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- QRM -

The Magazine
of the
Redcliffe and Districts
Radio Club Inc

Amateur Radio Stations
VK4RC & VK4IZ

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Club News

Yes—we have had a bit of a gap in the publication of the QRM but hopefully we are now back on track.

Christmas Function

The social events for the year was completed with a club luncheon at the 4 Mile Creek Tavern in Strathpine.. The photos show some of the members enjoying lunch and a erudite discussion.

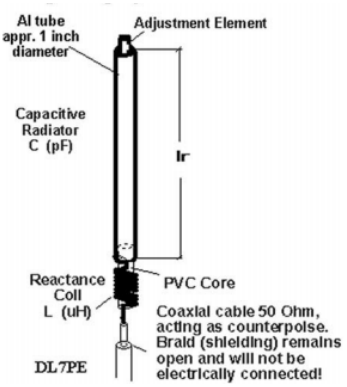
By the number in attendance it has to be judged a success. We had more than 40 in attendance..

Sorry, if your face is not shown then be thankful. You could have been getting ready to add fuel to the body.

Microvert Antennas

Club members have been experimenting with the microvert antenna design and have constructed antenna for operation on80, 40, 20, 10, 6 and 2 metres with interesting results.

We have managed to establish a contact to VK7 land from the club HQ with 5x9 results on 40 metres.



Details on how to build such a unit can be found at the link below. .

http://www.antennex.com/preview/archive4/Apr601/microvert.htm

Experiments are ongoing.

The photographs shows 3 experimental antennas for the 2, 6 and 10 metre bands

Read the article and build one they work well. So far the findings would be that its an ideal antenna for restricted sites with antenna covenants.

You will need an antenna analyser to complete the final tuning as the calculated dimensions will not be perfect but they are an excellent starting point.

Wednesday Groups

The Wednesday Groups meets at the club house in Macfarlane park, Klingner road, Kippa Ring each Wednesday morning from 0900 to 1200.

Everything radio and non is covered. Argument are not entered into.

Member repairs of equipment are carried out and investigations into a range of antennas and related subject are often on the list.

Visitors are welcome.

2 Metres and Pager Interference

Arising from an enquiry by a member living very close to a number of Pager Transmitter antenna s and who was experiencing significant QRM an approach was made to the "Owner" of the antennas.

This resulted in a visit to the club by the operator of the systems and an enlightening discussion. It was resolved that some time needed to be put into checking on the transmissions emanating from the site.

A precision Spectrum Analyser was used and the Pager Transmissions observed. They were found to be clean and not at fault.

Further investigation revealed that the Club's 2 metre Transceiver (Commercial Grade) did not experience the interference but a "Amateur Grade" transceiver beside the clubs unit most certainly did.

Conclusion—sorry but the amateur grade units don't have adequate selectivity to exclude nearby transmission.

We had the feeling that a crystal set had about the same level of selectivity—classified as broad!!

Jota/Joti

This event is held at the Murrenbong Scout Centre located on scout Road, Kallangur and comprises some 150 Hectares of bushland with Camp Sites. Campsite 6 is the regular site for the Redcliffe and Districts Radio Club.

The club uses this as the centre for scouting activities in electronics. A number of currecnt members started their interest when in scouts.

Arising from this last years Jota/Joti event we have been asked how we can implement an activity leading to the foundation level assessment being obtained. Way and means are currently being investigated.

Jota

Again another very successful event for both club members and the visiting scouting and cubs. This year we again had more than 200 youthful participants come through the site.

Participating events for Scouts and Cubs were, Electronic kit building, Operating a Transceiver (4 different bands were available), Morse Code, Fox Hunting.

The focal point as always was the building of electronic kits with the crystal radio outselling all others by 10:1. Its always intresting to see the eyes light up when they hear a radio station. Anything metl arund the site was then used as an aerial. There was more than one enquiry as to how it was possible without batteries.

In addition the scouts also participated in Fox Hunting. Four receiver were in almost continuous operation with the initial group hiding the Fox for others to find. Thereafter the winner had to hide fox. In the middle of a lrge rotten log was the most innovative attempt at making a disappearing transmitter.

Morse always got their attention and wonderment when a participant typed their name into a laptop computer that translated that into morse which was read back to them via a Senior Morse Proficient club member.

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“Classroom Capers!”

Who’d have thought that sitting in a class room every Saturday morning could be so much fun!

Earlier this year, an intrepid group of new people were coaxed, cajoled tutored and taught all they needed to know to gain their Foundation licences.

Each of us were excited to gain our licences and we soon found that the examination challenges paled into insignificance after our licences actually turned up in the post – we now had to actually “talk” to someone ... a real person ... live on the air ...

The butterflies soon started flying in formation and I’m sure we were all relieved to experience the welcoming voices of members and non-members alike ... the ice was broken and soon we started experimenting with other bands, modes, antennas and collectively we pondered the vastness of our new hobby and the possibilities that slowly presented as we learned what other members of the club were up to.

I’m sure I’m not alone when I look on in awe at members who bounce signals off aeroplanes or indeed even the moon.

The enthusiasm of members to stay up all night on a wet weekend at Murronbong to contest the John Moyle, and place highly in our nation, is infectious.

The encouragement of long term members to get new members on air by helping with antenna bits and pieces or the sharing of knowledge or eperience is very humbling (and sets a great example for new members to emulate).

The Redcliffe & District Radio Club has run and continues to run course throughout the year.

Whilst some of us were content to play with our new Foundation licences, another group of intrepid radio enthusiasts were also keen to gain their Standard and Advanced licences. Some of the earlier described Foundation candidates were punishing themselves with the subject matter for the Foundation AND Advanced course simultaneously!

The study continues and the synergy of the group (I can only speak of the Advanced course) is tremendous. The depth and breadth of experiences that class mates are prepared to share have made the class all the more interesting and enjoyable. Led and guided by Roger Dunn (VK4ZLQ) the class has learnt an enormous amount and is closing in on the goal of gaining Full Call licences.

Perhaps the most important thing we’ve learnt to date is that we now know what we don’t know ... the upside of which is that we have gained a huge appreciation of the basics.

Using a building analogy; large buildings needs a strong foundation. Building a strong foundation in our members should help build a strong and a growing club membership.

One source of frustration of course is that as we learn, we ask questions. The problem with the answers to those questions is that they usually . lead to more questions. Those questions lead to more answers which lead to more questions ... where does it end!

Despite our fears of the unknown, Rogers’ encouragement and support is unyielding. I should also add that Allan Jenner’s (VK4KZ) course notes and support materials are fantastic. In fact, I tending to think that they’re almost gaining legendary status giving the hugely positive feedback that has been volunteered by amateurs far and wide.
Hopefully within a couple of months we’ll have more news to report from the class of 2011!
73’s

Luke (VK4FAAJ – Now VK4KYT)

Software Defined Radio
GNU Radio

I have been investigating Software Defined Radio technology and cam across a lot of information.

For those that have no idea what this is about the following may provide some insight.

http://www.gnu.org

Introduction

Software radio is the technique of getting code as close to the antenna as possible. It turns radio hardware problems into software problems. The fundamental characteristic of software radio is that software defines the transmitted waveforms, and software demodulates the received waveforms. This is in contrast to most radios in which the processing is done with either analog circuitry or analog circuitry combined with digital chips. GNU Radio is a free software toolkit for building software radios.

Software radio is a revolution in radio design due to its ability to create radios that change on the fly, creating new choices for users. At the baseline, software radios can do pretty much anything a traditional radio can do. The exciting part is the flexibility that software provides you. Instead of a bunch of fixed function gadgets, in the next few years we'll see a move to universal communication devices. Imagine a device that can morph into a cell phone and get you connectivity using GPRS, 802.11 Wi-Fi, 802.16 WiMax, a satellite hookup or the emerging standard of the day. You could determine your location using GPS, GLONASS or both.

Perhaps most exciting of all is the potential to build decentralized communication systems. If you look at today's systems, the vast majority are infrastructure-based. Broadcast radio and TV provide a one-way channel, are tightly regulated and the content is controlled by a handful of organizations. Cell phones are a great convenience, but the features your phone supports are determined by the operator's interests, not yours.

A centralized system limits the rate of innovation. We could take some lessons from the Internet and push the smarts out to the edges. Instead of cell phones being second-class citizens, usable only if infrastructure is in place and limited to the capabilities determined worthwhile by the operator, we could build smarter devices. These user-owned devices would generate the network. They'd create a mesh among themselves, negotiate for backhaul and be free to evolve new solutions, features and applications.
Every revolution has its political issues. Free software for building radios is troublesome to some people. In the US, we've run into opposition from the Motion Picture Association of America and its attempt with the Broadcast Flag to restrict the kinds of receivers that can be built for over-the-air digital TV.

Political

The US Federal Communications Commission has issued a Notice of Proposed Rule Making (NPRM) concerning Cognitive Radio Technologies and Software Defined Radios. Several troublesome issues are raised in the NPRM, including restricting the sale of high-speed digital-to-analog converters, requirements for digital signatures or similar methods to keep unauthorized software out of software radio hardware and new restrictions on radios built for the amateur radio market.

From this one can only deduce that the SDR is a force to be reckoned with in the future.

For more information search on Google for SDR Radio, GNU Radio, and in YouTube for SDR videos. In particular search for article by VK2FUNK (Sydney). A definite expert in this technology and $20.00 SDR TV dongles for 64 to 1700MHz Rxs.

List of Officers 2011~2012

President	David Close	VK4DC
Secretary	Roger Dunn	VK4ZLQ
Treasurer	Chris Parr	VK4ANI
Vice President		
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QSL Manager	James Fleming	VK4TJF