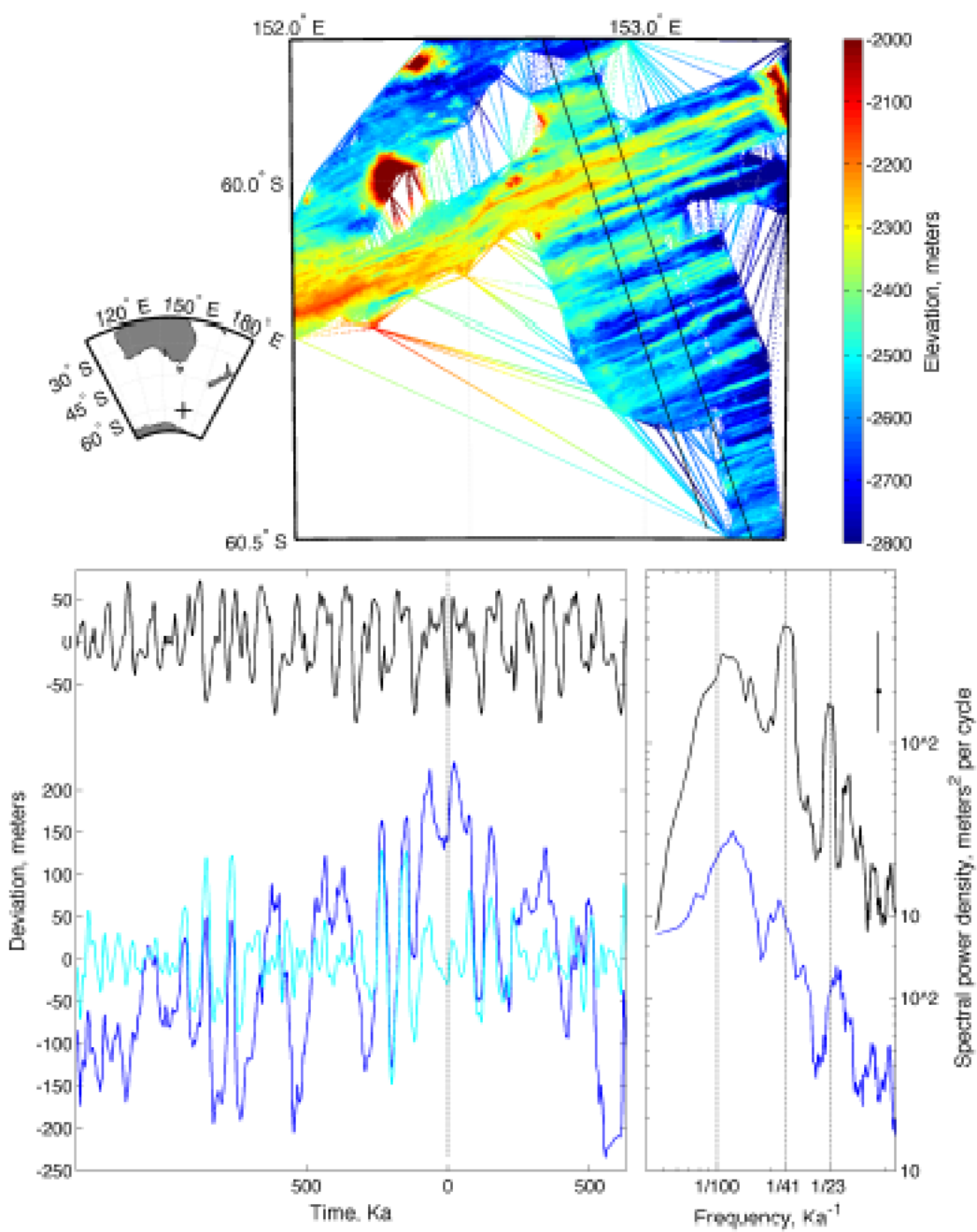


# Some brief remarks

- Lots of progress in last year—
  - Science paper looks to be accepted on sea level models and first bathymetric analysis of Korean data (Rich)
  - Field work in the Cascades last summer (Andy, Dave)
  - On-going work on ice sheets and sea level (Penn State, Jerry)
  - Sediment cores from mid-Atlantic ridge analyzed with intriguing results (Sujoy, Jenny)
  - SeaVOICE cruise very successful (Suzanne, Peter, Jerry, Ghisela, Kassandra)
  - Surprising petrological results from SeaVOICE may now entrain German colleagues (Charlie, Dave, Yinqi)



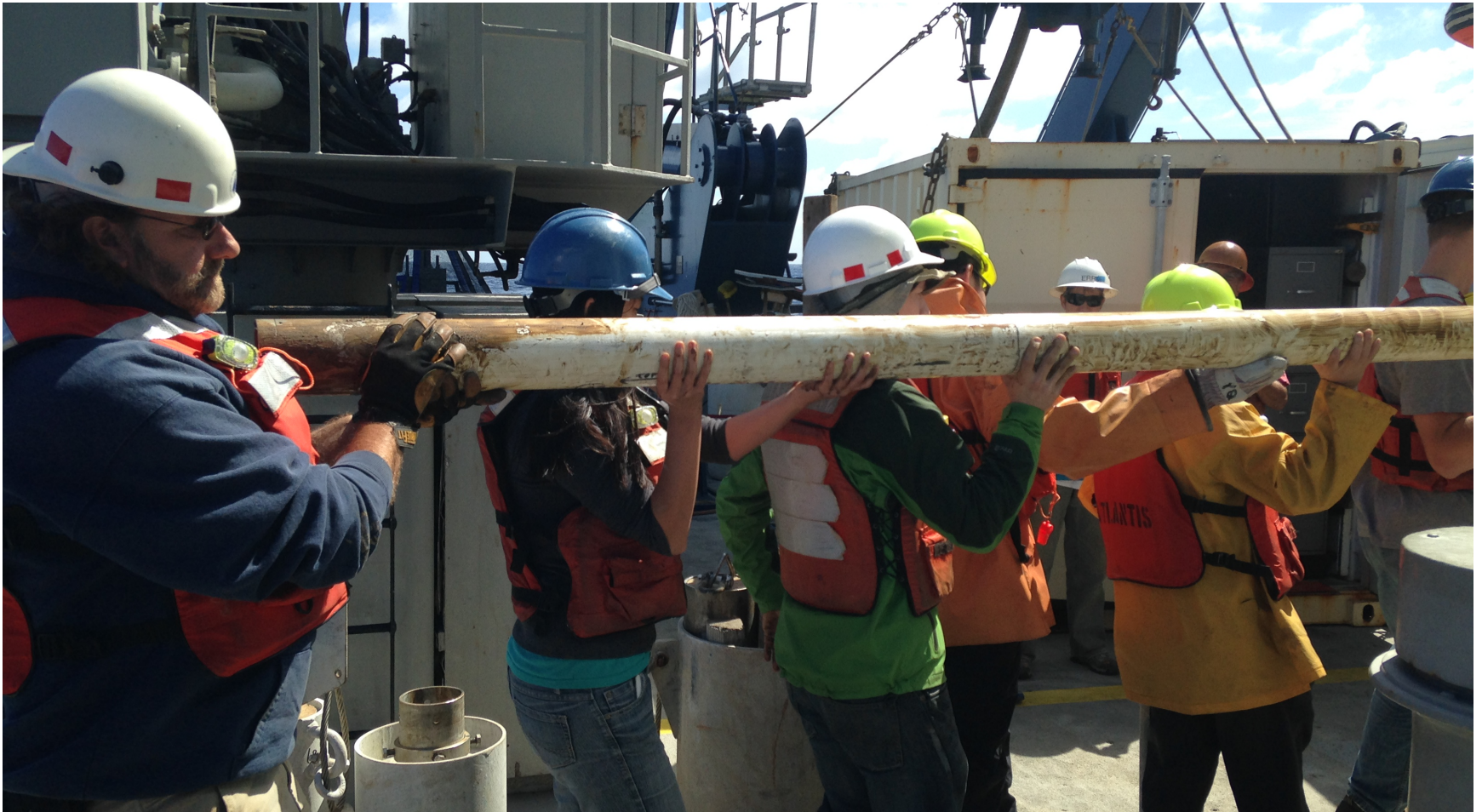


# SeaVOICE

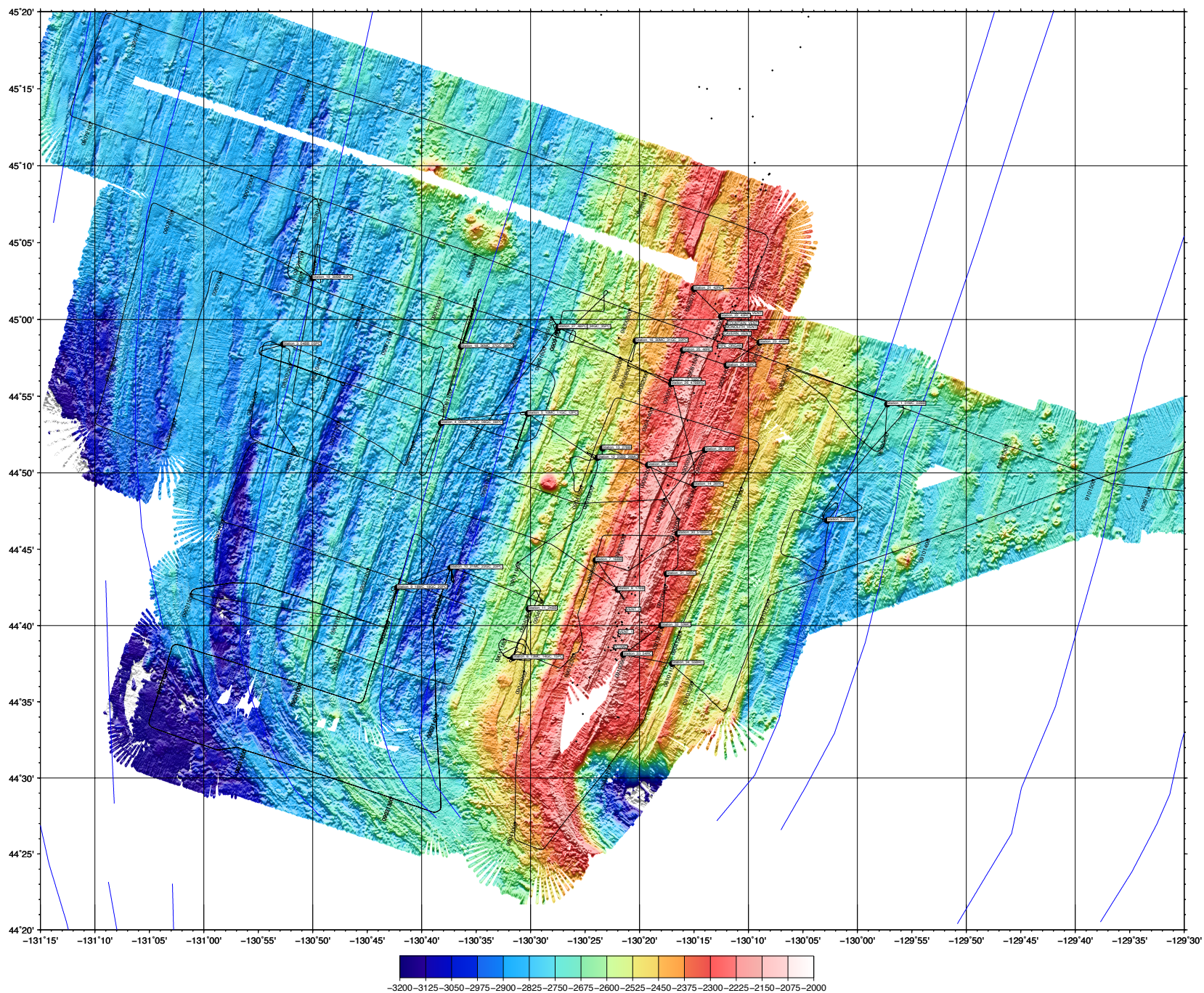
- AIMS ACCOMPLISHED
  - Very large sediment archive over many glacial cycles in three transects perpendicular to ridge
  - Wonderful new bathymetric data set
- SERENDIPITY HAPPENED
  - Most of the cores also recovered basalt
  - Glass chips distributed through the cores may give first real time series data from ocean ridges
  - Opens up new frontier of off-axis sampling for MORB



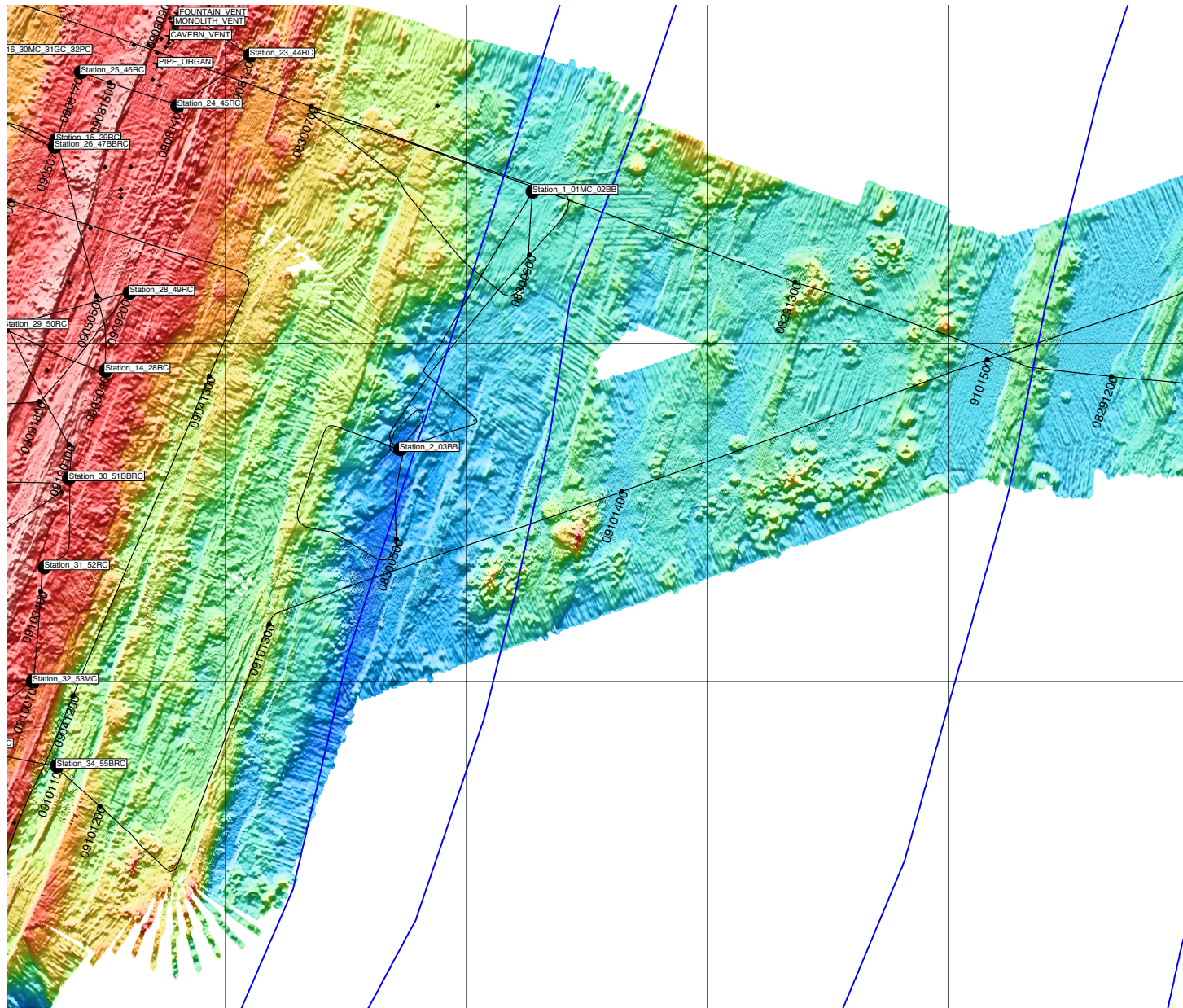
# We were there to map and core



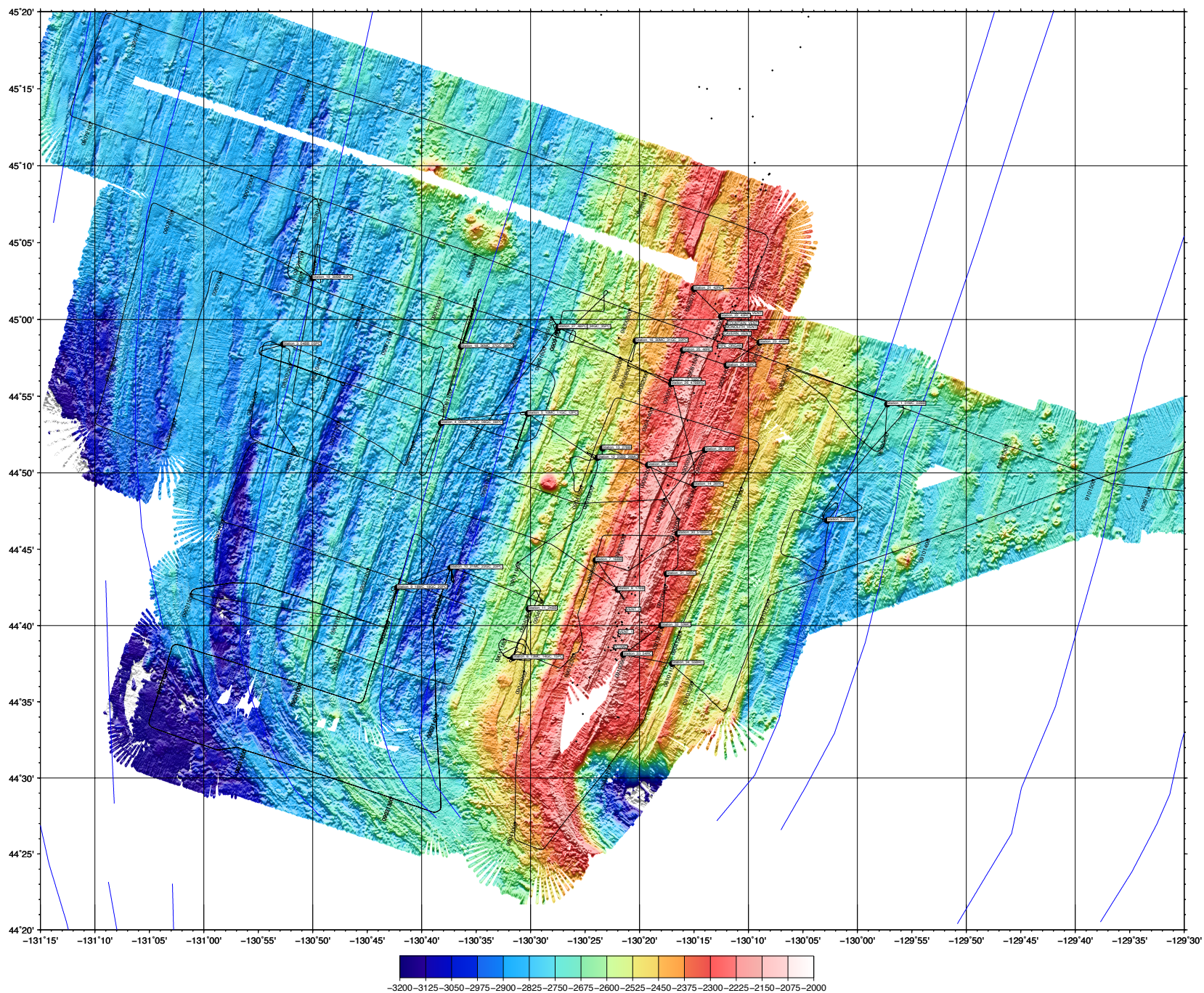






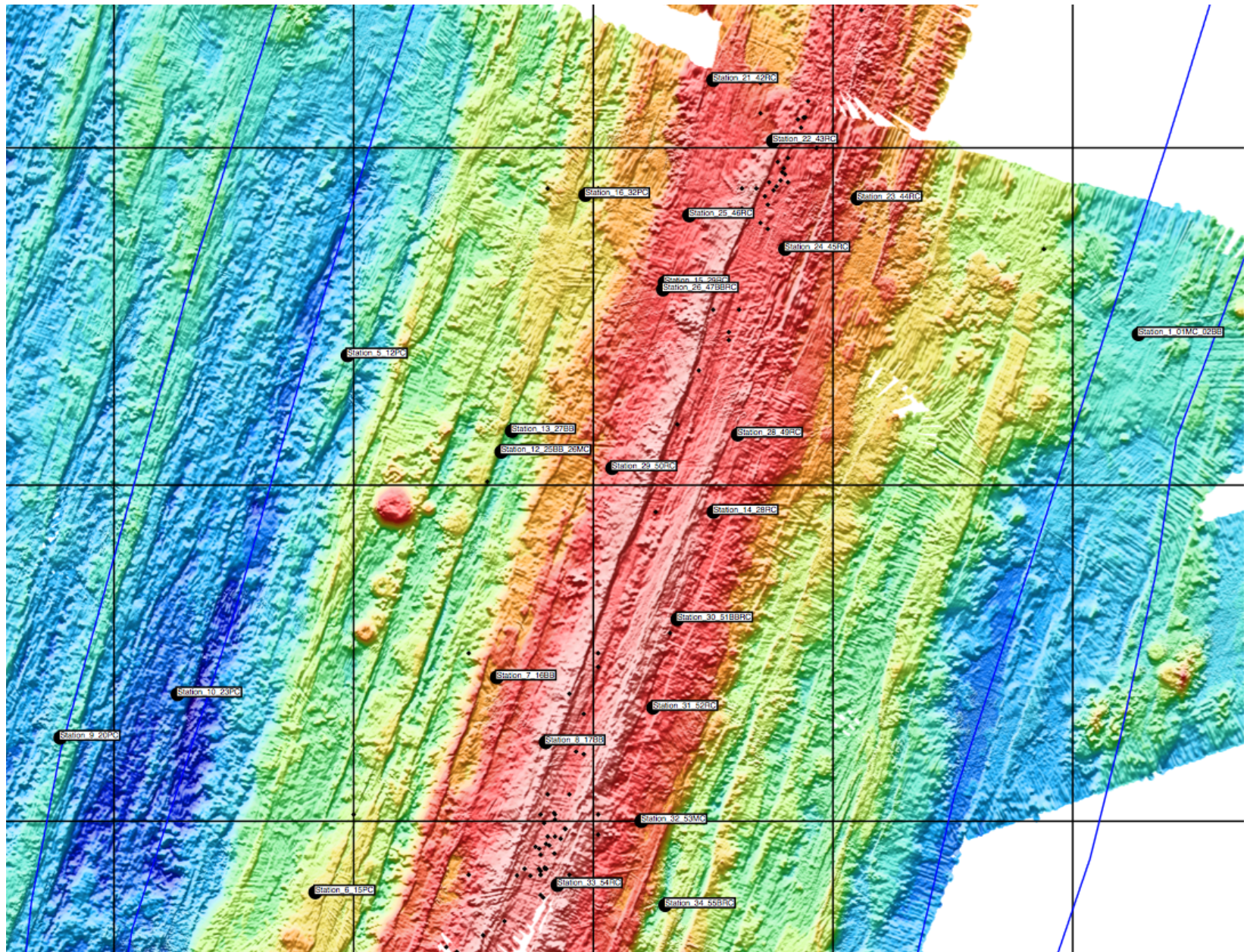








# STATIONS WITH BASALT









# Juan de Fuca Sampling



# Gorda Sampling





# Current perspective on ocean ridges is almost entirely “zero age”

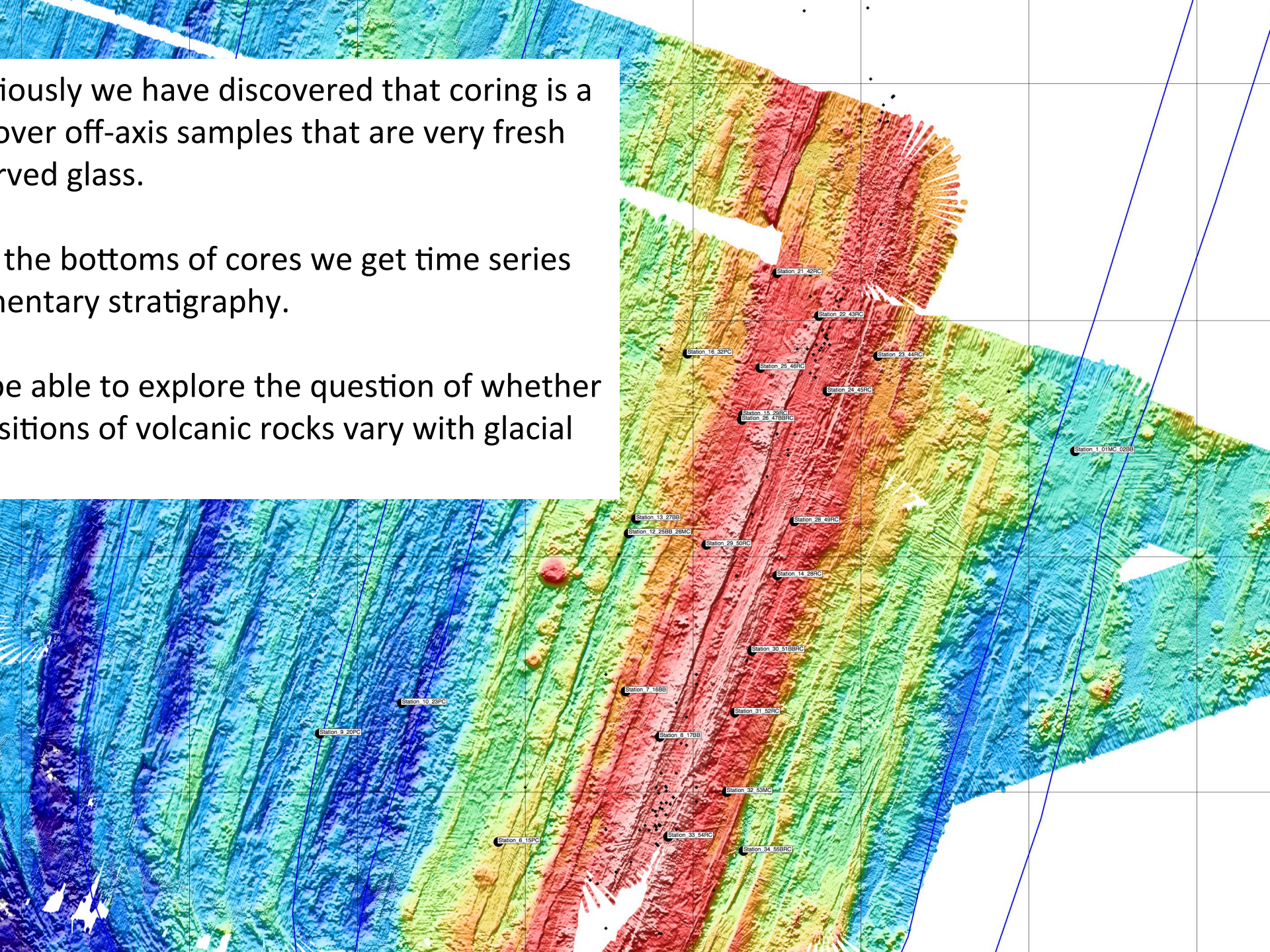
- Almost no off-axis information Why?
  - Rocks are hard to recover
  - Recovered rocks are highly altered
  - Why are old rocks that should be sedimented at the surface?
- No real time series informaton Why?
  - We can only recover zero age MORB
  - We cannot date them



Previously we have discovered that coring is a  
over off-axis samples that are very fresh  
rved glass.

the bottoms of cores we get time series  
mentary stratigraphy.

be able to explore the question of whether  
ositions of volcanic rocks vary with glacial





- From the petrological side it turns out we have hundreds of samples to analyze, opening a new frontier of exploration
- These new results have rekindled the enthusiasm of our German colleagues, raising the possibility of a German cruise in 2016 or 2017. That timing might allow us to have many exciting results that could focus that cruise's objectives.