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Branch 63 Clubrooms
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Upper Hutt 5018
Newsletter of The New Zealand Association of Radio Transmitters, Upper Hutt Branch 63, Inc.

ZL2VH Newsletter – June 2022

President's Report

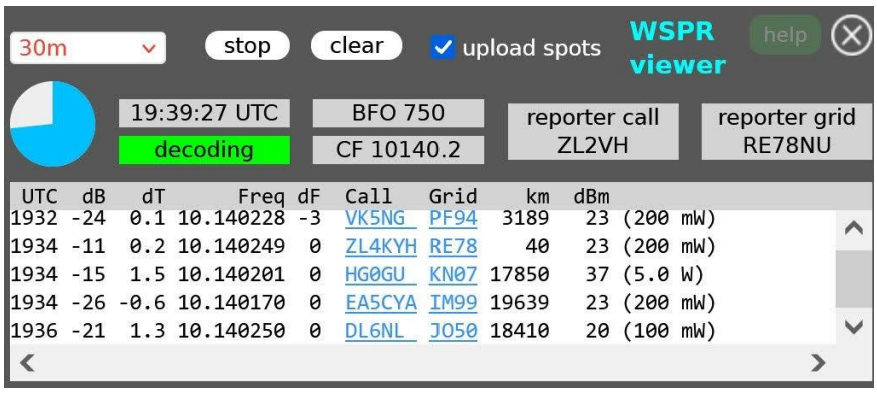
Winter allegedly is here, but it doesn't seem like it.

The clubs AGM was held in April with no real surprises, committee remains the same as does the annual fees.

We have managed to complete some work at the Mt Climie repeater site. In the future we will be reconfiguring the DSTAR antenna stacks back to the 4 dipole arrays.

The IRLP is now back in action at a new location in Upper Hutt and is working well.

The SDR (123.255.47.67:8073) is getting a lot of interest from overseas with quite a few users from Europe and some very good WSPR contacts.



2 m/70 cm Band Plan Review 2022

NZART has commenced a review of the 2 m and 70 cm band plans to refresh them with the various modes available today, and to ensure that interference between different groups is minimised. We are seeking volunteers/representatives that use 2 m and 70 cm bands. It is expected the review should take three months, and be completed before the AGM in September. The goal is to ensure the band plans accommodate the various uses without interference, and are robust to last into the future.

More information from John ZL2TWs is covered below.

Meetings still occur at 7.30 Friday evenings at the clubrooms, we do have spare seats that could do with filling.

73 And the bands are being kind to us.

Mike ZL2NSA

Branch 63 Repeater Update

Planning is underway to replace the 5425 / 860 masts. A working bee is planned on a suitable clear weather weekend to investigate rf noise issues affecting the SDR and 6m repeater and potentially re-install the 10Ghz beacon.

Status Updates

Climie KiwiDR	Online. Waiting for better weather conditions to investigate site rf noise sources.
10m Beacon	On Air
3cm Beacon	Off Air Pending RF noise tests.
1292 23cm	On Air
DSTAR 5425,860	On Air in standalone mode
730	On Air
395 6M	On Air

From Neil ZL1NZ, SKN manager

Straight Key Night (Winter Edition) will be held on **Sunday 12 June from 8pm to 9pm on 80 metres.** SKN is not a contest, but it is a great chance to dust off that straight key and let us hear what it can do. Details at radio1nz.com/skn.

(Hopefully this has reached you in time for the event but several deadlines mentioned in this issue may have been missed as a result of late entries for inclusion in the newsletter. Apologies. – Ed.)

From Fraser ZL4VV

As I'm sure you gentlemen are aware, the conflict currently underway in Eastern Europe has taken a large commitment from the NZDF. Namely personnel from the Trade Air Movements and 16 Field Regiment (Artillery).
Leaving my Trade of Air Movements very light on the ground, manning wise, in NZ.

So, not one to sit idle, I've taken the opportunity of having to live out of my work place at Wellington Airport to work 10m Mobile from Lyall Bay Beach.
As the unit is on the Western Apron this is only a 20m drive for me. Almost everyday over the last couple weeks from 0930hrs until 1500hrs there have been openings into the EU. Much to the amusement of IZ1RFT, who swears he's only worked ZL's that are mobile this season! For those of you in the Wellington/Hutt Valley region that wish to listen in, 135.100mhz AM, is the Ground to Air Calling Frequency, over the coming weeks the Wellington region will continue to have a number of NH90 sorties operating under Call Sign Warrior01 (through to 06). You may also hear the KingAir 350 calling for RNZAF Rongotai (where I work/live) for refuels as they continue their VIP tasks around the country. If you happen to hear me on 10m Mobile, feel free to give me a call, i'd enjoy a good rag chew between Aircraft taskings.

As always, 73 Good DX
ZL4VV

The remainder of this Newsletter is from John ZL2TWS
(Apologies if the formatting is not so good but I needed to get this distributed quickly – Ed.)

70cm 7 MHz repeater offset

Below is my submission regarding the 7 MHz fix for 860.

Read or send to members for discussion and feedback.
I will accept that members agree if there is no reply by next Friday night.

Thanks. John ZL2TWS

Hello Review Group

I use this page from NZART as my reference.
https://www.nzart.org.nz/assets/info/band-plans/2021-bandplan.pdf

At the bottom of the PDF it has the detailed break down of the 2m and 70cm bands.
I recommend the group download the PDF and use this for discussion.

On 70cm I am recommending a 7MHz Repeater offset as also used in Australia.
UK Region 1 has used 7.6 MHz for over 30 years.
The radio location system called "Syledis" rendered many of our UHF Repeaters useless with some shutting down during periods of Syledis operation.
CTCSS did help some repeater owners to prevent their repeaters transmitting for hours on end and unusable by amateur users.

We are now plagued with Short Range Devices (SRD) from 433.05 to 434.790 MHz.

You will recall the shut down of the UHF inverted repeater in Southland region with complaints to RSM with people not being able to open their cars and garage doors while the UHF amateur repeater was on air.

Australian reference to 7 MHz changes are found here:
https://www.wia.org.au/members/bandplans/data/documents/Australian%20Band%20Plans%20200901.pdf

Note 4: LIPD Allocation

Stations operating between 433.050 and 434.790 MHz may experience interference from LIPDs ("Low Interference Potential Devices").
Repeaters have no protection from interference caused by LIPDs.

Note 6: Repeaters

Channel spacing is 25 kHz for repeaters occupying 16 kHz bandwidth, or 12.5 kHz for repeaters occupying 10.1 kHz bandwidth.
Repeaters in the output segment 438.025 - 438.9375 MHz have a 7.0 MHz offset.

Repeaters in the output segment 439.800 - 440.000 MHz have a 5.0 MHz offset.

Referenced from NZART web site:
https://www.nzart.org.nz/info/band-plan/70-cm

https://www.nzart.org.nz/info/band-plan/

We have a high altitude site in Wellington called Mount Climie.
The 438.600 / 433.600 MHz repeater is mostly unusable these days due to LIPD / SRD devices.

The only fix is to invert the repeater or change the input to (-7 MHz) 431.600 MHz.

The 70cm band is full up at the top end so there is nowhere to go but down -7 MHz.

ELG are not comfortable inverting the repeater as LIPD /SRD devices will be interfered with.

We cannot cause QRM to others as it is a shared GURL allocated band for LIPD / SRD's.

Note: Many of these SRD's have added on 1 watt or higher power amplifiers.

I know about this as I had RSM visit a truck driver using legal power.
PAs removed from their container side loaders by RSM.
The trucks and high rise cranes are often running more power but they are hard to track down and there are many to fox hunt now in my area.
Home stations will also suffer QRM when the inverted repeater is not on air or the SRD's are operating close to the listening station.
-7 MHz offset will also help repeater users that still struggle to use their FM UHF repeaters even with CTCSS fitted.

If the group thinks that 5 MHz split should remain then perhaps DV

repeaters could be -7 MHz.

5 MHz offset repeaters above 439.800 MHz are not affected
5 MHz offset repeaters using 438.05 to 438.970 MHz will most probably be FM and locked by way of a crystal oscillator. CTCSS is an easy option for those legacy FM repeaters.
All user DV radios can do either 5 or 7 MHz offset where as older legacy rigs may not.

Note: 438.600 MHz at Mount Climie is a DV repeater and CTCSS is not possible to use as it is not a traditional FM repeater. I was asked about this also.
QRM to a DV repeater is seen with increased Bit Error Rate (BER) or in the case of 860, the repeater fails to recognize the DV signal it is presented with if an SRD is on air at the same time as an amateur keys up.
The repeater is locked out while strong SRD's operate in the local coverage area of the repeater.

Note: A reference to the SRD problem is also found here:
https://www.nzart.org.nz/info/band-plan/impact-70cm-srd

73, John ZL2TWS

ZL VHF UHF SHF band Plan review
From John ZL2TWS:

Please ask Friday night and circulate to membership what changes they think we need for our band plan.
The review is well under way and I have proposed 7 MHz repeater split for DV and FM repeaters using
outputs from 438.050-438.975 MHz.

Our task.

To review the bandplans as shown on page 21 of the 2021-2022 callbook.

Goals

1)To update the (or confirm the existing) bandplan to ensure that operators of various modes can operate whilst minimizing the risk of interference to others.
Read top paragraph of Pages 19-21 as this spells this out better (and saves me rewriting it).

2)To consider whether future proofing the bandplan is possible and if so how. By future proofing I am referring to modes that have not yet been invented.

Your first task is to reach out to your communities, see if any problems or conflicts exist with the current plan, and if so, what are they. Also to consider if / how we might deal with goal number 2.

I would also like the group to pen an infoline article to advertise to the wider amateur community what we are doing and what our goals here are. I can draft this if you like however it would be better if a team member picked this up and drafted it to the group. If a volunteer would like to pick this up please step forward else I will draft something next week.

Please cc the *vhfuhfreview@nzart.org.nz* in any external email correspondence, and communicate with the group using this email. That way we can all see what is happening and should we get challenged in the future with respect to consultation there will be sufficient evidence to refute any such claims.

Finally whilst this may appear to some to have come from nowhere, it is healthy to review such things from time to time, and that “no changes required” may be an acceptable outcome.

Thank you all for your time – I look forward to working with you on this process.

Warren ZL2AJ

The people on the review panel are:

Roger ZL3RC (VHF contesting, DXing)
Stephen Hayman ZL1TPH (DXing, contesting)
Steve Fogerty (ELG rep)
Andy Brill ZL1COP (AREC)
Royden McCall ZL4HSV (DXing, contesting)'
Simon Watt-Wyness ZL1SWW (DXing, Contesting)
Nick Wallace ZL1IU (Weak Signals, DXing)
Steve Jepson ZL2KG (Digital voice modes, contesting, repeaters)
Nigel Goldstone (APRS, Data modes, VoIP modes, repeaters)
John Wysocki ZL2TWS (VHF UHF Records Coordinator)
Warren Harris ZL2AJ (Council rep)

Mike. The reason for this review is caused by one angry amateur who insisted NZART removed simplex AREC frequencies
without consultation in the last band plan.
The person kicked up such a fuss that NZART decided to do a "fair and square" review.

Let me know by next Friday if you have any feedback from Branch 63 members regarding additions and subtractions to the 2m and 70 cm bandplans.

I will send you a separate email with my 7 MHz repeater split submission.

73. John ZL2TWS

IRLP

Gents

IRLP up and running from a new Upper Hutt location.

Node is 6713 and has been down since loss of Internet from the Branch 63 club rooms.

Check NZ status here:
https://status.irlp.net/index.php?PSTART=5&country=173

Check node details here:
https://status.irlp.net/index.php?PSTART=11&nodeid=6713

I had a two way QSO to Whangarie this afternoon.
9992 is working for a loop back audio check.
73 to unlink.

The node is very strong into 730.
When 6713 had reflector traffic I was unable to capture the signal from home QTH running 30 watts.
It is much stronger into 730 that it was from the club rooms.

73. John ZL2TWS

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.