NWGA TRAINING-APRS-W1JKU- 6SEPT2022

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APRS (Automatic Packet Reporting System)

If you have digital capability from your computer and radio, you have ability to enable and configure APRS.

a. Provide overview of what APRS is:

APRS is an amateur radio-based system for real time digital communications of information of immediate value in the local area.[1] Data can include objects, 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.

APRS was developed from the late 1980s by Bob Bruninga, call sign WB4APR, a senior research engineer at the United States Naval Academy. He maintained the main APRS Web site until his death in 2022.
The initials "APRS" was derived from his call sign.

b. Frequency: 144.390 MHz : North America,

c. **Software: Many different software options available, including being available directly from some radios:**
   a. APRSIS32 using either a TNC or Free SoundModem Software from UZ7HO.
   b. HAMPI (Raspberry PI) by W3DJS- Dave: -using YAAC with Direwolf
   c. APRS.FI (Web Browser to View)
   d. Several others on your Mobile phone/etc to download

Features/Functions:
1- Send beacon with current location with short message (x characters)
2- Notify others that you are monitoring a specific frequency
3- Send notification/alert/icon (Emergency in nature) so it depicts on MAP. (Tornado, etc…)
   a. Ability to track other APRS users.
   b. Use as a beacon to check VHF propagation

Other Capabilities:
a. SMS- Send SMS message without knowing Cell phone provider.
   i. Simple Send to SMSGTE and the Body of message is " @Phonenumber + message. "
      Example SMSGTE @4047109630 I am located at Point Bravo)

b. POTA/SOTA. Send message to APSPOT (Will Post to POTA.app and ParksNPeaks.org)
   i. To Request Local POTA Spots: "spots POTA"
   ii. POTA Usage: usage "POTA"
   iii. SOTA Usage: usage "SOTA"
   iv. Submit a Spot for POTA (Pota.app) to **APSPOT** "! <POTA or SOTA> <PARKREF> <FREQ in MHZ> <Mode> <Comment>"
      Example "**! POTA K-7894 7.140 SSB CQCQ**"
c. Weather Reports
   i. Send message to WXBOT with following options to request weather:
      1) ZipCode
      2) Callsign
      3) Airport Designator
      4) City, State
      5) 4 or 6 character Maidenhead Grid(EM74rd)
   ii. Optional additional items:
      1) Today
      2) Tomorrow
      3) Monday [night]
      4) Tuesday
      5) Metar
      6) FULL
      7) Current

[ki6wjp - WxBot -- an APRS Weather Forecast Auto Responder (google.com)](google.com)

    d. Send an Email. Send message to "**EMAIL**". Limited to 67Characters. In body type Email Address and then the message. Example:

        EMAIL w1jku@arrl.net This is a test message over APRS.
        [Email Services (aprs-is.net)](aprs-is.net)

Comments:

○ If you have not experimented with APRS, give it a try. This is another good tool to add to your toolbox. And another great tool when performing POTA/SOTA to get your spot in, considering you may not have internet where you are located.

○ Details will be posted on the NEWS PAGE of Cherokee-ARES.ORG this evening.

Additional APSPOT Details for POTA/SOTA

"! <Activity> <Ref> <Frequency In MHz> <Mode> <Comment(Optional)>"

This is the message format to submit a spot, it is case insensitive (You can send the message in uppercase, lowercase, or any combination of both, and is broken down as follows:

"!" – This tells the system that you're submitting a SPOT – the system will use your APRS callsign to submit the SPOT so you don't need to specify your callsign
"<Activity>" – This is the activity that you want to submit the spot for. Currently supported activities are: WWFF, SOTA, POTA, SIOTA
"<Ref>" – This is the reference of the Park/Summit/Silo/etc that you're working. For example WWFF-1929 for WWFF, VK3/VN-008 for SOTA, VK-3024 for POTA
"<Frequency in MHz>" – This is the frequency you're working in MHz, for example 7.144, 7.090, 14.310, etc
"<Mode>" – This is the mode you're using. Currently supported modes are: SSB, CW, FM, AM, DATA for WWFF, SOTA, SIOTA, with the addition of FT8 for POTA
"<Comment>" – This is a comment that will be added to your SPOT. Note that if you include the string "test" in your message, the system will assume you DO NOT want to post a SPOT and will do everything except post your spots.

From <https://apspot.radio/?page_id=7>