



Founded 1979 Incorporation No A6677 P.O. Box 692, Shepparton 3632

Repeaters VK3RGV Freq: 53.725MHz (1 meg offset),
146.65MHz (IRLP Node #6992 **withdrawn from service. Technical upgrade in progress.**
(Echolink active.) (600 kHz offset),

439.775MHz (5 MHz offset), 438.2MHz (D-Star) **[D-Star not operational at this time on Mt Wombat]**

Access to the analogue repeaters is by sub-audible 123 Hz tone or noise mute (less sensitive).

Club Network informal on air get togethers. All welcome. Club callsign VK3SOL:-

Wednesday evening - 3.62 MHz ± interference 7.00pm, 2mx repeater 8.00pm

The WIA Sunday morning broadcast is often re-broadcast in the evening on the 2 mx repeater.

The local vintage radio club has a get together at 11.00am of a Sunday on the 2 metre repeater. Many of their club members are members of SADARC too, so join in for a chat.

Meetings are held at 1 pm on the first Saturday of the month (except January when no meeting occurs) at the Mooroopna Scout/Guide Hall off Echuca Road, Mooroopna. Variations in these times and days are normally notified in the preceding newsletter. Website – www.sadarc.org

Facebook - www.facebook.com/sadarc.org Info for page contact Denny on denny3782@gmail.com

DISCLAIMER. No guarantee is given as to the accuracy of information in this newsletter. Warning: - There is a danger of electrocution or injury when working on electrical/radio gear. You do so at your own risk.

President:- Peter Rentsch	VK3FPSR	pages.cobram@bigpond.com	
Secretary:- Andy Ashley	VK3AJA	andyashley@icloud.com	
Vice-President:- Barrie Halliday	VK3KBY	Treasurer: - Ron Burns	VK3COP
Membership Sec: - Pat O'Shannessy	VK3OV	Webmaster: - Steven Hamer	VK3DP
Station Manager: - Vacant		Publicity Officer: - Vacant	
Technical Committee: - Phil VK3ELV, Ray VK3RW, Geoff VK3ZNA, Kevin VK3BPH & Rodney VK3UG			
Newsletter:- Rodney VK3UG (Editor) rodlynn6@bigpond.com & AndyVK3AJA (Printing/ Distribution)			

OTHER CLUB'S NEWS

Bendigo Amateur Radio & Electronics Club nets – Tuesdays 8pm 147.15MHz VK3RCV with club callsign VK3CMZ and Thursday 8pm 3.655MHz ± interference. All welcome to participate. Many SADARC members are able to access their 2mx repeater.

Ballarat Amateur Radio Group – email vk3bml@barg.org.au and www.barg.org.au

Our end of year Christmas break up luncheon is at the Royal Mail Hotel in McLennan Street, Mooroopna next door to the Ridley silos. We meet with the Vintage Radio club at around 12.30pm on 3rd December. There is a selection of meals available at reasonable prices. See you there.

SADARC Calendar of Events

December 3rd Combined Christmas Lunch with Vintage Radio Club
February 4th 2017 Regular meeting – first for 2017.

Vale: Bob Bird VK3GEB. The following information about Bob has been taken from the Vintage Radio Club of North East Victoria Inc. newsletter. I thought that Bob had worked with the GEB so I put the following in but it is probably not so. Although I know he did apply for that callsign. "Bob worked with the **Grain Elevators Board** for much of his life, hence he asked for the callsign **VK3GEB.**"

BOB BIRD It is with regret we announce the passing of member Bob Bird on October 26th. He was 86 years of age. Noel Meagher and Dave Waring attended his funeral. Bob was the stationmaster at Benalla when he retired and lived in Faithful street Benalla with his (late) wife 'Glad'. In more recent years he moved into the Cooina retirement village as he was no longer able to manage alone. He found the staff very helpful. Permission was granted for him to have aerials for his 2 metre and HF ham gear. He put a loud, clear, signal into the 2m repeater on our Sunday nets but never got satisfactory operation on HF due to noisy reception. He loved attending meetings and attended as many Benalla meetings as possible.

Presidents Report November/December 2016

Thank you to everyone that attended out last meeting. A good meeting with more growth plans for the Club in the pipeline. Sometimes I get a little impatient that the things we want to do as a Club take time but we all must remember that we are a group of volunteers with a common interest who get to make decisions on our future once a month. When you look at this way our Club accomplishes a lot during a period of 12 months. Well done everybody.

Thanks to Les VK3TEX for his demonstration of the new Icom 7300 SDR Radio. I was sorry I missed it as I have an interest in purchasing one of these in the future but with some recent personal expenses that has now been put a long way into the future. Oh well, that's life.

Don't forget our Facebook page. If you have any information to add to the page please send it to Denny at denny3782@gmail.com. Denny would be very happy to receive information and we need to keep the page current.

As I write this the Murray QUAD is in progress so in advance I wish to thank all those involved. A special thanks to Bruce VK3FBNG and Darren VK3HEN who have been the main co-ordinators of this project for the Club. Thanks to all the other members involved as well.

Earlier in the month to WIA Board Members facilitated a meeting with some of the local Clubs. VK5PAS and Andrew VK6AS spoke at these meetings about the state of the WIA. Barrie VK3KBY attended the meeting on the Clubs behalf. Barrie has submitted a report on the meeting and his report can be found in this newsletter. Thank you Barrie for attending.

Finally, Karen and I wish all a safe and happy Christmas and we look forward to seeing everyone at the Christmas gathering on the 3rd December.

Cheers & 73,

Peter – VK3FPSR

President – SADARC

Meeting with WIA Directors

On Monday the 14th of November a meeting at Tamgambalanga (Wodonga) hosted by the Albury ARC to hear concerns raised by WIA Directors Paul (VK5PAS) and Andrew (VK6AS), being 2 of 7 Directors, about their opinion that the management of the WIA organization needed overhaul. This meeting was attended by 30 amateurs from Wagga, Shepparton and the local Albury group.

We learnt that Paul and Andrew have attempted on a number of occasions to move motions to have the Board of WIA appoint an auditor but the motions have either been refused or voted down 5 to 2. Comments were made that another reform group is actively seeking signatures to be able call a special general meeting to demand answers to corporate governance issues. Matters raised by the audience also indicated a concern of declining membership and a perception that there were other issues that needed to be addressed.

From my view point and listening to the presentation both Andrew and Paul deserve membership support, they both have spent significant money on travel and advice to provide us with an effective organization that can meet all the demands of corporate identity.

Paul spoke at length of his vision of a revitalised Board that could be more transparent, better serve the amateur community and be an effective voice to the ACMA.

Barrie VK3KBY

AGENDA

Shepparton and District Amateur Radio Club Meeting

1:00 pm 5 Nov. 2016

- In Attendance were:
VK3XNW Neil, VK3UG Rodney, VK3ZE Huntly, VK3FALN Alan, VK3OV Pat,
VK3DP Steve, VK3VSM Max, VK3FCVT Graeme, VK3CHV Ian, VK3ZNA Geoff, VK3TJS Jacek,
VK3FPSR Peter, VK3AJA Andy, VK3COP Ron,
- Apologies:
VK3PXJ John, VK3FDV David, VK3BPH Kevin, VK3DSF Max, VK3KBY Barrie.
- Confirmation of Minutes of previous Meeting
Read by Peter, Moved by Alan, Second by Steve.
- Matters arising from the Minutes None.
- Inward and Outward Correspondence
In: QSL cards

Out: Sympathy card for Jan's Wife.

ACMA VK3SOL license renewal. (paid)

Reports

Financial:

Read by Ron, Second by Les.

Technical:

Read by Rodney, nothing further to report yet, Tone boards for repeater (IRLP) was mentioned, Rodney will chase up . Second by Huntly.

General Business

Murray Quad report read by Bruce, all organized and ready to go. Thanks Bruce.

WIA meeting was mentioned by Peter, Barrie has attended and will submit a report for newsletter.

Antenna pole at clubhouse has passed testing (Thanks Geoff)

The DMR trail was mentioned and we will wait for info from BAREC.

Geoff mentioned making a 6m antenna from coax, will discuss after meeting.

Closure and date of next meeting

Closed 2.00 PM

Next Meeting is Xmas lunch 3rd Dec.



Maybe not radio orientated but an interesting shot inside of an aircraft museum in England. The aircraft did have radio comms though.

Editor's Ramblings

- **WELCOME.** We welcome Graeme Martin VK3FCVT to our club and trust you will enjoy being a member of the club.
- Is our club 80 metre on air club get together at a suitable time now that we have day light saving, or should it be later?
- Geoff VK3ZNA has a report on the antenna mast at the scout hall and it is deemed safe for 10 years when it should be reinspected. Geoff hopes that when the beam and wire antennas are all in good order that we will get them re-installed. The beam is the biggest task as a cherry picker will be necessary to get the beam on top of the pole.
- It is intended early in the new year to send out an invite to amateurs in our area who have never been members or have been and drifted away as well as listeners who would like to be amateurs to attend our meetings. Hopefully they will want to join our club.
- Geoff VK3ZNA is getting together information on simple 6 metre antennas and in due course we'll publish some of the designs in the newsletter. The first shows in this issue.
- The Murray Quad took place on the 19th November with several club members manning radio check points. From what I could observe it was a gruelling four event program. Definitely I would not be able to do it, and some competitors were unable to complete all the events either. We look forward to Bruce's report on the Murray Quad overall, and particularly how SADARC went in this collaborative radio exercise. Hopefully Bruce will be able to give this at the February meeting.
- In the November 9th issue of the Shepparton News on page 13 there was an article on hoax calls to large commercial aircraft at both Melbourne (I assume Tullamarine) and Avalon, and the danger that they could potentially do. If we are to enjoy our hobby of amateur radio we need to be mindful of problems we may experience either through operators doing the wrong thing or the increase of interference from the use of all sorts of non-compliant domestic devices. Don't expect the elusive "they" to fix everything, you have to do your part too. We can work together on this and locally we can form a group to assist with various interference problems.

A Melbourne man has been charged with making hoax calls to aircraft and air traffic control at Melbourne and Avalon airports.

The man allegedly made 16 unauthorised radio transmissions between September 5 and November 3.

He was charged on Tuesday with four counts of endangering the safety of aircraft and one count of interference likely to endanger safety or cause loss or damage. Australian Federal Police's head of crime operations, Acting Assistant Commissioner Chris Sheehan, said the offences carried a maximum of 20 years imprisonment. Airservices Australia says there is no current threat to the safety and security of the travelling public as a result of these alleged transmissions. The man will face Melbourne Magistrates Court on Tuesday afternoon.

SADARC November 2016 show and Tell. by Les, VK3TEX.



ICOM IC 7300



Recently at the November SADARC meeting I had the opportunity to show off some of the goodies I have acquired during this year.

The biggest item I picked up earlier this year was a new entry level HF transceiver the ICOM 7300. I worked real hard and with lots of overtime I was able to afford a new radio to play with.

I didn't really need a new radio, but just wanted something to play around with... as we do!

What intrigued me was the SDR technology that this radio is based around and it heralds the first SDR mainstream technology to be developed by ICOM and they are the first of the big three Japanese manufacturer's to produce a stand alone (NO PC REQUIRED) HF Transceiver with SDR Technology.

It comes in at a very good price also, and the price has been reduced in recent weeks to be even better value....

ICOM has provided a normal radio user interface which most people are used to and like, and all that has changed is what's under the bonnet so to speak...

They have done away with all the Heterodyne systems that we are used to and gone to a DDC (Direct Digital Conversion.)

The IC 7300 employs an RF direct sampling system. RF signals are directly converted to digital data through an Analog to Digital Converter (ADC) then all the data is processed through the FPGA (Field Programmable Gate Array) and DSP to produce a very clean and precise signal. IT then gets converted back to Analog to drive the transmitter, and/or the audio stages.

I won't go into the theory of SDR here because I have limited space but there is a lot of information about it on the WEB and internet. VA7OJ Adam Farson has an excellent web page with LOTS of information on the 7300.

In a nutshell, it's a 100 watt HF transceiver with a built in ATU and it covers all the HF bands to 50Mhz. It has an SDR DDC receiver with all the usual facilities of an entry level radio. It has a touchscreen interface for some of the controls performed on the radio. It is also compact in size and would make an outstanding portable radio.

For me the most outstanding features are:

The outstanding receiver and transmitter performance. Punches well above its weight. Extremely HOT receiver.

The excellent touchscreen display. You can manoeuvre around the settings very easily and change things quickly. It's very intuitive. I use a normal stylus as used with touchscreen tablets and this is great. Accurate touches and no finger smudges on the screen so it doesn't need wiping down.

The FFT bandscope and waterfall display. It's very sensitive and fast and responsive. It's the best one they have on any of their radio's. Will see even the weakest signals on the band. ICOM has always had good scopes, but this one is their best in my opinion.

The ease of use in learning the radio. I have had an ICOM 7700 in the past and learning this radio was very easy for me. For 99% of it I didn't even need the manual. Only the digital stuff needed the manual when I was setting that up.

The transmitter runs extremely cool. There must be a very good cooling system here because there has not been any reports of it overheating as yet.

The RF Gain system on this radio is great, it lets you really optimise the signal to noise ratio of each band that you work to get the best results, lot of the time reducing the RF gain can expose weak signals that were buried in the noise. Truly a useful control and one that is used often.

The Noise Reduction and Noise Blanker are very good, the NR is probably one of the best out there in any price class.

The supplied hand mic is very impressive. I have tried it and it's very clear and precise. I used a desk mic on audio gear at home but the hand mic would do well for a portable situation.

You can record messages on an SD card. This is for transmit and receive. This feature is handy for CQ's etc.

The great MENU system. Very easy to understand and navigate.

The memory system. I program my favourite sections of each band and then flick through them to save time using the touch screen. Works extremely well as each memory is tuneable and stores all mode settings etc.

These are the best things about this radio but I'm sure there are others I haven't thought about while writing this!

CONS:

Well I haven't really found anything that bothers me or annoys me about this 7300. Some people complain that when the fan comes on it's a bit noisy but it doesn't bother me....Some say the relay is too noisy on CW QSK but again, it really doesn't bother me. Even less so with a pair of headphones on...

The one thing I would have paid extra for would have been a video out port so that lovely display would have been even better viewed on a really Large monitor. But I think that will come out on their replacement for the 7600 which will be the 7610 due out next year. The display is still great for anyone except maybe those that are visually impaired.

SUMMARY:

I could go on and on about this great little radio, but for value for the dollars this is the best that I have ever purchased to date. And it's well thought out because there have been no teething

problems as yet for the 7300, which means ICOM have taken great care in the design of this radio and didn't rush it to market to make everyone out there a BETA tester, like some other companies I won't mention.

I have done much A/B testing the 7300 to my mega buck TS990 and the 7300 stacks up really well for basic performance and indeed is the equal of the 990 RX and TX if both are set up the same. The NR and the Display and scope are way better on the 7300, so is the adjustability of the scope/waterfall system of the 7300, way better than the 990. The 990 has lots of other bells and whistles but for the basics the 7300 is fantastic. Much easier to learn the user interface on the 7300 too. The 990 had a very long learning curve to it...

I think these SDR type radios are the future and ICOM is certainly taking a large portion of the market with this radio and I would say it's a runaway success for them. I know a few people in our club with the 7300 and they are all very happy with their purchase's.

I think Kenwood and Yaesu are wondering what hit them when this radio took off like it did. Just goes to show that HAMs love new technology but with a familiar interface known in the SDR world as a KNOBBED Radio. This meaning it is a standalone SDR radio that doesn't need a computer interface to drive it.

Can't wait for their new 7610 to hit the market, and let's hope that Kenwood and Yaesu can bring out something to compete with ICOM.

A combined 6 metre, 2 metre and 70 cm antenna. Info supplied by Geoff VK3ZNA

1 & 5 = 19.5" x 4.0" mesh rolled into cylinder					
2,3 &4 = 38.25" x 4.0"mesk rolled into cylinder					
Spacing between elements id 0.5"					
Balun consists of 7 of No 43 ferrite beads					
Gain Claims	=	6M	3.07 dBi	VSWR	1.7 to 1.9:1
		2M	8.56 dBi	VSWR	144.1 – 147.9
					Better than 1.2:1
		70cM	12.02 dBi	VSWR	1.4:1 across band

W7LPN 6 Meter / 2 Meter / 440 Collinear

