

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](#) ¹⁾

Popular APRS Radios



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

Windows

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

The screenshot displays the PinPoint v2.0 build 190521 application. The main window shows a map of the Pacific Northwest region, including areas around Vancouver, British Columbia. The map interface includes a menu bar (File, Map, Tools, View), status bars (Lat: 49° 53.4657' N, Lon: 123° 42.6929' W, Zoom: 8, Distance: 51.08 km at 355°), and a bottom status bar indicating 'Online', 'TNC Connected', 'GPS Disconnected', 'APRS-IS Disconnected', 'iGate Inactive', and 'Beaconing Enabled'.

Overlaid on the map is the 'Last Heard' window, which lists various radio reports categorized by type: Radio reports, Position reports (38), Miscellaneous reports (7), Weather reports (3), APRS-IS reports, Messages, Inbox (1), Sent items (1), and Packet errors.

Another window, 'SoundModem by UZ7HO - Ver 1.00b - [AFSK AX.25 1200bd]', is open on the right. It features settings for 'A: [AFSK AX.25 1200bd]', '1700', and 'DCD threshold'. Below the settings, it displays a list of received packets, including:

- 1:Fm VE7DYT To APBPQ1 Via WIDE2-1 <UI R Pid=F0 Len=57> [19:25:51R] [+++]
- 1:Fm VE7DYT To APBPQ1 Via DEPBAY*,WIDE2* <UI R Pid=F0 Len=57> [19:25:51R] [+++]
- 1:Fm VE7FI-7 To T9UXXT Via VA7YLW-1*,WIDE1*,THYNNE*,WIDE2*,SSI*,WIDE [19:25:55R] [+++]
- 1:Fm VA7MIA-9 To T9RRVR Via VE7KU-15*,WIDE1*,WIDE2-1 <UI R Pid=F0 Len= [19:25:55R] [+++]
- 1:Fm VE7TBP To APRS Via LDYSMH*,WIDE1* <UI C Pid=F0 Len=45> [19:26:08R] [+++]
- 1:Fm K7KCA-3 To APX204 Via K7KCA-1*,VE7RNA-10*,WIDE2* <UI R Pid=F0 Len= [19:26:08R] [+++]
- 1:Fm VA7AGG-7 To TY2SVR Via VE7RNA-10*,WIDE2-1 <UI R Pid=F0 Len=16> [19:26:08R] [+++]
- 1:Fm VA7AGG-7 To TY2SVR Via VE7RNA-10*,LDYSMH*,WIDE2* <UI R Pid=F0 Len= [19:26:08R] [+++]

The 'Communications Monitor' window is also visible, showing a list of received packets with details such as source, destination, and packet type.

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

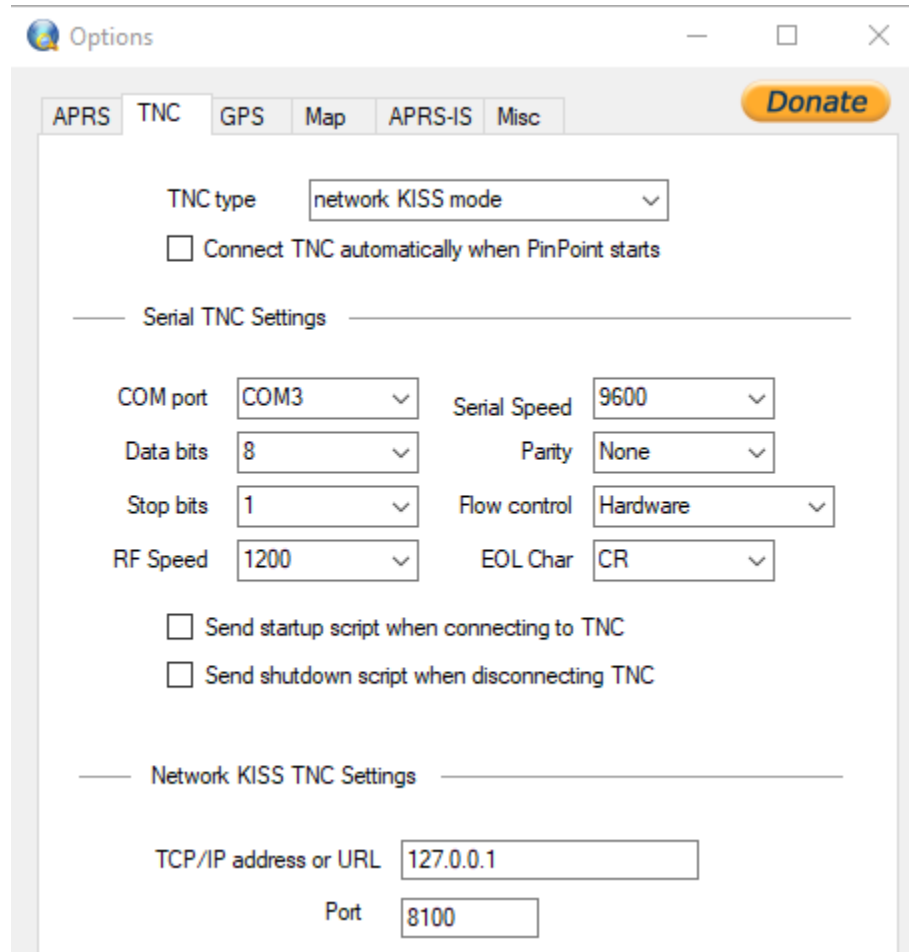
☒ Beacon my altitude

☐ Beacon my course and speed

Maximum speed reported via radio

105

km/h



The screenshot shows the 'Options' window for PinPoint. The 'TNC' tab is selected. At the top, there are tabs for 'APRS', 'TNC', 'GPS', 'Map', 'APRS-IS', and 'Misc', along with a 'Donate' button. The 'TNC type' is set to 'network KISS mode'. There is a 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 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).

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.