



*** QDG DIGIPEAT March 2016 ***

Digipeat is the Official Newsletter of the Queensland Digital Group
Incorporating 'Amateur Eye', the Official Newsletter of the
South East Queensland Amateur Television Group

March QDG Meeting

The Next QDG general meeting will be held on Friday March 18 at the Redcliffe club rooms.

Doors will open at 7:00pm for a meeting start of 7:30pm.

The club is located at MacFarlane Park in Klingner Rd, Kippa Ring.(UBD Map 91 Ref G 1)

<https://www.google.com.au/maps/place/MacFarlane+Park,+Kippa+Ring+QLD+4021/@-27.2214151,153.0882619,17z/data=!4m2!3m1!1s0x6b93e5f47d867511:0xe926a70030364326>

NEWS FROM THE SEQATV GROUP

New web site

Please check out the new Web site for the latest information and contact details.

<http://seqatv.org/>

The next meeting is Tuesday March 1.

New Post Office box

Now **PO Box 643 Kallangur, Qld 4503, Australia**

23cm news

The Mt Coo-tha 23cm FM voice repeater is back up and running.

1273.5MHz output, 1293.5MHz input.

The Sunshine Coast 23cm FM voice repeater has been moved to a new location.

1273.3MHz output, 1293.3MHz input.

Morse Trainer

Free Morse Code training software by G4FON

<http://www.g4fon.net/CW%20Trainer.htm>



ADS-B Exchange

A community co-op of ADS-B Data

ADSExchange.com, a co-op of ADS-B/Mode S/MLAT feeders from around the world. Unlike other sites, if the data is broadcast over the air, you can find it here. There are no FAA BARR, military or other “filters”. This opens up a whole new world of interesting traffic for hobbyists, without materially affecting security for anyone. We are always looking for new participants to expand our network. Be sure to check out the “how to feed” page.

<http://www.adsbexchange.com/>

Battery University

Battery University™ is a free educational website that offers hands-on battery information to engineers, educators, media, students and battery users alike. The tutorials evaluate the advantages and limitations of battery chemistries, advise on best battery choice and suggest ways to extend battery life.

<http://batteryuniversity.com/>



Multiple Design-and-Simulation Tools in One: Fedora Electronic Lab

Are you working on a new electronics project from scratch? Does it include a designing-and-automating process? Do you have all the required electronics design and automation (EDA) tools for the same? I understand that such projects need a lot of designing tools, and it is tough to find all EDA tools separately and then install these one by one on Windows. So, if you are well-versed with Fedora operating system (OS) and are using one, the solution to all your problems would be Fedora Electronic Laboratory (FEL).

http://electronicsforu.com/electronicsforu/circuitarchives/view_article.asp?sno=2242&id=13628&article_type=15&b_type=new

VK9NT DXpedition Norfolk Island 2016

Now I know most of us would not consider Norfolk as "DX," but just remember even VK2/3 is "DX" to many overseas stations.

So from VK3 to VK9 a team of 5 will activate Norfolk Island as VK9NT in May, to coincide with the Wireless Institute of Australia's Annual General Meeting and invites others on the Island to join them. The DXers, Chris Chapman VK3QB, Brenton Vowles VK3YB, Luke Steele VK3HJ Allan VK2CA and Lee Moyle VK3GK will operate May 20 to 31.

VK9NT is to be on 160m to 10m using CW and SSB, with three transceivers feeding dipoles strung up about 25-30 metres high between majestic Norfolk Island Pines, and a Sloper antenna for 160m.

To liaise locally 2m will be used.

Those attending the WIA AGM are invited to visit VK9NT at Pacific Palms, either to enjoy the hospitality or operate, and a shuttle bus is being provided. The team also operates cliff-top QRP at the edge of the property. Visitors are welcome to that site also, but please bring your own QRP radios and attach the antenna, to chase DX. (WIA News)

<http://vk9nt.odxg.org/>

4 Free and Open Source Alternatives of Matlab

Matlab's easy to use interface, its power, and flexibility definitely make it a deservedly popular and useful software. But admit it, in bad times this propitiatory software can burn your pocket! So here we bring 4 free and open source alternatives of Matlab which can help you do the same work or even better at zero cost! Enjoy!

http://electronicsforu.com/newelectronics/articles/hitscc.asp?id=12985&group_type=cool_stuff&sr=1

Collection Of 51 Free eBooks On Python Programming

To use with Raspberry Pi or to program simulation software, here's bringing 51 super helpful and free eBooks on Python programming that can help you become a Python pro. Who knows you end up becoming the next big gaming programmer!

http://electronicsforu.com/newelectronics/articles/hitscc.asp?id=12983&group_type=cool_stuff&sr=1



AUSTRALIAN MADE
ANTENNAS
FOR ALL CONDITIONS

Technical Information relating to antennas

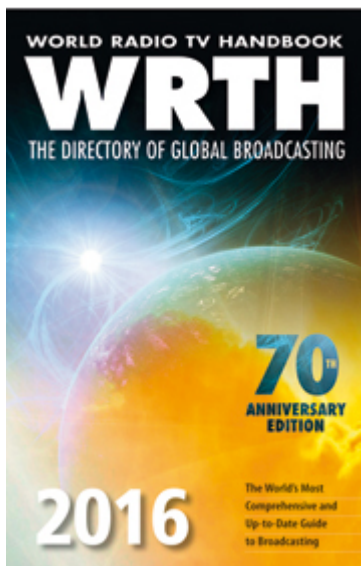
<http://zcg.com.au/downloads/>

"KL7JR Sloping Vertical Delta Loop 80-6 Meters"

Imagine 9 bands on one wire antenna!

It is extremely easy to build and only requires 136 feet of wire and a tuner. No balun or choke coils necessary.

<http://www.hamuniverse.com/kl7jrslopingdelta806.html>



World Radio TV Handbook

We are proud to present the 70th edition of the bestselling directory of global broadcasting on LW, MW, SW and FM.

The Features section for this 70th anniversary edition contains a History of WRTH and 70 Years of Reception, as well as articles on UK MW & LW Broadcasting, The Future of Shortwave, a history of Radio in Timor-Leste, and a Guide to SDRs. There are equipment reviews of the C. Crane CC Skywave, AOR AR-DV1, Eton Satellit Grundig edition, Tecsun PL-680, and the Nti ML200 Megaloop.

<http://www.wrth.com/>

How to Build a Low-tech Internet

Wireless internet access is on the rise in both modern consumer societies and in the developing world.

In rich countries, however, the focus is on always-on connectivity and ever higher access speeds. In poor countries, on the other hand, connectivity is achieved through much more low-tech, often asynchronous networks.

<http://www.lowtechmagazine.com/2015/10/how-to-build-a-low-tech-internet.html>



Experimental firmware now available for the TYT MD-380 allowing DMR scanning

Within days of the recent announcement that some innovative hams had reverse engineered or “hacked” the TYT MD-380 DMR radio, new experimental firmware has surfaced that will allow this wildly popular radio to function as a DMR scanner.

DON'T MISS: Hams hack \$110 DMR radio to allow support for D-STAR, P25 and System Fusion

This new experimental firmware, which comes in three different versions, allows the following functionality:

- Monitor all talkgroups;
- Monitor all talkgroups and private calls;
- Monitor all talkgroups, private calls, and the ability to upload alternate firmware.

<http://www.va3xpr.net/experimental-firmware-tyt-md-380/>

Electrical wiring

Standard wire colour chart is interesting and should be noted when working on equipment imported from overseas,

https://en.wikipedia.org/wiki/Electrical_wiring

W4THU

RADIO WORKSTM LLC

Check out Jim's Notebook link on the left
Articles on antennas, station grounding and more.

www.radioworks.com

RF GROUND SYSTEMS

<http://www.radioworks.com/nbgnd.html>

rtl-sdr.com

RTL-SDR (RTL2832U) and software defined radio news and projects. Also featuring Airspy, HackRF, FCD, SDRplay and more.

Radio Astronomy with an RTL-SDR, Raspberry PI and Amazon AWS IoT

<http://www.rtl-sdr.com/>

Smallnetbuilder

Computer equipment reviews, forums and information

<http://www.smallnetbuilder.com/>

Reviews.com

The Best Wireless Router

Reviews of almost everything on this site

<http://www.reviews.com/best-wireless-router/>

CROSSED DIPOLE ANTENNA FOR SATELLITE RECEPTION

A SIMPLE ANTENNA FOR RECEIVING SATELLITE IMAGES FROM THE 137 MHz BAND IS THE CROSSED DIPOLE OR TURNSTILE ANTENNA.

<http://www.qsl.net/g4hbt/dipole.htm>

MUST online calculators for electronics

Are you still calculating all the things in your design yourself? Searching mathematical formulas here and there and maybe once in a while you might run into some online calculator to save some nerves. You too have probably noticed that getting a simple and correct answer out of an online calculator may not be such an easy task. There are dozens of situations which can lead to a faulty answer, like conversions between different units and multipliers. Maybe you happened to use a comma instead of a dot and got a totally different answer! I'm guessing you wouldn't want any of that to happen.

That's why we redesigned the whole calculator concept and created the MustCalculate.com.

So now it's about time to let us take care of all the dirty work for you!

We have a variety of well working online calculators to be used in many electronic designs.

Try a few and see what you think of them.

<http://mustcalculate.com/>

Why is Good Grounding Important?

The transient nature of lightning with its associated fast rise times and large magnitude currents mean that special consideration needs to be given to grounding, for lightning protection to be effective.

Many factors such as soil resistivity variations, installation accessibility, layout and existing physical features are all site specific and tend to affect decisions on earthing methods employed.

<http://electrical-engineering-portal.com/download-center/books-and-guides/electrical-engineering/grounding-and-bonding-electrical-systems>

Voltage Drop Simplified

Calculation's based on Australian Wiring Rules AS3000:2007 - Clause 3.6 C4

Simplified Voltage Drop – Table C7 Voltage Drop-Simplified Method

<http://ipdgroup.com.au/ipdwc/VoltageDrop.aspx>

Earth Anchors

Our range of Earth Anchor products offer cable retaining solutions with surprisingly high load handling and simple installation at an affordable price.

Providing up to 4 tonnes of holding power per cable, the arrow-head earth anchors are ideal for a range of securing applications from portable shelters to large towers, including wind generator framework.

The arrowhead earth anchors are merely driven into the ground with a drive rod, requiring no pre-drilling or digging. When tension is applied to the cable the head pivots and locks into place.

<https://www.solaronline.com.au/earth-anchors.html>



No Contact. No Wear.

Unlike a traditional stylus, the Laser Turntable achieves the highest fidelity from vinyl records with no wear on your precious collection. The purest music, just like the Master Tapes you've never heard.

<http://elpj.com/>

D-STAR Info

This site is dedicated to helping D-STAR users world wide. From basic information on what D-STAR is to detailed technical information, This site can hopefully solve any of your cravings!

<http://www.dstarinfo.com/home.aspx>



Orbitron - Satellite Tracking System

Orbitron is a satellite tracking system for radio amateur and observing purposes. It's also used by weather professionals, satellite communication users, astronomers, UFO hobbyist and even astrologers.

Application shows the positions of satellites at any given moment (in real or simulated time). It's FREE (Cardware) and it's probably one of the easiest and most powerful satellite trackers, according to opinions of thousands of users from all over the world.

<http://www.stoff.pl/>

WXtoImg

Simply connect a 137-138MHz FM communications receiver, scanner, or weather satellite receiver to your soundcard and get stunning colour images directly from weather satellites. The only other item you'll need is an antenna for receiving the circularly polarised signals.

WXtoImg is a fully automated APT and WEFAX weather satellite (wxsat) decoder. The software supports recording, decoding, editing, and viewing on all versions of Windows, Linux, and Mac OS X. WXtoImg supports real-time decoding, map overlays, advanced colour enhancements, 3-D images, animations, multi-pass images, projection transformation (e.g. Mercator), text overlays, automated web page creation, temperature display, GPS interfacing, wide-area composite image creation and computer control for many weather satellite receivers, communications receivers, and scanners.

<http://www.wxtoimg.com/>

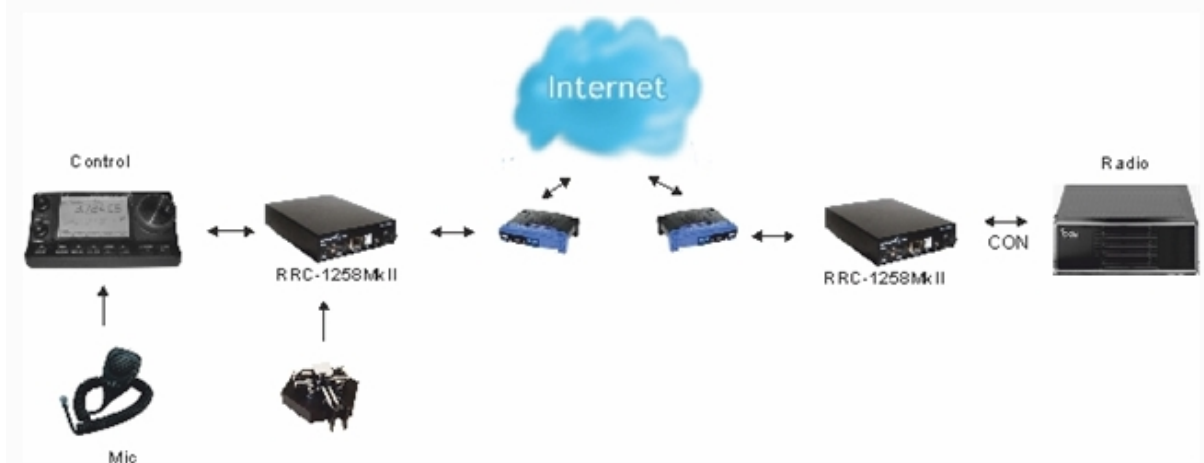


VK5SW's Remote Radio Setup

The global reach of the Internet has changed our lives. It has definitely impacted the hobby of Amateur Radio. Remote radio operating is possible nowadays because of computers being connected together via the Internet. The system I use here is called 'Remoterig'. This Swedish company uses a Remoterig 'black box' as the 'dedicated computer/modem.' One at the Control end and the other at the Radio end. Various configurations are able to be employed so that you can operate remotely. In other words, there are a variety of ways of going about it.

<http://www.vk5sw.com/A%20Remote%20Ham%20Radio%20Station%202015%2017-10-15.htm>

IC-7100



The latest HF/VHF/UHF rig from ICOM are supported by Remoterig. You get full remote functionality from the control panel and the feeling is exactly as if you use them locally. It's one of the simplest rig to setup and come on the air with. No special cables needed, just connect the RJ45:s and setup the parameters in the boxes. The performance of the radio is comparable with much more expensive earlier models. This setup is going to be a Killer, believe me.

http://www.remoterig.com/wp/?page_id=1883

AERIALS (ANTENNAS) 7

This is an experimental project that may lead to further development in the future, but even as presented below, it does work and may prove very useful.

I have therefore included this page of information so that you may can construct the aerial and develop these ideas further - either just out of interest and for the sake good old traditional Amateur Radio experimentation or for more permanent and practical uses!

http://www.mds975.co.uk/Content/amateur_radio_antennas_07.html



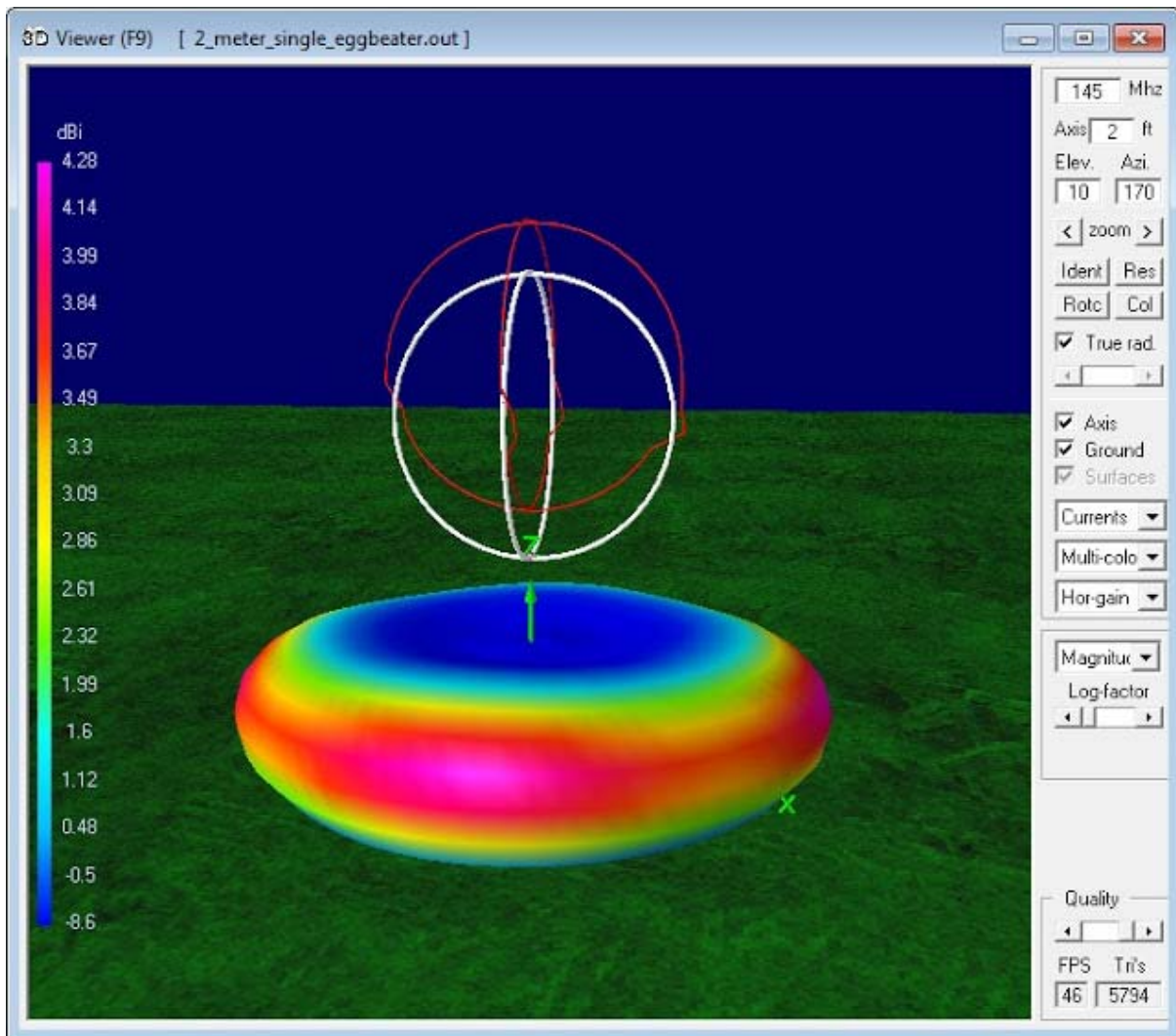
144 MHz Halo Antenna

Construction and Analysis of a Low Cost Omnidirectional Horizontally Polarized Antenna for 144 MHz
http://www.qsl.net/kp4md/144_mhz_halo.htm

144 MHz Halo

This halo antenna was built to have an omnidirectional coverage while working in VHF contests. The idea was to have a small but useful antenna for receiving, but it has demonstrated very capable on TX also.

<http://ea4eoz.blogspot.com.au/2012/09/144-mhz-halo.html>



144 MHz Omnidirectional Horizontal Antennas - Part 1

NEC Model Comparisons of Single Halo, Turnstile and Eggbeater Omnidirectional Horizontally Polarized Antennas at 0.5λ for 144 MHz

<http://www.qsl.net/kp4md/omnihoriz.htm>



MDS975 is a personal website devoted to our various interests which include cats, radio and broadcasting, music and vinyl records, a little bit of photography (you can see some of our photographs in the gallery), computers, and some other favourite things. You will find links to the other pages on the left hand side of this page and via further navigation from our site map. We really hope that you enjoy your visit, and hope that you will put a link to this site on your home page if you do. Tell your friends! Our address is <http://www.mds975.co.uk>

<http://www.mds975.co.uk/index.html>

New LCD for Amateur Radio

Radiocommunications Licence Conditions (Amateur Licence) Determination 2015 - F2015L01113
[https://www.comlaw.gov.au/Details/F2015L01113\](https://www.comlaw.gov.au/Details/F2015L01113)

ACMA Radcom Database

Register of Radiocommunications Licences
http://web.acma.gov.au/pls/radcom/register_search.main_page

2m SSB

Sunshine Coast 2m SSB net

19:30 Sundays on 144.300 MHz

Don't just use your equipment on field days; come up on air every Sunday.

SEQATV Club Net

Wednesday nights

8:00 PM EST on VK4RRC 146.925MHz repeater

2016 dates

Saturday 2nd April 2016 REDFEST Amateur Radio Convention

<http://www.redclifferadioclub.org.au/what-s-on/redfest-info>

May 27-29 VK9 WIA AGM Norfolk Island <http://www.wia.org.au/joinwia/wia/2016agm/>

May 20 to 31 VK9NT DXpedition Norfolk Island <http://vk9nt.odxg.org/>

Friday 17th to Sunday 19th June; International Rally of Queensland 2016

<http://www.rallyqueensland.com.au/>

June 4 BARCfest Mt Gravatt Showgrounds <http://www.qsl.net/vk4ba/>

July 9-10 VK3 GippsTech 2016 Churchill <http://www.vk3bez.org/gippstech.html>

August 19 QDG general meeting; Alan Simpson memorial home brew competition www.qdg.org.au

September 23-25 VK4 Central Highlands Amateur Radio Club AGM weekend

Lake Maraboon Holiday Village, near Emerald. <http://www.tarc.org.au/>

September 30 to October 3 VK4 Cardwell Gathering Long Weekend, Beachcomber Motel

<http://www.tarc.org.au/>

October 14th, 15th & 16th 2016 JOTA-JOTI <http://jotajoti.info/>

Contests 2016

VHF-UHF Field Days

Winter 2016 - Saturday 18 and Sunday 19 June.

<http://www.wia.org.au/members/contests/vhfuhf/>

19-20 March 2016 WIA John Moyle Field Day

<http://www.wia.org.au/members/contests/johnmoyle/>

Saturday 7th May Harry Angel 80 mtr sprint (WIA) provisional date.

<http://www.wia.org.au/members/contests/harryangel/>

August 13-14 Remembrance Day (RD) Contest

<http://www.wia.org.au/members/contests/rdcontest/>

Aug 27-28 36th ALARA Contest <http://www.alara.org.au/contests/>

QDG information

QDG meeting dates 2016

January 15

February 19

March 18

April 15

May 20

June 17

July 15

August 19

September 16

October 21

November 18

December 16

Unless otherwise noted, QDG group general meetings are held on the third Friday of the month at the Redcliffe Club rooms

The club is located at MacFarlane Park in Klingner Rd, Kippa Ring.(UBD Map 91 Ref G 1)

<https://www.google.com.au/maps/place/MacFarlane+Park,+Kippa-Ring+QLD+4021/@-27.2214151,153.0882619,17z/data=!4m2!3m1!1s0x6b93e5f47d867511:0xe926a70030364326>

QDG Membership

QDG Membership is presently free.

As of June 2015 the QDG has 65 members.

Information and a list of members are up on the web site <http://www.qdg.org.au/qdgmemb.htm>

Membership forms are on the web site.

QDG Membership services

Members receive additional 'Digipeat Extra' emails and invitations to other club activities not included in the Digipeat newsletter.

Sound Card to Radio Interface

This computer to radio interface can be used for any audio mode including voice.

The SCI provides isolation to remove earth loops as well as providing switching and level adjustment.

Contact Richard VK4ZA on 07 3376 5231, email richatkn@tpg.com.au or via the QDG web site.

Please contact Richard if you are interested in a dual interface PC board or a mark 2 version with modified connections.

QDG club contacts

Club contact: Alan Wills VK4NA

Digipeat Editor: Alan Wills VK4NA

Web site: Alan Wills VK4NA

Web site hosting: Tim O'Donohoe

Supper: Alan Wills VK4NA

JOTA: John VK4CJO

Phone: Alan Wills VK4NA 61 07 3491 8032

Mobile: 0401 716 778

Twitter @VK4NA

Email: qdg@qdg.org.au

Web site: <http://www.qdg.org.au>

Digipeat <http://www.qdg.org.au/qdgdigi.htm>

QDG

37 Evergreen Parade

Griffin QLD 4503

Australia

South East Queensland ATV group Information

SEQATV meeting dates 2015 - 2016

Please check the SEQATV [Web site](#)

Unless otherwise noted, SEQATV group general meetings are held on the first Tuesday on the month at the Redcliffe Club rooms

The club is located at MacFarlane Park in Klingner Rd, Kippa Ring.(UBD Map 91 Ref G 1)

<https://www.google.com.au/maps/place/MacFarlane+Park,+Kippa-Ring+QLD+4021/@-27.2214151,153.0882619,17z/data=!4m2!3m1!1s0x6b93e5f47d867511:0xe926a70030364326>

SEQATV group Membership

SEQATV group Membership is set at the AGM, please contact the secretary for the current fee. The membership fee remains at \$20.00 for 2015

SEQATV group Membership services

Members receive additional 'Amateur Eye Extra' emails and invitations to other club activities not included in the Digipeat or Amateur Eye newsletters.

SEQATV Club Net

Wednesday nights

8:00 PM EST on VK4RRC 146.925MHz repeater

The SEQATV group Officers

Elected officers:-

President: Arnold Youngberg VK4SU

Secretary: Bruce Jones VK4EHT

Treasurer: Andy Beales VK4KCS

Coopted Officers:-

Callback Officer: Peter Jones VK4YAC

Vice President: Alan Wills VK4NA

Assistant Secretary Bill VK4ZWJ

Additional coopted officers will be added as required.

SEQATV group Contact Information

South East Queensland Amateur Television Group

PO Box 643 Kallangur, Qld 4503, Australia

Amateur Eye (club mag) Phone: Alan Wills VK4NA 61 07 3491 8032

Email: secretary@seqatv.org

Web site: <http://www.seqatv.org/>

Enjoy your hobby!

73 Alan VK4YAR / VK4NA

*** Queensland Digital Group ***

*** SEQATV group ***

** Supporting Radio Communications in VK4 **