*** QDG DIGIPEAT April 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

April QDG Meeting

The Next QDG general meeting will be held on Friday April 15 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

We will be conducting preliminary planning for Jota 2016.
BP Park requires equipment and antenna repairs.
We have been approached regarding a second Jota station, details at the meeting.

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**

Online Components

THE ONLINE DISTRIBUTOR OF ELECTRONIC COMPONENTS
http://www.onlinecomponents.com/

A Beginners Guide to Repeaters

Questions and Answers
http://www.repeater-builder.com/rbtip/repeater101.html

Using Lead Acid Batteries in the Shack

A large presentation.
http://www.ricktressler.com/sitebuildercontent/sitebuilderfiles/K8SVBatteryPresentation.pdf

Practical Battery Back-Up for Amateur Radio Stations

http://www.repeater-builder.com/backup-power/pdfs/practical-bup-all-3-parts.pdf

World Amateur Radio Day 2016 Will Celebrate Amateur Radio's Contribution to Society

World Amateur Radio Day (WARD), observed every April 18, marks the founding of the International Amateur Radio Union (IARU) in 1925. As they do every year, radio amateurs worldwide will take to the airwaves to celebrate Amateur Radio's contribution to society.

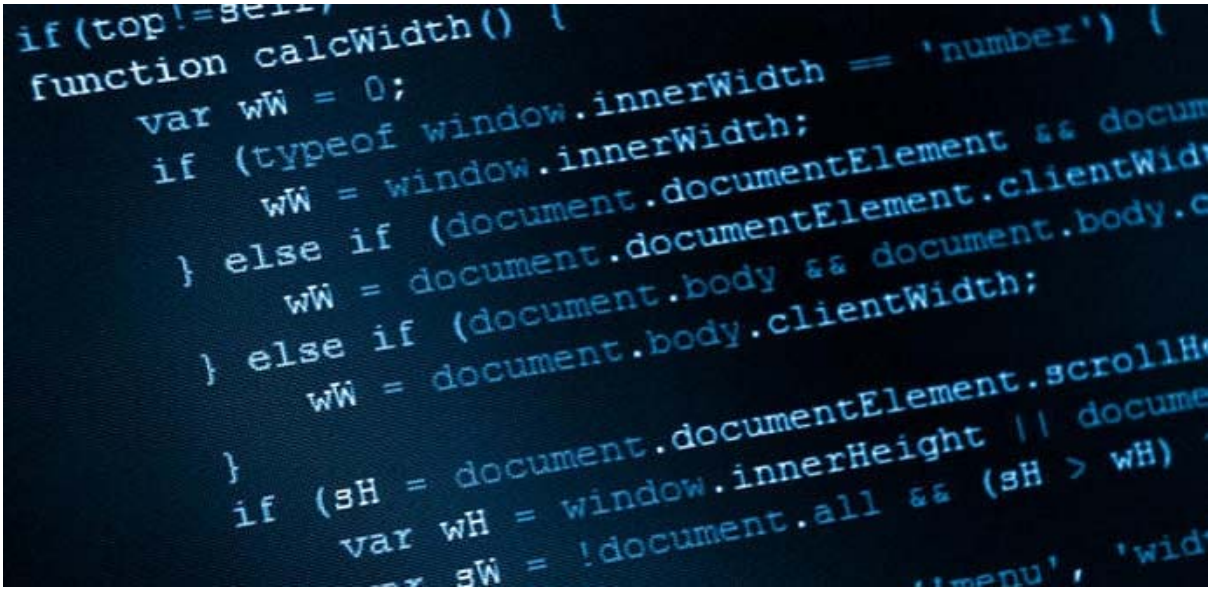
"April 18 is the day for all of Amateur Radio to celebrate and tell the world about the science we can help teach, the community service we can provide, and the fun we have," the IARU said in announcing World Amateur Radio Day 2016. "We hope you will join in the fun and education that is World Amateur Radio Day!"
http://www.arrl.org/news/world-amateur-radio-day-2016-will-celebrate-amateur-radio-s-contribution-to-society\

Four-band portable dipole antenna system for 20-30-40-80m

Band Hoppers are a complete system including:

- A resonant multi-band dipole antenna with Perspex link hardware
- A 10m feeder - high quality RG174 terminated in a BNC plug
- Built-in balun
- A guying system for a lightweight telescopic pole (6 - 8 metres length recommended)
- Three Wire Winders to ensure tangle-free operating
- Three lightweight aluminium alloy pegs
- A detailed set of instructions
- A nylon carry bag with attachment clip
- Our famous back-up for any questions that you have.

Band Hoppers work out of the packet - no messing, just fun!
http://www.sotabeams.co.uk/four-band-portable-dipole-antenna-system-for-20-30-40-80m/

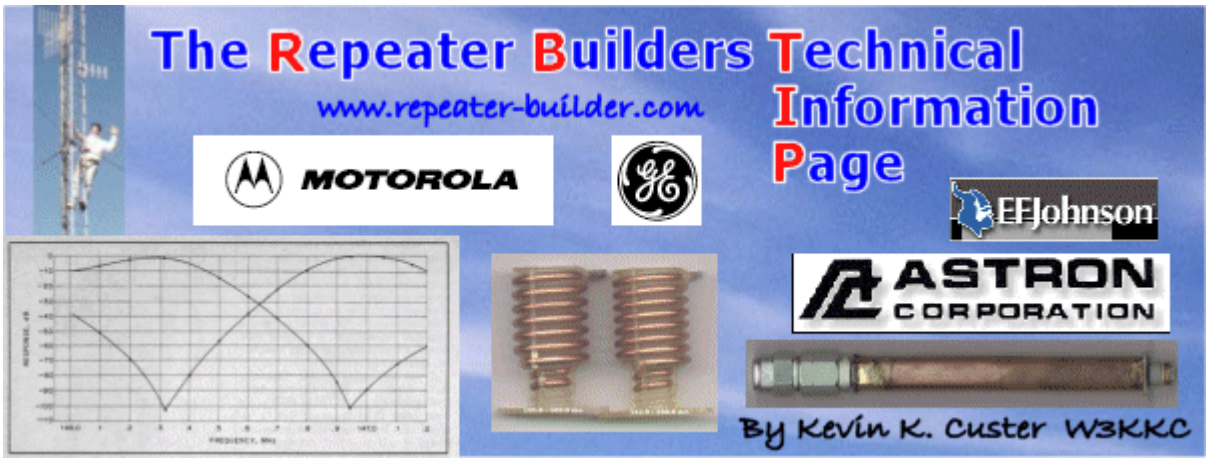


Run your codes online without installing any software

Here are some great websites for compiling and executing your code online
While some compilers are easy to install and use, some of them are expensive to memory and RAM. The solution is to compile the code online, run it and download the executable to your computer by using an online IDE. A list of such websites is following:
http://www.techworm.net/2016/03/can-run-code-online-without-installing-software.html

Amateur Repeater Builders

So, you want to build an Amateur Radio repeater.
Hopefully we can help with easy access to a lot of information.
http://www.hamrepeater.org/



So, you want to build a repeater?

http://www.repeater-builder.com/rbtip/

VK6AAL 40m/15m antenna for small house blocks

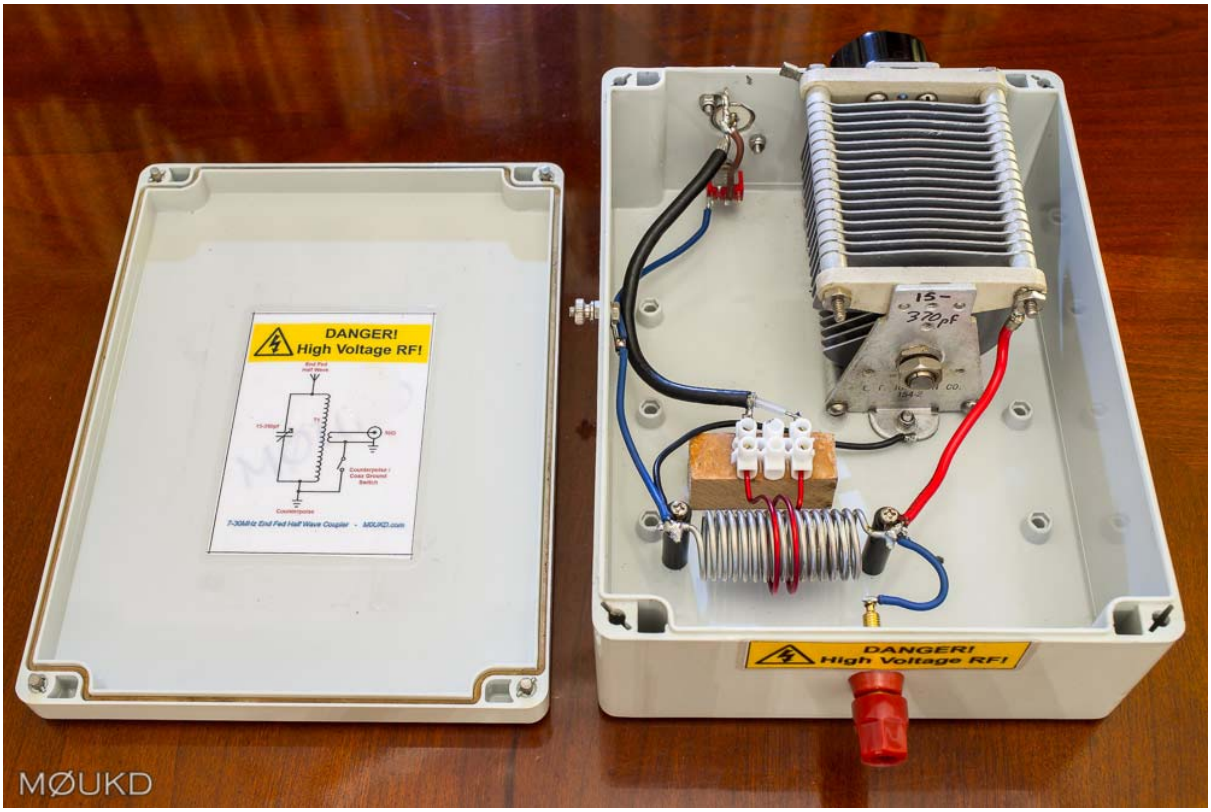
http://users.tpg.com.au/adslsymb/VK6AAL/Antennas/ant40.html

The "No-Excuses" 160 Meter Vertical

This antenna is designed for stations having a difficult time putting a decent signal on 160M from small or CC&R'd lots.
It is a 25 ft. vertical antenna, made from three 10 ft. PVC sections bolted together, and 1/2 wavelength of antenna wire helically wound around the PVC sections. A capacitance hat is on top, and the antenna is fed with a 50 - ohm feedline.
http://www.hamuniverse.com/k6mm160metervertical.html

SPIDERBEAM VS. HEX BEAM

http://www.dj0ip.de/wire-beams/spiderbeam-vs-hex-beam/



End Fed Half Wave Antenna Coupler
Centre fed half wave dipoles make great, simple and effective antennas for the HF bands. Sometimes however, the centre feed is not ideal, for example when you want to use it as a vertical. Being able to feed the dipole from one end gives you more options on how to erect an antenna and makes portable operation easier. A vertical, a sloper, a piece of wire hung in a hedge are all good examples. A ground mounted half wave vertical has a peak radiation angle of 20°, so it makes a good choice for DX.
http://m0ukd.com/homebrew/baluns-and-ununs/end-fed-half-wave-antenna-tuned-coupler/

Antennas for limited space

http://n5dux.com/ham/pubs/hammag-2009/hammag-12-2009.pdf

VE3SQB ANTENNA DESIGN PROGRAMS

Antenna Design Programs--With surface mount technology and microcircuitry, most hams no longer build their own equipment. One area that is still open to amateurs is in antenna building. For a hundred years the amateurs have made more breakthroughs in antenna design than the professionals. We do not know all the rules so we go ahead and build the antennas anyways, Some work, some don't. We are still looking for that PERFECT antenna that is small, easy to build and is super efficient. You may be that designer. If not, you will still have the satisfaction of working that DX with a homebrew antenna.
http://www.ve3sqb.com/

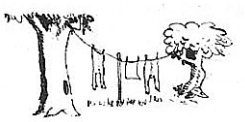
For your mobile antenna needs and more.
http://www.vk4ice.com/mobile_antenna.htm

Stealth

Hidden antennas, antennas for low space
http://www.dxzone.com/catalog/Antennas/Stealth/

Station Ground

Rumor has station equipment or desk grounds improving reception and transmission, and reducing TVI or RFI. Some even think filters divert harmonics to ground, where the ground absorbs unwanted signals. Like many things heard, there is an element of true results behind scientific folklore.
http://www.w8ji.com/station_ground.htm



LOADING UP ON 1.8 MEGAHERTZ

How does your transmitter load on 1.8MHz? Here are a few ideas on how to match into that odd length of wire on our lowest frequency band using the L Match
http://users.tpg.com.au/users/ldbutler/Loading1.8MHz.htm

The Issue of Power-Line Noise

I. Introduction (By Mike Gruber, ARRL Laboratory)
http://www.arrl.org/power-line-noise

Lindenblad Antenna

A Lindenblad Antenna for 145 MHz and 435 MHz with an integrated 50 MHz J-pole
This antenna is based on articles "A Parasitic Lindenblad Antenna for 70cm" and "An EZ-Lindenblad Antenna for 2 Meters" by AA2TX, published in QST magazine. I have made some changes so it could be better weather protected.
http://www.dxzone.com/cgi-bin/dir/jump2.cgi?ID=30942

Since 1986, M2 Antenna Systems has been building high-quality antennas, positioners, and accessories for radio amateurs. Beginning with some of the earliest computer modeled and Computer Numerically Controlled (CNC) manufactured antennas, Mike Staal, K6MYC has applied his experience to design and build the finest directional linear, cross-polarized and circular Yagis available. Innovation in antenna design has led to such unique Omni-directional antennas as the HO Loop and the wildly popular “Eggbeater” satellite antenna.
http://www.m2inc.com/amateur-antenna

Antenna information

http://www.pg1n.nl/articles.php?lng=en&pg=369

Satellite Antennas Hints and Kinks

http://www.amsat.org/amsat/articles/w6shp/ant_tips.html

Amateur Radio in Australia (VKFAQ)

Communicating using Amateur Radio Satellites

One of the most exciting fields in amateur radio is the amateur satellite program. There are several small satellites orbiting the earth. These have been built by radio amateurs and are used by amateurs from around the world. AMSAT is the world-wide body which coordinates satellite construction, and lobbies for spare space on commercial launch vehicles. These satellites permit communications by morse code, voice, or packet radio, over large distances using line-of-sight frequencies in the VHF and UHF spectrum.
http://vkfaq.ampr.org/specsatellite.php

Eggbeater II Omni LEO Antennas

Presented here is a high-performance, circularly polarized omni-directional antenna that is easy to build, easy to tune, inexpensive, and will work all the mode J Low Earth Orbit (LEO) satellites. I have built several of the traditional "eggbeaters" from plans floating around on the Internet, but was never satisfied with the overall performance. This design is the outcome of my investigations into methods of improving the performance of the "original" eggbeater without obviating the simple construction.
http://wb5rmg.somenet.net/k5oe/Eggbeater_2.html

Wireless mesh network

A wireless mesh network (WMN) is a communications network made up of radio nodes organized in a mesh topology. It is also a form of wireless ad hoc network. Wireless mesh networks often consist of mesh clients, mesh routers and gateways. The mesh clients are often laptops, cell phones and other wireless devices while the mesh routers forward traffic to and from the gateways which may, but need not, be connected to the Internet
https://en.wikipedia.org/wiki/Wireless_mesh_network

How To Build A Low-Cost "Wi-Fi Mesh Network" For Emergency Communication

A community in Brooklyn is pioneering a simple, low-cost solution to the "last mile" connectivity gaps that telcos can’t (or won’t) bridge.

When tropical storms hit New York City, internet connectivity is often the first thing to go down. The next time it happens in the low-lying coastal community of Red Hook, Brooklyn, it will be a group of teenagers running something called a Wi-Fi Mesh Network that will come to the rescue—providing a model for a low-cost, community-built solution to the so-called Last Mile gaps that the massive telcos can’t (or won’t) bridge.
http://www.fastcompany.com/3020680/how-to-build-a-low-cost-wifi-mesh-network-for-emergency-communication

Using AMSAT-UK crossed dipole with AO-73

A little while back, I ordered the crossed dipole sold on the AMSAT-UK web site. It arrived just before I left for Dayton, so I have not had a chance to work with it until this weekend - a holiday weekend here in the States. After mounting the antenna on a tripod and mast I had for another antenna, I was able to try it out in my back yard. Nice antenna!
http://forum.funcube.org.uk/viewtopic.php?f=13&t=181

AREDN™
AMATEUR RADIO EMERGENCY DATA NETWORK

Amateur Radio Emergency Data Network
The AREDN™ Development Team was formed February of 2015 by former members of the BBHNDev team interested in making mesh software work for the needs of Amateur Radio Operators and emergency networks. The AREDN™ work is based on the experiences and skills gained working on the BBHNDev team.

The AREDN Project Announces the Release of its Beta Test v3.16.1.0b02

This is the second beta release of the anticipated v3.16.1.0 which focuses on improving data rates and node manageability.
http://www.aredn.org/

How Wireless Mesh Networks Work

Wireless mesh networks, an emerging technology, may bring the dream of a seamlessly connected world into reality.
Wireless mesh networks can easily, effectively and wirelessly connect entire cities using inexpensive, existing technology.
http://computer.howstuffworks.com/how-wireless-mesh-networks-work.htm

Cisco Wireless Mesh Networking

The Cisco Wireless Mesh solution enables cost-effective and secure deployment of outdoor Wi-Fi networks. Outdoor wireless access takes advantage of the growing popularity of inexpensive Wi-Fi clients, enabling new service opportunities and applications that improve user productivity and responsiveness.

As the demand for outdoor wireless access increases, customers faced with tight budgets and reduced resources must respond with wireless LAN (WLAN) solutions that take full advantage of existing tools, knowledge, and network resources to address ease of deployment and WLAN security issues in a cost-effective way. The Cisco Wireless Mesh solution is an outdoor WLAN solution that excels in the unique attributes of wireless mesh technology, effectively supports current networking requirements, and lays the foundation for the integration of business applications.

Outdoor wireless solutions offer a number of challenges compared to a standard indoor WLAN.
http://www.cisco.com/c/en/us/td/docs/solutions/Enterprise/Mobility/emob41dg/emob41dg-wrapper/ch8_MESH.html

New LCD for Amateur Radio

Radiocommunications Licence Conditions (Amateur Licence) Determination 2015 - 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

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/

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/qdgmem.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 2016

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/

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Enjoy your hobby!

73 Alan VK4YAR / VK4NA

*** Queensland Digital Group ***
*** SEQATV group ***
** Supporting Radio Communications in VK4 **