



UAF UAV Operations

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Alaska Center for UAS Integration (ACUASI)

- ACUASI is the University of Alaska's UAS research program
- Lead for the Pan-Pacific UAS Test Range Complex
 - Alaska, Hawaii, Oregon, and Mississippi conduct maritime UAS activities
 - Kansas conducts UAS research on lakes



Testing New Safety Features

- Detect and Avoid
 - Ground-based and on-aircraft radars
 - Optical systems
- Command and Control
 - Cell coverage vs. no cell coverage
 - Satellite communications
- Geofencing
- Anti-icing/deicing technologies

Testing

SeaHunter Icing Research
in partnership with NOAA,
NASA, DOE, and others

- NASA Glenn
Research Center
Icing Research
Tunnel
- Two days of wing
section run under
extreme icing
conditions



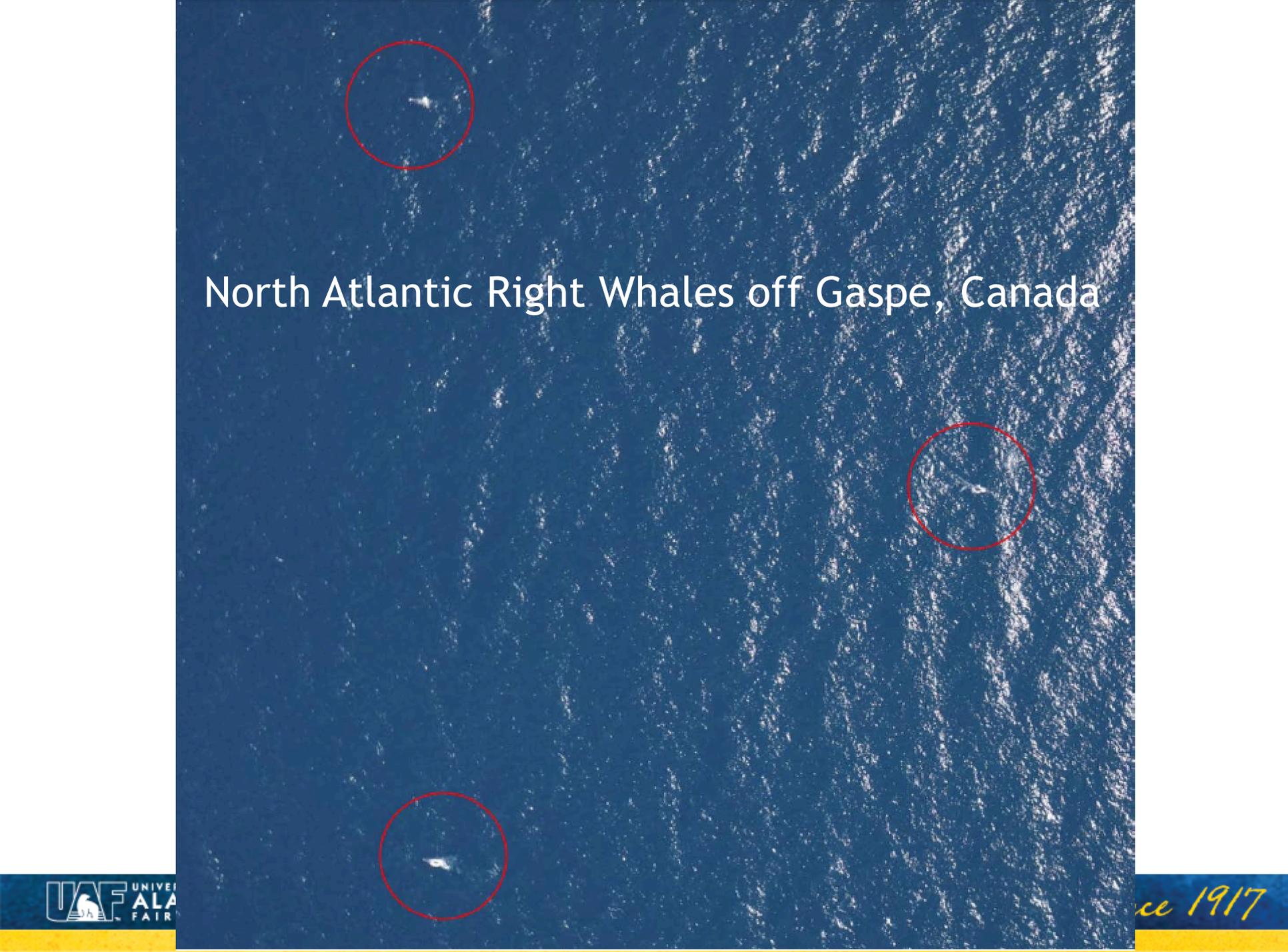
Scanning the icing for model comparison



Canada - Northern Airports and Maritime Operations

- UAF is working with Transport Canada and Arctic UAV to integrate unmanned aircraft into remote airports in the Arctic
- In June 2017 and January 2018 ACUASI performed Beyond Visual Line of Sight (BVLOS) operations using a SeaHunter UAS in Alma, Quebec
- Currently, SeaHunter is operating out of Gaspé, Quebec, surveying shipping lanes for North Atlantic Right Whales



An aerial photograph of the ocean's surface, showing a textured blue water with white foam from waves. Three red circles are drawn around the water, each highlighting a white whale breaching the surface. The whales appear as bright, elongated shapes against the darker blue water. The text "North Atlantic Right Whales off Gaspé, Canada" is overlaid in white on the center of the image.

North Atlantic Right Whales off Gaspé, Canada

Stratified Ocean Dynamics of the Arctic (SODA)

- SeaHunter will support SODA starting in September
- SeaHunter will fly from the North Slope of Alaska to the ice edge collecting atmospheric measurements and sea ice images
- This is a joint effort between NOAA, University of Colorado, DOE, ONR, UAF, and others

R/V *Sikuliaq*



Working with researchers to
conduct safe UAS flights from the
R/V Siquuliaq.

DRS Sentry HP UAS

- UAF has acquired CIRPAS's excess DRS Sentry HP UAS
- The Sentries will be used for maritime missions in the Alaskan Arctic



Questions?

