APRS

Presented by:

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APRS

Areas covered:

- Brief History
- Technical Requirements
- Equipment

APRS: WHAT IS IT?

Two way tactical real-time digital communication system between all assets in a network sharing information about everything going on in the local area.

APRS: WHAT IS SHARED?

- Positions
- Station capabilities
- Objects
- Weather reports
- Weather Alerts from NWS
- Telemetry

APRS: WHAT IS SHARED?

- Messages addressed to stations
- Bulletins to wider groups
- Queries and Responses
- Ham Radio of Things
- User Defined Data types

APRS: WHAT IS SHARED?

Designed for local communications over RADIO links, not global messaging through the Internet.

You do not need the Internet to TX and RX data on APRS.

Information in APRS comes directly from users, no central servers.

APRS: TECHNICAL

Digital repeaters (digipeater) use a “store and forward” approach. A packet is received, examined, then possibly modified and retransmitted. It can be retransmitted on the same radio channel or transmitted on multiple radio channels.

Packets received on one channel can be retransmitted on different channels.

APRS: TECHNICAL

iGate is a device that connects APRS systems to the Internet. It receives packets from local radio frequencies and forwards them to the APRS-Internet System.

This enables global access to APRS information.

Build your own iGate here:

https://www.besthamradio.com/building-your-own-aprs-igate/

APRS: EQUIPMENT

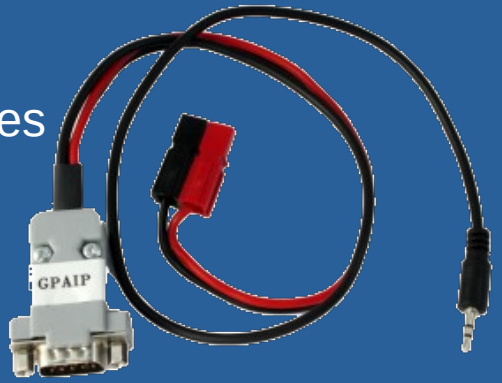
- RADIO- an HT will work
- Antenna
- TNC- Terminal Node Controller to interface the radio to GPS and PC
- GPS RX – receive only unit without display will work for reporting position
- Cables to interconnect all of these items

APRS: EQUIPMENT

Byonics TinyTrak3Plus
TNC

Byonics GPS5
RS-232 serial GPS

Radio interface cables



Http://www.byonics.com

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APRS: EQUIPMENT

HT with built in TNC, GPS, and APRS

YAESU FT5D

KENWOOD TH-D75

ANYTONE AT-D878UVII PLUS

VGC VR-N76

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APRS: EQUIPMENT

Mobiles with APRS

AnyTone AT-D578UVIII
Plus Tri-Band

YAESU FTM-
500DR

YAESU FTM-200DR

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APRS: EQUIPMENT

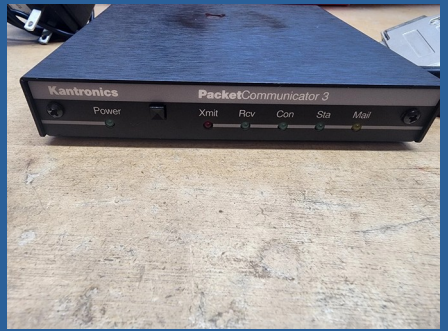
AEA Model
PK-232MBX

TNCs

PACComm Pac-Comm TNC-200

Heathkit HD-4040

Kantronics
KPC-3



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APRS: Internet Sites

http://www.openaprs.net

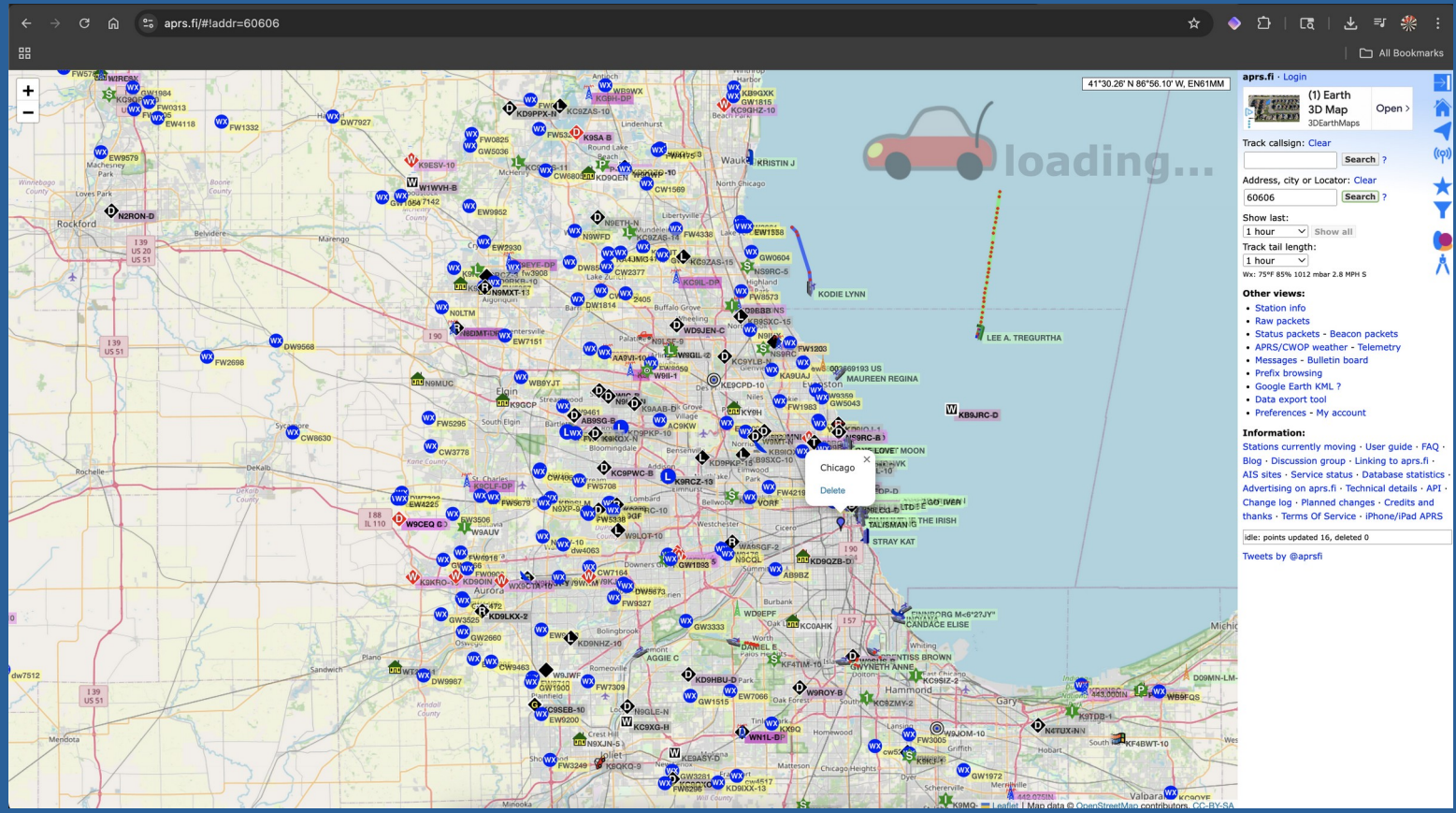
http://www.aprs.fi

http://www.aprsworld.net

http://www.db0anf.de/app/aprs

http://www.wulfden.org/APRSQuery.html

APRS: Internet Sites



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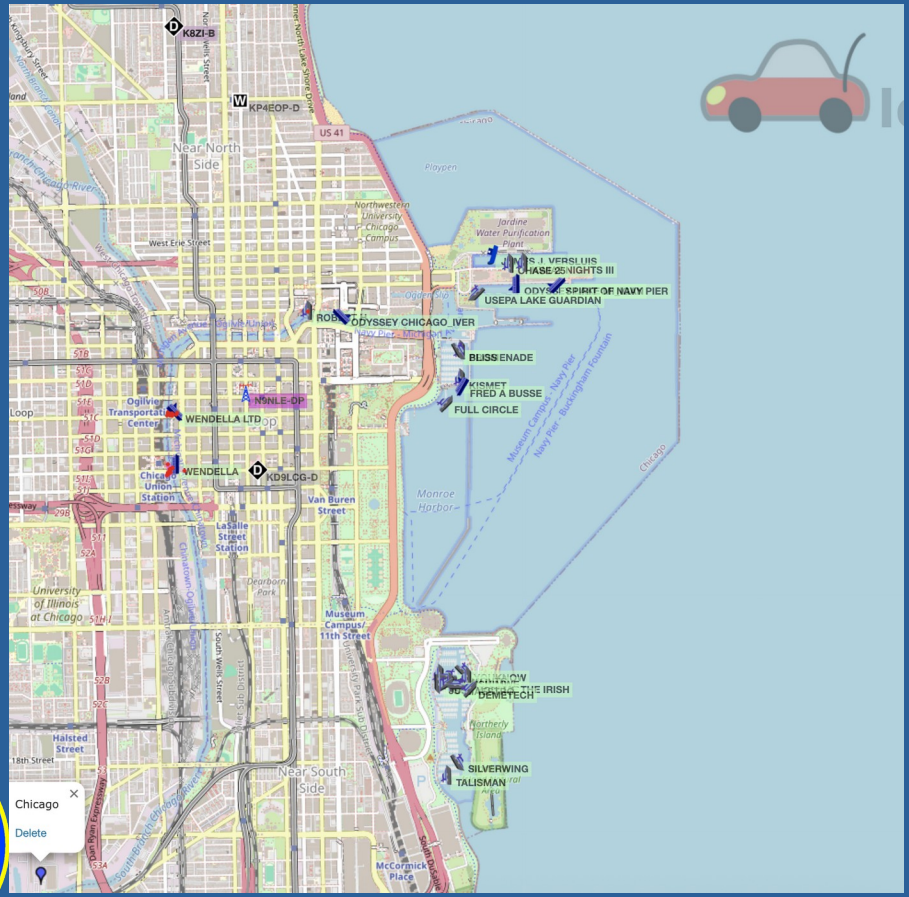

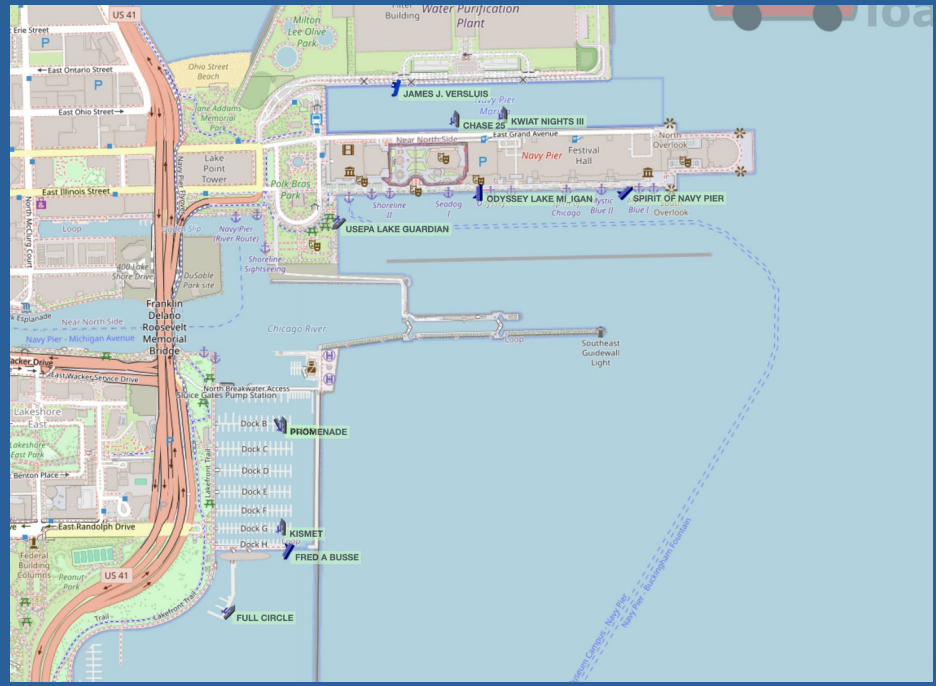

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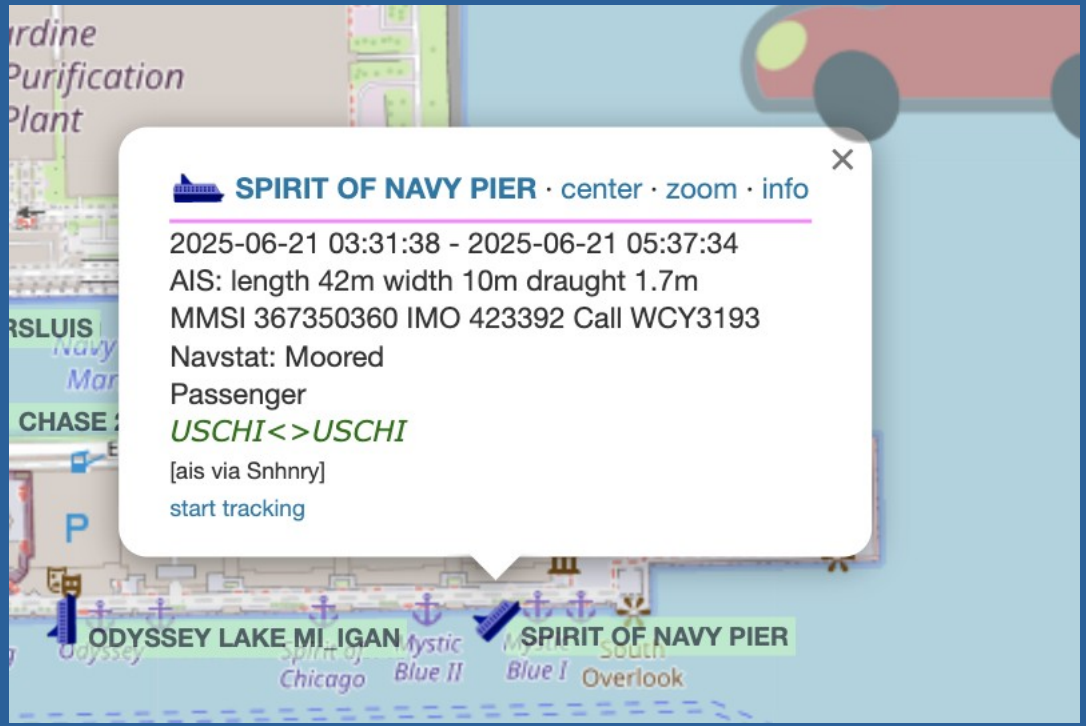

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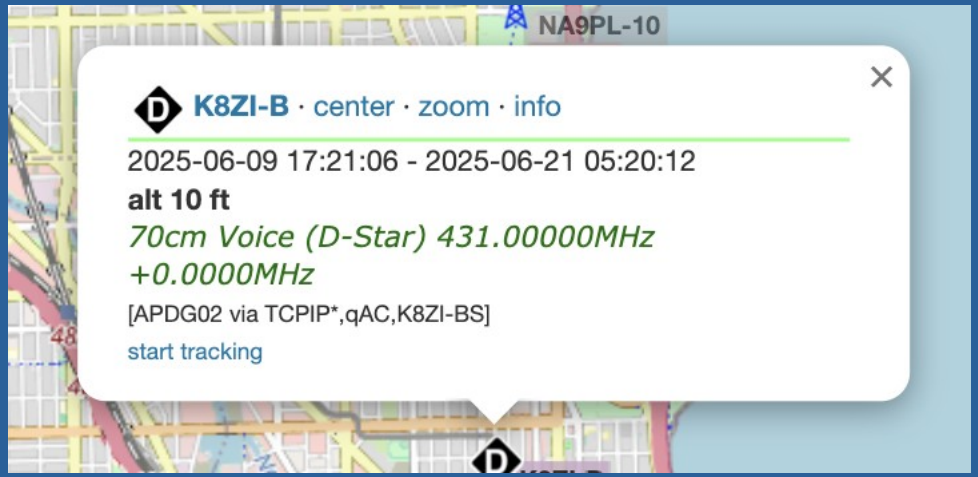

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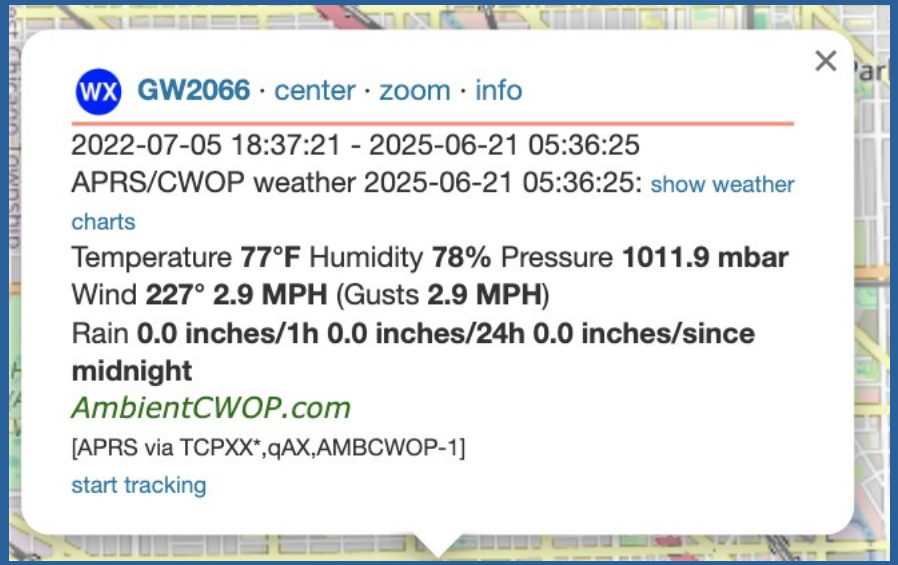

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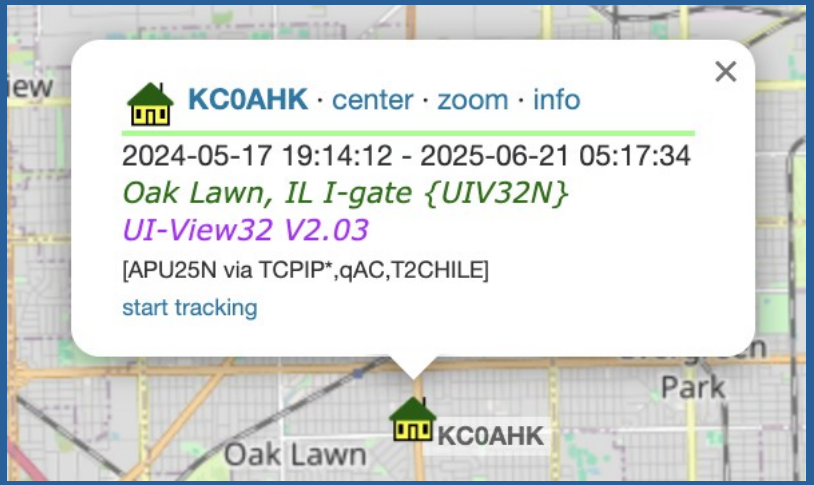

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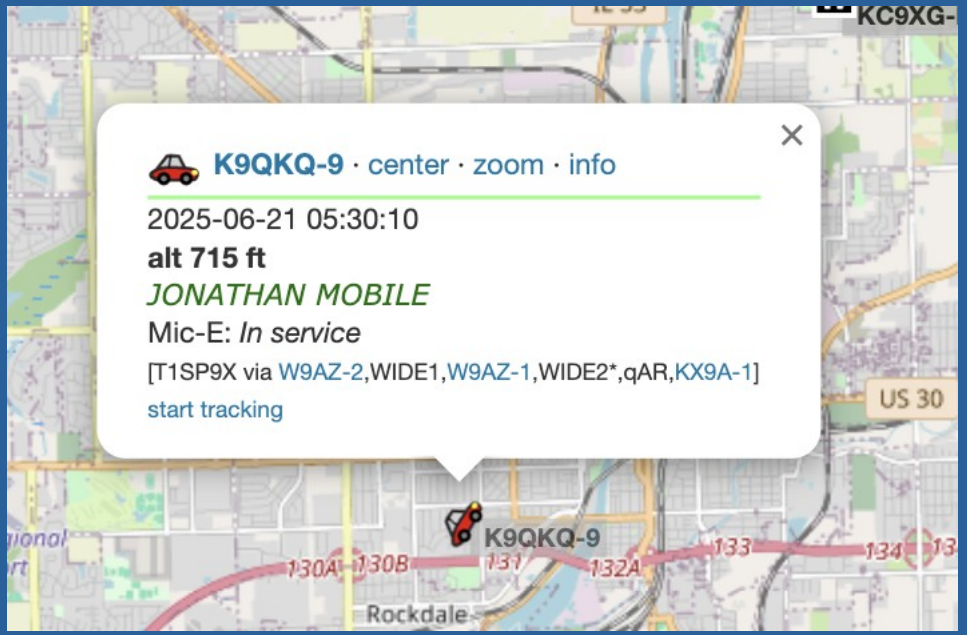

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APRS: CONCLUSION

- Remember this is a terrific hobby!
- If you need help, please ask! There are plenty of experts willing to help.
- Repeaters, servers, and networks require maintenance and funding.
- Get involved in your local radio club and help others around you.

APRS: Questions & Comments