



ZL2VH Newsletter – March 2022

President's Report

So here we are again, March is upon us and Autumn is making its way towards us.

We have had a couple a visits up to the Repeater site on Climie and have made quite a bit of progress with the KiwiSDR being installed (more from Simon on that) the old 730 rack is dismantled awaiting removal from site, the link between the North and South huts has been sealed and the gardens have been tidied up.

The 6m repeater will be fitted into a brand new cabinet that will be rodent proof and will match our flatmate's equipment.

Jock White Field Day has been and gone 80m not so good this year, but 40m operated by Ben and Frazer managed over 150 contacts QRP. Brian once again secured us a great operating location at the Gliding Club Kaitoke.

Upcoming events:

April AGM, date TBA.

June NZART National Conference James Cook Hotel, Wellington.

June-ish hopefully we will have a mid-winter get together to celebrate the Club's 75th, we have looked at this to be hold closer to the actual anniversary (last Dec) but the Covid situation keeps hinting at us to delay, hopefully we will over the hump by then.

Fundraising, we have a number of old lead acid batteries that we will be scrapping, if anyone has any they wish to dispose off, we can help.....

Our normal fundraising event on October didn't occur last year and I doubt whether it will be run again in the future.

Keep on eye on the bands, the contacts are out there. 27MHz has quite a bit of U.S. CB activity coming through at the moment. Listen on the SDR for it.

73

Mike ZL2NSA.

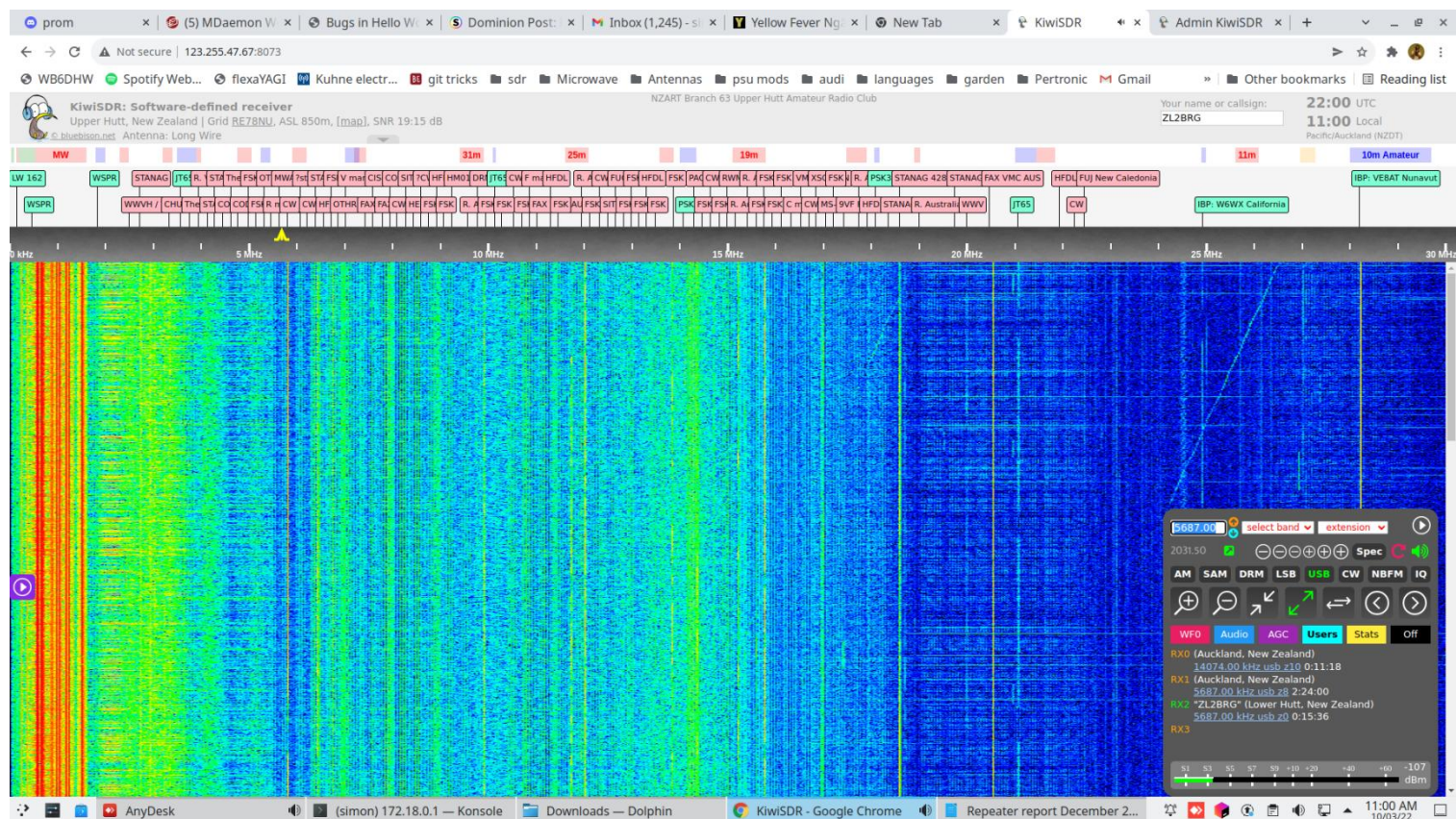
Branch 63 Repeater Update

Over the past couple of months there have been a number of working bees at Climie. We have installed the Climie KiwiSDR and re-installed the 10g beacon. The old 730/395 rack in the South Hut has been gutted and is to be replaced in the near future. At the same time the 395 repeater will be re-installed.

Status Updates

Climie KiwiSDR

The Climie KiwiSDR is up and running at <http://23.255.47.67:8093>. The long wire is performing excellently and reception is excellent, however a number of improvements can be made. The noise floor at Climie is relatively high (15-19db) - particularly below 15MHz (see screenshot below) – with the 10g beacon off - see notes below. So we need to investigate where the noise is coming from and fix. We will also need additional filtering to block the 6m repeater tx when it goes back on air.



10m Beacon On Air

3cm Beacon Temporarily switched off. When the Climie SDR was being commissioned it was found that the 10g beacon was emitting wide band noise increasing the noise floor on the SDR and also noising up the 6m repeater.

1292 23cm On Air

DSTAR 5425,860 On Air

The second Icom rpt2000 controller has been installed on 860. 860 is disconnected from the ZL2VH Dstar Gateway and is running 'over the air' IRCDDDB from John ZL2TWS qth.

730 On Air

395 6M Off Air pending installation of new rack.

From John ZL2TWS (Way back in January – Ed.)

The following article was forwarded to be by Mike ZL2NSA and after my review I see it as most suitable for entry into our Branch 63 newsletter.

It gives a history of D-Star and the difference between the secure ICOM gateway system and the open source ircDDB system. Branch 63 uses both systems giving members great user flexibility.

Read below as written by John Hays from North West Digital Radio and this also has an interesting YouTube video at the end.

73 and good DV.

John ZL2TWS

The D-STAR network does not have a central hub. Gateways talk directly to each other (and reflectors) over the Internet. What the gateway software does is keep track of gateways and their associated Internet addresses. They also keep track of which gateway a particular station was last heard on. So when you address a particular station (sometimes called callsign routing) the gateway looks up which gateway last reported hearing the station on one of its attached repeaters. The gateway then sends your signal to that 'last heard' gateway, which in turn sends it out the repeater where that station was last heard.

The Icom gateways get that data from a central database with some updates. Ircddb based gateways such as ircddbgateway (also part of the Pi-Star image) and qnetgateway have seed files, but are continuously updated in real time by data broadcast to gateways using the old Internet Relay Chat (IRC) protocol.

This is how the D-STAR network was designed.

Later, Robin Cutshaw came up with an application for 'reflectors' which are 'psuedo-gateways' that a repeater (or hotspot) can 'connect' to (not really a connection, since they use UDP) allowing for interconnecting

multiple repeaters into a network. These reflectors are designated using a 'REF' prefix. Robin's software also passes around data in parallel but separate from the actual gateway (by sniffing and inserting packets into the data stream) and does look at D-STAR registrations for stations. Icom's software gateways block relaying non-registered stations (long story having to do with Japanese postal service wanting to be sure D-STAR didn't compete with their state owned ISP).

The Icom gateway software provides a web page to allow users to register into the Icom system (known as US Trust Server), the ircddb based gateways don't require that registration. However, if you aren't using the Icom software, you can have users register at <https://regist.dstargateway.org> so that when that station is using an Icom software based gateway their transmissions will be relayed.

Alternate reflector systems arose designated with prefixes like XRF, DCS, and a couple of others. These reflectors also operate without user D-STAR registration. (Depending solely on callsigns as having authorization).

The Icom G2/G3 gateways + Robin's DPLUS reflector software only talk to REF (DPLUS Reflectors) and other Icom G2/G3 gateways. (There is additional ircddb software to populate the gateway's database with ircddb.net known gateways, for callsign routing, but does nothing to connect you to non-REF reflectors)

Ircddb based gateways have built-in support for all of these reflectors and will interoperate with any gateway that it has addresses for.

So, in my estimation, ircddb gateways have more functionality. Also, the software can be installed on anything from a Raspberry Pi on up and on Operating Systems that have regular updates especially for security.

Here is a web page with ircddb based gateways
<https://status.ircddb.net/qam.php>

Here is the lcom gateway's equivalent (though many of the listings are stale or switched over to ircddb <https://dstarusers.org/>

And activity logs are at:

<https://status.ircddb.net/cgi-bin/ircddb-log>

<https://dstarusers.org/lastheard.php>

I would be remiss if I didn't mention Quadnet

<https://www.openquad.net/repeaters.php>

<https://www.openquad.net/last.php>

Software locations:

<https://github.com/g4klx/ircDDBGateway#readme>

<https://github.com/n7tae/QnetGateway#readme>

<https://www.pistar.uk/>

Discussion

<https://groups.io/g/OpenDV>

<https://groups.io/g/QnetGateway>

<https://groups.io/g/PiStar>

Learn about my part time, perfect retirement job:

https://youtu.be/DjEn0VM8_Eo?t=157

Attachments area

*Preview YouTube video Ham Nation: Amateur Radio Digital
Communication Foundation & Radio Kits With Joe*

We are always looking for articles to fill the pages of newsletter. Please
forward anything, no matter how large or small, to the editor - Eric
ZL2SET – ericwilby@gmail.com.

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