

Pending recovery in the strength of the meridional overturning circulation at 26N

B. Moat, D. Smeed, E. Frajka-Williams, D. Desbruyères, C. Beaulieu, W. Johns, D. Rayner, A. Sanchez-Franks, M. Baringer, D. Volkov, L. Jackson, H. Bryden

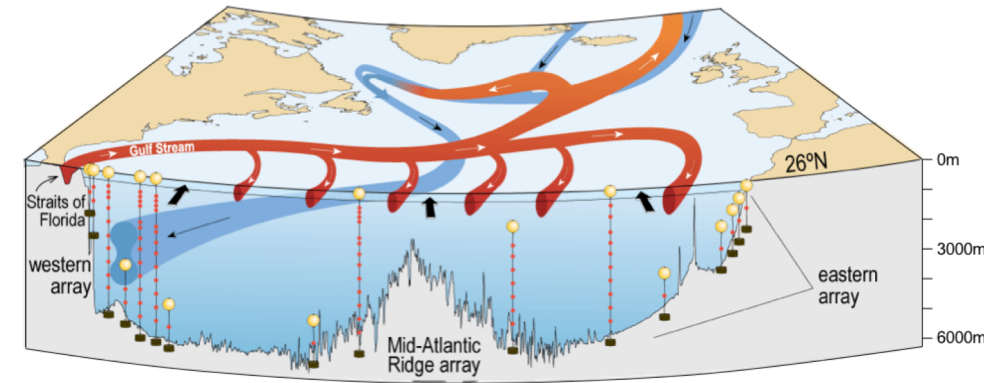
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Paper available here →



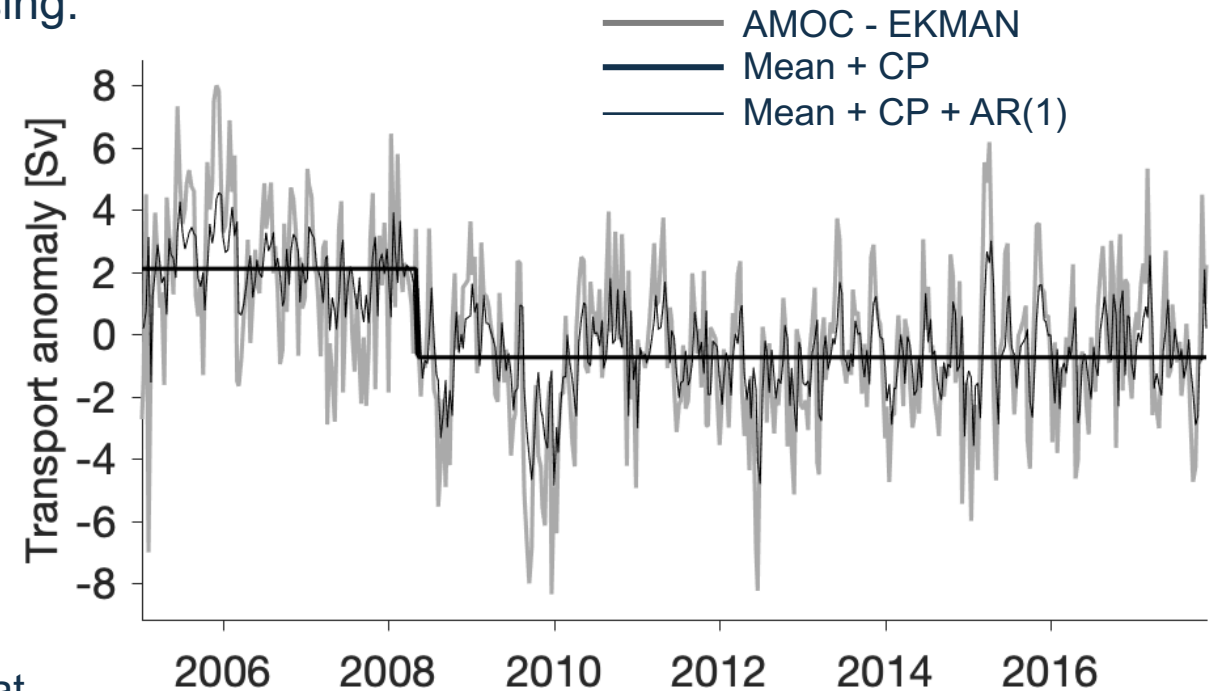
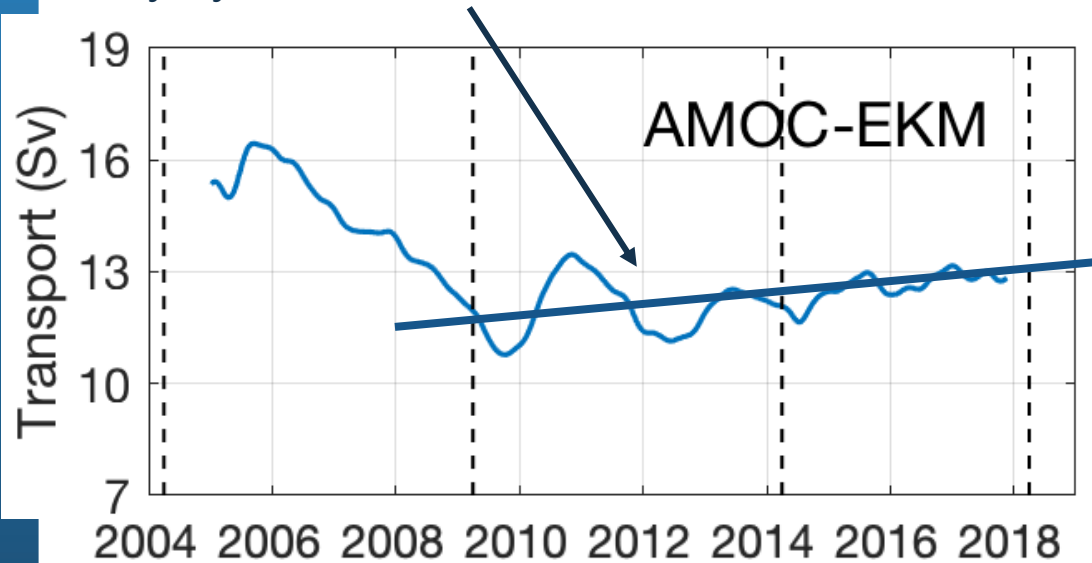
RAPID AMOC 26N



- 14 years (2004 to 2018) of continuous observation of the AMOC, and the freshwater and heat transports.
- 18 tall moorings
- 155 MicroCAT CTD's, 61 current meters, 43 MicroCAT oxygen CTD's, 3 ADCP
- Data set cited 4695 times since 2004
- <https://www.rapid.ac.uk/rapidmoc/>

Is the AMOC increasing?

By eye it looks like the AMOC - EKMAN is increasing.

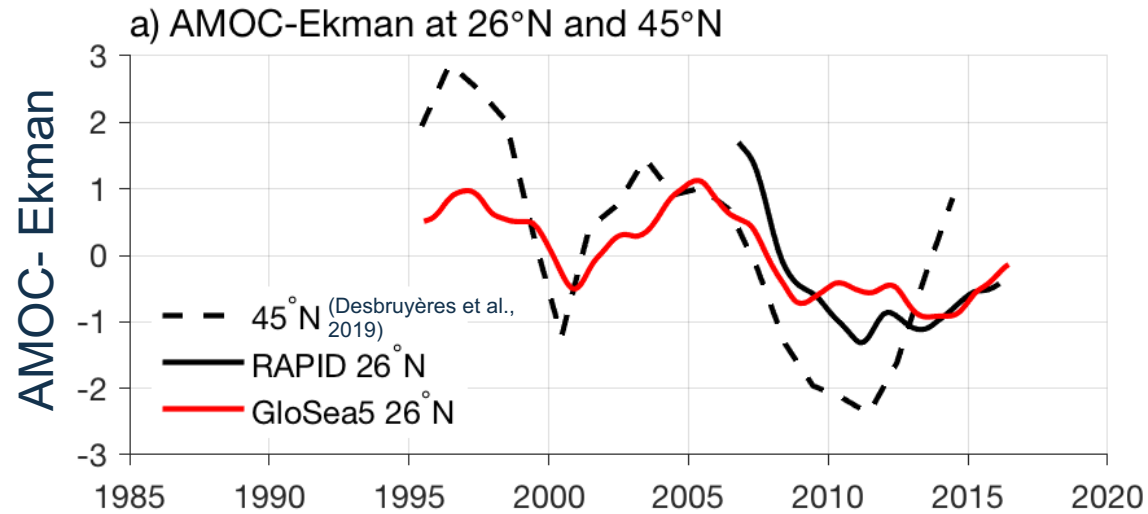


To investigate the low frequency changes in the AMOC at 26N we used change point analysis of Beaulieu & Killick (2018)

NOT A SIGNIFICANT TREND

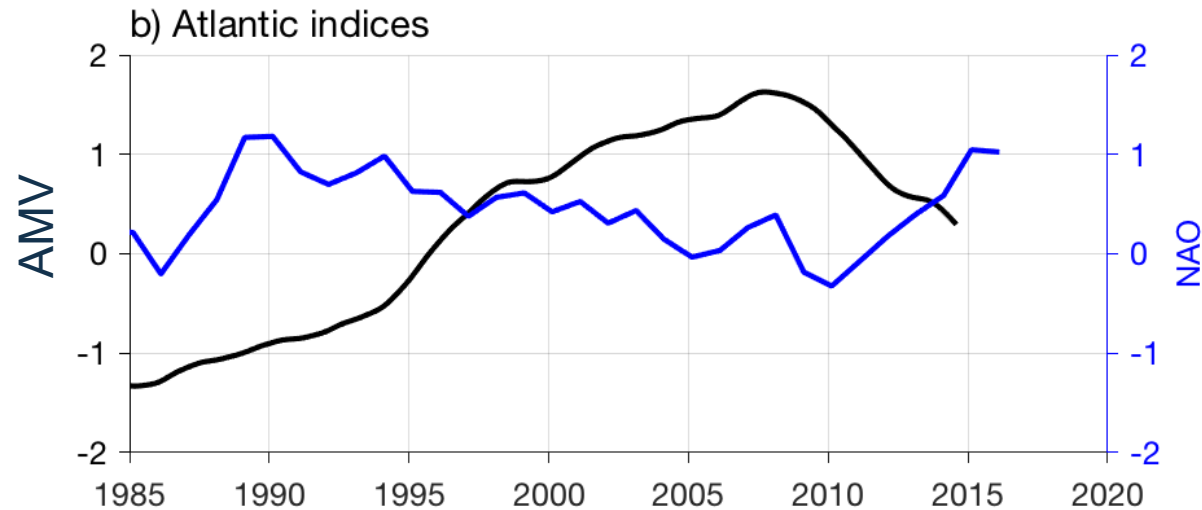
A changepoint (CP) exists around 2009-2010, but with constant mean values before and after

Climate of the North Atlantic



**The AMOC at 45°N shows an increase since 2011
Is this consistent with changes at 26N?**

- Later response of AMOC at 26°N
- BUT the upturn at 26°N not statistically significant



**How do these observed changes relate to the
Climate of the North Atlantic?**

- AMOC peak at 26N around 2005
- Followed by a reduction in AMV around 2008
- Decreasing AMOC and AMV is followed by an increasing NAO (agrees with Sutton et al., 2018)

See paper for processing details

SUMMARY

- **AMOC possibly recovering (not statistically significant)**
- **AMOC and SST (AMV) do not respond simultaneously**
- **Need a longer time series to further investigate low frequency variability**