*** QDG DIGIPEAT February 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

February QDG Meeting

The Next QDG general meeting will be held on Friday February 16 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

I'm moving house 1st March so Digipeat has been delayed this month due to packing etc.
All antennas are down but I'm still contactable on my mobile.
I don't know where all the Ham Radio stuff comes from but it's obviously attracted to me.

Alan VK4NA

WIA Radio and Electronics Convention and AGM
18th, 19th and 20th of May 2018
SeaWorld - Gold Coast Queensland

The WIA Annual General Meeting (AGM) and Technical Forum will be held over the weekend of
18th, 19th and 20th May 2018 at SeaWorld on the Gold Coast.

This years event is being organised by the Gold Coast Amateur Radio Club (GCARC) with most of the
weekends activities taking place at the Sea World Resort. Accommodation is available at the Sea
World resort as well as a number of hotels, caravan parks and venues within close proximity. As has
become the tradition, there will be a Friday night dinner this will lead into a full day on Saturday with
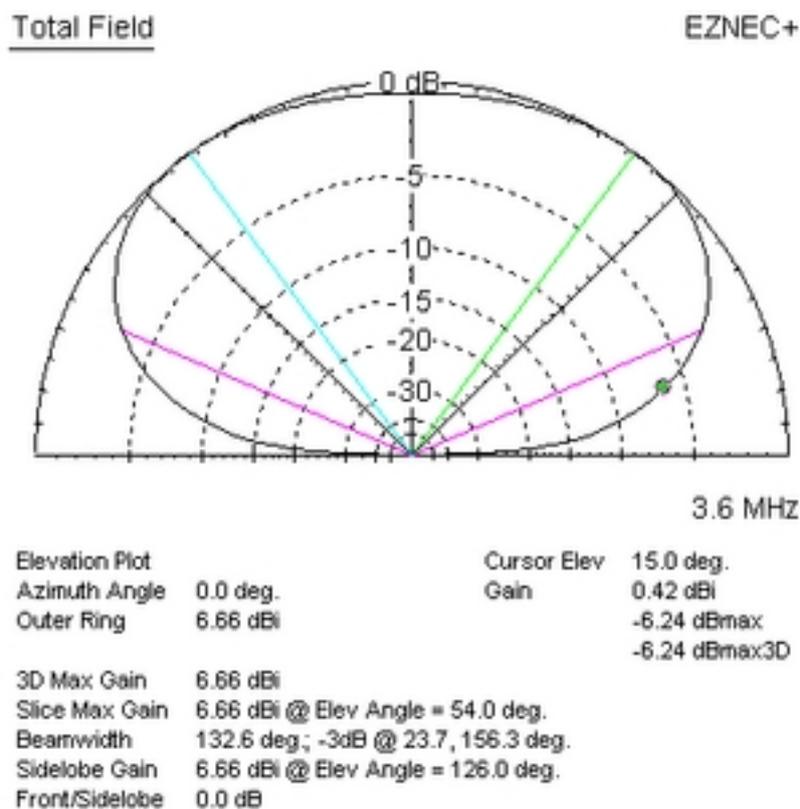a field day on the Sunday and many unique tours.
https://www.wia.org.au/joinwia/wia/2018agm/

Ladder Line

Why Use Ladder-Line?

To efficiently feed a non-resonant multi-band antenna.

http://kv5r.com/ham-radio/ladder-line/

Download a Free Worldwide Grid Square Map from DX Engineering

https://www.dxengineering.com/techarticles/dxegeneralnews/download-a-free-worldwide-grid-square-map-from-dx-engineering

Elevation Plot		Cursor Elev	15.0 deg.	
Azimuth Angle	0.0 deg.	Gain	0.42 dBi	
Outer Ring	6.66 dBi		-6.24 dBmax	
			-6.24 dBmax3D	
3D Max Gain	6.66 dBi			
Slice Max Gain	6.66 dBi @ Elev Angle = 54.0 deg.			
Beamwidth	132.6 deg.; -3dB @ 23.7, 156.3 deg.			
Sidelobe Gain	6.66 dBi @ Elev Angle = 126.0 deg.			
Front/Sidelobe	0.0 dB			

The Myth of Takeoff Angle

Antenna discussions and articles often emphasize take off angle. We commonly read or hear that a low takeoff angle is good for DX, and that a high takeoff angle is good for local or short-range work. This is exactly what a good friend of mine, the author of one of the most popular antenna modeling programs, often showed angst over. He often expressed great reservation in including TOA in his software, but felt he had to include take off angle because people expected it. In fact, if we go to the help menu in most versions of his software and search for instructions on using TOA (or takeoff angle), help is not there!

http://www.eham.net/articles/23758

Libre Space Community

Amateur Radio and space related software and hardware
https://community.libre.space/

The largest database of Photonics products on Internet. We have listed the leading lasers, laser diodes, Superluminescent diodes, CMOS Image sensors and a number of other products from the leading manufacturers in our database and have made them searchable using our parametric search tool. Users can narrow down on products based on relevant specs in each category like wavelength, power, etc.
www.gophotonics.com

Analyze suspicious files and URLs to detect types of malware
including viruses, worms, and trojans.

VirusTotal. Analyze suspicious files and URLs to detect types of malware including viruses, worms, and trojans. File URL Search. Click to select a file. Drop the file anywhere to upload it. Upload and scan file.
https://www.virustotal.com/

http://www.hamradioweb.org/forums/

habhub is the home of high altitude ballooning tools from UKHAS. habitat, the CouchDB-based tracking system, as well as several other tools are based here.
http://habhub.org/

The "Dual" company has been producing antennas for more than 25 years.

We do not use "amateur" programs like EZNEC Pro/4 - NEC4.2 engine, 4NEC2, EZNEC, YO or AO.

We perform the design work using the latest professional full-3D electromagnetic modelling software. This enables us to accurately include the influence of the boom, insulators, baluns, feed point, connections, etc

Our antennas are precision physical instruments, they are real "Precision Antennas" (PA).
http://www.antennas-amplifiers.com/

Most Popular & Best Wireless Routers for DD-WRT Firmware (2018 UPDATED)

Best Open Source Wireless Routers

Looking for the best wireless routers of 2018 to meet every need and budget? Are you familiar with popular firmware enhancements like DD-WRT and wondering what benefits you can experience from this powerful and simple upgrade?

Tired of buffering or having to reset your router a few times a day just to get it to work? Or maybe you are in the market for the best dual band router, upgrading to Wireless-AC or even a tri-band router for your current network setup? Look no further, you have found an expert list of the best wireless routers for your home or office WiFi available in 2018.

Our list of the best wireless routers of 2018 mixes our top devices based on in the field experience, months of testing, and their interaction with premium alternative router DD-WRT firmware and various streaming players like Roku, Google Chromecast, Amazon Fire Stick and AppleTV, as well as the top gaming consoles like the Xbox One X, PS3/PS4 from Sony & Nintendo Switch.
https://www.flashrouters.com/blog/2015/04/24/most-popular-best-wireless-routers-dd-wrt-2018/

RTL-SDR.COM

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

TETRA Decoder Plugin for SDR# Now Available

Back in 2016 cURLy bOi released a Windows port of the Linux based "Telive" TETRA decoder. Now the latest development in TETRA decoders is that a TETRA decoder plugin for the SDR# software has been released. This makes setting up a TETRA decoder significantly simpler than before.
https://www.rtl-sdr.com/tetra-decoder-plugin-for-sdr-now-available/

BACKSCATTER

Backscatter is a compendium of the best technical articles that have been in Scatterpoint, the UK Microwave Group newsletter (and its predecessor) over the period 1999 to 2006. The original publication in 2008 was an A5 size book of 445 pages and is an excellent reference with many articles on all aspects of microwaves.
http://www.microwavers.org/?backscatter.htm

IWR1443 Single-Chip 76-to-81GHz mmWave Sensor Evaluation Module
Description

IWR1443BOOST is an easy-to-use evaluation board for the single-chip IWR1443 mmWave sensor, with direct connectivity to the TI MCU LaunchPad™ ecosystem. The evaluation board contains everything needed to start developing on a low-power ARM®-R4F controller. The evaluation board includes onboard emulation for programming and debugging, onboard buttons, and LEDs, for quick integration of a simple user interface. The standard 20-pin BoosterPack headers make the evaluation board compatible with a wide variety of TI MCU LaunchPads and enables easy prototyping.

A 5-V 2.5-A supply brick with a 2.1-mm barrel plug (center positive) is not included. TI recommends purchasing an external power supply that complies with applicable regional safety standards.
http://www.ti.com/tool/iwr1443boost?HQS=epd-pro-rap-IWRrobotics-bs-evm-null-wwe&DCM=yes

A VPN based on OpenVPN and operated by activists and hacktivists in defence of net neutrality, privacy and against censorship.
 A VPN tunnel encrypts your connection to the Internet. This impenetrable tunnel prevents criminal organizations, your ISP or even your government to spy on your communications.

VPN is an acronym of Virtual Private Network. Our VPN extends the private network across the Internet. It enables your computer (the "client") to send and receive data across the Internet through dedicated nodes ("the VPN servers") as if those data were an integral part of the private network. This is achieved through a point-to-point OpenVPN (in routing mode) connection. The connection is encrypted and each packet is authenticated both by your client and our servers, so that nobody (including your ISP) between your computer and the VPN server can see the data you transmit and receive, the real origin and destinations of such data, and, last but not least, can inject forged packets into your stream of data. The picked encryption cipher meets higher-than-military security requirements.

Additionally, when your client has established a point-to-point encrypted connection (often referred to as "the tunnel"), your data will "get to the Internet" without any reference to your real IP address, which is simply no more inside the packets. Anybody on the Internet will therefore see your packets as coming from our VPN servers exit-IP addresses, not from your real IP address, protecting you against privacy intruders and other malignant entities, such as sniffers in public WiFi hot-spots, hi-jackers, profilers and disturbed "copyright trolls".

You don't need to configure applications to use "the tunnel", because our servers perform a set of route and default gateway pushes that your client accepts: your applications are "tunneled" transparently. OpenVPN encapsulates your packets inside an UDP or TCP stream, therefore all same or higher layer protocols are supported, making a VPN a profoundly different and highly superior solution to any http or socks proxy.
https://airvpn.org/topic/24970-multi-key-support-and-management-available/

VOIP SOLUTIONS FOR AMATEUR RADIO
We organize and administrate a network of publicly-accessible (license required) Amateur Radio repeater and remote base stations accessible to each other via Voice over IP on the Internet.

Our Administrative and Web presence and methodology has been completely re-vamped and vastly improved.
https://allstarlink.org/

RTL-SDR.COM

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

An RTL-SDR Based Optical Laser Interferometer Implementation

Thanks to PhD student Lucas Riobó of the University of Buenos Aires, Argentina for submitting his very interesting work on creating a "High-speed real-time heterodyne interferometer" with a low cost RTL-SDR dongle. This is a new application for the RTL-SDR that we have not yet seen.

Interferometers are tools that combine two separate electromagnetic waves (e.g. radio or light) and analyze the interference pattern created by their combination. One usage for example is creating a radio telescope interferometer using multiple small radio dishes. The result is that you can get the same resolution as a much larger dish without the cost of needing to build a huge dish
https://www.rtl-sdr.com/an-rtl-sdr-based-optical-laser-interferometer-implementation/

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
8:00 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/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.

Alan Simpson memorial home brew competition

August QDG general meeting http://www.qdg.org.au/qdgmes.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
37 Evergreen Parade
Griffin QLD 4503
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
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 **