

# 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.

## Getting Started

The easiest way to get started is to get a Mikrotik hAP AC Lite TC. Once flashed with the AREDN firmware, the device will use the 5.8GHz band as a regular wifi for your computer to connect to, and the 2.4GHz band is used to mesh with other devices within range. Realistically, the hAP is useful to tunnel to others on the network via the internet to get started. To add RF links, an outdoor device will need to be added. See the [support matrix](#) for more information.

## Services

Now that you're connected to the network, here are some services that are worth looking into:

- VE7ODG's [Mattermost](#) service for chat. See [here](#) to sign up. You can also use a phone app instead of the web interface as long as your phone is connected to the AREDN network.
- The Island's [VOIP phone network](#)
- VE7LSE's [Winlink gateway](#).



- and more ...

## VE7TOP - VA7FI / Nanaimo - Sunshine Coast 5.8GHz P2P Connection

On July 4, 2021, Chris (VE7TOP) and Patrick (VA7FI) made a successful connection between Nanaimo and Roberts Creek on the Sunshine Coast on 5.860 GHz (Ch. 172).

### VA7FI's Setup

Patrick installed a [Mikrotik LDF-5](#) (not the ac model) on a used TELUS satellite TV dish.

- The first task was to mount the LDF-5 to the dish roughly where the old receiver was. Unfortunately, the arm

and the LDF-5 mounting bracket were both bit too short:



- So a second arm was bolted on top of the first to raise the LDF-5 and move it a bit further away:



- Initially, the dish was mounted on a post with a 45° angle, but after field testing it, it was found to be unnecessary and a vertical post will be used next time.



- For the field test, Patrick went to a clearing in Roberts Creek at 49.45465, -123.64199 and Chris was at 49.227263 -123.975836 in Nanaimo with a line of sight distance of 35 km



- Here's Patrick's setup and the view from the dish (the red circle marks the spot where Chris is):

