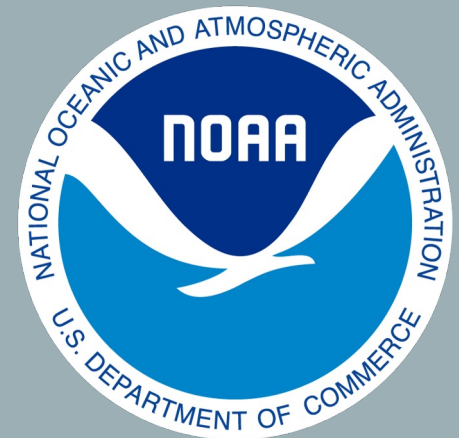


A wide-angle photograph of a flat, open landscape under a dramatic sky at sunset or sunrise. The sky is filled with dark, heavy clouds, with a bright glow on the horizon where the sun is setting. In the foreground, there is a dirt road or path leading towards the horizon. On the left side, a tall, metal lattice tower structure is visible, along with some white buildings or containers. The overall scene is desolate and expansive.

Colorado Atmospheric Observatory (CAO) Tall-Tower

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SITE SELECTION

- **Site Specifics**

- 600 meter tall-tower; Byers, Colorado;
- Regionally representative
- Homogeneous landscape
- “Background” air sampling (not influenced by local pollutants)
- Study boundary-layer dynamics

- **Site Infrastructure**

- Frequent site access
- Space for science deployments
- Communication with tower owners



- **Tower and Ground Infrastructure**

- Establish Power, Data Utility Services

- **Site Support & Maintenance**

- Landscape/Accessibility
- Concrete pads for equipment stability, conex
- Security/Safety of the site; Remote, rural locations

- **Instrument Communications**

- Tower Data Acquisition; Prep for future installations

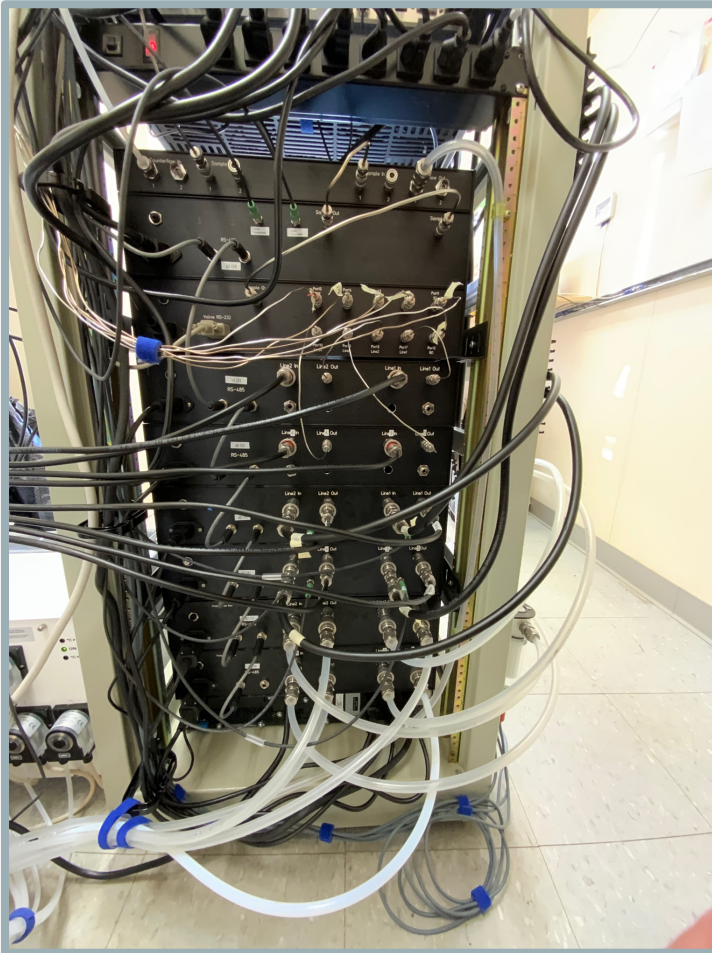
SITE PREP



INSTRUMENT INSTALLATION

- **Instrumentation**

- Picarro (CO, CO₂, CH₄, H₂O): Feb. 15, 2024
- Programmable Flask Package (PFF): Dec. 7, 2023
- NextGen Sampling System: Feb. 29, 2024



SUPERSITE FUTURE

- Future Partnerships
 - OAR cross-collaborations
 - ABO partnership model
- Meteorological Equipment
 - 3-levels
 - Temp, RH, Wind, Pressure
- Aircraft Profiles
 - Co-location
- Surface Flux Equipment
 - Additional 10m tower
- UAS Flights
- And more...

