

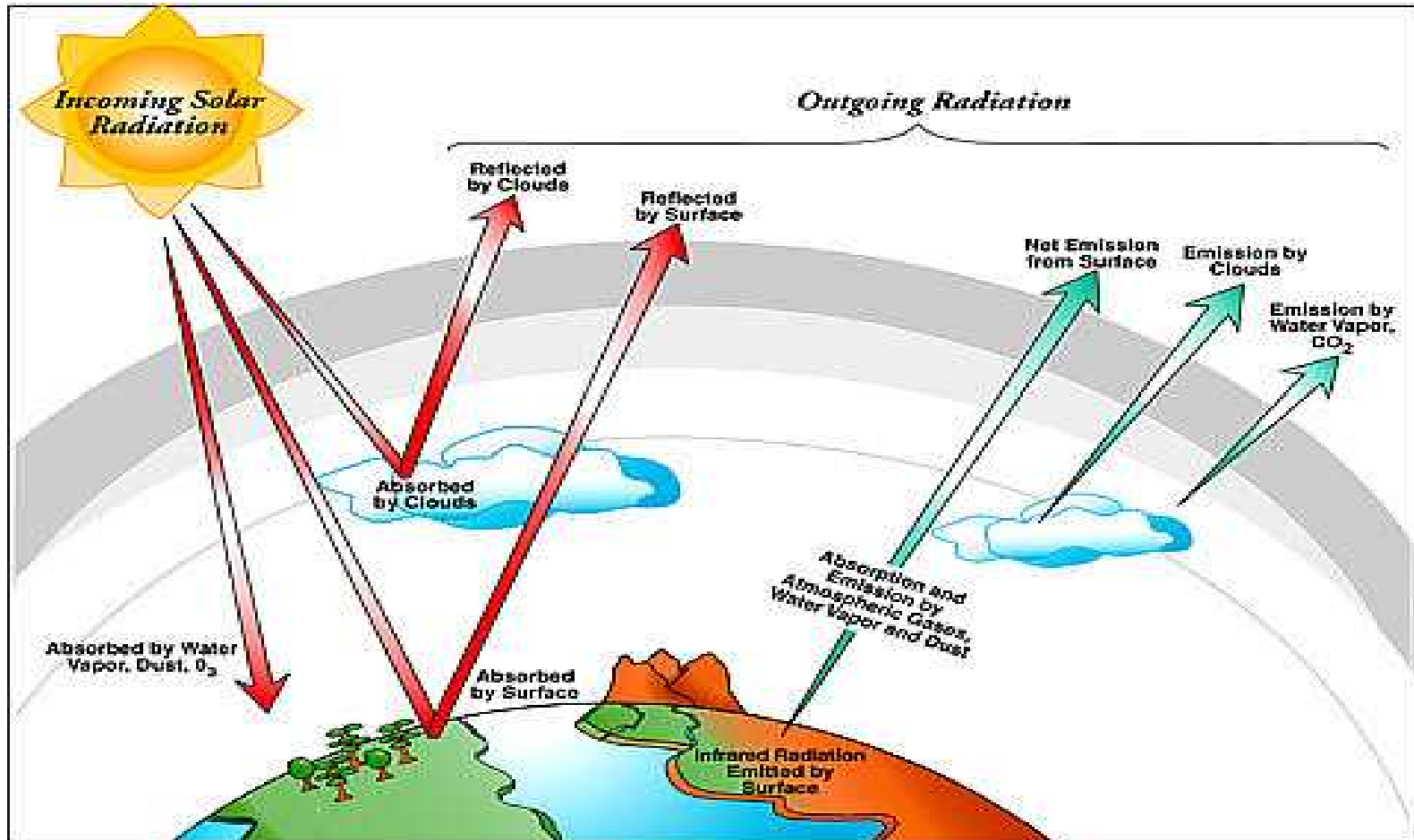
# **The U.S. Department of Energy's Atmospheric Radiation Measurement Climate Research Facilities on the North Slope of Alaska**

**IEEE International Geoscience and Remote  
Sensing Symposium  
July 9, 2008**

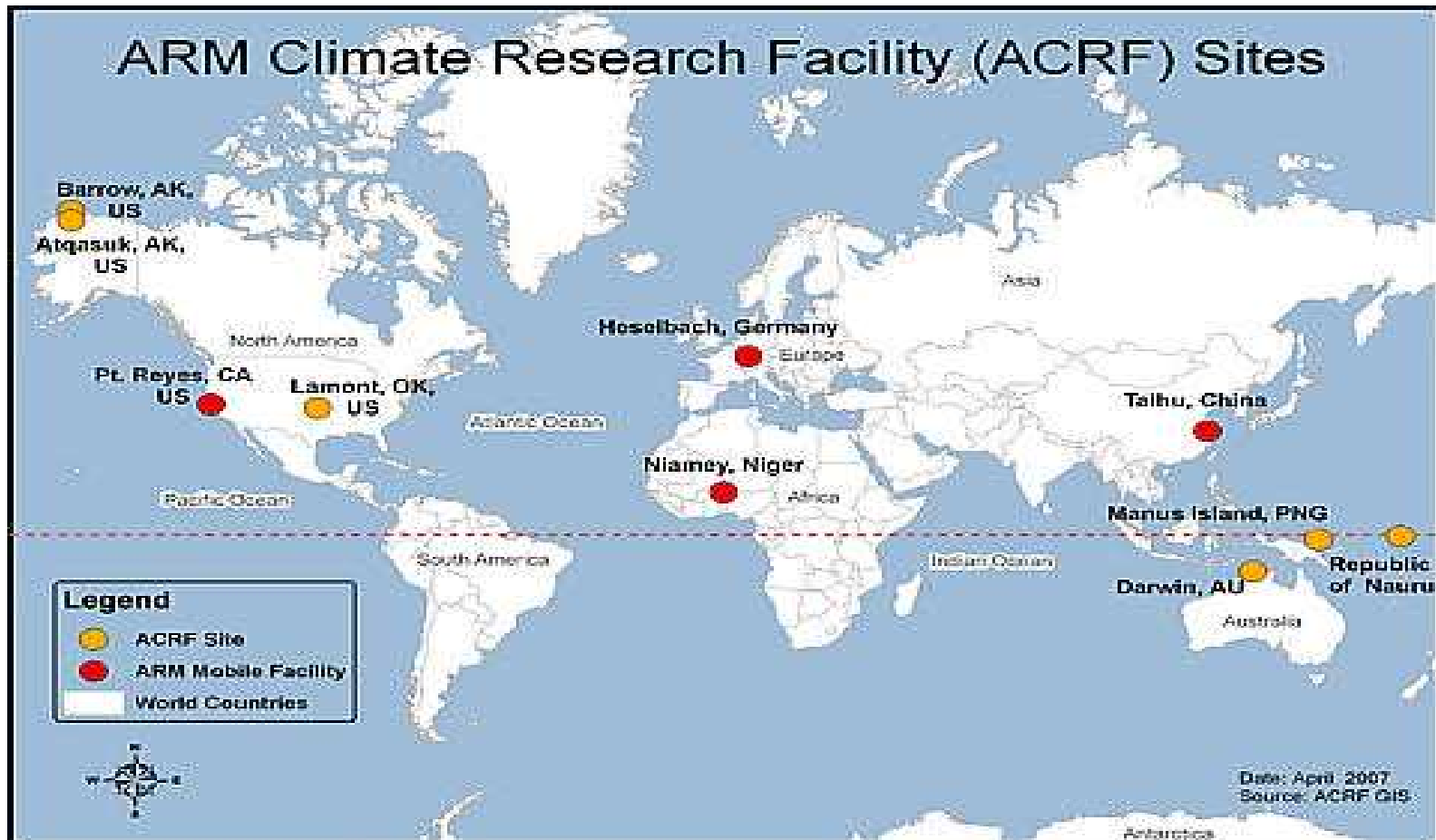
**Ivey, Mark D. <sup>1</sup>, Verlinde, Johannes <sup>2</sup>,  
Zak, Bernard D. <sup>1</sup>, Zirzow, Jeffrey <sup>1</sup>**

**1 Sandia National Laboratories,  
2 Penn State University**

# Atmospheric Radiation, Clouds, and Climate



# ARM Climate Research Facilities



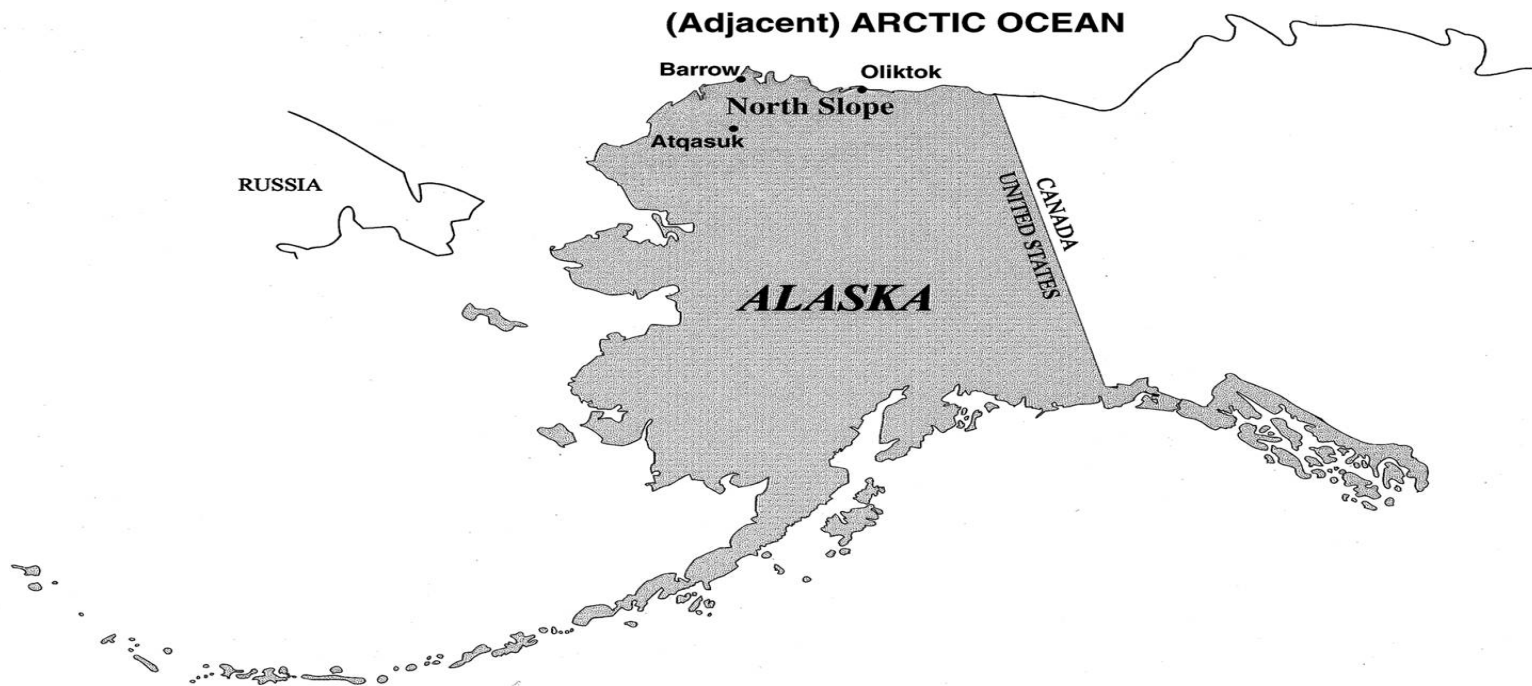






# ARM Climate Research Facilities in Alaska

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# Barrow and Atqasuk

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# Mixed-Phase Arctic Cloud Experimental Domain



# Barrow User Facility Shelter







# ARM Climate Research Facility - Barrow

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# Atmospheric Soundings in Barrow

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# Barrow User Facility with IR Loss Experimental Setup







# USAF “DEWLINE” Station and ACRF Site

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# USGS, DOE, and NOAA Facilities in Barrow

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# ACRF Site in Atqasuk

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# Atqasuk





# Atqasuk Instrument Shelter





# “RHUBC” Team

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# ACRF Duplex in Barrow

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# ARM Duplex in Barrow



# “TAFTS” Instrument, RHUBC





# Mixed-Phase Arctic Cloud Experiment Oliktok

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# **National Research Council's Convair– Indirect and Semi-Indirect Aerosols Campaign, April 2008**



# Tethersonde at Oliktok

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# Tethersonde Operations at Oliktok

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# Teamwork in Barrow

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# The Arctic Offers Many Surprises

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[www.arm.gov](http://www.arm.gov)

