



From

Brisbane Amateur Radio Club Incorporated

BARC Newsletter

Volume 33, Issue 1

July 2012

Diary Dates

July 13th Social Meeting

July 27th Business Meeting

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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 7:30 pm. On Wednesday nights the normal frequency of 439.950 MHz will be used, This is a repeater and an input of 434.950 MHz will be used. The starting time is 8:00 pm.

Editorial

This is the first BARC Newsletter for two years. It is hoped that the club can continue with it's Newsletter in the same format that has been used for quite a number of years.

Help is required in finding technical articles to make the newsletter interesting.

What's New

The Club has managed to find a new venue for it's meetings. After negotiations with the Rochedale Scout Group a contract has been signed allowing the Club to use the facilities of the Scout Den for twelve months.

Meetings on the two Friday nights each month Will take place at the Rochedale Scout Den. 21 Rochedale road Rochedale

Saturday afternoons will be available to allow for practical activities to be conducted. Dates are still to be announced.

The Club will be set up as an Amateur Radio Club and not just a social club.

A fully operational Amateur Radio Station will be set up at the site to be used by Club Members.

A triangular Mast is being erected and it is hoped that a tri-band three element yagi will be installed on the tower.

The Club's 70 cm repeater has been set up at the site

COMMITTEE MEMBERS

PRESIDENT

Kevin Dibble VK4ZR

VICE-PRESIDENT

Kevin Dalton VK4WA

SECRETARY

Peter Holtham VK4COZ

ASSIST-SECRETARY

Keith Adams VK4XAK

TREASURER

Les Parker VK4SO

LIBRARIAN

Peter Holtham VK4COZ

PROVIDOR

Jim Kelly VK4HJK

REPEATER OFFICER

Kevin Dalton VK4WA

STATION MANAGERS (VK4BA)

HF

Bill Scheele VK4TWS

Les Parker VK4SO

PROJECTS CO-ORDINATORS

Ron Everingham VK4EV

AWARDS & QSL MANAGER

To be selected

PUBLICITY & LIASON

To be selected

WICEN REPRESENTATIVES

To be selected

QSP NEWS EDITOR

Kev Dibble VK4ZR

CLUB EQUIPMENT OFFICER

Les Parker VK4SO

W.I.A. ACCREDITED EXAMINERS

Les Parker VK4SO

BARCFEST COMMITTEE

Les Parker VK4SO

CLUB MEETINGS

Meetings are held on the 2nd (social) and 4th (business) Fridays of each month at Rochedale Scout Den. 21 Rochedale Road Rochedale

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

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

MEMBERSHIP SUBSCRIPTIONS

Subs fall due on the last day of August and must Be paid by the 4th Friday in September

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 6106
Upper MtGravatt 4122 Qld.

Club Web Site <http://www.qsl.net/vk4ba>

Items for the Newsletter may be sent by mail to:

QSP Editor
. P.O. Box 6106
Upper Mt Gravatt, 4122 Qld..

or, by Email to:

vk4ba@qsl.net

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

CLUB STATION NETS (VK4BA)

28.450 MHz. SSB Mondays 1930 hrs Local
439.950 MHz. FM Wednesdays 2000 hrs Local

BRISBANE AMATEUR RADIO CLUB
BUSINESS MEETING 22 June 2012

The meeting was opened at 7:30pm by the President VK4ZR. Nine members were present as per the attendance book.

Apologies

Kevin, VK4WA; Frank, VK4XK.

Minutes

The minutes of the previous meeting were read by the Secretary, who moved they be accepted as a true record, seconded Jim, VK4HJK, and approved. .

Business Arising

The agreement with the Scouts for the hire of the hall has now been received and the President read out the important details. .

Rent is \$600 p.a through until the end of 2013, with the initial \$300 for the remainder of 2012 due by August. Three months notice to quit to be given by either party.

We can use the rooms on the 2nd and 4th Fridays of each month from 1830 - 2300, and on Saturday afternoons by agreement. .

The Scouts will provide lockable facilities, however all of our gear is our responsibility. Two keys will be provided on a \$20 deposit for each. .

The Scouts expect us to assist with relevant scouting activities such as JOTA and provide labour for working bees from time to time. .

The President proposed that the hire agreement be approved, seconded by Keith, VK4XAK, and approved unanimously. .

Financial Report

The Treasurer tabled his report. The opening balance at 1st June was \$6511.84. Income was \$2637.00. .

Expenses were \$453.00 with an expected \$250 refund from the Barcfest bond, the balance at the meeting date was \$8945.84. .

The Treasurer moved that his report be accepted, seconded Jim, VK4HJK and approved. .

The Treasurer noted that the approximate annual running expenses of the club were \$1500. Despite the number of Barcfest attendees being down, a profit of \$2200 was made. .

The Treasurer noted that it would be more convenient to have the President as an additional signatory to the club's bank account. .

The Secretary moved that the President VK4ZR be added to the list of signatories, seconded Jim, VK4HJK and approved unanimously. .

Reports

10m Net Bill, VK4TWS, reported the net is running well, although more check-ins would be better. .

2m Net Les, VK4SO, reported on lower check-in numbers recently on 2m or 70cm. Hopefully the 70cm repeater will be back on air very soon from the club rooms. .

General Business

The clubs PO Box will be moved from Annerley to Upper Mount Gravatt, making it more convenient to use. Mail will be redirected from the old box number. We will also have to change all usages of our old address on licences etc. We will delay submitting the annual report to the Office of Fair Trading until we have the new box number. .

The President gave a general report after his first two weeks in office. He thanked all who have helped with the move to the new location, especially Bill, VK4TWS, who has donated considerable time and materials to the moving effort. Bill has created an 8' by 8' lockable storage room downstairs in the.

Scout den and also fitted a mounting shelf for the club's 70cm repeater in the kitchen, for which the members showed their appreciation in the usual manner. .

The President thanked Frank, VK4KFB, for his donation of a two-section tower to the club. It has been moved to the clubrooms and will be erected as soon as possible. The club has provided Frank with a 70cm yagi in appreciation of his donation. .

The President reported that he had picked up the 70cm repeater antenna from VK4WA's QTH and it will be mounted at the Scout hut very soon. The bracket is in place on one of the roof trusses.

The President read out his list of proposals to develop the club, and will email/mail it to all members for their consideration and input. .

There being no further business, the meeting was closed at 8.25 pm. .

K. Dibble (President) .

P. Holtham (Hon Secretary) .

L. Parker (Hon Treasurer) .

Information on the next BARC Meeting

The Club will have it's next meeting on Friday 13th July 2012. This will be a Social Meeting so please come along, There are a number of details about what activities will be started that requires discussion and your input.

Club Activity

The Club's 70 cm Repeater

The Repeater has been set up at Rochedale and is on trial to see how it works. It is on mains power with battery back up in the event of a mains failure. The repeater is running 25 Watts to a commercial vertical antenna mounted on the apex of the roof of the Club House

Monday Night's 28.450 MHz Net the net is running very well with numbers varying from eight down to four. Bill VK4TWS has been doing a mighty job as net controller. A large difference has been noted to the strength of the stations signals since vertical polarization has been adopted as a standard for the net.

Wednesday Night's BARC Net has been on 146.550 MHz while the repeater has been moved to the new location. It will now be held on the repeater frequency of 439.950 MHz. input frequency is 434.950 MHz at this stage there is no sub audible tone required.

8am Weekday 146.550 MHz or 439.950 MHz Net has also had it's ups and downs. Some mornings there are up to five starters while other mornings there are only two or three people.

Individual Member Activity

Keith VK4XAK has been very busy with other duties so his Amateur Radio activity has suffered. His XYL Sandra still has problems with her knee so there have been many trips to the Doctor

Les VK4SO has been active with the MtGravatt Men's shed as well as all the changes to the Club since moving to the clubs New Club house at Rochedale. He has changed the Club's Post Office box over to Upper MtGravatt

Frank VK4XK has had another fall and has spent a few weeks in Hospital. He is now recovering back home but has a long way to go to be back in good health. He has moved his amateur Radio operation into his office with his computers and has found the new location far superior to the garage.

Kevin VK4WA is still managing to allocate some time to his amateur radio projects.

Don VK4DS has had some problems with his HF transmissions on Monday night and thanks to Peter VK4COZ who found and repaired the problem.

Jim Kelly VK4HJK been trying to get into the 70 cm repeater of the club but has not been well enough to progress any further.

Ron VK4EV has been missed the Cub for a few months

Peter VK4ATC has been able to trigger the 70 cm repeater and is now getting an excellent response from it since it was shifted to Rochedale.

Murray VK4AOK was heard on the 70 cm repeater as well as on HF on Monday night. It great to hear Murray once move even though he still has his hum problem with his microphone.

Frank Barker has been sadly missed since the repeater was moved from Redbank Plains to Rochedale. Kevin VK4WA is working on a possibility of solving the problem.

Peter VK4EB had a problem hearing the 70 cm repeater and on examining his vertical antenna found it full of water. The end cap had come off and allowed the rain to enter the fibre glass rod. The wiring inside the fibre glass had also broken it was a solder joint that had parted.

David VK4DFC has not been along to a meeting for a couple of months. Bill brought him along to the Maritime Museum for a meeting early this year.

David VK4TBR was heard on the Club's 70 cm repeater on Sunday morning with a very clear signal.

Harry VK4DFG has been attending the Redcliffe Club as they meet on a mid week morning. He is having trouble driving at night.

Colin VK4ACG can not access the repeater due to his location on the northern side of the Balmoral range.

Gwen VK4CB was seen at BARCFEST again this year. She managed to sell off some of her unwanted gear as well take home some other items. Thanks to Dave Prince for his help.

Dave Prince VK4KDP has also helped with the removal of a wind up tower from Frank Barker's QTH to the Rochedale Club house. He has offered the Club the Equipment console that the Club had at Annerley, It may involve some helpers to load the console on to Dave's truck to transport it to Rochedale.

Ray Parrinder VK4HRP has procured a 70 cm yagi so that he could access the Club's repeater when it was at Redbank Plains. He has now bought a Commercial diamond two band vertical which is providing him with noise free access to the club's 70 cm repeater.

Gordon VK4OU has repositioned his yagi and can now access the repeater with his handheld transceiver.

Andrew VK4MAO has not be heard of since he shifted his work location. He is kept very busy providing gigs for the German club.

Stuart VK4MSL can easily access the repeater from his Grand Parents QTH. He has his antennas down at his own QTH and is relying on his Bicycle Mobile complex for amateur Band Activity.

The Problems of receiving the repeater **By Kevin VK4ZR**

The BARC 70 cm repeater has been shifted to a number of locations on the past few years. When the club upgraded the repeater to an ICOM commercial repeater it was tried out at the QTH of Bruce VK4TRS.

This location was less than a kilometre from my QTH so I had no difficulty accessing it with almost any antenna and any 70 cm transceiver. Power was not a problem. The Repeater was then shifted to the QTH of Kevin VK4WA at Redbank Plains.

I had no trouble accessing the repeater using my dual band diamond vertical running my ICOM IC-706MKIIG which runs about 14 watts output. The repeater's signal strength varied from S4 to S9 depending on conditions.

The Repeater could be triggered at all times .

Now that the repeater has been relocated to Rochedale conditions have dramatically changed. When using the same configuration that worked well for triggering the repeater when at Redbank Plains the repeater could not be reliably triggered.

The signal strength received from the repeater was only S2 to S4 using the diamond antenna. I changed transceivers to a ICOM 208H transceiver. It can run 50 Watts on 70 cms and I could access the repeater consistently but the received signal was noisy.

I had to do something to improve my performance when using the repeater. A few years ago I had built a cross yagi assembly to be used to work through amateur Satellites. This assembly consisted of a seven element 70 cm yagi and a four element 2 metre yagi.

I decide to remove the 2 metre elements and then vertically mount the seven element 70 cm yagi antenna. The first thing to do was to check the matching to see what the SWR was like. I mounted the antenna on to a pole at head height so that I could do adjustments with the gamma match. My first test produced a 3 to 1 SWR. I moved the shorting bar through all possible positions but could not get a marked improvement.

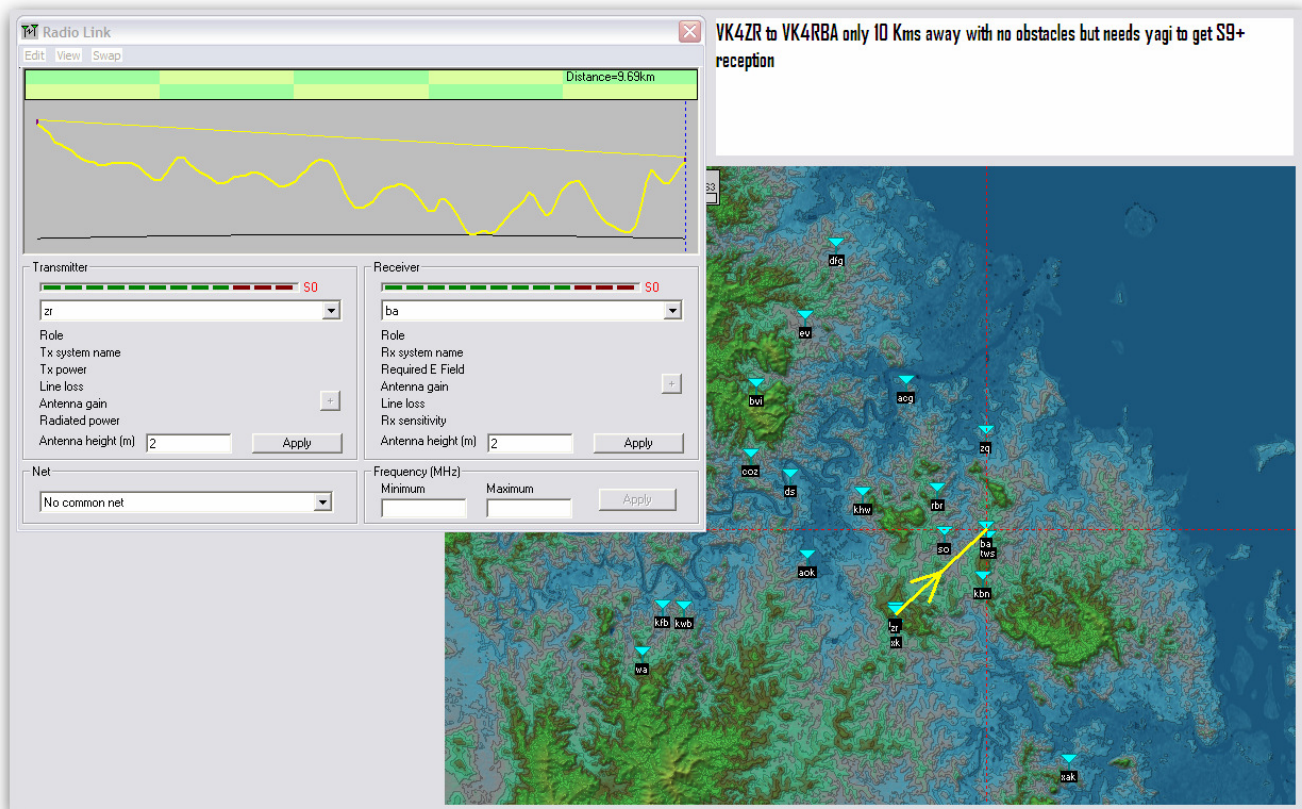
I decided to make some changes to the design and changed the gauge of the wire used to form part of the capacitor in the gamma match. A larger gauge wire made all the difference. I could reduce the SWR down to almost 1 to 1.

The antenna was pointing North at the time of the tests and I noticed that the repeater was responding each time I triggered the PTT on the Transceiver. My calculations showed that I had to point the antenna at a degree of 60 to point to Rochedale.

The next stage was to climb up on to the roof and mount the yagi on the same mast as used by the Diamond vertical. I stood beside the mast and mounted the yagi about two metres above the guttering.

I climbed down from the roof and on returning to my shack tried to trigger the repeater using my 70 cm yagi I has just installed. To my amazement the repeater returned a signal that showed full scale on the S Meter. The strength was well over S9.

I have a program called "Mobile Radio" and one feature is to produce a profile map from one station to another. I set up the parameters so that I could observe the profile from my QTH to the Repeater site at Rochedale.



As can be seen from the above diagram there are no obstructions between my QTH and the Repeater.

Results did not agree with the profile map. There had to be other factors to be considered. I had a close look at my take off towards Rochedale and realised that my neighbours house which is a two story place may be shading my received signal to the diamond antenna.

The other thing to consider was the performance of my diamond antenna at 70 cms. I had done some previous tests using various simplex frequencies on 70 cms and found that the antenna's performance varied over the 70 cm band.

If anyone wishes to download the "Radio Mobile Program" which is free, the website is :- <http://www.cplus.org/rmw/english1.html>

It involves a little bit of setting up but it is worth while to get the results.

I use google earth in conjunction with a station address to obtain longitude and latitude details for the map.

I have resulted in obtaining details of the BARC members and are shown in the below diagram.

The other program I have used to determine the direction of an antenna comes from a Russian amateur. DK3VN

http://home.arcor.de/waldemar.kebsch/The_Makrothen_Contest/fmaidenhead.html

You have a choice as to what kind of information you wish to use to obtain the direction you have to point your antenna.

Unit name	Enabled	Latitude(°)	Longitude(°)	Elevation(m)
zr	1	-27.61261	153.0564	78 0
xk	1	-27.62301	153.0563	57 0
xjb	1	-27.67486	151.9931	645.58 0
kd	1	-27.69119	151.9984	711.13 0
so	1	-27.55669	153.095	50 0
kbn	1	-27.58889	153.1255	71 0
xak	1	-27.71810	153.1943	19.13 0
dfg	1	-27.35320	153.009	36 0
ev	1	-27.40430	152.9841	45 0
rba	1	-27.55344	153.1288	67 0
ds	1	-27.51620	152.9727	16 0
acg	1	-27.45039	153.0647	18 0
coz	1	-27.50231	152.941	59 0
kwb	1	-27.60939	152.8875	36 0
wa	1	-27.64181	152.8549	82 0
aok	1	-27.57389	152.9862	13 0
kdd	1	-27.36710	152.8914	65 0
zq	1	-27.48589	153.1286	35 0
khw	1	-27.52919	153.0299	48.79 0
rbr	1	-27.52620	153.0895	51.93 0
tws	1	-27.55960	153.3027	36.07 0
trs	1	-27.60990	153.0563	86 0
kfb	1	-27.60920	152.8708	22.33 0

BARC's MONEY SAVING IDEA

How would you like to be able to find sufficient funds to pay for your Amateur Radio Licence, Your WIA Fees as well as your BARC Membership .

Well it can be very easy if you follow this idea.

First if we make a few calculations to help it will start to make some sense.

Your amateur Radio Annual Fee to the ACMA is	\$72
Your WIA Fee depends on your status and could be	\$80
Your BARC MEMBERSHIP	\$20
Total	\$172
Per week required	\$3.30
So if you save	\$4.00 Per Week
You will have sufficient funds to cover your amateur Radio Expenses for a year..	

Next time you are at a shopping centre find one of the Cheap shops such as Crazy Clarks, Dollar and Cents, the Warehouse, the Reject Shop and buy one of their **Money boxes**.

They usually sell for about \$2 for a medium size . One that will hold the number of coins you will save in a year.

Every week make sure you put \$4 into the money box and you are under way to save.

The Answer to the Repeater Problem

Some time earlier this Century, maybe 2004 I designed a collinear array for 70 cms as a BARC project. Twelve fibreglass blanks were provided and each club member constructed one of these vertical antennas..

It is only recently that the advantage of using one of these antennas has surfaced.

Over twelve months ago Keith VK4XAK was having trouble getting set up on 70 cms. To help solve the problem I gave him my original collinear vertical. I mounted it on a pole and compared it with my diamond vertical and it outperformed it by a couple of S points.

One collinear issued to Arthur VK4KBN was returned to me and once again tested to ensure it still worked as expected. This one was given to Jim VK4HJK but did not succeed in Jim accessing the repeater because of Mt Cootha being in the path to Redbank Plains.

Last Friday I tested out another collinear vertical. This one came from Les VK4SO. Once again this antenna outperformed all my other antennas.

There must be a number of these antennas at Club members QTH's ready to be used to provide a high gain antenna to access the BARC 70 cm repeater.

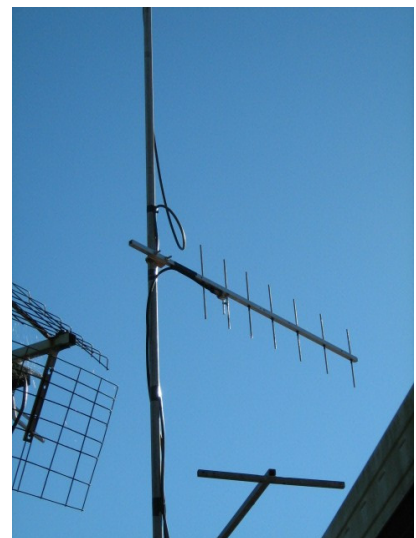


The Picture shows the three antennas used at the QTH of VK4ZR.

The Vertical in the foreground is a temporary pole on which is Les's VK4SO collinear array. Is mounted just for a quick test.

The pole to the right has the Diamond dual band Vertical mounted at the top.

The seven element 70 cm yagi is mounted halfway up the pole



The smaller picture on the right is taken from behind the main pole showing a closer view of the seven element yagi home built. This is fed with 9913 low loss coax. The main diamond Antenna is still fed with RG213 coax.

BARC Library

The Club spends hundreds of dollars each year subscribing to a number of Magazines that are designed for Amateur Radio Operators. This library is available to all Club Members who can borrow free of charge any of these magazines.

The Club subscribes to QST

CQ

Practical Wireless

Silicon Chip

Amateur Radio (WIA)

Please make use of this facility. It has now been upgraded and the library bookcase is now located in the main hall of the Rochedale Scout Den. Our Librarian has spent many hours sorting out the Magazines into order so that users can locate any item they wish to borrow.

Just to give you some idea as to what is on offer here is a list of the articles in the last four months of QST

QST March 2012

A look at four antenna analyzers: Brovo-7k Portable Vertical Dipole

Switch this antenna from 80 to 160 with one easy adjustment

Three ionospheric misconceptions

What's the best spot for your 2 metre mobile antenna?

ARRL Board meets in Connecticut

QST April 2012

ICOM IC-9100 HF/HF/VHF/UHF/Transceiver

And the homebrew challenge II winner is...

Link your PC, your Radio and your Antenna

Test that High Power Tube before it Zapps your Amp

How to Operate on the "New" 60 metre band

WRC-12 Wraps up

QSP May 2012

Kenwood TM-281A 2 metre FM Transceiver

Tokyo Hy-power Labs HL-350V DX 3 metre Linear Amplifier

Network Sciences /AC0C Roofing filter for the Yaesu FT-2000

Buoys in the classroom

HF Digital Messaging Made Easy

Success at WRC-12 in depth

QST June 2012

A look at Gasoline powered inverter Generators from Champion Generac Honda and Yamaha

A look at HF Triplexers and Bandpass filters from Inrad dunestar and W3NQN

How good are 43 foot Verticals?

A smack Yagi for a small Transceiver

Troubleshoot with a Spicy digital Logic Probe

Field Day is for the Birds.



July 5, 2012

Editor: [S. Khrystyne Keane, K1SFA](#)

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