Alaska's Continuously Operating Reference Network (ACORN)

Alaska Geospatial Council GIS Day

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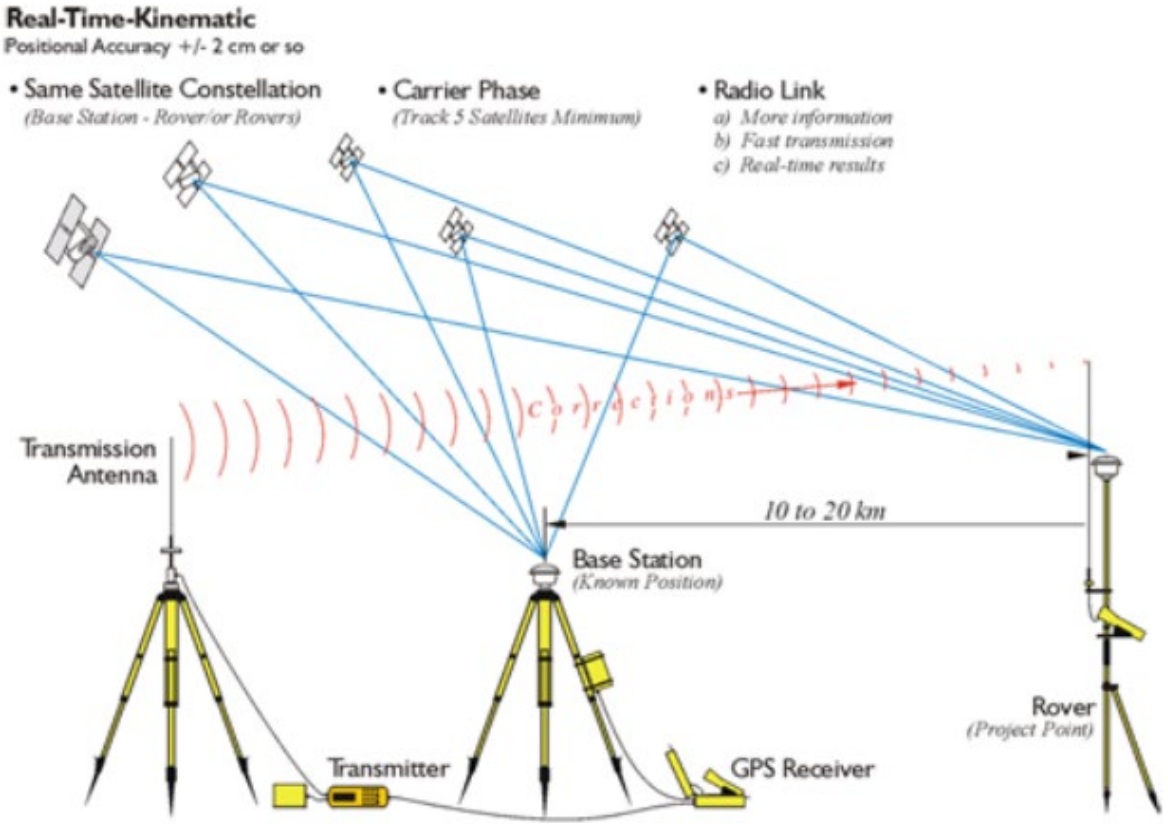
GNSS REAL-TIME NETWORKS VS TRADITIONAL GNSS REAL-TIME KINEMATIC (RTK) SURVEYING

Summary



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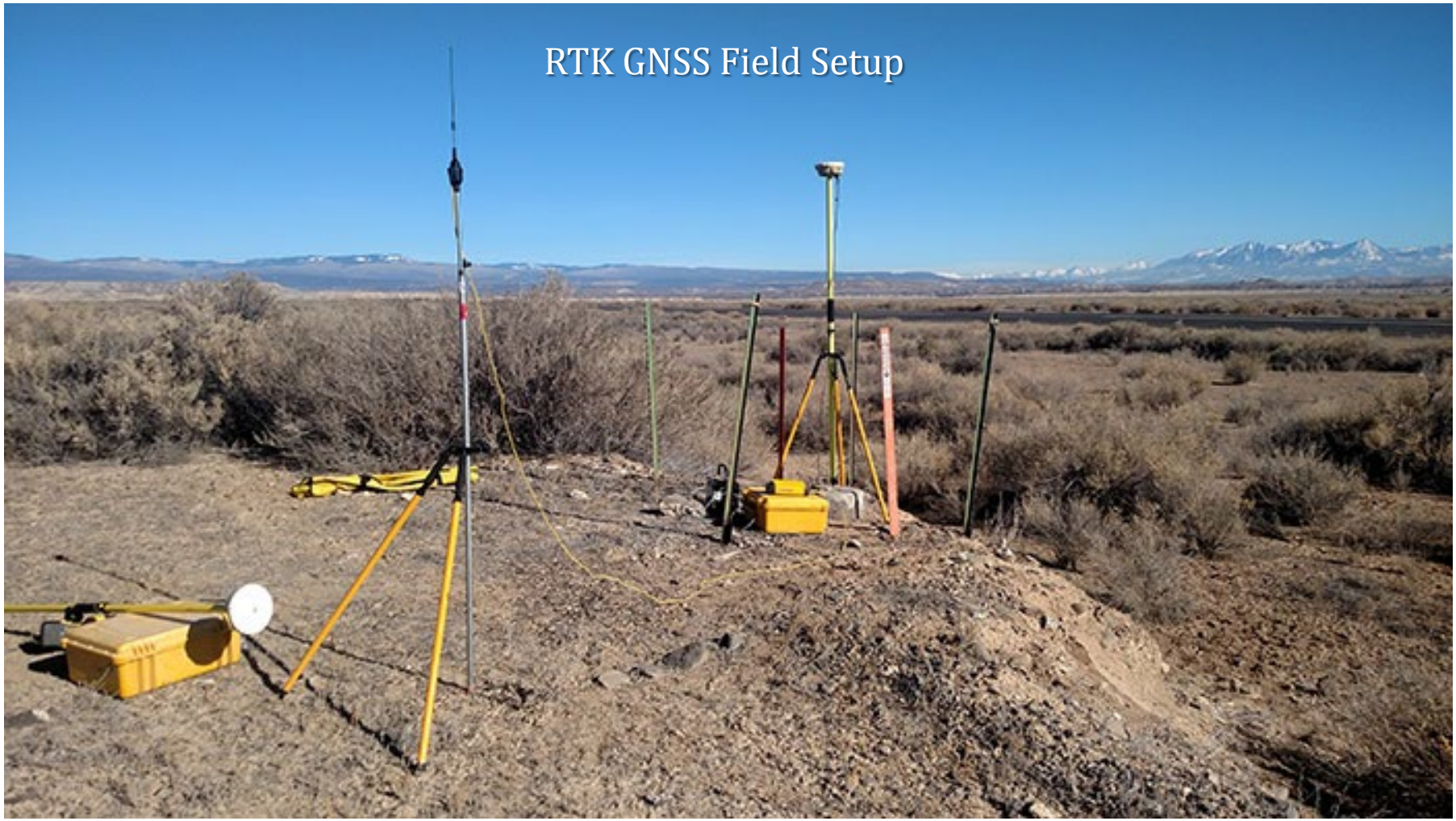

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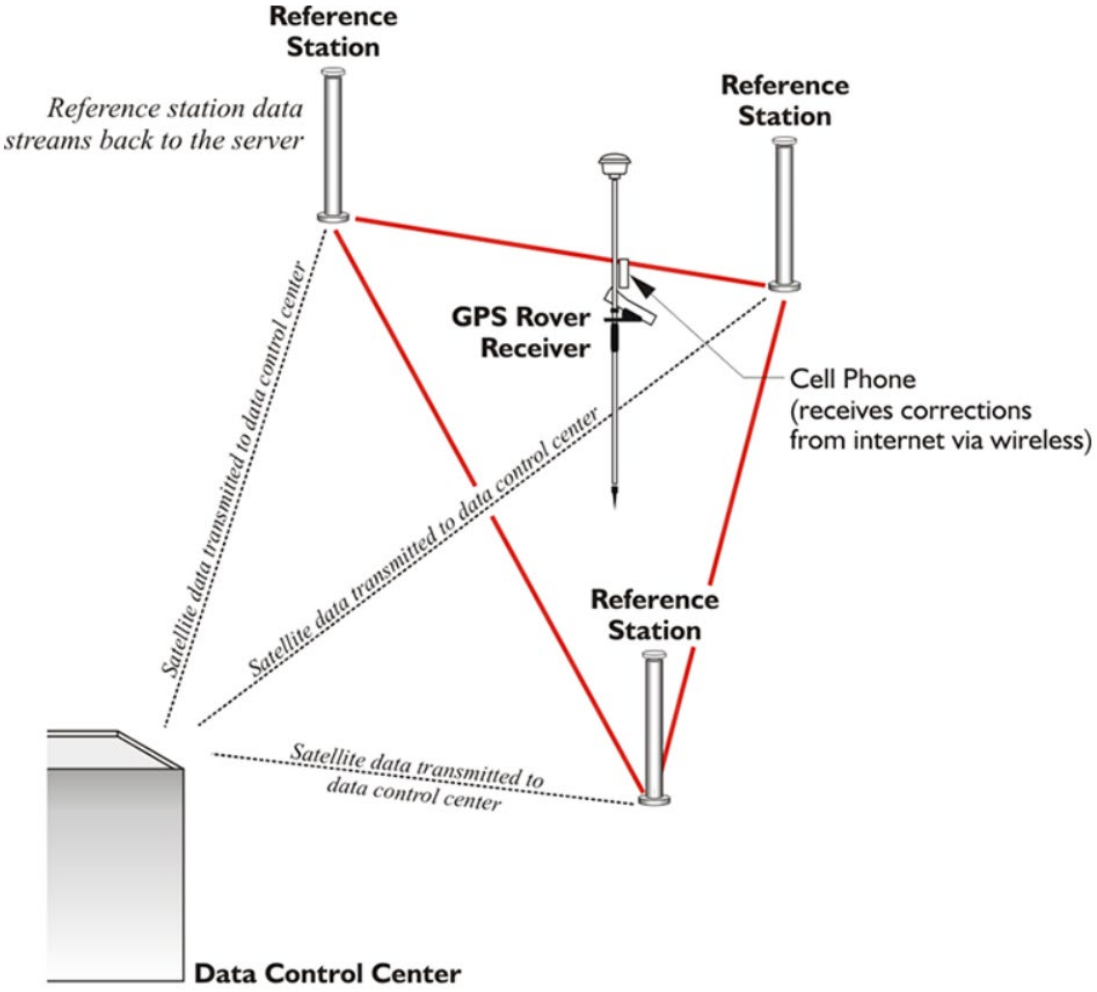

Real-Time Network
Source: GPS for Land Surveyors

ACORN PARTNERSHIP

- **SOA-DNR to provide:**
  - **Full GNSS reference station and materials needed to install**
  - **Network processing software within SOA servers specifically built for this project**
  - **Support for any surveying/mapping curriculum**
  - **All maintenance costs associated with system upkeep**
- **Partner to Provide**
  - **Location for installation, power, and data connection for GNSS Station to continuously operate**
  - **IT and Facilities coordination for installation to meet needs of both partners**
  - **Local contact for any minor troubleshooting – i.e. system restarts and checks**

ACRON PARTNERSHIP

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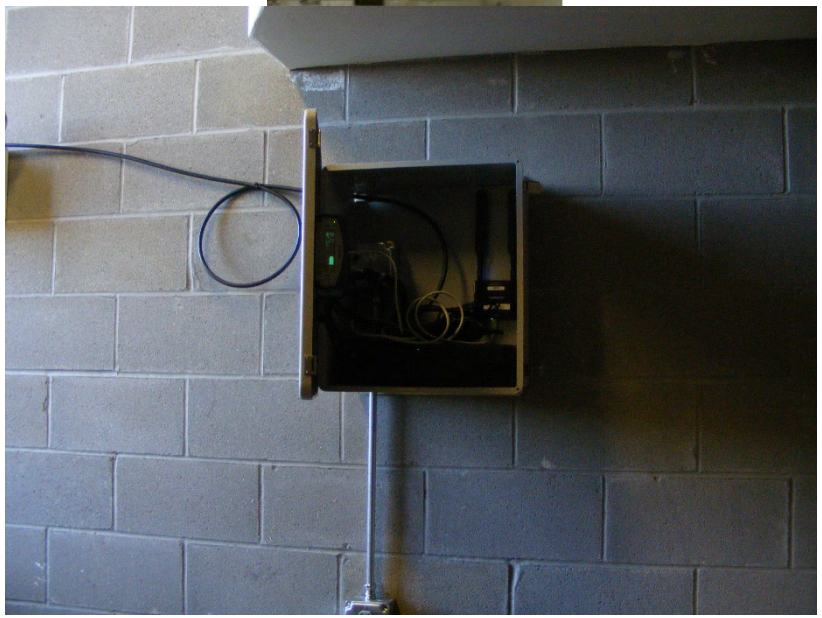


ACRON FY 23 PROGRESS

Winter 2021/2022

- Awarded Contract to Frontier Precision for Hardware and Support

Spring 2022

- Installed Trimble Pivot Platform and purchased 30 Trimble Alloy GNSS Reference Stations.

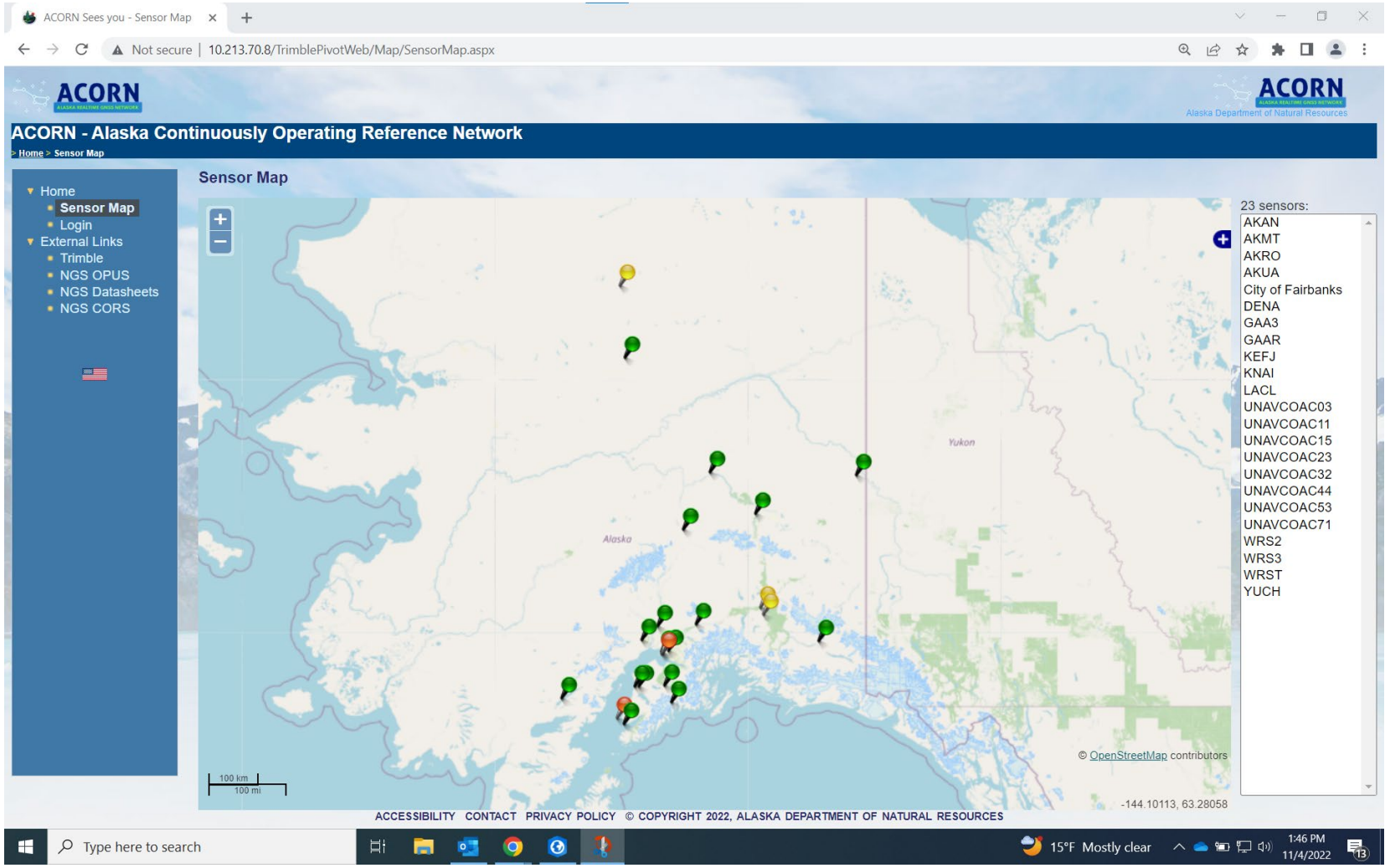
Summer 2022

- Worked with existing GNSS reference station owners to incorporate data streams into Pivot (NPS, UNAVCO, City of Fairbanks, Others)
- Developed MOU for existing GNSS Station Operators and Partner's willing to host a station
- Contracted Installation of 7 GNSS Reference Stations at SOA Ferry Terminals

Fall/Winter 2022

- Currently have 23 stations in the system
- Testing Southcentral network that will cover from Palmer to Homer

ACRON PIVOT WEB INTERFACE



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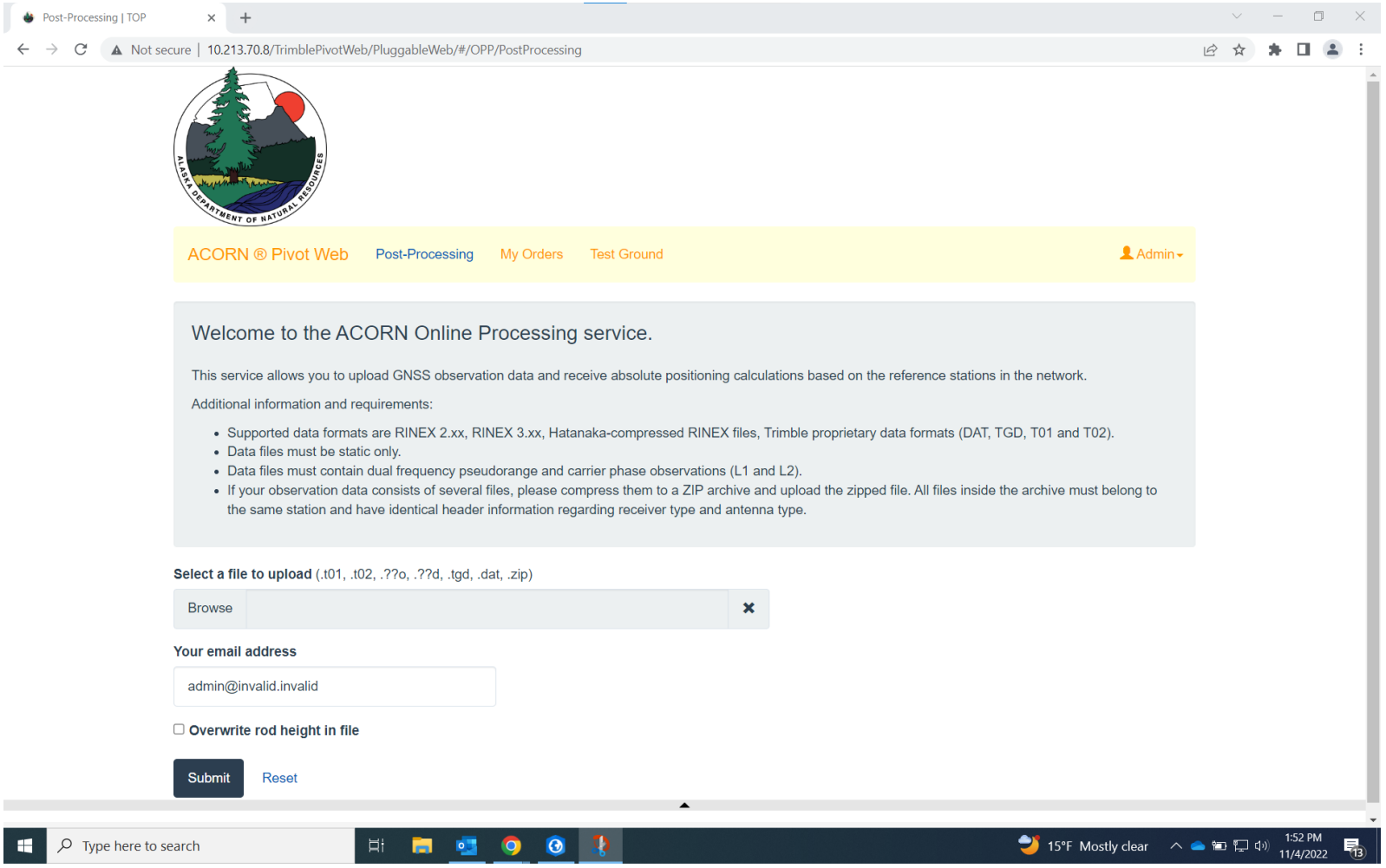
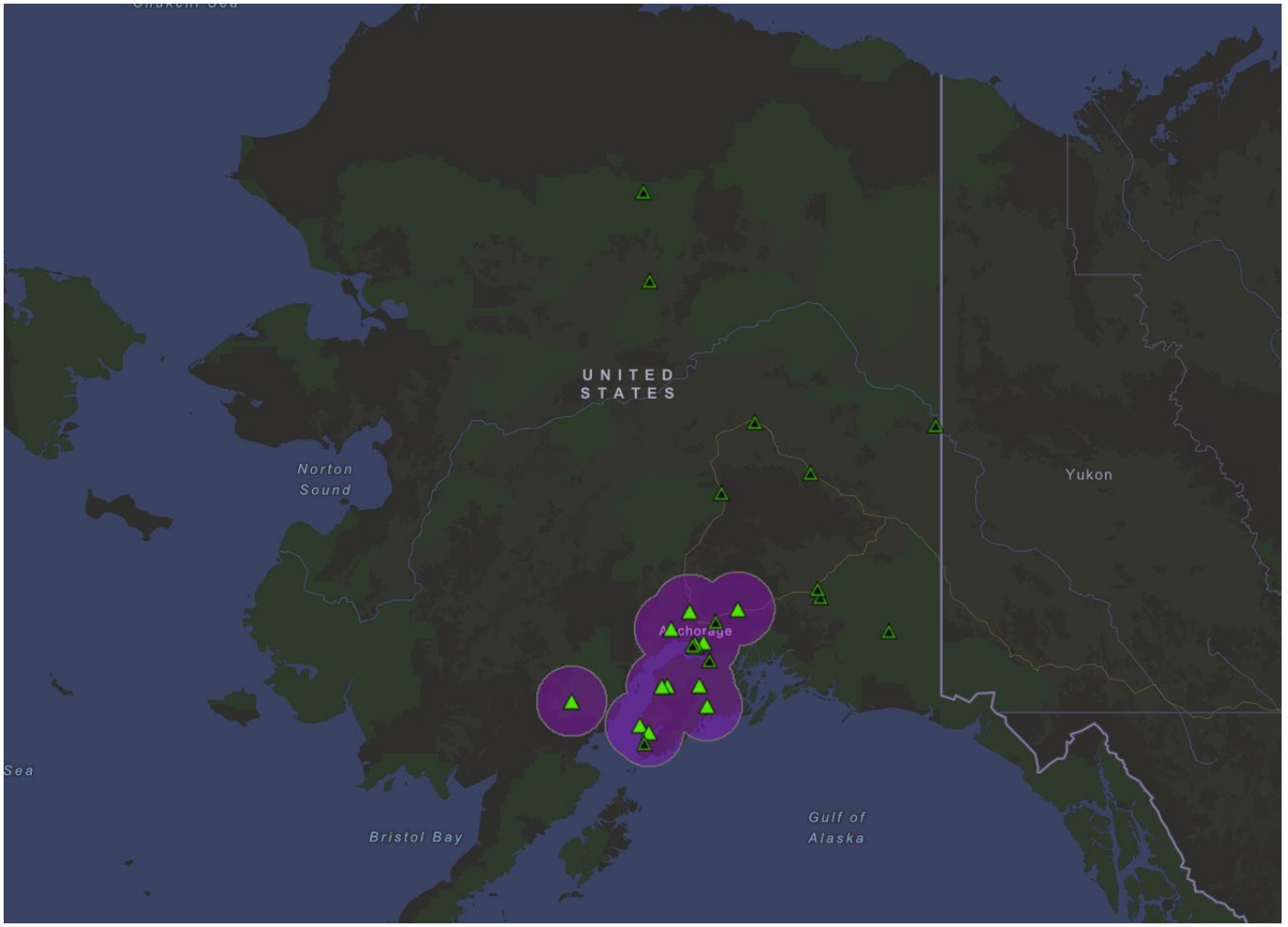


ACRON SOUTH CENTRAL NETWORK



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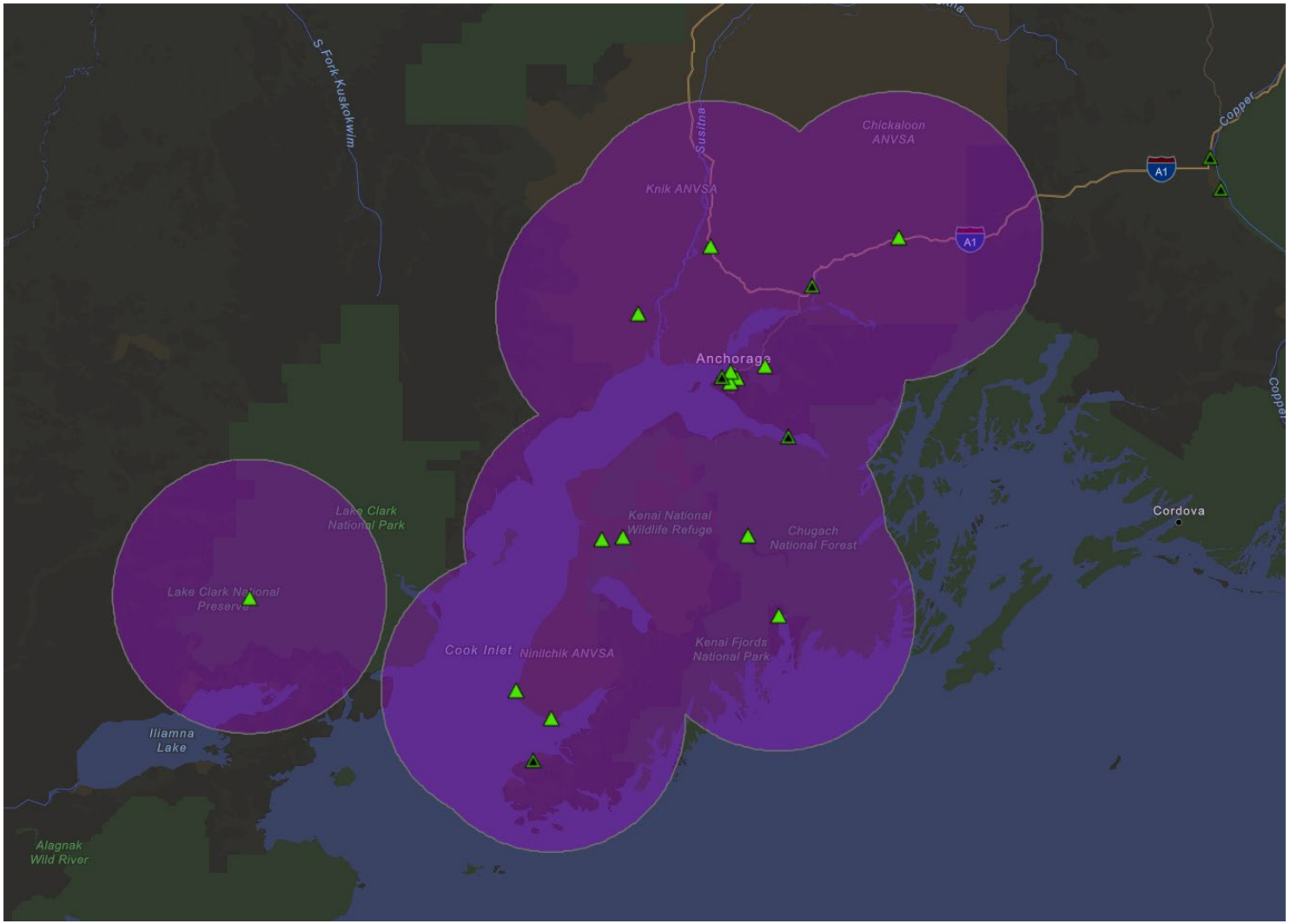
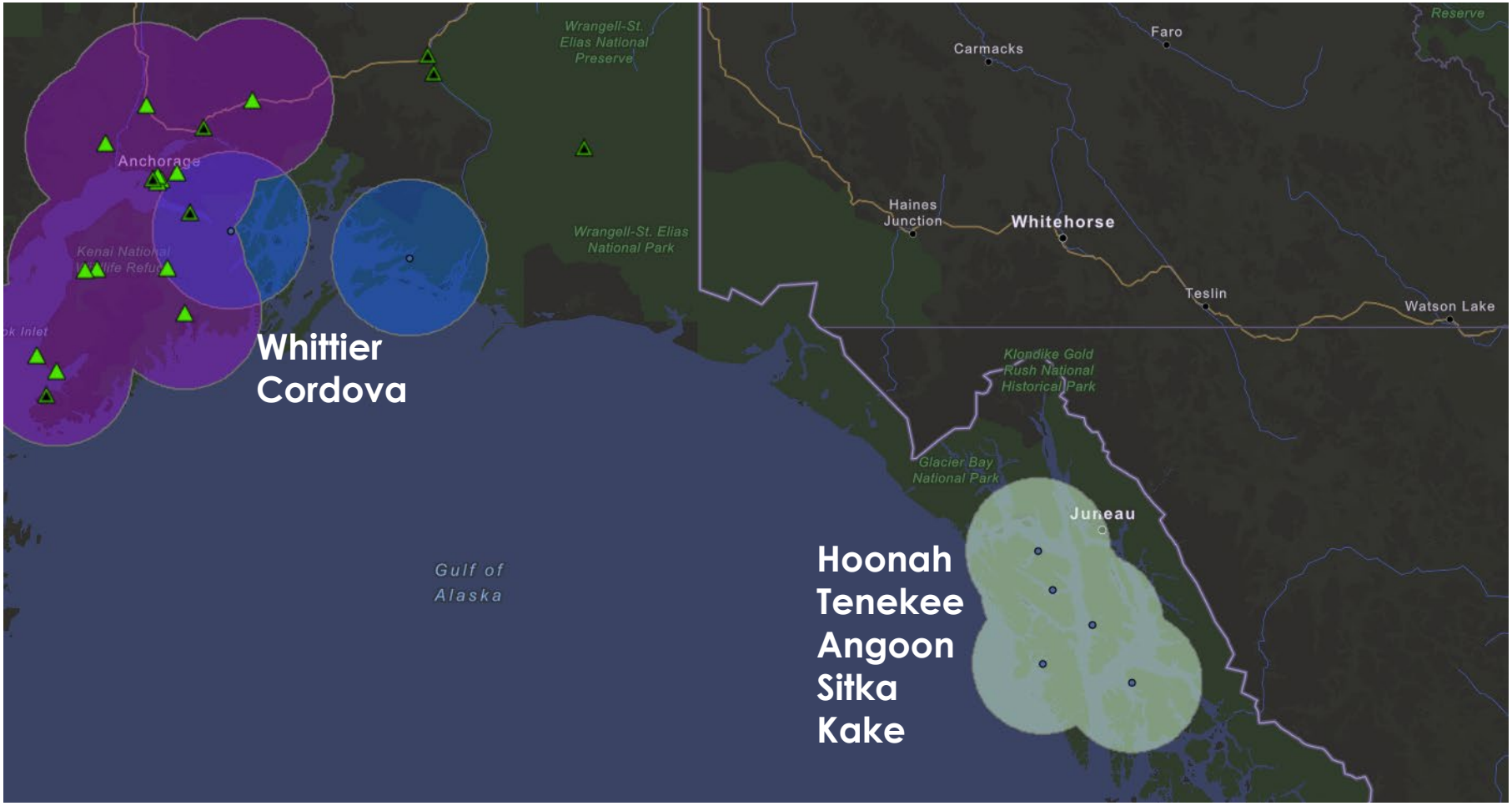


ACRON FERRY TERMINAL INSTALLATIONS



ACRON FUTURE OUTLOOK

- MOU with DOT&PF for installing stations at Highway Maintenance Stations
- Continued Buildout at Ferry Terminals throughout the state
- MOU with school districts for installing stations at various schools throughout AK

ACRON SCHOOL DISTRIBUTION

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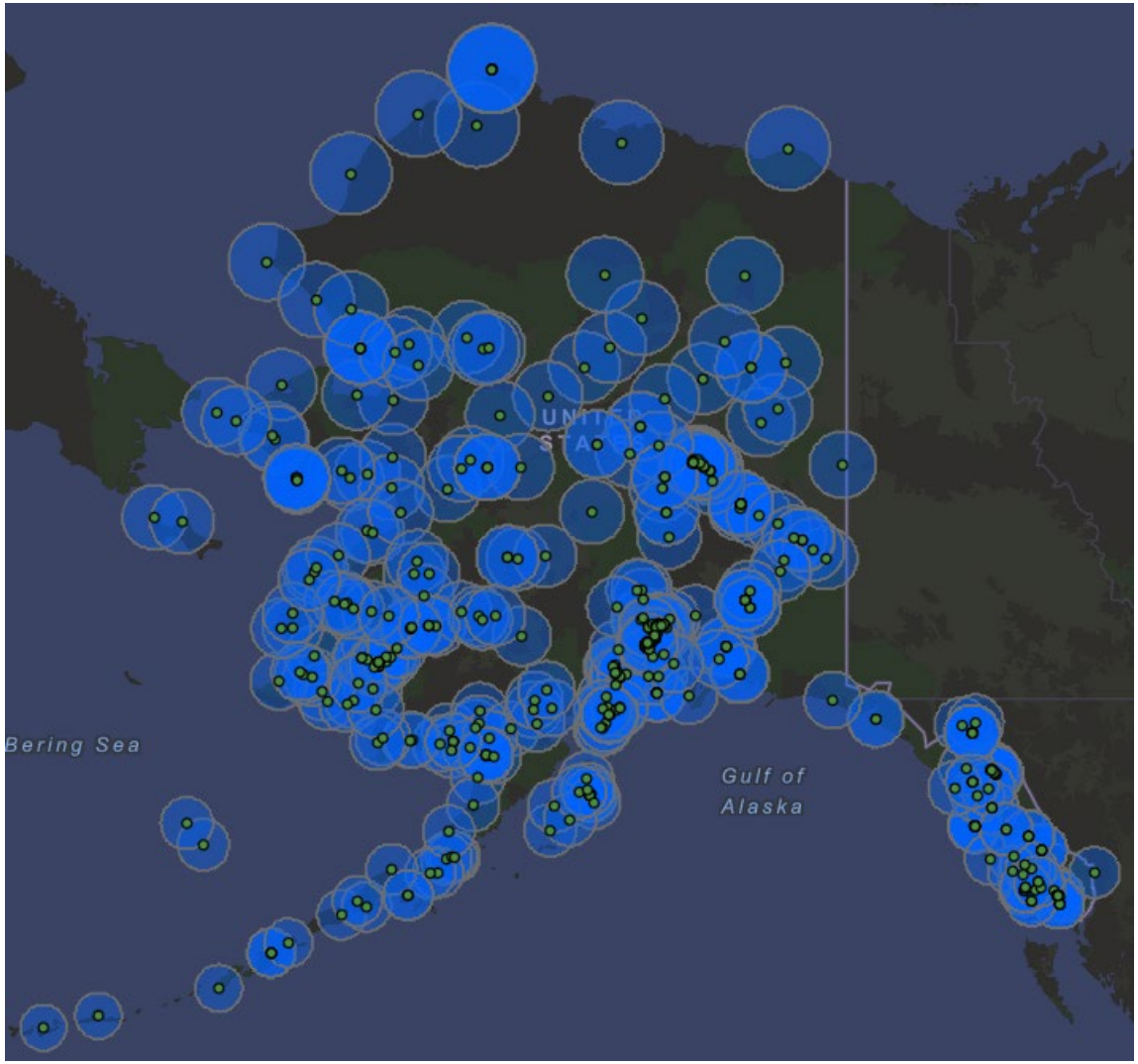

Questions