



# DOE/ARM UAS Plans

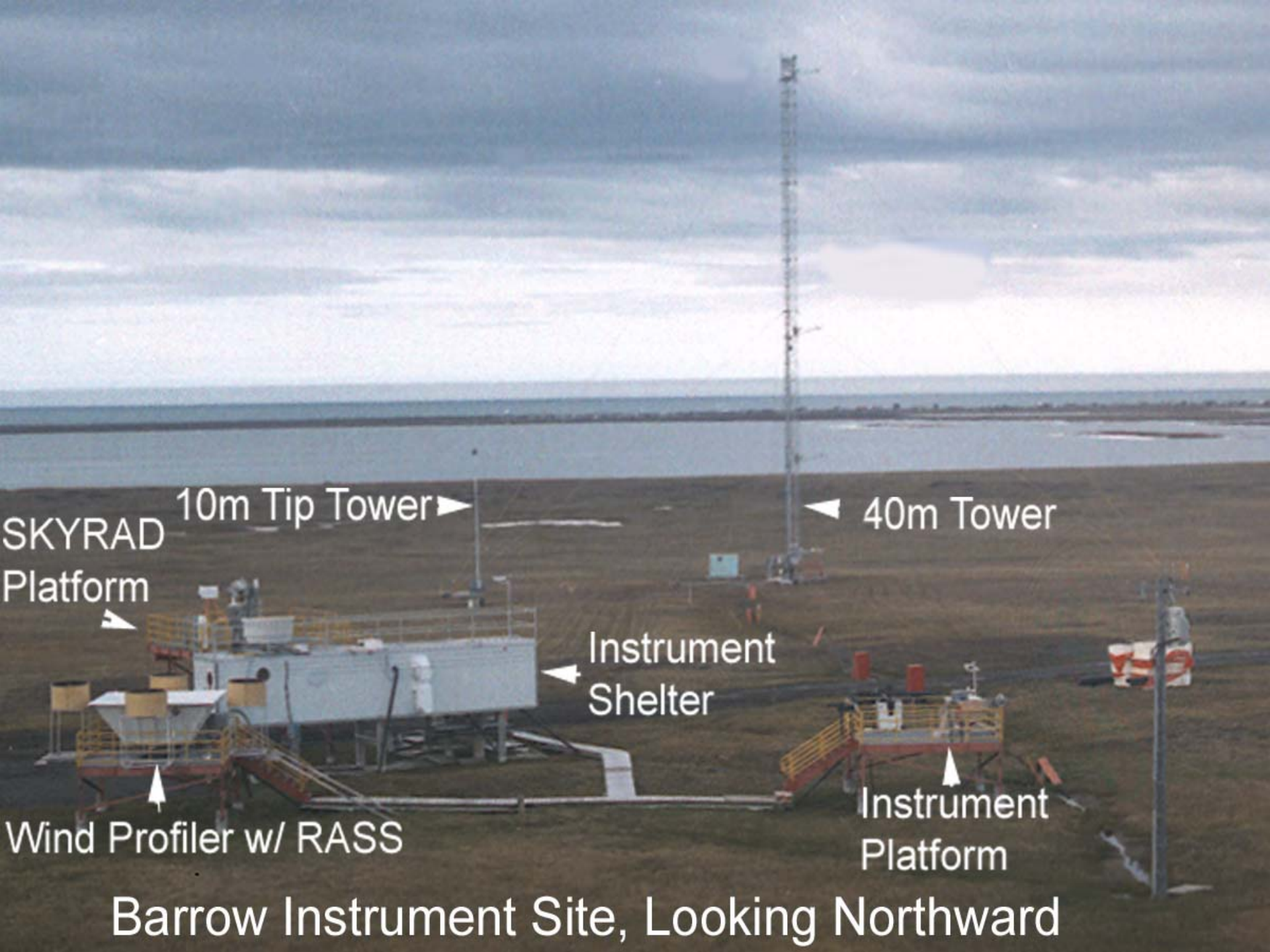
**Through Sandia,  
DOE/ARM\* is putting in place a  
UAS (Unmanned Aircraft Systems)  
hosting capability on  
the North Slope of Alaska**

\* DOE/ARM = Dept of Energy/Atmospheric Radiation Measurement, DOE's principal climate research program; [www.arm.gov](http://www.arm.gov)



9702240859

**ARM Climate Research Facilities (ACRF) already exist at Barrow and Atqasuk;  
DOE/ARM restricted airspace exists at Oliktok Point;  
only restricted airspace on the North Slope of Alaska**



SKYRAD  
Platform

10m Tip Tower

40m Tower

Instrument  
Shelter

Wind Profiler w/ RASS

Instrument  
Platform

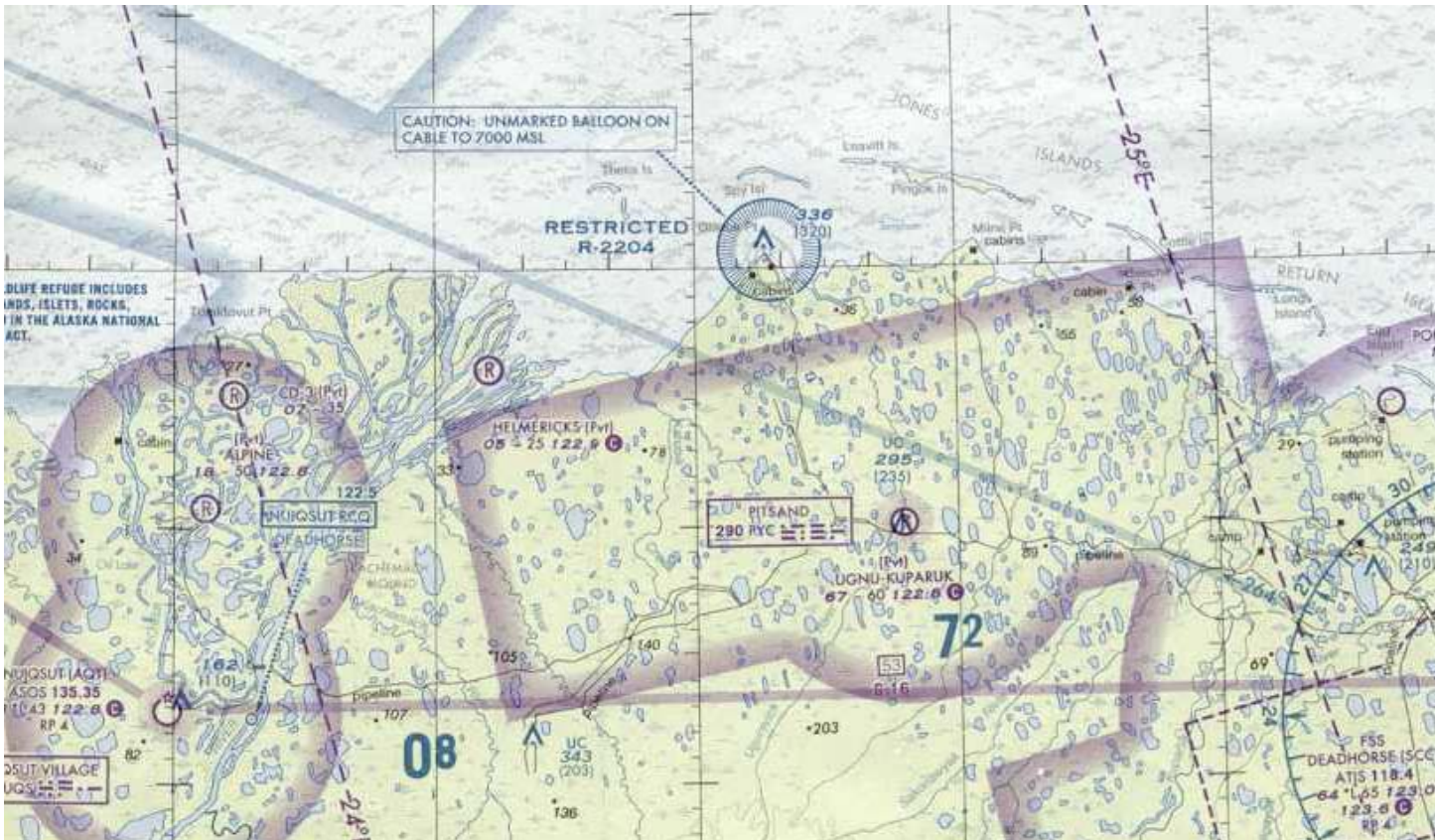
Barrow Instrument Site, Looking Northward



# Atqasuk



# ACRF UAS Basing Capability: Restricted Airspace R2204 along with Permit to Use the USAF Oliktok Point Radar Station Facilities under R2204



# Oliktok Point USAF Long Range Radar Station



0' 1000' 2000' 3000' 4000' 5000' 6000' 7000' 8000'  
Appx. Scale



## **ACRF UAS Capability Status:**

**FAA Issues Resolved**

**Permit for Use of USAF Facilities at Oliktok in Place**

**DOE Aviation Safety Review Document for First  
Proposed UAS Use of Oliktok Complete  
(similar to COA application)**

**Anticipate First Use within the Next Few Months**

# First Proposed UAS Tests at Oliktok

University of Alaska Fairbanks:



**In Situ A 20 (Boeing Scan Eagle); >45,000 flight hours, mostly in Iraq;  
20+ hour flight duration; wing span just over 10 feet.**





# Long Range Plan

- **R2204 Segmented (0-1500', 1500-7000'), effective 7/31/08**
- **Will Request Additional Contiguous Restricted Airspace Offshore**
  - Transit Corridor to International Waters**
  - Surface to 18,000' at End of Transit Corridor**  
**to Give Access to Class A Airspace Above 18,000' Under FAA Radar Control**
- **Would Permit Unescorted UAS Flight Anywhere (typically above 18,000') From Oliktok with an FAA Certificate of Authorization (in particular, anywhere over the Arctic Ocean); Potential for Warning Area over International Waters for Lower Altitudes**
- **Oliktok Viewed as a Template for UAS Operations in Other DOE Restricted Airspace**



**For further Information on the use of  
Oliktok, Contact Bernie Zak ([BDZak@sandia.gov](mailto:BDZak@sandia.gov))**

**\*Taken together, these facilities have been designated a  
national user facility, open to all potential users on a  
mini-proposal basis**