



From
Brisbane Amateur Radio Club Incorporated
BARC Newsletter – Volume 32, Issue 9, April 2009

Diary Dates

Sat 11th 2:00PM Social Meeting
Fri 24th 7:30PM Business Meeting

In this issue...

- 1 [Diary Dates, In this issue, Editorial, What's new](#)
- 2 [Club Information](#)
- 3 [Business Meeting Minutes](#)
- 6 [Treasurer's Report](#)
- 6 [License fees to increase](#)
- 7 [New scam targets computer users](#)
- 8 [70cm Band Spectrum Changes](#)
- 9 [General relativity confirmed](#)
- 10 [Intelligent Robot invented](#)

Club Net Frequencies

Due to interference to the HF net on 28.450 MHz the following procedure has been adopted.

If 28.450 MHz is not available, the first clear frequency in the following list will be used, 28.445, 28.440, 28.455, 28.460 (i.e. down 5, down 10, up 5, up 10). The starting time is 8:00 pm.

On Wednesday nights the normal frequency of 146.550 MHz will not be used, instead a trial on the Brisbane (Mt. Glorious VK4RBN) Repeater of 147.000 MHz will be used. The starting time is 8:00 pm.

Editorial

BARCFest is on next month in May... this coming business meeting will be the last meeting prior to BARCFest.

What's New

Once again, the [ACMA is upping the licensing fees](#). Details page 6.

There is suspicious activity afoot, this time [targetting computer users](#). The media release is on page 7.

The ACMA is also looking to [re-arrange the 70cm band](#), in particular the bit we share with the military. Peter Young fills us in on page 8.

Finally, we have two articles from Wikinews, one [confirming what Einstein and Newton had suspected for years](#), and the other regarding a [robotic lab technician](#). These can be found on pages 9 and 10 respectively.

Committee Members

PRESIDENT

Michael Cooper VK4MX

VICE-PRESIDENT

Harry Debnam VK4DFG

SECRETARY

Kevin Johnston VK4UH

ASSIST-SECRETARY

To be decided

TREASURER

Les Parker VK4S0
Keith Adams VK4XAK

LIBRARIAN

Peter Holtman VK4C0Z

PROVIDOR

Jim Kelly VK4HJK

REPEATER OFFICER

To be decided

STATION MANAGERS (VK4BA)

HF: Les Parker VK4S0
VHF: Don Johnman VK4DS

PROJECTS CO-ORDINATORS

Kevin Dalton VK4WA

AWARDS & QSL MANAGER

To be Decided

PUBLICITY & LIASON

Peter Holtham VK4C0Z

QSP NEWS EDITOR

Stuart Longland VK4MSL

CLUB EQUIPMENT OFFICER

Frank Barker VK4KFB

W.I.A. ACCREDITED EXAMINERS

Les Parker VK4S0

BARCFEST COMMITTEE

Michael Cooper VK4MX
Les Parker VK4S0

Club Meetings

Meetings are held on the 2nd Saturday (social) at the Maritime Museum and 4th (business) Friday of each month at the Maritime Museum in Brisbane.

No meetings are held on the 2nd Saturday of January or the 4th Friday of December.

Visitors are most welcome to come along and sample our hospitality.

Membership Subscriptions

Subscriptions fall due on the last day of August.

Current Standard Membership fee is \$20.00 (Subject to any changes prior to 31st August).

Correspondence

All correspondence (except for items for the Club newsletter) should be addressed to:

The Secretary
Brisbane Amateur Radio Club Incorporated
P.O. Box 605
Annerley, Qld, 4103.

Club Web Site <http://www.qsl.net/vk4ba>
Items for the Newsletter may be sent by mail to:

QSP Editor
P.O. Box 605
Annerley, Qld, 4103.

or, by Email to:

qspnews@longlandclan.yi.org.

Deadline is 5pm Monday prior to the 2nd Friday Each month except January.

Club Station Nets (VK4BA)

28.450 MHz SSB Mondays 2000 hrs Local.
Trial 14.170 MHz SSB Mondays 2000 hrs Local – if 10m conditions are bad.
147.000 MHz FM Wednesdays 2000 hrs Local.

Brisbane Amateur Radio Club Incorporated

Club Minutes

Meeting of 27 March 2009 @ Maritime Museum Southbank

Meeting opened 19:30 by acting Chairman Les Parker VK4S0.

Attendance:

(Committee)
(Members)

(13)

Les VK4S0 (Acting chair, Treasurer), Kevin VK4UH (Hon. Sec)
Ben, Bill VK4TWS, Bruce VK4TRS, Colin VK4ACG, Don VK4DS, Keith VK4XAK,
Kel VK4AZ, Murray VK4AOK, Peter VK4C0Z, Richard VK4FAAH, Stuart
VK4MSL

Visitors:

None

Appologies:

Frank VK4XK, Kevin VK4WA, Kevin VK4ZR, Michael VK4MX

Meeting addressed by Michael VK4MX

Minutes:

Not available

Matters arising from Minutes:

Skipped as minutes were unavailable

Reports.

Treasurers report

Presented by Les VK4S0 ([copy attached](#)) Proposed by Les VK4S0 seconded Keith VK4XAK. — *Accepted.*

Station Managers

2m net is averaging about 10 call-ins, reported by Don VK4DS. 2 to 4 call-ins most Monday evenings on the 10m net, reported by Les VK4S0.

Correspondence:

Incoming

- Receipt Mt Gravatt show-grounds for BarcFest booking,
- VK4ICE BarcFest booking,
- VK4CR0 BarcFest booking,
- City of Brisbane Radio Soc BarcFest booking,
- P Hadcraft BarcFest booking,
- R Wilson BarcFest booking,
- AR Mag Feb 09,
- Annual forms OFT,
- Membership application Mel Lawes,
- Bank statement Feb 009.
- E-mail from Kevin VK4WA enclosing suggestions for the future of the club repeater. — see below.

Outgoing

- Receipts for bookings as above,
- Cheques to Mt. Gravatt show-grounds for BarcFest booking,
- E-mail to Jaycar with application forms for BarcFest.

General Business

Packet BBS

Club advised that the longstanding packet BBS run by Bruce VK4TRS to be closed down due to lack of patronage. A shame.

Membership application

Received from Mr. Mel Lawes who was not present at the meeting. Proposed for membership Les VK4S0, Seconded Kevin VK4UH — carried. Kevin to write to new member.

70cm Repeater

Meeting advised by repeater-keeper Bruce VK4TRS that interference to the repeater from LIPDs was still continuing despite CTCSS being activated. Matter discussed at length including options for the future. Suggestions received from Kevin VK4WA (not present) were read out and discussed at length. Possible approaches suggested for the future included:

1. Discontinue operation of current repeater
2. Continue repeater operation as at present
3. Establish a new 2m repeater
4. Purchase crystals to reverse input and output frequencies of existing repeater
5. Purchase a new 70cm repeater from Icom. (not crystal bound, at approx cost of \$1600 after offer of 50% reduction)

Following in depth discussions around all the possible options a number of proposals were tabled:-

- *Proposal* (Kevin VK4UH)
"To discontinue operation of UHF repeater".

No seconder, Motion NOT CARRIED.

Repeater operation to continue to be supported.

- *Proposal* (Kevin VK4UH)
"To establish new 2m repeater."

No seconder, Motion NOT CARRIED.

- *Proposal* (Kevin VK4UH)
"To continue operation of UHF repeater by either: (A) reversing input/output frequencies of existing repeater or (B) purchasing new repeater"

Seconded: Les VK4S0
(A) option 3/13 votes
(B) option 8/13 votes
2 abstain

Option A accepted and carried. Club to purchase New 70cm repeater to replace existing machine.

- *Proposal* (Richard VK4FAAH)

"Existing machine to be returned to its donator when decommissioned"

Seconded Les VK4S0 — carried

Any Other Business

- ARRL Periodical DVD** 2008 ARRL Periodical DVD donated to BARC by Murray VK4AOK. Vote of thanks offered to Murray.
- BarcFest 09** One more club Business meeting before the convention.

Meeting closed with thanks from Les VK4S0 at 21:05

— Kevin VK4UH Hon Sec April 09

Brisbane Amateur Radio Club

Financial report for March 2009

Account Balance	(1st February)	\$7625.55
Income		
	Barcfest Bookings	\$70.00
	New Members	\$20.00
Total income		\$90.00
Expenditure		
	Mt. Gravatt Show Society	\$677.00
Total expenses		\$677.00
Account Balance	(27th March)	\$7038.55

— Les Parker VK4S0 Treasurer

License fees to increase

The WIA has been advised by ACMA that as from the 6th April 2009 licence fees have increased to \$64. Variation to licence fees remain at \$41.

— Fred Swainston
WIA RTO
(Forwarded by Les VK4S0)

Media Release

New scam targets computer users

The Queensland Police Service has issued a warning about a new scam targeting computer users.

The scam involves people taking a call from a person working at a foreign call centre. The victim receives a call from the offender, who claims to belong to a software support company that has been requested by Microsoft to fix problems on the victims computer.

The offender confirms the victims computer has sent error messages to Microsoft regarding problems with their Windows Explorer.

The offender will then direct the victim through a process on their computer ultimately giving the offender remote access to the computer to download Trojans or gain access to personal information.

Once the offender has gained access, they will then give or sell the victim software in order to prevent this problem in the future. The victim, instead of downloading anti-virus software, will unknowingly be installing a virus on their computer which may be used to gather credit card data.

Ms Julie Inman Grant, Asia-Pacific Director for Internet Safety for Microsoft, confirmed that the company is not contacting its customers in regards to the matter and has advised computer users to exercise caution.

"Microsoft will never cold-call a customer and request access to their computer system. Nor do we direct third-party support companies to do so," said Ms Inman Grant.

"In this case, the callers are misrepresenting that they are from Microsoft when in fact they are not," she said.

Detective Superintendent Brian Hay of the State Crime Operations Command Fraud and Corporate Crime Group said this new scam was just another example of offenders preying on the vulnerabilities of victims.

"This scam has the potential to work, as the victim may let down their guard when told by the offender they have specific knowledge of error messages on their system. This gives the victim confidence in the caller, which in turn opens the door to fraud," Detective Superintendent Hay said.

Members of the community are reminded to do their homework before buying from people who call on the phone or make contact via the internet.

For more information on fraud prevention, including hints and tips, visit the Queensland Police website at www.police.qld.gov.au.

Anyone wishing to report a fraud matter or provide information to police is asked to contact Crime Stoppers on 1800 333 000.

Last updated 01/04/2009

— Queensland Police: Media and Public Affairs Branch

07 3015 2444

(Forwarded by Danny VK4SD)

<http://www.police.qld.gov.au/News+and+Alerts/Media+Releases/2009/04/New+scam+targets+computer+users.htm>

Challenge to Australian 70cm Band Spectrum

Today the Australian Communications and Media Authority (ACMA) released its initial consultation paper for future arrangements in the 400 MHz spectrum between 420 and 520 MHz. This paper follows on from a previous discussion paper on spectrum options for this band. Of interest was the spectrum 440 MHz to 450 MHz where the Defence Department is the Primary User and the Amateur Service is a Secondary User. The WIA made a submission arguing for its continued use of the spectrum for UHF links in support of emergency services networks, and an Amateur Television Channel for the purposes of future training options particularly digital television.

Copies of the latest consultation paper can be found on the ACMA website at http://www.acma.gov.au/WEB/STANDARD/pc=PC_311684.

The consultation paper seeks comments to 31 questions; of particular interest to the amateur community are the questions:

- ACMA seeks comments on the option of identifying parts of the 400 MHz band for low power single frequency applications under a class licence;
- ACMA seeks comments on the existing and potential defence uses of the 440 450 MHz band;
- ACMA seeks comments on the possibility of opening up some or all of the 440 450 MHz band for greater use by the land mobile service for purposes other than defence

The WIA arguments for this spectrum have largely been ignored at this particular time. The WIA will continue to press its case through further submission(s) and representation on the ACMA 400 MHz Working Group.

The closing date for comments is Friday 29th May 2009

— Peter Young VK3MV
02/04/2009

General relativity effect confirmed: satellite experiment

A team of scientists at Stanford University claim to have detected a subtle, missing element of Einstein's theory of relativity.

In a press release dated February 16th, Robert Kahn, Stanford University's Public Affairs Coordinator, announced the experimental confirmation of frame dragging, an effect in which the presence of a rotating body causes space itself to be pulled along as the body rotates. While the effect was theorized by Josef Lense and Hans Thirring as far back as 1918, the small scale of the effect, as little as one part in a trillion for a satellite orbiting the Earth, made detecting the effect difficult.

The observation was made by the Gravity Probe B satellite, which carries finely-machined gyroscopes. Scientists looked for small changes in the motion of the gyroscopes to detect the frame dragging effect, as well as the much larger geodetic effect — small corrections to the Earth's gravitational field due to differences between Einstein's and Newton's theories of gravity.

The experiment was conducted on the satellite from 2004 to 2005. However, the complexity of the data analysis along with unforeseen engineering problems have made finding the effect in the experiment's results difficult. In particular, the presence of small electrical charges on the gyroscopes interfered with their results.

Francis Everitt, the experiment's Principal Investigator, stresses in an interview with the New York Times that their announcement is only preliminary and that, with further analysis, they hope to improve the precision of their results; currently, they say they have only detected the frame dragging effect to within plus or minus fifteen percent of its expected value.

The theory of general relativity was developed by Albert Einstein in the early 20th century to explain the behavior of moving objects in space, after the discovery that the speed of light was always the same no matter how the person measuring it was moving. While it successfully explains many strange behaviors in space, such as the slow shifting of the orbit of Mercury and the bending of light by massive objects such as black holes, testing the theory on Earth has always been difficult due to the small scale of relativity's effects in everyday life.

— Wikinews, 17th February 2009

Welsh University announces intelligent robot conducting biology experiments

Adam is a robot developed by Welsh Aberystwyth University researchers which combines artificial intelligence (AI), robotics and automation to independently conduct and analyse biological laboratory research.

“What’s new and exciting about Adam is [it is] the first time we’ve managed to show that a computer can not only think up new scientific ideas, but experimentally test them and decide whether they’re true,” said Ross King, a computer science professor and lead researcher at Aberystwyth University, “Adam makes up its own mind what to do. It decides what experiments to do, what to test.” He says that for other lab experiments the hardware is already in place, the only step needed is to change the software.

The artificial intelligence alone spans three computers which holds the databases and analytical software to enable Adam to think. For the yeast experiment, Adam was loaded with databases which hold known information relating to yeasts and organisms. Adam compared all fields in the database to find the areas of missing information from which he devised 20 hypotheses.

Adam’s AI is connected to robotic arms, sensors, incubators and cameras which enable Adam to start over 1,000 individual experiments every day and follow their progress over a week.

A part of the process is that Adam’s AI can cycle and analyze the results of the experiments as well doing routine repetitious lab work. Following Adam’s testing, King’s team manually tested three of Adam’s hypotheses and found that the robot’s conclusions were correct, and each was a breakthrough to the scientific community.

Adam has spawned discussion amongst researchers. William Melek, an assistant professor of mechanical engineering at Ontario’s University of Waterloo, has noted that to set up the AI needed for subsequent experiments involving new biological variables and criteria, the human expertise would be time consuming to customize it. The usefulness would be limited therefore to the allotment of human input needed to set up Adam.

David Waltz of Columbia University and Bruce Buchanan of the University of Pittsburgh say that “For the foreseeable future, the prospect of using automated systems as assistants holds vast promise as these assistants are becoming not only faster but much broader in their capabilities – more knowledgeable, more creative, and more self-reflective,” They note the potential of such lab assistants which may more efficiently process the research data.

It was reported that Adam cost about \$US 1million in production costs and this was weighed against the costs of hiring lab techs. King said, “We made many mistakes and learned from Adam. Eve is a much cleaner design.”

Eve is the second AI computer under development by Professor King’s research team. Eve’s artificial intelligence will be enhanced to analyze compounds needed for medicinal drugs which may treat killer diseases such as malaria.

— Wikinews, 5th April 2009