

Rapid –AMOC Baltimore, July 2013

Measurements of AMOC Components in the Subpolar North Atlantic : NOAC

Monika Rhein

Dagmar Kieke, Christian Mertens, Achim Roessler, Reiner Steinfeldt, Maren Walter, Klaus Bulsiewicz, Wolfgang Böke

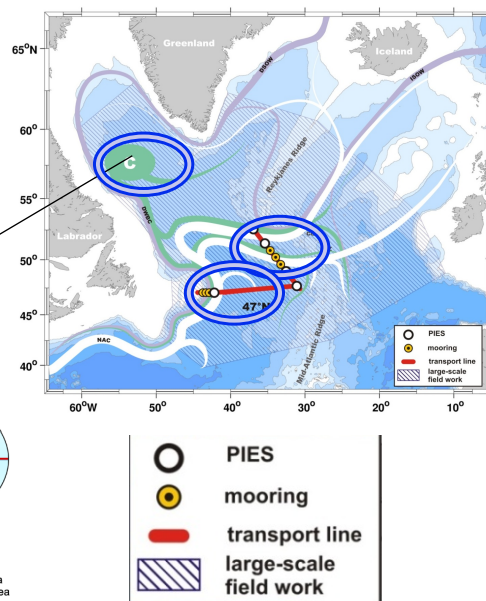
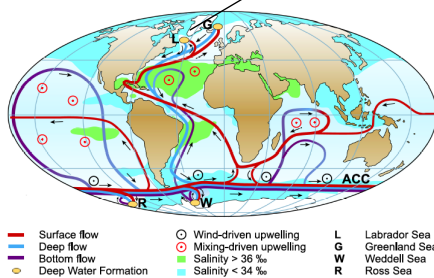


NOAC – key components of AMOC

I) LSW formation rates

II) Subpolar gyre transport variability

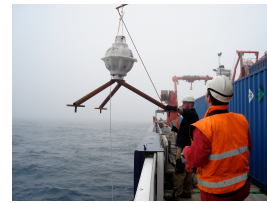
III) Water mass exchange across 47°N



II) Subpolar gyre transport variability

- 1) acoustic travel time bottom – top – bottom
- 2) bottom pressure

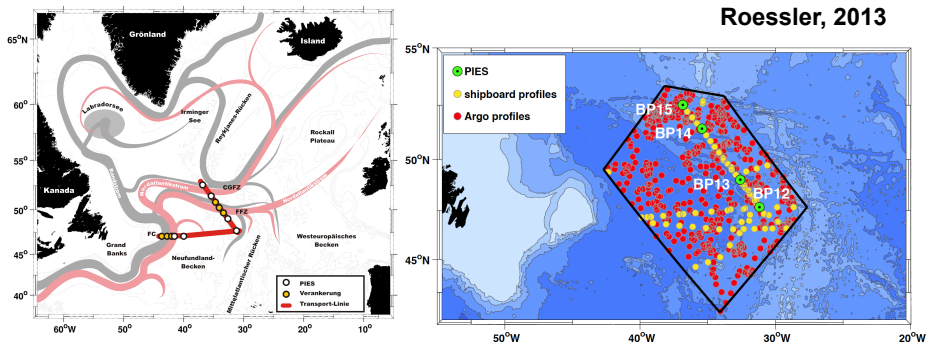
From 1) transport relative to 3400m; needs
„look up“ table made from CTD and Argo Profiles to
infer T/S profile from travel-time time series



PIES

From 2) Transport variability at 3400m from pressure time series

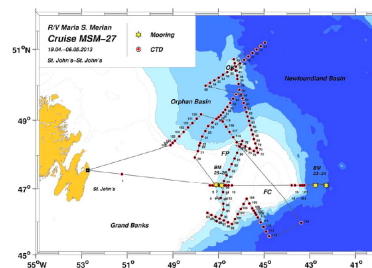
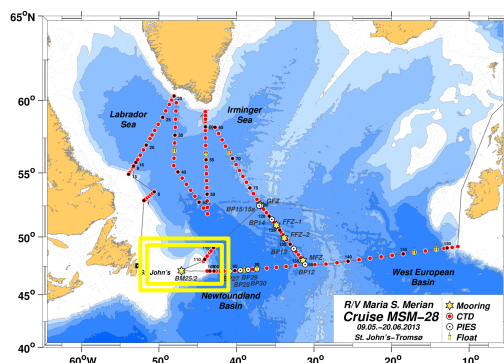
Roessler, 2013



Activities 2013

MERIAN Cruises MSM 28 May 9 – June 20, 2013

MSM 27, APRIL 10 – MAY 6 2013



D. Kieke (Uni HB), K. Jochumsen, (IFM HH), DFG Project FLEPVAR

Cruises and shiptime funded 2014 and 2015
BMBF Project RACE

