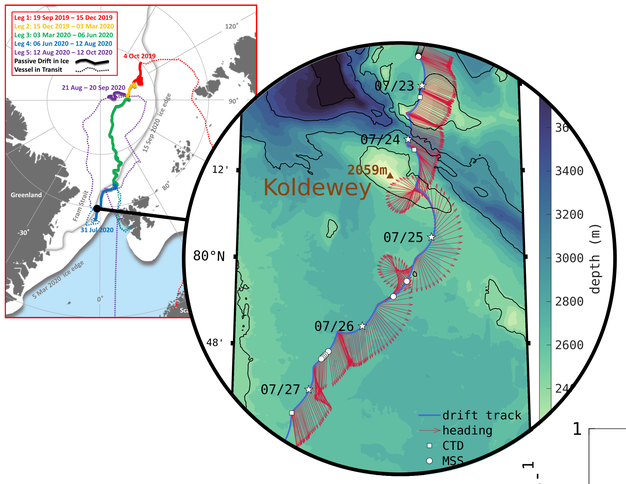
# You spin me right 'round, baby, right 'round...

## ... like our ice floe, baby ... [leg 4, July 24/25; 80°N 1°W]

On July 24/25, our MOSAiC floe - which was oriented steadily before and after - revolved around twice!

by K. Schulz, T. Baumann, M. Muilwijk, C. Mohn; special thanks to C. Schulz for his photoshop work.

## All I know is that to me...



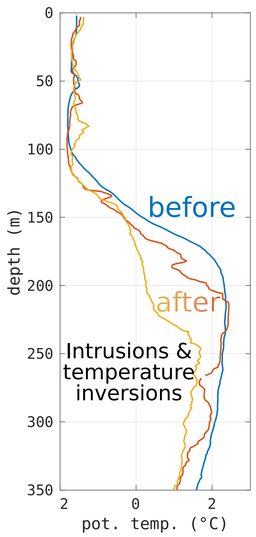

... it seems like the onset of the rotation coincided with the drift passing the **Koldewey Seamount** (1000m x 26km).

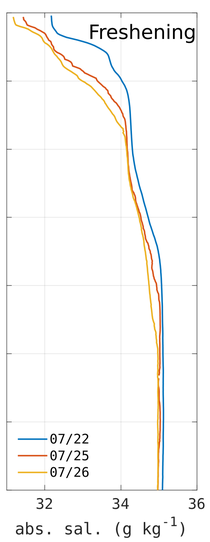
Topographic features like seamounts interact with mean and tidal currents, potentially resulting in a variety of anomalies in the current regime.

## ... you look like you're lots of fun

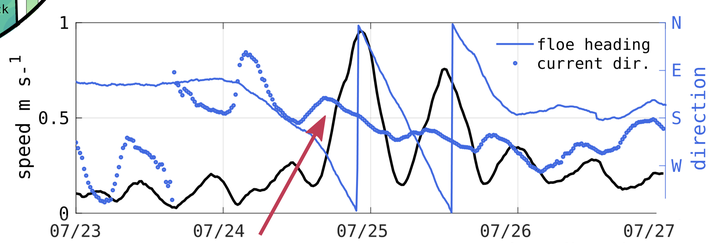
Seamounts are often associated with enhanced mixing, transporting nutrients to the surface layer and fueling primary productivity, and they can harbor distinct ecosystems. Plus, this seamount seems to have effected the surface currents, thereby potentially creating regions of ice convergence or divergence.

The passing of the seamount also came with a change in the upper water column structure (MSS):



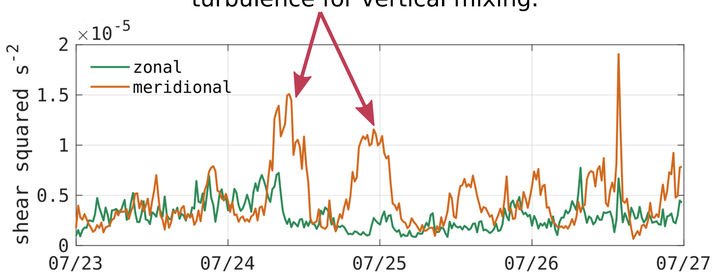

In our ADCP data, we see:




Maximum current speeds increased from around 0.1 m/s to 1 m/s.

Flow direction was steady towards south.

We also see semidiurnal peaks in the vertical shear (= the difference in current speed), a source of turbulence for vertical mixing.




## Open up your data sets!

So, we call for collaborations! If you've seen anything sketchy in your data, or think your data could contribute to better understand the impact of this seamount, leave your name here or grab one of the contact information below and shoot us an email!

satellite data for local sea ice dynamics:

_____

chl-a and PP before and after passing the seamount:

_____

ocean model results to get the "bigger picture" + variability

_____

more ocean data:
- T/S:_____
- fluxes:_____
- DN:_____
- SSH from satellite:
- _____
- ...

L2 floe also spun ~180° when passing seamount!
— M. Shupe