University of Exeter

EGU25 Poster – Supplementary Material

Modelling the impact of AMOC variability on carbon uptake and transport in the North Atlantic Ocean using an inverse water mass model

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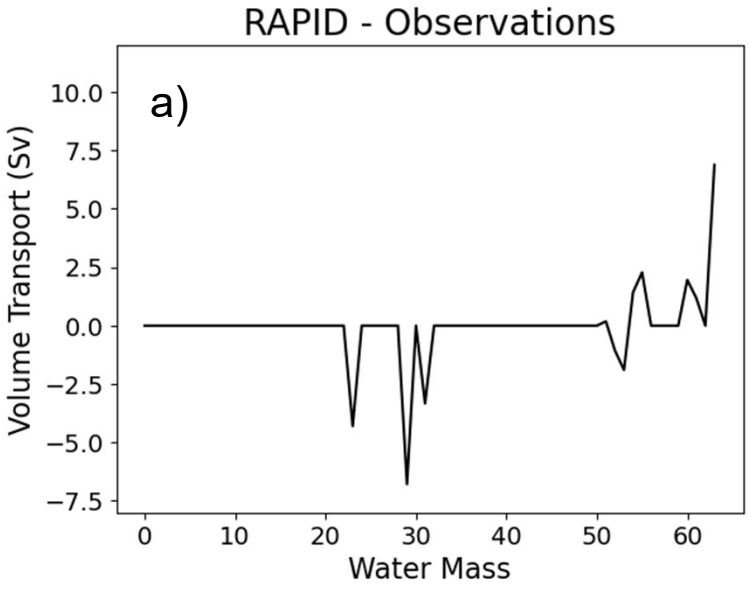
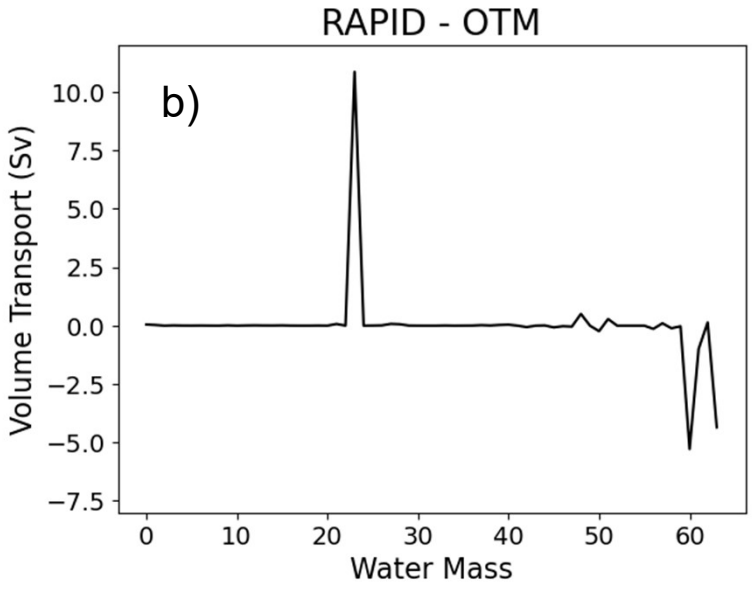
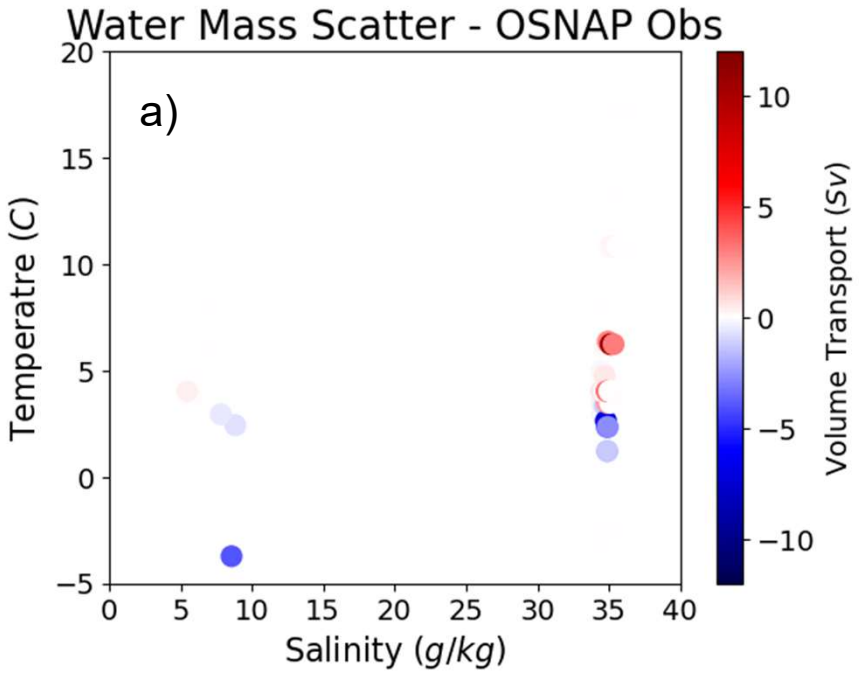
Sharing is encouraged

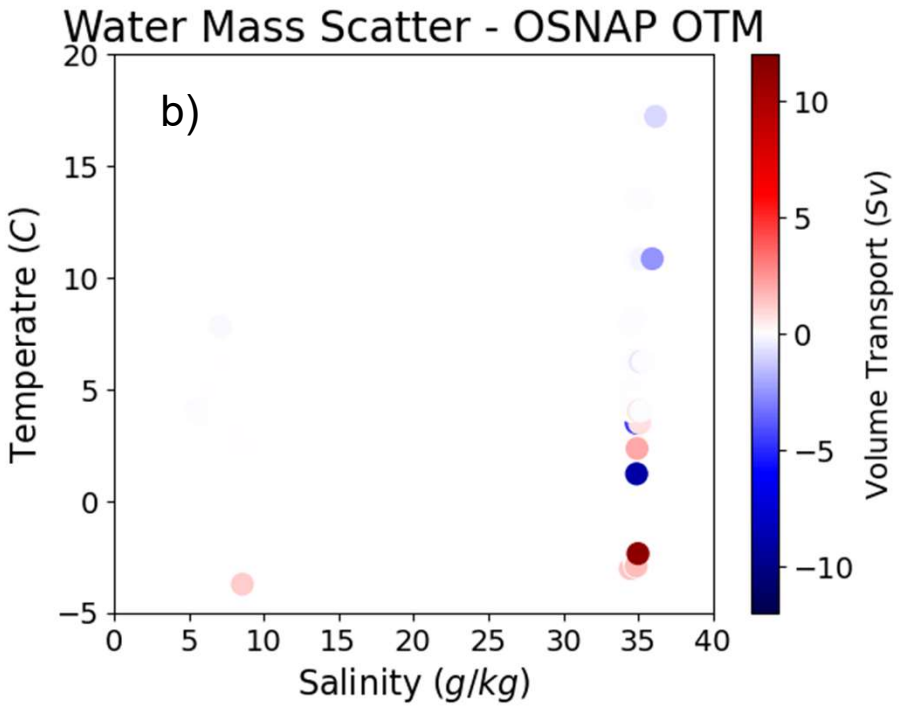
Volume transport for each water mass at RAPID given by a) the observations, and b) the OTM results.



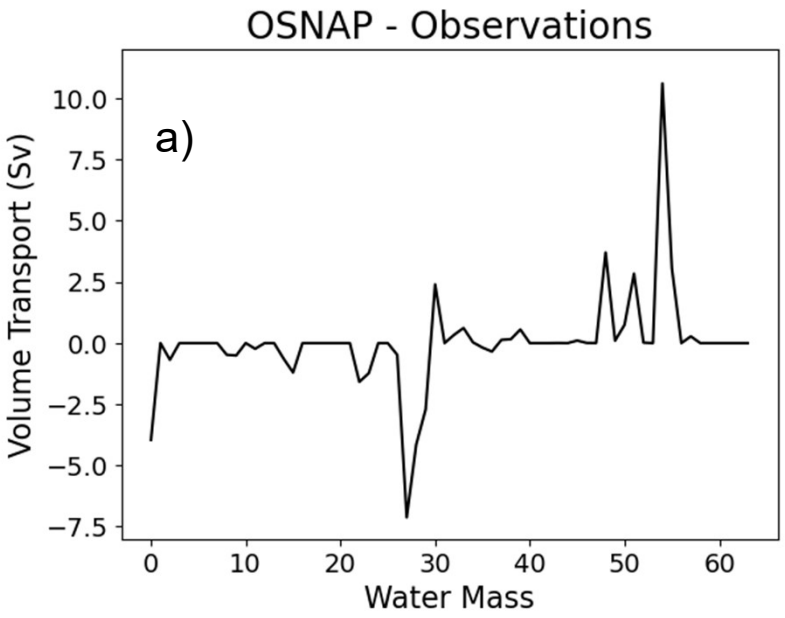


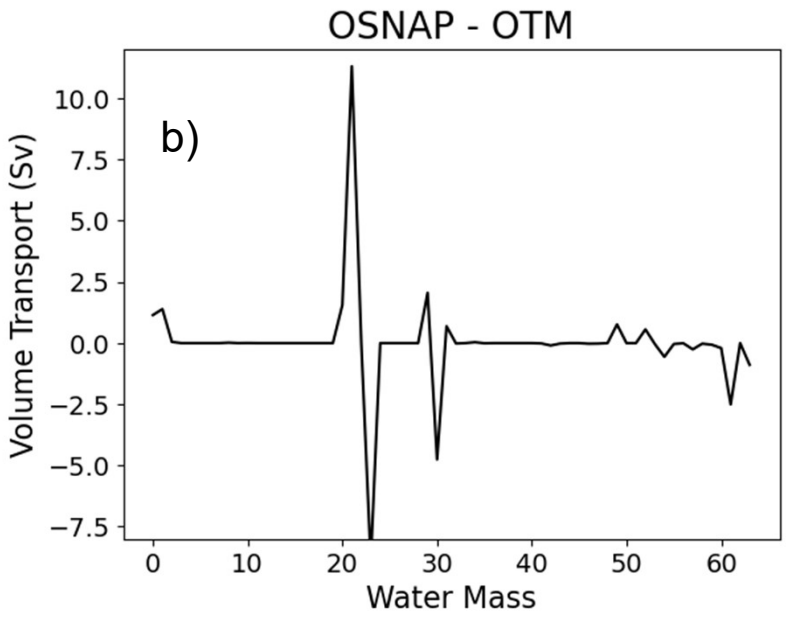
Volume transports in temperature-salinity space for each water mass at OSNAP in a) the observations, and b) the OTM results using ERA5 priors.



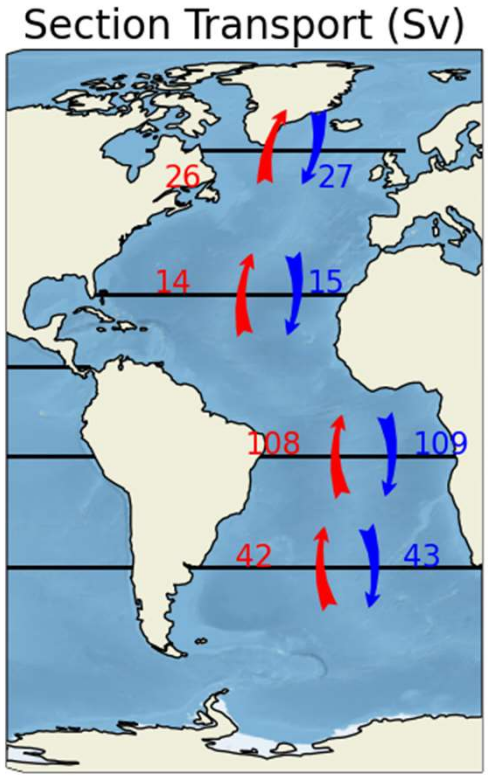


Volume transport for each water mass at OSNAP given by a) the observations, and b) the OTM results.

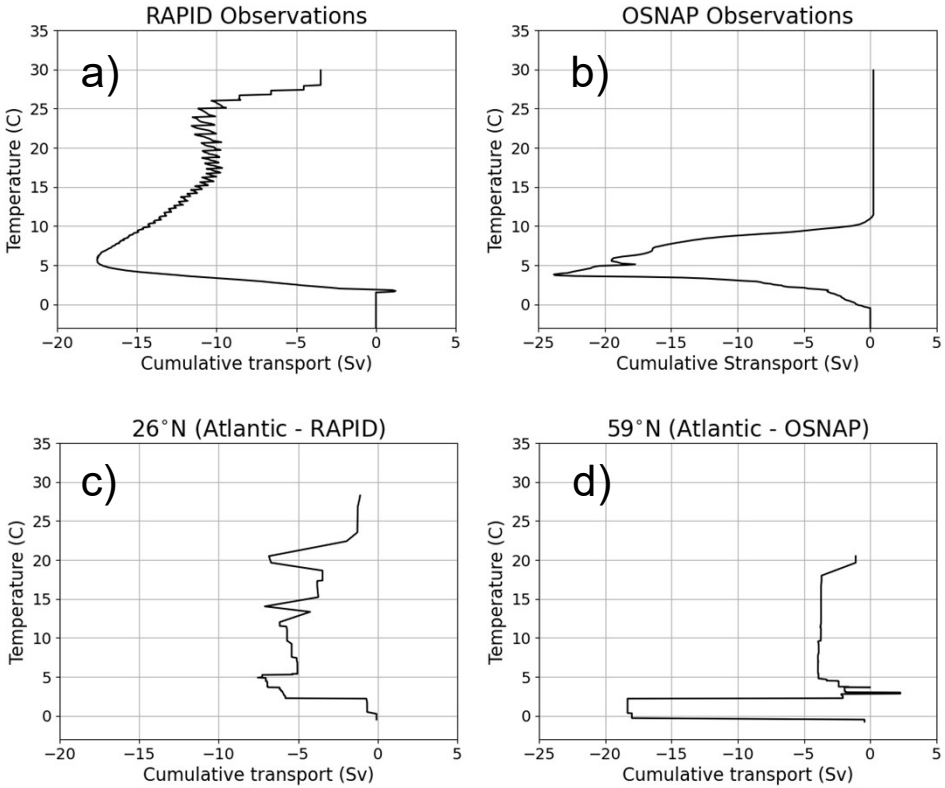




JRA55 Results

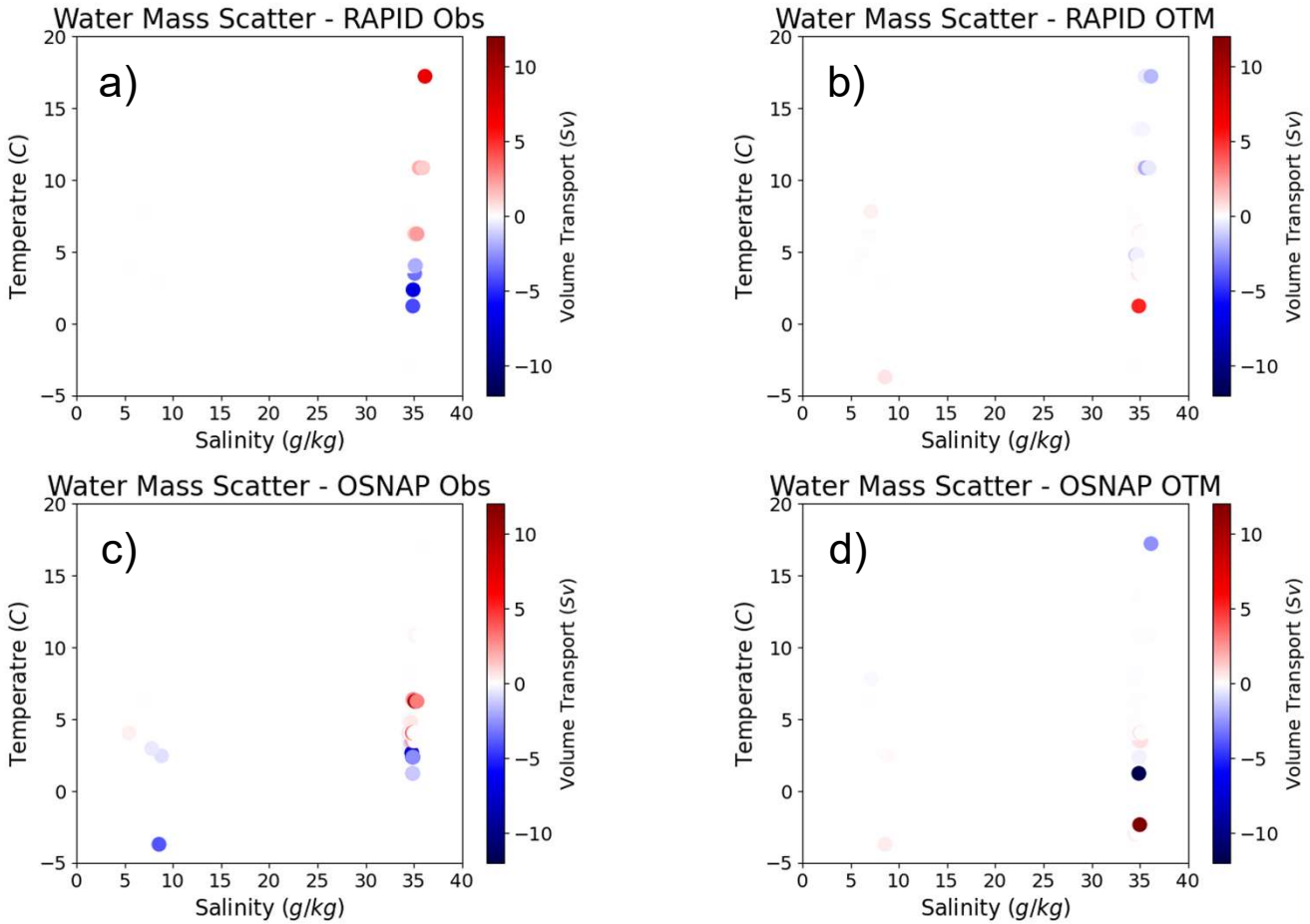


Net volume transports north (red) and south (blue) across the basin boundaries within OTM.



Streamfunctions of the cumulative volume transport in temperature space for a) RAPID observations, b) OSNAP observations, c) RAPID OTM results, and d) OSNAP OTM result

Volume transports in temperature-salinity space for each water mass at RAPID in a) the observations, and b) the OTM results, and at OSNAP in c) the observations, and d) the OTM results, all using JRA55 priors.



Carbon results for JRA55 priors