

Pacific Arctic Group (PAG) Meeting

US Ship operations 2012 and planned 2013

Jackie Grebmeier

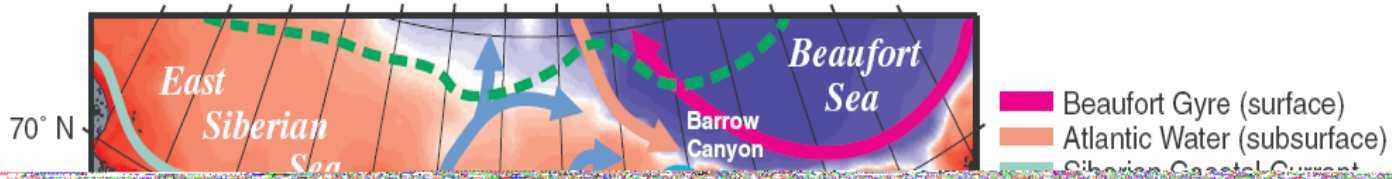
¹Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science, Solomons, Maryland, USA

5 November 2012

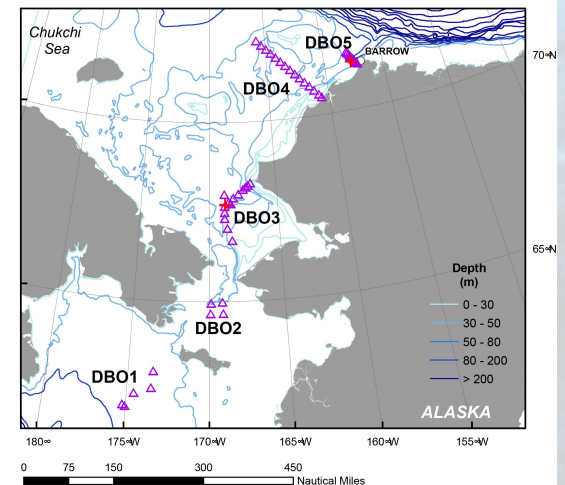
PAG Meeting

P.R. China

Pacific Arctic Region



DBO stations and transects

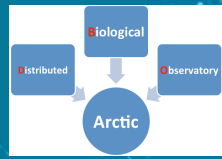
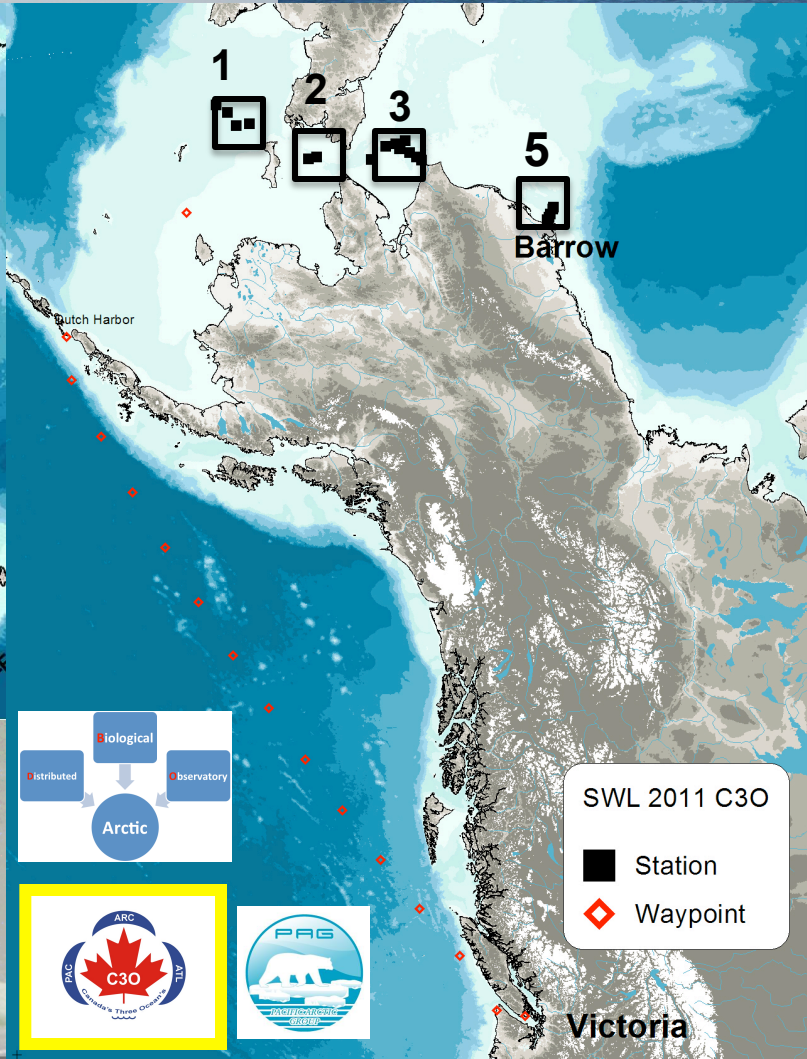
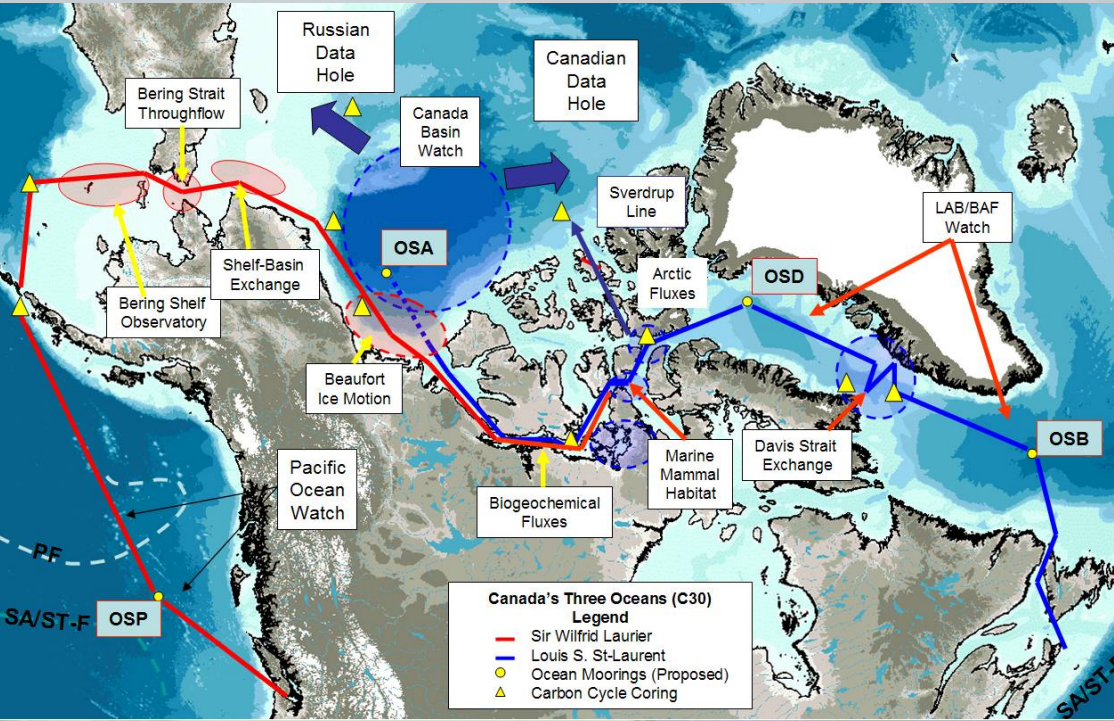


US-Canada collaboration as part of the C30 and DBO efforts

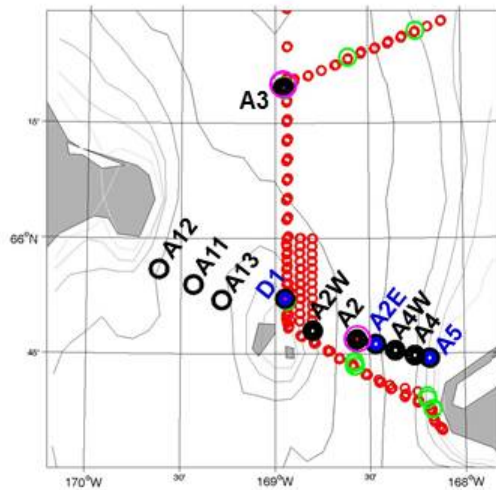
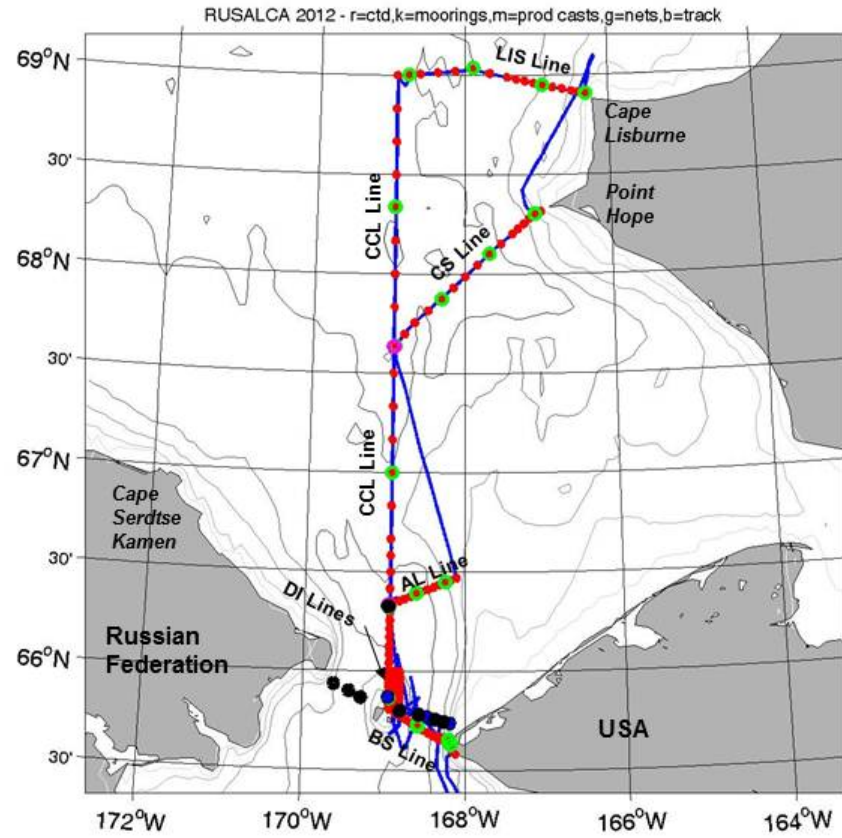
~July 6-22, 2012-2017



CCGS Sir Wilfrid Laurier
Pacific C30

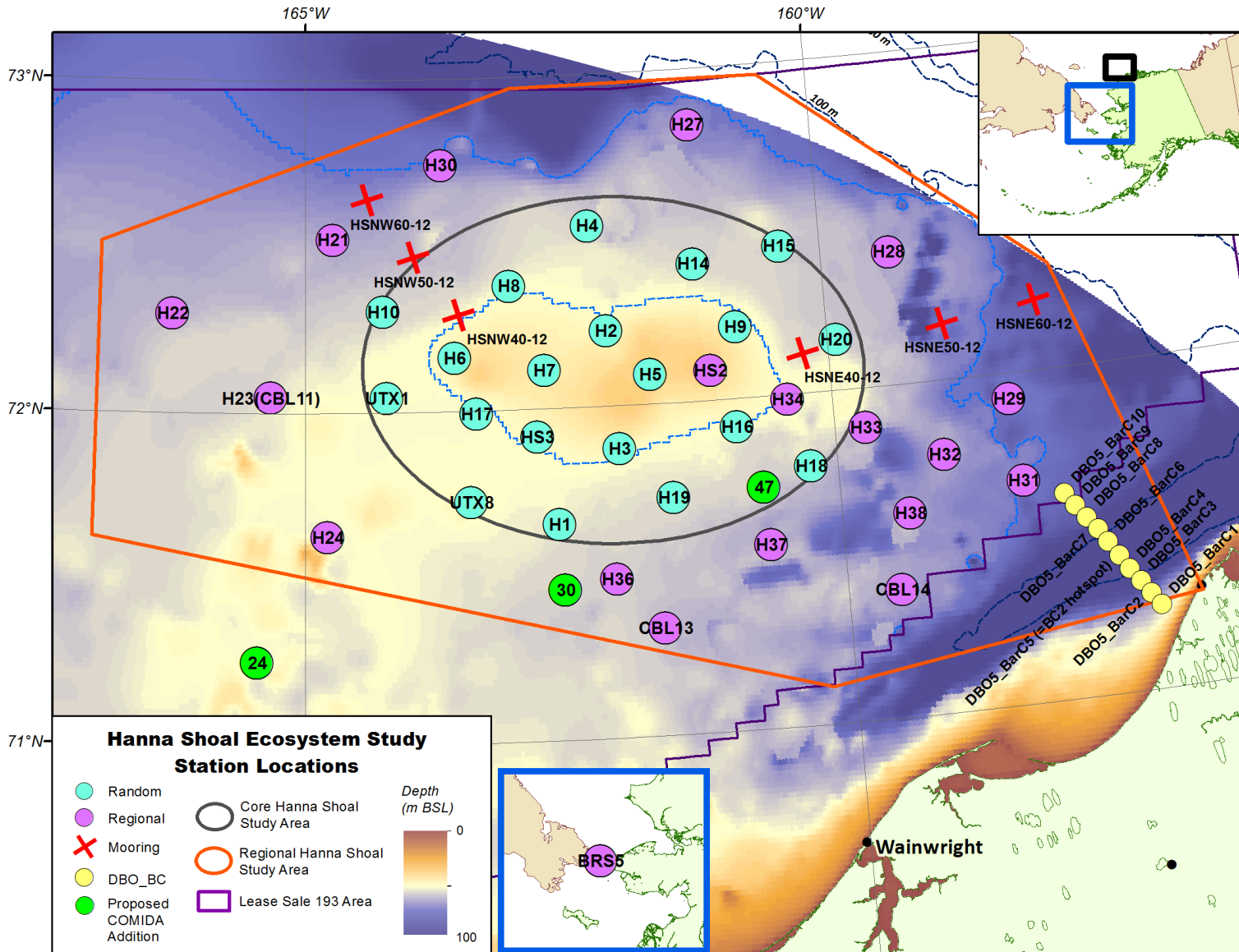


- Interdisciplinary
- Distributed, latitudinal mode of observations in Pacific sector
- Samples nearly same day in July as CCGS Sir Wilfrid Laurier transits to Canadian Arctic

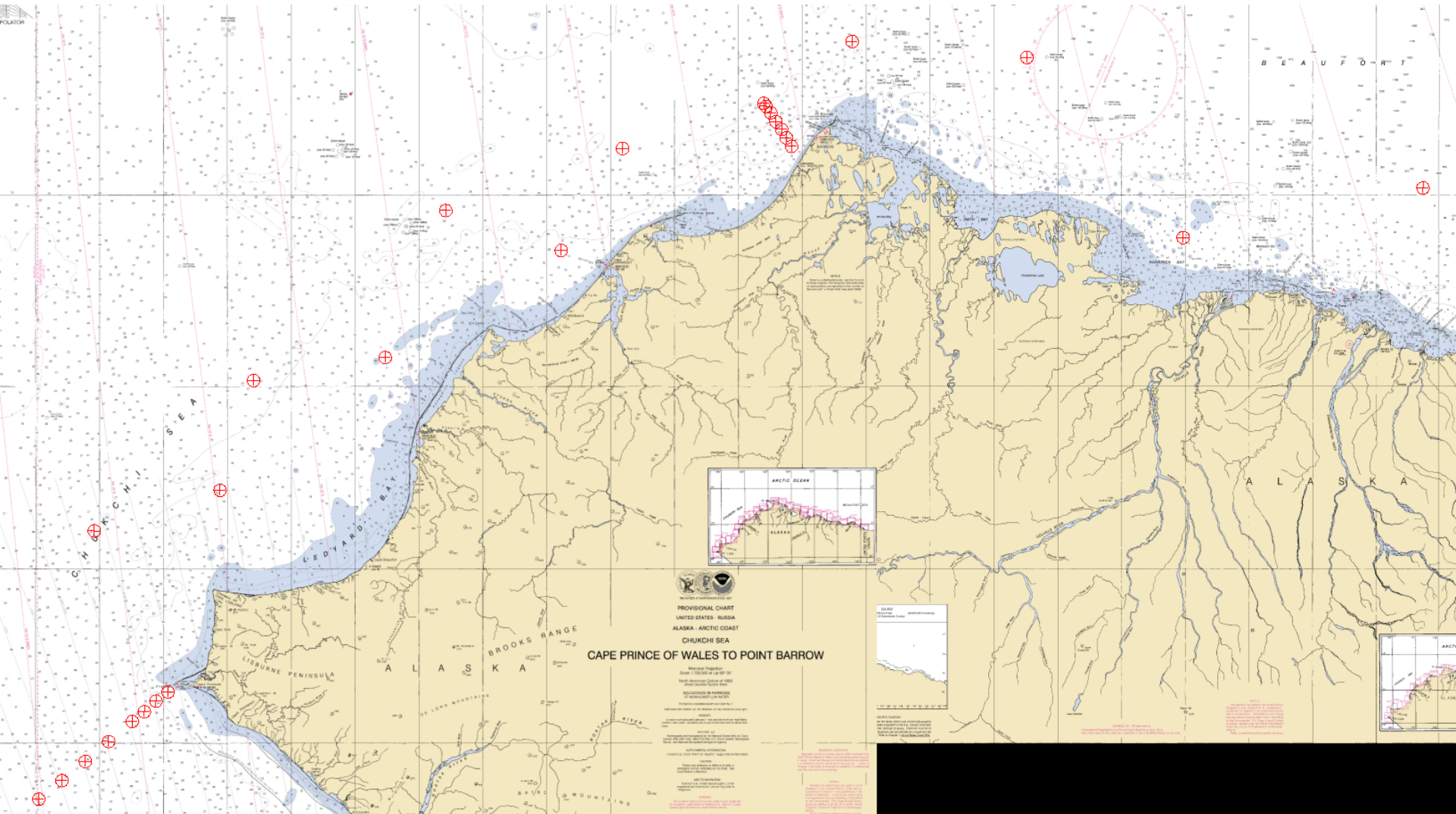


[Rebecca Woodgate]

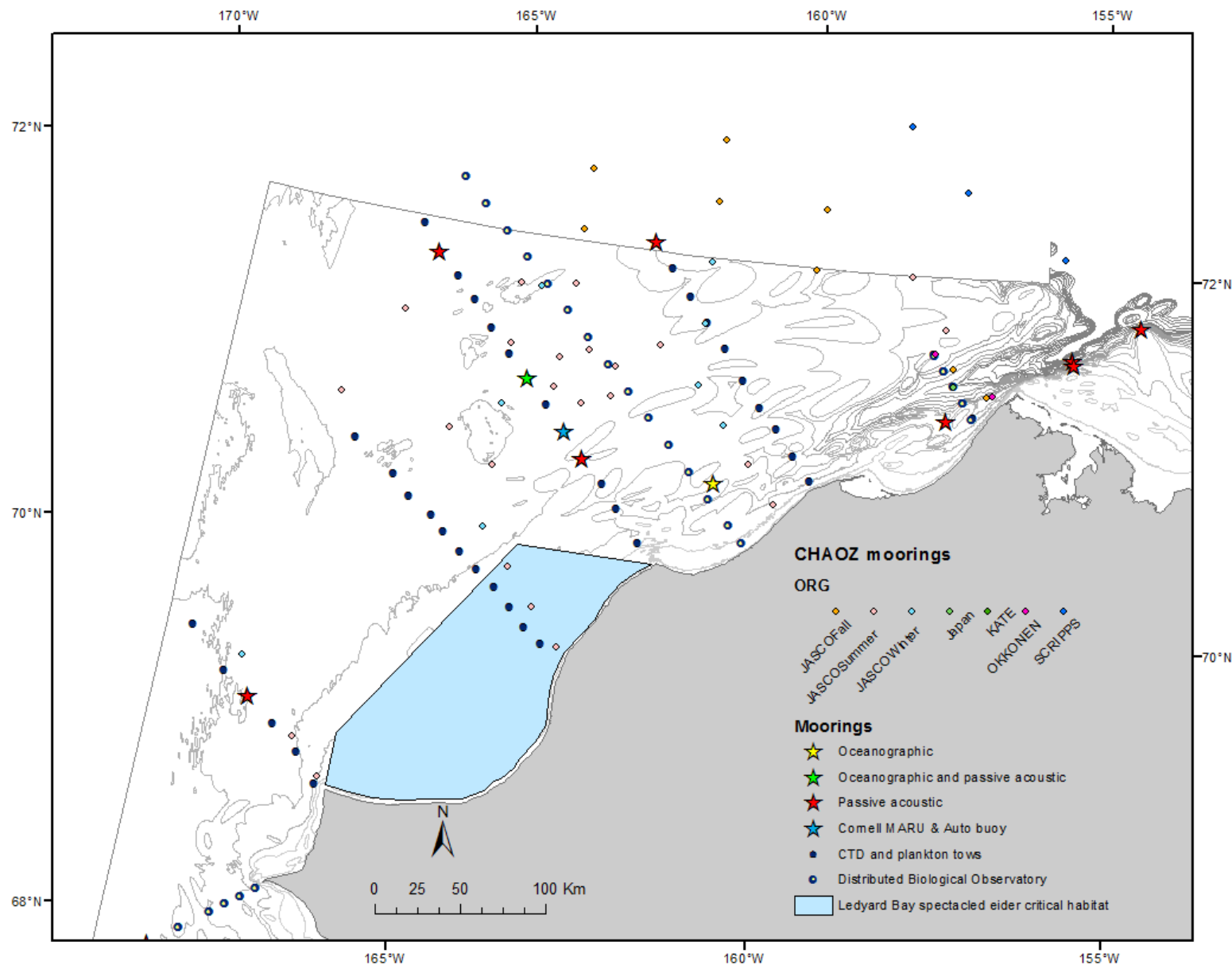
COMIDA HS August 5-25, 2012 (USCGC Healy1201) and planned 2013



RV Fairweather-NOAA Hydrographic Survey- CTD data in hand (August 2012)

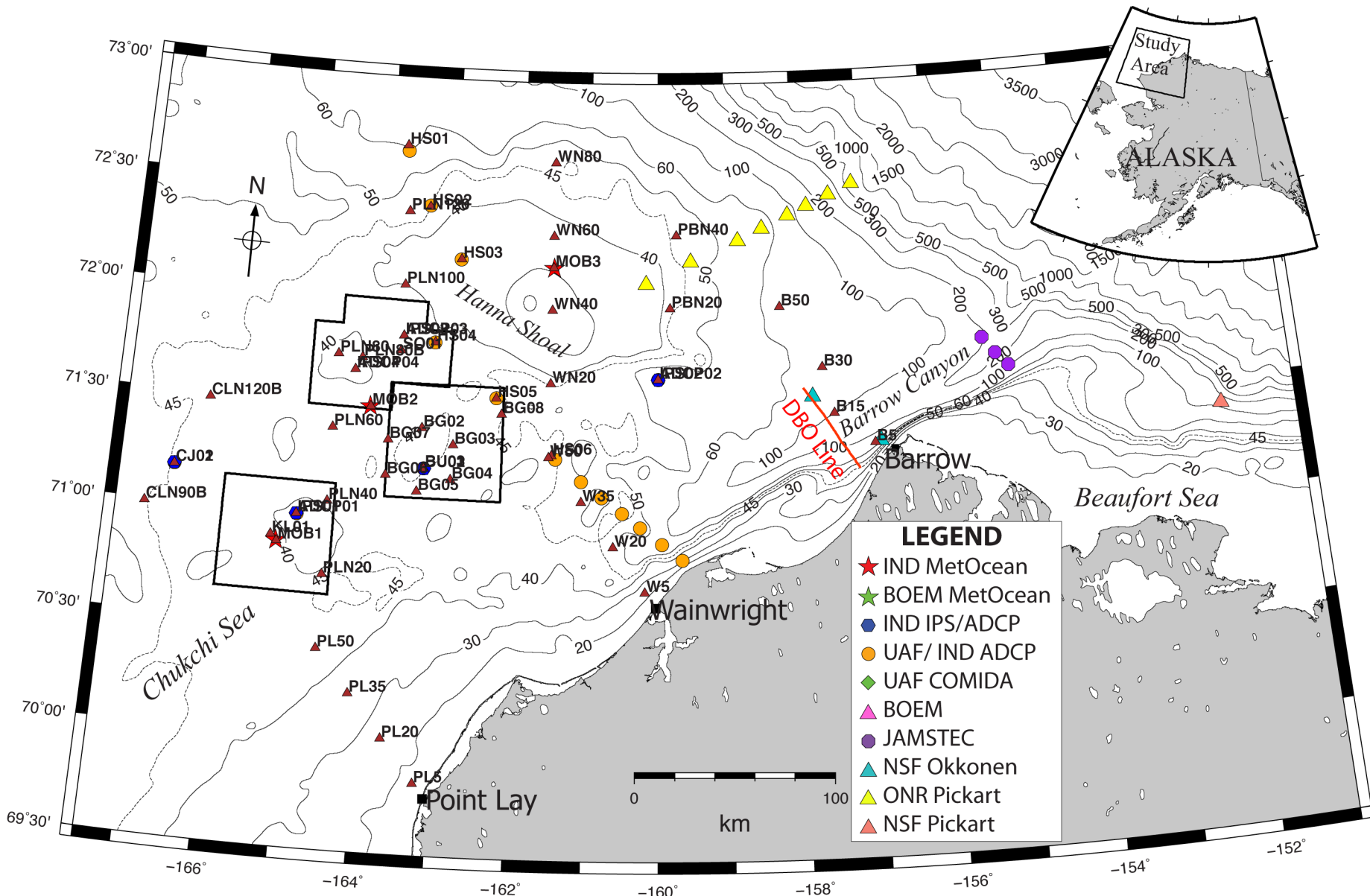


CHukchi Acoustics, Oceanography, and Zooplankton (CHAOZ) 2012-August



CHukchi Acoustics, Oceanography, and Zooplankton (CHAOZ) Study II: FY10-FY15

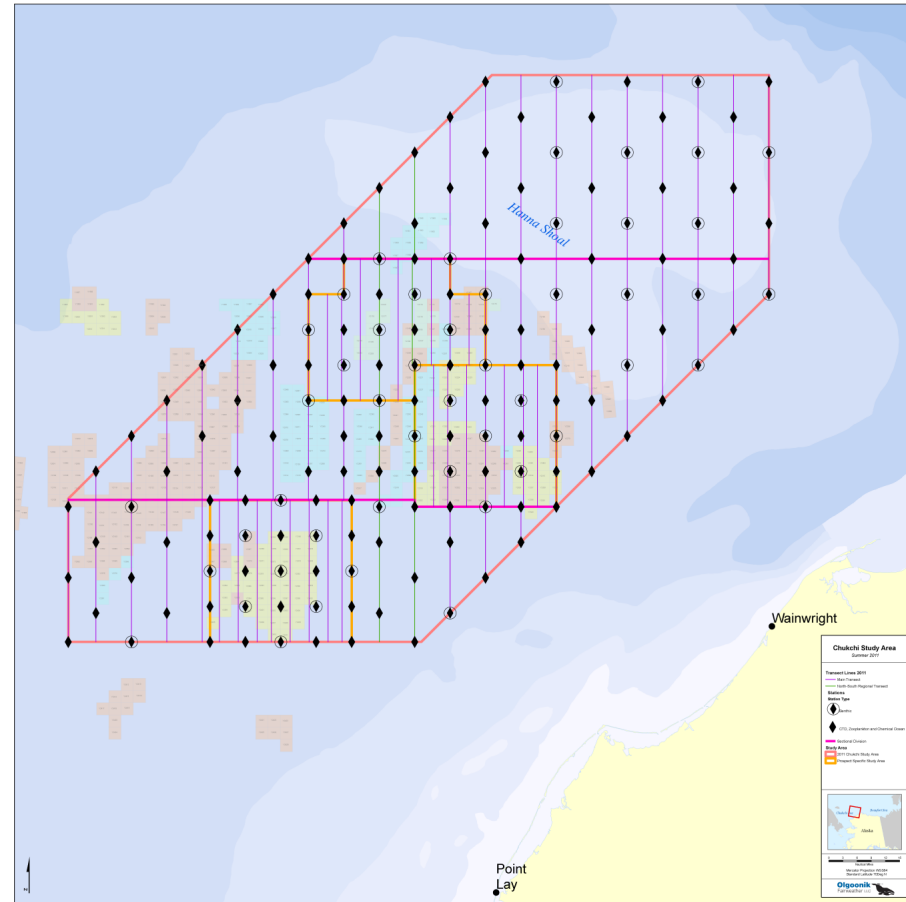
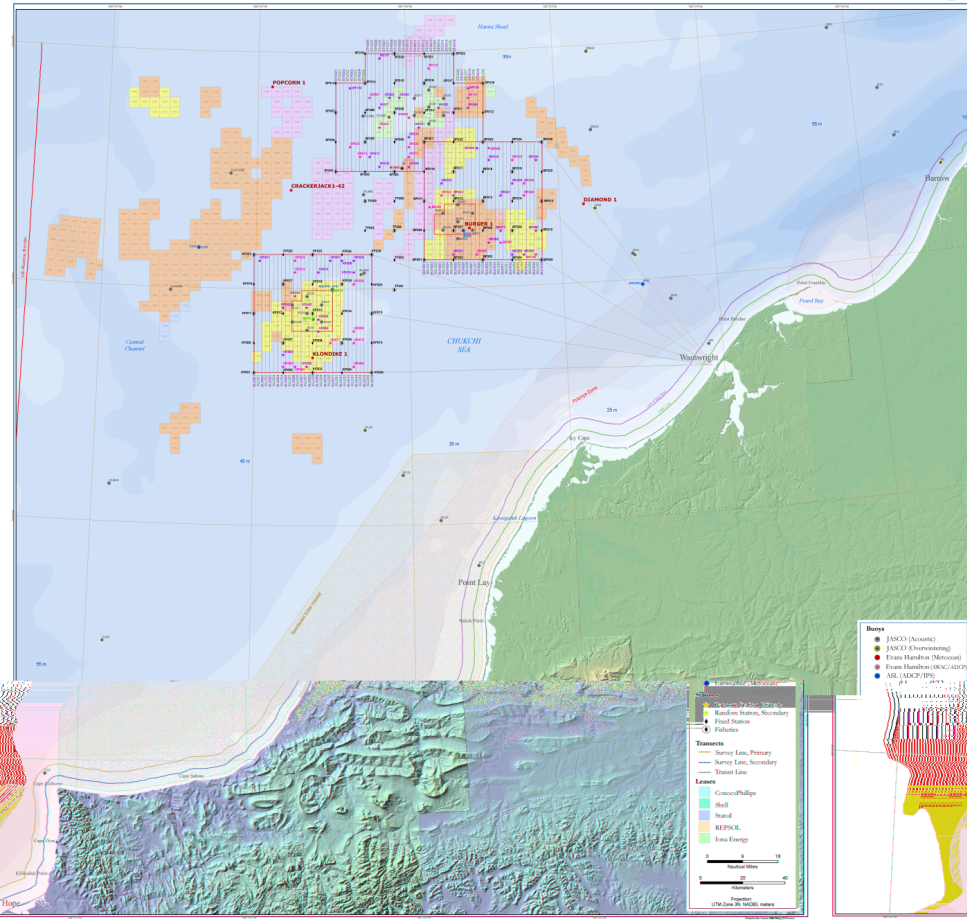
CHAOZ and associated moorings 2012



Shell-Conoco Phillips-StatOil 2010 (left panel) and 2011 (right panel) cruises-continue for 2012

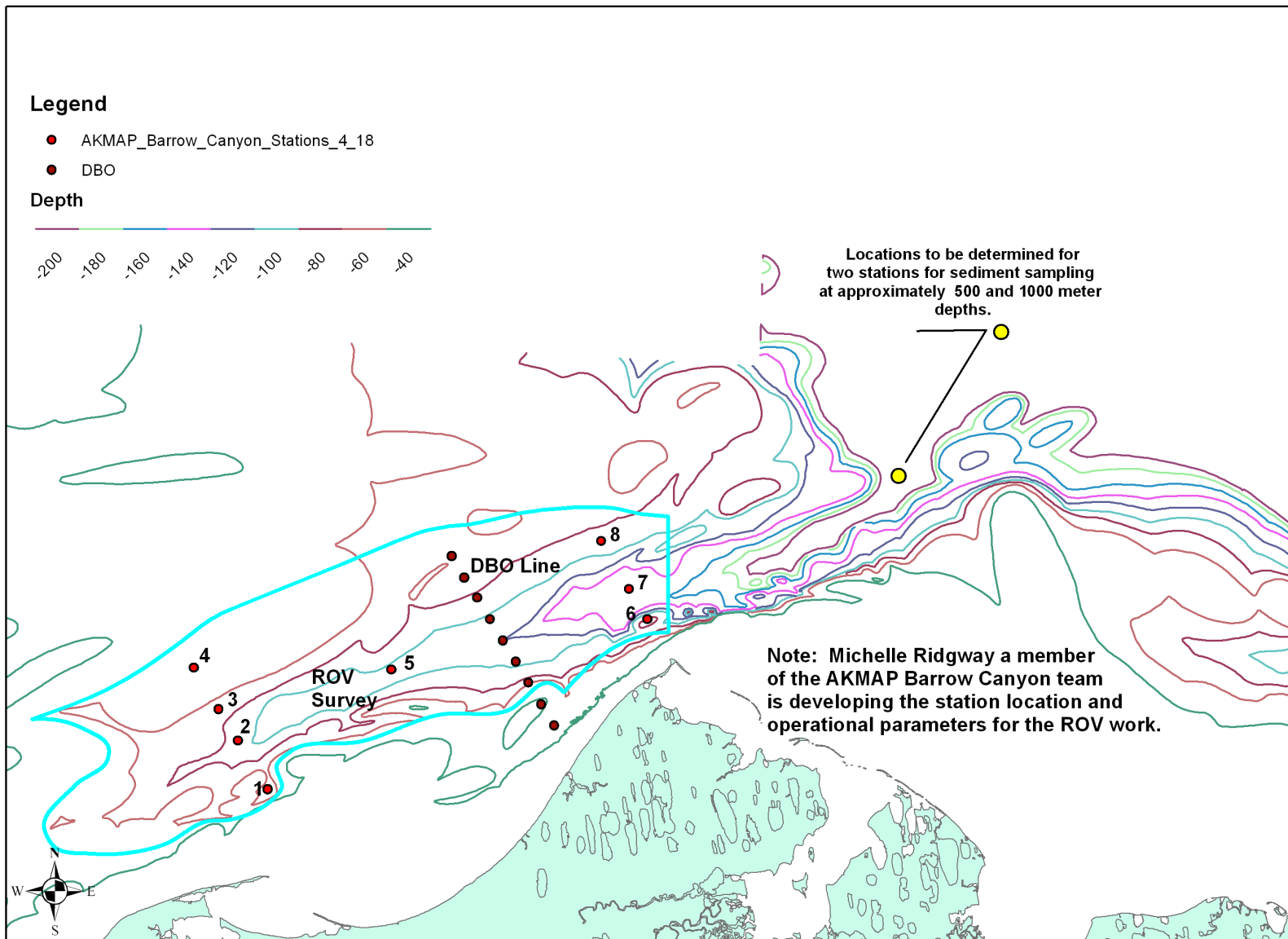
2010 Chukchi Baseline Studies Program

As of July 17, 2010



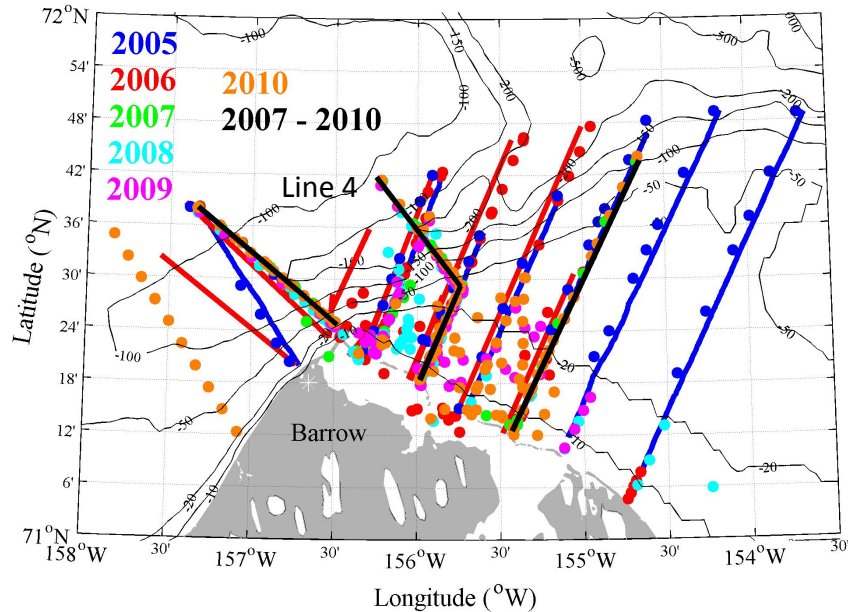
Alaska Monitoring and Assessment Program Barrow (AKMAP) Canyon Stations

(Note: NOAA Barrow Canyon DBO line also shown.)



DRAFT MAP 4/18/2012 - Alaska Department of Environmental Conservation and University of Alaska Institute of Marine Science. For 2011 AKMAP Barrow Canyon stations proposal to NOAA for RV Fairweather support.

DBO Sampling from *R/V Annika Marie*



- Oceanographic sampling using the 43' *R/V Annika Marie* from mid-August to mid-September 2005-2011
- DBO sampling in 2010 and 2011, too much ice in 2012, plan 2013
- Ring net equipped with 150 μm mesh net, sampling from 0-near bottom
- We are able to sample an additional station inshore (11 stations) on the DBO transect
- Other cruises have sampled zooplankton (e.g., CHAOZ 2011-2012)

[Carin Ashjian (WHOI)]

Russian-American Long-Term Census of the Arctic

RUSALCA 2012 Biological Cruise (Leg 2)

27 Aug – 16 Sept 2012



Professor Khromov

US/Russian Research Teams

Hydrography/ CTD

Inorganic Carbon

Nutrient Chemistry

Microbiology

Phytoplankton/Productivity

Zooplankton

Epibenthos

Benthos

Fish Diversity

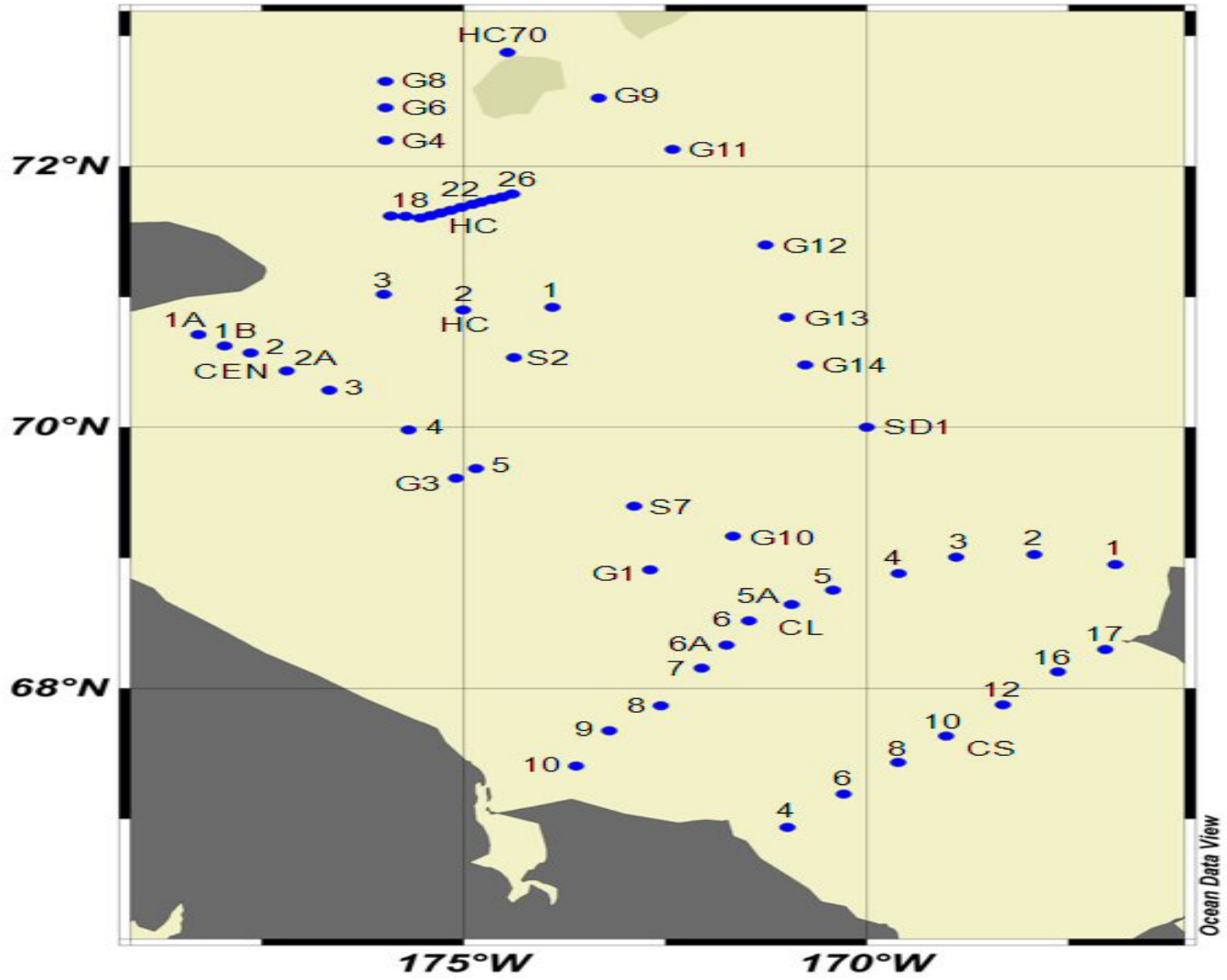
Fish Ecology

Seabirds

Marine Mammals

Geology/Sediments

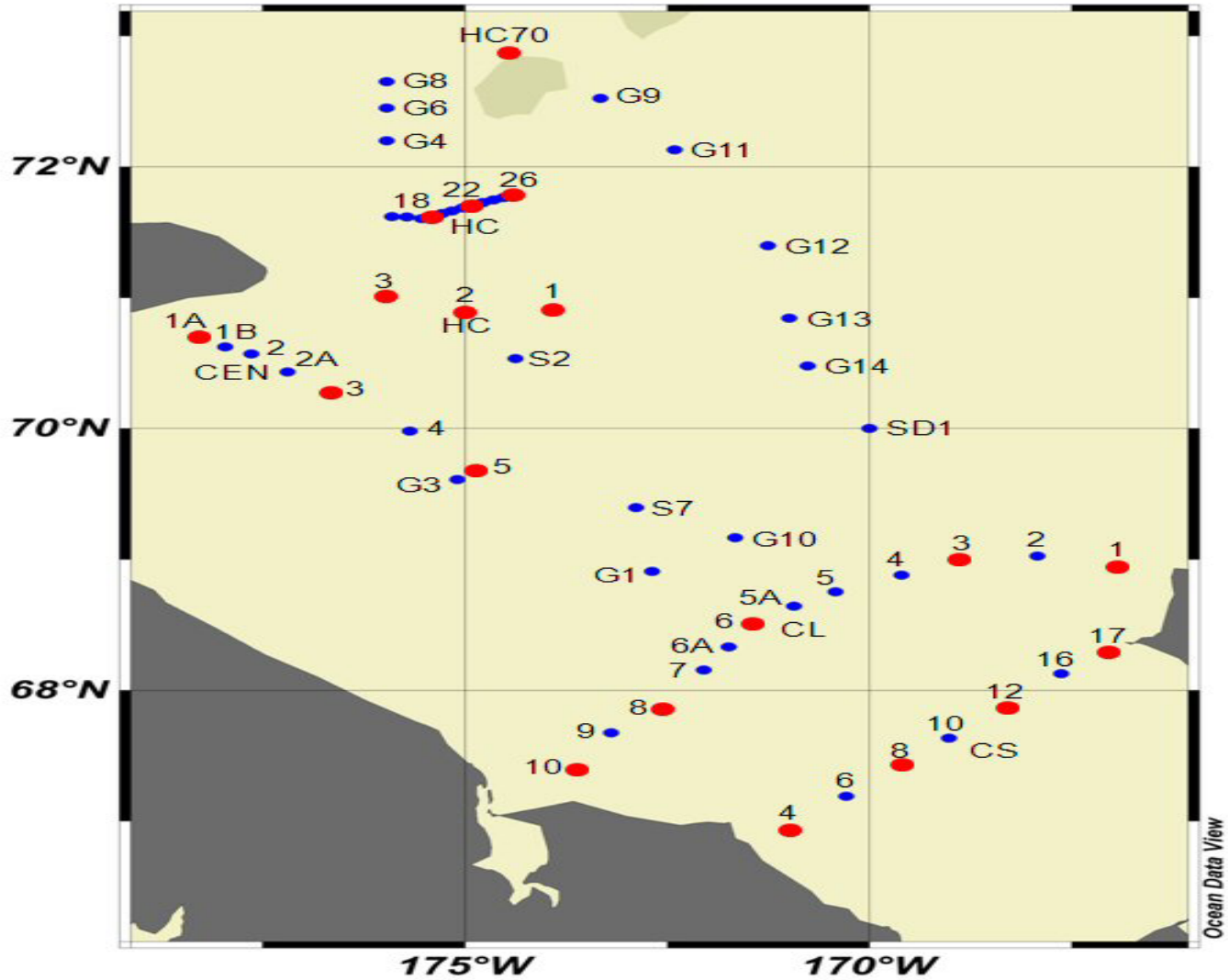
Leg 2 RUSALCA 2012 All Stations



Ocean Data View

Leg 2 RUSALCA 2012 All Stations

● Denotes full biological stations

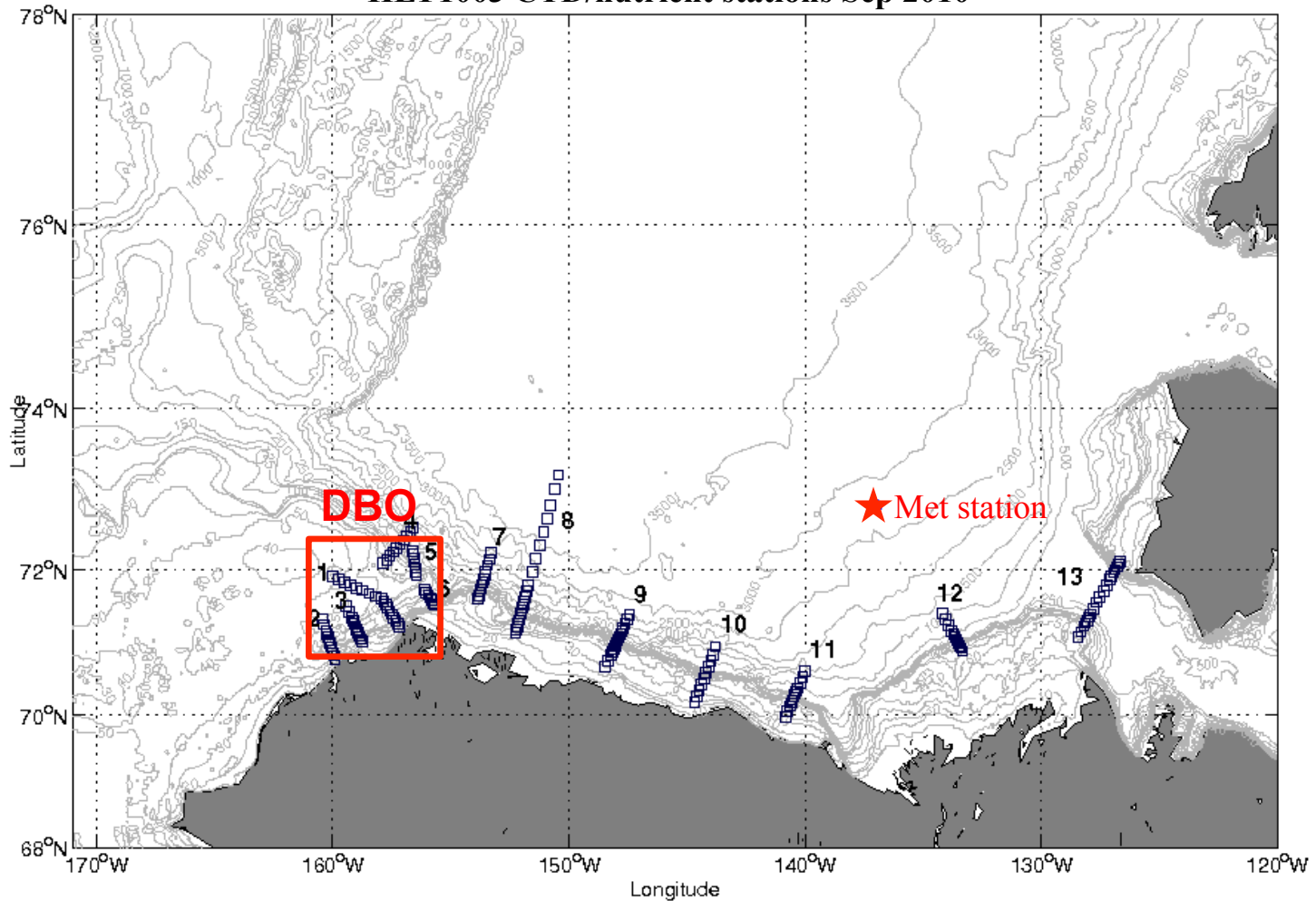




HLY1203 Arctic Observing Network *(Assessing the Western Arctic boundary current and its role in the Arctic ecosystem and climate change)*

17 Oct/06 Aug Dutch Harbor/Barrow Pickart/NSF HLY1203

HLY1003 CTD/nutrient stations Sep 2010



Arctic Ecosystem Integrated Survey

When: August / September 2012 & 2013

Where: Northern Bering Sea / Chukchi Sea

Why: Understand the distribution of marine fishes and shellfishes, and the plankton they depend upon for food, throughout the northern Bering Sea and Chukchi Sea

Knowledge and insights gained from these studies will help us to:

- evaluate effects of climate change on marine resources in the Alaskan Arctic
- protect marine resources in the region from

A collaboration between:



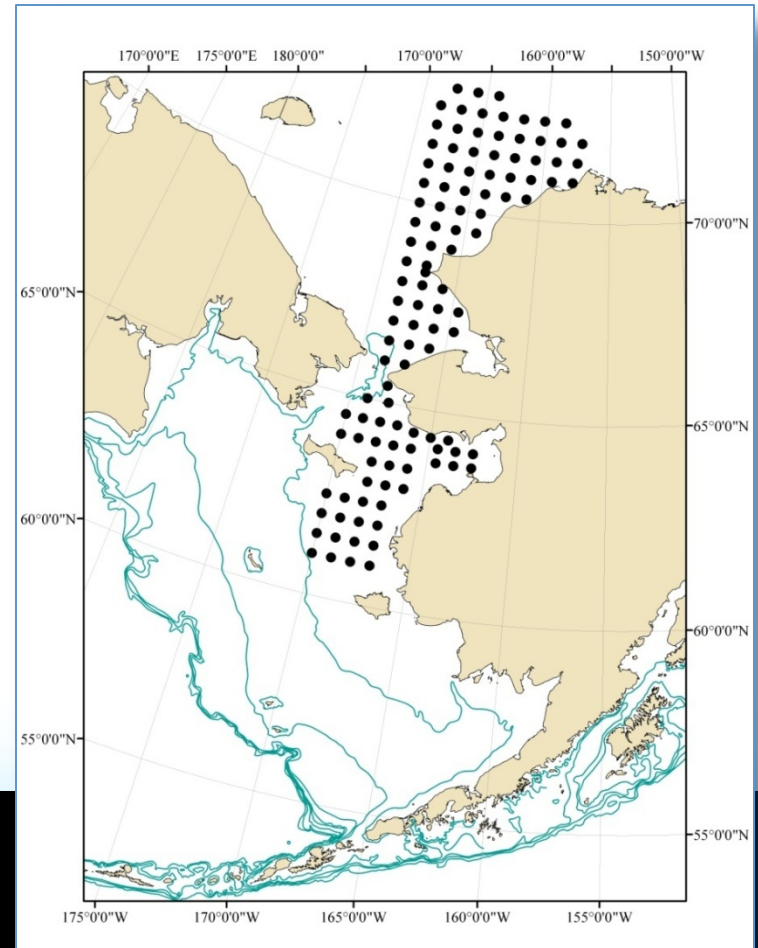
With funding from:



Coastal Impact Assistance Program (CIAP)

A comprehensive ecosystem survey

- Ocean circulation & physics
- Ocean chemistry
- Plankton
- Surface, mid-water, and bottom fishes
- Biology of salmon, Arctic cod, saffron cod, snow crab, capelin, and other fish & invertebrates



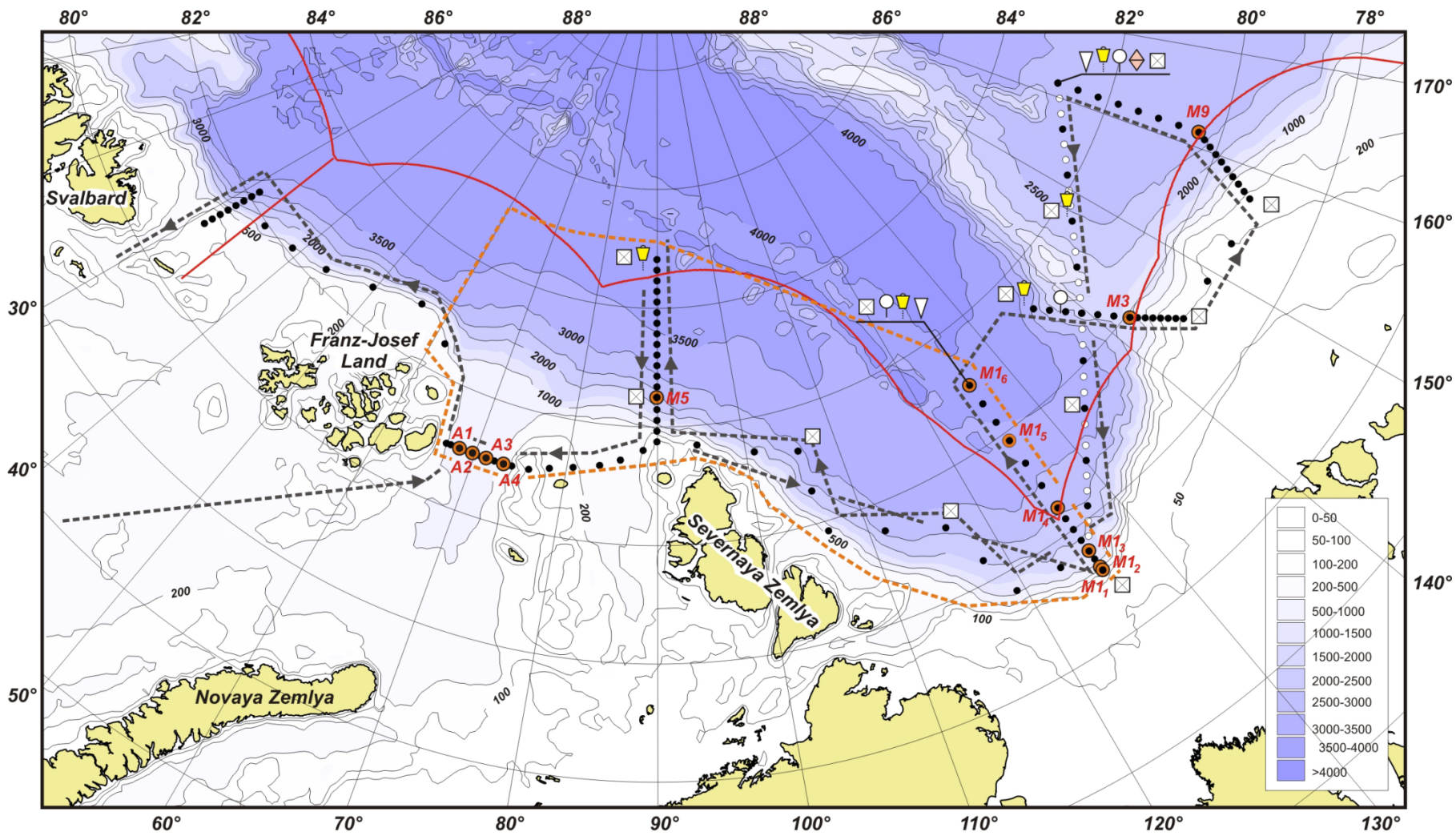
Arctic Whale Ecology Study (ARCWEST)

FY12-16

- Location: eastern Chukchi Sea
- Funding Source: BOEM
- Funding amount: \$4,834K
- Bowhead and gray whales;
fin and humpback whales
- Use passive acoustics, oceanography, satellite tagging,
and visual surveys to investigate the source of cetacean
prey and its influence on distribution and abundance.
- Collaborators: PMEL (NSB, WHOI on separate funding)



Tentative Plan for 2013 NABOS Cruise on Kapitan Dranitsyn



- > Ship track
- ⤴ Russian EEZ
- Oceanographic station
- Mooring
- ⚠ ITP-buoys
- ▽ O-buoys
- ◇ Ice-mass buoys
- ⊕ TempO buoys
- ⊠ Meteo buoys
- ⋯ Glider operation area

[Terry Whitledge]

Comments and/or Questions?

