AREDN

- AREDN is a project aimed at using wifi devices to create a computer network independent of the internet. Since hams have access to sections of the 2.4GHz and 5.8GHz bands that regular wifi devices don't, those channels are quieter and longer distances can be achieved with better antennas.
- NARA on the island is leading the way in creating this network in our area, and a few people on the Coast have started experimenting with some of the equipment.
- This message board is very active with local hams and what they're working on.
- This map shows the nodes that are live in the area.
- This site is useful to model line of sight, including the Fresnel zone.

Getting Started

The easiest way to get started is to get a Microtik hAP AC Lite TC. Once flashed with the AREDN firmware, the device will use the 5.8GHz band as regular wifi for your computer to connect to, and the 2.4GHz band will be used to mesh with other devices within range. Realistically, the hAP is not useful to make long distance links since it would require an external antenna. But it is useful to tunnel to others on the network via the internet to get started with the system. To add RF links, an outdoor device can be connected to the hAP later. See the support matrix for more information.

Services

Once on the AREDN network, individuals can run different services on small servers like the Raspberry Pi. Note that these services are only visible to a given AREDN network and are **not** connected to the wider internet. A few examples we have running right now are:

- Meshchat service for chat.
- The Island's VOIP phone network
- VE7LSE's Winlink gateway.[1]
- and more ...

Information for the Sunshine Coast

- On July 4, 2021, Chris (VE7TOP) and Patrick (VA7FI) made a successful connection on 5.860 GHz (Ch. 172) between Nanaimo (49.227263, -123.975836) and Roberts Creek (49.45465, -123.64199): a distance of 35 km.
- Patrick (VA7FI) is able to get a weak signal from Mt. Benson.

[1]
Screenshots of how to send messages through VE7LSE's Winlink gateway: