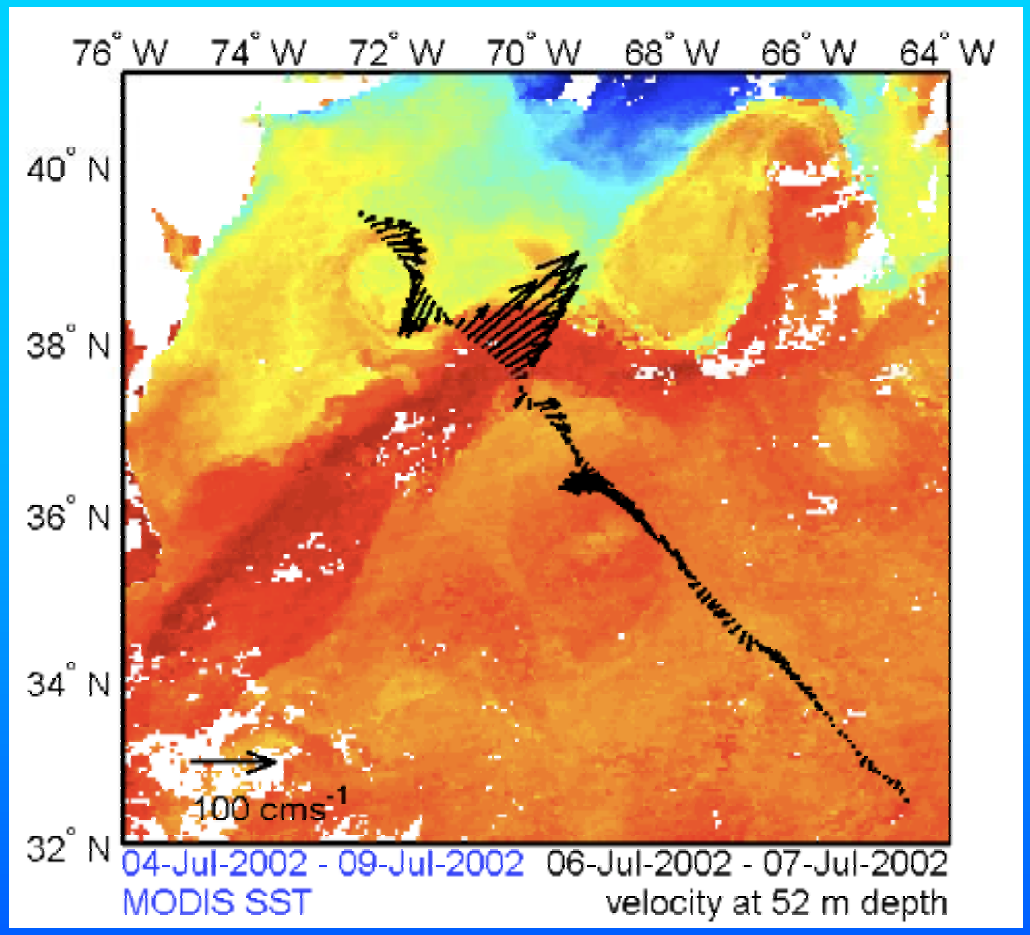
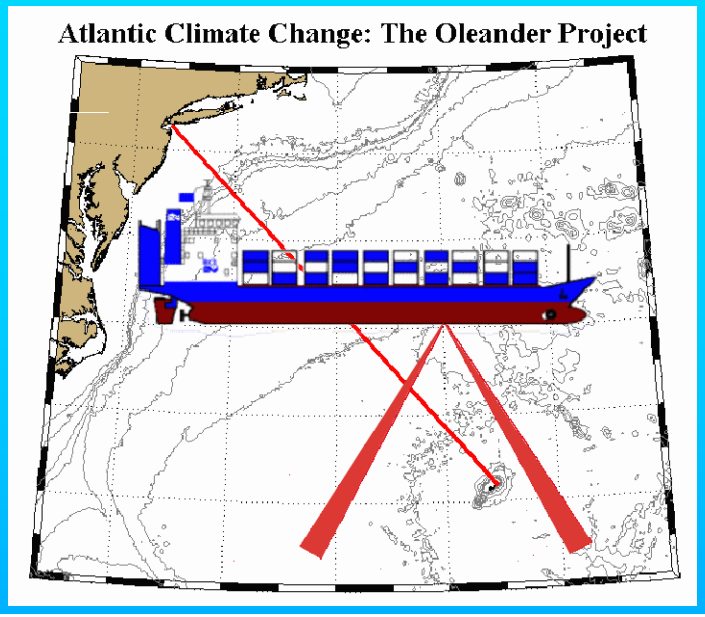
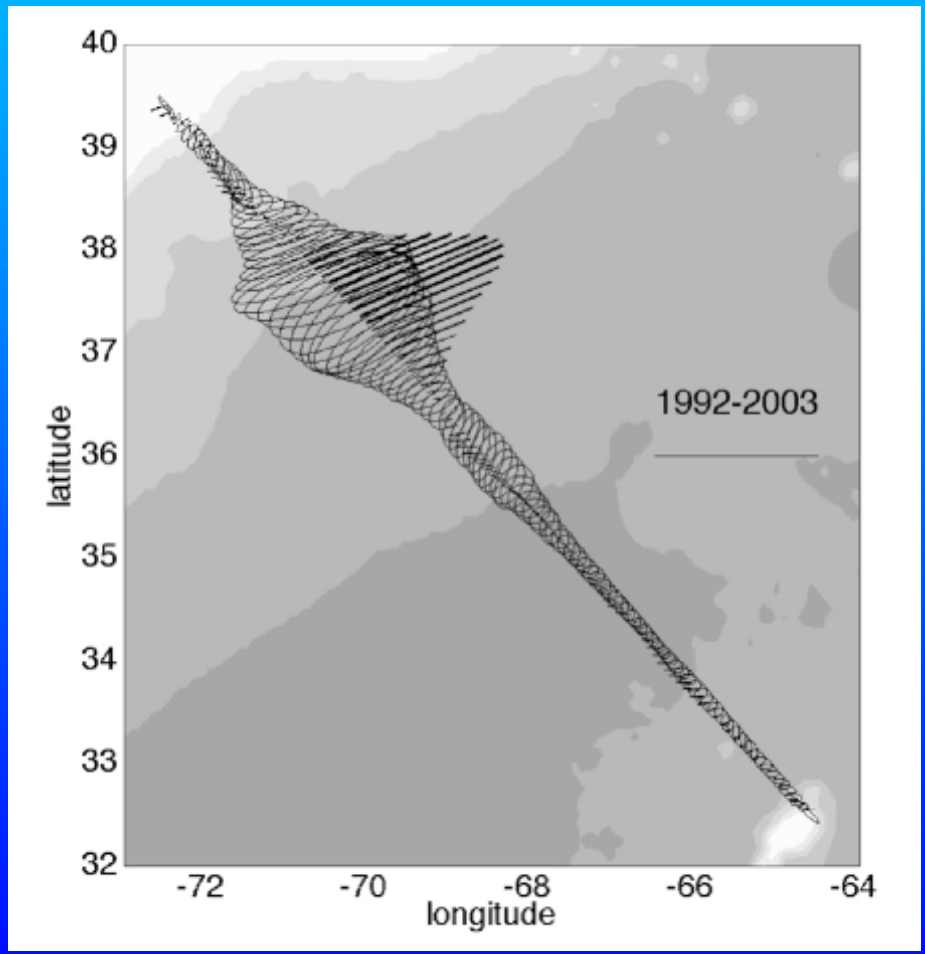
1992 to present

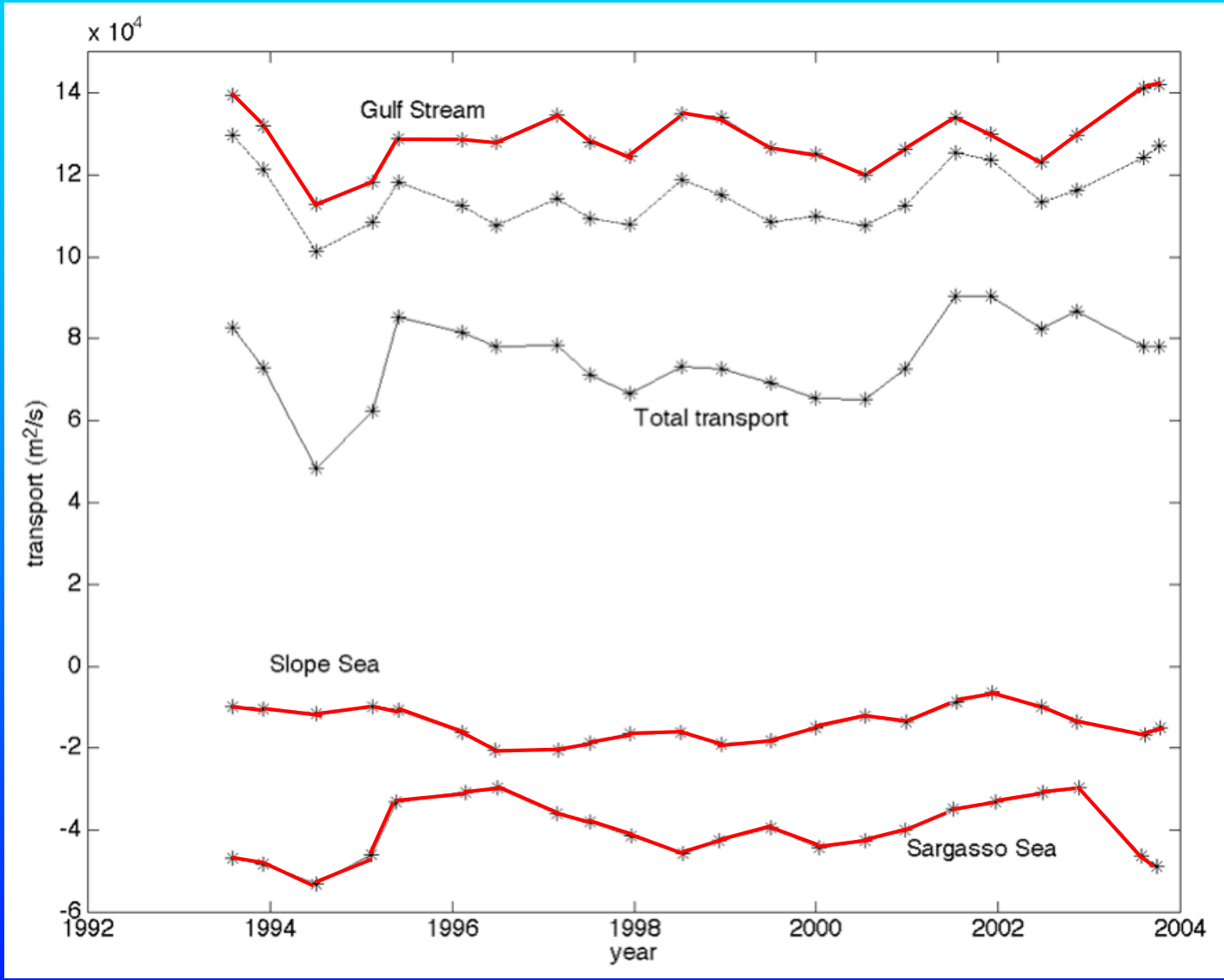




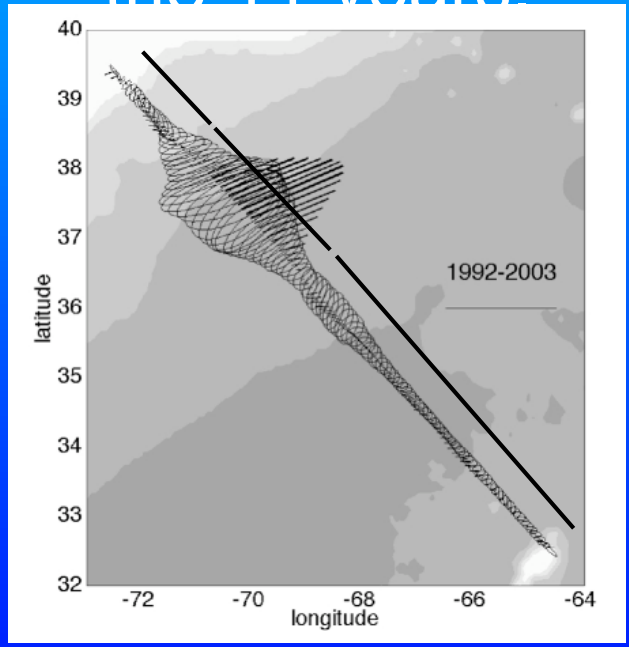


The 150kHz ADCP-equipped Oleander measures upper ocean currents to ~250m in GS. New 75kHz system reaches to ~600m.

Integration of velocities across the ship track gives transport in the Slope Sea, Gulf Stream and Sargasso Seas as a function of time.

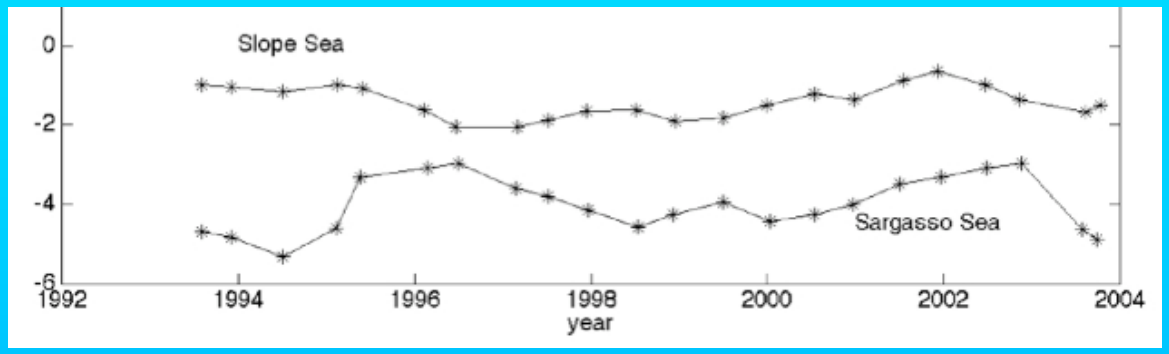


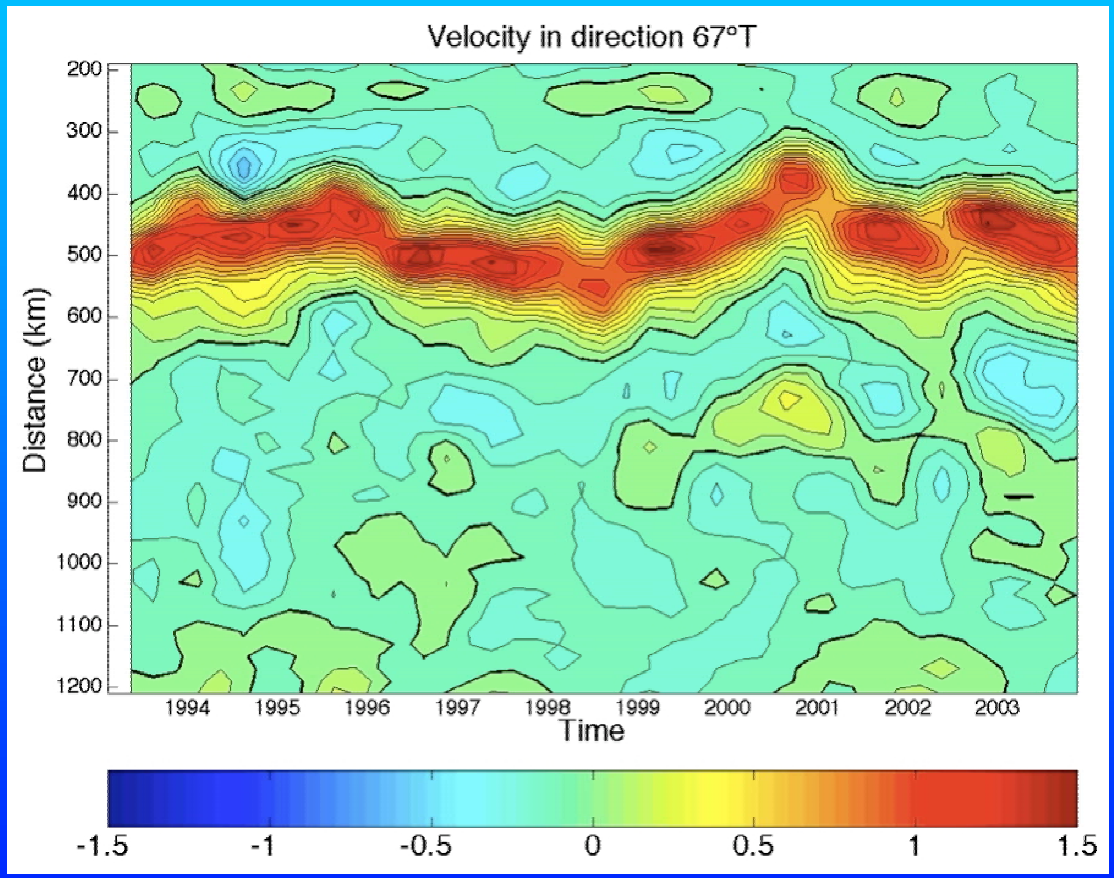
The red lines highlight the GS, Slope and Sargasso Sea transports over the 11 years.



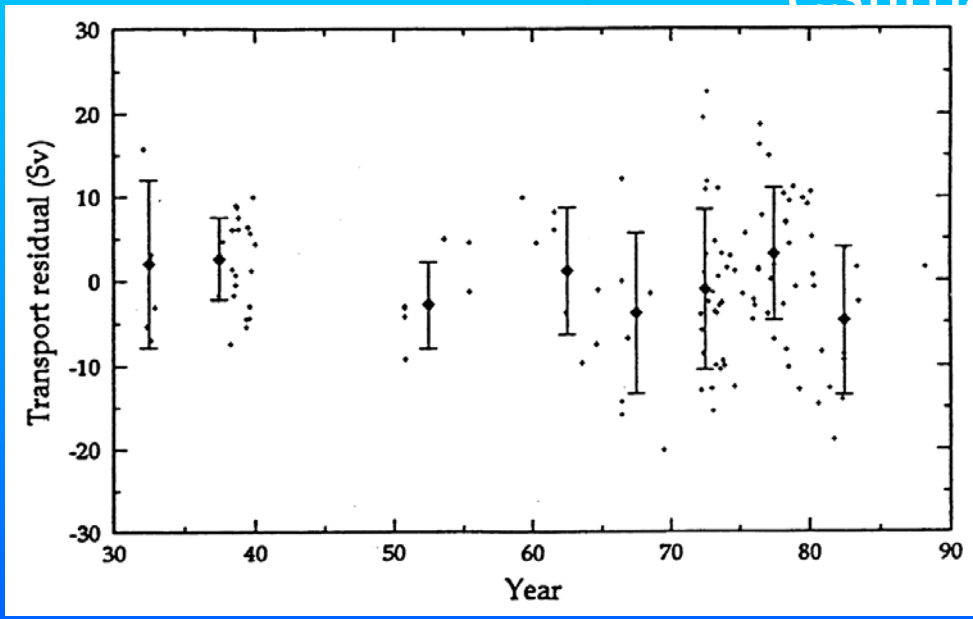
We have suggested that GS mean path may be controlled by Slope Sea transport and thus has a thermohaline (Labrador Sea) origin.

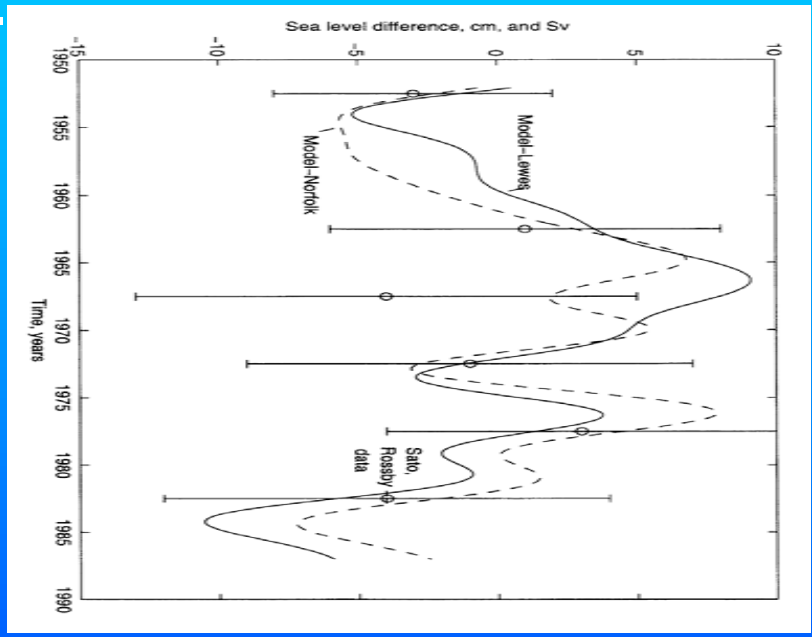
Somehow I suspect that the large variations in the Sargasso Sea have a wind-driven explanation.



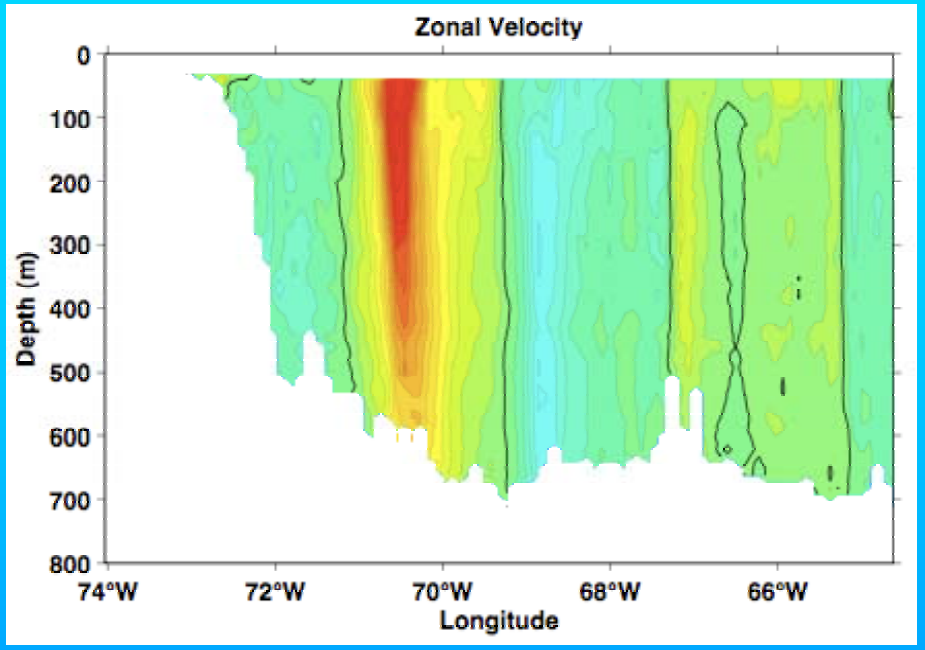


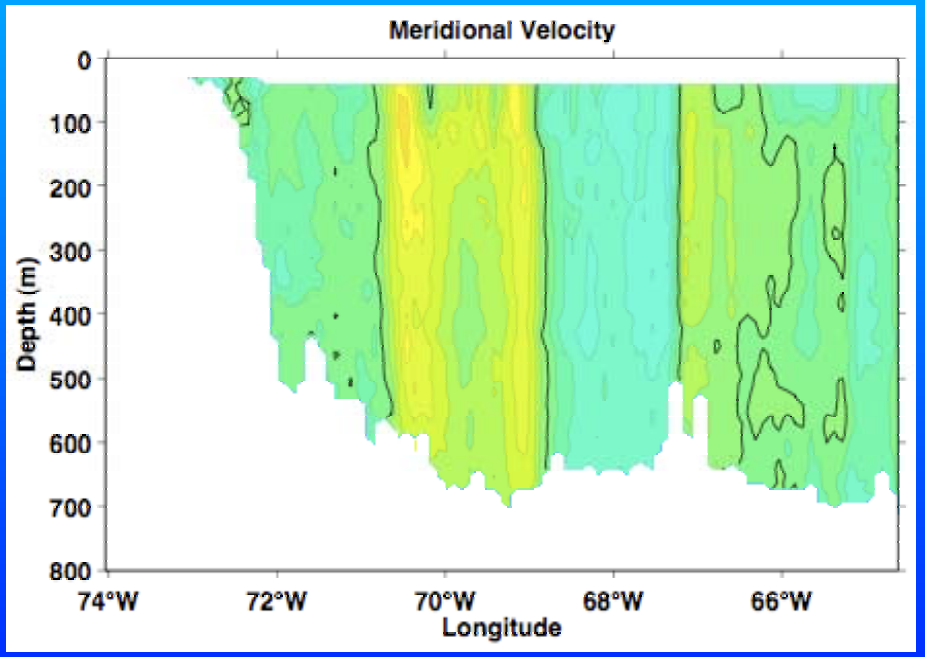
Olga Sato examined some 120 sections across the GS that had enough stations that she could 'locate' the edges of the stream defined by where $\partial \Delta D_{0\text{-}2000}/\partial n = 0$. This because a wider or narrower choice will always bias down the transport estimate.





Sturges and Hong (2001) were able to account for pentadal variations in terms of LP-filtered winds over the North Atlantic. Transport correlates inversely with the NAO index. Baringer and Larsen had earlier noted a similar correlation in the Florida Sts.





Example of a good weather (no bubbles) ADCP section. The data are uploaded when the vessel docks in Port Elisabeth. We are striving to serve the final product within a few days.