

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 addresses 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.



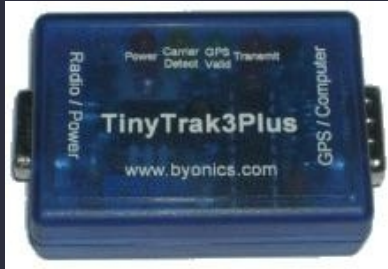
APRS: EQUIPMENT

- 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

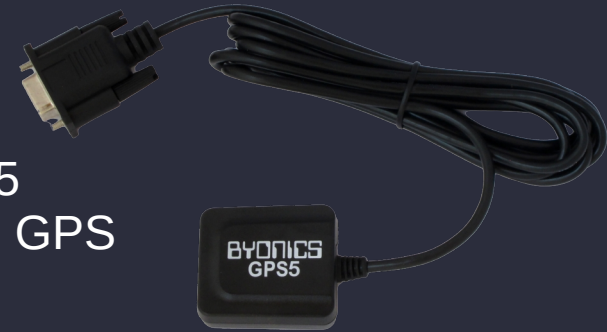


APRS: EQUIPMENT

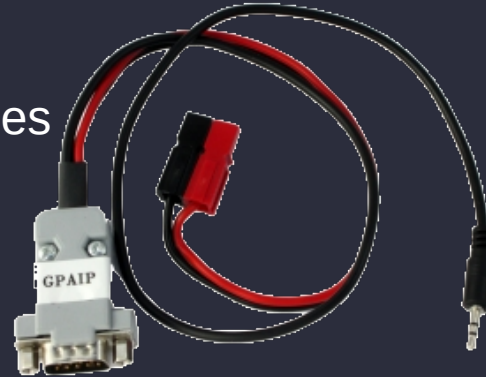
Byonics TinyTrak3Plus
TNC



Byonics GPS5
RS-232 serial GPS



Radio interface cables



[Http://www.byonics.com](http://www.byonics.com)

APRS: EQUIPMENT

HT with built in TNC, GPS, and APRS



YAESU FT5D



KENWOOD TH-D75



ANYTONE AT-D878UVII PLUS



VGC VR-N76

APRS: EQUIPMENT

Mobiles with APRS



AnyTone AT-D578UVIII
Plus Tri-Band



YAESU
FTM-500DR



YAESU FTM-200DR

APRS: EQUIPMENT

AEA Model
PK-232MBX



TNCs



PACComm Pac-Comm TNC-200



Heathkit HD-4040

Kantronics
KPC-3



APRS: Internet Sites

<http://www.openaprs.net>

<http://www.aprs.fi>

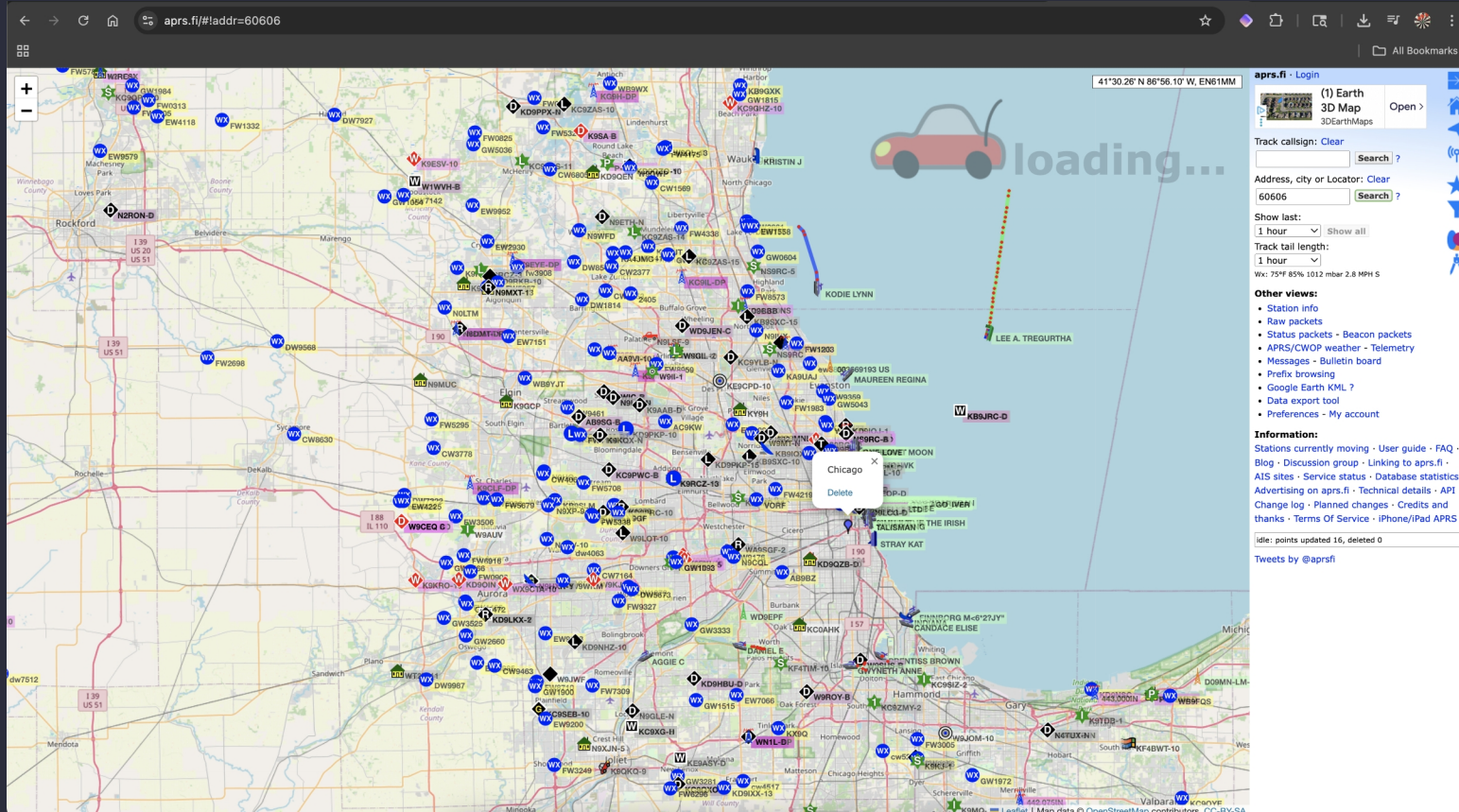
<http://www.aprsworld.net>

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

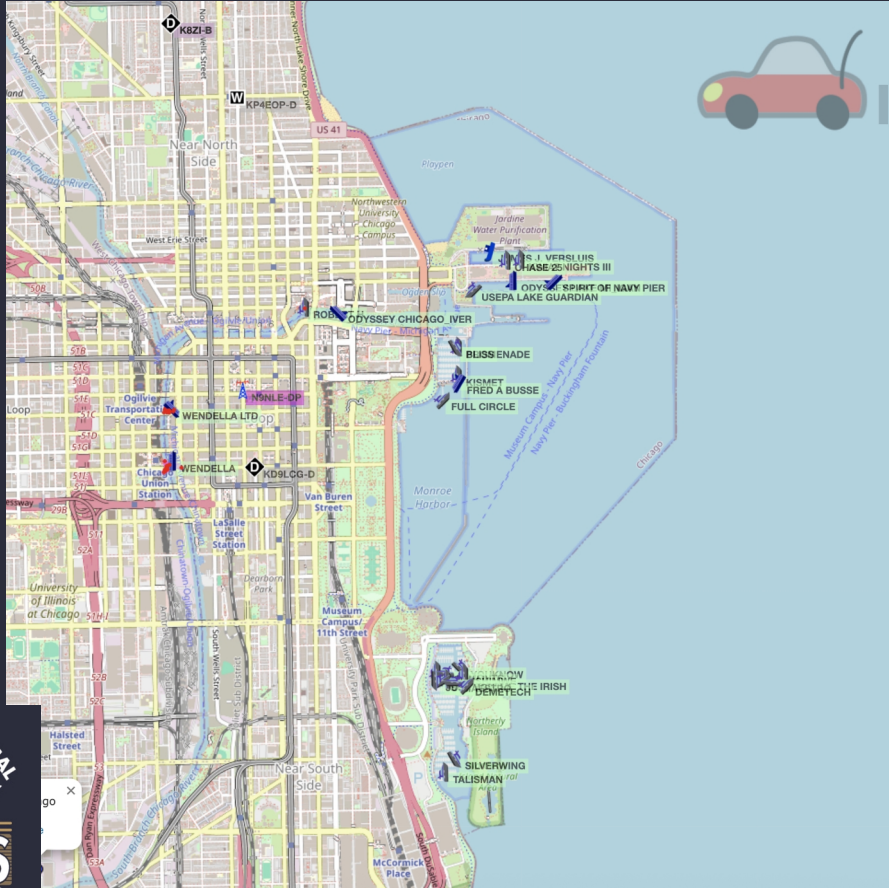
<http://www.wulfden.org/APRSQuery.html>



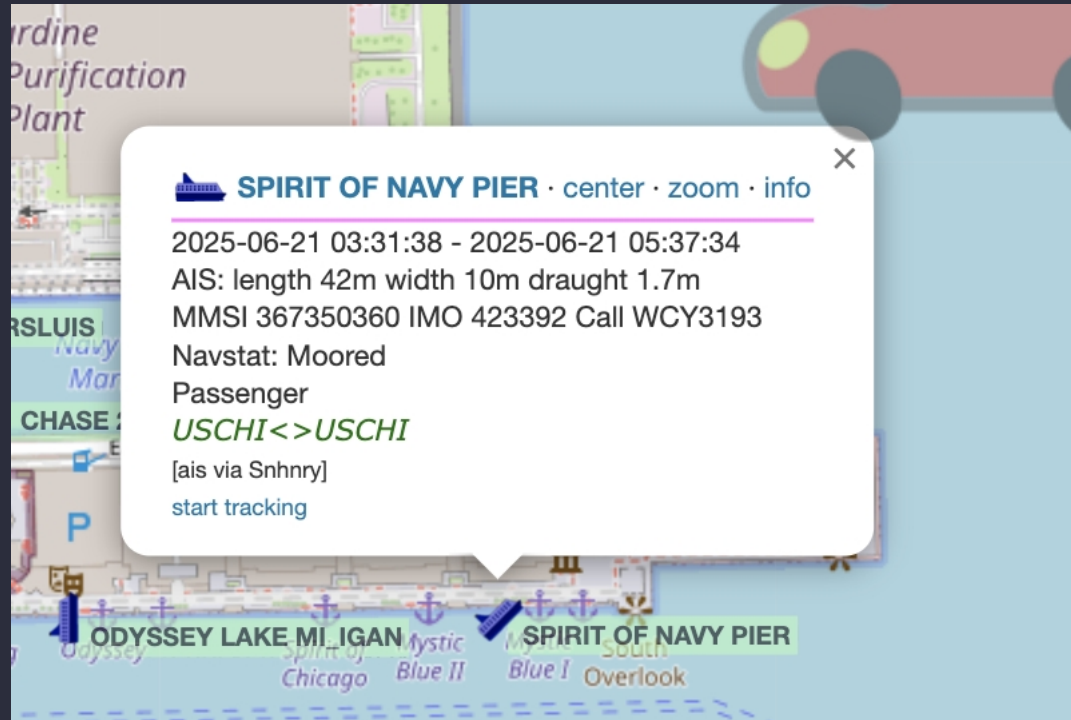
APRS: Internet Sites



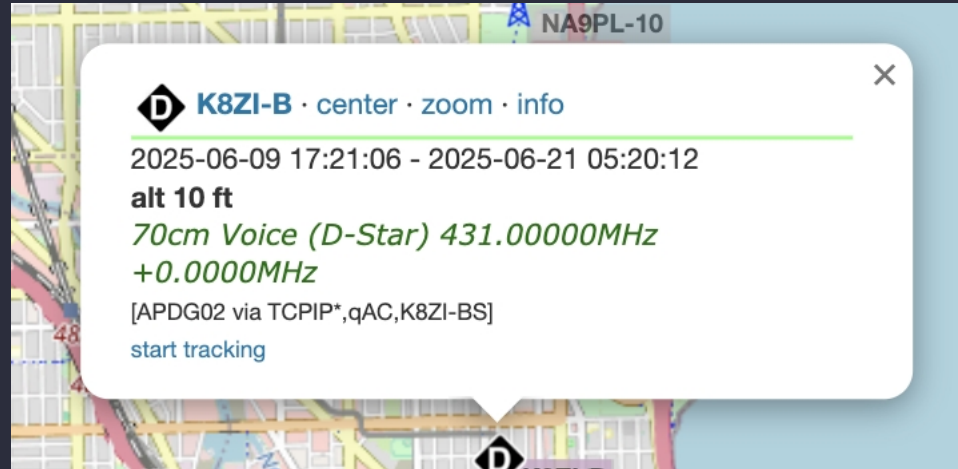
APRS: Internet Sites



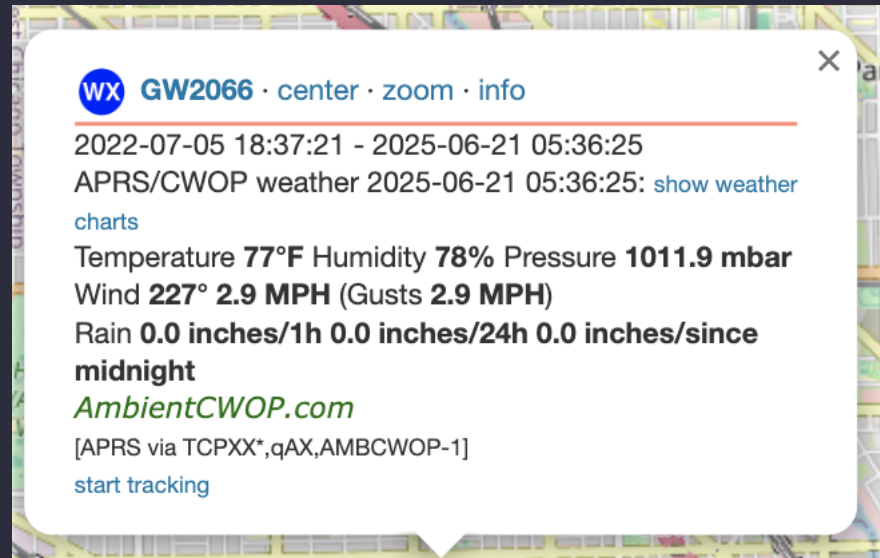
APRS: Internet Sites



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APRS: Internet Sites



A screenshot of a web-based APRS interface showing a weather station data popup for station GW2066. The popup is overlaid on a map background. It contains a header with the station ID and navigation links, followed by a timestamp range, a link to show weather charts, and a list of weather parameters including temperature, humidity, pressure, wind, and rain. At the bottom, it shows the data source and a link to start tracking.

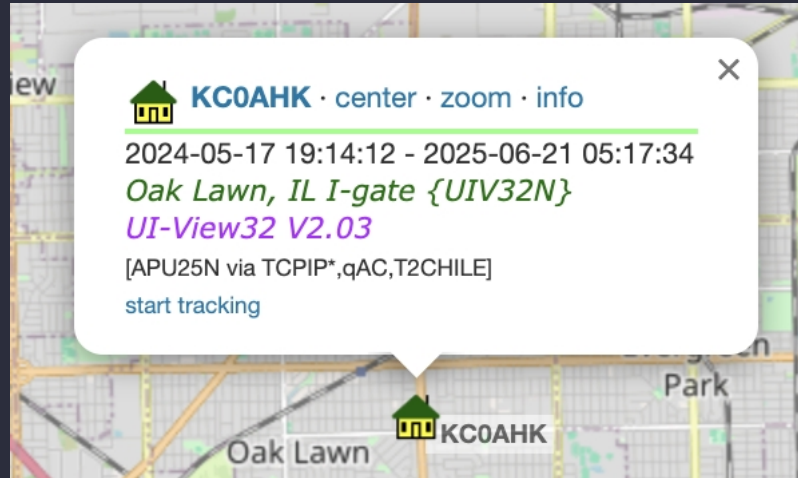
WX GW2066 · [center](#) · [zoom](#) · [info](#)

2022-07-05 18:37:21 - 2025-06-21 05:36:25
APRS/CWOP weather 2025-06-21 05:36:25: [show weather charts](#)

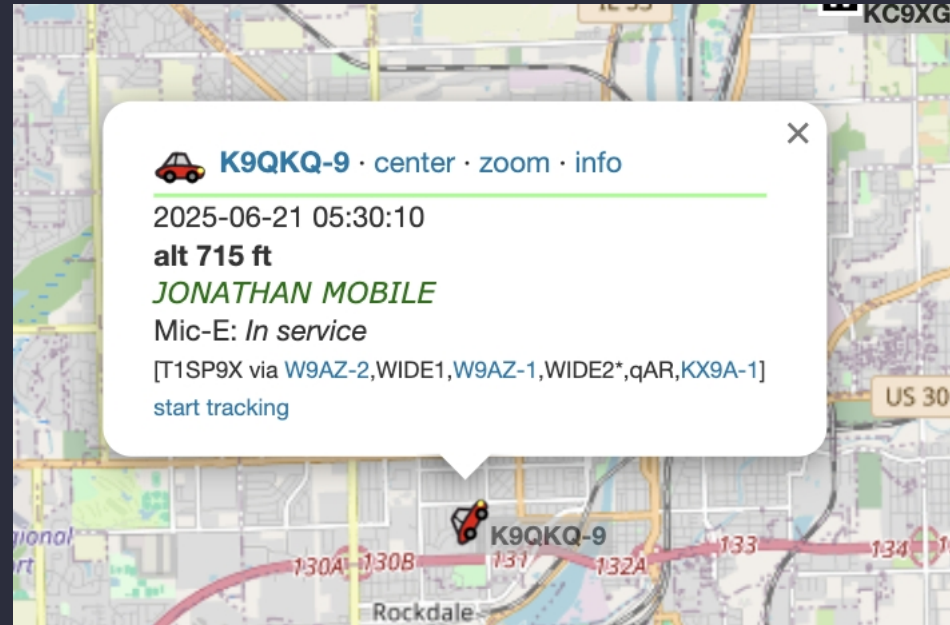
Temperature **77°F** Humidity **78%** Pressure **1011.9 mbar**
Wind **227° 2.9 MPH** (Gusts **2.9 MPH**)
Rain **0.0 inches/1h 0.0 inches/24h 0.0 inches/since midnight**

[AmbientCWOP.com](#)
[APRS via TCPXX*,qAX,AMBCWOP-1]
[start tracking](#)

APRS: Internet Sites



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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

