



# GATEWAY

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

## January 2015 From The President

Happy New Year to one and all.

2015 has already kicked off with a very productive working bee and BBQ on the 10<sup>th</sup> January. It was a pleasure to see 12 of our members working very hard all day to get the Club ready for a busy 2015.

Wayne VK3XF lay paving stones for our new shed to be placed on and finished off the area with some landscaping work. Ian had plenty of helpers to install a new gate in the cyclone wire fence to give us access to the new shed. The heaviest work was removing a fallen tree from the back yard of the Guide Hall. Ian Jackson started chopping up the tree during a visit to the Club on the 3rd January and a majority of the tree was removed on the 10<sup>th</sup> with help from Dave Rolfe and his chainsaw. The wood was delivered to Pat Pavey's home by Mike Ide to re-stock her wood pile. I'm sure Paul VK3TGX has documented the event in pictures and will have photos in the magazine or online for us all to see. We celebrated the day with a relaxing BBQ before putting in a hard afternoons work finishing off as much as we could. The area is now relatively clear so that we can have our Australia day BBQ in pleasant surroundings.

Preliminary work is underway to participate in the WIA ANZAC Centenary commemoration. (See the WIA home page for details). I have made contact with the Cranbourne RSL and invited them to join with GGREC for some of the events. More news to come as it becomes available.

Work has begun to organize this year's Hamfest with our first table booking already made before Christmas. I wish Albert and Wayne all the best organizing this year's event. I must also thank Steve Harding VK3EGD for his hard work managing the bookings and assisting with the Hamfest organization for many previous Hamfests.



The committee has worked hard to compile the Event Queue for the first quarter of 2015. Make sure you come along to the General Meeting and the Australia Day BBQ this month.

At the November general Meeting, Dave Campbell, VK3XMF proposed a Labour Day camping weekend to the Walkerville Foreshore Caravan Park. Unfortunately Walkerville is all booked out, but the good news is that Helmut VK3DHI has proposed that we go to Lake Eildon – Blue Gum Flat camping ground on the Delatite arm of the weir. Thanks Helmut.

See you at the January General Meeting,

*Bruno Tonizzo VK3BFT*

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## 2015 Event Queue

### January

Tuesday 6 <sup>th</sup>	Committee Meeting.
Saturday 10 <sup>th</sup>	Working Bee and BBQ at Clubroom.
Friday 16 <sup>th</sup>	General Meeting at the Guide Hall 8:00 PM start.
Monday 26 <sup>th</sup>	Australia Day BBQ at the Clubroom 11:00 AM start.

### February

Tuesday 3 <sup>rd</sup>	Committee Meeting.
Friday 6 <sup>th</sup>	Prac Night
Sat/Sun 7 <sup>th</sup> /8 <sup>th</sup>	Foundation Classes
Friday 20 <sup>th</sup>	General Meeting at the Guide Hall 8:00 PM start.

### March

Tuesday 3 <sup>rd</sup>	Committee Meeting.
Friday 6 <sup>th</sup>	Prac Night
Sat 7 <sup>th</sup> - Mon 9 <sup>th</sup>	Labour Day weekend Lake Eildon Camp – Blue Gum Flat on Delatite Arm.
Friday 20 <sup>th</sup>	General Meeting at the Guide Hall 8:00 PM start.

### Public Holidays

Good Friday	3 <sup>rd</sup> April
Easter Saturday	4 <sup>th</sup> April
Easter Sunday	5 <sup>th</sup> April
ANZAC Day Saturday	25 <sup>th</sup> April
Queens B'day Monday	8 <sup>th</sup> June
Melbourne Cup	3 <sup>rd</sup> Nov
Christmas day Friday	25 <sup>th</sup> Dec
Boxing Day	26 <sup>th</sup> Dec
Boxing Day Holiday	28 <sup>th</sup> Dec

### Coming events

Pub night – TBA  
Bike Ride – TBA  
Fox Hunt – TBA  
Mid-Year Dinner - TBA

## From The Editor

Well here we go for the New Year – and I have survived after everyone receiving the ‘wrong’ magazine.

So what is new for 2015, well I am waiting to see how the ACMA go with the new wireless microphone band plans. You may well remember last year when we all had to retune our digital TV/set top boxes. This was done so that all the VHF TV stations could be put together at one end of the ‘TV’ band, this freed up the other ‘disused’ spectrum to be sold off to the highest bidder – The various mobile telephone companies trying to keep up with the exploding mobile data market – for a tidy almost two billion dollars! (The ‘Digital dividend’)

So what used to be in that band – specifically 694MHz – 820MHz, Wireless microphones and probably a lot of other consumer electronics. Now we as radio operators know all about band plans, the ACMA and all that. But how many wireless mic users know (or even care) about such things. Or even if they did, be able to figure out if they are affected.

So will the ACMA ever be able to clear the band for the telco’s – I doubt it.

*Paul VK3TGX*

Ps:- If you have something for the magazine, that is too big for email, let us know, I am toying with using DropBox etc as an alternative submission channel.

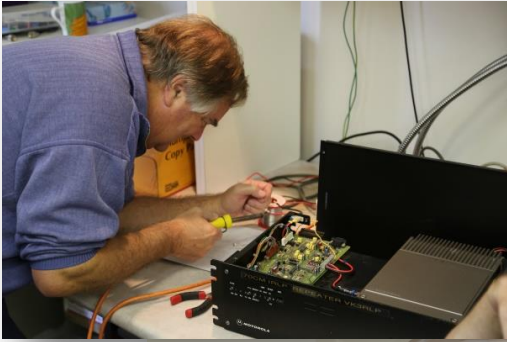
Also, if you think you’ve missed the cut off date for articles, don’t worry, Send it anyway. You may be lucky – or I will put it in next month’s magazine.

### **WANTED**

I am currently after a Philips FM828 radio on the 2M club channel – or failing that, crystals to suit, so I can set up an FM828 on 2M

Paul VK3TGX

## Working Bee 10/1/2015





## From the ARRL.

### New World Record Claimed on 10 GHz

01/09/2015

Two Amateur Radio microwave enthusiasts in Australia are claiming a new distance record on 10 GHz. On January 5, during a tropo opening across the Great Australian Bight, VK6DZ and VK7MO exchanged reports over a 2732 km path, using JT4f mode as well as SSB. The distance surpasses by 36 km the previous World Record of 2696 km from Southern Portugal to Cape Verde Island.

VK6DZ was portable at Torbay Hill, 24 km west of Albany, Western Australia. He was running 10 W to a 60 cm dish. VK7MO was portable Cape Portland in northeastern Tasmania, running 50 W to a 77 cm dish.

Several other noteworthy 10 GHz contacts were completed the same day. VK6DZ worked VK5KK over a 1920 km path on JT4f mode, and VK5DK over a 2062 km path on SSB. VK5KK was portable at Crafters 10 km southeast of Adelaide, South Australia, running 5 W into a 75 cm dish. VK5DK was portable at Mount Burr, 40 km northwest of Mount Gambier running 5.5 W into a 60 cm dish. All stations were GPS locked. — *Thanks to Rex Moncur, VK7MO*

The original article is at:-

<http://www.arrl.org/news/view/new-world-record-claimed-on-10-ghz>

Thanks Mark for that one.

## From the shack of VK3BQO.

Well guys, I stood and watched the light show for a while last night little knowing that at any time the one magic strike would do the damage it did.

You probably know by now that RLP, RDD and RWD repeaters are all OFF AIR. The magic 3 strikes and you're out. *(VK3RLP went down for another reason. ED)*

At about 2am this morning I awake to the loudest I think I have ever heard a thunder roll.

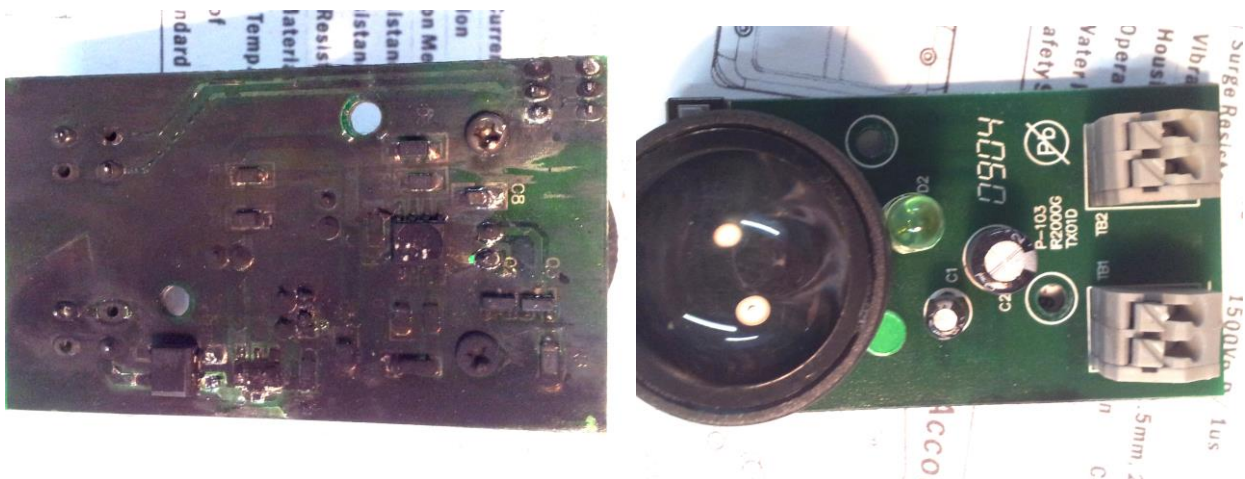
Well I had planned a visit to RDD sometime today but first I had to repair my alarm system, then diagnose the problem with my driveway alarm; at the same time supposedly keeping No. 1 grandson amused.

Been a costly storm at least time wise repairing things but I think you will see from the attached pics that the driveway sensor which is a break beam IR sensor type will no longer grace the fence post at BQO's residence.

At the same time, my ADSL went down at 3pm only to prove itself as a delayed reaction to the storm as the modem / router turned up its toes. Luckily it reacted to a default reset and reprogram but I bet it goes again soon.

Ah well, the perils of living on a hill in the country. I think my radios survived though because I disconnected the antennas.

Albert VK3BQO

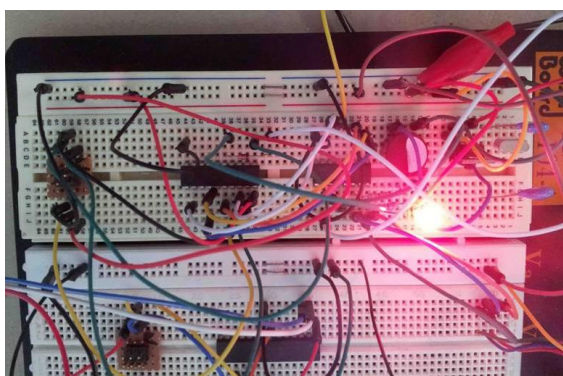


# Hands Free Kit Project.

Hello Everyone,

The Hands free kit has gained some serious momentum over the last month and it is now at the circuit board design and layout stage. Al VK3BQO has tucked himself away in his shack and has been busily writing the code for the microcontroller with Max VK3TMK and I sorting out the noise cancelling and audio circuits. Ian VK3BUF took delivery of the "mud map" hand drawn schematics this week and is now translating them into a circuit board layout and Bruno VK3BFT has costed out the components and materials for the kit. At this stage we are still on target for the price quoted at the last G.M. . With all things going well we might see a prototype in January sometime.

Some of the features that have been included into the Hands Free Kit are as follows ( taken from notes written so far ) ,

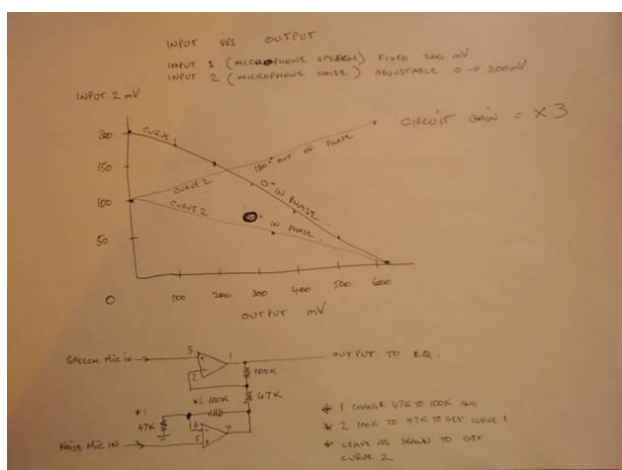


The unit is contained within a small plastic enclosure which can be either mounted to the dashboard, centre console or under the seat. Modern microprocessor technology in the form of an Atmel ATtiny4313 has been utilised for control functions and analog op-amp circuitry for noise cancelling.

The circuit has been designed with isolated inputs and outputs to minimise damage to radio or handsfree unit should a wrong connection be made.

A momentary push button switch toggles the unit between transmit and receive and is mounted on the enclosure. It has the added functions of selecting programming mode and extending the transmit timeout timer if required.

If mounted under the seat or other "out of reach" location, a remote unit can be added which will house an LED and another push button PTT switch and would be small enough to stick to the dash or console without drilling holes. A cable to this remote unit is simply plugged into the main unit as provision has been made for this.

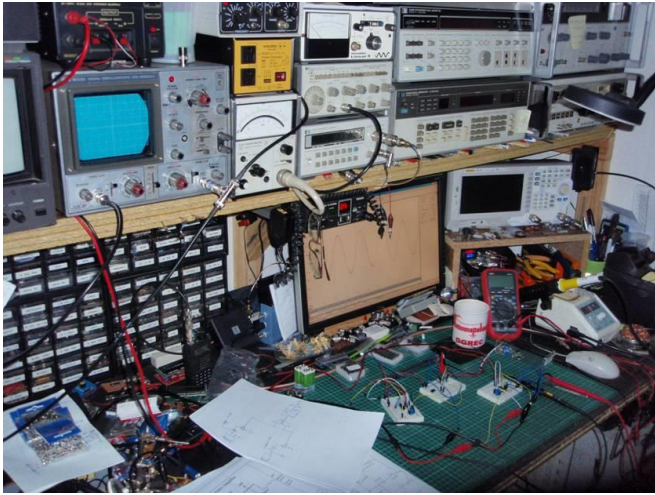


Noise cancelling techniques have been utilised to cut down unwanted background noise.

Switching of the audio from the standard microphone is provided as some newer radios may have both the handsfree and the standard microphone operational unless switched. This would increase unwanted background noise on the transmitted signal and lessen the effects of the noise cancelling.

A Tricolour LED - Green for power ON (RX) and Red for TX. The blue has been kept for possible use in the future.

Optional wiring allows the dash lights to be connected which will automatically dim the LEDs when the lights are on.



An audible indication at each minute in TX mode plus a continuous alert during the last 15 seconds of transmission warns of auto timeout.

The unit can be powered via 12v (13.8V) supplied from the radio supply or direct to the car battery. Although most newer radios supply 8v DC via the microphone socket, we do not advise using this, as these are not usually designed to supply much current.

The unit goes into a power down mode after several hours of non-operation in which case no power is drawn until the PTT button is pressed to go to TX mode.

The unit features easily changed programming settings which allow for variable transmit timeout timer and LED intensity. This can easily be done from the operating position.

The timeout timer can be extended without releasing from the transmit mode by pressing and holding the PTT button for one second.

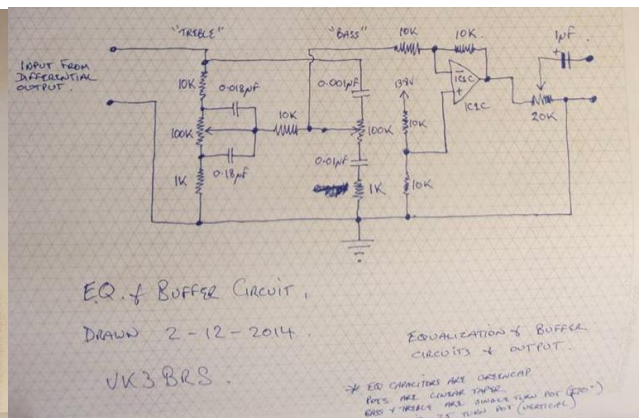
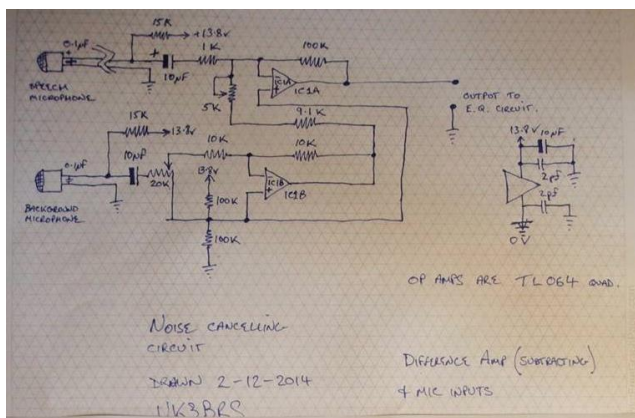
At power connection, the unit remains in RX mode. This is important if powering from the radio.



2 microphones will be used with the kit, one being the “speech” microphone and the other being the “noise” microphone. Adjustable Bass and Treble controls are included with additional adjustments being output level to the radio, degree of noise cancelling and the last being an adjustment to “balance” the noise cancelling circuit.

Cheers and 73,

Rob VK3BRS



## **General Meeting Minutes 21/11/2014**

**Start time :** 8:00 pm.

**Location :** Club rooms.

**Chairperson :** Bruno VK3BFT

**Minute Taker :** Bryan VK3FOAB

**Present :** As per Attendance sheet.

**Visitors:** Nil.

**Apologies :** As per attendance sheet.

Bruno took the opportunity at the commencement of the meeting to extend thanks to Mark VK3PKT, not only for the latest edition of the Gateways magazine, which will be Mark's last, owing to his standing down from the position of Editor, but for his commitment to ensuring that members received a quality publication each month, over a number of years.

Thanks were also extended to Diane VK3JDI and Ian VK3BUF for the use of their property for the staging of Antennapalooza for the past two years. A small presentation was also made to both Diane and Ian.

### **Correspondence received :**

1. Apparatus licence for VK3RWD.
2. Apparatus licence for VK3RLP.
3. Email re. ANZAC Commemoration planning, 2015.
4. Email re. VASTROC 2015 Conference.
5. 3 emails from members ordering 2015 Callbooks.
6. Email from Tom Spoljaric re. Foundation licence course (passed to VK3BXG.)
7. Email from Bruno re. proposed Melbourne Cup Day Picnic, seeking numbers interested.
8. Email from EMDRC re. Cup Day 160m Coffee-break Net.
9. Email from WIA re. VI6ANZAC Activation in Albany on 1 November.
10. Email from VK3BRS re. prac night on 7 November.
11. Email from VK3VB advising of change of callsign.
12. Email from NERG re their meeting on 13 November.
13. Gateways magazine for November 2014.

### **Correspondence sent :**

1. Order for callbooks to WIA.
2. Details re. NERG meeting on 13 November on SOTA and portable operating.
3. Email re. activities planned for prac night on 7 November, involving Hands-Free Kit and 2m/70cm antennas.
4. Email re. final orders for 2015 Callbooks.
5. Email re. activation of VI6ANZAC from Albany.
6. Email from EMDRC re. Cup Day 160m net and BBQ.
7. Email from Graeme VK3BXG seeking WICEN operators on 14/15 November for Warragul car rally.
8. Email from Bruno re. Cup Day picnic at Botanic Gardens, Cranbourne.

**Treasurer's report :** Graeme VK3BXG presented the financial report for the month and circulated a copy for the information of members. Members wishing to receive a copy of the monthly report can apply direct to the Treasurer.

**Read :** Graeme VK3BXG **Moved :** Graeme VK3BXG **Seconded :** Rob VK3BRS **Carried :** yes

**New Callsigns :** Nil

**Previous Minutes :**

**Read :** As distributed.

**Business arising from the previous minutes :**

1. Club Christmas Party – directions are in the most recent edition of Gateways magazine.
2. JOTA: Thanks to those members who assisted on the day. We had good contacts into ZL and VK4 on HF, but virtually nothing on 2 and 70. The HF equipment and antennas worked well.
3. Botanic Gardens, Cranbourne: Although the turn-out was limited, the Gardens offer an appealing venue for a subsequent bike ride and/or picnic day next year. Further investigations are being made by Committee.
4. Foundation Licence Days: Thanks for Graeme VK3BXG, another Foundation class will be held next weekend, 6/7 December. It has also been decided that the first weekend of every second month will be available for exam revision and testing.
5. Gateways Magazine: Mark indicated that he would be passing on the magazine files to Paul VK3TGX, as he has agreed to take on the role of Editor.

**New business :**

1. Australia Day: There was discussion about our Australia Day BBQ, and whether to hold it under our portable canopy (now that our shade tree has been cut down), or whether we might be able to make use of the grassed area in the Guides compound. (An approach will be made to the Guides to see whether the area would be available on Australia Day.)
2. Labour Day Holiday: The suggestion was put forward that Labour Day might provide an opportunity for members to go camping. Pat VK3OZ suggested that we consider somewhere local, so as to cater for as many members as possible. Another venue suggested was Walkerville Camping Reserve. (Further details available at <http://www.walkervillecamping.com/>) Some spots are still available for the Labour Day weekend, but you will have to be quick.
3. Homebrew Trophy: Some years ago, the club ran an annual homebrew competition, and it has been suggested that this be revived. A register will be maintained and at the end of the year or half-year, the trophy would be awarded. A panel of three judges would award the trophy on the basis of aesthetics and previously agreed criteria.
4. Tonight's presentation: Ian VK3BUF agreed to explain the operation of his recently acquired SARK Antenna Analyser.
5. Wi-fi/internet extension into the Guide Hall: Consideration was given to the extension, in the new year, (via a cable from the clubrooms) into the Guide Hall of wi-fi/internet facilities, for use by members and guest presenters on General Meeting nights.
6. Repeaters: VK3RWD is still experiencing intermittent problems, but is usable. VK3RLP also has a problem at present (? dry joint). VK3RDD is operating satisfactorily, but is not getting much use.

7. Beacons: Rob VK3BRS reported that the driver board on the 13cm beacon had an issue and could not be resurrected. Another board has been ordered, but has not yet arrived. Alan Devlin suggested putting the controls at ground level and running the heliax to the antennas from there. The heliax will have to be tested, and details about cases and necessary gear will be emailed to committee for consideration. The funding we received for the project ceases in June 2015.
8. Hands-Free Kit: This is being developed as a club project, and jobs have been allocated to a number of people to get the project underway. At the moment, it is still very much in the design stage, and the aim is to convert that design to a cost (to see whether it is feasible to continue.) Rob VK3BRS outlined a number of features which it is hoped the kit will have, including noise-cancelling. If the project is a success, it may prove to be a revenue source for the club. The software associated with the kit will be GGREC –developed, which means that we will have the capacity to modify it subsequently, if necessary.
9. Hamfest 2015: Do we want to run it again in 2015? If we do want to run the hamfest again, a co-ordinator will need to be appointed early in 2015. Please give consideration to this.
10. ANZAC 2015 Commemoration Plan: We need to nominate by February 2015 whether we want to be involved in this. It would involve a partnership between the club and the local RSL sub-branch. Contact will be made with the sub-branch to see if they wish to be involved. It would be good if we could align the use of the special callsign for the event with a date which is significant to RSL members. Russ VK3MWR suggested that we might be able to link with cadets from HMAS Cerberus. The WIA will send out the QSL cards, with the official opening of the project being 25 April 2015. We have plenty of operators willing to participate.
11. Review of Radio Spectrum: The foreshadowed review of the radio spectrum, involving parameter based licensing could mean that functions are devolved from ACMA to other bodies. Responses are due by 2 December 2014, which does not give much time for a response. Further details are available on the WIA website under the “What’s Hot” tag.
12. Storage of new BBQ: We have a shed and flagstones to place it upon. We now need a gate, approx. 1m to be installed in our perimeter fence.
13. Extendable mast available: Members looking for an extendable mast might like to consider the aluminium masts currently available from Jaycar for less than \$60. They extend to 4.5m, and have stainless steel guy ropes and plates.
14. Jenny & Reg Goddard: Albert VK3BQO gave an update on Jenny and Reg VK3UK, who are currently on the sick list. They are both recovering, albeit slowly.
15. Raffle tickets for the Christmas Hamper are available tonight at \$2 each, or 3 for \$5.
16. Foxhunt: A foxhunt is planned in early 2015. A couple of scenarios will be developed to test the DF skills of participants. This will be a daytime activity, and is NOT a speed rally. Albert will provide further information once the scenarios have been agreed upon.
17. Diane VK3JDI reminded members about her belly-dancing performance, which will take place tomorrow (Saturday 22 November) at the Timbarra Community Hall. The performance runs from 1.30-4.00 pm, and entry is \$8.00

**Meeting closed :** 9:10 pm

**Next Committee Meeting :** 6 January 2015

**Next Prac Night :** 2 January 2015

**Next General Meeting :** 16 January 2015



## 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	Bryan Simm	VK3FOAB	Web Master	Stephen Harding	VK3EGD
Treasurer	Ian Jackson	VK3BUF	Magazine Editor	Paul Stubbs	VK3TGX
General 1	Mark Clohesy	VK3PKT	Property Officer	Bruno Tonizzo	VK3BFT
General 2	Wayne Cooke	VK3XF	Secretary	Ian Jackson	VK3BUF

## Call in Frequencies, Beacons and Repeaters

The Club Station VK3BJA operates from the Cranbourne Clubrooms.  
6m Repeater Cockatoo VK3RDD In 52.575, Out 53.575 CTCSS 91.5  
70cm Repeater Cranbourne VK3RLP In 434.475 Out 439.475 CTCSS 123Hz  
VK3RLP Repeater supports Remote Internet access (IRLP) Node 6794.  
70cm Repeater Drouin VK3RWD In 433.575 Out 438.575 CTCSS 91.5Hz  
Simplex VHF - 145.450 MHz FM • Simplex UHF - 438.850 MHz FM  
VK3RLP Beacons 1296.532 MHz & 2043.532 MHz

## 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)