

Arctic Shield 2014: Arctic Oil Spill Response and Tool Interoperability

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EPPR UAS Arctic Workshop | Dec 4, 2014

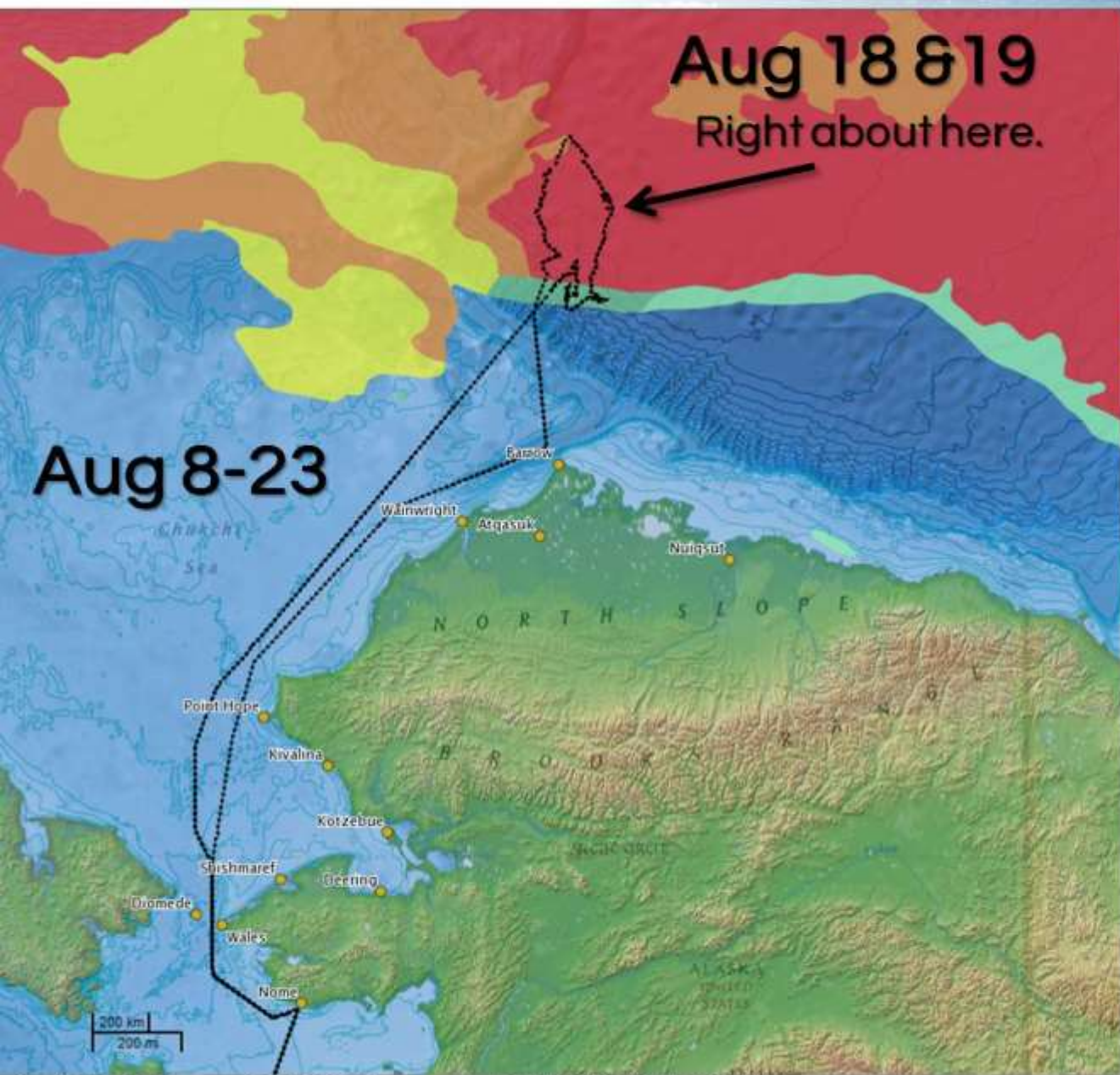


Focus

Arctic Shield 2014:

an Arctic Technology Evaluation

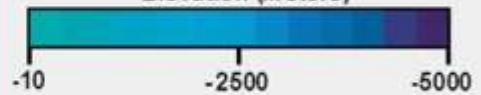
- NOAA OR&R | Arctic ERMA
- NOAA UAS | Puma UAS
- Inland Gulf Maritime | Aerostatic Balloon



Bathymetry

Alaska Region Bathymetry Contours (UAF, 2013)

Elevation (meters)



GEBCO Hillshaded DEM, Worldwide (NOAA/NGDC, 2008)

Ice Concentration

Sea Ice Concentration in Tenths, Arctic, 19-Aug-2014 (NIC)



Vessel Track

Healy Track as of 29-Aug-2014

Healy Track

Temporary Layers

Alaska Cities (GNIS, 2011)



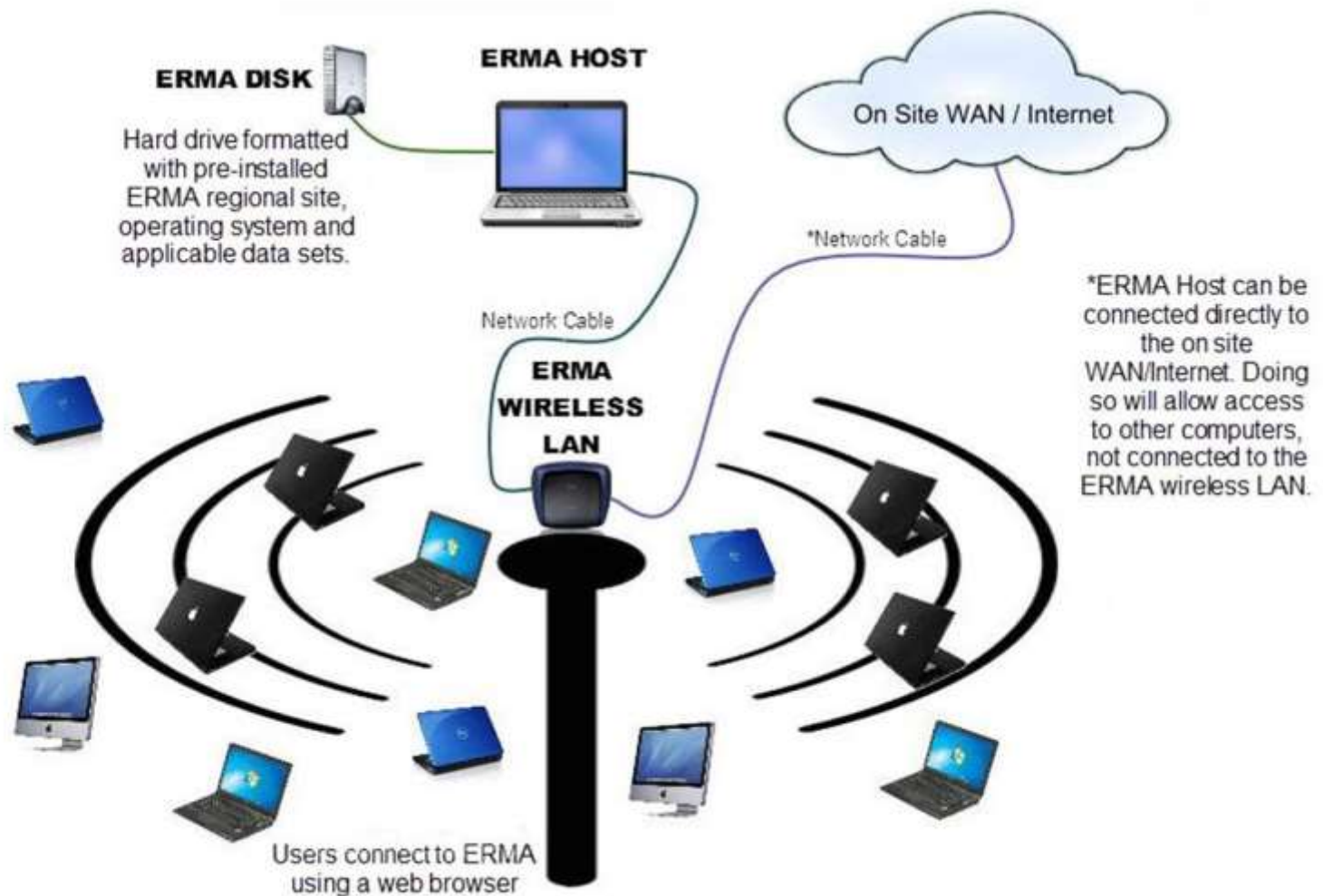
Now, a word from our sponsors

US Coast Guard Research & Development Center
(USCG RDC)

“The increasing risk of an oil spill in the Arctic is a byproduct of increasing maritime operations in the region. The primary goal of the RDC effort is to demonstrate the capabilities of available technologies to successfully recover spilled oil in an arctic ice floe. This includes evaluating the individual equipment, but more importantly how the technologies interact.”



Stand-alone ERMA





Stand-alone ERMA

Allows the set-up of ERMA in a command post, ship or remote location without an internet connection

Phase I

- Completed prototype
- Tested during Arctic Shield - Sept 2013
onboard - *USCGC Healy*
- Successful integration with Healy local network

Phase II

- Synchronization capability with ERMA Live during Arctic Shield – Aug 2014
- “Stand-alone Phone Home”

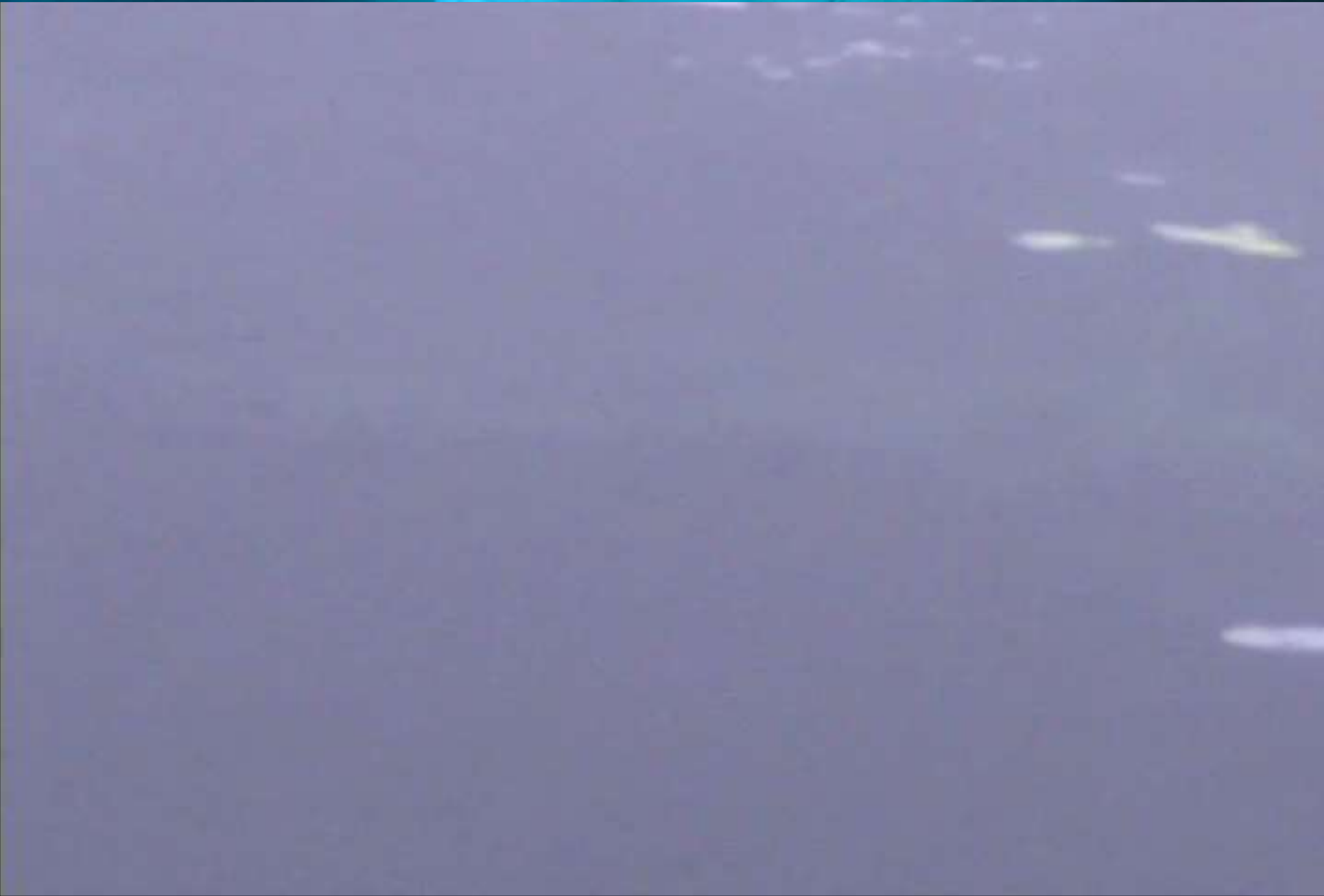


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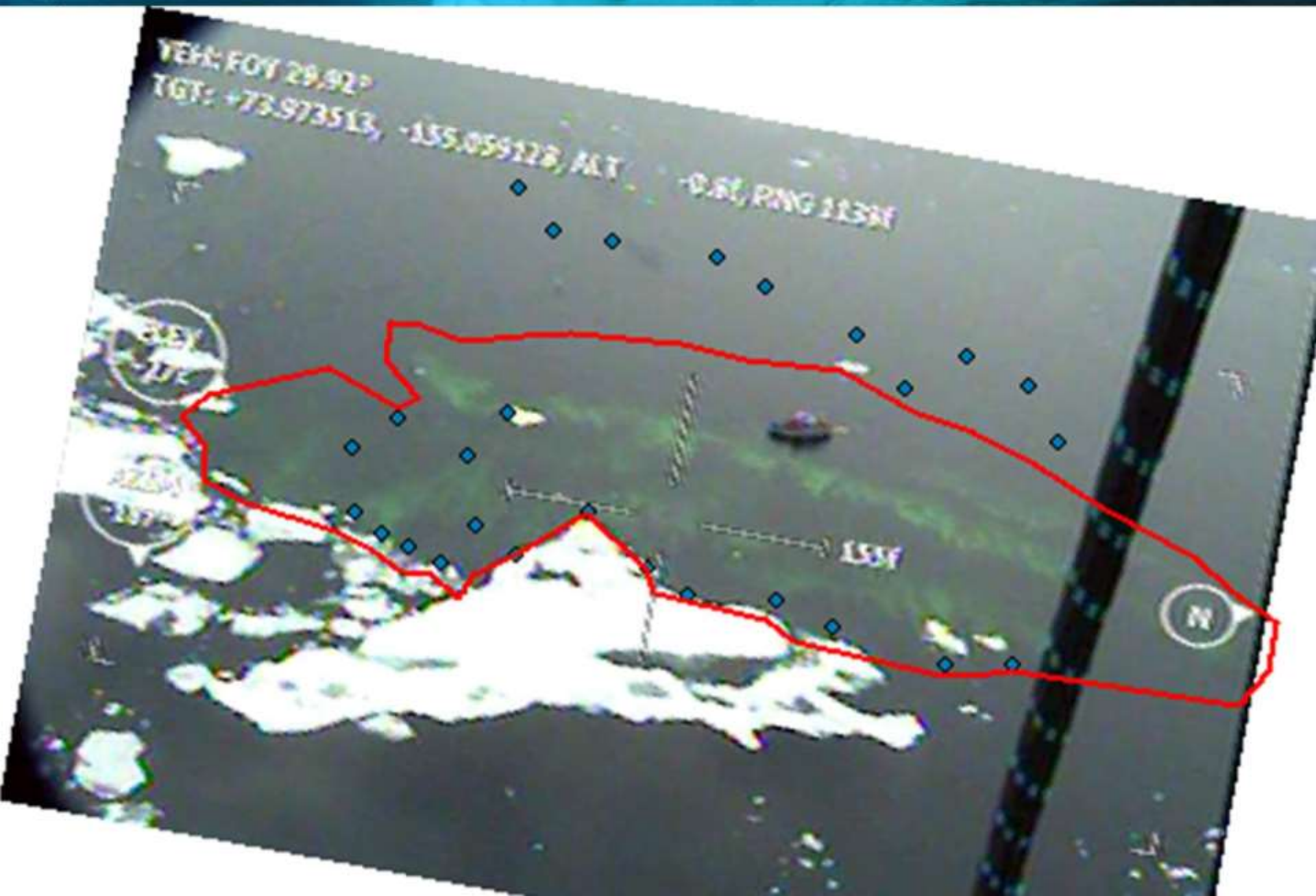




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Interoperability

Requires:

- Pre-Established Data Standards
- Coordination
- Cooperation
- Testing

Increases:

- Data Integrity
- Data Sharing
- Efficiency
- Effective Decision Making



Lessons Learned

- When in doubt, build it yourself.
- Testing is paramount.
- During development, go to the source.
- Plan for Arctic weather...



Thank You.

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