

Current Status

On December 1, 2021, we announced plans to shift our focus from HamWAN to AREDN (Amateur Radio Emergency Data Network) and work closely with [Willamette Valley Mesh Network of Oregon](#), pending the approval of [ARDC \(Amateur Radio Digital Communications\)](#). (ARDC has since granted their approval to make this change.) There are several reasons for this decision:

- HamWAN runs only on proprietary Mikrotik hardware. The number of available volunteers with the necessary expertise required to configure this hardware is extremely limited. Despite our best efforts, we did not feel confident that we would be able to get this hardware configured and operational. The HamWAN [Puget Sound Data Ring](#) (PSDR) provides some sample configurations for [Sector](#) and [Point-to-Point](#) Configurations, but these have not been updated to account for new hardware and firmware, and are not well documented. We attempted to create form-based configuration scripts for [Nodes](#), [Sectors](#), and [Point-to-Point](#) configurations. These scripts were intended for use with our [Site Configuration Worksheet](#). The use of form-based configuration scripts and a Site Configuration Worksheet were intended to ensure consistent and reproducible configuration from site to site. Although form based configuration works for Nodes, the form based configuration is not yet working for Sectors or Point-to-Point links. (The scripts can reproduce the sample configuration files provided by PSDR, so the scripts work correctly. The issue is that the templates used by the scripts need to be updated.) We have also been unable to configure a working VPN solution that would enable us to remotely manage Oregon HamWAN sites.
- Although we have been working with multiple sites for the past six months (since the effective starting date of the ARDC grant on the first of June), and despite the fact that we have funding and equipment available, we have been unable to reach agreements with any sites to deploy Oregon HamWAN on any towers. County Emergency Managers, who control access to many of the desirable tower locations, appear to favor AREDN over HamWAN.
- As previously noted, HamWAN runs only on proprietary Mikrotik hardware. In order to operate in the 5 GHz Amateur Radio Band (5,650 to 5,925 MHz in the USA), we must order the International, or Rest-of-World equipment from Mikrotik, since the USA version is configured to prevent operation in the Amateur Radio Band. The International version has higher cost and limited availability (longer lead time) than the US version. The most recent International equipment we received from Mikrotik ([mANTBox 19S #RB921GS-5HPacD-19S](#)) is limited to frequencies in the range 5,170 to 5.835 MHz, and thus is no longer compatible with the frequencies we had chosen (5,880, 5,900, and 5,920 MHz). If we are at the mercy of a single vendor, Mikrotik, and they decide in the future to prevent operation in the entire Amateur Radio Band, we would be unable to expand our network.
- Washington has terminated the HamWAN leases at all DNR (Department of Natural Resources) sites in Washington, including Larch Mountain and Baw Faw. For more information, refer to [HamWAN PSDR Cell Sites on DNR Towers](#). This action limits our ability to connect our network to the Puget Sound Data Ring.
- AREDN is widely deployed in the Salem area and is expanding coverage towards Portland. It makes little sense to establish two different competing networks. Note, however, that hybrid networks are possible. For example, in the future, we may utilize a Point-to-Point HamWAN link to connect our AREDN network to the Puget Sound Data Ring.

A few notes:

- It is possible to load AREDN firmware into Mikrotik equipment, and it is also possible to reload the Mikrotik firmware in the future. However, it may be desirable for some people to maintain their HamWAN equipment for portable operation when traveling in Washington, and to obtain separate equipment for use with AREDN.
- The [Oregon HamWAN](#) site contains useful information, and will remain online even as we transition to AREDN. In particular, [Aim Tool for Mikrotik](#) is useful for any HamWAN network.
- Herb Weiner, AA7HW, was the technical leader for the Oregon HamWAN project. Although Herb is committed to the success the emergency data network and the ARDC grant, he has insufficient experience with AREDN to serve as a technical leader. Ken Tolliver, K7ICY, remains the administrative, financial, and legal leader for the ARDC grant.