



*** QDG DIGIPEAT August 2018 ***

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

August meeting QDG Meeting

The Next QDG general meeting will be held on Friday August 17 at the [Chermside Library](#),
375 Hamilton Rd, Chermside QLD 4032

Car park off Kittyhawk Drive

Doors will open at 7:00pm for a meeting start of 7:30pm.
If the door is closed please phone Alan 0401 716 778

Editorial

Alan Simpson memorial home brew competition

August QDG general meeting <http://www.qdg.org.au/qdgm.html>

Please bring your projects along to the meeting.

Alan VK4NA

NVIS: Near Vertical Incidence Skywave [PodCast]

Sometimes the best direction to send your signal is straight up!

<http://qrznow.com/nvis-near-vertical-incidence-skywave-podcast/>

Australian Government finally reveals how it plans to target encryption

<https://www.itnews.com.au/news/govt-finally-reveals-how-it-plans-to-target-encryption-500156>

New Linux kernel debuts, adds more suspect NSA-sourced crypto

<https://www.itnews.com.au/news/new-linux-kernel-debuts-adds-more-suspect-nsa-sourced-crypto-500094>

eSoftAnywhere DSP & More

This freeware software performs DSP (Digital Signal Processing) on audio signals received from an input line on your computer's sound card. It is specifically intended for processing audio signals from short wave, amateur (ham) radios, or any other radio to "clean up" or improve the listening quality of radio signals. It can also improve radio signal quality before the signal is sent to a radio modem or TNC (Terminal Node Controller)

<http://www.iw5edi.com/ham-radio/?esoftanywhere-dsp-more,102>

CTCSS Encoder Board

It is based on a NE567 tone decoder IC which has either a square wave or triangle wave output from its oscillator. The triangle output is used and passed through a three stage RC filter which gives a near sine wave output. This is then buffered and fed to the output.

https://vk2bv.org/archive/2007-website/w_ctcss.htm

NIST FY2019 budget includes request to shutdown WWV and WWVH

<https://swling.com/blog/2018/08/nist-fy2019-budget-includes-request-to-shutdown-wwv-and-wwvh/>

History of the ISA: Digital Equipment Corporation

The instruction set architecture (ISA) is truly a place where software and hardware meet: it's an abstraction that describes how a processor can be programmed to perform certain actions, using machine code. This article explores some of the history behind how ISAs were developed.

<https://www.allaboutcircuits.com/news/history-of-the-isa-digital-equipment-corporation/>

Magnetic Loop Build 15 thru 75 Meters High Power/High Efficiency

<https://www.youtube.com/watch?v=cu-SQ-OEVkM>

HF 15 thru 75 Magnetic Loop Modifications

https://www.youtube.com/watch?v=jd43_BVAsqE

Location, location, location

This week we received an email from a person who was concerned about a picture they had uploaded to their profile within an organisation. They noticed that the GPS coordinates of where the photo was taken was retained in the metadata of the uploaded image. Curious, they started looking at other people's profile images to discover coordinates stored in those as well, potentially revealing where these colleagues live.

<https://www.auscert.org.au/blog/2018-08-09-location-location-location>

NEW Antenna Analyzer Tester

1-8 - 500 MHz

FREE CARRY CASE

http://www.martinrfsupply.com/Comet-CAA-500MkII-BR-NEW-Antenna-Analyzer-Tester-BR-1-8--500-MHz_p_289.html?gclid=CjwKCAjwhqXbBRAREiwAucoo-4fEz0sSEQhdxXi8zqnU6QN1XNFCXfsUHC2CdWKXSY4cK6bdM9vX3xoCcwCQAvD_BwE

WindowsSpyBlocker – Free Tool To Prevent Tracking and Spying

Thinking someone is spying on you is one of the most unsettling feelings ever, I must say. While the victim may hate this, there are indeed people out there who gain pleasure in spying and tracking, whether for nefarious purposes or just for the fun of it. Put your mind at ease by getting the WindowsSpyBlocker and block all spying and/or tracking.

<https://latesthackingnews.com/2018/07/22/windowsspyblocker-free-tool-to-prevent-tracking-and-spying/>

Learn FPGA Fast with Hackaday's FPGA Boot Camp

<https://hackaday.com/2018/08/06/learn-fpga-fast-with-hackadays-fpga-boot-camp/>

DSO Nano 3 Review: a 20 MHz Pocket Scope For Not A Lot

These super-cheap 'scopes are usually sold as kits, and despite their very low bandwidth are surprisingly capable instruments with a useful feature set due to well-written software.

<https://hackaday.com/2018/08/06/review-a-20-mhz-pocket-scope-for-not-a-lot/>

Resonans

Experimental Swedish Radioamateurs quarterly magazine free download

<http://resonans.esr.se/>

QTC

Swedish Transmitting Amateurs magazine free download

<http://www.ssa.se/ssa/medlemstidningen-qtc/>

The Wild Inner Workings of a Billion-Dollar Hacking Group

The Fin7 hacking group has leeched, by at least one estimate, well over a billion dollars from companies around the world.

<https://www.wired.com/story/fin7-wild-inner-workings-billion-dollar-hacking-group/>

TDR Pulse Generator For Testing Coax

With this setup you can measure the length of cable, find breaks in cable and also tell if your cable has become waterlogged. You can also characterise a sample of cable (assumed to not be defective). The fancy-schmancy name for this trick is Time Domain Reflectometry

<http://marcusjenkins.com/tdr-pulse-generator-for-testing-coax/>

Defence communications fine-tunes its tech to cut through the noise

<https://www.createdigital.org.au/defence-communications-tech-cut-noise/>

New Wi-Fi crack attack allows outsiders to snag user creds

Researchers have accidentally discovered a new attack on the wi-fi protected access protocols used in wireless access points that makes it easier for outsiders to capture access credentials.

<https://www.itnews.com.au/news/new-wi-fi-crack-attack-allows-outsiders-to-snag-user-creds-499659>

OCFD REALITIES

The OCFD is a Compromise Antenna

The Performance of a Good OCFD seems on Par with that of an Openwire - Fed - Dipole

<http://www.dj0ip.de/off-center-fed-dipole/ocfd-realities/>

Hacked Vacuum Chamber Won't Suck a Hole in Your Budget

There's nothing like a true hack, where something useful is concocted from bits of scrap and bargain store finds. Builds like these are much more than the sum of their parts, especially when they result in a useful tool, like this DIY vacuum chamber that's good for all sorts of jobs.

<https://hackaday.com/2018/08/04/hacked-vacuum-chamber-wont-suck-a-hole-in-your-budget/>



VHF, UHF, Microwave modules

<https://vhfdesign.com/>

Es'hail 2

Qatar's Es'hail-2 satellite will provide the first amateur radio geostationary communications that could link amateurs from Brazil to Thailand. The satellite is expected to be positioned at 25.5 degrees East. A launch is planned for the 4th quarter of 2018.

Es'hail-2 will carry two "Phase 4" amateur radio transponders operating in the 2400 MHz and 10450 MHz bands. A 250 kHz bandwidth linear transponder intended for conventional analogue operations and an 8 MHz bandwidth transponder for experimental digital modulation schemes and DVB amateur television.

<https://amsat-uk.org/satellites/geosynchronous/eshail-2/>



Using a surplus 1-watt TBQ-3018 VSAT amplifier module for 10 GHz amateur band operation

Using the very amplifier shown on this page, the K7RJ 10 GHz beacon was put online on 11 September, 2011 from grid square DN31it operating on a frequency of 10368.250 +/- 500Hz. Located approximately 110 miles northwest of Salt Lake City, it has been heard by a number of stations in the Salt Lake area and has been shown to be a reliable "weak signal" source.

http://www.ka7oei.com/10gig_1watt_vsats_PA.html

Dedicated to RTTY mode contesting

Tutorials

Records, Rules & Results

Ten-Meter RTTY Contest

Getting Started on RTTY

Downloads

<https://www.rttycontesting.com/>

Laceys.tv

For more than 30 years, Laceys.tv has been actively involved in the successful design and supply of a comprehensive and quality range of television reception equipment. We are one of the largest distributors in Australia and are the sole importer of some of the world's most important and recognised television reception products.

As an Industry leader in MATV system design, we play a vital role in providing our customers with technologically advanced products and expertise. Thanks to the support of professional installers we have grown into one of Australia's largest reception solution suppliers, contributing to the delivery of stable digital TV signals around Australia.

<https://online.laceys.tv/home.php>

VK4GO

Raspberry-Zero Hotspot project page for digital mode D-Star, DMR, C4FM, Pocsag

<http://users.tpg.com.au/vk4go1/zero.htm>

The Jindalee over-the-horizon radar: its past, present and future

The IEEE Queensland Section and its Aerospace and Electronic Systems Chapter, in conjunction with the 2018 International Conference on Radar (Radar '18), are proud to present a public lecture by two leading authorities on the Jindalee Operational Radar Network (JORN).

<https://events.vtools.ieee.org/m/175248>

CAPNET - Canada Amateur Pager Network (HAM Radio)

The DAPNET (Decentralized Amateur Paging Network) is a network operated by amateur radio enthusiasts. It is the new and further developed version of the FunkrufMaster. It consists of a decentral server cluster feeding paging data to distributed transmitters.

The most used frequency is 439.9875 MHz and the protocol is POCSAG. Common paging receivers are of type "Skyper", but there exist others as well. As it is used on amateur radio frequencies, commercial use is forbidden.

<https://capnetw.blogspot.com/>

Request an Azimuthal Map

Use this form to create an azimuthal map for any location on the globe. You can customize the map in a variety of ways by changing the options in the web form.

<https://ns6t.net/azimuth/azimuth.html>



QDG meeting July 2018

Pre-meeting talk

Raspberry Pi Desktop

Debian with Raspberry Pi Desktop is the Foundation's operating system for PC and Mac. You can create a live disc, run it in a virtual machine, or even install it on your computer.

Raspberry Pi Desktop comes pre-installed with plenty of software for education, programming and general use; including Python, Scratch, Sonic Pi, Java, and more.

<https://www.raspberrypi.org/downloads/raspberry-pi-desktop/>



All information necessary to build yourself a SID monitoring station are available on this web site. The station consists of a VLF antennas, SID receivers and a set of data acquisition, data storage and graph generation software.

<https://sidstation.loudet.org/station-en.xhtml>



QDG meeting July 2018

Richard VK4ZA testing his VK5 Antenna Analyzer

heywhatsthat

Radio path profile

<http://www.heywhatsthat.com/profiler.html>

Radio Mobile Prediction Software

A nifty freeware bit of (windows) software for hams and other radio people is called "[Radio Mobile](#)". This tool allows you to simulate and map predicted coverage of your location using terrain and clutter data and maps expected coverage into Google maps.

<http://www.vk3bq.com/2013/12/01/radio-mobile-prediction-software/>

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.

Brisbane 160m net

Monday nights at 7:30pm local 1.848 MHz. LSB

SEQATV Club Net

Wednesday nights

7:30 PM EST on VK4RRC 146.925MHz repeater

2018 dates

September 8, SUNFEST at Woombye <http://www.vk4wis.org>

November 10, GCARS Hamfest, Albert Waterways Community Hall <http://www.gcars.com.au>

VK & ZL Ham Fests & Events for 2018 <http://www.vk4ice.com/hamfests.htm>

Contests 2018

VHF-UHF Field Days

Summer 2018 – Saturday 13 and Sunday 14 January.

Winter 2018 – Saturday 23 and Sunday 24 June.

Spring 2018 – Saturday 24 and Sunday 25 November.

Summer 2019 – Saturday 12 and Sunday 13 January.

Winter 2019 – Saturday 22 and Sunday 23 June.

Spring 2019 – Saturday 23 and Sunday 24 November.

Summer 2020 – Saturday 18 and Sunday 19 January.

Winter 2020 – Saturday 20 and Sunday 21 June.

Spring 2020 – Saturday 28 and Sunday 29 November.

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

QDG information

QDG meeting dates 2018

January 19

February 16

March 16

April 20

May 18

June 15

July 20

August 17

September 21

October 19

November 16

December 21

Unless otherwise noted, QDG group general meetings are held on the third Friday of the month at the **Chermside Library**, Brisbane.

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

QDG Membership

QDG Membership is presently free.

As of June 2017 the QDG has 71 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.

Alan Simpson memorial home brew competition

August QDG general meeting <http://www.qdg.org.au/qdgmcs.html>

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

11 Kroning Court

Petrie QLD 4502

Australia

South East Queensland ATV group Information

SEQATV meeting dates 2018

Please check the SEQATV [Web site](#)

Unless otherwise noted, SEQATV group general meetings are held on the first Tuesday on the even months at the Redcliffe Club rooms, that is every second month, please see the club Web site for details.

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

7:30 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

Postal address now 129 Prior St, Tarragindi. 4121

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 **