Newsletter August 2016 – 13th Edition

We promote Amateur DV Radio you can experiment with and offer much more than just using the PTT.
The newsletter primarily concentrates on D-Star but due to the activity in Tauranga and Wellington with Yaesu System Fusion (YSF) we will from time to time feature YSF.
YSF and D-Star often share the same hardware devices.

NW Digital UDRC on RPi2 / RPi3 and testing - by John ZL2TWS Part 2

Discussed in last months newsletter the UDRC HAT is a new modem device used for home brew hotspots.
There is a problem with timing when used on the RPi3.
NW digital know what the problem is and are providing a fix this month.
If you are interested in the detail:-
https://nw-digital-radio.groups.io/g/compass/thread/github_push_to/2265687

STOP PRESS: The latest from NW digital
 "You should see the Pi 3 fix out this week. It will be a simple change."

The project continues with setting up auto start of DStarRepeater and ircDDBGateway.
For now manually start opening a terminal session for DStarRepeater using "sudo dstarrepeater –gui" and another terminal session for ircDDBGateway using "sudo ircddbgateway –gui" to get started.

Hotspot Host file locations and editing – John ZL2TWS
Last month a question was asked about the hotspot location of files for editing DExtra and DPlus host files.
You need administrator privileges to edit these text files.
Use 'sudo nano' or 'sudo leafpad' to edit each file.
'sudo pcmanfm' will open the file manager with administrator privileges so you can navigate to the location. Then being able to open the DExtra and DPlus files with your favourite editor.
Here is a list of locations.
RPiB VK4TUX Xfce images in **/usr/local/etc**
RPi2 VK4TUX F21 images in **/usr/local/etc**
Odroid C1 VK4TUX images in **/home/odroid**
Odroid C4 VK4TUX image in **/home/odroid**
Western D-Star RPi2 "Jessie" in **/usr/local/etc**
Western D-Star Odroid C1 image in **/usr/local/etc**
Kiwi D-Star ZL2TWS image in /**usr/local/etc**
UDRC Compass image is in **/usr/share/opendv**

Yaesu System Fusion, FM and D-Star – John ZL2TWS
Yaesu DR-1X Repeaters now pass FM, D-Star (GMSK) and Fusion (C4FM) modulation on the same hardware dual band RF equipment, thanks to the invention of the UDRC from NW digital.
https://nw-digital-radio.groups.io/g/udrc/wiki/UDRC-Setup-for-the-Yaesu-DR-1X-Repeater

If your club has an old FM repeater on either VHF or UHF held together with duct tape then now is as good a time as any to replace the old rack with something new to bring your club into the modern age.

XRF002 A - Connectivity

A question was asked last month on how to connect to XRF002 A for the Friday PAPA Net.
This technical net has moved from REF012 A to XRF002 A but many Hotspots and DExtra Host files have the incorrect or missing IP address for connection.
Here is the correct entry: XRF002 xrf002.dstar.club
Remember from last months XRF063 article if you want to connect as Dplus protocol the address has to be entered into the DPlus Host file.

OUFTI-1 D-Star satellite goes silent mid May but then comes back to life!

OUFTI 1 (**Orbital Utility For Telecommunications / Technology Innovations 1**) is a [1U CubeSat](#) built by students of the Université de Liège in Belgium.

OUFTI-1 was the first satellite to be built exclusively to test the use of the D-STAR communication protocol in space however AO-27 has been used for D-Star contacts with some difficulty.

The satellite beacon was received for a two week period but the D-Star transponder was not able to be switched on. The beacon and response from the satellite was lost in the middle of May.
Telemetry decoding software was free to download for amateurs at home to experiment with similar to the successful decoding software used with A0-40.
Download oufti-1_bcn_decoder.exe

There is hope that the satellite can be recovered and if not the university team are motivated to build OUFTI-2. Search the Interweb for more information about this D-Star project.

29th July:
OUFTI-1 (NORAD CAT ID 41458) is back!

At least one amateur satellite operator has heard OUFTI-1.
So it is back in the AMSAT KEPs this week.
Anyone else heard OUFTI-1???

Editor Note: D-Star is a DV mode using narrow bandwidth and most suited for amateur satellite use.

XLX Multipurpose gateways

Here is a web site with up to date XRF and XLX reflectors. http://xrefl.net
You can put the IP address or DNS address into your browser for viewing the XLX dashboard you choose or enter into the DExtra_Host.txt file in a hotspot for direct connection.
See this URL for the most up to date list: http://xrefl.net
A lot of the XRF reflectors are linked to XLX so it is possible to simply choose an XRF reflector to connect to a multi purpose XLX reflector.

Below is an up to date list of active XLX reflectors:

XLX210	xlx210.xlxreflector.org
XLX311	xlx311.ernix.de
XLX313	xlx313.xrefl.net
XLX350	86.105.53.120
XLX370	xrf370.selfip.com
XLX404	bendiksverden.net
XLX444	xlx444.pa3dfn.nl
XLX518	xlx518.n18.de
XLX570	104.128.230.153

XLX573	216.189.148.204
XLX610	xlx610.vkradio.com
XLX651	66.240.165.26
XLX699	xlx.tekniksnack.se
XLX724	xlx.dvbrazil.com.br (XLX724 connected to the BrandMeister-BR system through the TalkGroup 724945)
XLX766	xlx.amrase.org.br (Olympic City)
XLX888	37.187.0.15
XLX911	xrf911.ns0.it

RPi and Odroid "Homebrew" Hotspot and Gateway Repeater active watch updates:

Christchurch ZL3CHD – Does it again! The longest running RPi hotspot
117 days and still going strong. ZL3CHD is an RPiB operating from Cashmere Hills via a DVRPTR-V1 and a Tait TM-8110 VHF radio on 144.550 MHz.
See last month's newsletter for more details.

Hawkes' Bay Mt. Threave Gateway Repeater
Following closely behind ZL3CHD is ZL2HBD.
61 days on an Odroid C1 2015 version of the Western D-Star image.
Log in and catch up with the operators on ZL2HBD.
Use UR: ZL2HBDBL to connect.
There is an active group in Hawkes' Bay area on the Mt. Threave UHF 434.000 MHz +5 MHz repeater.

New DV Radio on the market. Save up $$$ now and be on air with all modes.
DV4 Mobile HamRadioNow interview here: https://youtu.be/Q01-N9TsyIo

Watch HRN 263: Learn More about DV4 on Ham Radio Now
http://wirelesshold.com/dv4mobile-2.aspx

CCS7 (Call Connection System 7)
The following list of stations that are working at the time of publication.
Please try them. You can check each hotspot dashboard to verify your connection.

ZL2ARN (530)1082
ZL1SB (530)1091
ZL2JML (530)2009
ZL2SFM (530)1072
ZL2RO (530)1109
ZL2NSA (530)2018
ZL3CHD (530)3049
ZL1HN (530)1074
ZL2TWS (530)1011
ZL2TWT (530)1073

NOTE: If your call sign is missing from this list and you want to be included please let us know.

How to contribute to this newsletter
The newsletter is published in the first week of each month.
Send any articles and pictures sized no larger than 250kbs to one of the contacts listed below.
The close off date is the **last day** of each month.

Auckland and Hamilton is Brian ZL1HN (zl1hn@xtra.co.nz)
Tauranga is Kevin ZL1KRH (zl1krh@ihug.co.nz)
Hawke's Bay region is Jan ZL2CZE (jan.s@eastek.co.nz)

Wellington region is John ZL2TWS (zl2tws@clear.net.nz)
Christchurch is Mike Barnes ZL3TMB (mike@barnes.net.nz)
Invercargill and ZL4 is Daniel ZL4DE (zl4de@icloud.com)

Hint: Each month useful links will be placed on the last two pages of the newsletter so you always know where to go quickly to find them.

facebook page called ZL DSTAR https://www.facebook.com/groups/184445028555391/

Repeater Gateways with Dashboards:

Auckland. https://zl1vhd.dstar.org.nz/ (Dplus)

Auckland. https://zl1hk.dyndns.org (Dplus)

Auckland. http://zl1akd.ddns.net:82 (ircDDB)

Hamilton. http://zl1cct.d-star.nz (ircDDB) **CCS7 8530100**

Tauranga. http://222.154.227.90:81 (ircDDB) **CCS7 8530001**

Te Puke. https://zl1ibd.dstar.org.nz (Dplus)

Hawke's Bay. http://zl2hbd.ddns.net:82 (ircDDB) **CCS7 8530002**

Wellington. http://123.255.47.67 (dual dashboard with Dplus below the ircDDB) **CCS7 8530304**

Wellington. https://123.255.47.67 (Dplus only dashboard)

New Zealand Reflector XRF063. http://162.248.141.148

Examples of these hotspots with dashboards that you can view and connect to this month:

ZL1AKD (http://zl1akd.ddns.net:82)
ZL2JML (http://zl2jml.ddns.net:82)
ZL2NSA (http://zl2nsa.ddns.net:82)
ZL2SFM (http://zl2sfm.ddns.net:82)
ZL3CHD (http://zl3chd.ddns.net:83)

Other sites for reference information:

ZL2VH Web site. http://zl2vh.org.nz/d-star/

http://zl2vh.org.nz/d-star/gateway/

KiwiD-Star group. https://groups.yahoo.com/neo/groups/KiwiD-STAR/info

ZL Host lists
ZL gateways and hotspots.
On the Branch 63 site you can retrieve the host files at any time. They are small text files.
 http://zl2vh.org.nz/d-star/links/
Title is "ZL Gateways and Hotspot Host files"
Alternatively here. http://zl2vh.org.nz/assets/d-star-hosts/

ircDDB Visibility
For those who want to be visible on the ircDDB "live" list.

http://www.ircddb.net/live.htm
Do the following from this URL:
http://ircddb.net/live-vis.html
UR:VIS ON and then transmit once.
Then revert the UR:CQCQCQ
Once you transmit via an ircDDB enabled gateway using RF your call sign will be seen to be live on the dashboard and also listed on the ircDDB "last heard" list on the local dashboard.

Previous issues of this newsletter are available from http://zl2vh.org.nz/d-star/newsletter/
or the KiwiD-Star Yahoo group.
https://groups.yahoo.com/neo/groups/KiwiD-STAR/files/D-Star Newsletters/

D-Star Net to join
http://www.dstarinfo.com/nets.aspx
Friday afternoon at 15:00 XRF002A **PAPA D-Star round table net** is a technical net and well worth joining.
Dashboard and DExtra_Host.txt files entry is here: XRF002 xrf002.dstar.club
The net runs for 3 hours or more and has a "shout box" type web forum you can also contribute to here:
http://d-star-roundtable.boards.net/

Editor Note:
Always have a D-Star newsletter available for lookup of gateways and hotspots.
Really helps when you can't remember where to go or haven't programmed in the destination call yet.

73 and good DV.

John ZL2TWS.