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ARM Facilities Newsletter

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Aerosol Observing System Upgraded

The Aerosol Observing System (AOS) at the SGP central facility recently received maintenance and was upgraded to improve its performance. The AOS measures the properties of the aerosol particles around it. Several AOS components were removed, repaired, and calibrated to operate within specifications. The system continuously gathers information about the way minute aerosol particles interact with solar radiation. A better understanding of these interactions will help climate change researchers integrate aerosol effects more accurately into global climate computer models.



Figure 1. The Aerosol Observing System at the SGP central facility. (ARM photo)

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Polar Bears Make Work Dangerous at ARM North Slope of Alaska Site

The late development of seasonal sea ice has increased polar bear sightings at ARM's Barrow site. The bears were recently seen next to the ARM instrument towers at Barrow, making the normal work day a bit more tricky for the technicians who are at the site year-round. Polar bears are not afraid of people and will attack and kill.

The bears usually spend most of their time on off-shore ice floes hunting seals. This season, a large storm pushed the floes out to sea while the bears were ashore at Barrow, leaving them to forage

for food on land until the sea ice reforms with the onset of colder weather.

The hungry bears have made working at the Barrow CART site a dangerous proposition. ARM workers carry shotguns with them at all times for protection. On a recent journey to the site, ARM instrument mentor Michael Ritsche encountered the animals. "You become much more aware of your surroundings," said Ritsche after returning safely to Argonne.

Barrow residents protect themselves by shooting warning shells to scare the bears away from developed areas. Hearing the firing in the early mornings and late evenings at Barrow reminded Ritsche that he was in a more dangerous world.



Figure 2. A polar bears near the ARM North Slope site in Barrow, Alaska. (ARM photo: M. Ritsche)