

Automatic Packet Reporting System (APRS) is an amateur radio-based system for real-time digital communications of information of immediate value in the local area. Data can include object Global Positioning System (GPS) coordinates, weather station telemetry, text messages, announcements, queries, and other telemetry. APRS data can be displayed on a map, which can show stations, objects, tracks of moving objects, weather stations, search and rescue data, and direction-finding data.

Uses:

- Severe weather spotter availability would be one of the main reasons.
- There have been several reports of folks locating and tracking their stolen car using APRS, allowing the PD to quickly recover the stolen vehicle.
- Emergency Communications
- Supporting served agencies

Scenario 1

W5NAC has been asked to assist with comms for the Stone Fort Bike Ride or the Pineywoods Purgatory. The organizer is interested in knowing in real time where the lead and tail of each leg of the race is located on the course.

W5NAC has operators in cars or on motorcycles, each with an APRS rig.

The net control can point to a map on the computer where each person is either with an internet-connected computer or a standalone computer with a TNC & transceiver that monitors the freq.

Scenario 2

A ham op is on the road outside of the cellular coverage area and comes upon an accident. The op can send a beacon from their rig then alert anyone on the closest repeater to look at aprs.fi, search for their callsign, and send help.

Equipment needed to create an iGate/Digipeater as W5NAC-10

- Raspberry Pi 3 with APRX - to be donated by KE5EXX
- MFJ-1270PI, Raspberry Pi TNC - \$99.95
- 2m Transceiver, preferably with a data port - to be donated by KD5FEE
- Antenna, feedline, power, & Internet - all currently available at the Nac Co Road & Bridge tower site

With reconfiguration, this system could be a backup Winlink system

A great explanation of APRS by KB9VBR is available on YouTube

<https://youtu.be/xQFSmINZqCY>