



GATEWAY

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

March 2014 From The President

Please note that this month's General / Annual general meeting has been brought forward one week due to Good Friday falling the third Friday of the month. With the Club year coming to an end, it is a good time to thank the current talented committee for the work they have done over the last year. It has been a pleasure to work with Wayne, Ian, Graeme and Mark over the last 12 months to keep the Club vibrant, energised and involved with the latest aspects of amateur radio.

I have advised the Committee that I will again nominate for President of GGREC although I am currently overseas and will miss the AGM. Please consider nominating for committee as it is a great way to contribute to Club life. We will need new members as Ian Jackson, who has done a fantastic job as Treasurer, will not be re-standing. Graeme Brown has been our super-efficient secretary for the last three years and must, as



Bruno Tonizzo

per the Club rules, nominate for another position or leave the committee. So, get involved with our great Club and consider your nomination for the committee.

In closing, I and the committee wish you a safe and happy Easter and I will talk to you again when I get back home.

Bruno VK3BFT

CONTENTS

<i>Around the traps</i>	3
<i>GGREC Hamfest Invitation</i>	4
<i>Near Miss for Earth</i>	5
<i>March General Meeting Minutes</i>	6-7
<i>Thin LED's</i>	8
<i>2013 AGM Minutes</i>	9-10
<i>Club Information</i>	11

Event Queue from April 2014

April 11th – Friday Night. General Meeting at the Guide Hall
From 2000hrs No Talk meeting followed by our AGM

April 11th – 13th Fri-Sun. PR4 Amateur Radio Expo
WIA Promotion Expo for the Growth of Amateur Radio

April 25th – Friday . Anzac Day
Try using AM & CW Modes used during the early days of Warfare

May 2nd – Friday Night. Prac Night at the Club Shack
From 1930hrs

May 10th – Saturday. MDRC Hamfest
Community Centre Rupert Drive Mulgrave

May 16th – Friday Night. General Meeting at the Guide Hall
From 2000hrs Talk to be Announced

June 6th – Friday Night. Prac Night at the Club Shack
From 1930hrs

June 20th – Friday Night. General Meeting at the Guide Hall
From 2000hrs Talk to be Announced

Around the Trap's



Ian VK3BUF has nearly completed his work on his new boom lift, here he is attacking a few trees on his property. Just don't let Graeme VK3BXG know it is up and running or no tree will be safe :P



General Meeting Guest Speakers

We are always on the look out for people within the club or outside of the club to give a talk at our General meetings. If you have a talk you can give or know of someone that is in to a particular area of Ham radio or electronics that would be willing to give a talk please see a member of the committee to help arrange this.

Thanks from the Committee.

GGREC Hamfest

AN INVITATION TO STALLHOLDERS

On Saturday the 19 th of July 2014, the Club will be conducting its annual HAMFEST for the sale of new and used electronics and radio equipment. As it was last year, the venue will be at the Cranbourne Community Hall on the corner of Clarendon and High streets, Cranbourne. High Street is part of the Sth Gippsland Highway. Melway's 133 K4.

The club takes pleasure in offering you the opportunity to become a Seller at our 2014 event. Forty one tables will be available for stall holders, but demand will be high as usual. Please book early to avoid disappointment. All the details can be found on our web page at <http://ggrec.org.au/hamfest>.

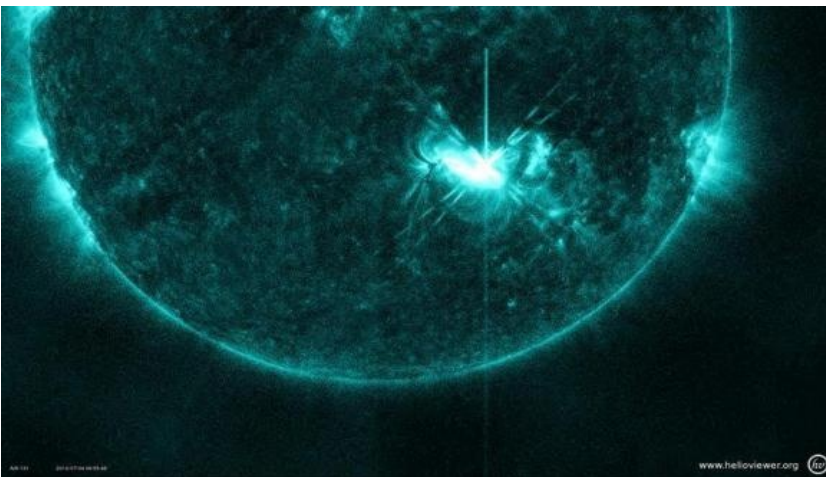
- Table hire will be unchanged at \$22 per table. A limit of four (4) tables per Stall Holder applies. Table Hire provides access for TWO people to operate the stall. It will also include two tickets to the door prize and free tea/coffee throughout the day.
- The \$22 fee must be paid in full to the Club within 7 days of booking your table. Cancellations made more than 14 days prior to the event will be given a full refund by cheque.
- To make a booking contact Steve Harding VK3EGD on 0408 878934. Or email details to hamfest@ggrec.org.au Payment may be made by sending a cheque or money order (payable to 'GGREC') to Post Office Box 1098 Cranbourne 3977 or by direct payment to: BSB 633000 ACC 146016746 with remittance advice to Steve upon transfer. If you do a direct transfer please include your "callsign/name" and "table fee" on the transfer.
- When making a table booking, Stall Holders will be asked to provide a Name, Postal address and Contact phone number.
- Upon receipt of the \$22 fee and contact details, a Booking Number will be posted with a receipt of payment. IMPORTANT! No booking is confirmed until this number has been received by the Stall Holder.
- Access to the Hall shall be from 8:30am for Stall Holders (not later than 9:30 am unless by arrangement).
- Transfer of your booking to another person is not permitted. Please contact Steve if you cannot attend or wish to discuss your booking.
- The doors will open for buyers at 10am with a \$6.00 entry fee.

Each year, this event is a great success with many hundreds of people through the door in our large Cranbourne venue making it a premier event for radio markets in this state. We look forward to working with you again.

Near Miss For Earth

Fierce solar blasts that could have badly damaged electrical grids and disabled satellites in space narrowly missed Earth in 2012. The bursts would have wreaked havoc on the Earth's magnetic field, matching the severity of the 1859 Carrington event, the largest solar magnetic storm ever reported on the planet. That blast knocked out the telegraph system across the United States, according to University of California, Berkeley research physicist Janet Luhmann.

"Had it hit Earth, it probably would have been like the big one in 1859, but the effect today, with our modern technologies, would have been tremendous," A 2013 study estimated that a solar storm like the Carrington Event could take a \$2.6 trillion bite out of the current global economy. Massive bursts of solar wind and magnetic fields, shot into space on July 23, 2012, would have been aimed directly at Earth if they had happened nine days earlier.



The bursts from the sun, called coronal mass ejections, carried southward magnetic fields and would have clashed with Earth's northward field, causing a shift in electrical currents that could have caused electrical transformers to burst into flames.

The event, detected by NASA's STEREO A spacecraft, is the focus of a paper that was released in the journal Nature Communications Luhmann, China's State Key Laboratory of Space Weather professor Ying Liu and their colleagues.

Although coronal mass ejections can happen several times a day during the sun's most active 11-year cycle, the blasts are usually small or weak compared to the 2012 and 1859 events, she said. Luhmann said that by studying images captured by the sun-observing spacecraft, scientists can better understand coronal mass ejections and predict solar magnetic storms in the future. "We have the opportunity to really look closely at one of these events in all of its glory and look at why in this instance was so extreme," Luhmann said.

Source Reuters

General Meeting 21st March 2014

Location: Guide Hall Cranbourne
Start Time: Meeting commenced at 2010 hrs.
Chairperson: Bruno VK3BFT
Minutes taken: Graeme VK3BXG
Present and Guests: As per attendance sheet.
Apologies: As per attendance sheet

Correspondence in: WIA, Robert Broomhead with a PR4AR reminder. Australia Post for the post office box account. WIA, Edward Thrift for the affiliated clubs insurance. EMDRC news letter. Rob VK3BRS email regarding a proposal for a prac-night facilitator. City of Casey with regard to volunteer awards nominations. Michael VK3GHM with regard to Arduino and Raspberry (electronic) workshops. Electricity account. NERG news (e-mail) link. ACMA with the VK3RDD renewal certificate. Napier / Hastings NZ email news letter. Rotarua, NZ email news letter.

Correspondence out: WIA with affiliated clubs insurance. WIA with hamfest notice for AR magazine.

Treasurers Report: Ian VK3BUF reports the Bendigo Investment account is at \$9,612.44; Bendigo cheque account \$1794.93 and the Quickbooks balance also at \$1794.93 Total income for the month was \$191.17 whereas expenses were \$558.00 making a loss of \$366.83 for the month. The books will be finalised and audited at the end of March. Another report will be ready for the AGM Moved Russ, VK3MWR, seconded Reg VK3UK, all in favour, carried.

Previous Meeting minutes as per our March "Gateways" magazine distributed. Moved accepted Ian VK3BUF, seconded Rob VK3BRS, all in favour, carried.

Business Arising

Repeater reports by Albert VK3BQO that VK3RDD has not had any further problems and VK3RWD is still working well but not being used much. Rob VK3BRS has now taken over the beacons project.

Barbeque knobs, Wayne VK3XF reports that second-hand knobs acquired have not been successful and needs to assess other possibilities.

Hamfest Sale Ian **VK3BUF** reports that 17 tables still remain and an advertisement has gone to the WIA.

Mid-Year lunch venue was opened to discussion. With a list of four possibilities, that is the Cardinia Hotel, Barham Park, Brandy Creek View Café or Hastings Marina, by vote Hastings Marina was selected.

New Business

Prac-night, Rob **VK3BRS** has now been appointed as official club prac-night facilitator by the committee. Ian **VK3BUF** reiterated this stating it was a good idea and prac-nights now needed a patterned structure and ideas for projects are now needed and to email Rob with ideas.

SOTA Weekend, Bryan **VK3FOAB** reports was very successful event and he represented GGREC.

AGM Ian **VK3BUF** reports will be the second Friday of April because of Easter but the next prac-night will still be the first Friday, 4th April. The current president Bruno **VK3BFT** will be away for the AGM but will still stand for re-election. All positions become vacant at the AGM and nominations are now needed.

Ian reminded the members present that the committee now meet every second month and this has not presented any problems as problems are quickly resolved by email amongst the committee.

Beacons, Rob **VK3BRS** reports four club members that is Michael **VK3GHM**, Albert **VK3BQO** Phil **VK3VB** and himself are formulating at the moment on the direction to take. Phil is doing the antennas, whilst he is attending to the exciters. He could not report yet as to the cost but he may have to purchase exciters immediately due to dwindling last supplies of what he wants. Ian **VK3BUF** deemed it appropriate use of club funds due to the interest within the club and suggested immediate purchase. Rob further reported that 70% of the infrastructure was there but it now needs maintenance and upgrade and also suggested that because there is interest within the club, was there any reason why it could not be monitored from the club? Members present agreed. Committee members present consented for Rob **VK3BRS** to purchase the exciters he wanted as soon as possible.

IRLP Mark **VK3PKT** reports it is now at Steve's **VK3EGD** and working and there has been no adverse report.

Meeting concluded at 9:00 pm.

Next General Meeting will be **Friday 11th April 2014**.

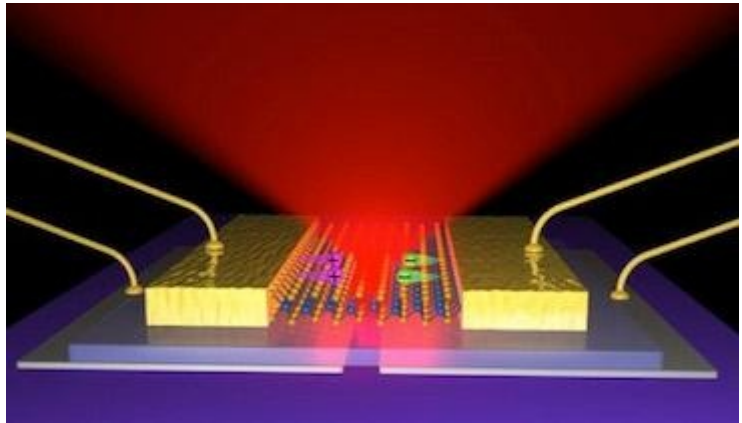
This evenings talk was a show and tell of constructed projects by members.

New LED technology 3 Atoms Thick

Researchers at the University of Washington (UW) have demonstrated electro-luminescence in a flexible, mechanically strong construct of the semiconductor tungsten selenide only three atoms thick.

The researchers harvested single sheets of tungsten selenide (WSe₂) using adhesive tape, a technique invented for the production of graphene. They used a support and dielectric layer of boron nitride on a base of silicon dioxide on silicon, to come up with the thinnest possible LED.

The LEDs now used in most consumer electronics are rigid and are hundreds to thousands of times as thick as the material being developed at UW -- which the team characterises as 1/10,000th the thickness of a human hair.



Existing inorganic LEDs are not appropriate for use in bendable, foldable applications such as electronic devices and displays integrated into clothing. Organic light-emitting diodes are the usual candidates for such applications, but the techniques being pioneered at UW can produce devices that are not only much thinner -- and stackable -- but also far more versatile.

"This system has the required ingredients for new types of optoelectronic device, such as spin- and valley-polarized light-emitting diodes, on-chip lasers, and two-dimensional electro-optic modulators," the team writes in the March 9 issue of *Nature Nanotechnology* (subscription required). "Our work makes it possible to make highly integrated and energy-efficient devices in areas such as lighting, optical communication, and nano lasers," UW said in a press release.

It is not clear whether this early research will lead to processes usable in applications such as general or automotive lighting, where high-power devices based on gallium nitride are established and rapidly evolving according to Haitz's Law, the solid-state lighting equivalent of Moore's Law. But the possibilities the research opens up for rapid, energy-efficient optical communications at the nano scale are tantalizing.

Source EEtimes

AGM of 19th April 2013

Location: Guide Hall Cranbourne.
Start Time: Meeting commenced at 8:00 pm
Chairperson: Albert VK3BQO
Minutes taken: Graeme VK3BXG.
Present: Members, as per April 2013 attendance sheet.
Apologies: As per April 2013 attendance sheet.

Correspondence in, as per April general meeting:-

- EMDRC news letter.
- Wansarc news e-mail Llink.
- Nerg news e-mail link.
- An E-mail from Ian Morris VK3IFM requesting use of VK3RDD 6mt repeater today for the OXFAM charity walk safety and logistics.
- Shire of Casey regarding a Social Media training evening on the 30th May. (Although not club specific, individual members may be interested.)

Correspondence out, as per April general meeting :-

- Email to Ian Morris from the committee agreeing to the use of VK3RDD OXFAM walk.

Treasurers Report given by Albert VK3BQO from information handed on by Ian VK3BUF.

- Balance in Bendigo investment account: \$9221.34
- Balance in Bendigo cheque account: \$2831.74
- Balance of Quick books cheque account: \$1979.16
- Difference \$852.58.

Yearly income was \$11,152.87. Expenses were \$5,693.00 with a net income of \$5,459.87. The books have been audited by Thomas Wilson, Accountants.

Moved accepted, Doug VK3KMN, seconded Leigh VK3FACB, all in favour, carried.

Annual General Meeting minutes of 20th April 2012 and as per Gateways April 2013; moved accepted Michael VK3GHM, seconded Doug VK3KMN, all in favour, carried.

Business from the Previous Minutes. None.

Nominations for the 2013 / 2014 proposed committee were:-

- For President, Bruno VK3BFT; self nominated seconded by Albert VK3BQO
- For Administration secretary, Graeme VK3BXG; self nominated seconded by Ivan VK3ARV
- For Treasurer, Ian VK3BUF; self nominated seconded by Ivan VK3ARV.
- For Committee, Mark VK3FSWP; self nominated seconded by Albert VK3BQO.
- For Committee, Wayne VK3ZWC; nominated by Albert VK3BQO, seconded by Leigh VK3FACB.

Because there was only one candidate nominated for each one position, moved that the nominations be accepted, Russ VK3MWR, seconded Albert VK3BQO, all in favour, carried.

Albert handed over the position of chairman to Bruno VK3BFT.

New Business:

From the floor, Noel VK3JJ requested that acknowledgement and a vote of thanks be given to Geoff VK3ZGW and to Albert VK3BQO for all their work and effort that has gone into maintaining the clubs 6 meter repeater and this should be printed in the magazine.

From the chair Noel was thanked for his thought and assured that this would be done.

The Annual General Meeting closed at 9:30 pm

Membership Dues

A reminder from the committee that all members must pay their yearly membership fee during the month of April. All members who are not financial will lose voting privileges and club shack access when the treasurer reconciles membership in the month of May, see the last page of the magazine for membership fee amounts and bank details if paying by EFT. The treasurer will also be taking cash payments at the AGM meeting this month.



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	Graeme Brown	VK3BXG	Web Master	Stephen Harding	VK3EGD
Treasurer	Ian Jackson	VK3BUF	Magazine Editor	Mark Clohesy	VK3PKT
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

Standard Member rate \$40.00 Junior Member rate \$25.00

Pension Member rate \$25.00 Extra Family Member \$20.00

- 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 or pockets@twistedsouls.com

All other Club correspondence to: 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

Facebook Page www.facebook.com/GippslandGate

The deadline for magazine items is the Tenth day of each month.

Commercial Advertising is \$10 full A4 Page or \$5 ½ A4 Page per edition

The opinions expressed do not necessarily reflect the official view of GGREC Inc

The Club cannot be held responsible for incorrect information published.