



ASR
Atmospheric
System Research



ARM-ASR-NGEE: Building Collaboration in Alaska

Session Chairs: Stan Wullschlager, Mark Ivey, Matthew Shupe

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Why this Session?

- Arctic change manifesting at surface (cryosphere)
- Surface change influences climate feedback (methane release)
- ASR developing land surface theme (LACI)
- ARM installing additional surface measurements
- Overlap is in Barrow, maybe elsewhere...

Session Objective: Explore priority areas for coordination and leveraging among the three programs.

Presentations

1. Margaret Torn: DOE NGEE – Arctic Land-Atmosphere Interactions
2. Sebastien Biraud: ARM ACME Project
3. Matthew Shupe: NGEE-ARM-ASR Interactions - Focus on Coupled-system Processes

Discussion

- Science Questions
- How to move forward
- Is there a need to formalize coordination?
- What funding mechanisms exist?

Science Questions

- Can trends in sub-surface system be traced to trends in atmospheric system? Do we have sufficient measurements to observe these?
- Given our best information: Can we achieve energy budget closure?
- How do atmospheric processes shape and modulate the annual evolution of sub-surface processes?
- How important is spatial heterogeneity in the atmosphere and land for understanding surface exchange processes? (spatial variability in inundation, soil moisture, energy balances, etc.)