all the other benefits of WIA membership, for the next month the first 100 people to join will also get a WIA Callbook absolutely free.



Don't forget the **WANSARC** club frequency of **146.450 MHz FM** (often also on **28.470 MHz USB**)
The weekly Tuesday night Radio Net is on 2 meters at 7.30 pm local time, listen for the club call

VK3AWS

Harry VK3KBA - Practical tips on building a top loaded vertical for 160 Meters

With the meeting before last months at Tina's Pizza, with no previous minutes, the formal meeting of August was completed in record time, so Harry VK3KBA was able to have most of the evening to give a presentation on building a top loaded vertical for 160 Meters. A departure from his usual club of EMDRC, it was Harry's first visit to WANSARC and he made the comment "it's actually good to see the faces that you have been talking to on air for many years."

Harry took many questions on everything from the affect of painting the coil, the surrounds of where the antenna is eventually mounted, suggestions on the best way to tune it and many tips and tricks to it all. Harry said that Drew Diamond, VK3XU, was the 'father' of the design and was a great source of information on these sorts of antennas and a great deal more. For WANSARC members thinking of 'taking the plunge' with these, obtaining a copy of Drew's book "Radio Projects for the Amateur – Volume 3" seems the way to go. Of course if you keep all your old copies of AR published over the years, you will have most of the information you need.

If you do decide to make one – let the club know of your results and things learnt.

The "160 meter AM" Net might grow soon!

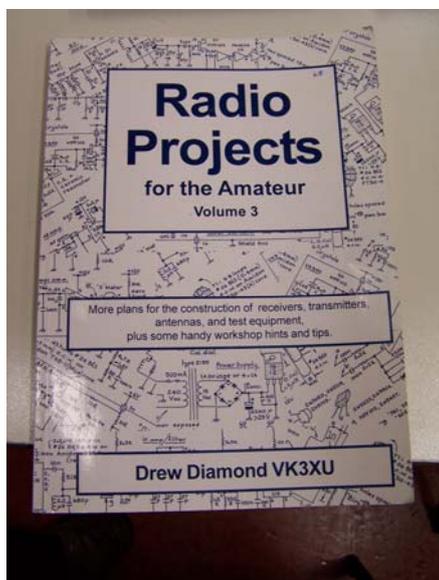
Thanks Harry, for a very informative presentation from all of us at WANSARC.



Harry giving his talk, with the Top Loaded segment shown

Drew Diamond's Book Vol 3.

A selection of Antenna Analysers – better than SWR meters, according to Harry!



Nik, VK3FNIK/DU8, visit to Zamboanga Peninsula, Southern Philippines

Nik, VK3FNIK, probably has become the *youngest ever* Ham Operator to have operated out of the **Philippines** when he operated as **VK3FNIK/DU8** when he visited his grand-parents in **Mindanao** in the **Southern Philippines**.

During July **Nik VK3FNIK/DU8** was active mainly on 40m SSB checking into the many PARA and local nets and having a ball working some DX. Helped by dad, **Chris VK3FY/DU8**, they made sure all equipment and antenna were in place before operations began.

The QTH is located beside by the sea, along a stretch of beach facing the **Zamboanga Peninsula**.

Equipment for the operation was as follows;
FT-857D, G5RV strung between the Coconut trees at about 60'.

Though conditions were poor at first, 40m finally opened up and many contacts were made all around **Philippines** and into **Japan**.

Chris VK3FY/DU8 was able to make contacts back into **VK** on 20m only. The dreaded Over-the-Horizon radar was very evident in **DU8** with signals at times nearing full-scale. The frequency span was 7.015-7.085MHz so most of the DX portion of 40m was wiped out.

When not on the air, swimming and playing basketball and soccer were the order of the day.

Look out for **Nik** at his next DX location?????????



Nik operating VK3FNIK/DU8



**View from the "shack",
Nice Ground Plane!**

Submitted by Chris VK3FY/DU8 & Nik VK3FNIK/DU8

Standard & Advanced License Course - EMDRC

Eastern and Mountain District Radio Club Inc - Courses for 2006 - On Saturdays 1:00pm to 4:30pm.

If you are interested in attending the course, please email Bryan VK3HXR bryanp@netspace.net.au to register your interest NOW.

A Standard License course will be scheduled once sufficient interest has been registered.

An Advanced License course will also be run (if required) on Saturdays following the Standard glass Venue, EMDRC clubrooms 12a McCubbin Street, Burwood, tea and coffee provided.

The criteria for participating are Membership of the EMDRC, finalized before attendance at classes.

You must pay for the exam papers in advance, as to study text the club library has many of the required text.

- **The Standard License course doesn't assume any electronics or radio knowledge**
- **The Advanced License course is for students already holding a Standard grade license**

All enquires email Bryan VK3HXR bryanp@netspace.net.au

For syllabus information and general licensing information refer to the ACMA web site

Examinations

Amateur Radio License Examinations are run by the EMDRC on a regular monthly basis.

Examinations will held on the third Sunday of every month at the EMDRC clubrooms 12a McCubbin Street, Burwood.

To sit an exam you will need to register with the EMDRC's exam coordinator Keith VK3FT giving at least 2 weeks prior notice.

Please email Keith vk3ft@optushome.com.au for all bookings.

The EMDRC clubrooms are located at the Milpara Scout group hall, 13a McCubbin St Burwood. You can find it on Melways reference map 61-E7. Entry to the hall is via the driveway from McCubbin St.

There is parking available both in front and around the scout hall.

Standard & Advanced License

Schedule for the Course – 1 subject each week

Regulations Course (1)

Regulations Course (2)

Introduction to Electronics (1)

Introduction to Electronics (2)

Semiconductors

Vacuum tubes, Power Supplies

Oscillators & Amplifiers

Transmitters (1)

Transmitters (2)

Receivers (1)

Receivers (2), Propagation

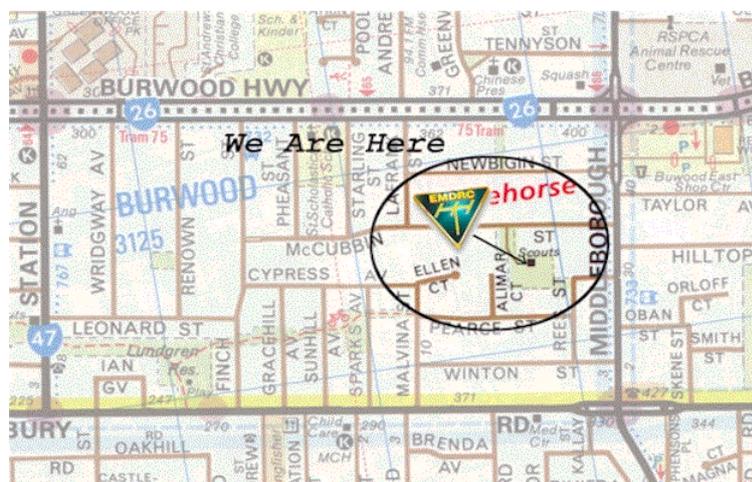
Test Equipment, Interference, Safety

Transmission Lines, Antennas

1-3pm Revision; 3-5pm Regulations Course

1-3pm Revision; 3-5pm Regulations Course

Regulations Exam & Theory Examinations



Sourced from EMDRC Website and published with permission

Amusements



Forget Barbie, I know what I want for Christmas...



And don't feed them either

After creating heaven and earth, God created Adam and Eve. And the first thing he said was "DON'T!" "Don't what?" Adam replied. "Don't eat the forbidden fruit." God said. "Forbidden fruit? We have forbidden fruit? Hey Eve. We have forbidden fruit!" "No Way! "Yes way!" "Do NOT eat the fruit!" Said God. "Why?" "Because I am your Father and I said so!" God replied, wondering why He hadn't stopped Creation after making the elephants. A few minutes later, God saw His children having an apple break and He was ticked! "Didn't I tell you not to eat the fruit?" God asked. "Uh huh," Adam replied. "Then why did you?" Said the Father. "I don't know," said Eve. "She started it!" Adam said. "Did not!" "Did too!" "DID NOT!" Having had it with the two of them, God's punishment was that Adam and Eve should have children of their own. Thus the pattern was set and it has never changed.

If you have persistently and lovingly tried to give children wisdom and they haven't taken it, Don't be hard on yourself. If God had trouble raising children, what makes you think it would be a piece of cake for you?! THINGS TO THINK ABOUT!

1. You spend the first two years of their life teaching them to walk and talk. Then you spend the next sixteen telling them to sit down and shut up.
2. Grandchildren are God's reward for not killing your own children.
3. Mothers of teens now know why some animals eat their young.
4. Children seldom misquote you. In fact, they usually repeat word for word what you shouldn't have said.
5. The main purpose of holding children's parties is to remind yourself that there are children more awful than your own.
6. We childproofed our homes, but they are still getting in.

ADVICE FOR THE DAY:

Be nice to your kids. They will choose your nursing home one day.

AND FINALLY: IF YOU HAVE A LOT OF TENSION AND YOU GET A HEADACHE, DO WHAT IT SAYS ON THE ASPIRIN BOTTLE: "TAKE TWO ASPIRIN" AND "**KEEP AWAY FROM CHILDREN**"!!!!!!



Man, BHP emergency staff think of *Everything...*



When it comes to water recycling these guys are way out in front...

WANSARC VK3AWS

PRESIDENT: Graeme McDiarmid VK3NE vk3ne@wia.org.au

SECRETARY: Mark Stephenson VK3PI Telephone: 0400 443 218 vk3pi@optusnet.com.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.

Meetings

Building K, Northern Metropolitan Institute of Technology (NMIT), St. Georges Road, Preston (Western side between Bell Street and Cramer Street) Melway 18 E12 *PARKING at NMIT- Members please note that parking adjacent to the club room building K is illegal and NMIT staff WILL book any cars which are parked in that area. ALL members must park cars in the main car park to the WEST of building K. Just look for vehicles with lots of aerials!* Meetings held 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 like minded radio and electronics enthusiasts, excellent club facilities and environment.

Club Nets

146.450MHz FM each Tuesday evening commencing 7.30pm local time.

Sometimes the NET is linked to Echolink. This link is only brought up on the frequency of 146.450 MHz during the running of the WANSARC Net on Tuesday nights and *only when VK3FY is present at his QTH.*

More Information

Website: www.wansarc.org.au

Committee: Chris VK3FY,
Dan VK3DWH,

Bob VK3EL,
Tony VK3BZT

Postal: WANSARC PO Box 336 RESERVOIR 3073

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

All editors' comments may not always represent the opinions of other club members of WANSARC.

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. You can either post material to the Post Office Box address at the top of this page, or email your submission to the editor direct at vk3ch@wia.org.au

Email attachments not to exceed 1 Mb in file size. Attachments of (or thought to be) executable code 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.

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 will be taken for errors, omissions, or other perceived deficiencies, in respect of information contained in technical or other articles.

Any dates given for upcoming events should always be checked with a reliable source – coming up on the weekly WANSARC Tuesday evening NET on 146.450 MHz starting at 07:30 pm AEST is recommended to discuss and confirm information and any dates.

If not delivered within 7 days, please return to:
WANSARC P.O. Box 336 Reservoir 3073

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