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Transport Time Series of Northeastern Atlantic Currents Derived from Long-Distance Geostrophy

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Moored sensors measuring temperature and salinity at key locations in the North Atlantic allow computation of volume transport across sections that cover major current features of the North Atlantic. The methodology involves combining the data with other observational systems, especially satellite altimetry and an independent mean dynamic ocean topography. Argo float data can augment the mooring data to improve accuracy or fill in data gaps. Results show interannual variability of the Irminger, North Atlantic, and Azores Currents, which are compared to and analyzed in conjunction with model output from a high-resolution global ocean-sea ice model.