GATEWAY

January 2008

NEXT MEETING January 18 at 8 p.m.

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

TOPIC : **MAKING AND USING KITE AERIALS**

SPEAKER : Jack Bramham VK3WWW is a member of EMDRC and is well known for his DXpeditions to out of the way places and Fox Hunting skills. Jack has been invited to speak at the GGREC January GM about another of his passions - Kite Antennas.

Those with broadband access might like to have a preview of Jack's exploits by viewing his two part video on Kite Antennas on YouTube. Just type VK3WWW in the search pane and select the Kite antenna video.

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

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 ar held on the first Friday night in the Club-rooms. Both nights commence at 8:00 PM. **Visitors will be made most welcome.** Committee meetings are also held in the club-rooms.

President	Bruno Tonizzo	VK3BFT (9700 4526)
Secretary	Phil Pavey	VK3YB (5995 7484)
Treasurer	Albert Hubbard	VK3BQO (5659 6562)

Committee Members: Reg VK3UK, Max VK3, Pat VK3OZ, Mike VK3KTO

Magazine Editor: Susan VK3FXXX
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 are: HF on 28.325 MHz, USB VHF on 146.225 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 TWELVE DAYS before each General meeting.

Please direct magazine correspondence 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

Incorporation Number A0016893M

From the president … *Bruno Tonizzo VK3BFT*

I hope everyone has had a Merry Christmas and Happy New year.

Talking to, or listening to GGREC on the radio

Most of the local GGREC chat can be found on the 2 metre band on 146.225 MHz simplex. Here, you can listen or join into to the general Club chat about every topic known to man/woman kind. Don't be shy, we are happy to talk to anyone that wants to say "Hello".

If you are out of range you might like to try our Club's own 70 cm repeater VK3RLP on 439.475 MHz, 434.4475 MHz input. This repeater will need a sub audible tone of 123 Hz to access and

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For Your Information

<> New 2008 call books are available for $22. Contact Albert VK3BQO at the meeting.
<> Bowling night is Saturday February 23
<> Next Fox Hunt is April 19 (Albert VK3BQO)
<> Shack Tours for foundation licensees organised by Mike Ide on Saturdays starting late February 2pm—5pm followed by a byo everything barbecue
<> TBA Joint camping trip with Eastern Mountain District Radio Club, EMDRC, Cup Weekend [November 1-4, 2008]

FROM THE EDITOR

For my first issue I would like to thank especially Bruno VK3BFT, Russ VK3MWR, Phil VK3YB, Mike VK3KTO, Ross VK3ZAP, and last but by no means least my long suffering technical advisor Grahame VK3YCG.

By Phil Pavey

The Field Day Contest

On Saturday 20th of November a group of members had a fantastic time operating as VK3BJA in the VHF/UHF field day contest. We operated from Albert VK3BQO's QTH. Full time participants were Albert VK3BQO, Pat VK3OZ, Bruno VK3BFT, Kerri-May VK3FDSD, Ivan VK3ARV, Doug VK3KMN, Helmut VK3DHI and Phil VK3YB. Dropping in on the day were VK3ZGW, Dave VK3XMF and Ian VK3BUF.

Now the contest is a 24 hour VHF/UHF contest for portable stations, and home stations can also participate. There is an 8 hour category for portable stations that we participated in. All equipment was transported to Albert's QTH on the day including batteries.

Helmut provided the 2m SSB station with mast and beam. Bruno brought along his 6m rig and I provided an aluminium dipole, squid pole and the stand from my wife's outside umbrella to complete the 6m station. When the smoke escaped Pat VK3OZ provided a replacement

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Upcoming Events

JANUARY 2008	
Fri 4th Jan 2008	FYI only: No official Prac night in Jan'08
Sat 26th Jan 2008	Australia Day at the Peter Pavey GGREC Clubrooms. Activating AX3BJA. 10:00 AM start.
TBA	Tower Antenna Pole Replacement
TBA	Antenna making Weekend
FEBRUARY	
10th Feb 2008	Central Victorian Hamfest Visit: www.radiofest.amateurradio.com.au
16th & 17th Feb 2008	Foundation Training Course & Exam
23rd Feb 2008	Bowling afternoon in Cranbourne 3:00 PM Dinner at Kelly's Pub – Bookings essential see Reg.
MARCH	
1st March 2008	Shack visit at the home of Mike & Naree` Ide BYO BBQ dinner
8th-10th March	Labour Weekend Camping holiday (TBA)
30th March 2008	Bike Ride (TBA)
APRIL	AGM 18th April
19th April 2008	Fox Hunt (TBC)
MAY	
JUNE	
JULY	GGREC HAMFEST 19th July
August	
Sat 16th and Sun 17th Aug.	Remembrance Day Contest 2008

Committee Meetings – Last Monday of the Month.
TBA – To Be Announced. *TBC* – To Be Confirmed.

(Continued from page 4) **FIELD DAY**

rig for 6m. 70cm was set up by Ivan & Doug and for 1.2ghz I brought along my FT817, transverter and home made beam.

We made QSO's on all bands, and the general consensus was we should certainly do this again. I think highlights included Bruno's VK4 QSO's on 6m and the fact that we did get some 1.2ghz qso's with 3 watts into the small beam.

Everyone had fun trying to find the "fox" that Ian brought along.

Phil Pavey

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Talking To, or Listening To GGREC on the radio

you might need to point your 70 cm beam towards Cranbourne to get a good signal if you are located some distance from it. This repeater is also connected to the world via IRLP – Node number 6794.

For the more adventurous of you, there is our own 6 metre repeater VK3RDD on 53.575 MHz, 52.575 MHz input. At this time of year you can go a long way on 6 metres. Those of you that came to the VHF / UHF field day witnessed good 5/9 simplex contacts to country Queensland on this "magic band".
When travelling to the more remote parts of Australia or overseas, the HF bands are used extensively. HF frequencies and contact times are usually nominated by the person taking the trip. Bands used are 80m, 40m & 20m, with IRLP Echolink or Skype (where available) used as a backup. So there you have it. Tune around and try your luck, you never know who will be there to talk to. *Bruno Tonizzo*

From the Australian Ladies' Amateur Radio Association.

At November's ALARA luncheon we realised that the next scheduled lunch would fall on January's long weekend (based on our criteria of holding lunch on the last weekend of every second month). Hence we decided to push the date back 1 week. Hence, please pencil in Saturday 2nd February for the next Alara lunch. Details will follow early in the New Year *Pat Pavey*

Where's your NAME TAG???

If you wonder why everyone calls you mate when your name is Sam or if the girls always call you love or darling, maybe it is because they can't remember your name !!!
Don't be anonymous….We have CLUB badges waiting to be picked up for:

TIM	VK3FTDM	GEOFF	VK3ZGW
MAREE	VK3FSAT	BRETT	VK3ZBN
HENRY	VK3FHTV	GEOFF	VK3HGG
DAVID	VK3BJV		

See Bruno VK3BFT at the next Club meeting to collect it

From Russ VK3MWR

A thief in Paris planned to steal some paintings from the Louvre.
After careful planning, he got past security, stole the paintings and made it safely to his van.
However, he was captured only two blocks away when his van ran out of gas.
When asked how he could mastermind such a crime and then make such an obvious error, he replied,
'Monsieur, that is the reason I stole the paintings. I had no Monet to buy Degas to make the Van Gogh.'
(And you thought I didn't have De Gaulle to send this on to someone else.)
I figure I had nothing Toulouse.

The Guru Say

Aerial made from beer cans not to be confused with Beverage Antenna . VK3KTO

Just for Laughs….

Saturday morning I got up early, put on my long-johns, dressed quietly, made my lunch, grabbed the dog, slipped quietly into the garage to hook the boat up to the truck, and proceeded to back out into a torrential down-pour.

There was snow mixed with the rain, and the wind was blowing 85 km/h.

I pulled back into the garage, turned on the radio, and discovered that the weather would be bad throughout the day.

I went back into the house, quietly undressed, and slipped back into bed.

There I cuddled up to my wife's back, now with a different anticipation, and whispered, "The weather out there is terrible."

She sleepily replied, "Can you believe my stupid husband is out fishing in that shit!!"

But wait there's more…IQ TEST

This test was developed as an age test by an R&D department at Harvard University.

Take your time and see if you can read each line aloud without a mistake.

The average person over **40** years of age **can't** do it!

1. This is this cat
2. This is is cat
3. This is how cat
4. This is to cat
5. This is keep cat
6. This is an cat
7. This is old cat
8. This is fart cat
9. This is busy cat
10. This is for cat
11. This is forty cat
12. This is seconds cat

Now go back and read the **third** word in each line from the top down.

Bruno Tonizzo

AMATEUR RADIO FIGHTS BACK AGAINST BROADBAND OVER POWERLINES (BPL) JUGGERNUAT

In November the US Federal Communications Commission, in a letter to Yehuda Cern, Chief Engineer for Ambient Corporation, summarised its investigation into whether Ambient's BPL operation caused "harmful interference" to Amateur Radio stations in Briarcliff Manor, New York.

The Commission found that *"Ambient's BPL operation has violated the radiated emission limits of Section 15.109" of the FCC Rules "and the terms of its experimental license, call sign WD2XEQ" ....."we hereby admonish Ambient."* No findings were made, however, as to whether or not the system actually caused interference to amateur radio, and the FCC left open the issue of future experimental BPL operations at Briarcliff Manor!!

In Australia, NEC is already in talks with some carriers over deploying BPL to provide 'last mile' broadband access. *"Some of the larger carriers are looking at it but they're not ready to make a firm commitment just yet,"* Nec says. Some of the big European telcos, where they're having problems with ULL [unbundled local loop], an alternative technology for the 'last mile', had showed some interest *"and we're right on the ground floor."*

Despite a number of BPL trials undertaken by Australian energy companies Nec says those showing a strong interest in broadband over powerline are telcos rather than utilities. *"The interference issue still needs to be sorted. We're dealing quite closely with ACMA (the Australian Communications and Media Authority) on that."*
ACMA in its *Access BPL Guidelines* concedes: *"Use of the electricity supply network to convey BPL signals will result in the leakage of radiofrequency emissions. This leakage has potential to cause interference to radiocommunications services."*

Aurora Energy's BPL project in Tasmania, which has been undergoing technical and commercial evaluation trials since 2004, has been terminated and Aurora said it would sell its shareholding in TasTel. It has announced a significant shift in its telecommunications business, *"to build on major successes in optical fibre* *Cont'd page 10*

BPL— AN UNRESOLVED FIGHT *Cont'd from Page 9*

activities which are delivering high speed communications around Tasmania".

Aurora noted it had become evident that the rapid pace of change in telecommunications and the **extremely narrow margins** in the telephony reseller sector made it commercially prudent for Aurora to withdraw.

The first BPL trial in April/May 2004 was conducted by Aurora in partnership with Japan's Mitsubishi Electric and Tasmanian internet company KeyPoint. The second BPL trial started in late August 2005 and was conducted by Aurora again in partnership with Japan's Mitsubishi Electric and TasTel.

Optus is testing BPL with several utility providers including Integral Energy, Energy Australia and CitiPower. BPL would provide its G9 consortium, which competes with Telstra, with *"an alternative to Telstra's copper network for the 'last mile'"*. Meantime Telstra hopes to legally block G9 and other broadband net bidders from gaining access to its copper network.

Meantime ACMA has given permission for "Skynetglobal" to setup a BPL system in Australia. Also Energy Australia, has run a BPL trial in Newcastle, New South Wales. And Country Energy has just completed a BPL trial in Queanbeyan, near Canberra.

Broadband over Power Lines - A Problem Defined but Unresolved
ARRL comprehensively explains the BPL problem:
Because power lines are not designed to prevent radiation of RF energy, BPL represents a significant potential interference source for all radio services using this frequency range, including the Amateur Radio Service. Overhead electrical power lines and residential wiring act as antennas that unintentionally radiate the broadband signals as radio signals throughout entire neighborhoods and along roadsides. Interference has been observed up to a kilometre from the nearest BPL source.

What is the status of BPL?
From a regulatory standpoint, BPL as an unlicensed, *Cont'd p 12*

General Meeting Minutes November 2007

Start time: 08:00 PM.
Location: GGREC Club Room
Chairperson: Bruno Tonizzo VK3BFT
Minute Taker: Bruno Tonizzo VK3BFT

Present: As per Attendance sheet.
Visitors and Guests: Nil
Apologies: Graeme Brown VK3BXG, Andrew Brown, Naree Ide, Ron VK3EXJ & Judy Robertson, Megan Woods, Max Hill VK3TMK,
Correspondence Received:
Electricity Bill from TRU, EMDRC Magazine, FAMPARC Magazine, Public Liability, Insurance Receipt.
Correspondence Sent: Nil
Treasurer's Report:
To be tabled at the Jan 2008 General Meeting.
New Callsigns – nil
Business Arising from Previous Minutes:
Read: Bruno Tonizzo. **Moved:** Bruno Tonizzo. **Seconded**: Dave Campbell Carried: Yes No Business Arising.
New Business:
[]Dave Campbell proposed a trip to Flinders for the Labour Day weekend. Committee to discuss.
[]Decision to purchase a data projector postponed until Jan 2008 GM.
[]Russ White suggested that the club visit schools, libraries etc to promote the Club and Amateur Radio.
Committee to consider proposal.
Meeting Closed at 09:00 PM. Holiday so Committee meets 14/1/08

Foundation License Training

Do you know someone that wants to get his/her Foundation License? You do! Then tell him/her that the next GGREC Foundation training/ Examination weekend will be the 16th & 17th Feb 2008.

Contact Mike Ide for bookings. 03 5998 7590.

.BPL— AN UNRESOLVED FIGHT *continued from p 10*

unintentional, emitter of RF energy is subject in the US to Federal Communications Commission Part 15 rules. These require that BPL systems may only operate subject to the express condition that harmful interference is not caused to licensed radio services. BPL is not entitled to protection from interference. So far in the US [and Australia], BPL has been deployed in numerous temporary test sites but in few commercial installations. Despite the very limited deployment, considerable interference has been documented. In October 2004 the FCC adopted new rules for BPL systems. These place new restrictions on BPL systems in recognition they pose a greater threat of radio interference than most Part 15 devices, such as garage door openers. Unfortunately, the new rules are not sufficient to reduce the probability of harmful interference to reasonable levels. Administrative appeals of the rules have been filed in the US and court challenges are likely.

Why are the US [Australian?] regulations inadequate?

The Communications Act of 1934 and the FCC Rules have long required that unlicensed emitters like BPL systems must protect licensed radio services from interference, and that they must accept any interference to their operation that is the result of normal activity by licensed radio services. However, in practice it is often difficult to resolve such interference problems in the field. In one case in Cedar Rapids, Iowa, USA, BPL engineers spent 12 weeks trying to solve an interference problem without success. The interference did not cease until the test was terminated prematurely.

Studies by the US National Telecommunications and Information Administration (NTIA) show that the probability of interference from a BPL system operating at the FCC radiated emission limit on the same frequency as a typical two-way radio station is essentially 100 per cent at 200 to 400 meters from the power line, depending on the frequency. Despite this clear evidence that the limit is too permissive, the FCC has so far declined to impose a tighter limit except in frequency bands used by aeronautical services. This means that unless they voluntarily design their systems for reduced emissions, *Cont'd page 12*

Here is another one for those who follow politics.

Russ VK3MWR

Hillary Clinton goes to a primary school in New York to talk about the world. After her talk she offers a question time. One little boy puts up his hand. The Senator asks him what his name is.

"Kenneth."

"And what is your question, Kenneth?"

"I have three questions: "First - whatever happened to the medical health care plan you were paid to develop during your husband's eight years in the office as President? "Second - why would you run for President after your husband shamed the office? "Third - whatever happened to all those things you took when you left the White House?"

Just then the bell rings for recess. Hillary Clinton informs the kids that they will continue after recess. When they resume, Hillary says, "Okay, where were we? Oh, that's right, question time.
Who has a question?"

A different little boy puts his hand up. Hillary points him out and asks him what his name is.

"Larry."

"And what is your question, Larry?"

"I have five questions: "First - whatever happened to the medical health care plan you were paid to develop during your husband's eight years in the office as President? "Second - why would you run for President after your husband shamed the office? "Third - whatever happened to all those things you took when you left the White House? "Fourth - why did the recess bell go off 20 minutes early? "Fifth - Where's Kenneth?"

BPL— AN UNRESOLVED FIGHT *Continued from page 12*

BPL system operators will have to take expensive customised steps to correct interference on a case-by-case basis. That may not be possible unless they turn off their systems. Of course, they will strongly resist this. This is why radio operators are so concerned, and why BPL customers cannot be assured of receiving reliable broadband service!

Has the interference potential been proven?

The US publisher of QST, the American Radio Relay League (ARRL) laboratory has made observations of BPL radiation at a number of trial areas. The lab's findings of interference and related information, including video and audio recordings of actual interference, are available on the web at www.arrl.org/bpl. These and other observations of radio-frequency interference at BPL test sites in the US are a matter of public record in FCC files.

An April 27, 2004 report released by the NTIA acknowledges that BPL signals *"unintentionally radiate"* from power lines. The NTIA also said then-current FCC Part 15 measurement techniques may *"significantly underestimate"* peak BPL field strength and that *"interference risks are high under existing FCC Part 15 rules."* The FCC rulemaking only partially addressed these concerns.

Although BPL proponents dispute these claims of interference to licensed services, they have provided little in the way of calculations or measurements of BPL radiation levels -- and what they have provided has been flawed by technical errors.

According to ARRL, radio amateurs are not opposed to broadband services. *"On the contrary, they tend to be early adopters of new technology"*. However, there are ways to deliver broadband that *do not* pollute the radio spectrum as BPL does. These include fiber-to-the-home, cable, DSL, and wireless broadband. *"ARRL is supportive of broadband access for all Americans; however, it opposes BPL as a way to achieve this goal because of its high potential for causing interference to radiocommunication"*.

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A precise definition of Broadband over Power Lines

BPL is the delivery of broadband [highspeed] internet signals using the existing domestic electricity system. BPL systems *are designed* to deliver internet services over medium voltage power lines as the distribution medium, and generally use the frequency range between 1.7 and 80 megahertz (MHz).

The GGREC editor acknowledges with thanks the following sources.

VK5VKA is opposing BPL with a comprehensive website giving links to relevant Australian and US sites. Its URL is homepages.tig.com.au/~vk5vka/stopbpl.htm

ARRL's web campaign is at www.arrl.org/bpl

A radio amateur's video tour of the Mt Nelson BPL trial in Hobart goes for 9 min - Rated 4.8 out of 5.0 [see VK5VKA for more information]

Consideration of the 40-Meter Amateur Band (www.arrl.org/news/bandthreat/)
"The problem is that since 1938, the 40-meter allocations in the three ITU radio regions are different. Region 2 has 300 kHz from 7.0-7.3 MHz, while Regions 1 and 3 have 100 kHz from 7.0-7.1 MHz (7.1-7.3 MHz in these Regions are currently allocated to the broadcasting service). WRC-2003 agenda item 1.23 is an opportunity to realign the amateur and broadcasting bands around 7 MHz. *The amateur service seeks the return to an exclusive, worldwide allocation of no less than 300 kHz in the vicinity of 7 MHz.* For further information see http://www.iaru.org/7-MHz-Spectrum.pdf.

"Studies of WRC-03 matters relating to the amateur services are conducted in ITU-R Working Party 8A. WP 8A is developing text for the Conference Preparatory Meeting, which is charged with preparing the technical basis for WRC-03--the so-called *CPM Report*. ITU-R WP 6E (broadcasting emissions) and WP 9C (HF fixed service) are interested working parties, and are exchanging information with WP 8A.

"There is a potential threat that the possible expansion of spectrum below 10 MHz by broadcasters may complicate consideration of the amateur band at 7 MHz."