

# Arctic Aerosol Mixing State Characterization

**Objective:** Characterize single particle mixing state in the summer at Barrow & Oliktok Point, AK

**Lead personnel:** Kerri Pratt (University of Michigan)

**Collaborator:** Rebecca Sheesley (Baylor University)

**Funding status:** funded (NOAA & ARM, 2014-2017)

**Challenges or needed resources/collaborators:** Only two summer studies funded; Modeling and cloud formation components would extend use of field data

**Summary of progress:**

- Aerosol time-of-flight mass spectrometer (ATOFMS) deployed to Barrow, AK in Sept. 2015; Future deployment to Oliktok Point, AK in Aug.-Sept. 2016
- Particle sampling for off-line SEM-EDX and Raman microspectroscopy of single particles
- Increased mixing of sulfate and nitrate with sea salt aerosol was observed for periods of Prudhoe Bay influence, compared to Arctic Ocean influence, at Barrow

