

Supplementary Figures
Multiple Timescales of Stochastically Forced North
Atlantic Ocean Variability: A model study

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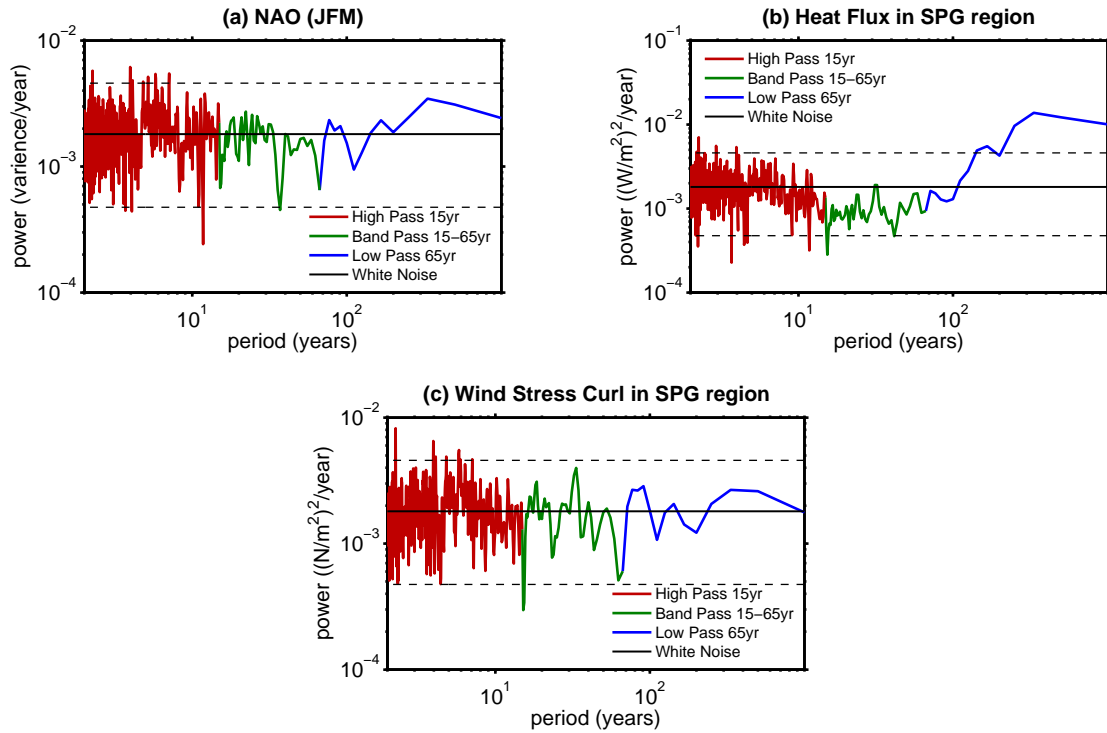


Figure S1: The power spectrum of (a) the NAO index, (b) heat flux in the SPG region and (c) the wind stress in the SPG region, divided into periods of 15 years or less (red), 15-65 years (green) and 65 years and longer (blue). The AR(1) fit is shown in black with dashed lines indicated the 95% confidence interval.

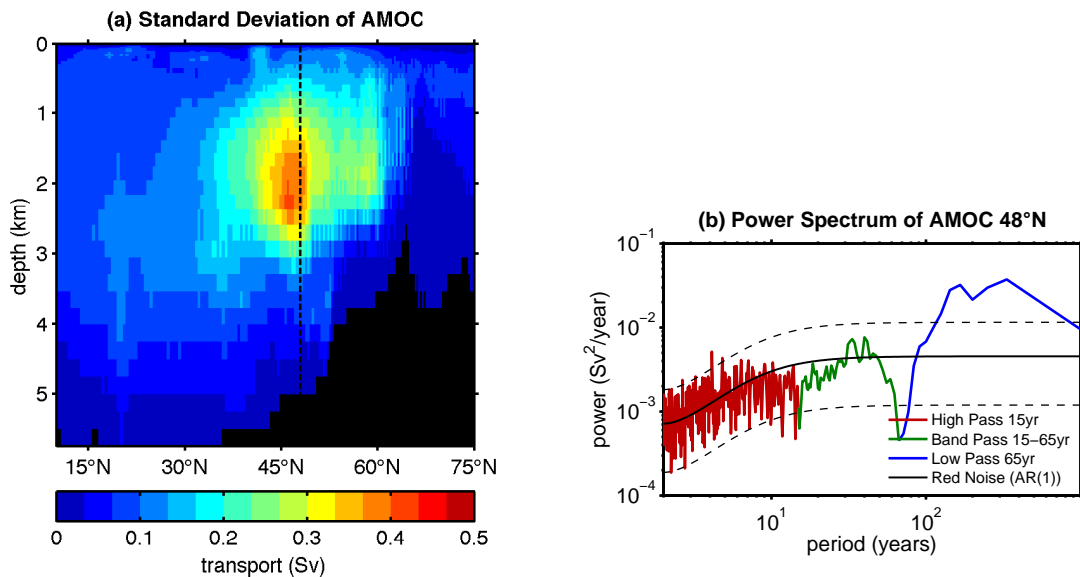


Figure S2: (a) Standard deviation of the 15-65 year band pass filtered AMOC. The dashed black line indicates the location used to calculate the AMOC at 48°N. (b) The power spectrum of the AMOC at 48°N divided into periods of 15 years or less (red), 15-65 years (green) and 65 years and longer (blue). The AR(1) fit is shown in black with dashed lines indicated the 95% confidence interval.

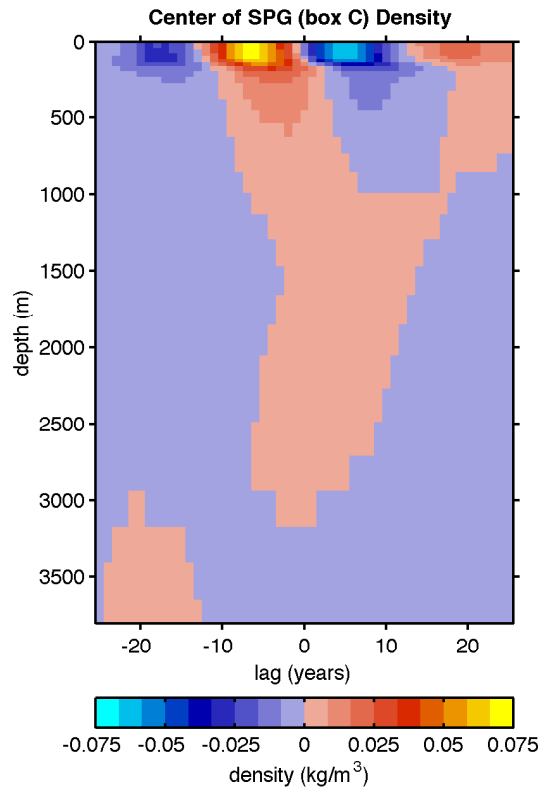


Figure S3: The density profile of box C in the years when the 15-65 year band pass filtered SPG strength is larger than the mean SPG strength plus one standard deviation, minus years where the filtered SPG strength is less than the mean minus one standard deviation with -25 to 25 year lags applied. Negative lags correspond to the density anomalies leading and positive lags correspond to the SPG strength leading.

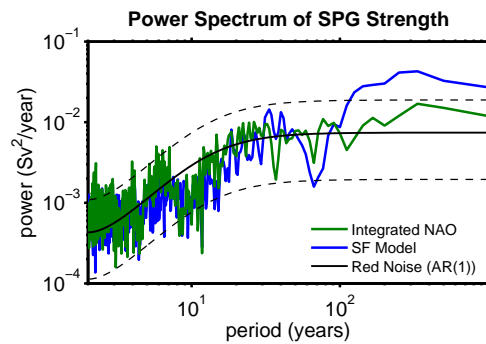


Figure S4: The power spectrum of the SPG strength from the SF model integration (blue) and NAO reconstruction using 10 coefficients (green). The AR(1) fit is shown in black with dashed lines indicated the 95% confidence interval.

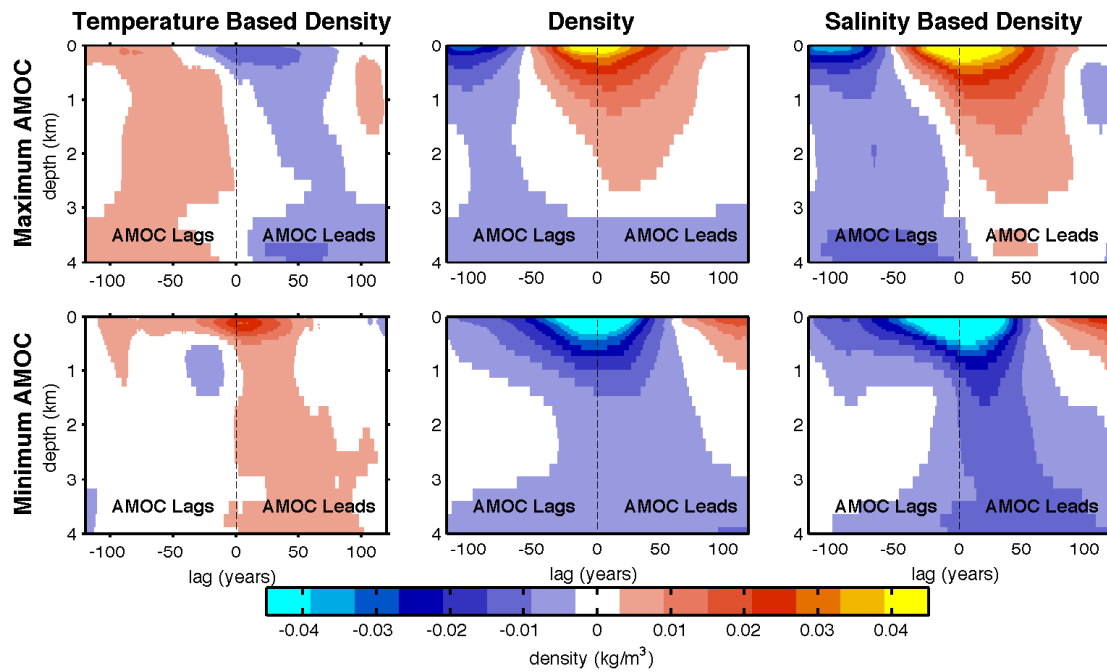


Figure S5: (a,b,c) The difference in density in the Labrador Sea convection region from the mean density in the years where the 65 year low pass filtered AMOC at 30°N is larger than the mean of AMOC at 30°N by one standard deviation. (d,e,f) Same as (a,b,c) but for when the AMOC at 30°N is smaller than one standard deviation from the mean. (a,d) show the temperature contribution to the density, (b,e) the full density and (c,f) the salinity contribution to the density.