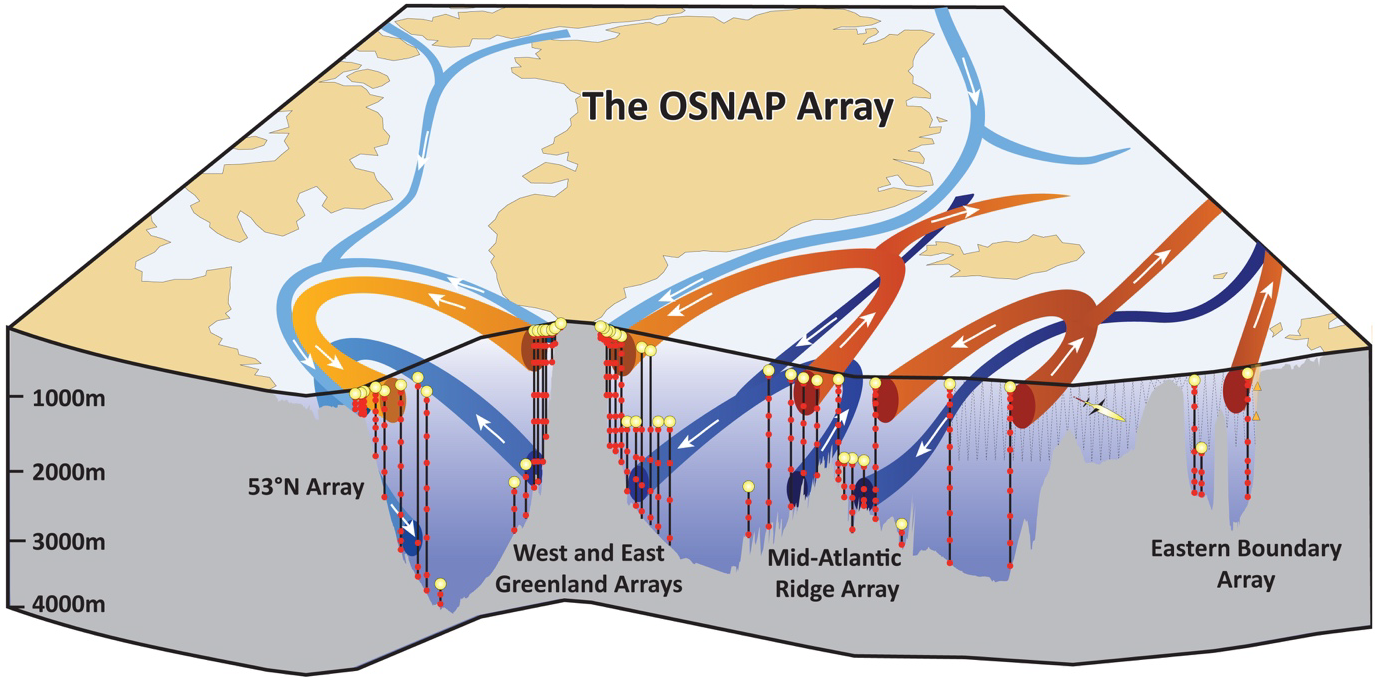
# Overturning in the Subpolar North Atlantic Program: OSNAP




- Deployed: Summer of 2014
- First data products (MOC, MHT and MFT time series): Summer or fall of 2017
- For more information: See www.o-snap.org and recent BAMS article, Lozier et al. 2016.

**Overall goals:**

1. Quantify the subpolar AMOC and its intra-seasonal to interannual variability via overturning metrics, including associated fluxes of heat and freshwater.

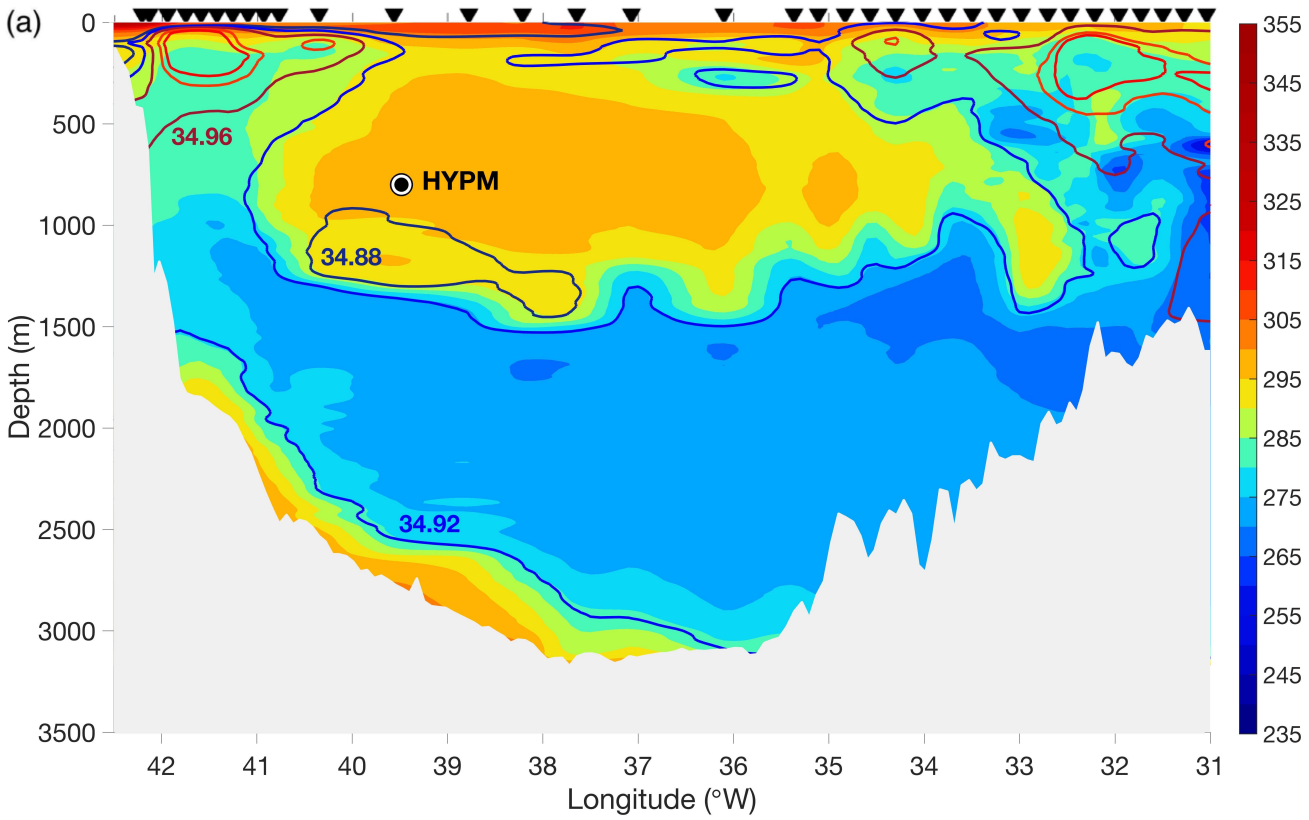
2. Determine the pathways of overflow waters in the SPG to investigate the connectivity of the deep boundary current system.

3. Relate AMOC variability to deep water mass variability and basin-scale wind forcing.

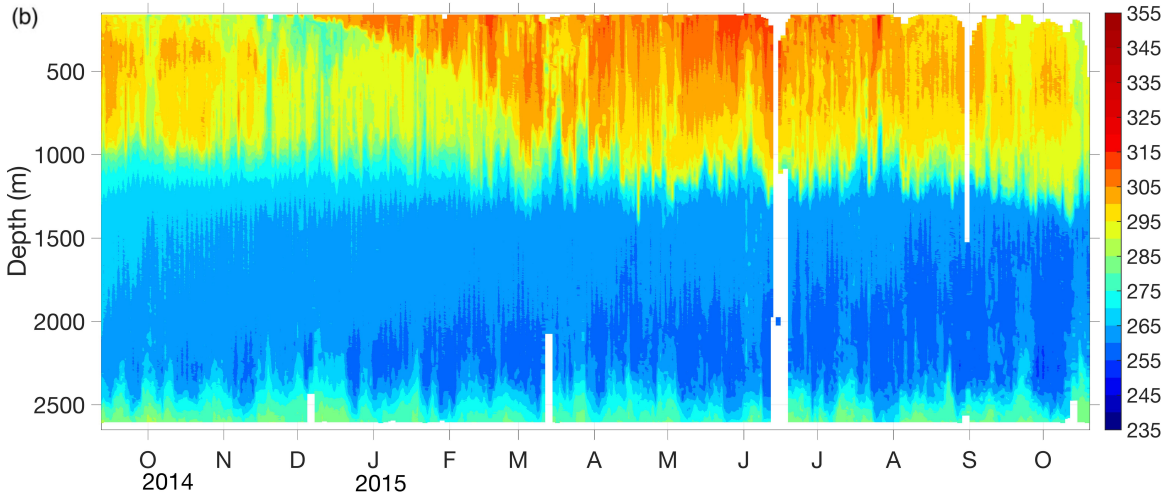
4. Determine the nature and degree of the subpolar-subtropical AMOC connectivity.

5. Determine from new OSNAP measurements the configuration of an optimally efficient long-term AMOC monitoring system in the SPG.

# Preliminary look: strong convection in the Irminger Sea




**Dissolved oxygen (µmol kg$^{-1}$) in the Irminger Sea in July 2015.** Oxygen is shaded; salinity is contoured and CTD station locations are indicated with triangles at the top.




**Time-series of dissolved oxygen (µmol kg-1) from the OOI HYPM mooring**. The location of this mooring is indicated with white circle in the left panel.

- **Finding**: Deep convection in the winter 2014/2015 revealed from the first year OSNAP data in the Irminger basin.
- **Goal**: To understand how deep water formation links to the AMOC in the SPG

Figures 6a and 6b from Lozier et al., 2016