



# US Synoptic Arctic Survey Physical Oceanography

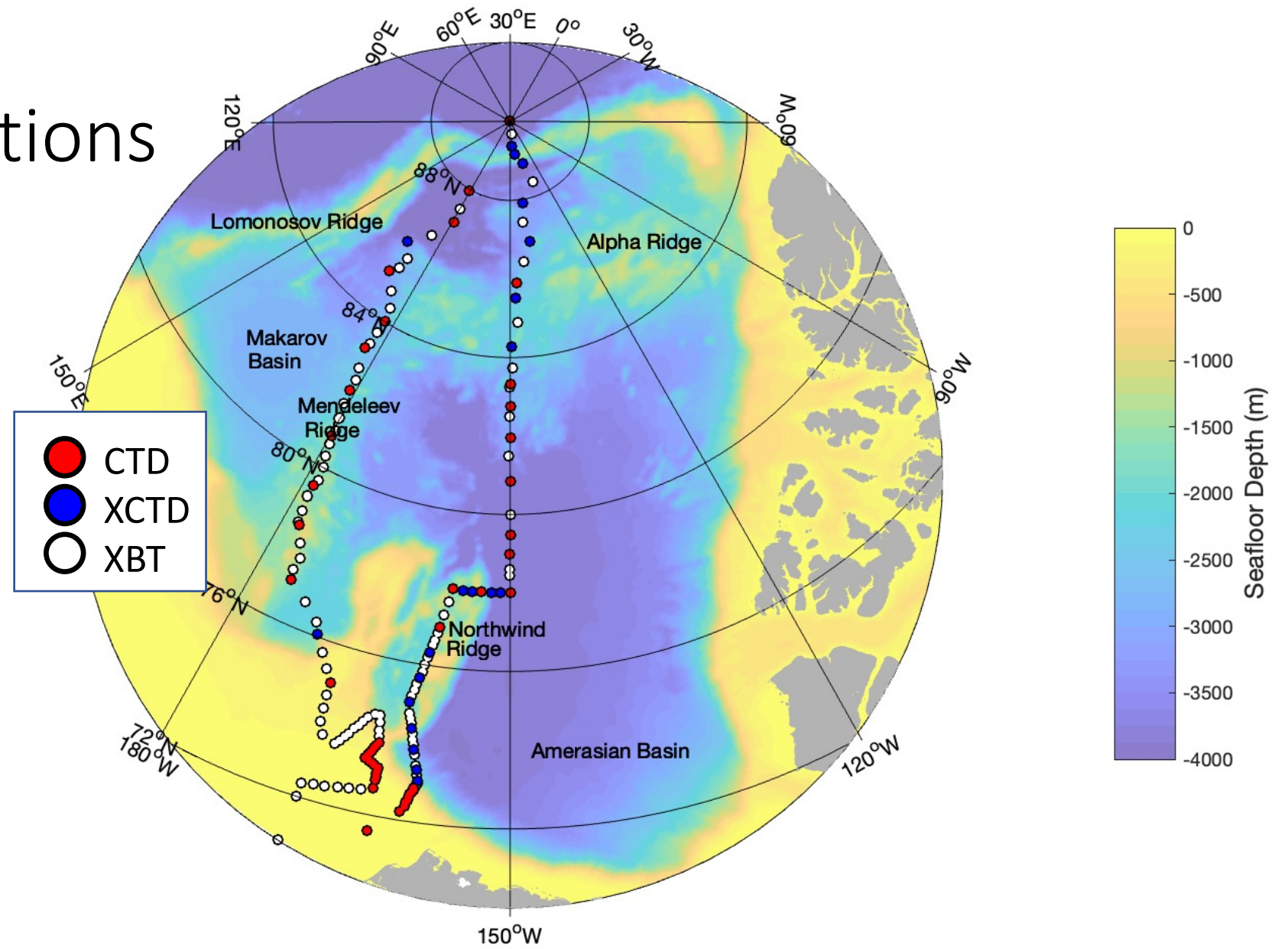
Seth Danielson, Savannah Sandy (UAF)  
Annika Margevich, Mary-Louise Timmermans (Yale)  
[sldanielson@alaska.edu](mailto:sldanielson@alaska.edu)

# US SAS Physics Data Summary

- SAS Physics Data
  - CTD Hydrography, Underway Data, ADCP Data, multibeam bathymetry
  - Processed Data will reside at the US/NSF Arctic Data Center; <https://arcticdata.io/>
  - Raw Data will reside at the R2R archives <https://www.rvdata.us/>
- Chukchi Ecosystem Observatory (CEO) Mooring Data
  - Working data stored and available within the AOOS/Axiom Research Workspace CEO project within the Alaska Ecosystem Mooring Network campaign; [www.aoos.org](http://www.aoos.org)
  - Fully processed data gets archived through DataONE; <https://search.dataone.org/data>

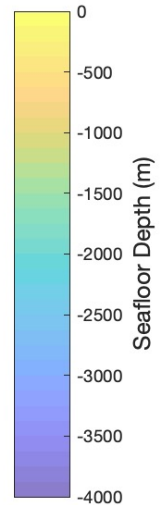
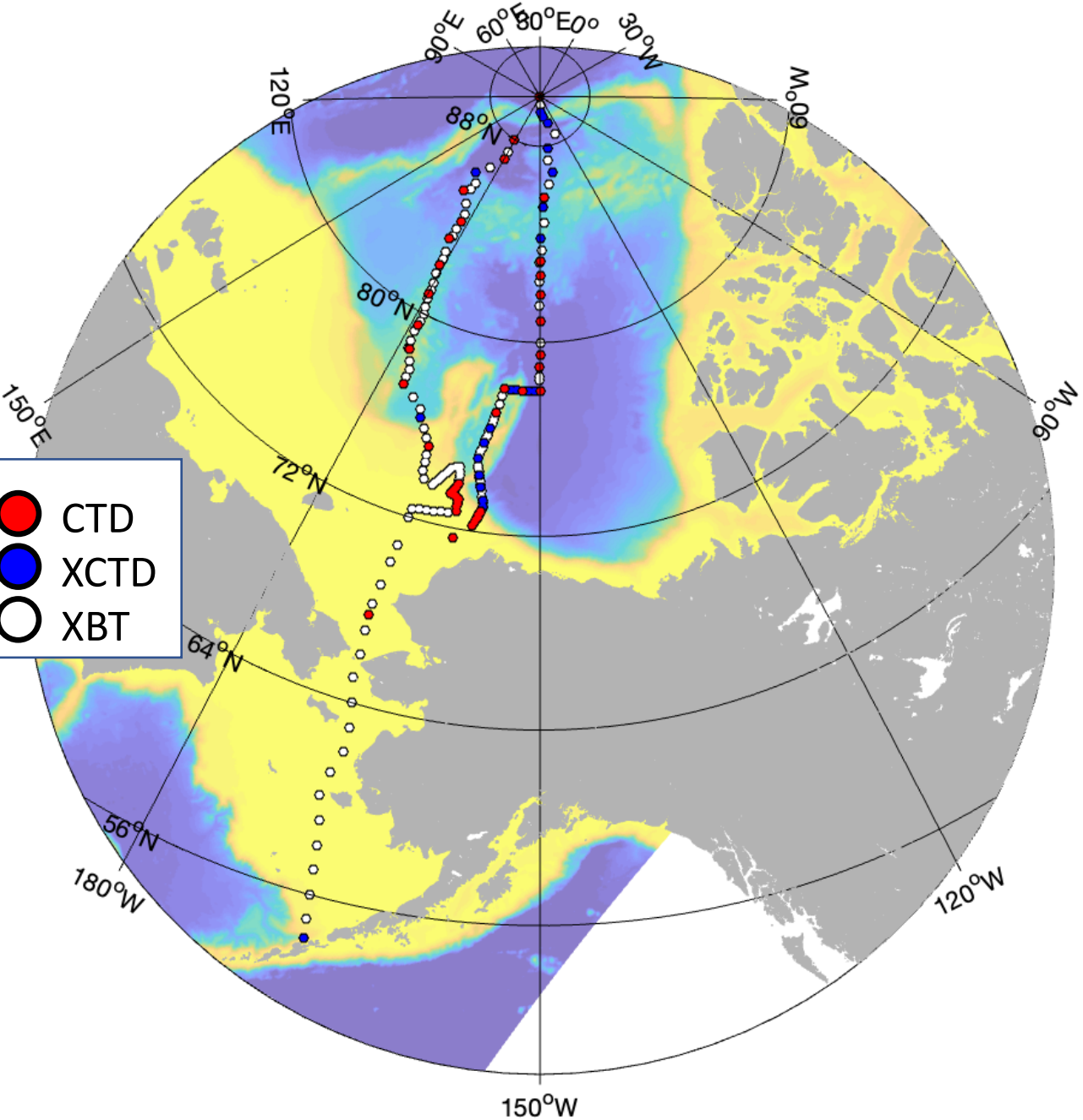
# HLY2202

## Hydrographic Stations

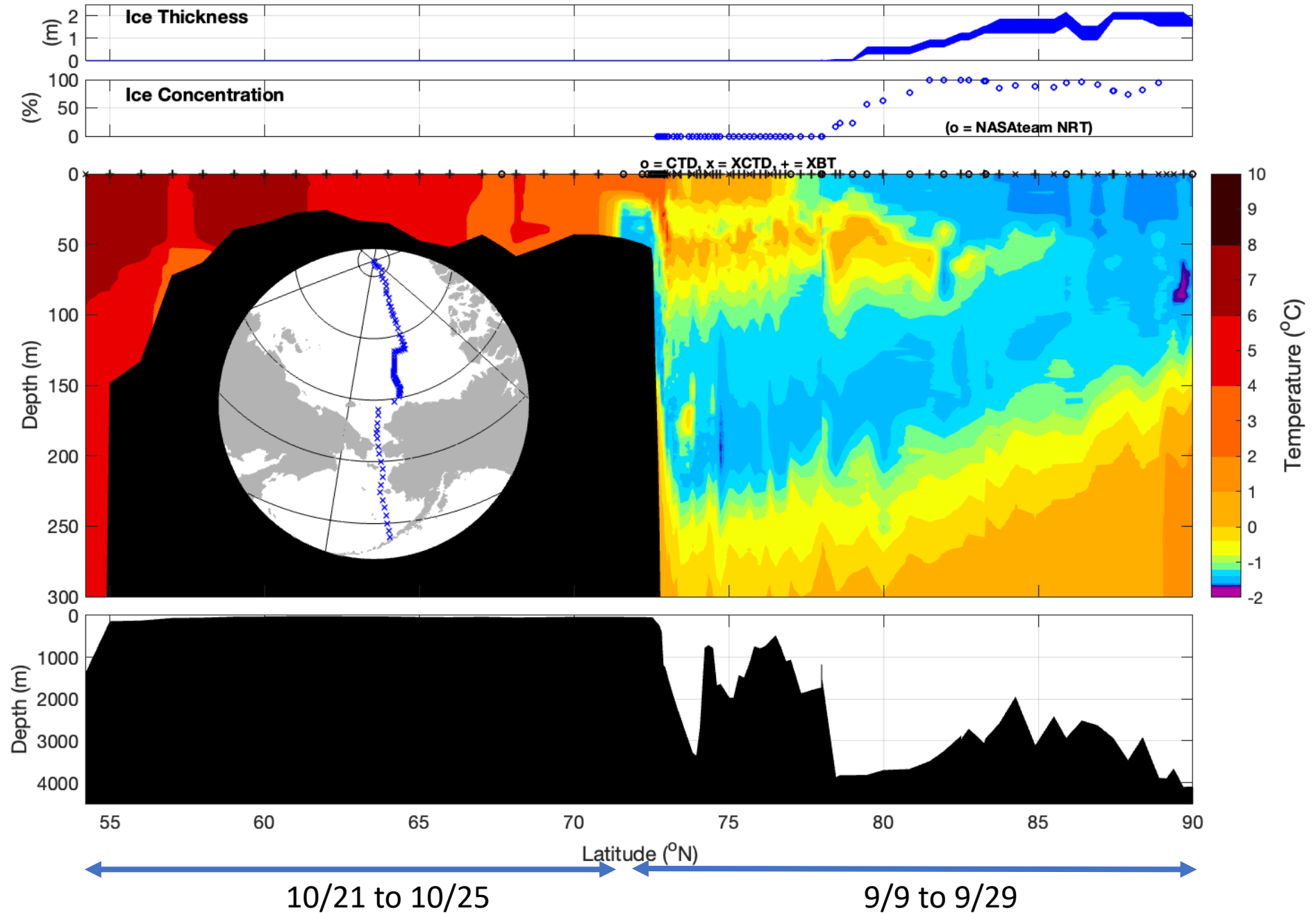


# HLY2202 Hydrographic Stations

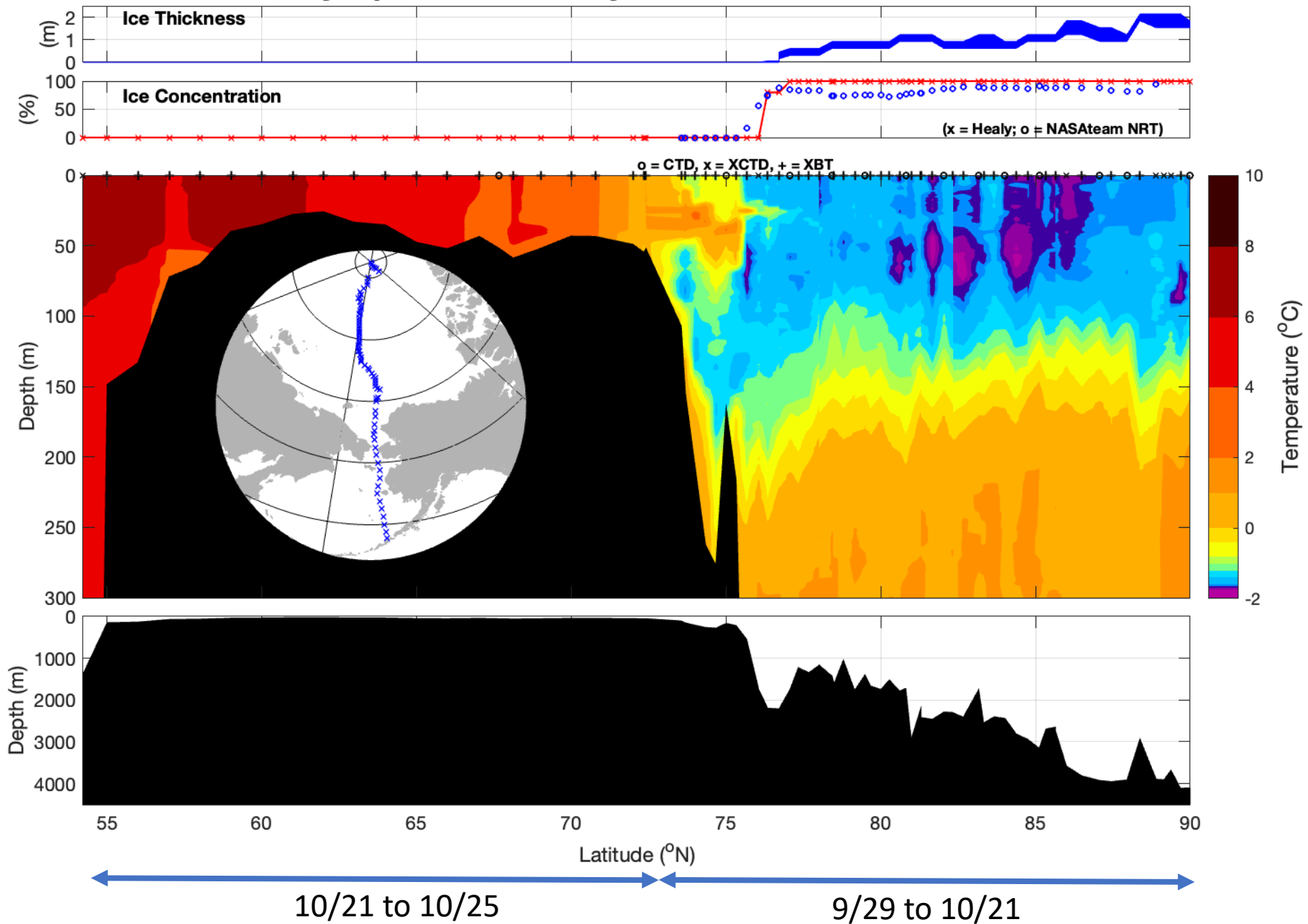
- CTD
- XCTD
- XBT



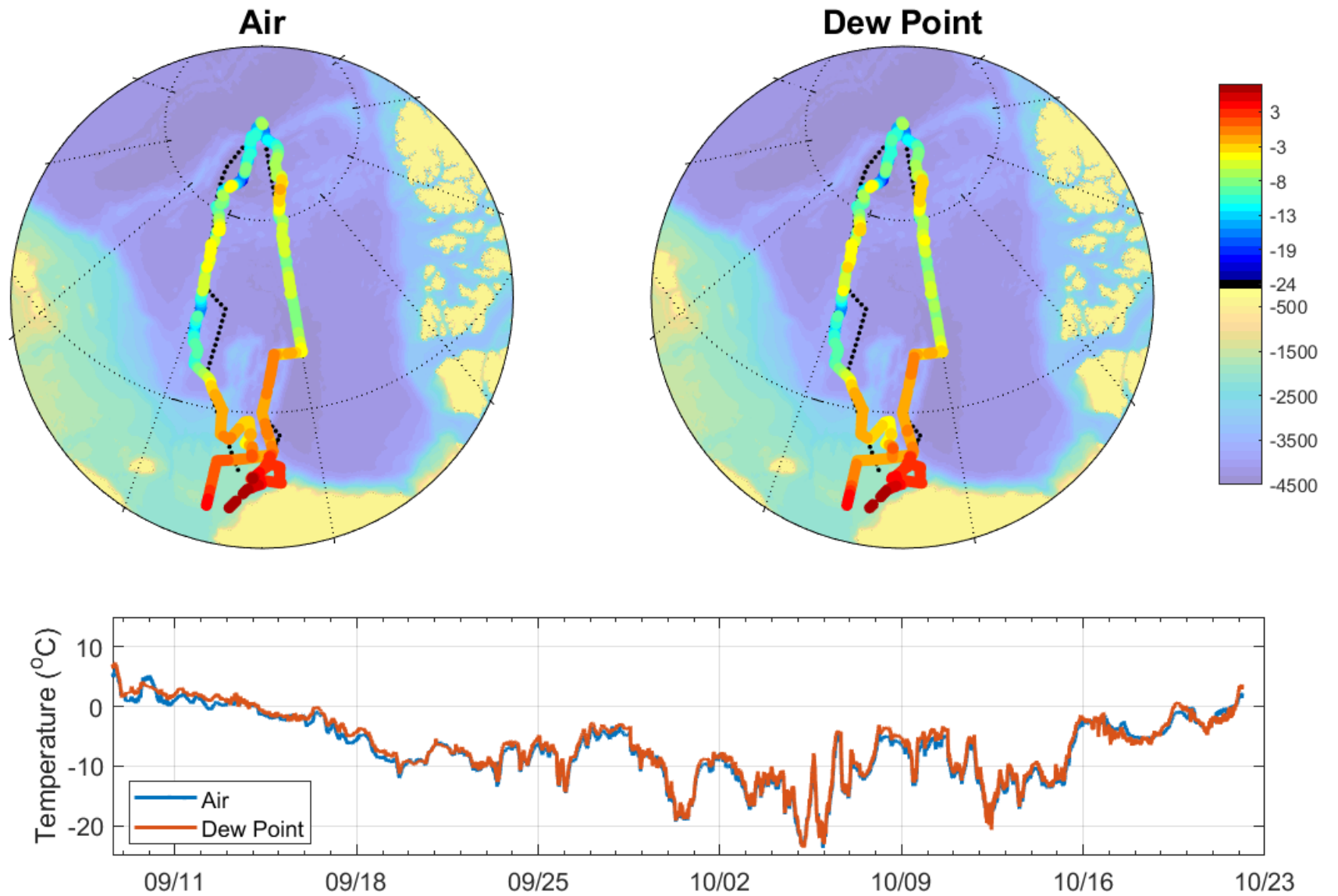
# Synoptic Arctic Survey 9/9/2022 to 10/25/2022



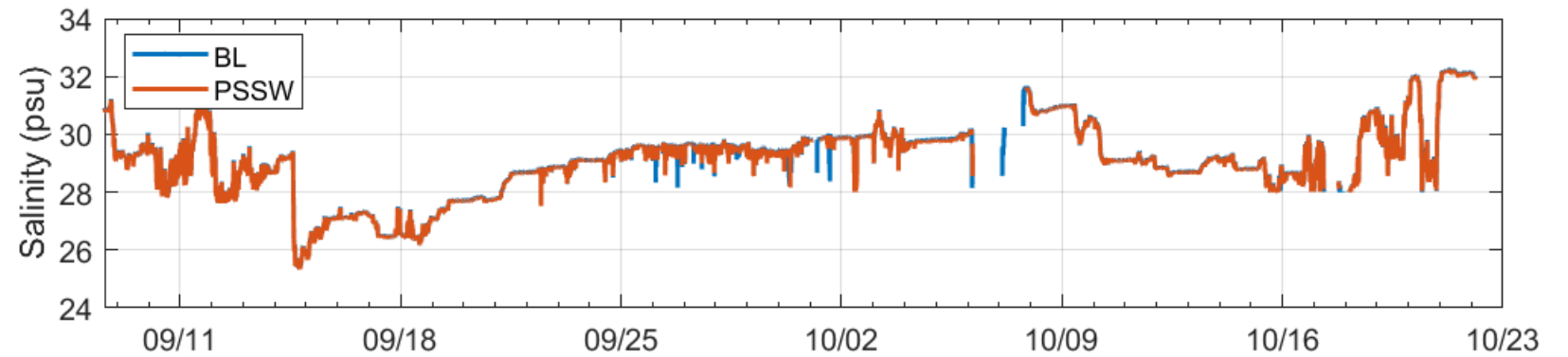
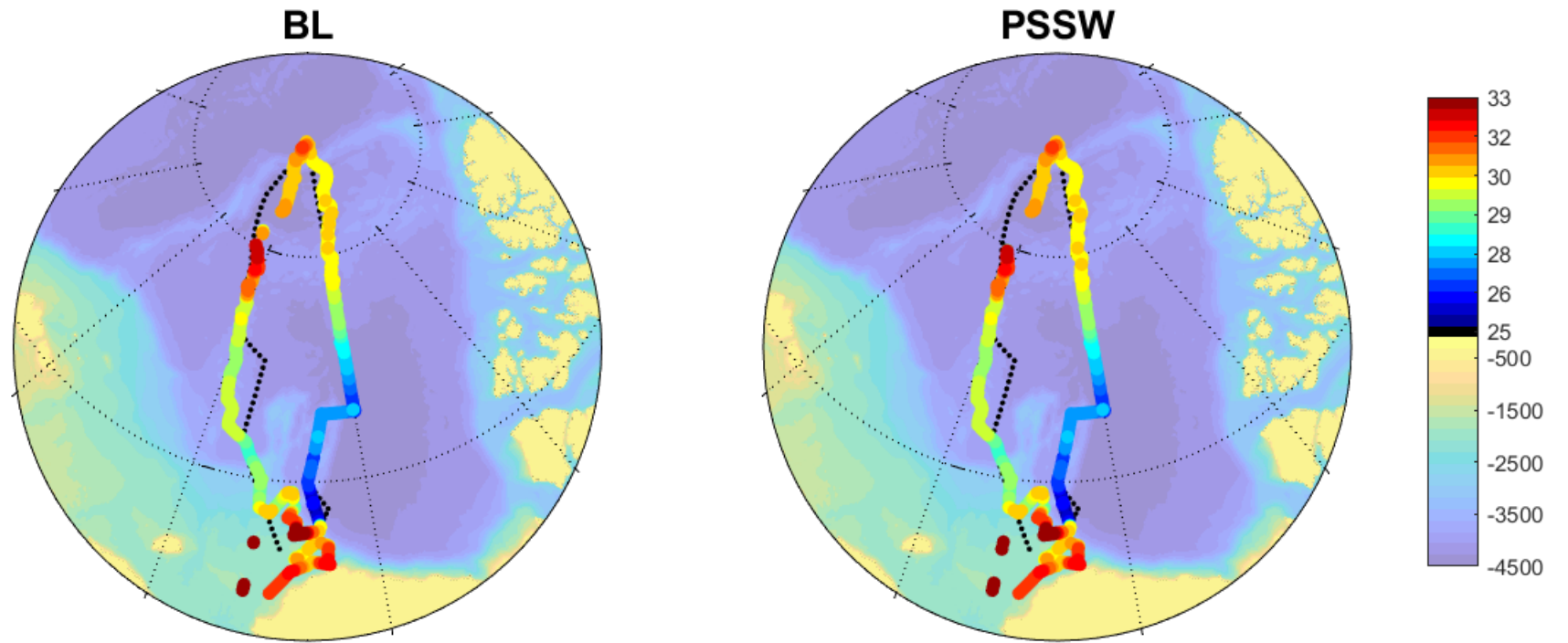
# Synoptic Arctic Survey 9/29/2022 to 10/25/2022



# Air Temperature



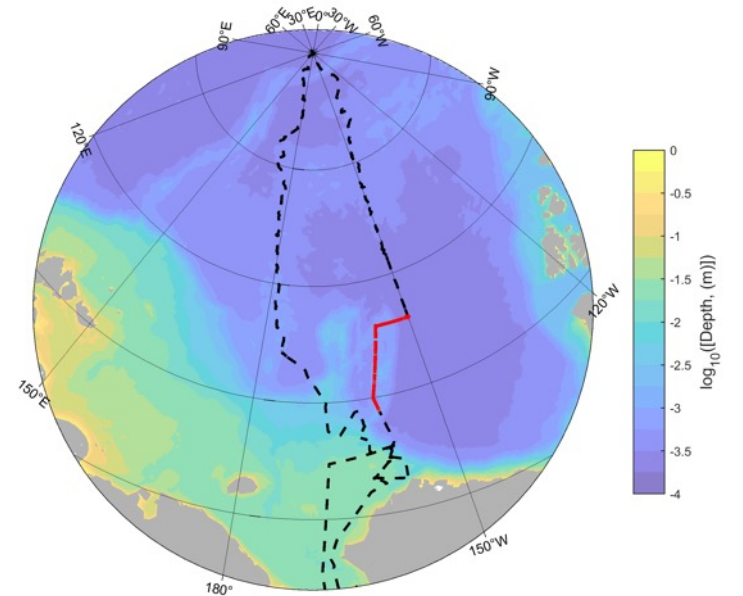
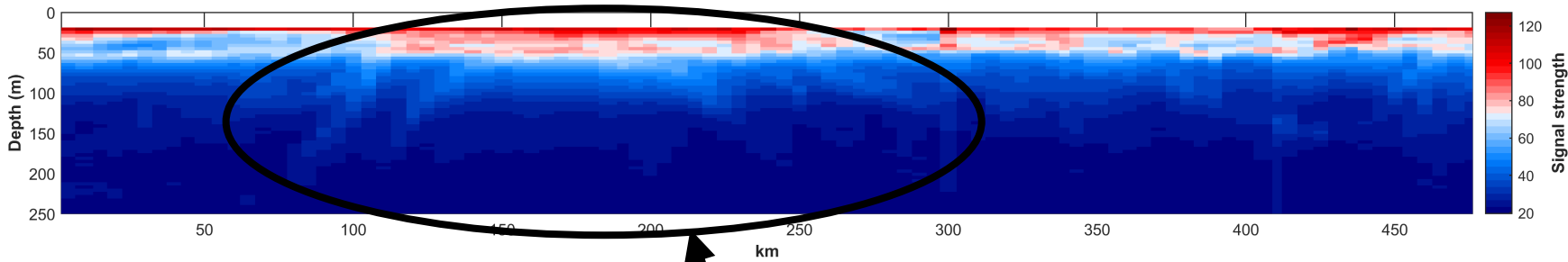
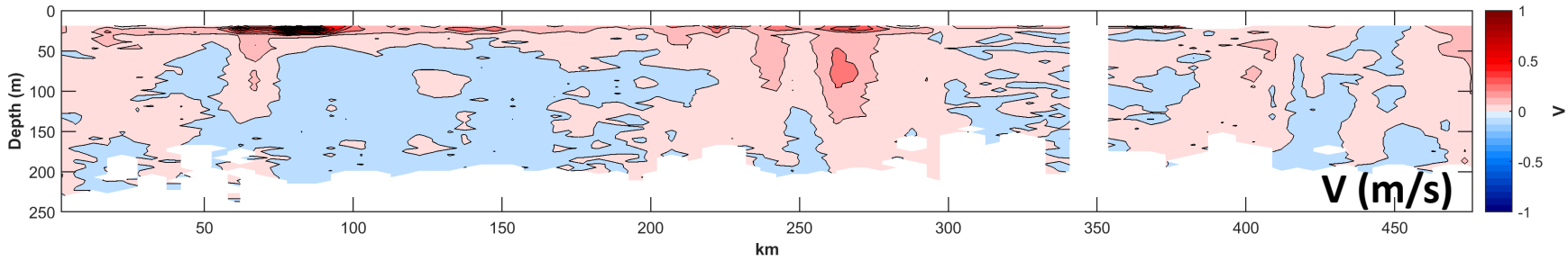
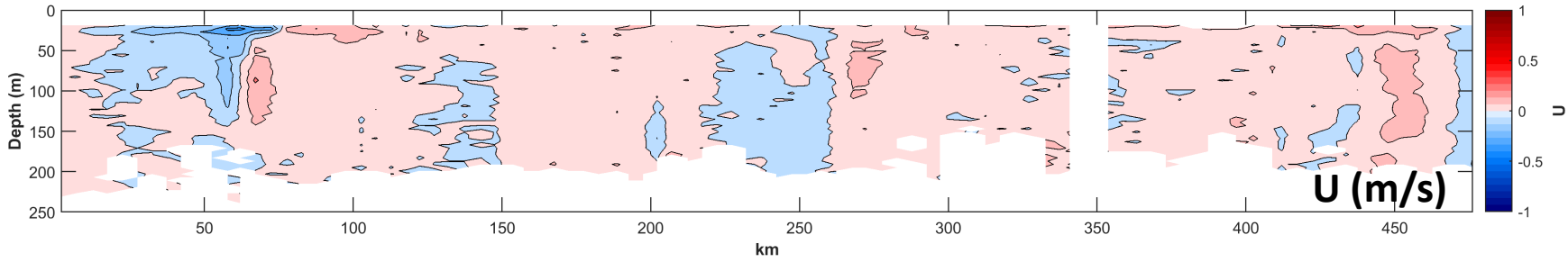
# Sea Surface Salinity





# Ocean Currents

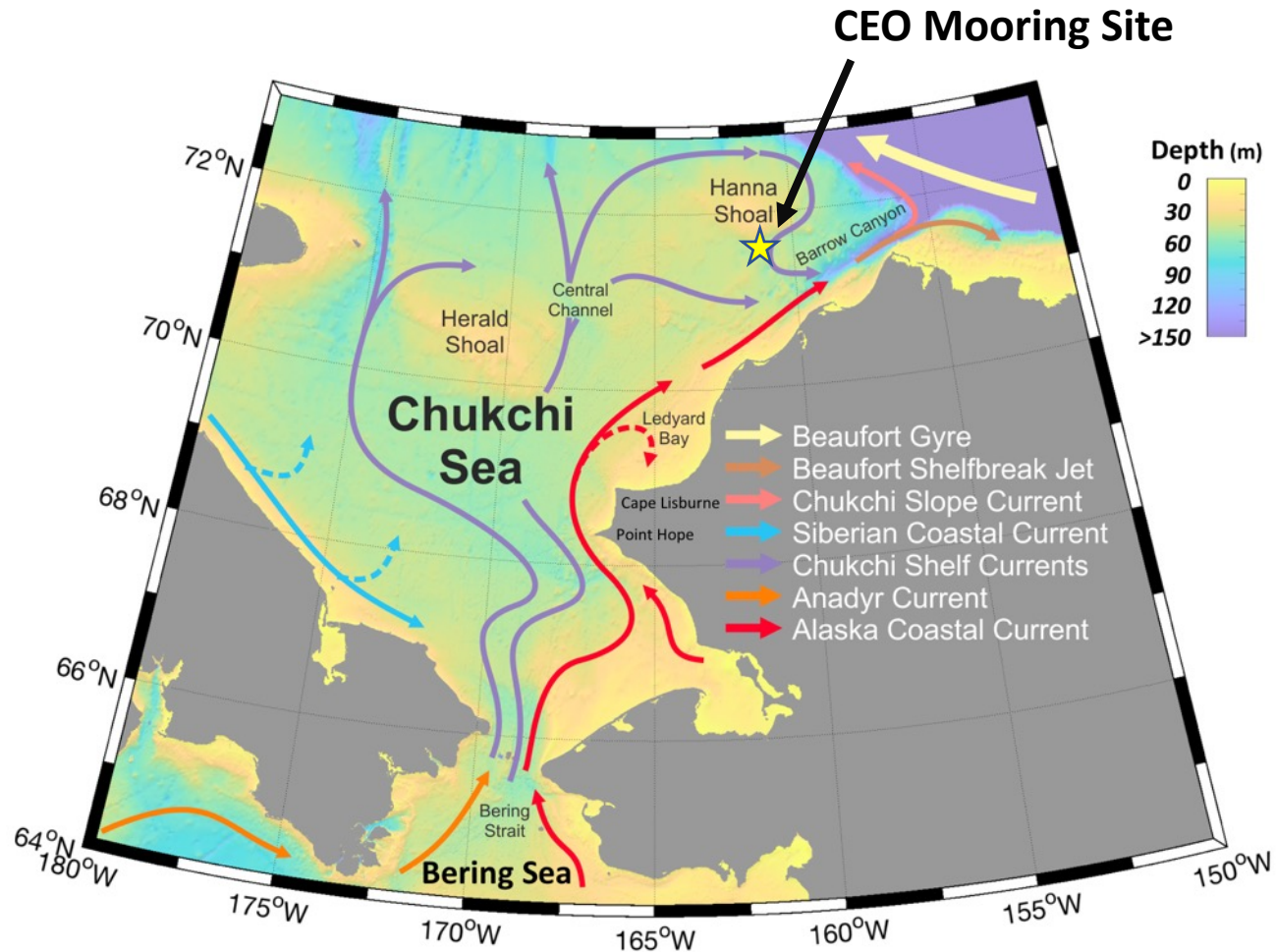
Northwind Ridge Transect (5 km averages, 150nb)



- SAS Cruise Track
- Northwind Ridge Transect

Changing depth of scatterers?

# Chukchi Ecosystem Observatory (CEO) Moorings



**AOOS**  
Alaska Ocean Observing System



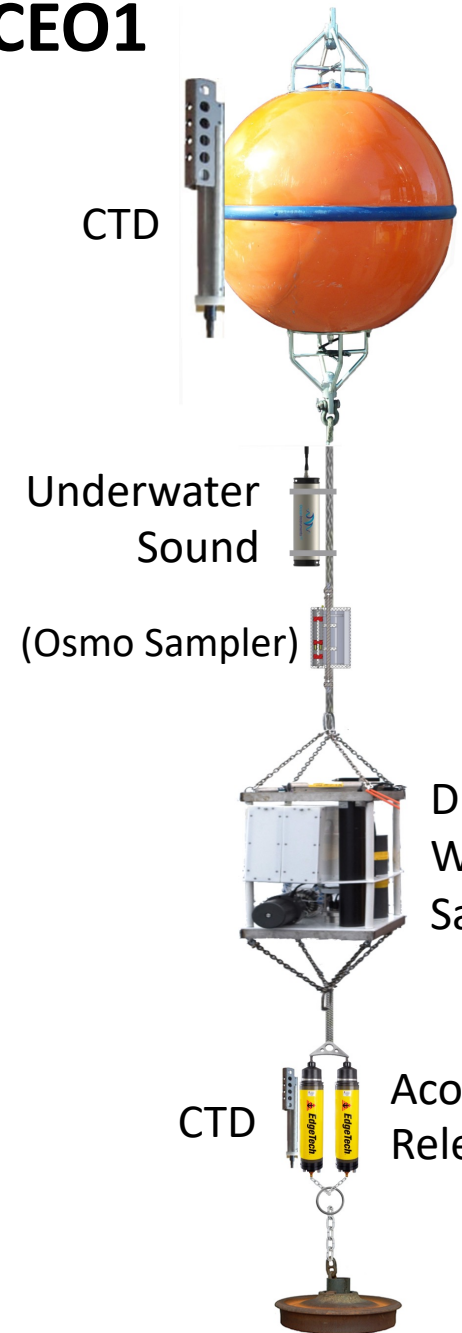
**BOEM**  
BUREAU OF OCEAN ENERGY MANAGEMENT



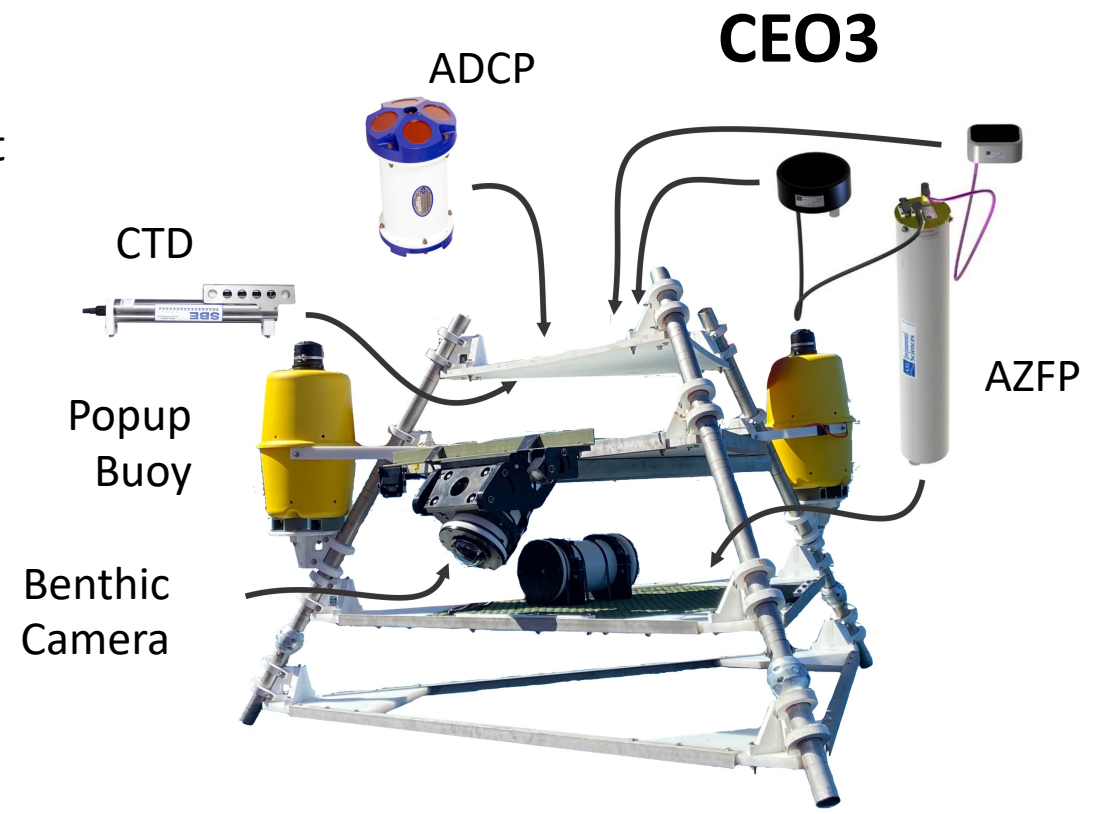
# CEO1

# CEO2

# CEO 2022 Mooring Configuration

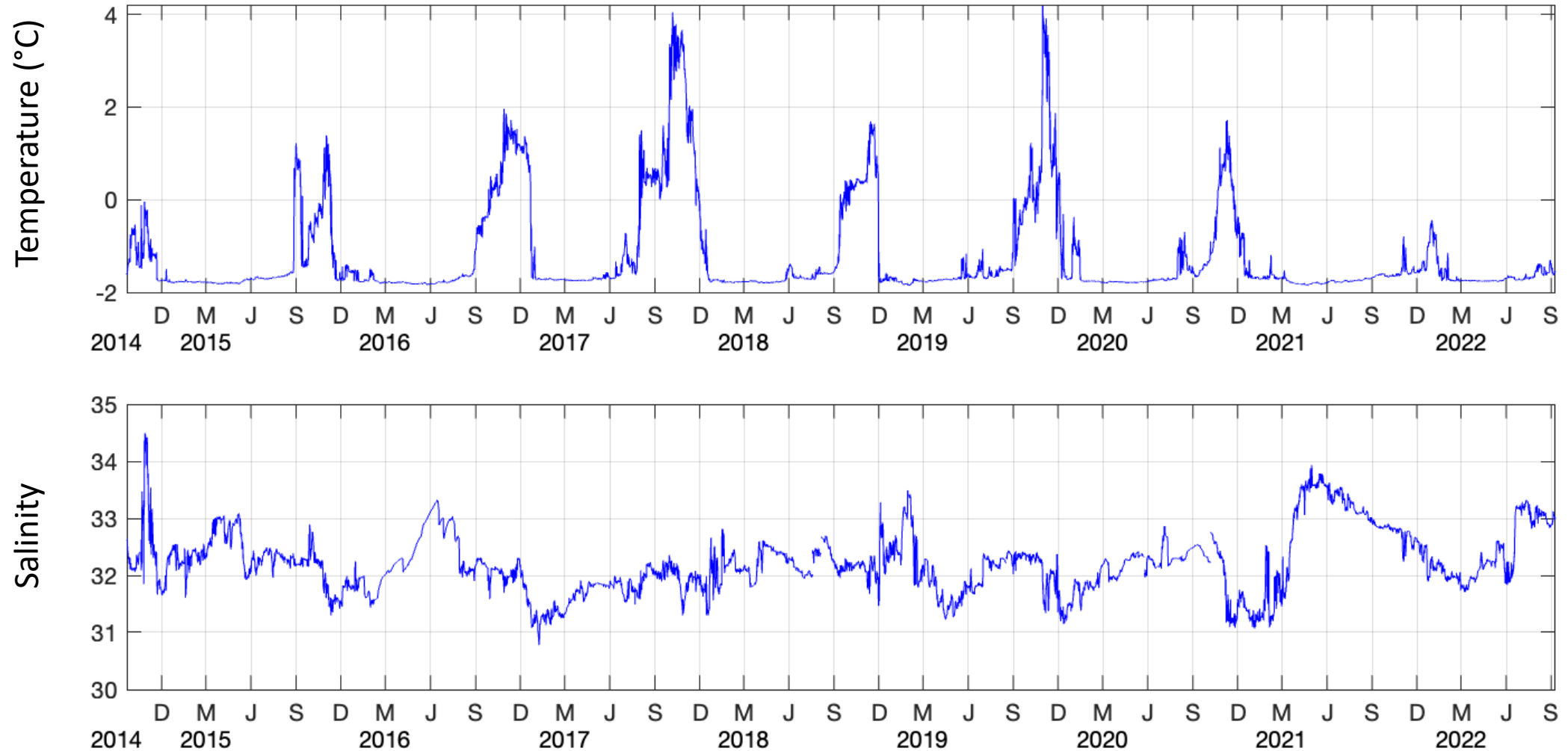


PAR, CDOM, CTD  
Chlorophyll a Fluorescence  
Optical Backscatter  
Dissolved Oxygen  
pH, pCO<sub>2</sub>, NO<sub>3</sub>



# Chukchi Ecosystem Observatory near-bottom T & S

SAS mooring recoveries added 2 years of data!



# HLY2202 T/S Distribution by Sample Region

Blue = 2<sup>nd</sup> occupation of HSE6

