

AICC, Fall 2008

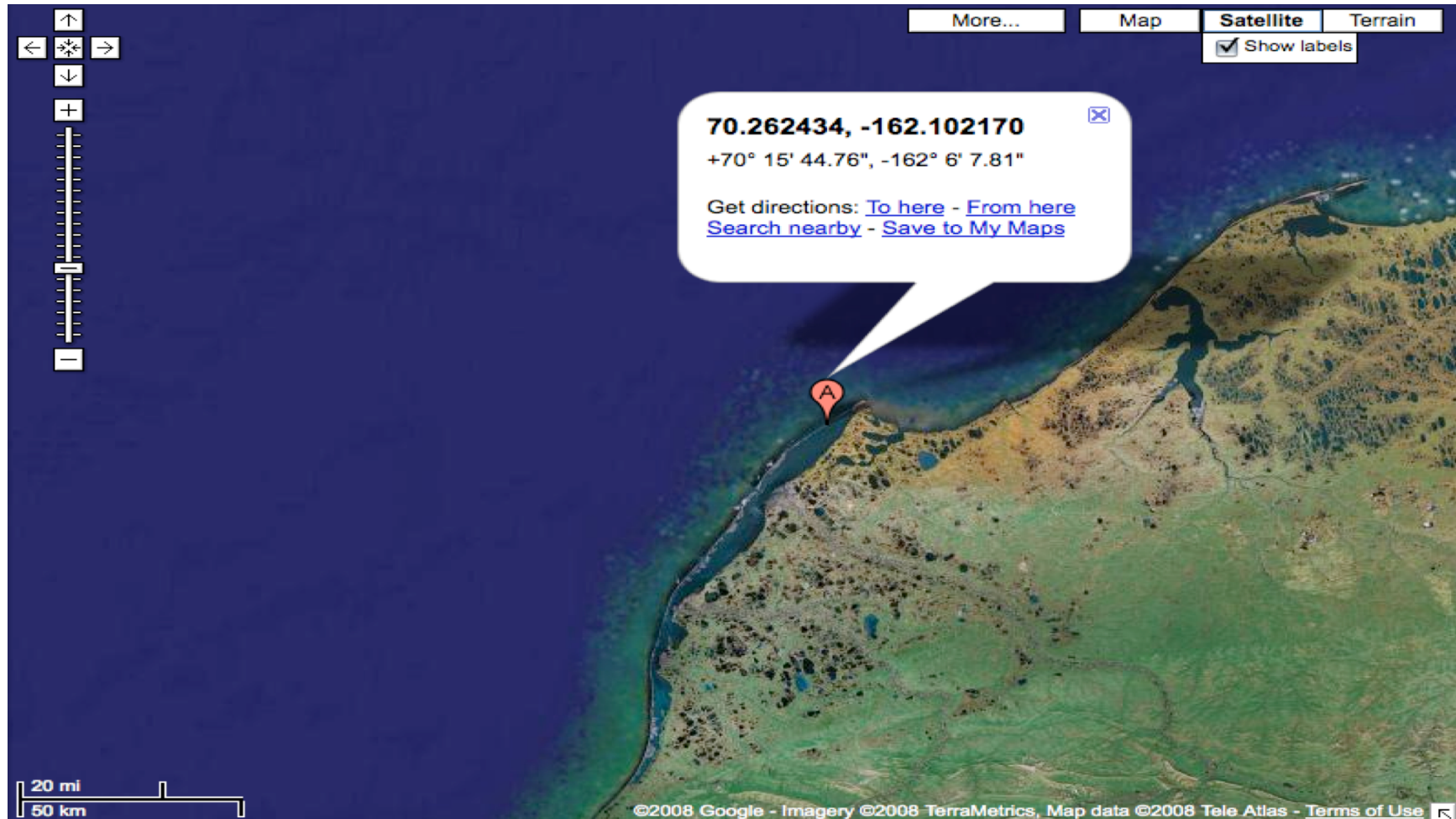
PACAREA Polar Breaker Update



POLAR SEA Arctic West Winter 08

- Coordinated SOO announcement w/ AICC
- Science-Related: VOS in ice deployment
- Science Projects: failed/ongoing
 - failed: UW arctic buoy recovery – beached near Barrow, but iced-in, comms undetectable
 - ongoing recover NOAA buoy Ocean Stn. Papa
- Science Projects: successful
 - ISAR Radiometer (P. Minnett, RSMAS)
 - Marine Mammal, Seabird Census Survey, US FWS Alaska (K. Kuletz, Coordinating)

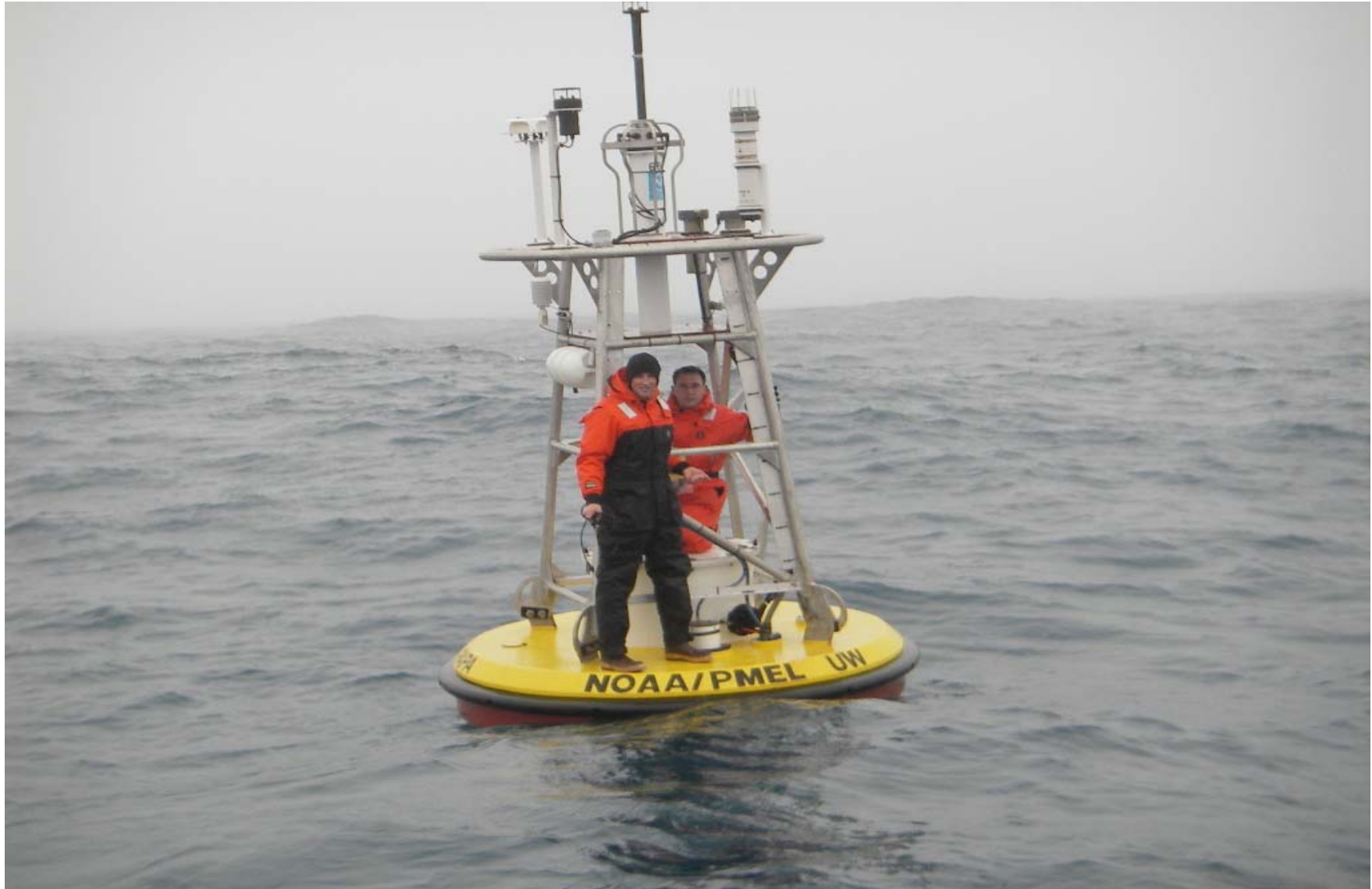
UW (I.Rigor) Ice Buoy Location



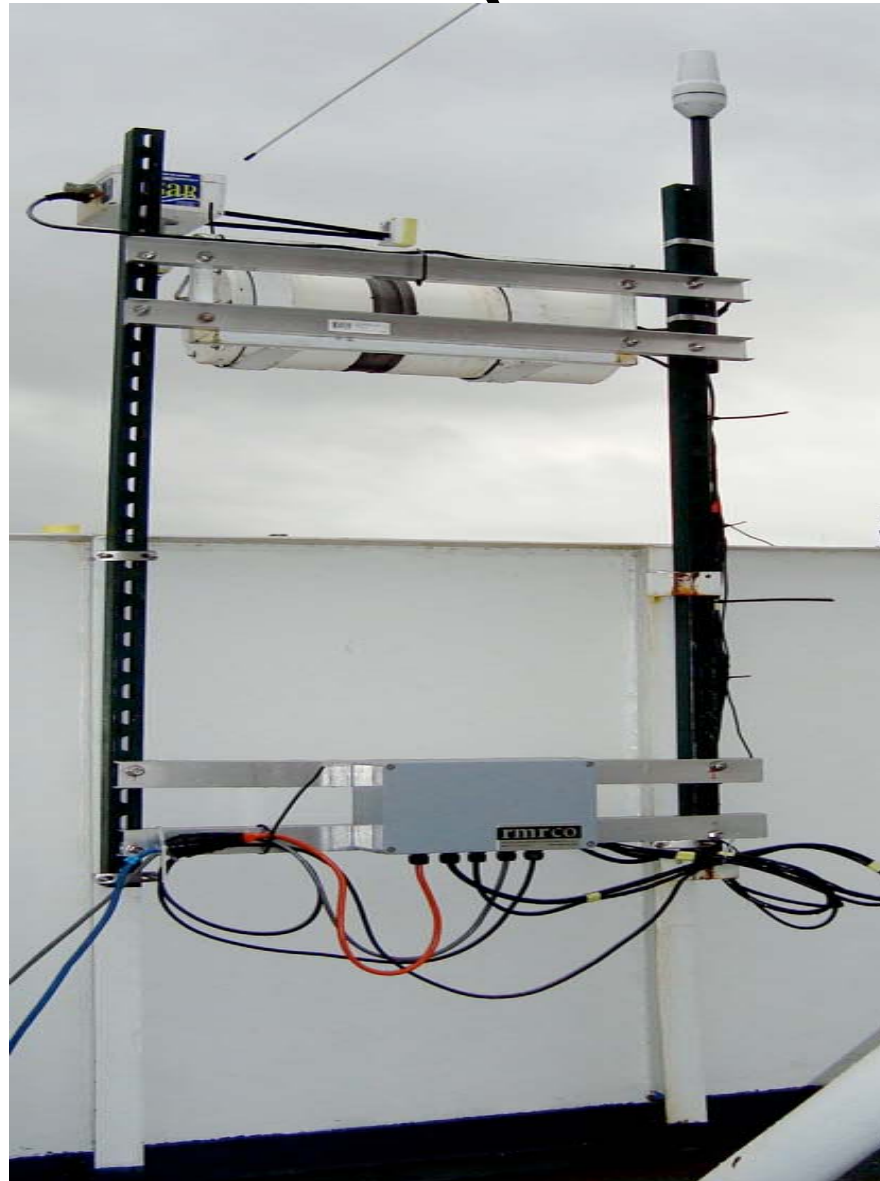
UW (I.Rigor) Ice Buoy



NOAA Buoy Ocean Station Papa



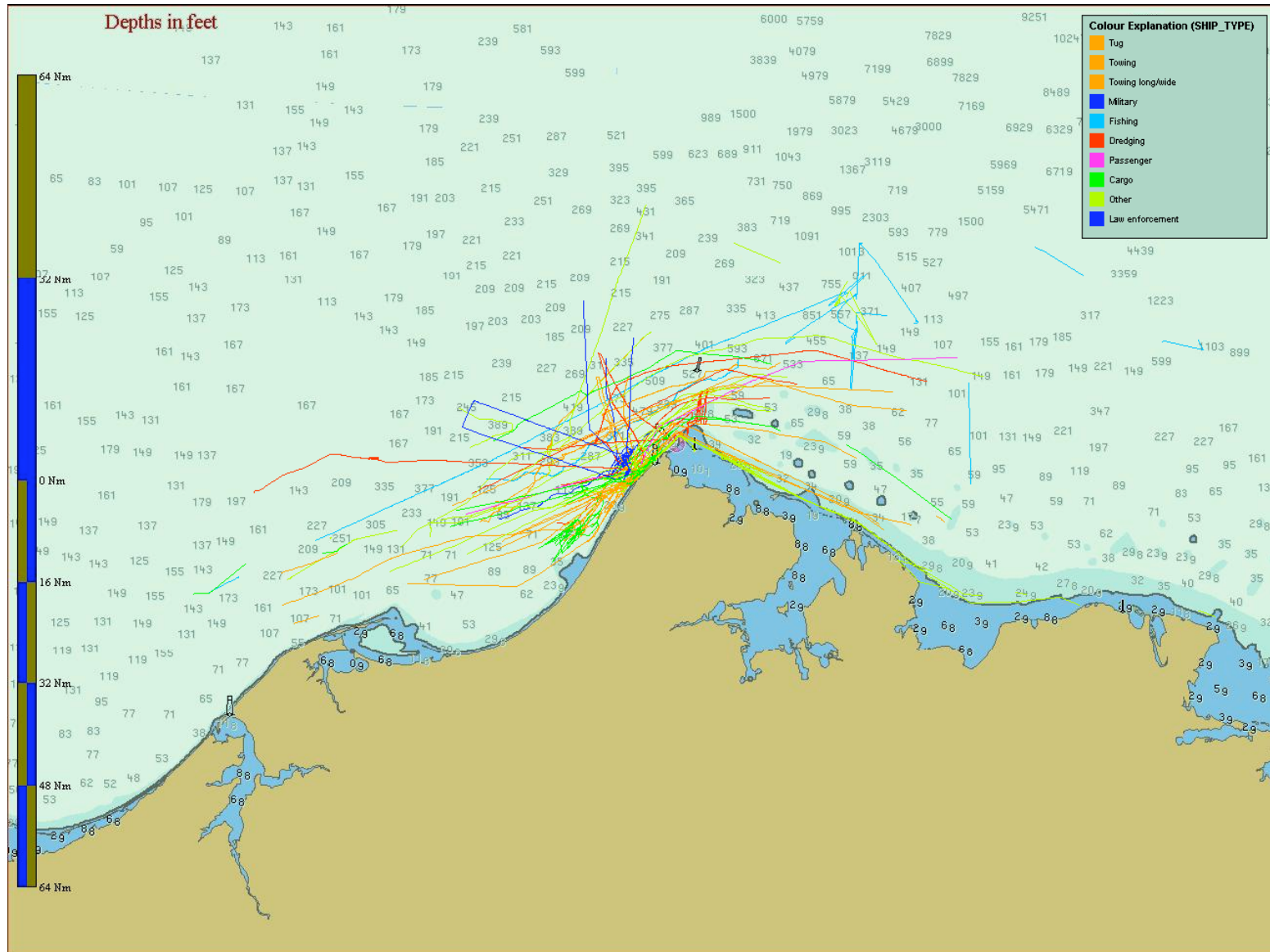
ISAR Radiometer (Minnett/RSMAS)



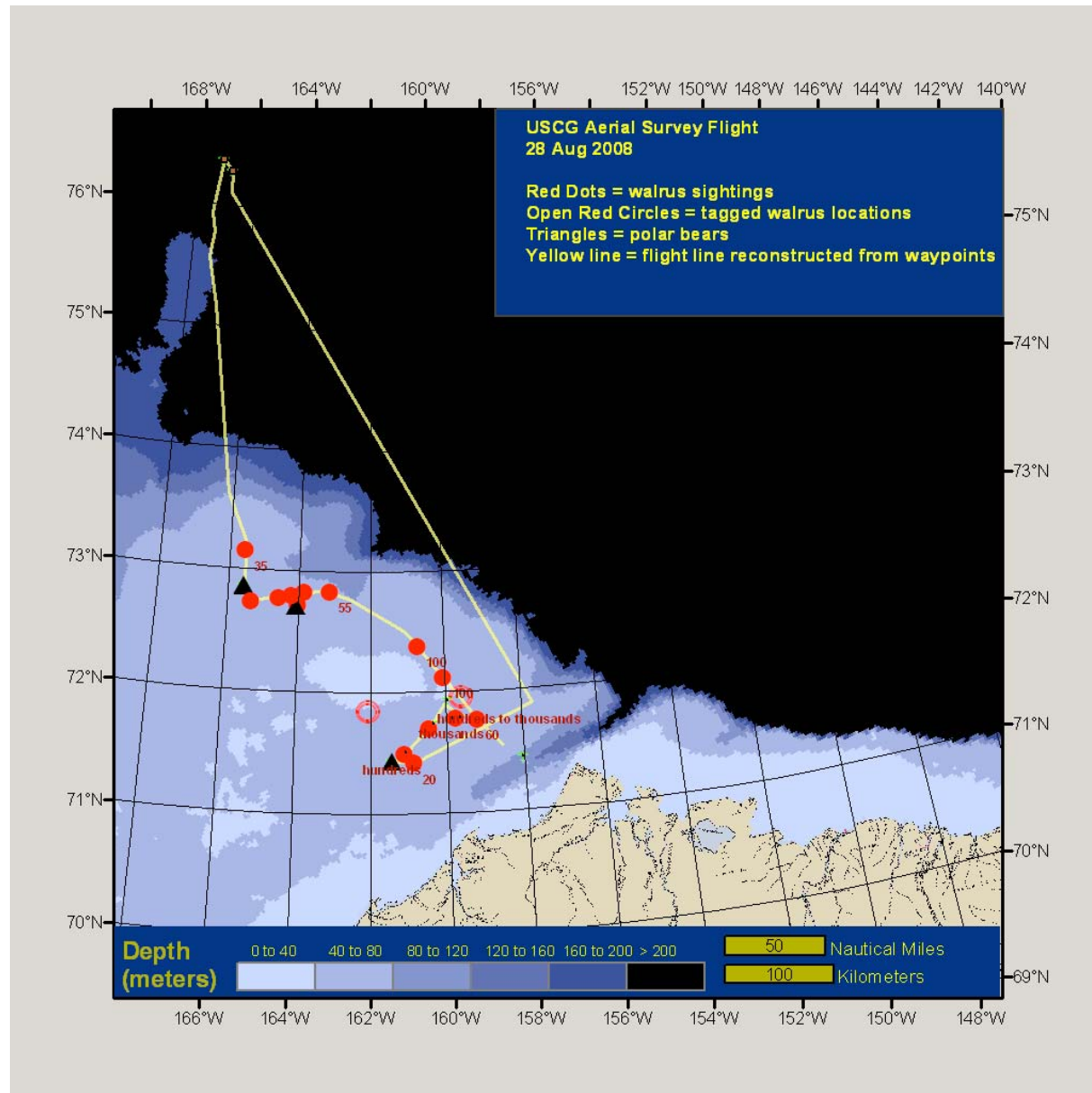
D17 Summer 08 Science Activities

- AIS & FOL setup @Barrow BARC
- C130 bi-weekly flites: walrus & ice obs, ice lidar altimetry (USGS, J.Maslanik, U.Colo./NOAA)
- SPAR buoytender bathy w HYPACK single-beam, data tidally uncorrected, ATON only
- SPAR NOAA trawl test
- CG land-based helo science – coastal erosion photos, other science still TBD

AIS Ship Tracking off Barrow, 7/1-9/29/08



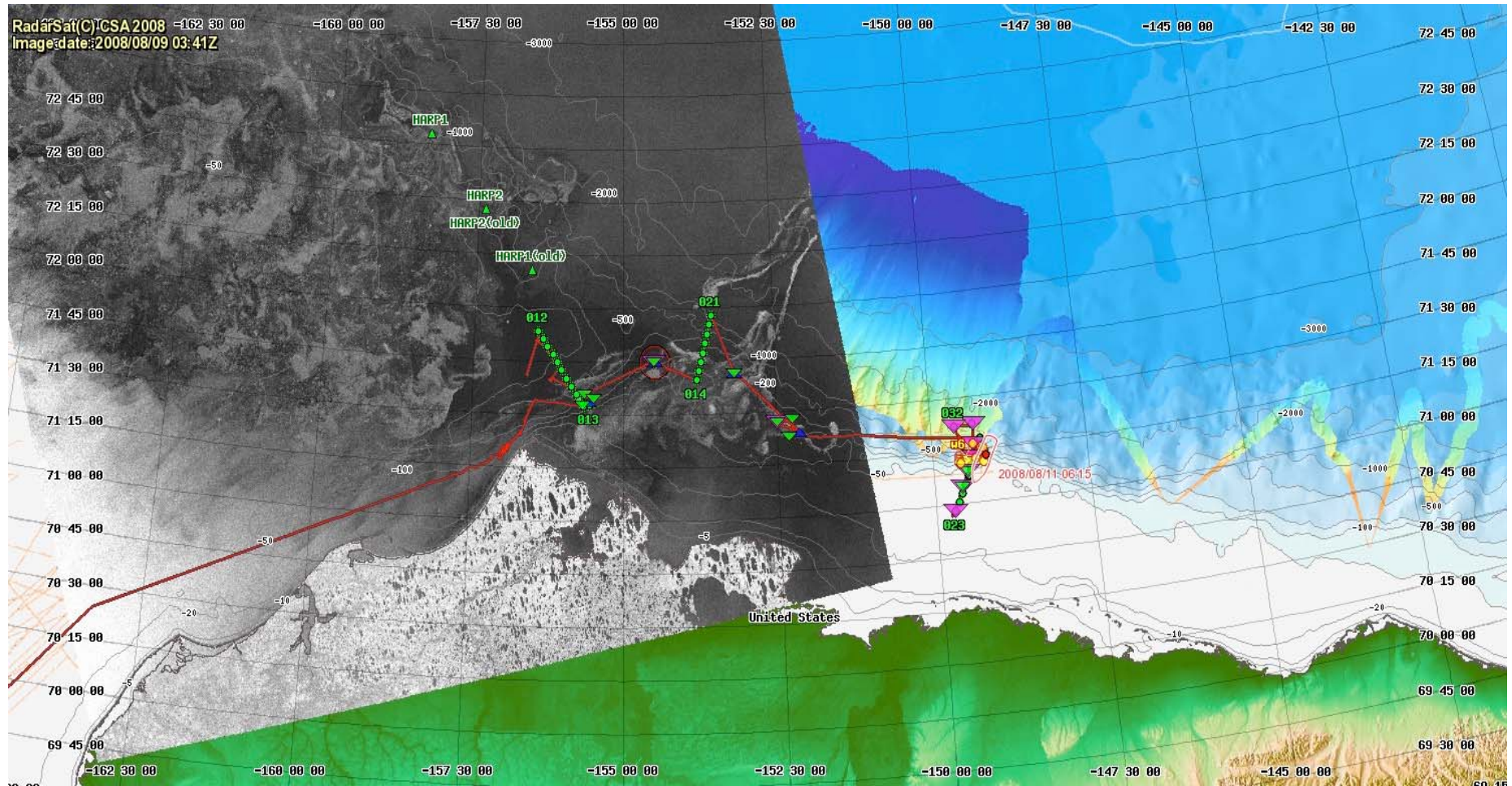
C130 Walrus Tracking for USGS



C130 Ice Obs Flite, M.Tschudi,U.Colo.



Barrow Whale Hydrophones



From HEALY AWS08: AGU Dec08

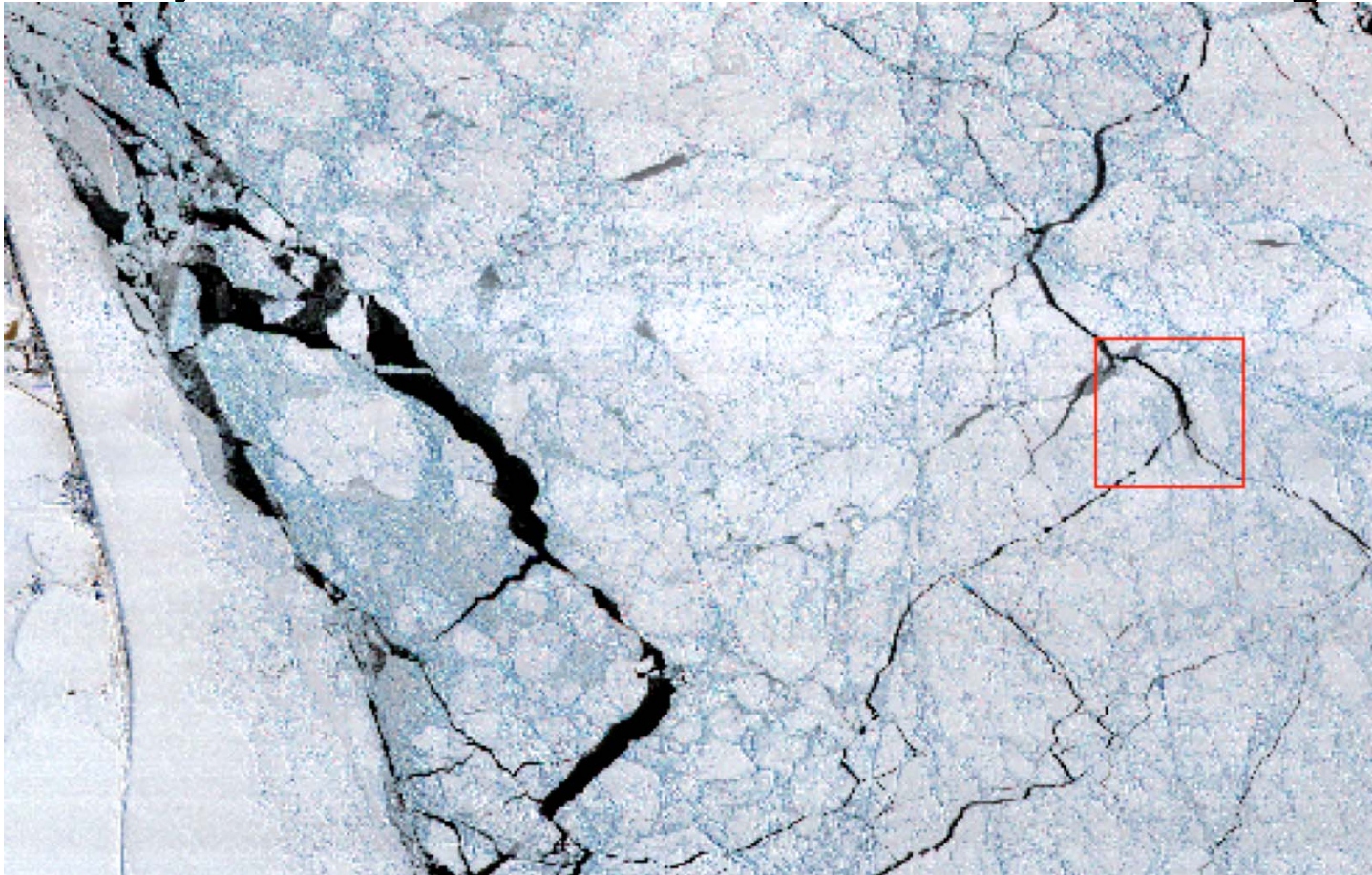
IPY Educational Outreach talk:

SCIENTISTS AS CORRESPONDENTS:
EXPLORATORIUM “ICE STORIES” FOR INTERNATIONAL
POLAR YEAR EDUCATIONAL OUTREACH



- Philip A. McGillivray, USCG Icebreaker Operations
- Kevin R. Fall, Intel Research Berkeley
- Mary Miller, Robyn Higdon, Mark Andrews and Kate O'Donnell,
The Exploratorium, San Francisco, Ca.

**From HEALY AWS08 US DOE
Multispectral Thematic Imaging
Research Satellite, Ship Tracking in
Arctic, Successful for & US Navy/CG**



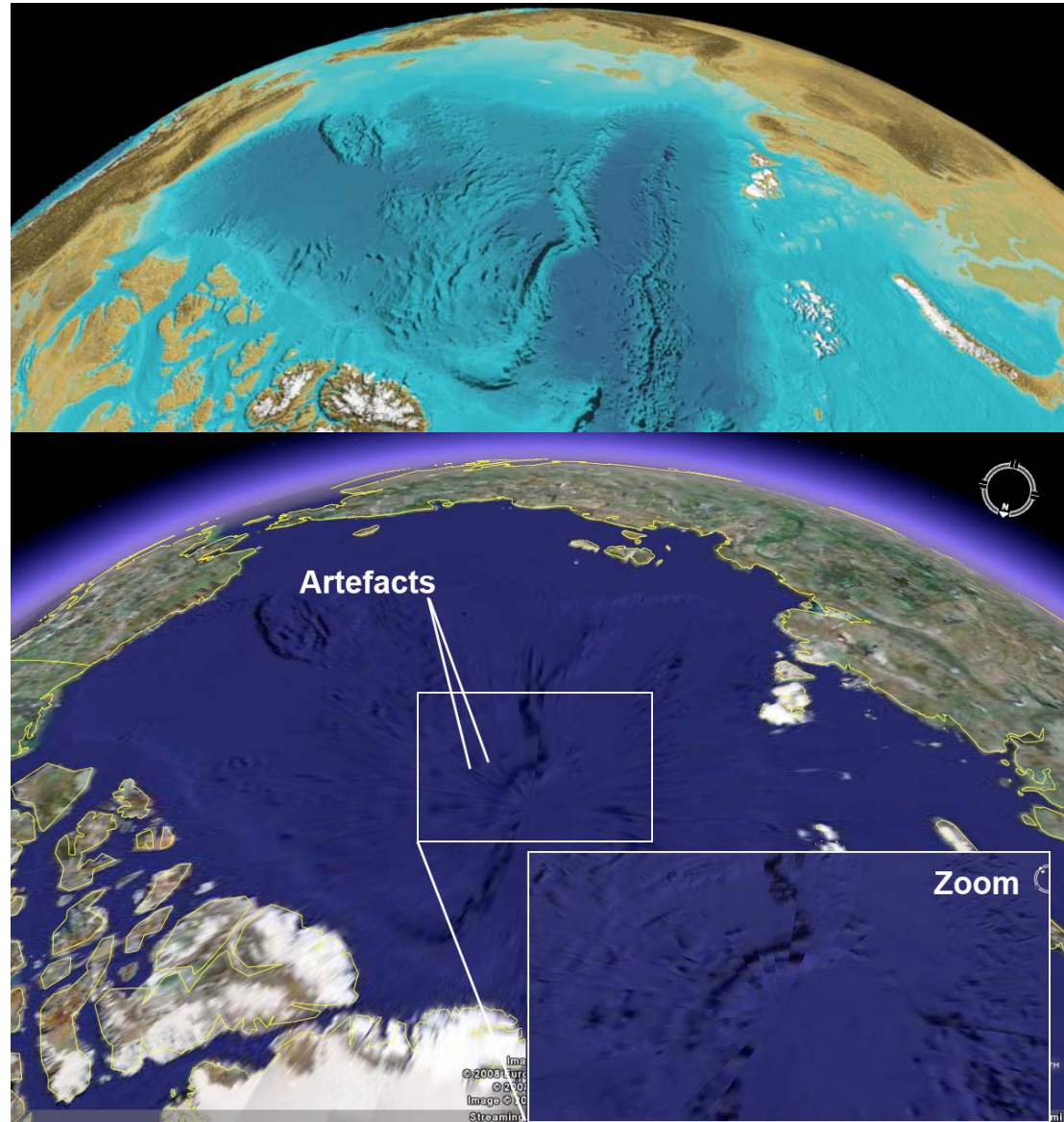
From HEALY: AAV Ops

- UAF AAV (Scan Eagle) approved for summer 08, but delayed due to minor glitch
- FAA AAV Conference, Anchorage: reviewed issues, clarified procedures for clearance
- Scan Eagle Trials from NOAA RV OSCAR DYSON in Oct.08 by Whidbey Island Restricted Air Space successful, planned ops spring 09 in Bering Sea (ice seals)
- PSEA and/or HEALY AAV ops possible spring/summer pending review new CG rules

On HEALY: Google CTO visit, PACAREA NGS Google Oceans

- Google Oceans project, joint NAVY, DHS/CG, NGS, rollout late 1/09, uses Navy bathym, rollout includes arctic
- Google CTO visits HEALY Aug 08 to learn more about arctic bathym, CG needs/uses
- S.Earle (NGS coordinator Google Oceans) 11/5 demo to CG Officer's luncheon; 12/19 meeting w VADM Pekoske.

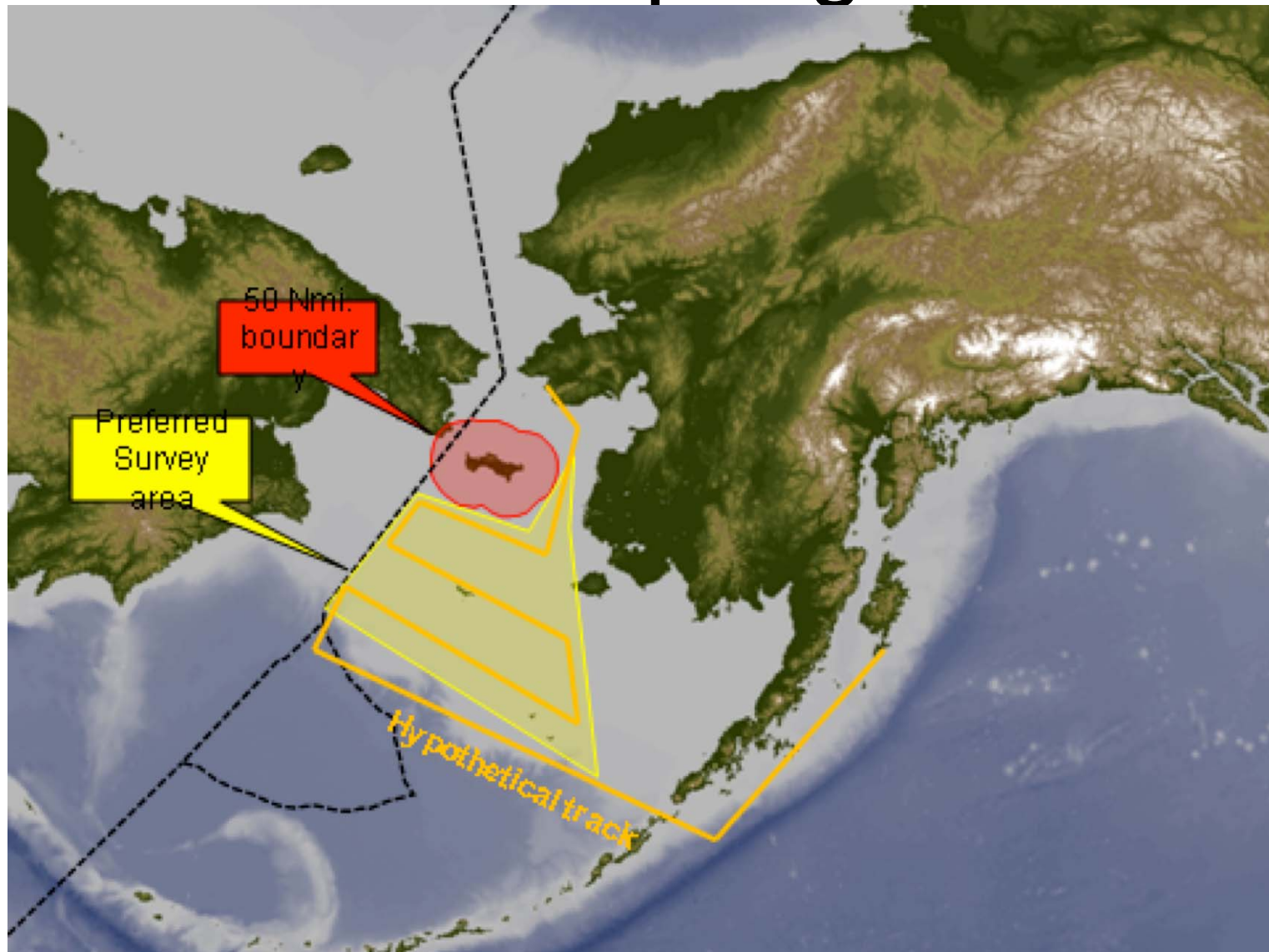
Google Oceans Arctic geoid errors



POLAR SEA Spring 09 Plans

- Tentative Dates: Feb.21-end of April
- Planned Op Area: South of Bering Straits,
w/ St. Lawrence Isld. 50mi exclusion zone
- Potential Science: (incl. SOO Announcement)
 - Polar bear helo counts, NSF, US FWS, Russia
 - Possible Beluga Whale tagging
 - Possible NOAA Ice Seal helo survey
 - Probable seabird, marine mammal counts
 - Possible Bathymetry survey for IDOP site
 - Possible Ice Buoy deployment for UW (I.Rigor)
 - Possible Provideniya, Russia port call

POLAR SEA Spring 08 Track



POLAR SEA Fall 09 Options

- NRL Methane Hydrate Mapping (MeHyM)
Colville River, 2 transects, Aug.-Sept.
includes UK, Dutch, Germans
Will rely on historical seismic, possible CSEX
- USGS Coastal Erosion, alongshore
Pt. Hope-Barrow, Sept., helos, sm.boats
- NSF Polar Bear tracking study,
Beaufort Sea, October

We will attempt to include Native Observer!

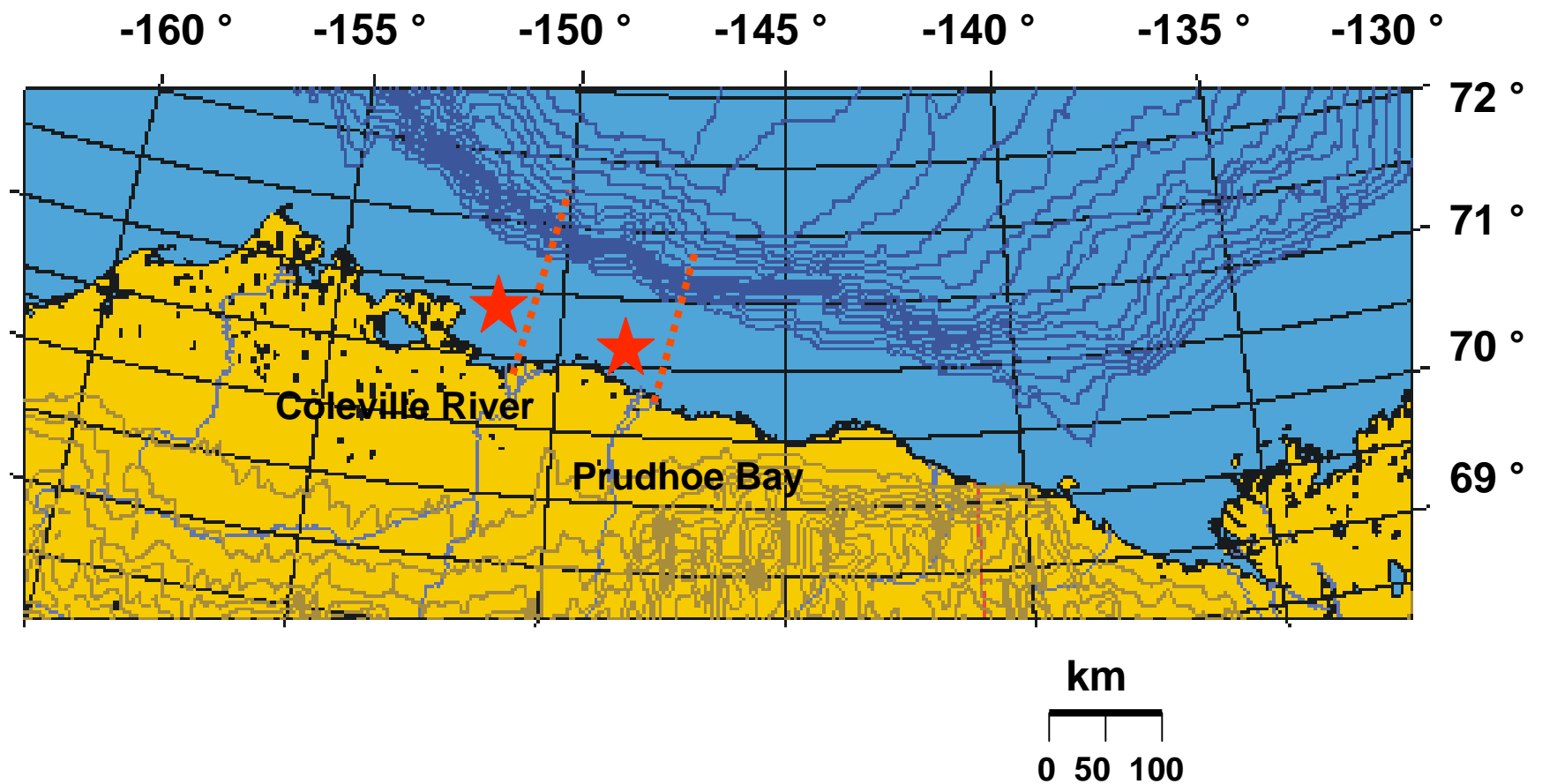
AGU MeHyM Workshop

- Wed., Dec 17, 5-10pm
- Westin St. Francis Hotel, 335 Powell St.
- Buffet dinner provided
- Purpose: discuss planning science & logistics issues & international coordination for MeHyM cruise
- PSEA Ops & PACAREA Sci.Liaison attending

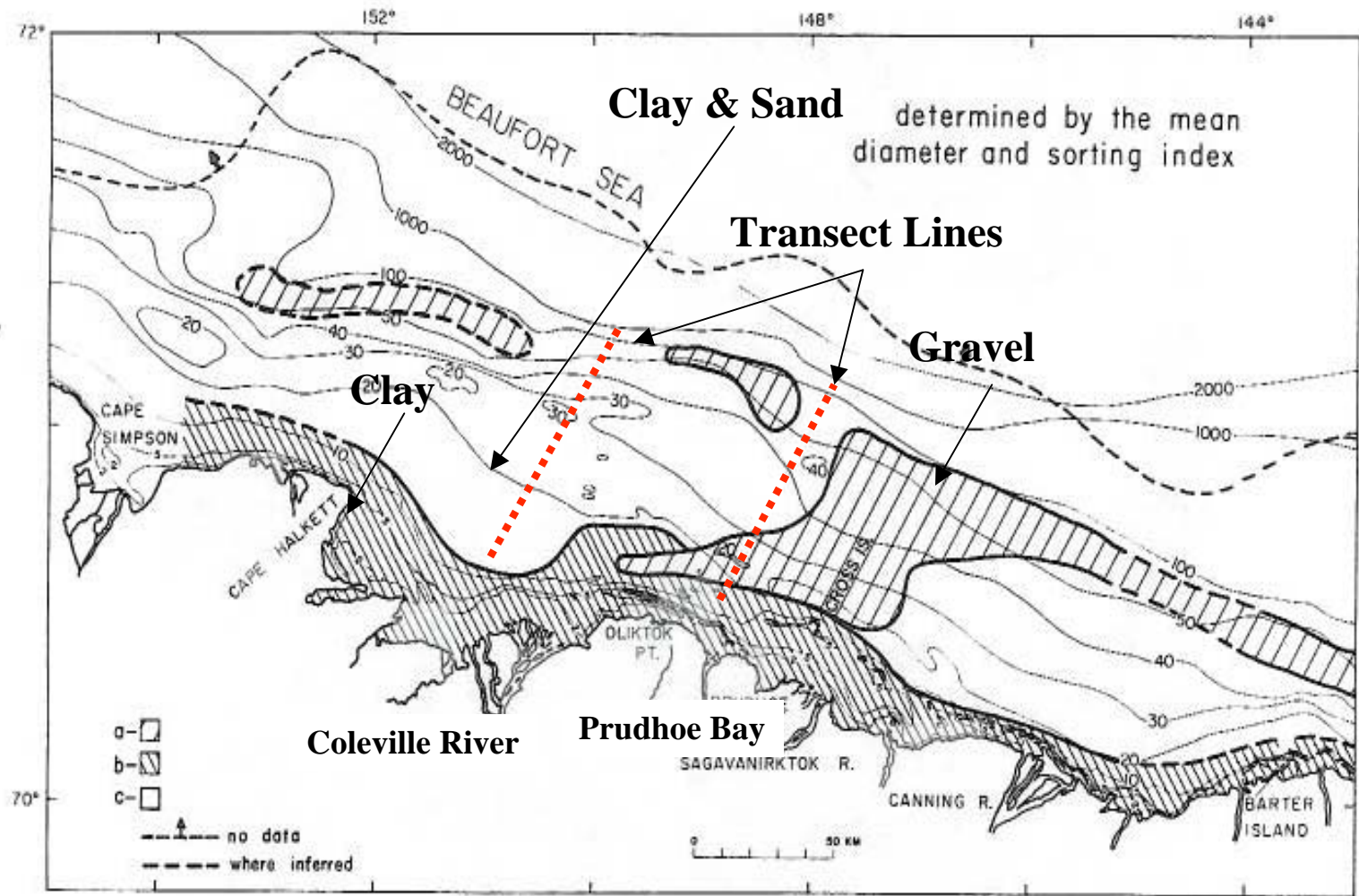
European Arctic Methane Hydrate Workshop

- ***Developing Long Term International Collaboration on Climate Change Research and Monitoring in the Arctic Ocean***
- **18 - 20 February 2009**
- Organized by **Royal Netherlands Institute for Sea Research (NIOZ)**, Texel, The Netherlands and **Naval Research Laboratory (NRL)**, United States.
- Sponsored by **European Sea Floor Observatory Network (ESONET)**

Planned Coastal Transects



Existing Sediment Data



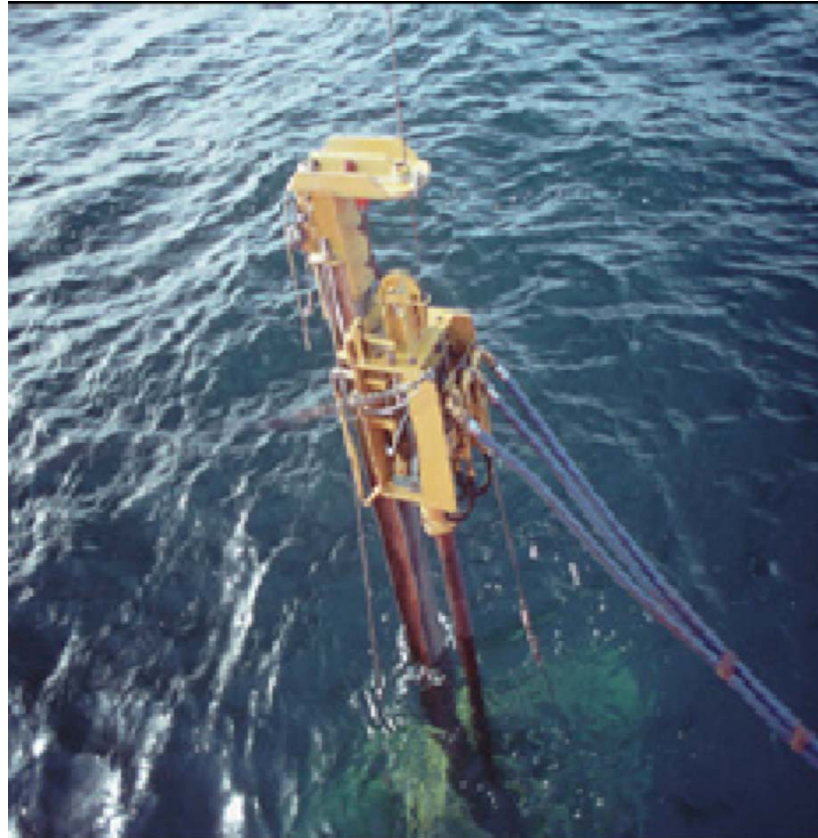
Cherokee ROV w Methane sniffer



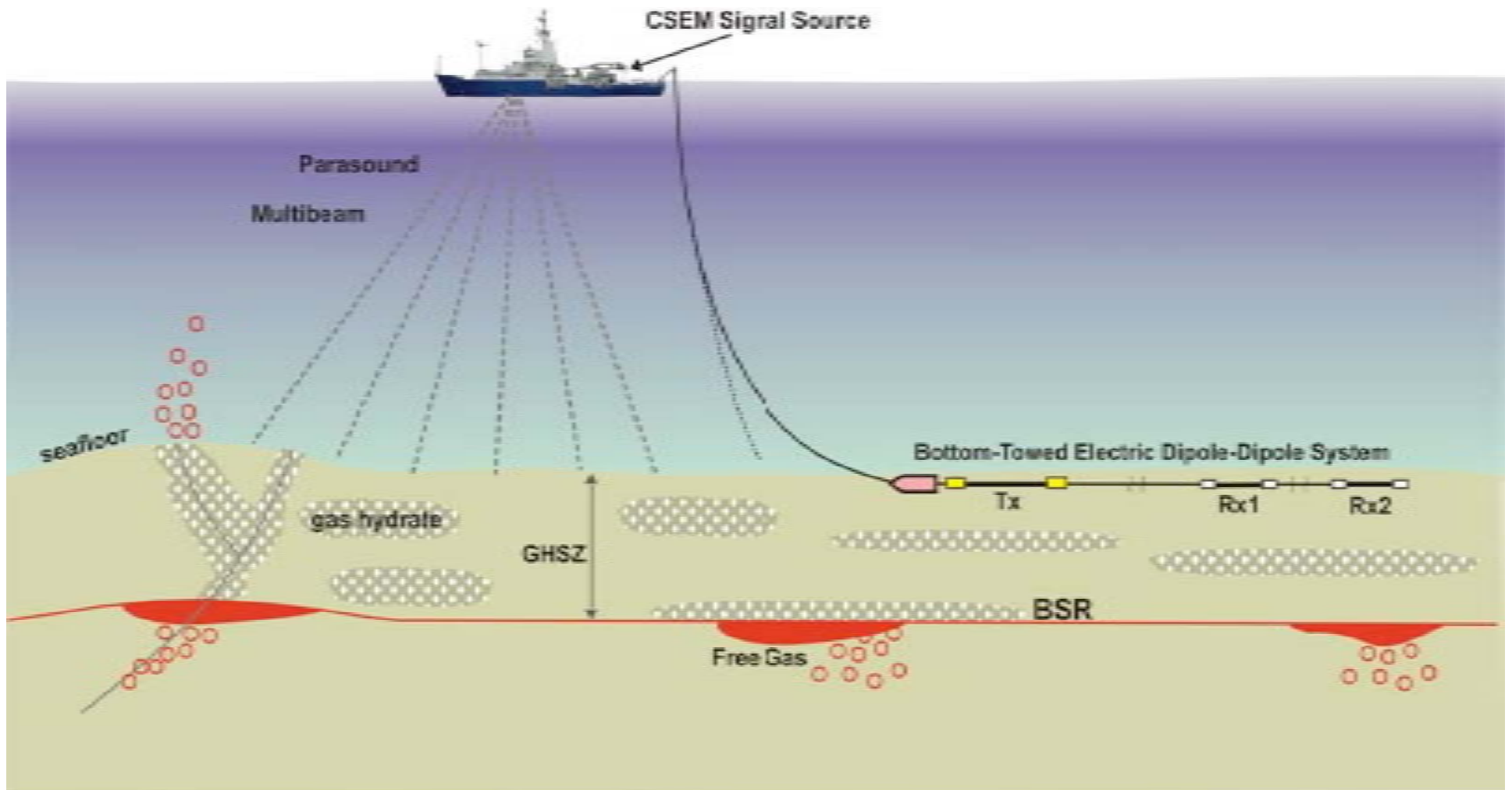
MeHyM benthic sampling

- Sediment Sampling Sediment Sampling
 - Vibra-core – 5 m cores will be taken in gravel sediments where piston cores do not retain sediment and porewater.
 - Piston core – Up to 8 m cores will be taken for geochemical and microbiology samples.
 - Coring is conducted to obtain sediment and porewater samples. Two coring protocol will be used on board.

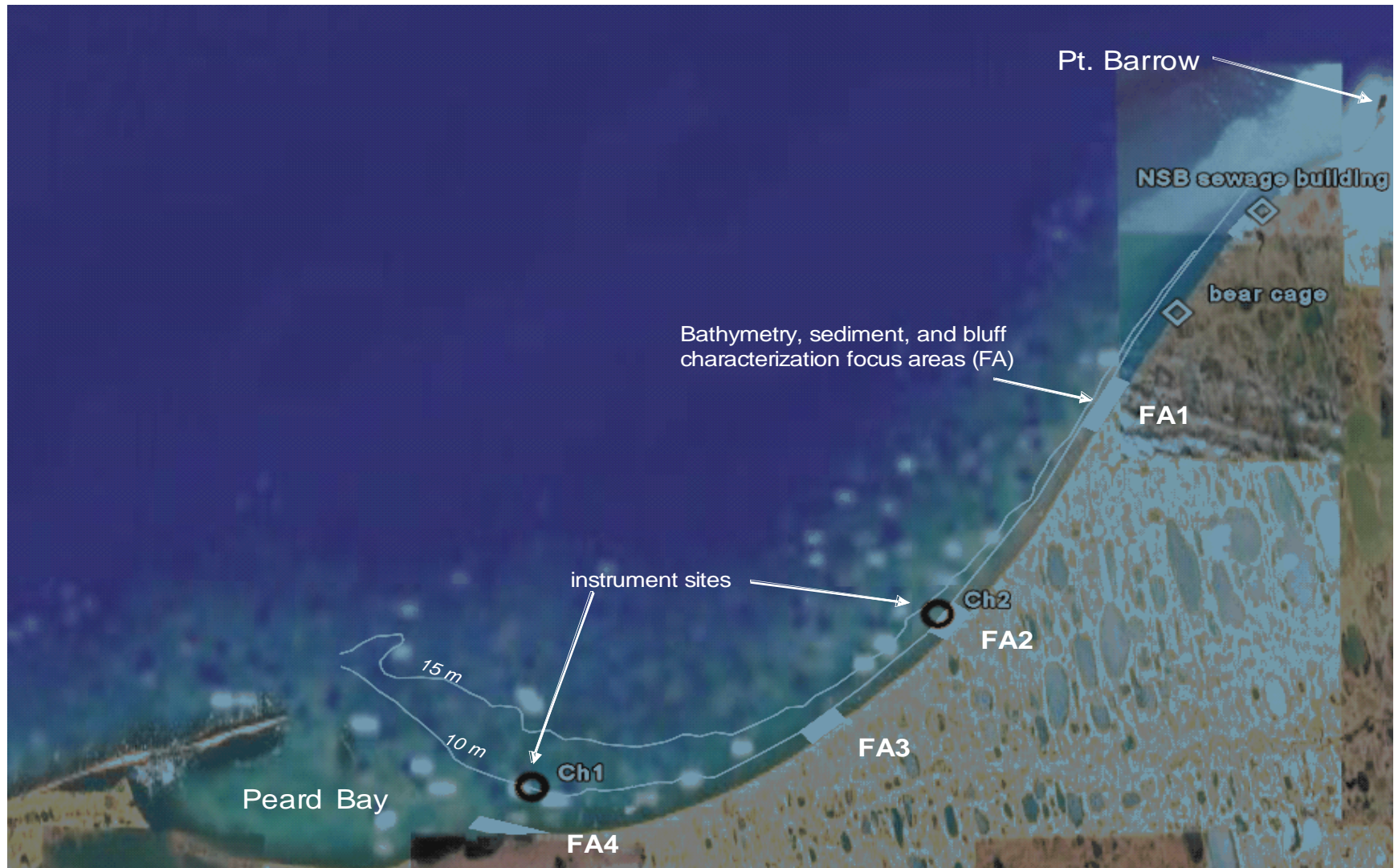
Vibrocoring (also Piston Coring)



CSEM for MeHyM cruise



USGS Chukchi Coastal Erosion

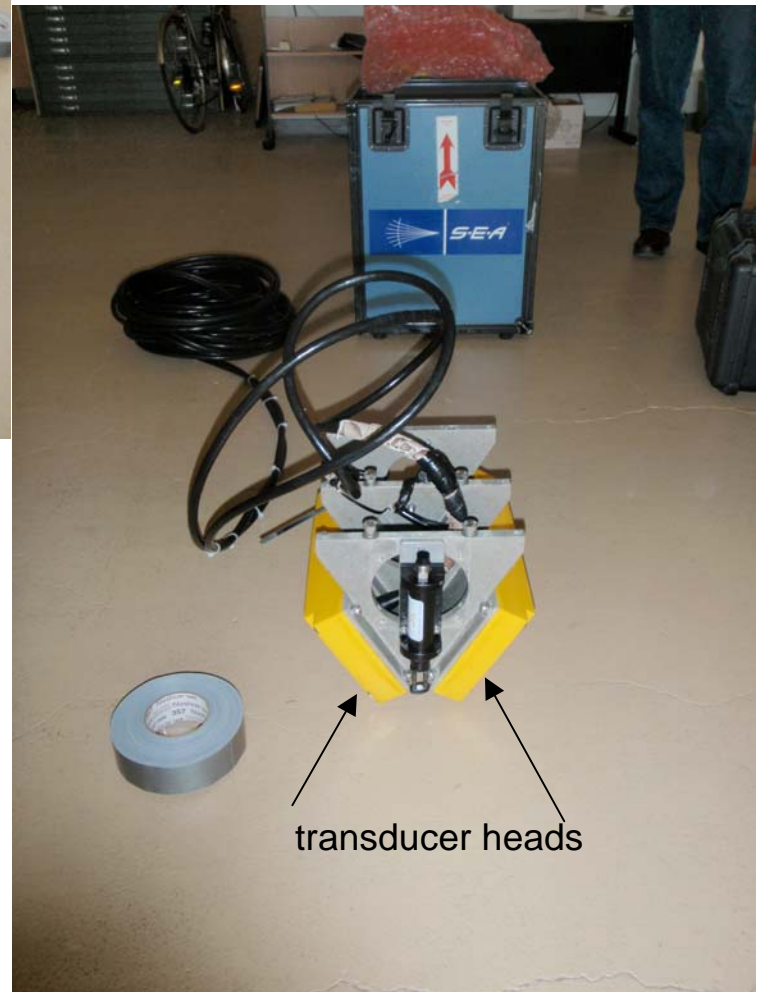




Swath Plus instrument
(~ 10 kgs)

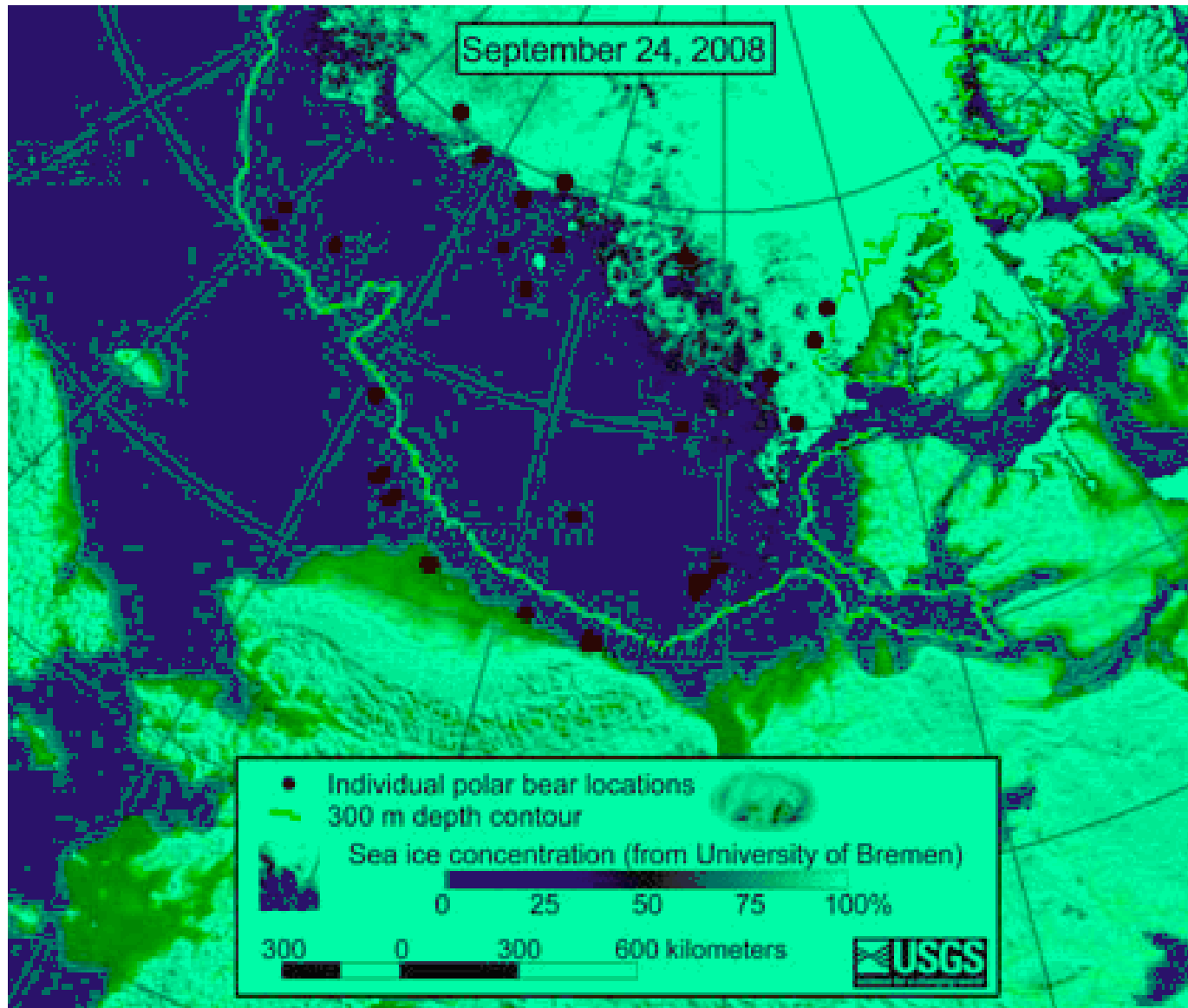


Computer system



transducer heads

Fall 08 Beaufort P.Bear locations



Possible ANCHOR Coordination

- What: ANCHOR: Acoustic Navigation and Communication for High-Latitude Ocean Research, NSF Workshop Feb08
- Who: International group, including European DAMOCLES Observatory, and Univ.W. personnel: Craig Lee
- Goal: arctic u/w acoustic navigation for gliders, AUV, etc., @50-100Hz
- URL: <http://anchor.apl.washington.edu>

POLAR SEA Science Gear Issues

- SeaKeepers connectivity, performance
- Hi-Ab knuckle crane on back deck: replacement
- J-frame on back deck (groom)
- Winch grooming
- CTD calibration
- Need for rad van for MeHyM cruise
- General SDN capabilities

POLAR STAR Science Gear Issues



Questions?

