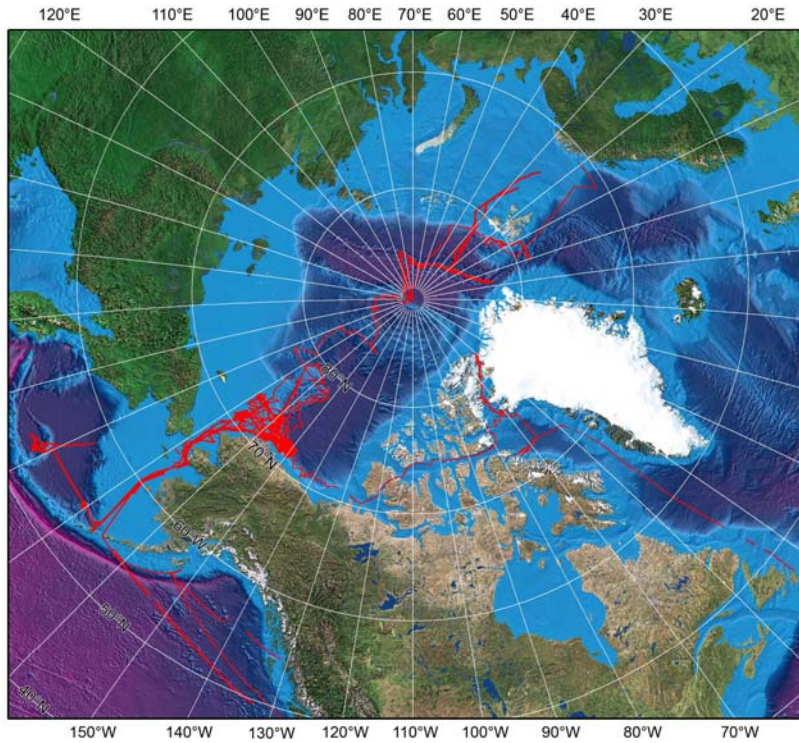
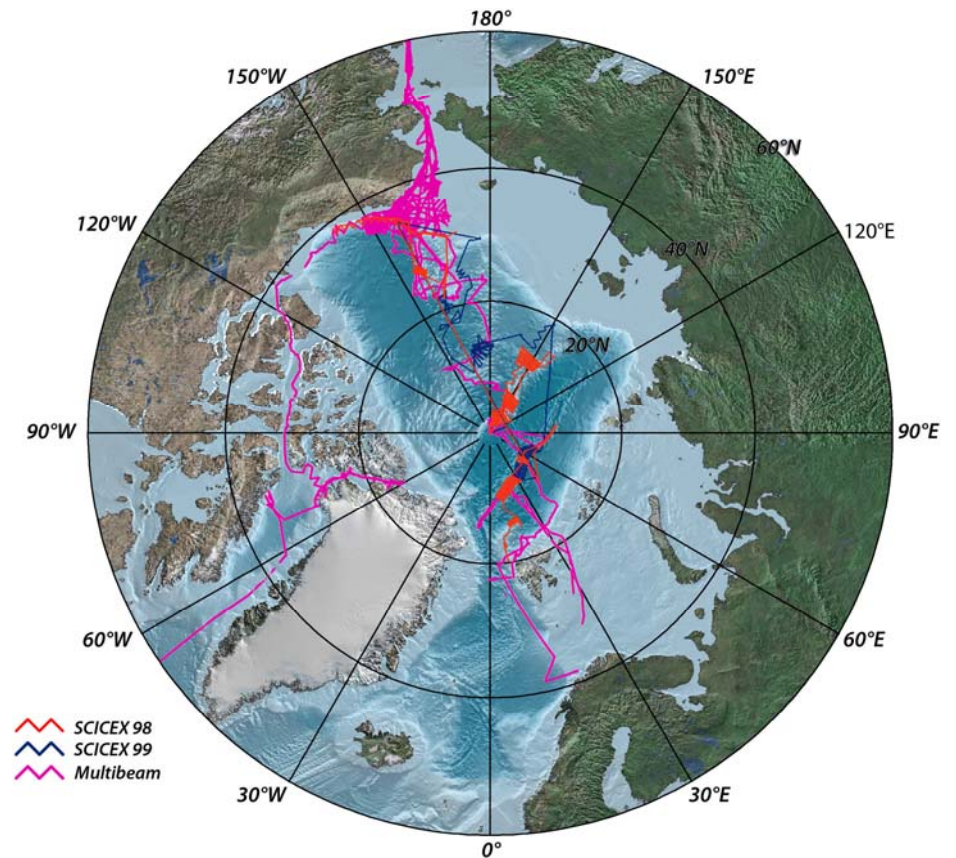


Bathymetric Data *Through 2005*



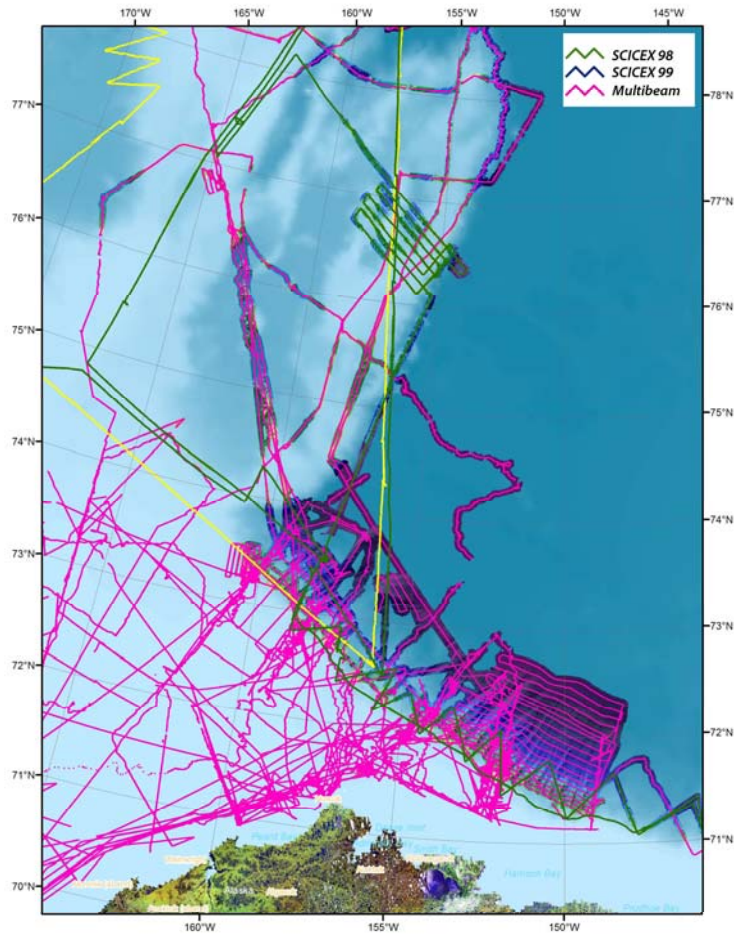
Ship-based multibeam

Add SCICEX data

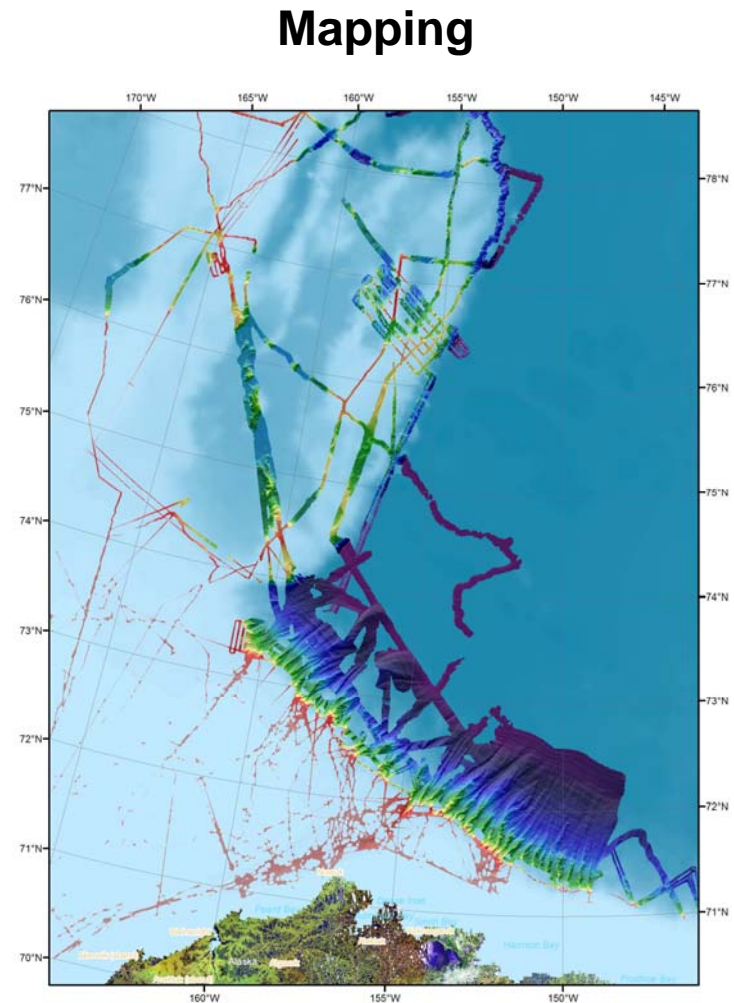


Alaska Margin Bathymetry

Power of combined sources



Ship and sub tracks



Bathymetric Data

Priorities ala Edwards

1. Alpha-Mendeleev Ridges

- Fate of Atlantic Intermediate Water layer

2. Chukchi Borderland

- Deep-draft ice in the Arctic
- Northwind Ridge: Critical feature in understanding the formation of Amerasia (Canada) Basin

3. Continental edges of the Lomonosov Ridge (Near data release box)

- Ridge ends will clarify oceanic vs. continental crust
 - EEZ claims
 - Tectonic history of the feature
- “Mid-ocean ridges don't just "end" they turn into some other kind of plate boundary”

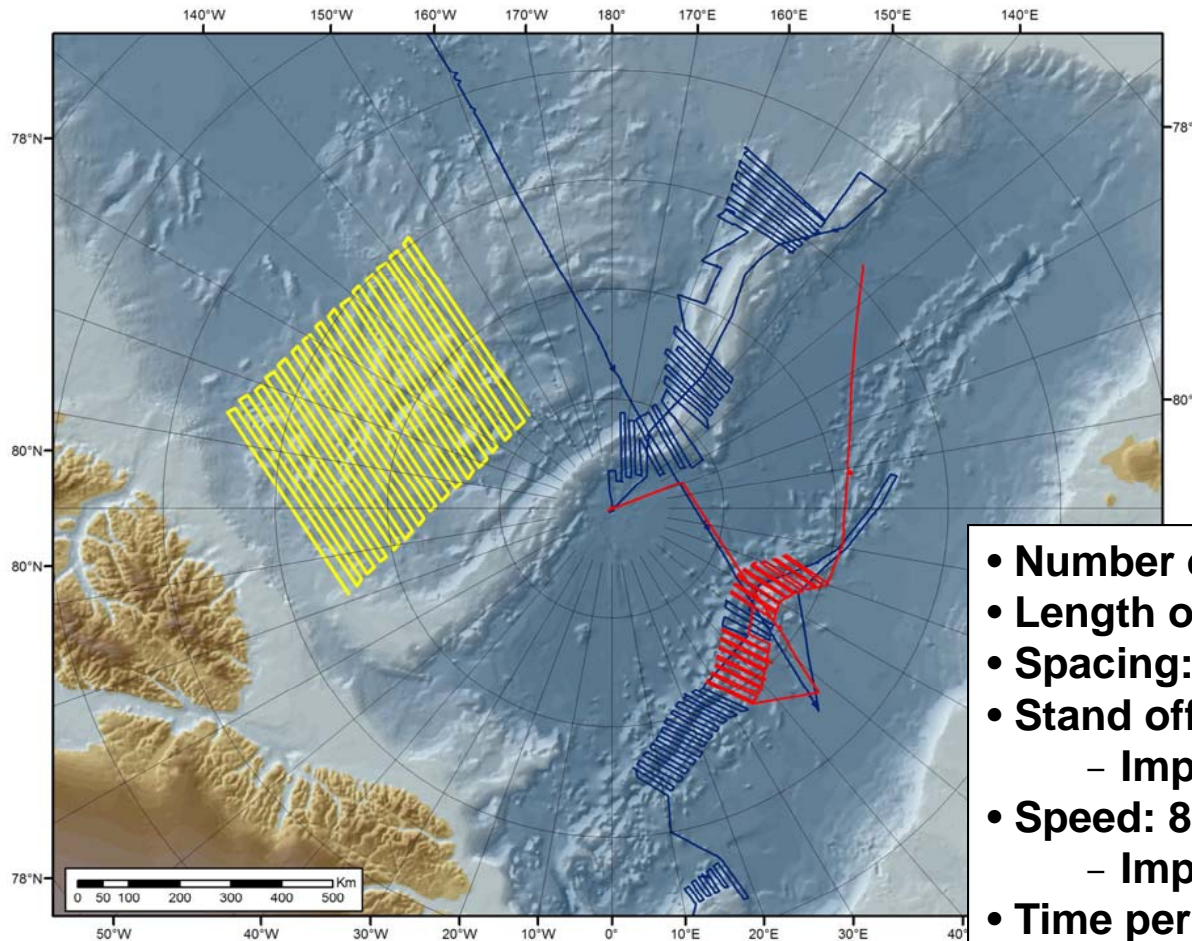
4. Jan Mayen and Yermak Plateaus

- Are they linked?
- Relation to either initiation of the Gakkel Ridge or part of track of Iceland Hot Spot

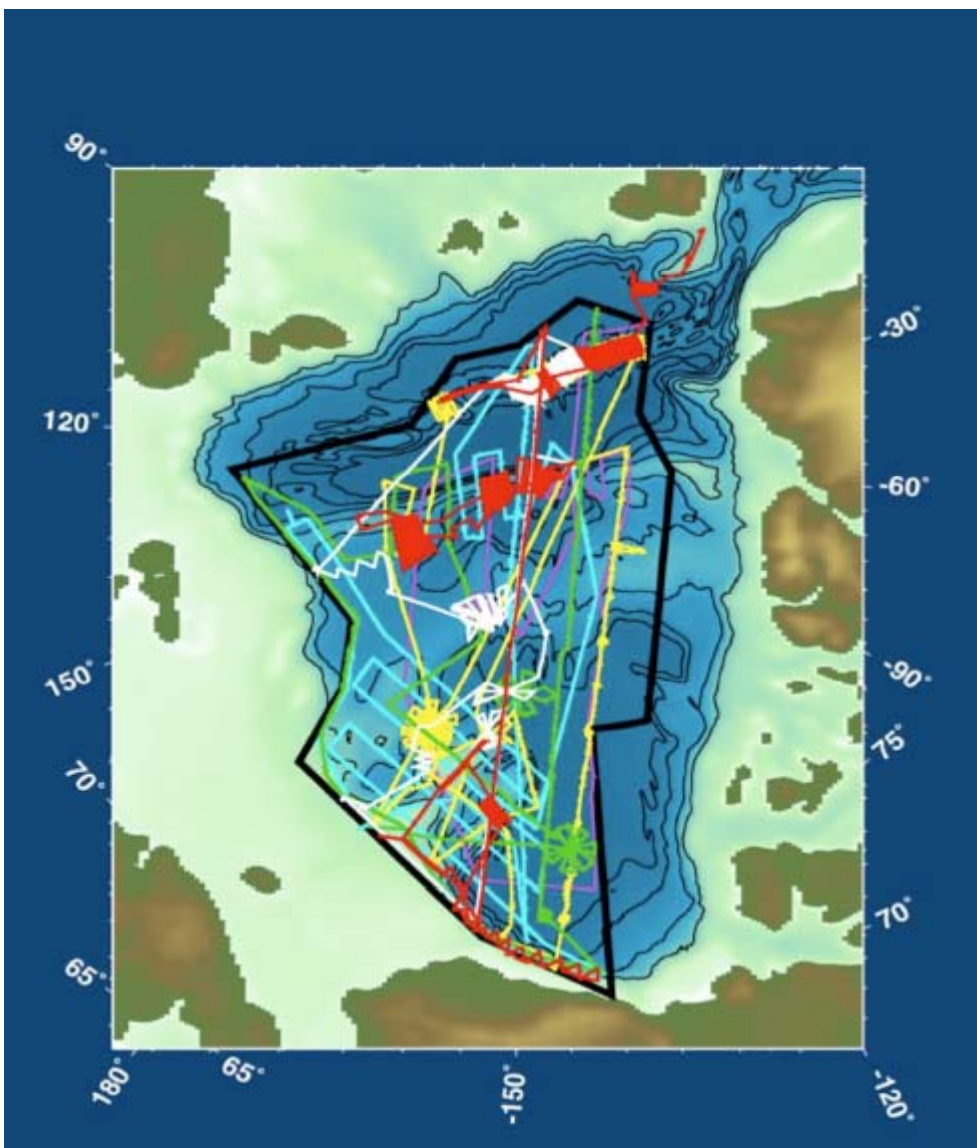
5. Continental edges of Gakkel Ridge (Near Siberia and Fram Strait)

- Intersection with the Siberian margin

Alpha Ridge Survey *Example*



- **Number of legs: 30**
- **Length of leg: 230 nm (425 km)**
- **Spacing: 9 nm (17 km)**
- **Stand off distance: Further is better**
 - Impacts swath width
- **Speed: 8-16 kts**
 - Impacts resolution
- **Time per leg: 15-30 hrs**
- **Can be completed in segments**



Gakkel Ridge showing an almost west-east track of GPS-navigated HEALY bathymetry with SCICEX bathymetry (N-S tracks) superimposed

