

# APRS



[APRS](#) is a two-way tactical real-time digital communications system between all assets in a network sharing information about everything going on in the local area. On ham radio, this means if something is happening now, or there is information that could be valuable to you, then it should show up on your APRS radio in your mobile.

Basically, the way it works is:

- Your APRS capable radio transmits data on 144.39 Mhz (in North America).
- Someone else's APRS capable radio hears that data and can display it, store it, and re-transmit it to extend the range of the network.

## APRS-IS

[APRS-IS](#) is the common name given to the Internet-based network which inter-connects various APRS radio networks throughout the world.

Basically, the way it works is:

- Your APRS capable radio connected to a computer and sends what it hears to the internet (this configuration is called an IGate).
- Others can view this information [online](#) or using [various apps](#). For example, see [aprs.fi](#) and [APRSdroid](#) <sup>1)</sup>

## Popular APRS Radios



: Please add a list of radios that can do APRS on their own.

## Windows

[Pinpoint](#) is a Windows program for APRS.

PinPoint v2.0 build 190521

File Map Tools View Lat: 49° 53.4657' N Lon: 123° 42.6929' W Zoom: 8 Distance: 51.08 km at 355°

Map labels: Sonora Island, Quadra Island, Campbell River, Goat Island, Powell River, Squamish, Courtenay, Texada Island, Port Alberni, Parksville, Nanaimo, Vancouver, Richmond, Maple Ridge, Chilliwack, Abbotsford, Bellingham, Saltspring Island, Lopez Island, Victoria.

Bottom status bar: Online | TNC Connected | GPS Disconnected | APRS-IS Disconnected | iGate Inactive | Beacons Enabled

SoundModem by UZ7HO - Ver 1.00b - [AFSK AX.25 1200bd]

Settings View Clear monitor Calibration About

A: [AFSK AX.25 1200bd] 1700 DCD threshold

Last Heard

- Radio reports
- Position reports (38)
- Miscellaneous reports (7)
- Weather reports (3)
- APRS-IS reports
- Messages
- Inbox (1)
- Sent items (1)
- Packet errors

Communications Monitor


Show GPS Data Clear Data

VE7RAW>U0TQTT,BGWHT\*,WIDE1,THYNNE,SSI,WIDE2:/[2I -/]  
 VE7DYT>APBPQ1,WIDE2-1:4909.99N12358.52W& BPQ PI-TNC APRS iGate/DIGI  
 VE7DYT>APBPQ1,DEPBAY\*,WIDE2:4909.99N12358.52W& BPQ PI-TNC APRS iGate/DIGI  
 VE7FI-7>T9UXXT,VA7YLW-1\*,WIDE1,THYNNE,WIDE2,SSI,WIDE1:/3bq[LU\ "8Y)Canoing Clearwater Azure 73! Mon:145.350 or 146.920\_  
 VA7MIA-9>T9RRVR,VE7KU-15\*,WIDE1,WIDE2-1:4T~!p>/"4y)\_%  
 VE7TBP>APRS,LDYSMH\*,WIDE1=4924.37N/12331.79W-146.680MHz T141 - /A=131  
 K7KCA-3>APX204,K7KCA-1\*,VE7RNA-10,WIDE2=4831.52N/12254.77W-Lopez Is Village UDRC/Xastir  
 VA7AGG-7>TY2SVR,VE7RNA-10\*,WIDE2-1:3.4if.K\]"4F)=  
 VA7AGG-7>TY2SVR,VE7RNA-10\*,LDYSMH,WIDE2: 3.4if.K\]"4F)=

## Configuration

To use with Signalink, see the [Signalink How-to](#).

Once the radio, the Signalink, and the Soundmodem are configured, start PinPoint and change these settings:

 Options — □ ×

APRS

TNC

GPS

Map

APRS-IS

Misc

Donate

My APRS Call sign + SSID

VE7HZF


APRS Path

WIDE1-1

Position comment

Station icon

<



>

Overlay (type table + symbol directly in box + Enter key)

/y

APRS DigiPeater settings

☐ Enable APRS DigiPeater (Fill-in Digi. For non-KISS TNC's only for the moment)

My DigiPeater alias

WIDE1-1

APRS Position Beacons settings

☒ Enable APRS beacons

Beacon at least every

30

minutes

0

seconds

Beacon a minimum of every

5

km

Beacon when heading changes more than

35

degrees

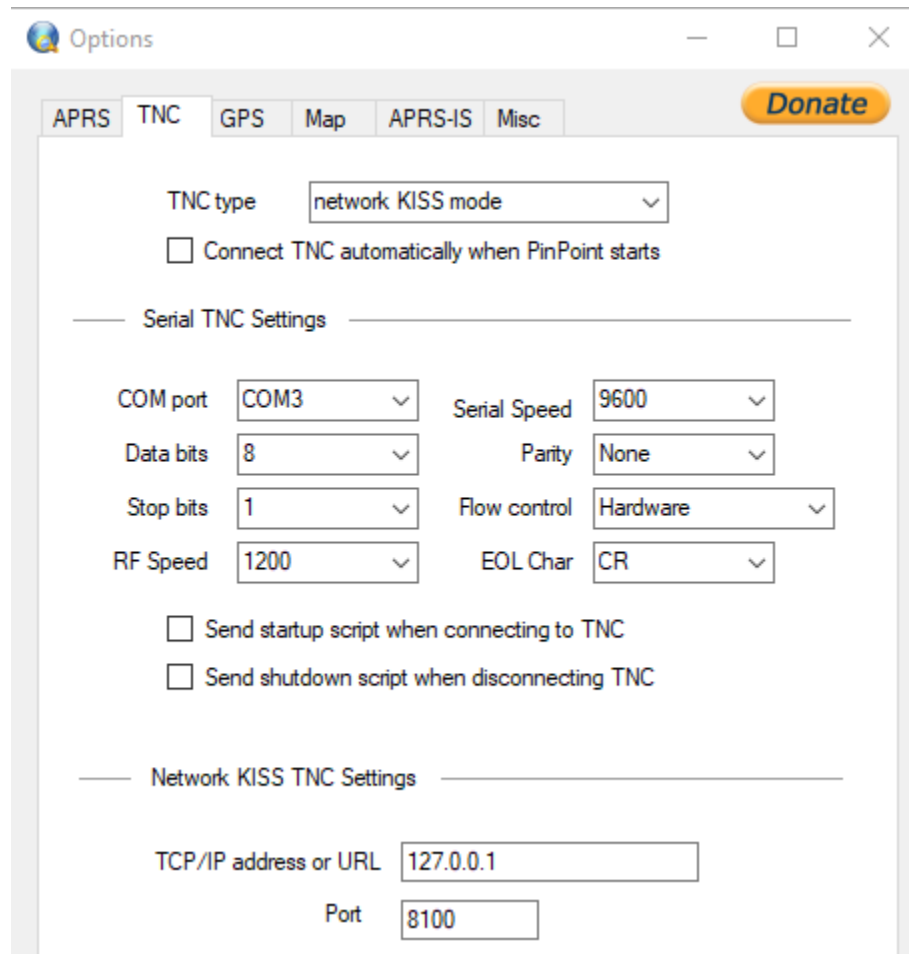
☒ Beacon my altitude

☐ Beacon my course and speed

Maximum speed reported via radio

105

km/h



The screenshot shows the 'Options' window with the 'TNC' tab selected. The 'TNC type' is set to 'network KISS mode'. There is an unchecked checkbox for 'Connect TNC automatically when PinPoint starts'. Below this is a section for 'Serial TNC Settings' with fields for 'COM port' (COM3), 'Serial Speed' (9600), 'Data bits' (8), 'Parity' (None), 'Stop bits' (1), 'Flow control' (Hardware), 'RF Speed' (1200), and 'EOL Char' (CR). There are also unchecked checkboxes for 'Send startup script when connecting to TNC' and 'Send shutdown script when disconnecting TNC'. Below this is a section for 'Network KISS TNC Settings' with fields for 'TCP/IP address or URL' (127.0.0.1) and 'Port' (8100). A 'Donate' button is visible in the top right corner.

Options

APRS TNC GPS Map APRS-IS Misc **Donate**

TNC type network KISS mode

☐ Connect TNC automatically when PinPoint starts

Serial TNC Settings

COM port COM3 Serial Speed 9600

Data bits 8 Parity None

Stop bits 1 Flow control Hardware

RF Speed 1200 EOL Char CR

☐ Send startup script when connecting to TNC

☐ Send shutdown script when disconnecting TNC

Network KISS TNC Settings

TCP/IP address or URL 127.0.0.1

Port 8100

Note:

- Network Kiss Port (8100) in the PinPoint settings needed to be changed to match the SoundModem settings.
- Also, the Serial TNC Settings don't matter since they are not being used by Network Kiss.

## SSID

You'll sometimes see a dash number after the callsign, this is called an SSID and they have different meaning depending on whether you're on APRS or Winlink. See the [SSID How-To](#) for more info.

1)

Note that [APRSDroid](#) is free of charge when downloaded from the developer's website, but costs \$5 when installed from Google Play.