



BARG News

Ballarat Amateur Radio Group Inc. #6953T August Monthly Newsletter

Friday 28th July 2018 @ 7:30pm

At the B.A.R.G. Club House, Ballarat Airport

All Welcome



Contacting us You can write to the club at the address below, or e-mail the secretary

> The Secretary : B.A.R.G. Inc. Box 1218 Mail Centre Bakery Hill Vic. 3354

Or E-Mail : vk3bml@barg.org.au

We're on the web <u>www.barg.org.au</u>

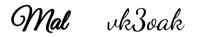
Presidents Report

Welcome to the August newsletter. A bit of a shorty this time as I've been distracted by other tasks, some even related to radio. The winter months are a good time to be working on those many unfinished projects, and we've seen a number of members making good progress on the SWR / Power meter over the last few construction nights.

Thanks to Doc for his contribution from the WICEN support to the rally up north. It's great to see what others are up too.

Don't forget the AGM this coming Friday. I know that a few members have headed North to escape the colder weather too.

That's all from me this month.



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- 12 Review: The Xiegu X5105 QRP transceiver 5Watts 1-54MHz.Rx [Tx 160-10]
- 15 Brief History of Software Defined Radio.
- 24 What next reviews buying guide for older transceivers and pitfalls.
- 28 Speech processing techniques.
- 34 VHF, New 6M frequencies for FT8 mode.
- 40 IOTA contest and Friedrichshafen and more.
- 44 Data modes looks at single board computers.
- 48 Bumpy Rocket 3. Build a 2 transistor 80M transmitter.

52 Highlights from DAYTON and FRIEDRICHSHAFEN 2018.

- 56 Valve & Vintage. Dirty power supplies and WW2 sets
- 59 In the Shop looks at Intermittent faults.
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- 61 GB1NHS. Whats it all about?
- 66 Bad morse.
- 70 Letters. Ideas for old and new amateurs



VHF and Above for August 2018

With the cold weather there has been an obvious drop off in activity for enthusiasts at this time. However there are still the odd occasions when some winter propagation occurs. Such an event occurred a couple of weeks ago which involved both aircraft enhanced and perhaps some ducting between some areas in the Western District and Melbourne on 1296MHz. This type of propagation has occurred on several occasions when stations in the Hamilton area are able to communicate with Melbourne stations but there is no signals in Ballarat to be heard but propagation between Ballarat and Hamilton is ok.

Needless to say this can be frustrating for operators but it's just the way it is.

Reports have been received that qso's have been made on the FM part of the 2m band between the Western District and Mt Gininni near Canberra on several occasions as well. There is some difficulty as the Mt William 2m repeater is on the same frequency so contacts are only possible when Mt William is not in use.....so well done to those that made the contacts.

The local microwave group are busy checking their equipment to ensure all is ok for the warmer months of the year. It's hoped we have some good activity from this group who will operate on designated field days and our own local microwave test days.

The regular 144.150 SSB net happens from 1830 local time each Wednesday evening and chaired by Rob VK3MQ. Rob lives and operates from Mt Dandenong. Regulars from the Ballarat area include VK3LTL, VK3KG and VK3AXH.

A small group of locals are also experiments with FREE DV on 2m along with slow scan TV and other digital modes. If you are interested talk to VK3AIG, VK3KG or VK3AXH.

The Winter Field Day results are out and it appears that VK3AXH obtained a reasonable result operating from home on what was a terrible day to be in the field coming in at 5th place in the home station single operator 8 hour section with only 11 contacts on the 2m and 70cm bands. As can be seen it's not that hard.

GippsTech 2018

This years event was attended by members VK3KG and VK3AXH at the Federation Uni located at Churchill in Gippsland. The number of attendees is still good with amateurs attending from most of the VK States particularly VK4, VK2, VK5, VK7 and one from VK8 that I noticed. VK3 is well represented being the home state.

It's very evident we have some clever people among the amateur fraternity when you listen to what some are doing. Topics ranged from GPS locking transceivers, World records on 10GHz EME, 10GHz VK4 distance record, Satellite communications particularly involving primary school children as part of the STEM program, The history of Ron Wilkinson VK3ZER and later VK3AKC who lived in both Ballarat and Geelong and pioneered 1296EME from VK. There is a leap forward in digital modes for voice and at present there are multimode digital repeaters appearing throughout the country some of which can handle two simultaneous transmissions using different modes at the same time. Some of the modes are DMR. P25, and both protocols used by Icom and Yaesu manufacturers. The list goes on. If you are interested in attending this event then watch for the dates around school holiday break in July 2019.

These are only a sample of the topics that keep attendees enthralled at what some of this group are doing and achieving.

WIA ACHIEVEMENT AWARD

Gordon VK3FGC has been awarded the 10 YEAR SERVICE AWARD receiving a certificate and pin for his service in this area. Well done Gordon.

Till next time 73 de VK3AXH.

BARG Report to Newsletter.

This past weekend Ian VK3AXH and Craig VK3KG attended the Twenty first Annual Gippsland Technical Conference held at Churchill in the University there. This weekend is commonly called the GippsTek weekend and sees a gathering of interested VHF and Microwave enthusiasts get to talk and show off what they have been doing in the preceding twelve months period.

A set of printed notes and photo's/graphs are then available the following year for those wishing to have a copy of all presentations. Back copies of all previous years are still available if people are interested now.

The format of the weekend is always the same. Arrival in Morwell on the Friday with a general meet and greet tea at the Morewell Hotel. This is purely a social gathering although much technical talk does take place over the meal and drinks afterwards. As the weekend is not just for the OM a number of partners also attend and renew acquaintances and they have a separate program running for them while the actual conference and lectures are running.

Starting at 0900 on the Saturday morning a welcome by the conference chair Peter Freeman VK3PF the ladies departed in a mini bus to commence their program of activities. Unfortunately due to heavy rains in the are the Sat market they were going to first was cancelled due to a wash out night. They did have a PLAN B though. !and this is not the place to discuss and report it.

The main conference program was :

Mike VK2FLR	Small system EME on 23cm.
Jim VK1AT	Design and construction of a Spectrum Analyser covering
	300MHz to 4 GHz.
Chris VK5MC	Comparison of RigExpert & N1201SA antenna analysers.
Tim VK5ZT	Light talkers. {Lasers and Red light communications
Joe/Julie VK3YSP	Amateur radio for kids.
David VK5KK	Getting real miles out of 122GHz.
Dale VK1DSH	Reflections on changing radio regulations & impact on possible
	future amateur applications.
Chris VK5MC	History on Ron Wilkinson [VK3ZER/VK3AKK] SK.
Rex VK7MO	10/24GHz EME Grid tour to NT & WA and the new 10GHz
	World record for EME.

Sat night the conference dinner was again held in the Morewell club and extensive discussions followed from the day time activities.

Sunday starts at 0900 again:

Glen VK1XX Julie/Joe VK3FOWL	AllLocker the new Ref locking option. The son of XREF. Building your own SDR system.
TimVK5ZT	"Its raining development kits" Using recovered Radiosondes
	and reusing the innards again for amateur projects.
Glen VK1XX	RF over optical fibre cables. Principles & applications for
	amateur radio.
Julie/Joe VK3FOWL	Mini satellite ground stations.
Lindsay Harvey	Multiple Mode Digital Voice Modem.

During coffee breaks there are displays set up in lounge and also traders sell items of interest and a large table of factory overruns bits and pieces. The Eastern Zone group that runs the conference also sells raffle tickets for a number of prizes and this year was no exception with two new radios and a number of subscription books from DUBUS available.

Next year the conference will again be held in mid July so watch out for the registration details.

Craig, VK3KG

HF Net Controller Roster - 2018

DATE	OPERATOR	NAME	ALTERNATIVE	NAME
26-Jul-18	VK3KQT	DAVID	VK3DRE	DOUG
2-Aug-18	VK3KG	CRAIG	VK3AXH	IAN
9-Aug-18	VK3GGG	MICK	VK3YFD	IAN
16-Aug-18	VK3DRE	DOUG	VK3KG	CRAIG
23-Aug-18	VK3AXH	IAN	VK3GGG	MICK
30-Aug-18	VK3YFD	IAN	VK3DRE	DOUG
6-Sep-18	VK3KQT	DAVID	VK3KG	CRAIG
13-Sep-18	VK3KG	CRAIG	VK3YFD	IAN
20-Sep-18	VK3GGG	MICK	VK3KQT	DAVID
27-Sep-18	VK3DRE	DOUG	VK3GGG	MICK
4-Oct-18	VK3AXH	IAN	VK3DRE	DOUG
11-Oct-18	VK3YFD	IAN	VK3AXH	IAN
18-Oct-18	VK3KQT	DAVID	VK3DRE	DOUG
25-Oct-18	VK3GGG	MICK	VK3KG	CRAIG
1-Nov-18	VK3KG	CRAIG	VK3GGG	MICK
8-Nov-18	VK3DRE	DOUG	VK3DRE	DOUG
15-Nov-18	VK3AXH	IAN	VK3AXH	IAN
22-Nov-18	VK3YFD	IAN	VK3YFD	IAN
29-Nov-18	VK3KQT	DAVID	VK3KG	CRAIG
6-Dec-18	VK3KG	CRAIG	VK3KQT	DAVID
13-Dec-18	VK3GGG	MICK	VK3DRE	DOUG
20-Dec-18	VK3DRE	DOUG	VK3GGG	MICK
27-Dec-18	VK3AXH	IAN	VK3YFD	IAN

WICEN Sea Lake Mallee Rally

Gordon (VK3FGC) and I were radio operations (portable) for the Wireless Institutes Civil Emergency Network (WICEN) exercise at the 2018 Mallee Rally on the queens birthday weekend near Sea Lake. The event is in a national series organised by the Sea Lake off road club (SLORC).





Camping in a sandy hollow and has portable toilets and camp fire in the evening around which we were treated by WICEN and race officials.

The 100km rough serious races around the salt lake Tyrrell, the fastest vehicles complete a lap in less than an hour.

Radio stations, accessed through private property, around the the track, log time of cars and fortunately we had no issues for us

to use forward WICEN message pads, but just being there is a huge safety factor, in case.

We enjoy the weekend company, and it is a great credit to SLORC and the sponsors that the event runs smoothly, a sign that potential problems have been anticipated and covered with appropriate services.

I enjoy this simple



participation using amateur radio, in a small car, and accessory battery and facilities to elevate my 2mtr aerial, as necessary to keep good communication with control (WIA).



You can't see the beautiful colour in the sunset photographs, but I hope the winter camp-fires over the salt lake will help you also enjoy our weekend.

VK3CFH, Doc.

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Thanks to Reg, VK3CAZ for these.



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