



GATEWAY

February 2009

NEXT MEETING Friday February 20 2009 at 8 pm

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

SPEAKER : Albert Hubbard “ My home-brew rotator controller ”



From the kitchen, Hal VK3FTEN, and Ross VK3ZAP, watch the south fire 800 metres away . The west fire was just 300m. *See p10*

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

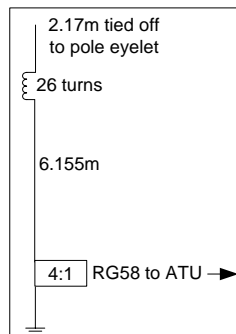
The 'Willie' pole by 4W6 AAD

Well it started out as a good idea, to build a vertical antenna which was easy to erect and easy to transport by passenger jet for my HF activities in East Timor. The squid pole seemed to offer the best answer, so up to the local fishing tackle shop and bought the longest one they had which was a 20 footer. Obviously old stock by its 'calibration' or maybe just from the US. I found an article in Jan/Feb 08 AR for a $\frac{1}{4}$ wave squid pole for various bands and decided to construct it and see how it went. For 20m they say just a piece of wire cut to the prescribed length, so I jumped straight to the 40m and 80m coil winding tasks described in the article.

Mmm...talking about microhenries, better build an inductance story teller device I guess. So

first up an inductance bridge was built so I could measure the coils when wound.

Then next the 80m coil. Mmm....nothing to run a thread with onto the former as per the article...ah, some wire Noel (VK3CJJ) gave me will do as its got a cloth cover over it ... looks like 1.0mm ecw, close enough for government work. I'll go 80 turns, 3 more than required by the article and then I'll 'tune' it.



After much playing, no joy. Not to be dissuaded, try the 40m coil. Haven't got any 32mm conduit as suggested, but got plenty of 50mm pvc from the pool solar heater left over, that'll do. Try 27 turns, 5 more than suggested. After removing 1 turn, bingo, measures around the 20 something microhenries on the new bridge. Now to cut the wires to the right length, run everything up the squid pole and do some testing. I used normal light stranded hook-up wire. Well much playing with top wire lengths, feed point connections, baluns, and Susie asking if I'd caught anything yet, 40m was a lame duck big time. Not even close to a tune. *Cont'd opposite*

Couldn't even get an idea using the 706's VFO as to what band it liked let alone a frequency.

Also the shack was fair filling up with RF when I used the antenna, so nothing lost, try the 4:1 balun. OK....40m better, but couldn't get it below 2:1 by trimming the top wire.

Try 20m. Something wrong here.....showing 1.3:1 from 14.00 to 14.35. Checked the forward power then the reflected, yep, looks like it's poking the power up the pole all right. A couple of tests with some GGREC members that night confirmed it was getting out, but with the band dead, no real test was achieved.



November's meeting, Phil (VK3YB) brought along some squid poles of varying sizes for sale at a really good price, and as I already had over 8 metres of antenna hardware to hang on just a 20 footer, I bought one of his 9 metre ones and readied it for the trip to East Timor along with enough stuff to build a dipole for 20m, and the bits of my '40m no good but 20 ok' antenna. I would spend my off time playing around with the gear and see what happens.

On arrival, I scrounged a piece of 65mm pvc conduit about 600mm long. The base of the squid pole fitted nicely with the slack taken out with another small piece of conduit about 12mm wedged inside. Cutting one end at an angle to facilitate its entry into the ground when stuck several times with an improvised hammer, I also drilled several holes at this end and threaded a stripped piece of electrical earth wire bringing the other end up inside the conduit to form the earth connection to the balun.

To say I'm surprised at the results is certainly the case. To date, on 20m with the band very much up and down, I've worked VK3 at Rose-dale in Victoria 5/7, a VK6 in Perth at 5/9, DU9/G4UNL at Mindinow in The Philippines at 5/8, and our own VK3 BQO for a very brief moment at 5/5. On 40m, a VK2 between Sydney and Canberra at 5/7.

Across the bands the VSWR is not too shabby. On 160m, whilst the AT-7000 tuner will tune it, the VSWR is still around 7:1. *Cont'd page 13*

GIPPSLAND GATE RADIO & ELECTRONICS CLUB

Club meetings are held on the third Friday of each month at the Cranbourne GirlGuide 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	Ian Jackson	VK3BUF (5625 2545)
Secretary	Phil Pavey	VK3YB (5995 7484)
Treasurer	Albert Hubbard	VK3BQO (5659 6562)

Committee Members: Max VK3TMK, Graeme VK3BXG,

Magazine Editor : Susan Coleman VK3FXXX

Magazine Photographer : Paul Stubbs VK3TGX

Magazine Printer : David Wright VK3 FW

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 articles 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 ... *Ian Jackson VK3BUF*

One way of defining people into two categories is the way in which they deal with difficulties. There are those who see problems as something to be endured until they can pay or persuade someone else to make the issue go away. Then there are the people who see problems as a challenge and receive satisfaction from achievement. People can be both of these types at different times, but I like to think that those who embrace Amateur Radio as a hobby as champions of the latter category. To construct a circuit, build an antenna (or write a program) is to deliberately invite problems into ones life. The act of overcoming these problems and completing a project is where the satisfaction lies.

The results of the recent Club survey have confirmed this notion, with a high number of Club members wanting to get into technical training and construction activities. The first project to be embraced for the year is the Antenna Analyser kit as was succinctly described by Geoff VK3ZGW at the last meeting.

Actually, this device is poorly named as an 'Antenna Analyser', because it is much, much more. With one of these gadgets you can test the quality, or losses in a coax cable. You can test baluns, toroids and traps. It will also measure fixed components for inductance, capacitance and impedance. In fact, if it's RF that you wish to play with, then this is the all-purpose tool for the job. The Club will be organizing a once-only buy-in of these kits from South Australia. The last time we I checked it was \$135.00 for the kit. In some ways it is more than just a kit, it is a way to break through technical barriers and examine components with a new depth and perspective. Apart from the construction and alignment of these units, there will be a string of tutorial sessions showing how they may be used in different ways.

If you want to be a part of this program, you will need to bring a \$50 deposit to the general meeting night on the 20th of this month (Feb). Albert VK3BQO, our Treasurer will be taking orders **on this night only**, then organizing the purchase with the supplier a short time later.

Also on this night, Albert will be giving a demonstration of a software-based antenna rotator controller that he has built using an AVR microprocessor. I only saw this one during an earlier development phase, but even then it was a spectacular little system to see in action. There was a bit of drama last month when half of the reflector element of the Club's Log Periodic antenna broke off and looked a bit sad. (actually Albert first noticed the problem from



From the president cont'd

inside the Club shack when his antenna analyser reported anomalies in performance at the bottom end of the antenna tuning range) Thanks go to Doug VK3KMN and Ivan VK3ARV for securing and repairing the antenna.

On another front, the Club's 6 metre repeater at the water tank near Cockatoo has been playing up. It could be cavity filters, but we're not sure yet. We have made a couple of attempts at visiting the site with a bucket of test gear to check it out, but on each occasion have been thwarted by 40° or higher temperatures. Not only is it unpleasant to work under these conditions, cavity filters re-aligned at these extremes are likely to play up when colder temperatures return. Hopefully we will get up there real soon.

If you have not already done so, put aside the Labor Day weekend for a camping trip. We are looking at a couple of venues that are 2wd accessible for tents or small caravans within a few hours drive of Cranbourne. There will be more details coming up on this very soon.

Around about this time each year for many years now, various Club presidents use their editorial space to say that the Club Committee elections are coming up in a few months and that members should think about who to select for the following year. This year is no exception. I am working in a couple of businesses at present and this is unlikely to improve for some time, so I shall not be standing for the 2009-2010 committee. It is not fair to the Club to give less time than the position needs, so if you think you have something to contribute, cast your hat into the ring. You may find yourself both president and sunburned at the same time.

Cheers, *Ian VK3BUF*

Scholarships aimed at radio amateurs like Ross

Foundation for Amateur Radio is still accepting applications for 48 scholarships for the academic year 2009-2010 to assist radio amateurs pursuing higher education. FAR fully funds two scholarships and administers 46 others without cost, on behalf of various club and individual donors. Amateur Radio licensees pursuing a full-time course of study beyond high school and accepted by or enrolled in an accredited university, college or technical school are eligible to apply. Scholarship grants range from \$500 to \$5000, and preference in some cases goes to applicants living in particular geographical areas or pursuing certain studies. [Non-US residents are eligible to apply for some of the scholarships.](#) FAR encourages clubs - -- to publicise these opportunities. An application form may be requested by letter via [e-mail](#) or by sending a QSL card postmarked prior to March 30, 2009, to FAR Scholarships, PO Box 831, Riverdale, MD 20738. USA.. deadline is May 1, 2009. Headquartered in Washington, DC, FAR consists of more than 75 area Amateur Radio Clubs. FAR is devoted to promoting the interests of Amateur Radio and those scientific, literary and educational pursuits that advance the purposes of the Amateur Radio Service.

AN OPEN LETTER TO GGREC

It was passed by the 2007-2008 committee that a plaque would be made in memory of Colin Bishop VK3HR.

The cost was to be \$75-80 for the gold lettering. The plaque was to show all committee members, silent keys and life members from when the club was founded in 1977 to the present day.

I went ahead, got a board and put the gold lines on it. After waiting several months for the company to make the gold letters for me to mount on the board, I was told that their machine was broken, so I found a new company, and was told that the cost of the lettering would be an extra \$84. I asked the club treasurer to put it to the committee for me to go ahead with the gold lettering.

At the January general meeting, we were told the committee had decided not to go ahead with the plaque as they thought it would be better to put something on the club computer - instead of having a Colin Bishop Memorial Plaque.

The general meeting was not asked to vote on this decision.

My questions are how many members turn on the club computer in the shack, and, why was it not put to the general meeting to vote on.



Reg Goddard VK3UK

Photo by Paul Stubbs

Three Men on a Hike

Three men were hiking through a forest when they came upon a large raging, violent river. Needing to get to the other side, the first man prayed:

'God, please give me the strength to cross the river.'

Poof! .. God gave him big arms and strong legs and he was able to swim across in about 2 hours, having almost drowned twice.

After witnessing that, the second man prayed: 'God, please give me strength and the tools to cross the river'

Poof! .. God gave him a rowboat and strong arms and strong legs and he was able to row across in about an hour after almost capsizing once.

Seeing what happened to the first two men, the third man prayed: 'God, please give me the strength, the tools and the intelligence to cross the river'

Poof! .. He was turned into a woman. She checked the map, hiked one hundred yards upstream and walked across the bridge.

MOTTO

If at first you don't succeed, do it the way your wife told you!

ANTENNA ANALYSER PROJECT

Want to be a part of the Club's program to build an Antenna Analyser from a kit and learn how to use it? Here is your chance!.

The kit price is \$135 (to be confirmed with the supplier) and we will be taking a \$50 deposit from members who want one AT THE FEB GENERAL MEETING NIGHT ONLY. Our Treasurer, Albert VK3BQO will be more than happy to take your deposit money from you on the night. We will be ordering them a short time later, so you only have the one chance to come aboard with the bulk purchase.

JANUARY TOPIC Geoff Williams VK3ZGW
"Building and Operating an Aerial Analyser"
Photos by Paul Stubbs VK3TGX



SATURDAY AT DROUIN WEST, AND A CLOSE SHAVE
“Yes it was a bit close. We had always planned on staying put. There were a couple of factors in our favour. We have no trees close to the house, we cleaned out all the gutters, cut all the grass low and had a good supply of town water on hand. The fire station is only 200 metres away and this was a busy staging post. However, the fire did burn right up to the fire station and damaged a friend’s house



"We thought that their house had come clear when it

was stopped at the eaves and we went around there Sunday morning for a cup of tea. But Sunday afternoon they found that a fire had been cooking in their ceil-



ing and was eating its way down walls, even while we were there!

"The firemen were still on hand and they doused it again. "

GGREC BARBY AUSTRALIA DAY hmmm love those savouries!!!!



Cont'd from page 3 **The 'Willie' pole by 4W6 AAD**

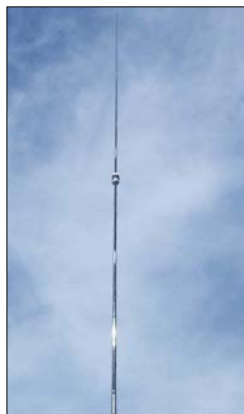
Some of the other bands, 80m = 3.5:1, 40m = 2.1 – 2.7:1, 30m = 3.4:1, 20m = 1.3:1, 17m = 1.9:1, 15m = 2.3:1, 12m = 2.1:1, 10m = 1.9:1, and 6m = 1.1 – 1.35:1 across the band.

Some more finessing needed now, but as we are discussing the possibility of a club project to build the antenna analyser kits from SCARC, I'm keen to use the analyser in an attempt to understand what I have created, All I know it works, so I'm not complaining.

Some more playing has been done in recent times with the aid of the Antenna Analyser. The wire lengths have altered to 1.88 metres and 6.038 metres which improves some of the 40 metre performance. Still a work in progress.



Feed Point



Coil

Geoff Williams VK3ZGW

FROM THE EDITOR

After making a tidy sum from auctioning 2-letter call signs very recently, the WIA is set to clean up again, this time with massive increases in exam fees. Fees are almost double what they were. Spare a thought for the amateurs who sit up to seven times, to my knowledge, before succeeding! It does not exactly encourage persistence, does it. Susan VK3FXXX

Photos opposite by Gateway Photographer Paul Stubbs VK3TGX

GGREC EVENT QUEUE

Feb 20	3rd Friday General Meeting Talk from Albert on his Home Brew rotator control project
Feb 23	Committee meeting at Club Shack
March 6	1st Friday Club Shack 'Prac' night
March 7-8-9	Labor day camping trip Sat/Sun/Mon
March 20	3rd Friday General Meeting
March 30	Committee meeting at Club Shack

Cont'd from opposite **GENERAL MEETING MINUTES JANUARY 2009**

General Business :

- * Reg : list of past presidents + vice presidents or secretaries. Probably unwise to include all past committee members. An electronic option may surface.
- * WIA cost of conducting exams is going up. B.67 including GST. Committee to send letter to ~~WIA~~ ~~WIA~~ ~~WIA~~. Jeff JW suggested money back for successful candidates.
- * Noree: Congratulates Susan on magazine presentation
- * Australia Day BBQ Mon 26TH 10am on BYO food + chairs
- * Antenna broken on tower. Do Not use the antenna until it is fixed. Working Bee Sat 14TH Feb 9.30am. Doug to sort out antenna before then.
- * Labor Day Weekend: 9TH March. Rubicon or Doone reserve. Yanna Junction. Generdy decided to do bush camp.

GENERAL MEETING MINUTES JANUARY 2009

Date: 16th January 2009

Start time: 08:00 PM.

Location: Guide Hall Cranbourne.

Chairperson: Ian Jackson VK3BUF

Minute Taker: Dianne Jackson VK3JDI

Present: See Attendance Sheet

Apologies: NJB Barry FLZ Elizabeth EXJ Ben Jody
 EGD Steve + Maria ZAP Ross XK Graeme Herri F.
 Morae FSAT

Correspondence Received:

Treasurers Report (Tabled)

Read by: Moved: BSO Seconded: Doug KMN Carried YES

Income: \$ Expenditure: \$ Balance: \$

Previous Minutes (Circulated)

Read by: Moved: BUF Seconded: Morae Carried Yes

New Callsigns: Brian BSN

Business Arising from Previous Minutes:

* Thank You to Graeme BXG for hosting
 xmas do

* Russell: xmas hamper delighted. shared with family

* Survey: results best to be finalised

So far most people happy with the
 way things are already being done.

* 6 Meter repeater: has been playing up. Spiders
 found in repeater cabinet.

More work needs to be done
 to get it fully operational again.

Next Committee Meeting: Monday Feb 23.

Next Prac Night: Friday March 6th 2009

Next General Meeting : February 20th 2009.

GGREC
PO BOX 1098
CRANBOURNE
3977