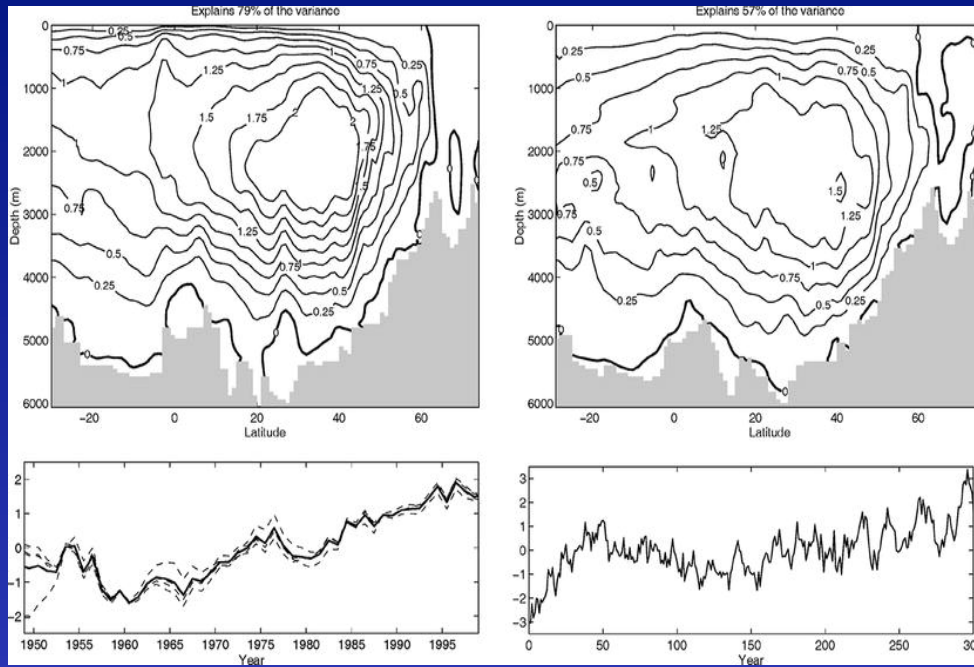
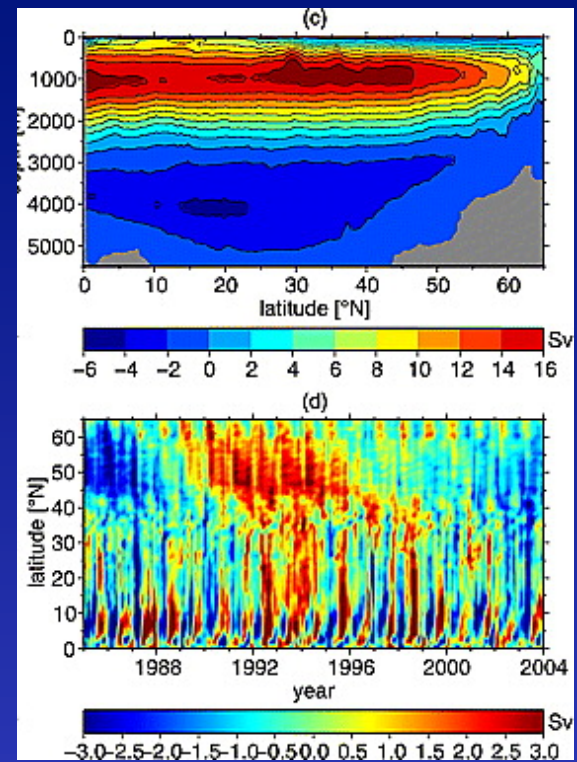


# AMOC Observations WG summary



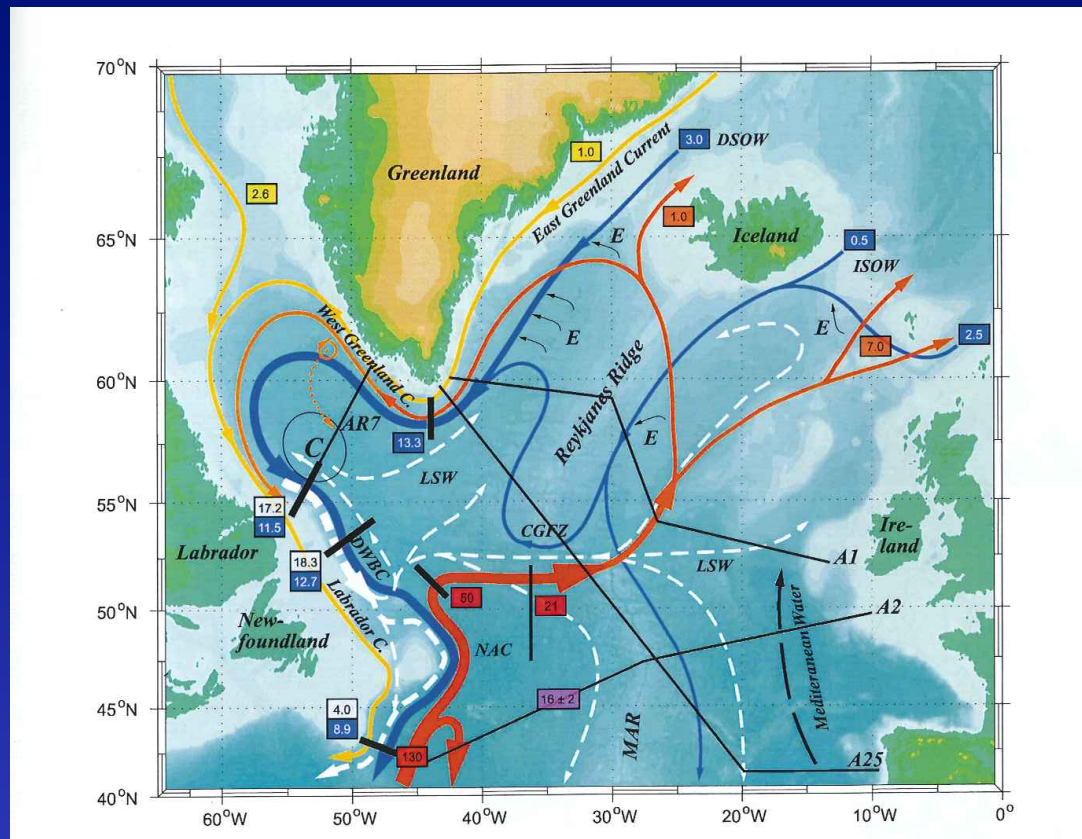
*Bentsen et al. (2004)*



*Bingham et al. (2007)*

## What do we need to know to adequately describe/monitor AMOC variability?

- dominant meridional (y-z-t) modes of variability, and associated time scales
- meridional connectivity/coherence of MOC fluctuations
- 3-D pathways related to these modes
- relationship between deep water formation and changes in AMOC strength/structure
- overturning in density, T/S space?
- observing the coupled AMOC-atmospheric system (e.g. compensation in carrying net MHT)



# Subpolar:

- Continuous transport section across southern Labrador Sea (need overturning in density space)
- subpolar net “export” line (exactly where and how TBD...)
- monitoring of freshwater flows, circulation/export in WBC’s (coastal arrays, drifters...)
- Arctic/AMOC connectivity, cryosphere
- exploration of high-res. synthesis models with enhanced profile (ARGO/glider) coverage

## South Atlantic:

- Provides interhemispheric variability of AMOC system, and link to interbasin connectivity.
- Preliminary system in place along 35S, needs enhancement to measure deeper water column and improve boundary flux estimates. Ship resources available at both boundaries.
- Drake PIES/XBT monitoring system in place; GooHope until 2012 (?)
- SAMOC workshop (Paris, June 2009)

## Subtropical N. Atlantic:

- Possibly augment MOVE line with upper ocean closure (Guadeloupe to Trinidad). Provides full-water column AMOC; captures warm limb flow pathway into N. Atlantic.

## Recommended Action:

- Workshop to develop plans/proposals for extended AMOC network. Main focus on subpolar region, “export” lines and approaches.