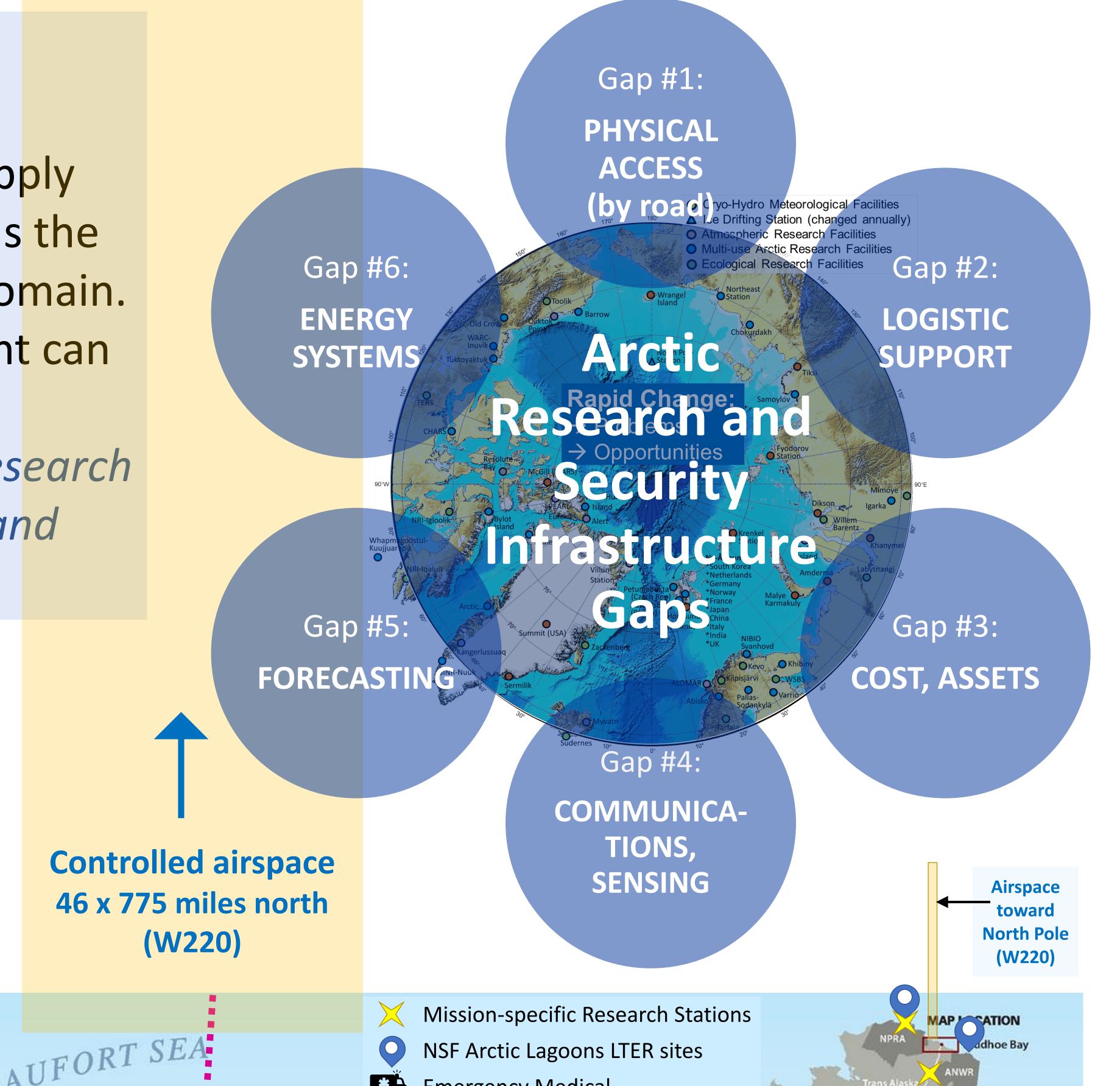
## Arctic research requires National Laboratories infrastructure + presence to serve U.S. National interests



## What we don't know can hurt us.

Sandia

Arctic change will affect global economics, ecosystems, public health, resource and supply chains, and national security. Yet, it remains the least observed and least understood U.S. domain. Arctic research and technology development can fill gaps to serve national interests. A networked, comprehensive High Arctic Research Center is needed to fill infrastructure gaps and enable comprehensive Arctic research.



Greater

**Prudhoe Bay** 

**Prudhoe Bay: Unique Infrastructure and Assets** 

**Trans Alaska** 

**Pipeline System** 

**Emergency Medical** 

Deadhorse

**Badami** Pipeli

ANWR-

High Speed Fiber-Optic Cable

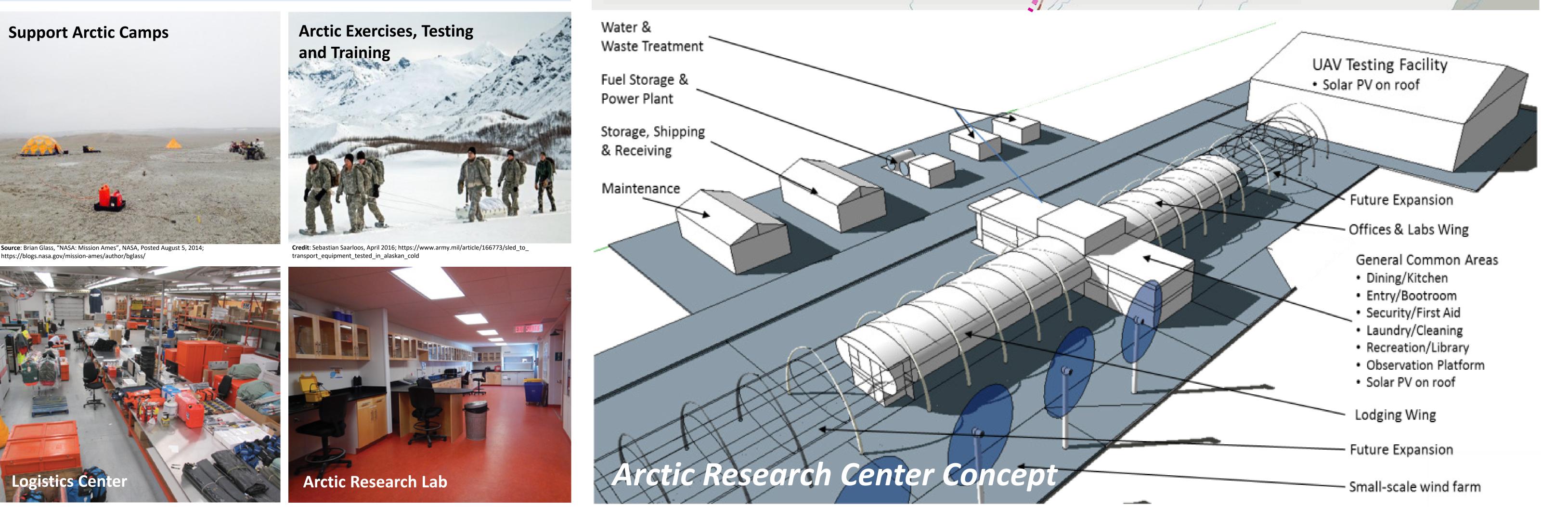
Ship Docks

**Public-Private Partnerships Leverage Resources to** fill Research, Search and Rescue, Security gaps



Arctic Shield 2015: The Oliktok Point site and controlled airspaces were used to conduct this public-private search and rescue exercise. An unmanned aerial vehicle (UAV) was launched from Oliktok Point, then "handed off" to the USCG cutter Healy to locate "survivors" in ice-covered waters. Manned aircraft and rescue personnel were then dispatched.

## **Presence and Operations to Support Arctic Research, Technology, and Security**



**Two Controlled Airspaces:** 

\*Rare and valuable

- R2204 at Oliktok Point

- W220 across Beaufort Sea

**Airspace at Oliktok** 

**Point (R2204)** 

Alpine Pipelin

PRA

Nuiqsut

Jasper (Joe) Hardesty - Sandia National Laboratories

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