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On the Air Live: How to Use Your HT Part 2, APRS

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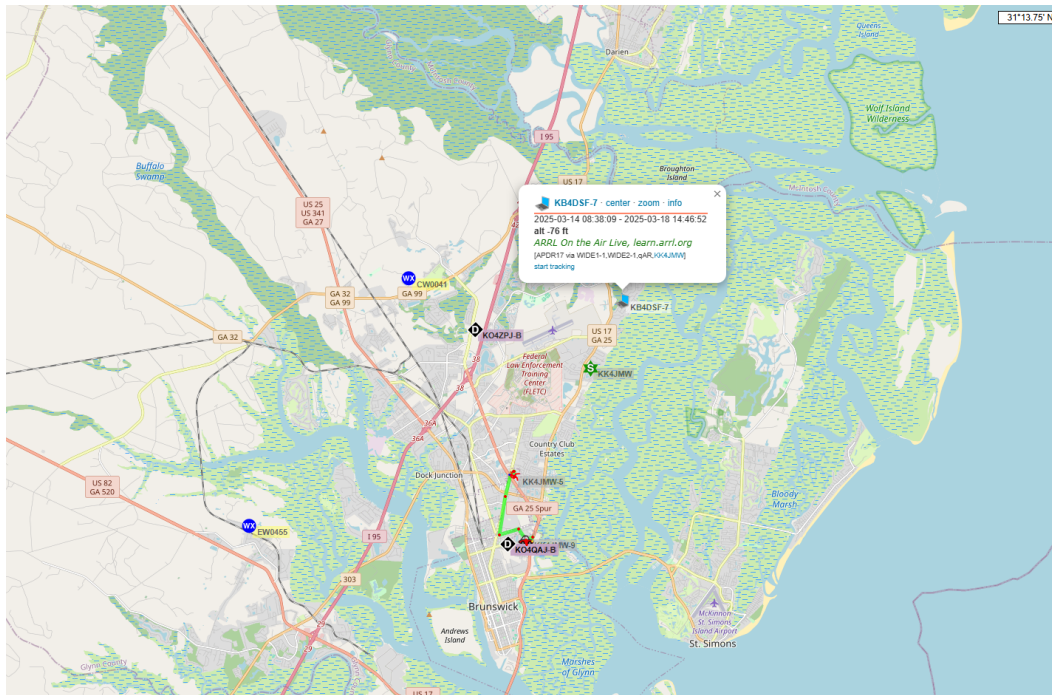


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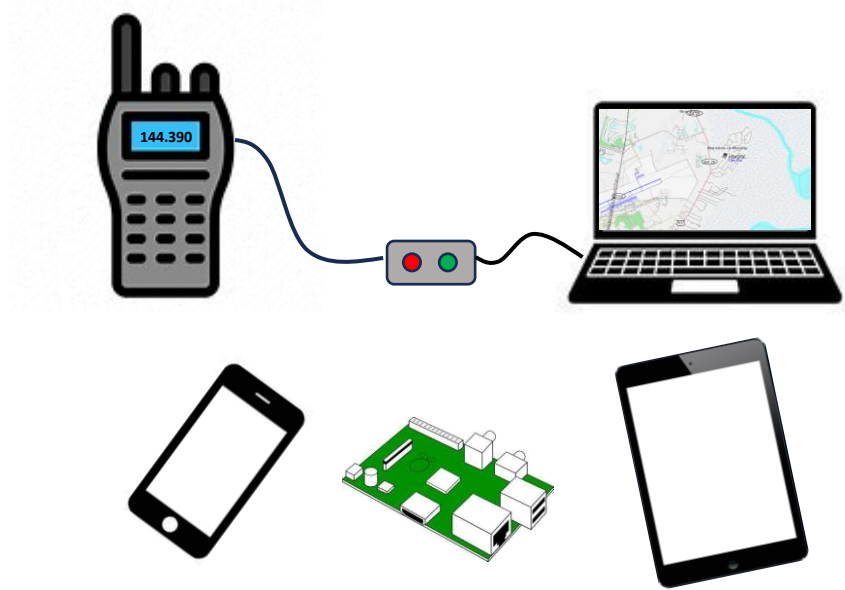
To Cover

- Data Modes with the HT
- Soundcards and TNCs
 - Hardware and Software TNCs
- What is APRS
- APRS.FI
- APRS from a computer
- APRS from a smartphone



Data Modes with the HT

- Computing Device
- Soundcard or TNC
- Efficient communication
- Fast, accurate data transfer
- Transfer files
- Text communication
- Pass location information
 - GPS
 - Lat/Long
 - What Three Words



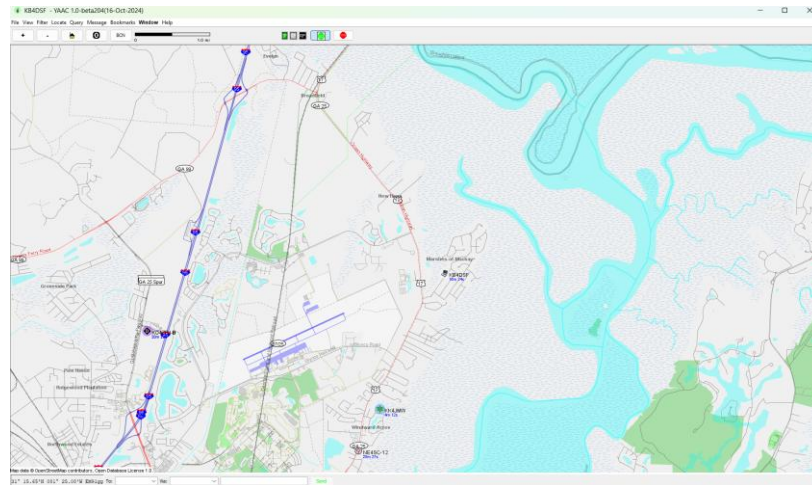
Soundcards and TNCs

- Transmitted data is converted to audio via a soundcard or a Terminal Node Controller
- Soundcards can operate any data mode including packet radio and APRS
 - Can also be used for SSTV
- Terminal Node Controllers are specific to packet radio to include APRS
 - Hardware and software TNCs

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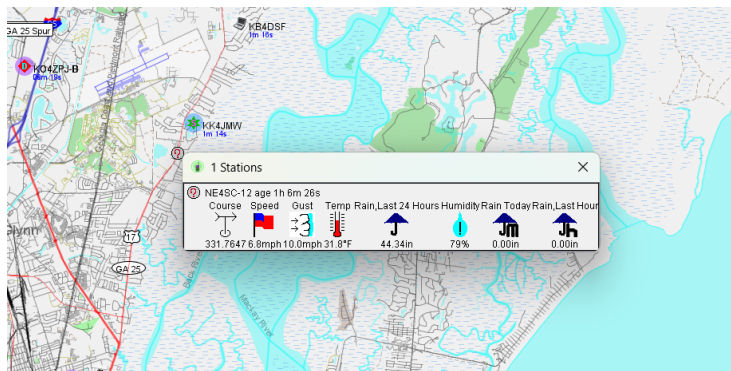
Software

- YAAC
 - Yet Another APRS Client
- Direwolf
 - Software TNC
- APRS-IS Passcode
 - n5dux.com/ham/aprs-passcode/
- Pinpoint APRS: pinpointaprs.com
 - Windows
- Xastir APRS: xastir.org
 - Linux
- Soundmodem: uz7.ho.ua/packetradio.htm
 - Software TNC
- AGWPE: Soundpacket.org/2agwget.aspx
 - Software TNC



Automatic Packet Reporting System

- APRS: a two-way tactical real-time digital communications system
- Data is broken into groups specified packets and reassembled on the receiving end
- Data can include:
 - GPS location
 - Text messages
 - Weather data



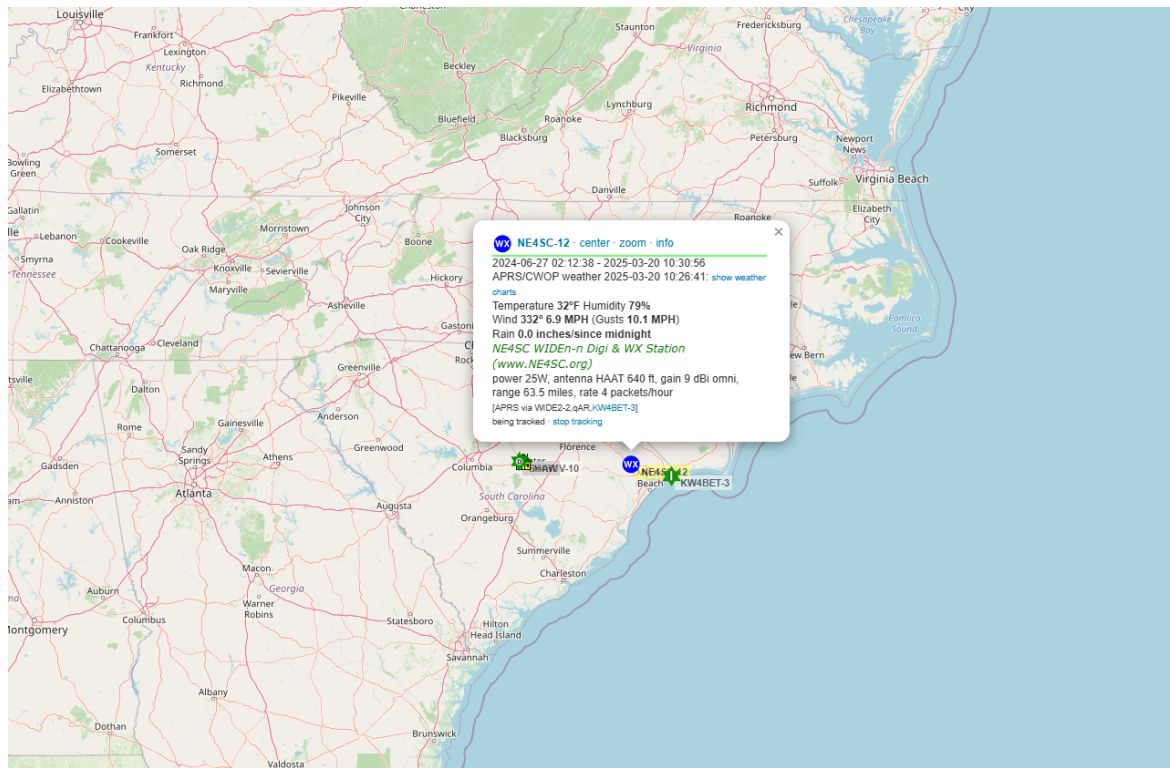
A screenshot of the 'Messages' window in an APRS application. The window has a menu bar with 'File', 'View', 'Filter', 'Query', 'Message', 'Window', and 'Help'. Below the menu bar is a checkbox labeled 'Show every message (not just addressed to this station)'. The main area displays a list of messages with columns for Date/Time, Sender, Addressee, Text, Seq#, and Clear. The messages are sorted by Date/Time, showing a series of messages from 20Mar2025 09:48:51 to 20Mar2025 08:45:38. The messages include various status reports, location updates, and weather data. The 'Clear' column contains buttons to clear each message.

Date/Time	Sender	Addressee	Text	Seq#	Clear
20Mar2025 09:48:51	ANSRVR	KB4DSF	N:HOTG Removed From Group	YFJ	Clear
20Mar2025 09:48:49	KB4DSF	ANSRVR	U HOTG	M0002	Clear
20Mar2025 09:48:49	ANSRVR	KB4DSF	N:HOTG Removed From Group	YFJ	Clear
20Mar2025 09:48:47	KB4DSF	ANSRVR	U HOTG	M0002	Clear
20Mar2025 09:47:43	APRSPH	KB4DSF	Logged 0320 1347Z https://aprsph.net/aprstuesday -KC8OW...		Clear
20Mar2025 09:47:43	ANSRVR	KB4DSF	N:HOTG 120 Messages Sent	YEJ	Clear
20Mar2025 09:47:42	PU2MUS	KB4DSF	AA73 de Marco, Santos/SP/Brasil		Clear
20Mar2025 09:47:37	APRSPH	KB4DSF	Logged 0320 1347Z https://aprsph.net/aprstuesday -KC8OW...		Clear
20Mar2025 09:47:36	ANSRVR	KB4DSF	N:HOTG 120 Messages Sent	YEJ	Clear
20Mar2025 09:47:36	PU2MUS	KB4DSF	AA73 de Marco, Santos/SP/Brasil		Clear
20Mar2025 09:47:36	KB4DSF	ANSRVR	CO HOTG Happy APRS Thursday!	M0001	Clear
20Mar2025 09:47:33	KB4DSF	ANSRVR	CO HOTG Happy APRS Thursday!	M0001	Clear
20Mar2025 09:00:17	ANSRVR	N2EDX-7	Duplicate request suppressed		Clear
20Mar2025 08:59:19	ANSRVR	N2EDX-7	N:HOTG Removed From Group	WGJ	Clear
20Mar2025 08:58:20	VE3PTU-	N2EDX-7	N:HOTG happy aprstuesday 73 ve3ptu		Clear
20Mar2025 08:58:12	NSNDC-7	N2EDX-7	N:HOTG #APRSTuesday 73 de NSNDC in East Texas EM22od		Clear
20Mar2025 08:57:13	NSNDC-7	N2EDX-7	N:HOTG #APRSTuesday 73 de NSNDC in East Texas EM22od		Clear
20Mar2025 08:56:11	KE0CSL-	N2EDX-7	N:HOTG Lincoln NE		Clear
20Mar2025 08:53:52	KG5DW	N2EDX-7	N:HOTG Hello from Del Ray Beach Fl I am from houston TX		Clear
20Mar2025 08:52:48	KJ5K-14	N2EDX-7	N:HOTG Howdy!		Clear
20Mar2025 08:45:40	APRSPH	N2EDX-7	Logged 0320 1245Z https://aprsph.net/aprstuesday -KC8OW...		Clear
20Mar2025 08:45:39	ANSRVR	N2EDX-7	N:HOTG 109 Messages Sent	WVJ	Clear
20Mar2025 08:45:38	PU2MUS	N2EDX-7	AA73 de Marco, Santos/SP/Brasil		Clear



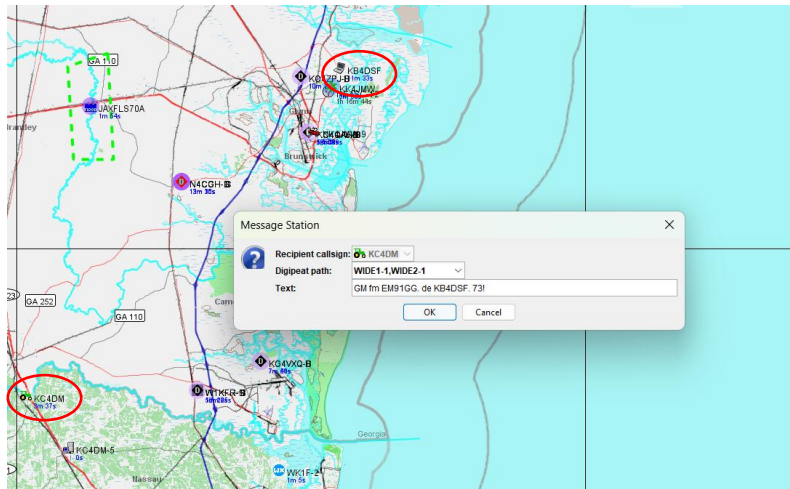
Automatic Packet Reporting System

Weather station info
on APRS.fi

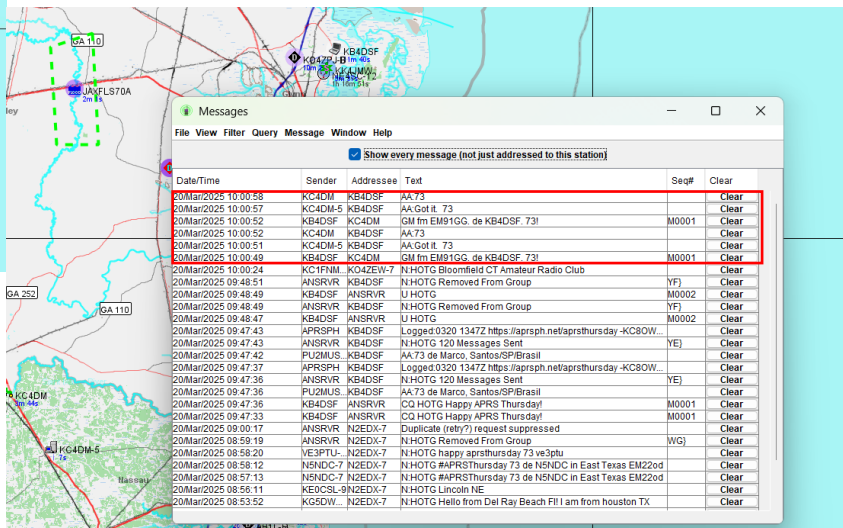


Automatic Packet Reporting System

APRS text messaging

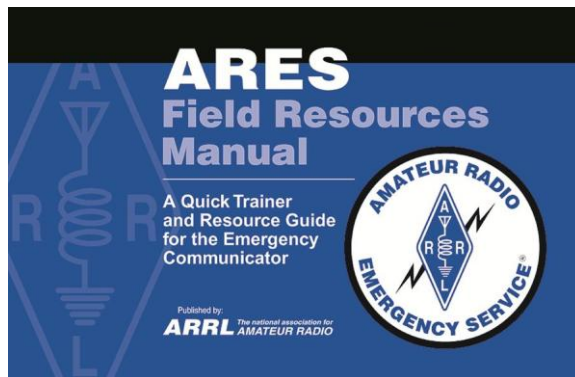


Just over 47 miles

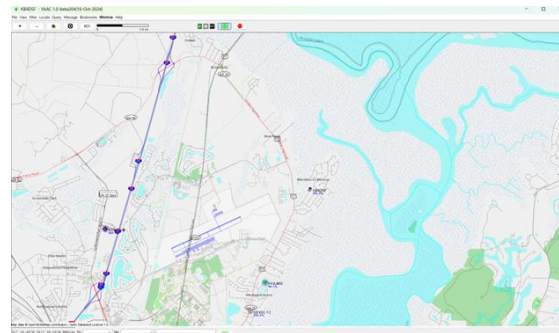


Automatic Packet Reporting System

- APRS use cases:
- Emcomm Events:
 - Messaging
 - Asset tracking
 - Storm spotters
- Weather reporting
- Track participants during parades, races, etc
- Messaging and passing location reports while hiking



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- A screenshot of a file explorer window showing a directory structure. The 'doc' folder is expanded, revealing a list of files and subdirectories. The files are listed with their names and types. Two instances of the file 'dirowolf' are highlighted with a red rectangular box. The first 'dirowolf' is a 'C++ Code File' and the second is a 'Type: Application'.
- | File Name | Type |
|-------------|---------------------|
| aciens | Type: Application |
| appserver | Type: Application |
| atrest | Type: Application |
| cm108 | Type: Application |
| decode_aprs | Type: Application |
| dirowolf | Type: C++ Code File |
| dirowolf | Type: Application |
| gen_packets | Type: Application |
| kissutil | Type: Application |
| kizum | Type: Application |
| log3gpx | Type: Application |
| sdr | Type: CONF File |
| text2txt | Type: Application |
| trctest | Type: Application |
| ttText | Type: Application |
| ttcalc | Type: Application |

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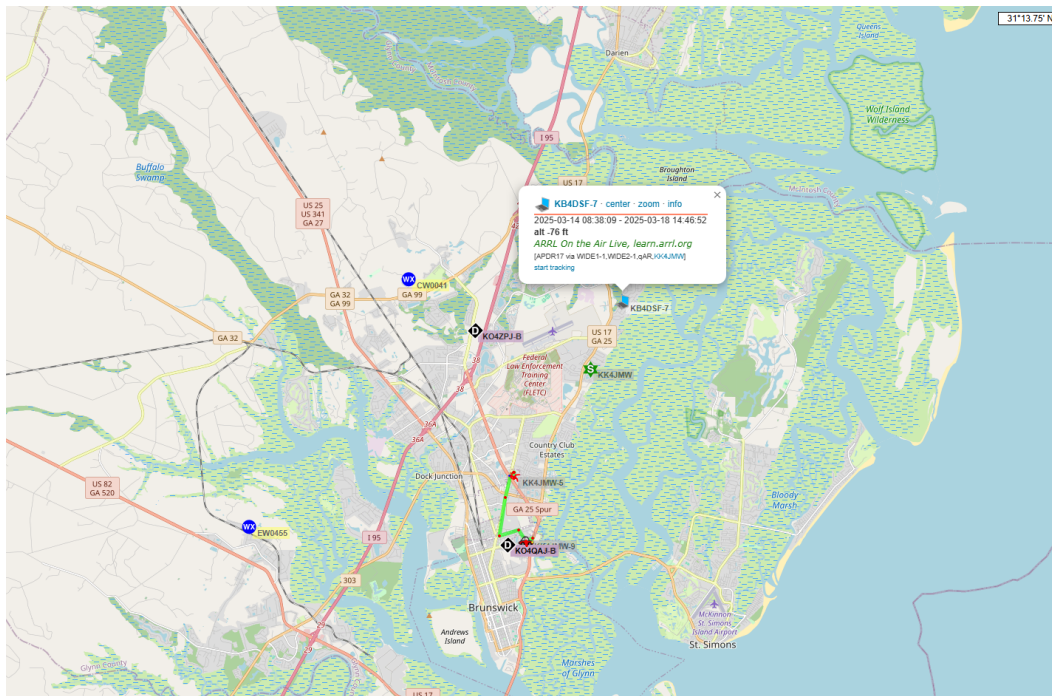
Mobilinkd, APRSdroid

- Hardware TNC
 - Packet and APRS specific
 - mobilinkd.com
 - No software TNC required
- Bluetooth connection to smartphone
- APRSdroid
 - Android
 - aprsdroid.org
 - na7q.com/aprsdroid-osm
- APRS.FI
 - IOS, on the App Store



April OTA Live

- APRS Network Deep Dive
 - Trackers and beacons
 - Digipeaters and iGates
 - APRS path identification
- Messaging
 - Text direct to radio
 - Store and Forward
 - SMS
 - Email
 - Winlink



Thank You!



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