



GATEWAY

February 2010

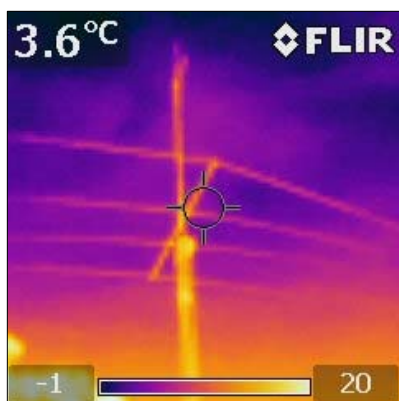
NEXT MEETING This Friday Feb 19 2010 at 8 pm

WHERE : Cranbourne Girl Guide Hall, Grant St off Sladen St.

SPEAKER:

TOPIC:

We do not have a speaker for the February meeting at this stage. If one becomes available we'll update members via email and the broadcast (16th Feb at 20.00). In the meantime we'll plan for a social evening in the hall and club rooms with coffee and cakes/biscuits. If any members have an interesting show and tell project or just want to ask for advice then come prepared – it will be a very informal evening following the General Meeting. We can set some tables up if you wish to demo a new radio or project. Please let Chris VK3QB know if you have. [any ideas or topics for the meet-](#)



This Month

IAN JACKSON

WRITES ON

THERMAL IMAGING

pages 9-11

Photo by Ian VK3BQO

GATEWAY MAGAZINE IS THE OFFICIAL JOURNAL OF THE GIPPSLAND GATE RADIO AND ELECTRONICS CLUB inc.

TWENTY OR SO QUESTIONS

1. Is it good if a vacuum really sucks?
2. Why is the third hand on a watch called the second hand?
3. If a word is misspelled in the dictionary, how would we ever know?
4. If Webster wrote the first dictionary, where did he find the words?
5. Why do we say something is out of whack? What is whack?
6. Why does "slow down" and "slow up" mean the same thing?
7. Why does "fat chance" and "slim chance" mean the same thing?
8. Why do tug boats 'push' their barges?
9. Why do we sing "Take me out to the ball game" when we are already there?
10. Why is it called "after dark" when it really is "after light"?
11. Doesn't "expecting the unexpected" make the unexpected expected?
12. Why are a "wise man" and a "wise guy" opposites?
13. Why do "overlook" and "oversee" mean opposite things?
14. Why is "phonics" not spelled the way it sounds?
15. If work is so terrific, why do they have to pay you to do it?
16. If all the world is a stage, where is the audience sitting?
17. If love is blind, why is lingerie so popular?
18. If you are cross-eyed and have dyslexia, can you read all right?
19. Why do you press harder on the buttons of a remote control when you know the batteries are dead?
20. Why do we put suits in garment bags and garments in a suitcase?
21. How come 'abbreviated' is such a long word?
22. Why do we wash bath towels? Aren't we clean when we use them?
23. Why doesn't glue stick to the inside of the bottle?
24. Why do they call it a TV 'set' when you only have one?
25. Christmas - What other time of the year do you sit in front of a dead tree and eat candy out of your socks?
26. Why do we drive on a parkway and park on a driveway?

A-Nony-Nony-Mus



Australia Day Barbie

Photos Paul Stubbs VK3TGX



GIPPSLAND GATE RADIO & ELECTRONICS CLUB

Club meetings are held on the third Friday of each month at the Cranbourne Girl Guide Hall in Grant Street. Prac nights are held on the first Friday night in the Peter Pavey clubrooms. Both nights commence at 8:00 PM. **Visitors will be made welcome.** Committee meetings are also held in the clubrooms.

President	Chris Chapman	VK3QB (9708 8320)
Secretary	Stephen Harding	VK3EGD (9791 3182)
Treasurer	Albert Hubbard	VK3BQO (5659 6562)
Committee Members: Max VK3TMK, Graeme VK3BXG,		

Magazine Editor : Susan Coleman VK3LOV
 Magazine Photographer : Paul VK3TGX www.paulstubbs.pozzie.net
 Magazine Printer : David Wright VK3FW
 Distribution Snail Mail : The Clifton Family VK3HGG
 Distribution Email : Albert Hubbard VK3BQO
 Club Station VK3BJA located in the clubrooms.

6M Repeater **VK3RDD** : Freq. In 52.575, out 53.575 MHz
 70cm Repeater **VK3RLP** Freq. In 434.475, out 439.475MHz
 CTCSS 123Hz IRLP Node Number- **6794** (Using **VK3RLP**)
Call in Frequencies : HF on 28.325 MHz, USB, VHF 145.450 MHz, FM
 and UHF on 438.850 MHz,

Visit our internet site at: www.ggrec.org.au
 Current GGREC Inc. Membership Fee Schedule
 Full Member \$37.00, Pensioner Member \$22.00
 Junior Member \$22.00, Extra Family Member \$17.00
 Fees due after each April Annual General Meeting.

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

Please direct magazine articles to:
 Susan Coleman email editor@ggrec.org.au

All other Club correspondence to P.O. Box 1098, Cranbourne 3977
 or Email : secretary@ggrec.org.au

Disclaimer. The opinions expressed in this publication do not necessarily reflect the official view of the GGREC Inc and the GGREC Inc cannot be held responsible for incorrect information published.

Incorporation Number A0016893M

From the president ... *Chris Chapman VK3QB*



Well, the New Year is definitely behind us now and I think I have finally got used to writing 2010.

I would like to begin this column with a special thank-you to everyone who participated in the Bunnings BBQ Stall on 30th January. It was a fun day, even if the feet were a bit sore by the end of the day.

Brian VK3BSN did a sterling job of bringing the event together and I think it's fair to say that it was a great success; we managed to generate some interest in the club from a few members of the public as well as

contributing to the club's financial position.

The Social Front

As reported elsewhere in the mag, a small but dedicated contingent of members went to Buggery in January – Mt Buggery, to operate in the Summer VHF/UHF Field Day, although it was probably better described as a general fun weekend away; camping, 4WDing and playing a bit of radio.

And those who attended the Australia Day BBQ reported that the day was very enjoyable.

I am aware of a number of members who will be travelling to Kyneton for the Centre Vic Hamfest on 14th February. Carpooling arrangements are working well, with a number of members planning to carpool on the day. If you are planning to visit Centre Vic and would like a lift, or can offer others a ride, pls put out a call on 145.450. Keep up-to-date with upcoming socials and operational events by visiting the club's website.

The WIA Centenary Celebrations and VK100WIA

By now everyone is well aware of the WIA's Centenary Celebrations and the club's plans to re-enact the first press messages between England and Australia.

Continued over

Cont'd from previous page

From the president ... *Chris Chapman VK3QB*

A sub-committee has been formed and will be managing the effort as the club plans and prepares for our contribution to this significant milestone. If you have any ideas or would like to participate please contact the committee.

On a more general note, when I think about the WIA centenary and amateur radio, I wonder why the hobby has maintained an attraction and interest for so many of us, given the competition from other interests, not to mention day-to-day activities. So before we get too far into 2010 I'd like to throw a challenge out to members.

Are you working on an interesting project?

Have you had an interesting operating experience? Learnt something new? The club is always looking for people to contribute to General Meeting presentations, club events or member projects – or even just meeting at the club rooms to help another member or participate in a shared project. Please see a committee member if you have some ideas.

Lastly, DX on the HF bands is definitely improving. If you've packed the HF gear away, now is the time to dust it off and investigate ways to get your wire higher in the air. Recent reports from various sources indicate some good openings and interesting DX on bands that have perhaps not been quite so exciting of recent times.

If anyone needs a hand getting their station or antenna back in working order, or maybe just some guidance in operating procedures or how to find the DX, put out a call or ask at the next club meeting. It only takes an offer of a coffee or beer and I am certain you'll have willing volunteers to help out.

That's it from me for now.

As always, please refer to the Club's website for the most up-to-date calendar of events and news.

Til next month, vry 73 /Chris VK3QB -...- -.- . . .

Photo by Paul Stubbs VK3TGX



GGREC GOES TO BUGGERY

Saturday 16th & 17th Jan– VHF-UHF Summer Field Day – the club went to Buggery – Mt Buggery in fact.



*Tea
Biscuit
on
Bug-
gery
with
you
know
who.*

By Chris Chapman VK3QB

Three members made their way to Mt Buggery on Saturday 16th January morning. Chris, Albert & Phil, VK3s QB, BQO and YB left Cranbourne about 11am and enjoyed a very pleasant drive up the highway to Yarra Glen for lunch and then a short drive through the forest to the base of Mt Buggery.

A potential camp site was located and then the trio continued their journey up to the summit of Mt Buggery. About 20 mins later and short gathering at the final run-up to the top suggested that it would be a 4WD only venture, but I, 3QB felt that an effort in getting the camper to the top was warranted – however, even with the diff lock in place I found myself firmly stuck and unable to proceed further up or retreat back down the hill. Thankfully, Albert 3BQO took great pleasure in digging out his rescue gear to get my camper into the clear. It's understood Phil got some good photos of this "driving error of judgement" which will be published *Cont'd page 12*

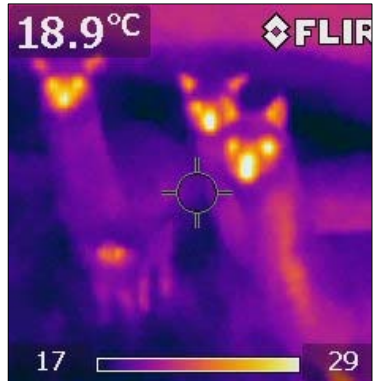
THIS IS NOT A TOY...(Although it could be)

Close encounters with thermal imaging by Ian Jackson, VK3BUF

From the time in the late 80's when the movie *Predator* was unleashed on the public with Schwarzenegger's catch phrase 'if it bleeds, we can kill it!', I have been intrigued by the concept of Thermal Imaging and how useful it could be in the workshop.

A couple of years ago I checked out the price of such instruments and found the price of around \$10,000+ somewhat daunting. There have been many new developments in this area and this year I learned of the availability of the Flir i5 unit for less than half this price. So I took the plunge and I am pleased to say it is as good or better than I thought it would be.

It is a hand-held unit that has a lens facing away from the screen, as though one was looking at the world through the broad side of a lollypop. There are a couple of different colour schemes, including grayscale to help show high contrast between small temperature gradients.



In the centre there is a small circle and if you can fill that circle with a colour/temperature area, the top-left of the screen gives a pretty accurate digital temperature reading. Resolution on this unit is 80 x 80 pixels, which doesn't sound like much, but it is surprisingly effective. The viewing angle is quite narrow, making it good for close electrical work. Other units I checked out had higher resolution, but the viewing angle was also wider, giving no advantage on viewing specific objects. It has auto-scaling temperature gradients to allow the best possible view of dissimilar objects. When a trigger button is pressed, a jpg image is captured to an SD ram chip for later analysis.

So, I turn the unit on and I get a view of the world based entirely upon temperature gradients. This means that a handprint on a hard surface will show up for several minutes. I can point it at our water tank from some distance away and 'see' the present water level because of a 1° difference

in temperature between the air and water inside.

I have been fiddling with the assembly of motor control circuit boards for many years now. And the idea of picking out a lazy Mosfet or hot resistor was quite appealing. This unit will easily show a high level of thermal detail. In the page one image the hot spot in the lower centre is a 78L05 voltage regulator sitting quite happy at about 42°.

One thing that surprised me is how effective it will operate at a distance. At night I can

pan the unit across the paddocks and pick the location of all the cattle and horses in the valley almost a kilometre away as moving, glowing dots of light. The Alpacas are a bit harder to see as they disguise their heat signature in a woolly layer of insulation, that is of course until they look at you!

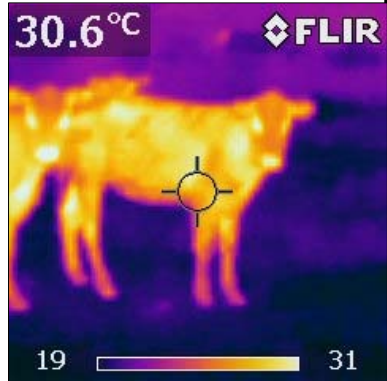
Quickly the applications become apparent well beyond circuit boards and relay contacts. In automotive use a hot wheel bearing becomes vividly apparent, as does a poorly fitted battery terminal. Car exhaust leaks are revealed as a jet of hot gas. In amateur radio, an overheating antenna balun will glow on the tower. A plume of hot or cold air quickly reveals gaps in insulation and door seals. I have also heard that termites nesting in wall cavities will have a unique thermal signature that is in temperature between the air and water inside.

The unit comes with analytical software which allows for more detailed assessment after the image is captured.

Think of it as 6400 temperature readings that are stored as a matrix when the button is pressed.

You can even export the image to an Excel spreadsheet with 80x80 cells filled with temperature readings.

Cont'd over



Di, VK3 JDI doing a crossword, noone is safe

THIS IS NOT A TOY *continued from previous page*

There has always been a gap in my toolbox for a good method of picking out temperature without sizzling my fingerprints on diodes, but not everyone will need one for their work. Clearly, some won't need it at all. Just the other day I saw two blokes watching a girl cross a road and I overheard one say to the other, 'Yep, *she's hot!*' And neither of them were carrying any test equipment at all!
Ian VK3BUF

Highlights of this month's QST Magazine

- ⇒ An SWR 'null meter' promises a fast, accurate and essentially interference free way to optimize HF and 6 meters.
- ⇒ Mechanical keys can still make some beautiful Morse code.
- ⇒ The Curtain Zepp -- a bidirectional antenna for 160, 80 and 40 meters promises good sound, good DX and good fun on the low bands.
- ⇒ Pickle with USB I/O - don't get lost when it comes to using PIC microcontrollers.
- ⇒ Why not give AM a try - before SSB, AM ruled the amateur airwaves.
- ⇒ A fan controller for the MFJ-4125 power supply - this compact device claims to keep your power supply quiet and cool.
- ⇒ A *Parasitic* Lindenblad antenna for 70 cm - this lightweight, portable antenna is aimed at satellite QSOs

At the January GM Chris shows off "The Cut" More opposite.





A picture of health - now, but he gave us a talk about his run-

in with kidney disease. Chris required a kidney transplant, or faced 3 visits a week for dialysis. Two million Australians have undiagnosed kidney disease according to Kidney Health Australia.

Pat VK3OZ put up a bottle of

Penfolds wine for a raffle for the Haiti earthquake. Well I actually bought the ticket, however Marianna looks better!



[Words and photos by Paul Stubbs VK3TGX]



Contd from page 7 **GGREC GOES TO BUGGERY**
in the next magazine.

The group then proceeded to the top and setup stations for 2mtrs, 70 and 23cm and spent the subsequent 4 hours working a number of stations and generally having a very relaxing afternoon playing radio and enjoying the outdoors.

By 7.30pm the stations were packed up. The team made their way back down to the camp site, erected a long wire for some HF work in the evening and got the BBQ fired up.

All in all, a thoroughly enjoyable weekend which was tied up on Sunday morning with a leisurely breakfast and a bit of 4WDing.

The troop left Mt Buggery shortly after midday for the 2 ½ hour journey back home. As soon as the log is ready we'll report our claimed score. *Chris VK3QB*



I attempt to get the camper up Mt Buggery (it's steeper than it looks)

WE CELEBRATE 100 YEARS OF ORGANISED HAM IN AUSTRALIA!!

The very start of organised amateur radio in Australia was during 1910. Recognition of this has also helped to focus renewed attention on the early history of amateur radio in this country. Prior to the Wireless Telegraphy Act of 1905 there was no real regulatory control of the radio spectrum. Conflict between the commercial and amateur use of the spectrum was evident. Licensed operation began in 1905.

Within five years experimenters needed to get organised for their very survival. The experimenters felt they were getting harsh treatment by authorities in respect to interference investigations and also the requirement to pay a three guineas (equivalent to \$1200 in today's money) licence fee. On 11 March, 1910, a meeting of like-minded people in Sydney, proposed "the formation of an institution amongst experimenters and enthusiasts in wireless for their mutual benefit." A similar organisation was formed in Melbourne - the Amateur Wireless Society of Victoria, on 30 November 1911 at a meeting attended by 50 enthusiasts.

GGREC's role is in Chris' Column on pages 5-6 [Edited from the WIA website]

Event Queue

Upcoming Events

Thu	Feb	11th	8:00pm	Morsecodeians	Club Shack
Tue	Feb	16th	8:00pm	GGREC Broadcast	145.450 & 3.670+QRM
Fri	Feb	19th	8:00pm	General Meeting	Guide Hall
Mon	Feb	22nd	8:00pm	Committee Meeting	Club Shack
Fri	Mar	19th	8:00pm	General Meeting	Guide Hall
Sun	Mar	28th	2:00pm	Visit to Aeronautical Museum	Essenden Airport
Mon	Mar	29th	8:00pm	Committee Meeting	Club Shack
Fri	Apr	16th	8:00pm	Annual General Meeting	Guide Hall
Tue	Apr	27th		Murray River Paddle for Kidneys	Murray River 27 April – 3 May
Wed	Jun	16th		WIA Centenary Event	Koo Wee Rup - June 16-18
Sat	Jul	17th	10:00am	GGREC Hamfest	Cranbourne Public Hall
Sat	Aug	21st		ILLW at Wilsons Prom	Wilsons Prom Lighthouse

RETIREMENT HOME TEST

During a visit to the retirement home, I asked the director, 'how do you determine whether or not a person should be institutionalized?'

'Well,' said the Director, ' we fill up a bathtub, and then we offer a tea-spoon, a teacup and a bucket to the patient and ask him or her to empty the bathtub.'

'Oh, I understand,' I said. 'A normal person would use the bucket because it's bigger than the spoon or the teacup.'

'No.' said the Director, 'A normal person would pull the plug. Do you want a bed near the window?'

ARE YOU GOING TO PASS THIS ON, OR DO YOU WANT THE BED NEXT TO MINE?

A-nony-nony-mus

cont'd from page opposite **GENERAL MEETING MINUTES JANUARY 2010**

New business :

VHF/UHF field day - three participants.

OSL Cards - ODXG cards shown around and pricing given for 2,000 cards.

Name Badges - \$13 each, orders to Albert

AR Magazine - Russ advised he has year batches of mags available for a \$1 donation to the club.

I2E - Progressing. Next meeting on Tuesday night.

Aust Day BBQ - 26th January - BYO meat and drinks. Timing is 11am for 12pm.

Social Queue - Brian suggested the Aeronautical Museum. After discussion a date of Saturday 20th March was set. Final numbers to Brian by the close of the February general meeting. 12 hands showed interest. It was suggested that the Casey minibus be used. Brian asked about event frequency. **Consensus:** that social events be held on two monthly frequency.

Bunnings BBQ - Saturday 30 January - Chris spoke on possibilities for advertising, promotion and fundraising. Brian gave timings. Three food handlers available. Pat, Naree and Megan. There will be cold drinks for sale.

Future Activities - Russ suggested Point Cook Air Museum.

Haiti - Pat outlined an appeal. \$1 for tickets for a bottle of wine. A raffle was held to raise funds for the appeal.

Central Victoria Hamfest - 14 February. Use 145.450MHz for co-ordination for those travelling.

Meeting closed : 9:01 pm.

Next Committee Meeting : Monday 27th January 2010 (moved from 25th)

Next Prac Night : Friday 5th February **General Meeting** : Friday 19th Feb

GENERAL MEETING MINUTES JANUARY 2010

Date : 15 Jan 2010

Start time : 8:04 pm.

Location : Guide Hall.

Chairperson : Chris VK3QB

Minute taker : Steve VK3EGD

Guest Speaker: Chris VK3QB on Kidney Disease.

Present : Attendance sheet

Visitors and guests : nil

Apologies : Phil VK3YB, Ron VK3EXJ, Geoff VK3ZGW Grahame VK3XK, Maria.

Correspondence received : listed and tabled

Correspondence sent : listed and tabled

Treasurer's report :

Read : Albert VK3BQO Moved : Max VK3TMK Seconded : Reg VK3UK Carried.

Income : \$1203.00 Expenditure : \$535.92 Balance : \$667.08 Total : \$6699.95

New Call signs : nil

Previous Minutes :

Read : by Steve VK3EGD Moved : Michael VK3GHM Seconded : Helmut VK3DHI

Approved .

Business arising from the previous minutes :

QSL Cards - A bunch came in over the break and are tabled.

ILLW - Brian spoke on changed accommodation costs and reasons for it. Accommodation is \$50 more than previously advised because DSE has booked the cheap beds ahead of us. ILLW email group will be set up.

VK100WIA - Chris outlined history of the proposed Club activity. Mike spoke about initial idea. Chris outlined activity so far and proposed that the Club proceed with this activity. **Consensus:** to proceed. Those interested were Graeme, Mike (Friday only), Michael, Max, Glenn. Glenn offered details of the Township Committee and suggested contacting them.

Event Queue - Chris asked for any ideas.

Call Books - [100] year old books for \$23 to Club Members.

HRIF - Chris asked for feedback on the cards. Graeme suggested back to be blank . The HRIF site is now up and running. Chris suggested an email to AR magazine.

Club rules - Steve gave update on progress.

Cont'd opposite