

ARM Facilities on the North Slope of Alaska/ Barrow, Oliktok, and Atqasuk: An Update

BARROW

Common to all instruments

- Structures & electrical systems designed, engineered, and installed to house the instrument.

RWP

- User Facility Upgrades: new deck structure installed behind User Facility.
- Instrument moved and reinstalled to new location.



Extension to old RASS deck- Supports 2 connexes - 3 instruments housed.

SACR

- Instrument components are now installed.
- Internal HVAC support located inside.
- Larger antenna installed Nov 2011

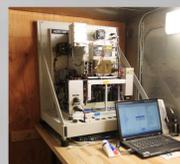


HSRL- Installed mid 2011



Extended Range (ER) AERI

- "Loaner" instrument was installed in late May 2011.
- ER instrument was installed November 2011.



AUTOSONDE System- Expansion possible for another connex, future IOP needs

RBL

- System launches sounding balloons on a pre-arranged schedule.
- Can launch with surface wind speeds up to 25 m/s.



Precipitation Radar - Addition to Barrow Arctic Research center (BARC)

BARC Before



BARC After



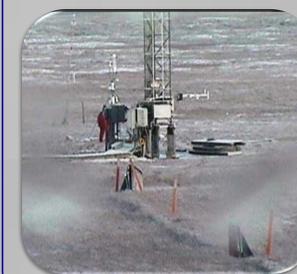
Controls in space below "golf ball"

Other upgrades:

- Road upgrade:** Instrument site road was raised to original engineering levels.
- Power line upgrade:** New insulators and cross arms were installed, along with a 4th insulator for a future upgrade. Such future work (no funding identified at this time) includes a system voltage/type upgrade, including the addition of a 4th wire to make it a more standardized and safer Wye configuration.
- MPL** - New upgraded instrument.
- Vceil** - CL31 replaced the older CT25K.
- MMCR-** Migration to a digitally based radar was done, now called the Ka ARM Zenith Radar (KAZR).
- User Facilities** - E4 and E5 vans were upgraded with better insulation, new HVAC systems, and electrical systems were re-wired.
- Shop-** Building next to the duplex received two natural gas heaters and floor matting to allow it to be utilized as warm space during the winter.
- Transportation-** Procured a Kubota rough terrain vehicle (RTV) complete with a winterer set of tracks for travel during all conditions.

ECOR

- One system installed north of the Barrow Met Tower.
- Another system slated for Point Barrow in late spring 2012.



OLIKTOK



Funding for future ARM site.

- Similar to Barrow in terms of instruments.
- Additional capability to include UAV work over ocean/land interfaces.



ATQASUK

For now, Atqasuk is in inactive status

- Electricity.
- No communications to site.
- Items stored until needed.
- No plans to disassemble beyond removal of instruments.

