

ZL APRS Forum – NZART Conference Held Saturday 5th June 2004, at Blenheim

Attended by around 55 operators, facilitated by Alan ZL1AMW

1 – Beacon intervals – recommendations for ZL operators

This topic occupied much of the overall time, with some spirited discussions. It was recognised there is a trade-off between sending beacons at a faster rate to give useful indication of location when travelling, and keeping beacon rate slow to allow for more stations to share the same frequency.

Some users wanted a fast rate to ensure their track is well plotted, or to ensure the person they are viewing is closely tracked. Others were much more concerned over the eventual overload of the radio frequencies allocated. Some were mistaking poor radio performance (which caused beacons to be dropped) with slow beacon rates.

There was wide agreement for fixed station beacon rates as follows:

- Home stations – approximately 30 mins. Individuals should vary their setting plus/minus 5 seconds on this to establish a random repeat pattern between stations in an area.
- Weather stations – approximately 15 mins, plus/minus 5 mins

For mobile stations, it was stated a “dumb” (ie fixed timed interval beacon) tracker should optimally send every 50 secs for good tracking.

For smart trackers, it is desirable to set up the parameters so that the maximum rate would not seriously impact on the channel traffic. The “min turn time” setting of the Tiny Track has a major impact on this, and 30 seconds is recommended as the smallest number suitable for most circumstances.

2 – IGATES – desirable – undesirable? Restrictions on power?

There was some discussion over encouraging IGATE stations to feed international traffic onto the radio channels. There was total agreement at the meeting that IGATES should limit traffic to New Zealand beacons only, although it was noted that other views had been expressed recently on the ZL APRS email group.

The meeting felt that stations wanting to view or interact with overseas stations can easily connect to an APRS server themselves, and view through their internet connection.

It was noted that the ZL port on the VK APRS server (*aprs.net.au:10154*) used by many IGATES includes traffic from all stations with ZL Callings, plus all stations operating within New Zealand, plus any station actively messaging with a ZL station.

There was no view expressed on a previous suggestion to reduce the transmit power of IGATE stations.

The lack of a continuous IGATE in Christchurch at that time was raised, but passed back to Canterbury users to resolve.

3 – Digipeaters – locations?, frequencies?

Three APRS special hill-top digipeaters were noted:

- ZL1UHF
- ZL3CHC (MARLEY)
- ZL3UR (HORIBLE)

In addition there were a number of nodes and home stations acting as nodes and digipeaters mentioned.

4 – Data repeaters (duplex)?

Duplex data repeaters carrying APRS (with other packet traffic) noted were:

- Kaimai 145.4
- Klondyke 146.565
- Wellington 146.625
- Whangarei 146.65

5 – Linking between areas – Desirable? How (what technologies)? Frequencies?

This was discussed very briefly, and a preference for using RF for linking where possible was expressed, and using internet linking where radio channels do not exist.

It was noted the use of simplex digipeaters would impact seriously on the maximum traffic, as all beacons are then repeated on the same radio frequency, reducing the maximum through-put by 50%

6 – Xrouter settings – enable APRS responses?

Brief discussion indicated confusion on whether Xrouter stations can reply to individual APRS queries. This needs further research and clarification.

7 – HF APRS – Bands? Frequencies? Operating patterns (mobile, home station etc)?

There were some different views expressed on which is the best band, 30 metres or 40 metres.

It was agreed that this did not really matter, all that is needed is for someone to hear the HF tracker beacon, and if there are stations on both bands, then one will probably pick up the signals.

The ability for signals to be picked up by VK stations, and gated into the ZL APRS network via internet then VHF means it is unimportant whether the signals are heard on HF in New Zealand or not.

Time then ran out, and there was not opportunity to talk over hardware or software usage.

Notes by Alan ZLIAMW