

# Chukchi Edges or MGL12-11

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# Outline

- *R/V Marcus G. Langseth* Arctic operations  
9/5/2011 - 10/8/2011
- Preliminary results
- Next steps

# R/V Langseth Cruise Plan

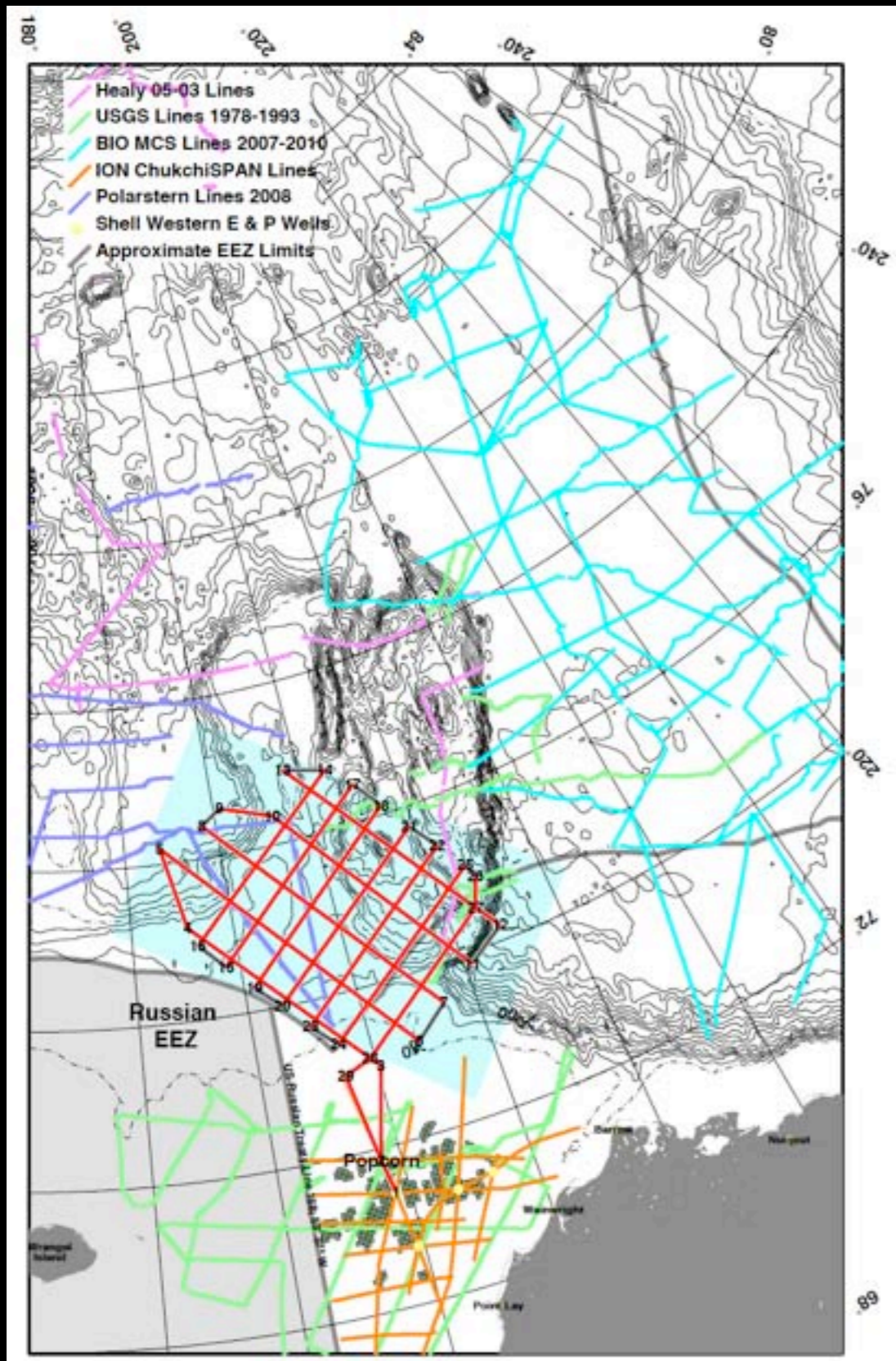


Image Southern Edge  
Structure

Inter-correlate wells and  
lines

Test models for the opening  
of the Canada Basin

Develop age controls on  
Arctic Ocean Stratigraphy

# Chukchi Edges

MGL11-12

- 5 weeks Dutch Harbor to Dutch Harbor
- ~5300 km of multi-channel seismic reflection data
- *R/V Marcus G. Langseth* (non-ice reinforced)
- ~98% MCS uptime

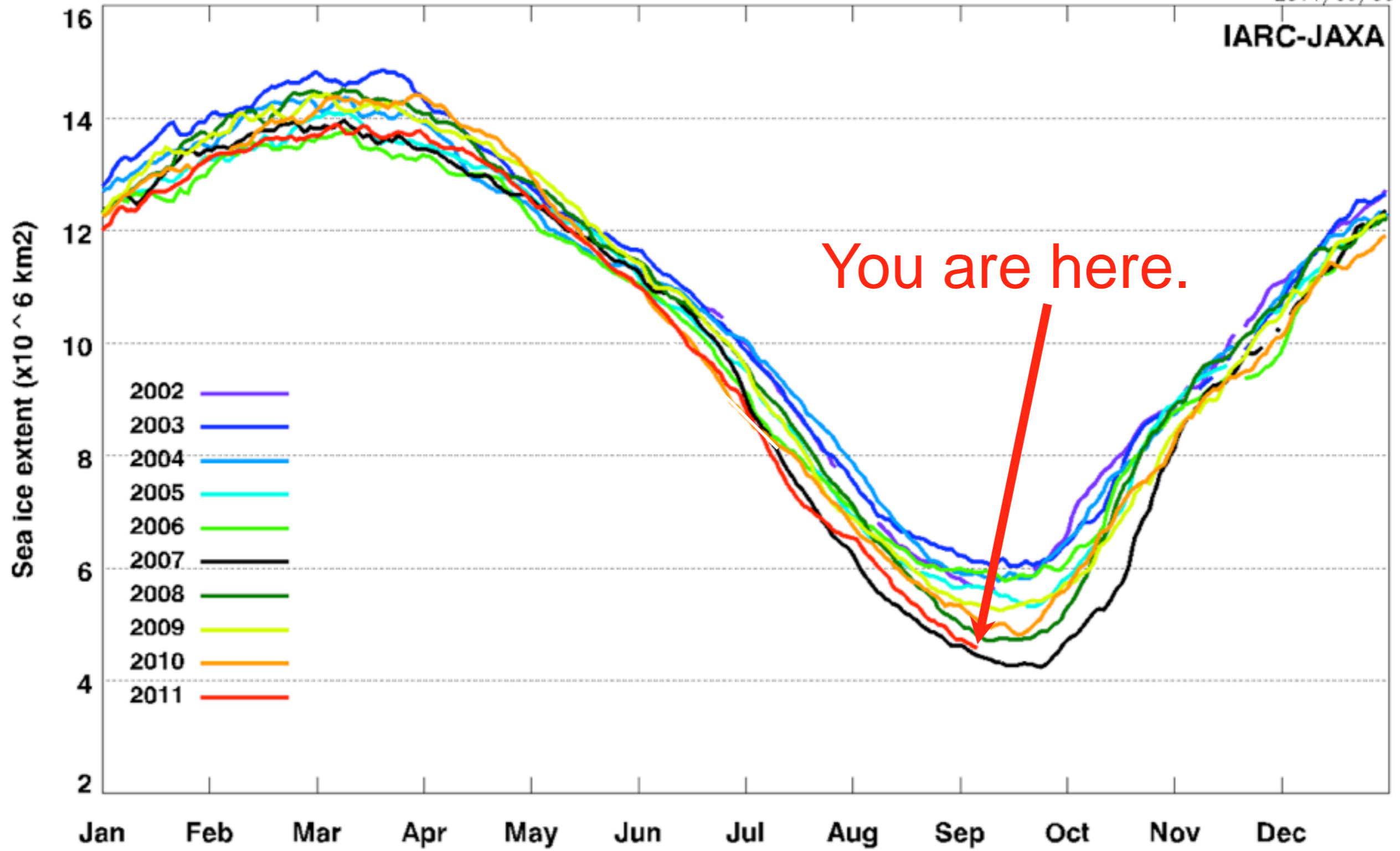
# Why use a non-ice reinforced vessel?

- Scavenger hunt for equipment for Healy (2010)
- Too much competition for Healy time
- *R/V Langseth* schedule availability
- Great MCS, but.....
- How can we operate safely, including at night?

# AMSR-E Sea Ice Extent

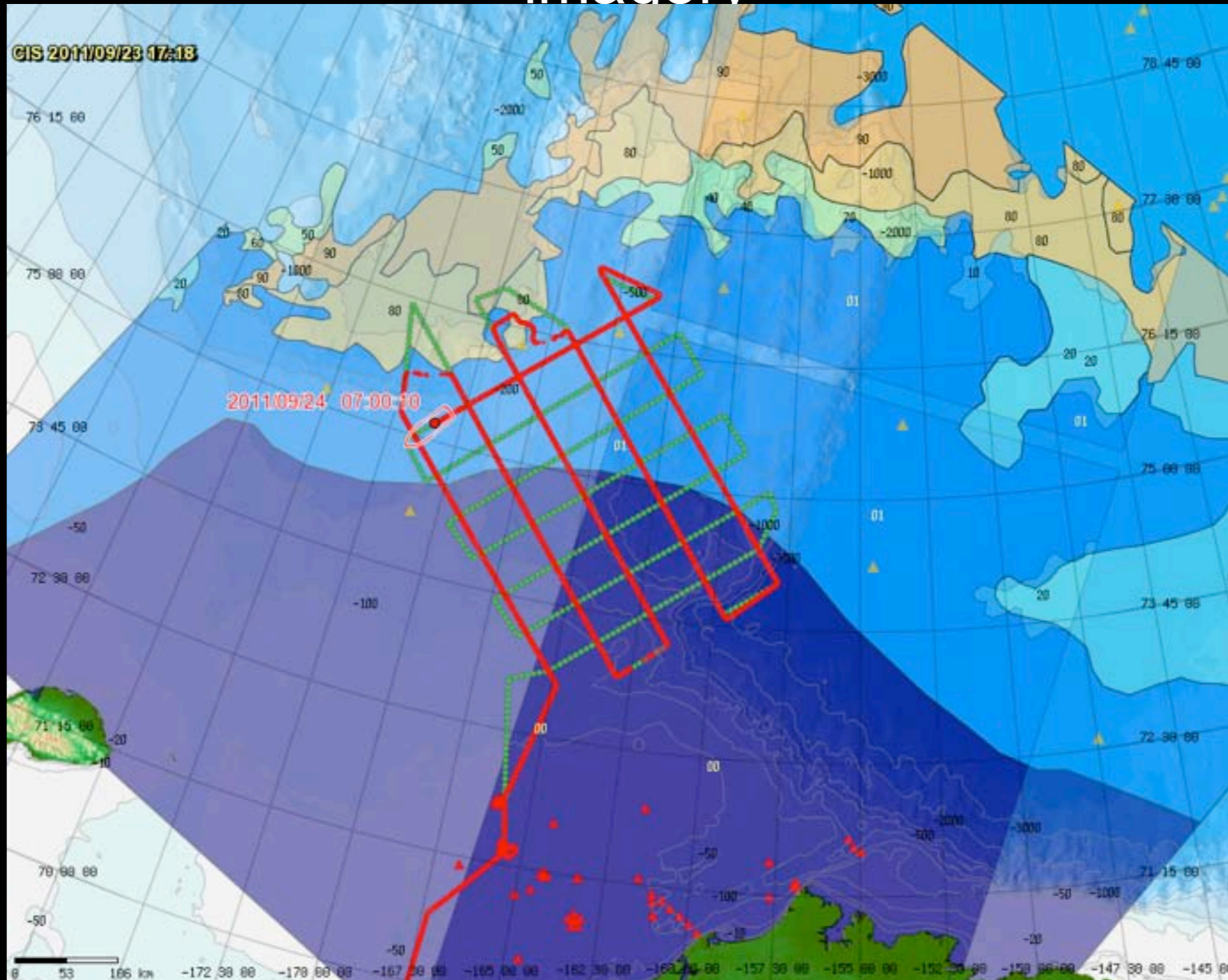
2011/09/06

IARC-JAXA



# Mapserver Support

Integrates Canadian Ice Service interpreted  
imagery

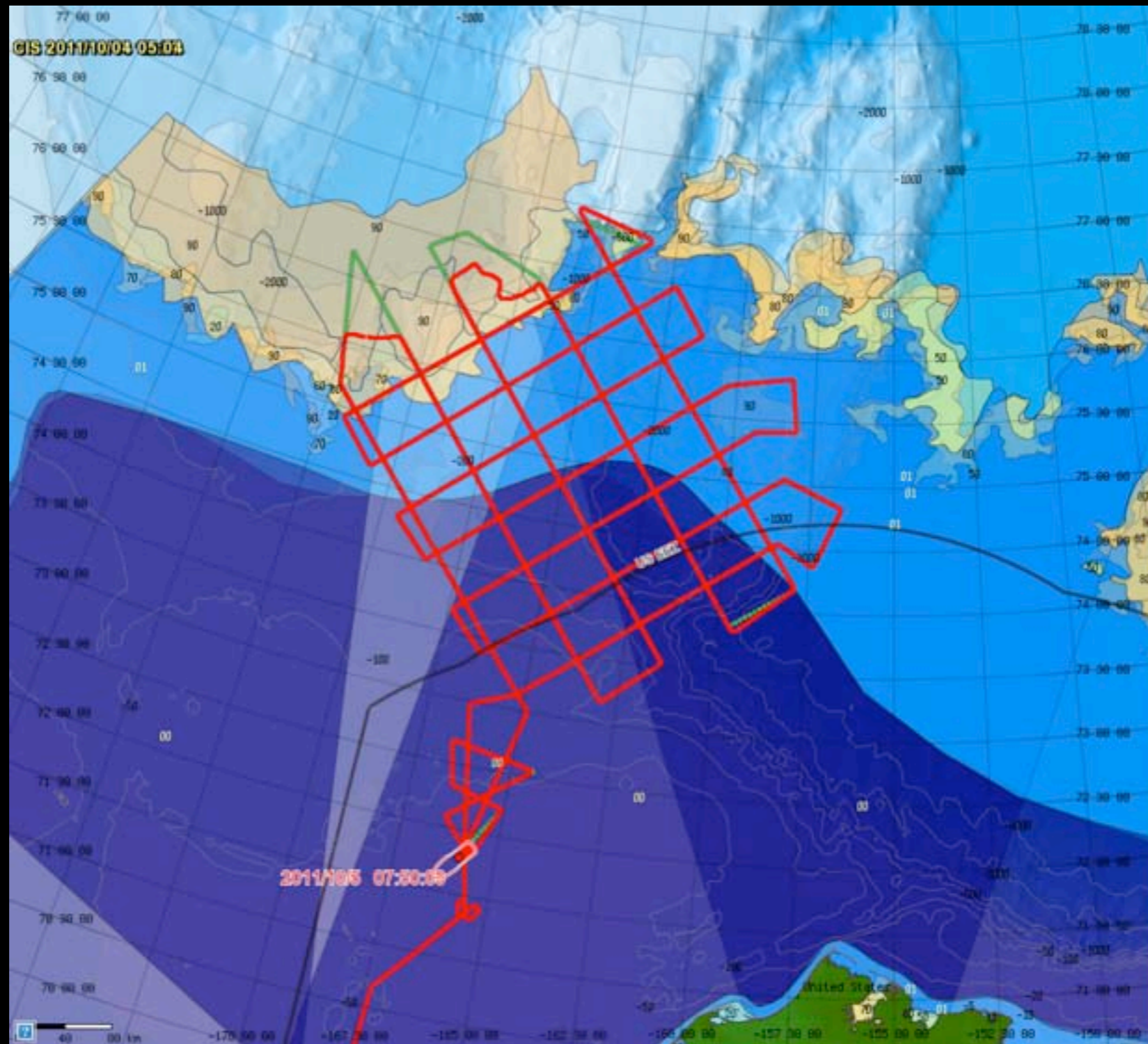


# Most Extreme Ice Conditions Encountered by *R/V Langseth* Late September 2011



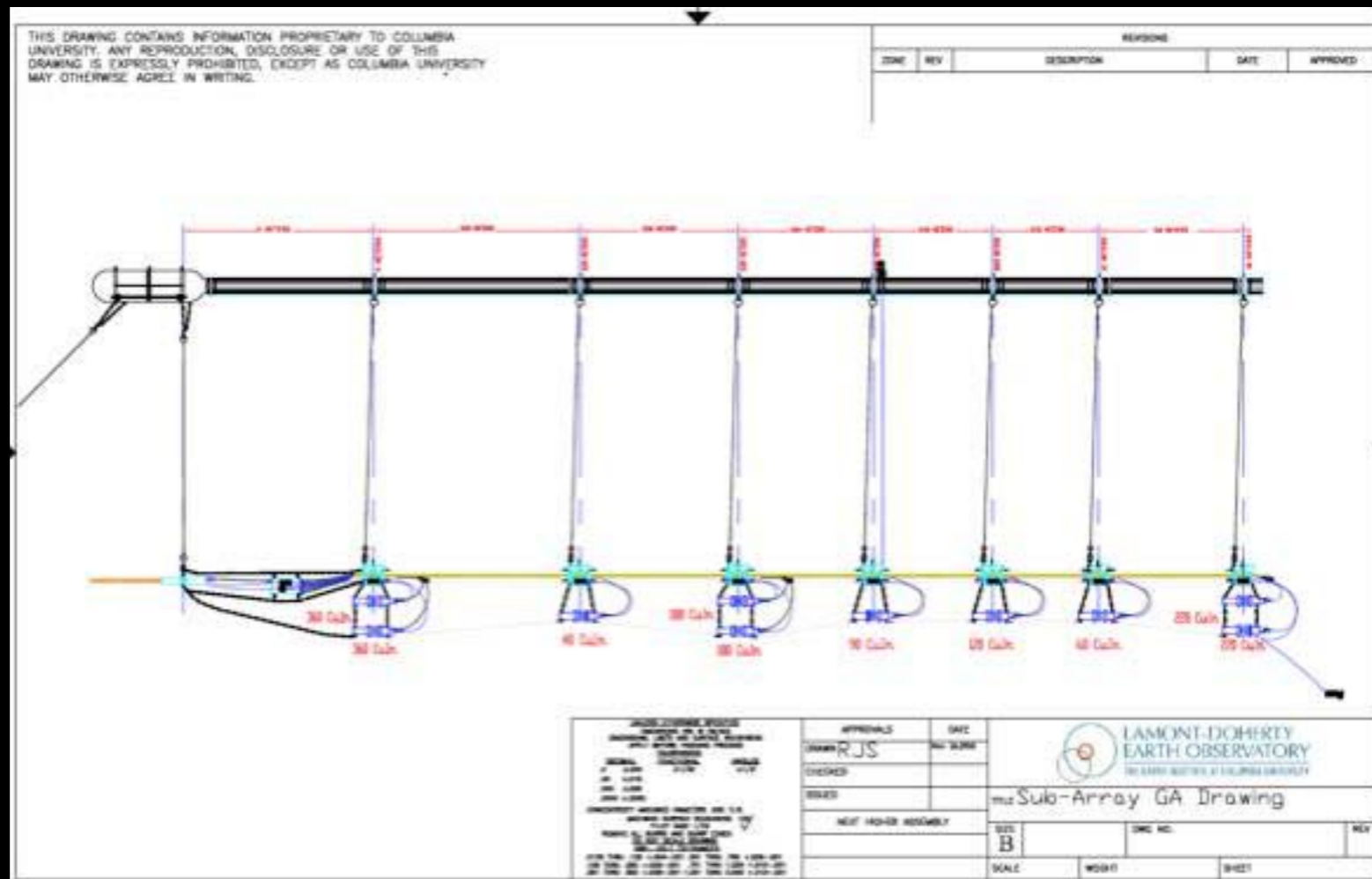


# End of Data Acquisition 4 October

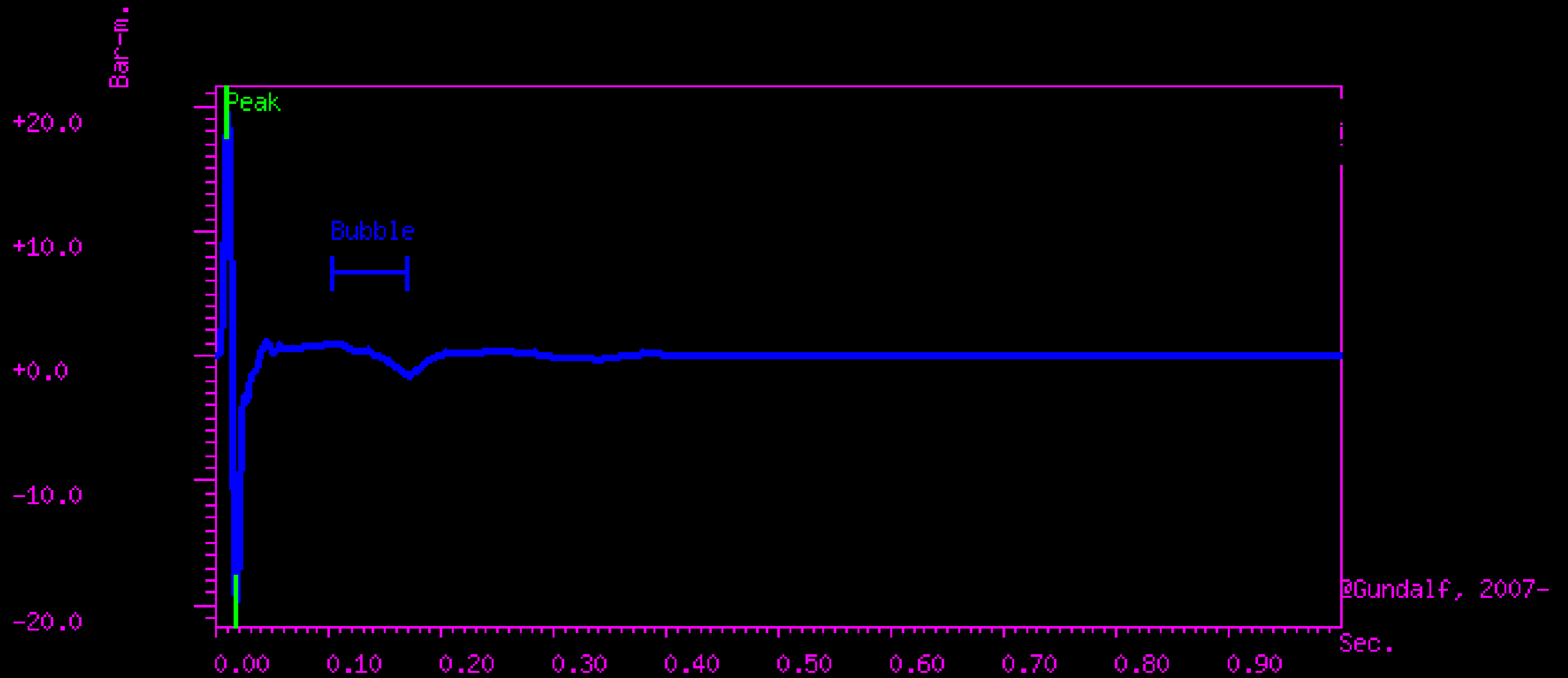


# MCS Set-up

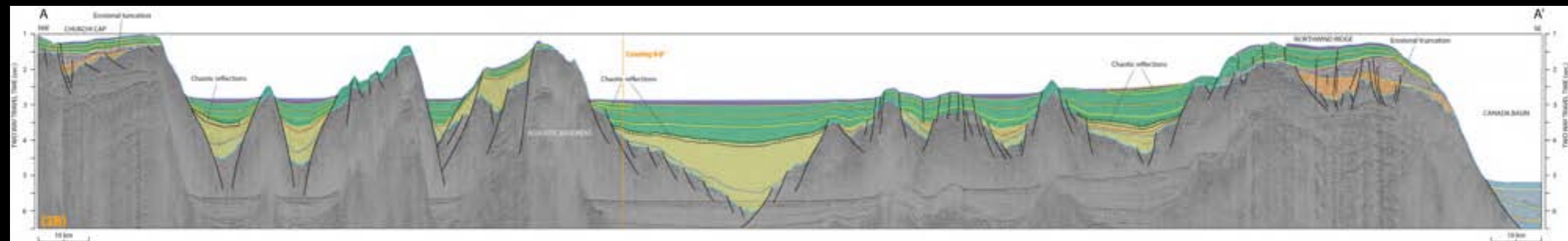
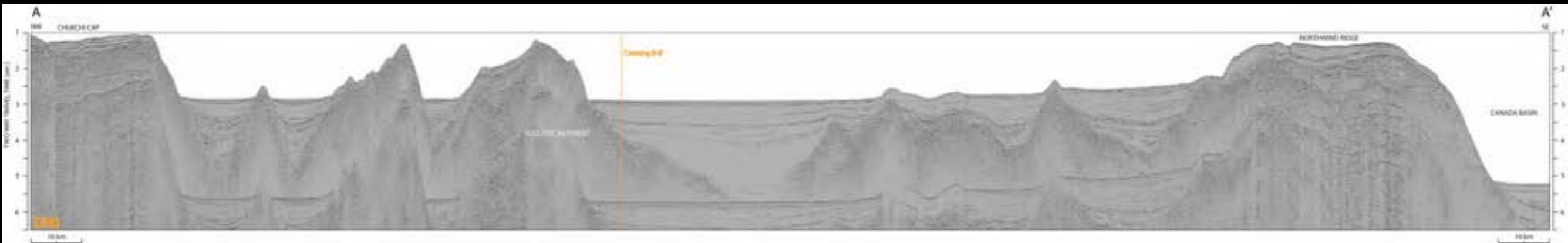
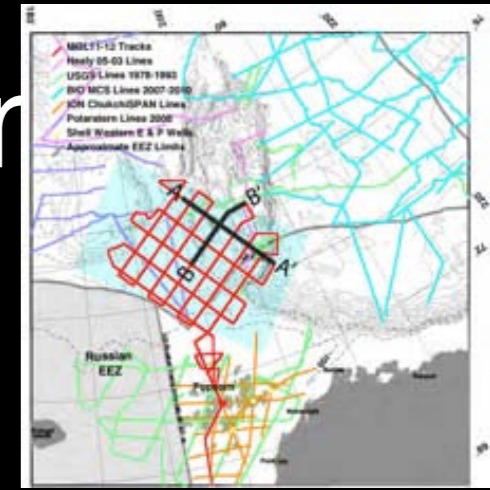
- 1830 cubic inches total volume over ten independent airguns
- 6 km (468 channels) streamer



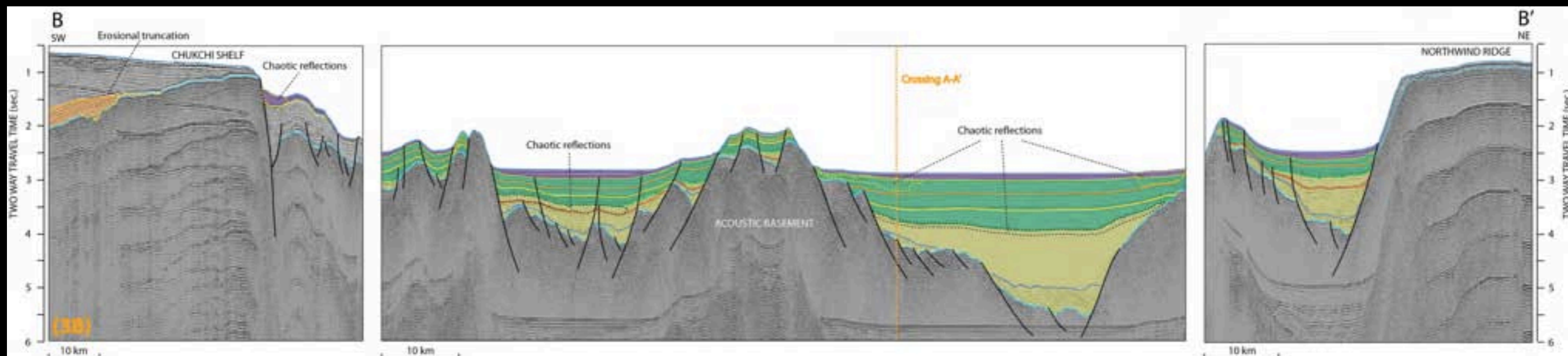
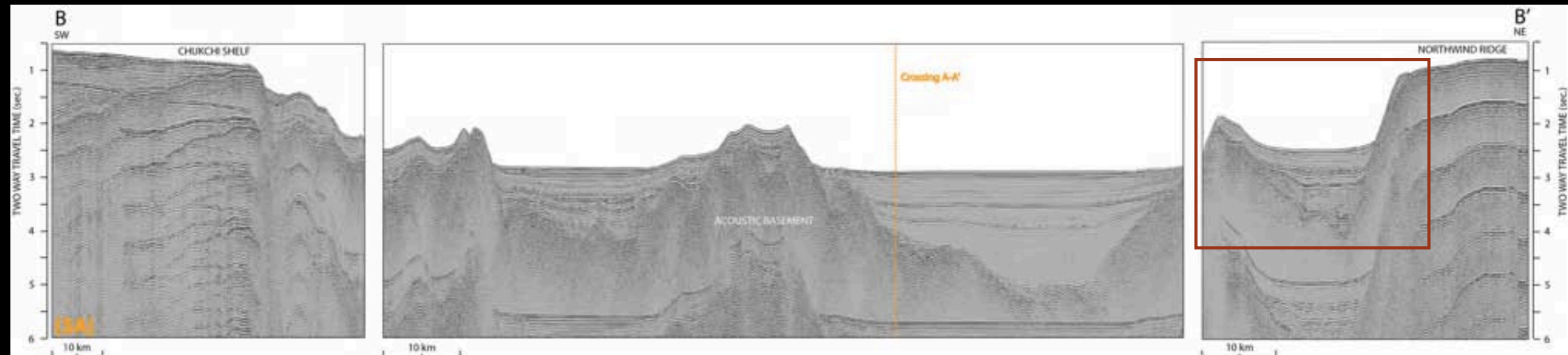
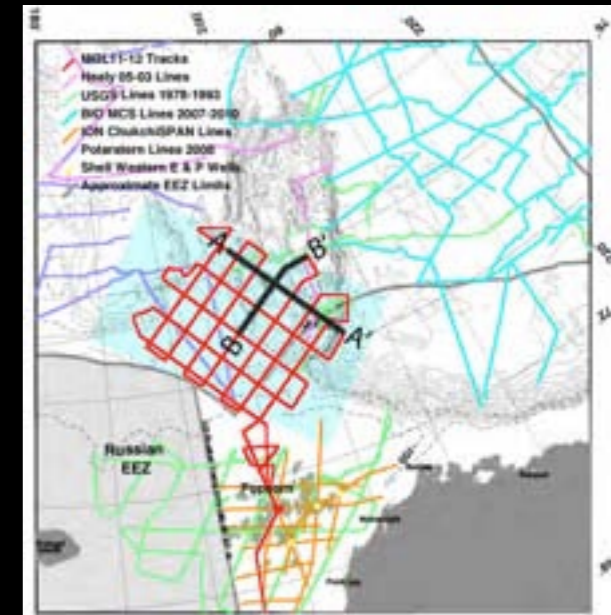
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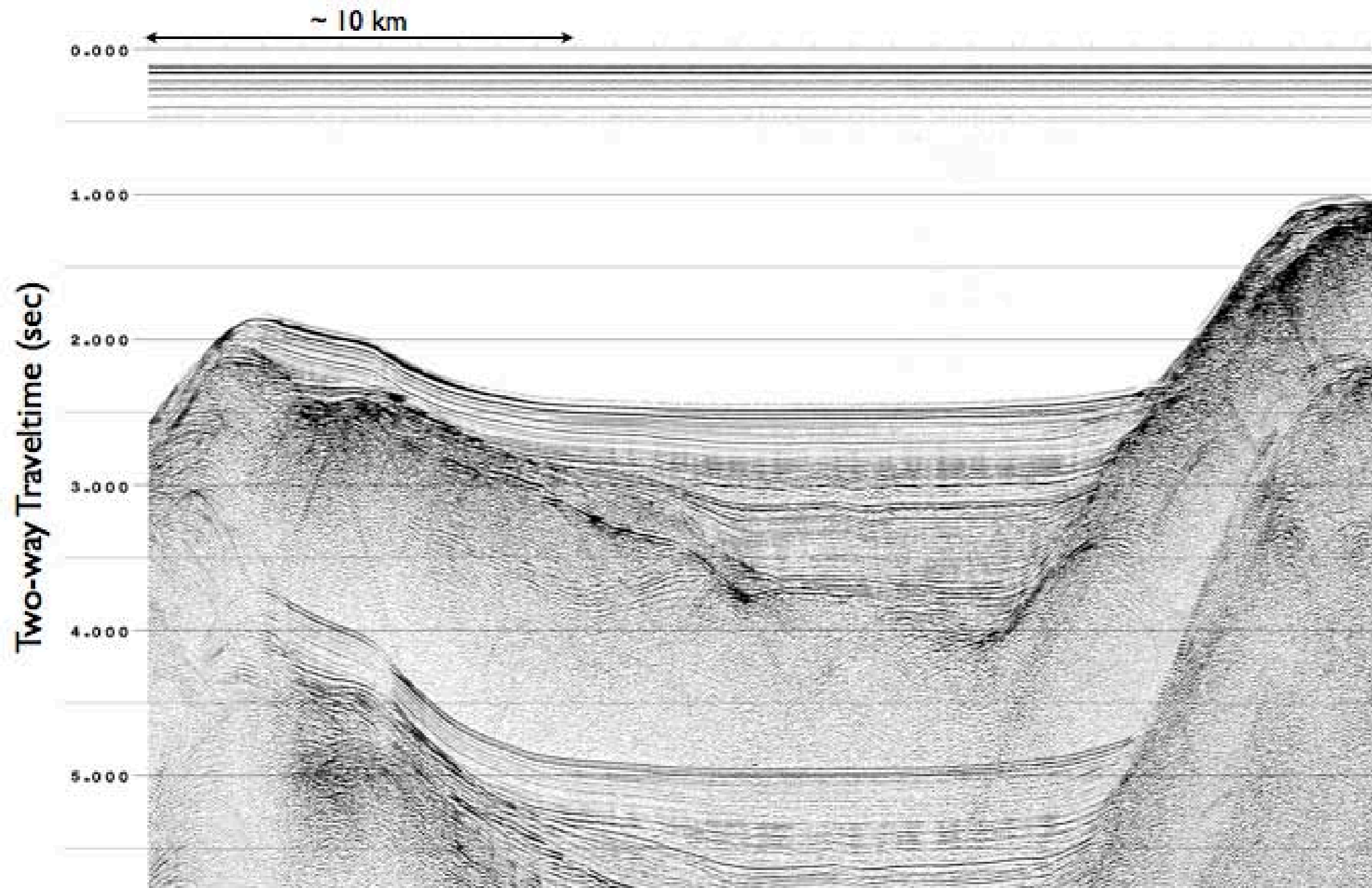


# Chukchi Cap to Canada Basin



# Chukchi Shelf to Northwind Ridge





# Status Report

- Three posters at this meeting.

OS51B-1864. New GEOPHYSICAL MAPPING of the CHUKCHI MARGIN reveals widespread GLACIAL EROSION *Dayton Dove; Leonid V. Polyak; Bernard Coakley*

T31A-2576. Stratigraphy and multi-phase tectonic history of the Chukchi Borderland from MCS data *Ibrahim Ilhan; Bernard Coakley*

OS51E-1931. Rolling the dice on the ice; New modes for underway data acquisition in the Arctic Ocean *Bernard Coakley; Dayton Dove*

- Developing best approach to processing (multiple reduction).
- Interpreting the stratigraphy of the interior basins of the Borderland.
- Preparing a drilling proposal for the Chukchi Region



<http://scientistatwork.blogs.nytimes.com/author/bernard-coakley/>