

VHF Data Comm Exercise

2022 April 30

Operating Frequencies

- 147.260MHz +060 T114
 - Voice check in, coordination
- 144.440MHz Simplex
 - Won't tie up the repeater for longer explanations
- 144.390MHz APRS (Net control: N7DEM-5)
- 144.920MHz Winlink

Procedures

1. 09:00 – 10:00 Initial checkins
 1. Voice W7DG 147.260MHz repeater
 - Net control to record activity on ICS-309 form
 2. APRS: send message to N7DEM-5
 3. Winlink: send message to N7DEM via N7DEM-10 or N7DEM-12 gateways
2. 10:00 – 11:00 APRS Object spotting
 1. Stations with rover capabilities move to designated object locations given by APRS packet.
 2. Send reports with WA STATE Bridge Inspection Form (include EXERCISE in notes) to N7DEM via N7DEM-10 or N7DEM-12 Gateways.
3. 10:00 – 11:00 Remote Station Activations
 1. LCARA Clubhouse – Rover: beacon on arrival
 - Reboot Winlink gateway, (Raspberry Pi 4 near VHF/UHF radios)
 - Ensure direwolf and rmsgw come back up.
 - Send P2P Winlink Message from W7DG to N7DEM

- Reboot digipeater and send APRS Message to net control via Raspberry Pi near the clubhouse thermostat.
2. EoC Hall of Justice – Rover: beacon on arrival
- Reboot PC and ensure RMS Packet comes back up
 - Send P2P Winlink message to W7DG
4. 11:00 – 12:00 P2P Winlink Test
- All stations on 144.920MHz with Winlink Express P2P session open and listening.
 - Net control will send 3 P2P messages to 3 participants containing a list of callsigns. Each recipient should Forward the message to the next callsign in the list after filling in their station report (like a game of telephone).
 - The last recipient should send the final message back to net control via P2P or Relay.

Recommended Software

- [direwolf](#) – Modem (Windows, Linux)
 - Cross-platform AX.25 “soundcard” modem. Basic TNC features include digipeater, beaconing, and APRS-IS capabilities.
 - Possible to run from a Raspberry Pi / old laptop and access from Android/iOS over wifi.
- APRS
 - PC (Windows or Linux): [YAAC](#)
 - Windows Installation Note: use Java 11, create shortcut: java -jar C:\Users\Ham\Downloads\YAAC\YAAC.jar.
 - Linux Installation Note: `sudo apt-get update && sudo apt-get install default-jre`
 - Android: APRSDroid
 - iOS: aprs.fi
- Winlink (choose one)
 - Winlink Express (Windows) – Official Client
 - pat (Linux, Windows) – Open Source Client
 - WoAD (Android)

Operating Guidelines

- Prefer battery power
- Prefer mobile capabilities
- Prefer RF Winlink / APRS