



# GATEWAY

**The Official Magazine of the Gippsland  
Gate Radio & Electronics Club Inc.**

## **January 2016 From The President**

Well it is the start of a new exciting year for GGREC. I hope everyone had a Happy New Year and celebrated the start of 2016 in style.

This year's events have already started with approx. 10 members participating in the VHF/UHF field day. Thanks to Dave VK3JL for organizing the venue and to everyone that organized and took part in the event. It's great to see the Club's field kit being put to good use making events like the VHF/UHF field day a bit easier to organize.

As mentioned in a previous magazine, I would like to get a group of members to form a team and organize our Club's 40<sup>th</sup> Anniversary which will happen in 2017. Please see me or any committee person if you would like to volunteer.

We also need to start the ball rolling for the Mid Year Dinner. The Mid Year Dinner is always well attended so all we need to do is find a fantastic venue that we can all enjoy. Any ideas???

Finally, please have a think about nominating for the 2016/2017 committee. GGREC is a great Club to be in so please help to keep it a great Club.

See you at the GM,



*Bruno Tonizzo VK3BFT*

President GGREC Inc.

# Contents.

- 3 – Editorial “The Faulty scope”
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  - 11 – Club Information
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## Event Queue

### January:

- 9<sup>th</sup> & 10<sup>th</sup> VHF UHF Field Day
- 15<sup>th</sup> General Meeting
- 17<sup>th</sup> Club Net 8.00PM
- 24<sup>th</sup> Club Net 8.00PM
- 26<sup>th</sup> Australia Day BBQ at the Clubrooms
- 31<sup>st</sup> Club Net 8.00PM

### February:

- 2<sup>nd</sup> GGREC Committee meeting, 7.30pm at Clubrooms.
  - 5<sup>th</sup> Prac Night, 8.00 pm at Clubrooms.
  - 6<sup>th</sup> & 7<sup>th</sup> Foundation licence weekend at Clubrooms.
  - 7<sup>th</sup> Club Net 8.00PM
  - 13<sup>th</sup> MERC Hamfest, 223 Watton St, Werribee. 10.00 am start.
  - 14<sup>th</sup> Club Net 8.00PM
  - 19<sup>th</sup> GGREC General Meeting, 8.00 pm in Guide Hall.
  - 20<sup>th</sup> Working bee at clubrooms 10.00 am – general maintenance/log periodic repairs.
  - 21<sup>st</sup> Club Net 8.00PM
  - 28<sup>th</sup> EMDRC Hamfest, Great Ryrie PS, Heathmont. 10.00 am start.
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## Notices

Hi All,

If you find anything that needs correcting on the website please contact the web master via email [webmaster@ggrec.org.au](mailto:webmaster@ggrec.org.au) rather than going via the committee. This is so the committee can devote valuable time to club issues rather than to minor updates to the club website

Thanks Mark...

# From The Editor

So what is going on in my shack? A faulty BWD 821 oscilloscope.

An ex work mate called me up, he had a few items for me to repair, 2 amplifiers and a BWD scope that he had dropped! Ouch I thought, there goes the tube, a total write off

However he assured me that it was only a minor fall, and when he turns it on, it emits a loud buzz/hum sound, so he switched it off immediately – at least he got that part rite.

Oh well, I'll have a look I said. The other problem that occurs in these units is that the EHT plate voltage for the tube (about 4KV) is quite often derived from a high voltage 'overwind' on the main power transformer, another item of the 'unobtainium' status, (like the tube). I wasn't really looking forward to rewinding his power transformer! Yes I could probably do it, but the bill would be a killer.

When I finally took the lid off, I was a bit surprised. The tube appeared intact, however the biggest surprise was the power supply, the entire scope was run from plus and minus 15V rails, provided by a single 7815 and 7915 1A 3 terminal regulators. The EHT supply was via an inverter that was powered by these two regulators.

A quick poke around with a multimeter showed a dead short on the -15V supply, I initially thought it was the regulator, being damaged by having it's leads yanked out when the scope was dropped, but no, with the 7915 out of circuit the short was still there.

Next I disconnected the EHT inverter, no not that (or the tube). Luckily the EHT inverter and several other modules had connectors making their isolation easy. However I eventually ran out of plugs and was left with the main board. On the board was a link, this isolated off half the board, the remaining section had several IC's, luckily all in sockets, not them, so what's left. So there was not much left to do but to de-solder anything left connected to the -15 volt rail.



I eventually arrived at a 10uf 25V tantalum capacitor. Bingo!

AAAARRGGH, another one, people keep using them as supply bypass caps, they don't like it, they eventually go short, either pulling the supply down (like now), or exploding!

Actually I prefer the exploding ones, A lot easier to find, plus if it's my equipment, they are now out of circuit and I can continue using it (after launching & thinking, bl... idots)

I have a 9inch video monitor, that one day went 'fut' & smelled a bit, but kept on working, I said to myself, "Tant on a 3 terminal reg", later I lidded it – diagnosis correct.

I can't remember if I ever replaced it, or just removed the evidence with my sidecutters.

*Paul VK3TGX*



**UHF 28**  
**CAUTION**  
**UHF**  
**DEADSPOT**  
**AHEAD**

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ests\2016\VK3BJA Summer VHF-UHF

ubocz VK3AVV

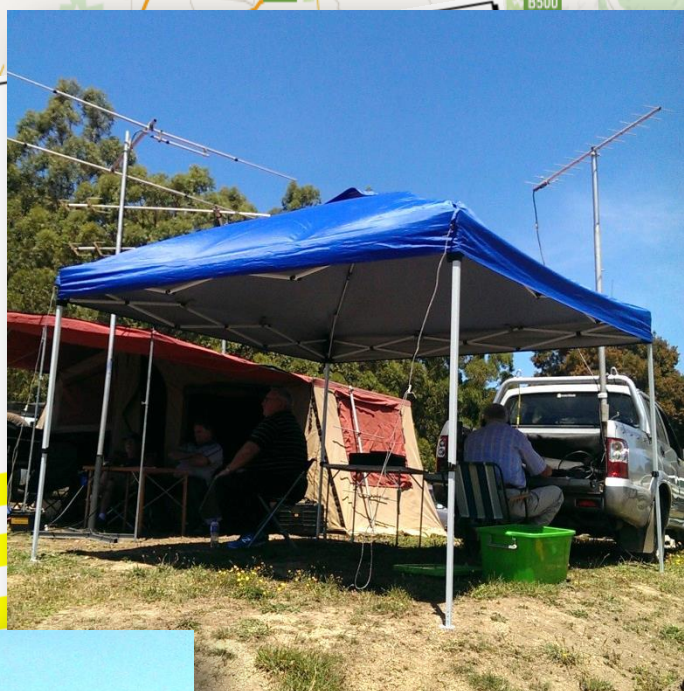
http://www.mnds.com.au/vkcl

VHF-UHF

Call	QSO Date	Time On	Band	Freq	Mode
VK3UHF	20160109	10200	6M	50 MHz	SSB
VK3UHF	20160109	10306	70cm	432 MHz	SSB
VK3UHF	20160109	10306	6M	50 MHz	SSB

59	QF21XR	3
59	QF21XR	6
59	QF21XR	4
59	QF21XR	7
59	QF21XR	3
59	QF21XR	8
59	QF21XR	9
59	QF21XR	5
59	QF21XR	10
59	QF21XR	6
59	QF21XR	11
59	QF21XR	7
59	QF21XR	12
59	QF21XR	4
59	QF21XR	8
59	QF21XR	5
59	QF21XR	13
59	QF21XR	9
59	QF21XR	10
59	QF21XR	6
59	QF21XR	11
59	QF21XR	14
59	QF21XR	12

VK3AV	20160109	20000	2m	144 MHz	SSB
VK3ECH	20160109	20122	6M	50 MHz	SSB
VK3BQ	20160109	20400	70cm	432 MHz	SSB
VK3BQ	20160109	20400	2m	144 MHz	SSB
VK3BQ	20160109	20400	70cm	432 MHz	SSB
VK3BQ	20160109	20400	6M	50 MHz	SSB
VK3BQ	20160109	20400	2m	144 MHz	SSB
VK3BQ	20160109	20400	70cm	432 MHz	SSB
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VK3BQ	20160109	20400	70cm	432 MHz	SSB
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VK3BQ	20160109	20400	2m	144 MHz	SSB
VK3BQ	20160109	20400	70cm	432 MHz	SSB
VK3BQ	20160109	20400			



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			6M	50 MHz	SSB



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59	QF21XR	8
59	QF21XR	9
59	QF21XR	5
59	QF21XR	10
59	QF21XR	6
59	QF21XR	11
59	QF21XR	7
59	QF21XR	12
59	QF21XR	4
59	QF21XR	8
59	QF21XR	5
59	QF21XR	13
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59	QF21XR	11
59	QF21XR	14
59	QF21XR	12

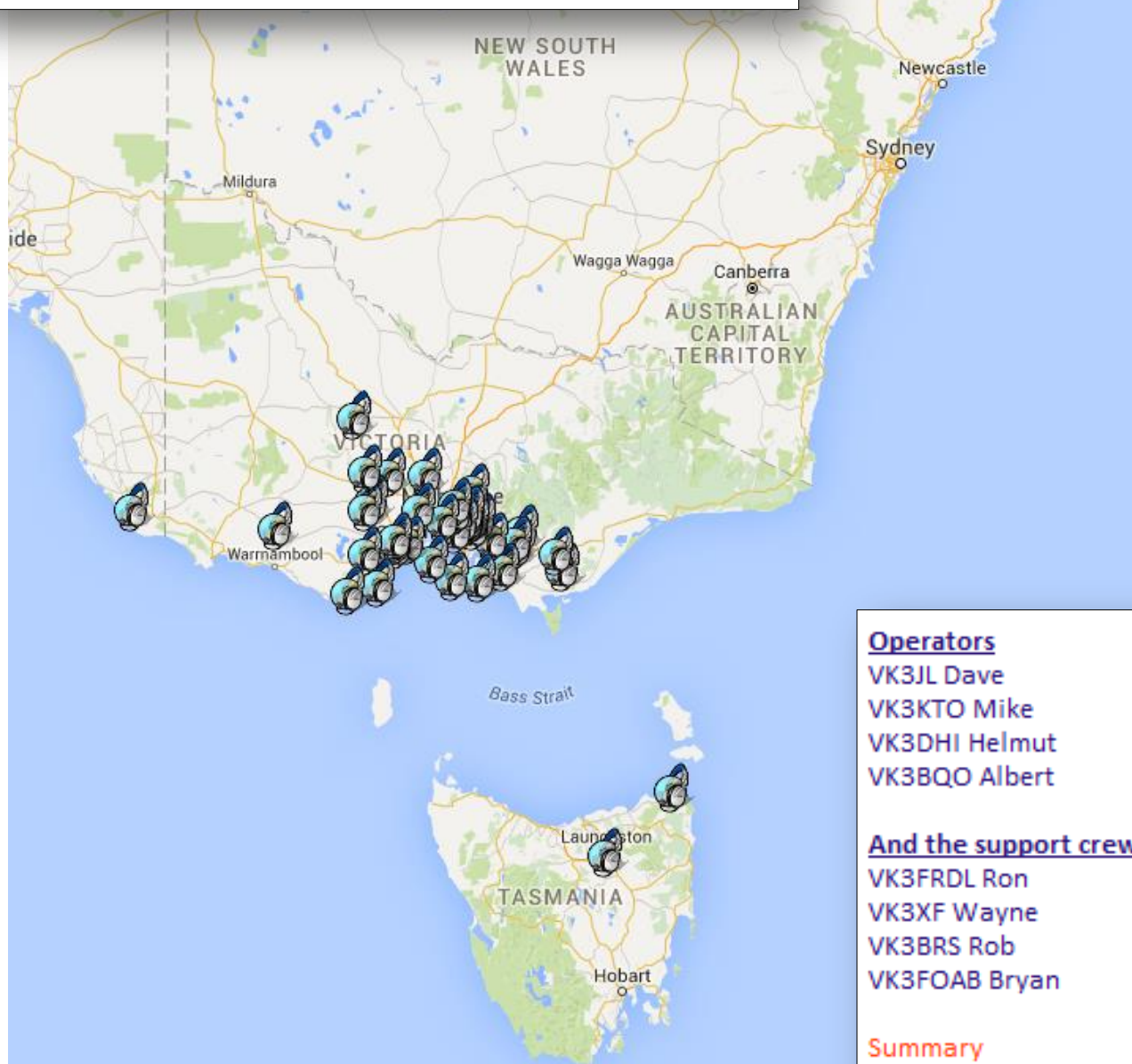
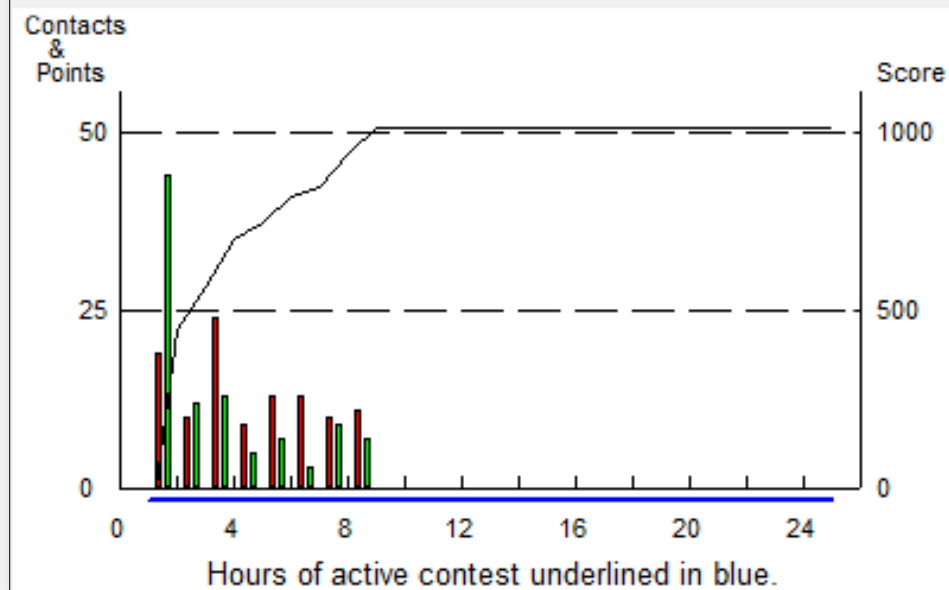


	2m	144 MHz
	6M	50 MHz
	70cm	432 MHz
	2m	144 MHz
	70cm	432 MHz
	6M	50 MHz
0	2m	144 MHz
5	2m	144 MHz
45	70cm	432 MHz
18	2m	144 MHz
07	6M	50 MHz
300	2m	144 MHz
12	70cm	432 MHz
1514	2m	144 MHz
1516	6M	50 MHz
1600	2m	144 MHz
31638	70cm	432 MHz
31702	6M	50 MHz
32000	70cm	432 MHz
32129	2m	144 MHz
32200	2m	144 MHz
32352	2m	144 MHz
33254	70cm	432 MHz
33322	70cm	432 MHz





## Contacts(Red) & Scaled Points(Green) per Hour



### Operators

VK3JL Dave  
VK3KTO Mike  
VK3DHI Helmut  
VK3BQO Albert

### And the support crew

VK3FRDL Ron  
VK3XF Wayne  
VK3BRS Rob  
VK3FOAB Bryan

### Summary

6m - 36 QSO's  
2m - 51 QSO's  
70cm - 22 QSO's

# THE COOLEST PLACE ON EARTH

By Ian Jackson, VK3BUF

Yes, it's a play on words. Perhaps there will be towns with lower temperatures, but they won't be as cool. At the beginning of January, on the trailing edge of a VK3 heatwave, Dianne VK3JDI and myself boarded a plane for a little burg in Northern China called Harbin. The name of the city is a bit of a giveaway as it translates to '*breath-out ice*'. About ten million people live in this remote area near the Russian border. It is renown for its savage cold and cloudless blue skies at this time of the year. During the night the temperature plunges to around -25 to -28, but sometimes the daytime temperature soared to a toastie minus 13 C. (Lots of ice cream sellers on the streets don't bother with cool bags, they just lay their products out on a card table.)



*A quaint little park in the centre of the Harbin CBD*

It is a charming place, surrounded by thousands of square kilometres of dense agriculture and tiny villages. It's supermarkets are underground, it's toothpaste is strawberry flavoured and it's beds, as always, are about as inflexible as a wrestling ring floor.

To get here from Melbourne requires a change of planes in Shanghai, then another flight that takes you about 500km North of North Korea. In our case we arrived intact, but our precious baggage was nowhere to be seen. Somehow it got left behind in Shanghai by the bag fairies that look after such things, but fortunately they did materialise at our hotel room around midnight on the same day. One less thing to worry about...

Of greater interest to us was the annual Ice Festival held in the area, where huge ice buildings and packed snow sculptures are presented theme-park style for visitors to enjoy. In Australia water is something to swim in, perhaps power a hydro dam or even politely dilute a single-malt whiskey. In Harbin water is a building material, dragged from the river in big, Egyptian-pyramid sized building blocks. As it has been frozen very slowly, the ice remains startlingly clear, free of the microscopic bubbles that render our domestic freezer ice cubes opaque. The sculptures are either hewn from solid ice and backlit by multicolour LEDs, or they have been artfully carved from packed snow.



*Some of the sculptures are 50 metres tall*

So how does one prepare oneself for a night out in an ice park? Well, you must embrace more layers of clothing than pastry in a Sara Lee pie. Full-body thermal underwear, followed by a couple of long-sleeve T-shirts, then woolly jumper and a ski jacket. Fur lined gloves, with cotton under-gloves. Thick merino socks, snow boots, balaclava, snow hood





*Dianne VK3JDI checks out an ice Viking longboat on the frozen lake*

After an hour or so in the elements the cold creeps into fingertips and it's time to buy some dodgy coffee from a street vendor. Not to drink – just to hold, as it had probably been brewing in a pyrex jug from sometime around the last AFL Grand Final and subsequently contains more tannins than a leather factory.

and a cashmere scarf the size of a beach towel. With so much clothing, you need to place an appointment in your diary just to take a whiz!

(An IP Address has nothing to do with the internet, it's a place you mark on a town map with a highlighting pen.)

For around 200 rmb (about \$40 in Oz money) a taxi will take you both ways on the 25 minute drive to one of the three main ice-park venues. Here the driver sits in the car (chilling out) while you are unleashed on the park for a few hours.

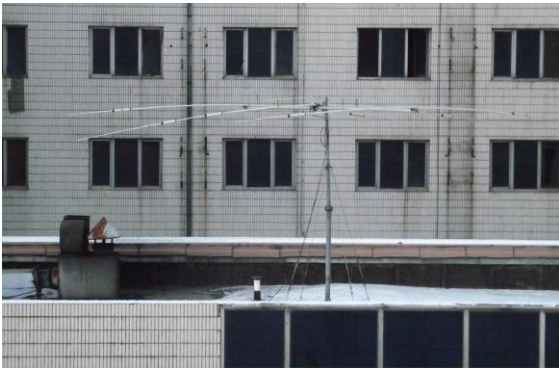


*Intricate carvings of packed snow can be twenty metres high and over a hundred metres wide.*

The snow & ice sculptures are awesome in both their scale and attention to detail. A special area allows hundreds of school students to enter their sculpting efforts into various contests. The big boys produce their immense artworks with chainsaws and boom lifts. (Here I could fill ten pages with awesome images, but I won't. I gotta leave room for words)

After a while you return to the car park and circle, like a mutton bird looking for its burrow, until you figure out which of the many taxi's had brought you there, then tap on the window to intrude upon the drivers dreams, then recite the local equivalent of '*Home please James*'.

There's no shortage of fine tucker in this town and all of the fundamental food groups are fully supported. ie. McDonalds, KFC, Pizza Hut and Starbucks. However, I must point out that we have made an effort to use the local restaurants several times. The dumplings just around the corner at the '*Dainty house tea rooms*' are excellent.



A HF Beam looms outside our window

Something I didn't expect to see looking out the window of my hotel room on the 7<sup>th</sup> floor, was an eye-level view of what looked like a TH3 on the roof of the building next door, the RF no doubt giving our neighbours a warm fuzzy feeling that they can't quite explain. I'm sure the ACMA would love to pull out their pen and clipboard on this one to work out how many milli-siemens per square centimetre are wafting over the patrons.

Special comments are justified for the shopping around the city centre, as it too is a little different to the norm. At street level there are the usual

shop fronts for banks and major businesses. There are also some touristy streets prettily illuminated at night, with plenty of signs in Chinese and Russian. If you want to get to the *real* shopping action, you go underground. At frequent intervals are poorly marked steps in the street descending to what looks like drab, hung sleeping bags made from heavy canvas. Occasionally you see people descending these steps and wrestling their way through the cold-air barriers. So, like Alice pursuing the white rabbit, we checked it out. What we found was a vanishing point in four directions of tunnels lined with shops selling shoes, clothing and well, pretty much anything. There are several kilometres in this labyrinth of warm and well-lit retail outlets. Apparently they follow old nuclear fallout tunnels that have turned out to be a boon for the private sector, but it's really easy to get totally lost (we did). There is no English signage or language in use down there, so from time-to-time one has to 'glove-up' and climb to the freezing street level for a glimpse of reality and regain ones bearings.



*You can walk for hours and not pass the same shop twice – well, maybe, it's hard to say....*

The city of Harbin is split by the Songhua River, which is at least a kilometre wide and usually a navigable waterway, but it's simply frozen solid at this time of year. I'm sure that someone could put a Nally tower up in it and still not disturb the fish below. No concrete needed, just pour water down the hole and wait twenty minutes.



*Saturday afternoon in Harbin means play-time on the frozen river for a few thousand people*

The end of the Harbin adventure is the beginning of the next one. Soon we must board the high-speed train that will plunge south around 1800km across frozen farmland to our next target town. We plan to spend a night at the top of Tai Mountain. This is another cool destination. It features on the back of the 5 Yuan note. (It's the final location in our quest to visit all the places pictured on the rear of Chinese currency.) I keep asking myself.. *'How slippery can 6000 frozen steps be?'*



# General Meeting Minutes 20/11/2015

Reprinted from the December 2015 issue

**Start time:** 8.05

**Location:** Club rooms.

**Chairperson:** Bruno

**Minute Taker:** Bryan

**Present:** As per attendance sheet

**Visitors:** Nil.

**Apologies:** As per attendance sheet.

## **Correspondence received:**

1. Term deposit renewal notice received by the Treasurer
2. Correspondence from ACMA re. renewal of licence for VK3RWD
3. RARC Newsletter for September 2015.
4. RARC Newsletter for October 2015.
5. Breakout magazine for October 2015.
6. Key return confirmation from Yarra Valley Water for Mt. Majestic Water Tower.
7. FAMPARC 40<sup>th</sup> Celebration invitation
8. EMDRC November 2015 Newsletter.
9. HF sched times for Mt Buggerree (Strathbogie).
10. Prac night notice for 6 November from VK3BRS Rob
11. EMDRC meeting notice for 6 November and other events.
12. RARC Newsletter for November 2015.
13. NERG News for November 2015
14. EMDRC Meeting notice for 20 November 2015.
15. Gateway magazine for November 2015.

## **Correspondence sent:**

1. RARC Newsletter for September 2015.
2. RARC Newsletter for October 2015.
3. Breakout magazine for October 2015.
4. EMDRC Newsletter for November 2015.
5. HF Sched times for Mt. Buggerree (Strathbogie)
6. Prac night notice for 6 November 2015.
7. EMDRC meeting notice for 6 November 2015.
8. RARC Newsletter for November 2015.
9. Notice to members from Wayne VK3XF re. spam emails circulating.
10. NERG News for November 2015.
11. Order to alltrophies.com.au for name badges.
12. EMDRC Club meeting notice for 20 November 2015.

**Treasurer's report:** Graeme VK3BXG presented the Treasurer's report for the period 16/10-15/11/2015, and circulated it to members in attendance. Any member wishing to receive a copy of the report should contact him direct. Graeme also took the opportunity to inform members of the proposal to utilise BPay facilities in order to ensure timely payment of ACMA and utility accounts. All other accounts will continue to be paid by cheque.

**Read:** Graeme VK3BXG **Moved:** Graeme VK3BXG **Seconded:** Leigh VK3FACB **Carried:** Yes

**New Callsigns:** Nil.

**Previous Minutes:**

1. Nominations for Committee in 2016 – please start to think about who you want on your committee in 2016 now; the AGM will be in April.
2. Club membership details – we need to validate our current membership details against the database that Graeme VK3BXG holds as Treasurer.

**Business arising from the previous minutes:**

1. Bruno sought ideas from the floor about the future use for VK3RDD. Leigh VK3FACB suggested that it be relocated to VK3BXG's QTH in Drouin.

**New business:**

1. FAMPARC 40<sup>th</sup> Celebrations: Bruno VK3BFT and Rob VK3BRS will be attending the celebrations tomorrow as our representatives.
2. Mt. Buggeree weekend: Details are on the GGREC website under Magazines. The portable mast worked well, although another 10m of coax would be useful. Weather conditions were largely against those who attended in terms of HF operating, but the visit to the crystal mine was a particular highlight.
3. Antennapalooza 2016: Details are in the November club magazine. Ian VK3BUF suggested the construction of a rhombic antenna as a feature of the event.
4. Christmas Party: Again, details are in the latest magazine. Please be mindful of Leigh's neighbours, and be careful where you park. Contributions to the hamper are still being sought.
5. A reminder: There is no general meeting in December, but there will be an informal prac night on the first Friday in January (which happens to be New Year's Day evening.)
6. If members have any ideas for new events or activities for the club, please let a member of committee know.
7. Ian VK3BUF gave a short video presentation on the origins of space junk, and how scientists deal with it.
8. Geoff VK3HGG showed members a sample of a radio which may be able to be changed over to amateur frequencies. It covers the range 136-174MHz, and programming is possible. In their current configuration, they put out about 25w, but can be set to 5/15/25. If they can be obtained at a reasonable price, Geoff is prepared to coordinate orders from club members.
9. Bryan VK3FOAB put forward a proposal (on behalf of Wayne VK3XF) that the club consider the purchase of a Fusion repeater to replace VK3RLP in the shack. There are 3 other Fusion repeaters in operation already. It provides operation in both digital and analogue format. There needs to be further discussion and investigation of the proposal. (DMR is an open protocol format.)
10. Thanks to those who helped Bruno with the car push recently. It is now fixed and back on the road.
11. Prac night: Rob detailed the proposed building of the OzQRP MDT DSB 40m rig from VK2DOB. It provides a coverage of approx. 110kHz, and is available from the OzQRP website for \$75 (+ pack and postage.)

**Meeting closed :** 9:00 pm

**Next Committee Meeting :** 05/01/2016

**Next Prac Night :** 01/01/2016

**Next General Meeting :** 15/01/2016





# Club Information



Meetings 2000hrs on third Friday of the month at the  
Cranbourne Guide Grant Street Cranbourne  
Prac nights first Friday in the Peter Pavey Clubrooms Cranbourne 1930hrs  
Visitors are always welcome to attend

## Office bearers

President	Bruno Tonizzo	VK3BFT	Repeater Officer	Albert Hubbard	VK3BQO
Admin Sec	Acting- Bryan Simm	VK3FOAB	Web Master	Mark Clohesy	VK3PKT
Treasurer	Graeme Brown	VK3BXG	Magazine Editor	Paul Stubbs	VK3TGX
General 1	Rob Streater	VK3BRS	Property Officer	Bruno Tonizzo	VK3BFT
General 2	Vacant	VK3XF	Secretary	Ian Jackson	VK3BUF

## Call in Frequencies, Beacons and Repeaters

The Club Station VK3BJA operates from the Cranbourne Clubrooms.  
6m Repeater VK3RDD – Currently de-commissioned until further notice - *sorry*  
70cm Repeater Cranbourne VK3RLP In 434.475MHz Out 439.475MHz CTCSS 91.5Hz  
VK3RLP Repeater supports Remote Internet access (IRLP), Node 6794.  
70cm Repeater Drouin VK3RWD In 433.575MHz Out 438.575MHz CTCSS 91.5Hz  
Simplex VHF - 145.450MHz FM • Simplex UHF - 438.850MHz FM  
VK3RLP Beacons 1296.532MHz & 2403.532MHz

## Membership Fee Schedule

- Pension Member rate \$25.00 Extra Family Member \$20.00  
Standard Member rate \$40.00 Junior Member rate \$25.00  
Fees can be paid by EFT to BSB 633000 - Account 146016746.  
• Always identify your EFT payments.  
• Membership Fee's Are Due at each April Annual General Meeting.

Magazine Articles to [editor@ggrec.org.au](mailto:editor@ggrec.org.au) or [vk3tgx@gmail.com](mailto:vk3tgx@gmail.com)  
All other Club correspondence to: [secretary@ggrec.org.au](mailto:secretary@ggrec.org.au)  
or via Snail Mail : PO Box 1098, Cranbourne 3977  
GGREC Web Site & Archive may be viewed at: [www.ggrec.org.au](http://www.ggrec.org.au)  
Facebook Page [www.facebook.com/GippslandGate](http://www.facebook.com/GippslandGate)