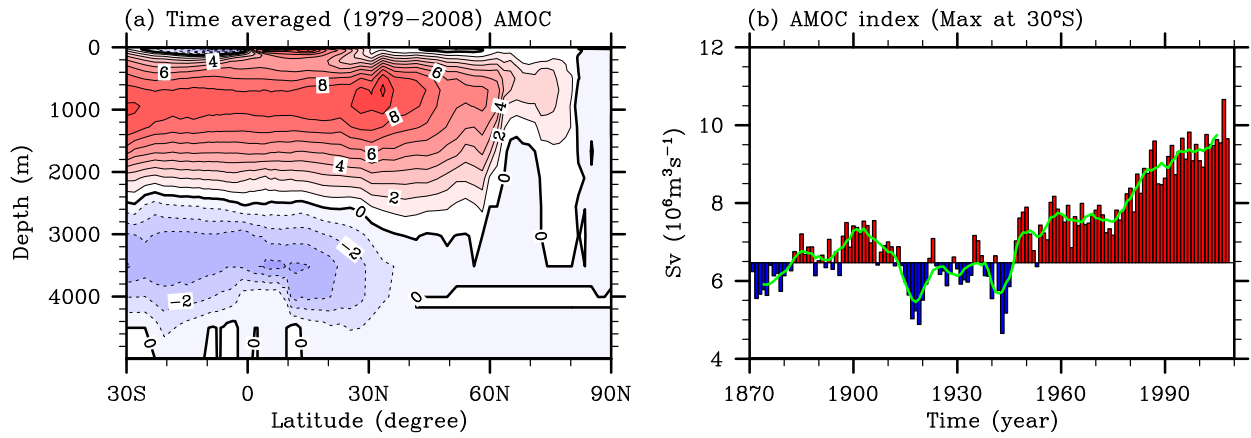


1
 2 **Figure 1.** (a) Simulated Atlantic Ocean heat content change in the upper 3000m and (b)
 3 simulated northward ocean heat transport in the South Atlantic at 30°S in reference to 1870-1900
 4 obtained from the three model experiments. The thick black line in (a) is the observed trend of
 5 the Atlantic Ocean heat content increase reproduced from Levitus (2000).

6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17



1

2 **Figure 2.** (a) Time-averaged AMOC during 1979-2008 and (b) time series of the simulated
3 AMOC index (maximum overturning stream function) at 30°S obtained from EXP_CTR.

4

5

6

7

8

9

10

11

12

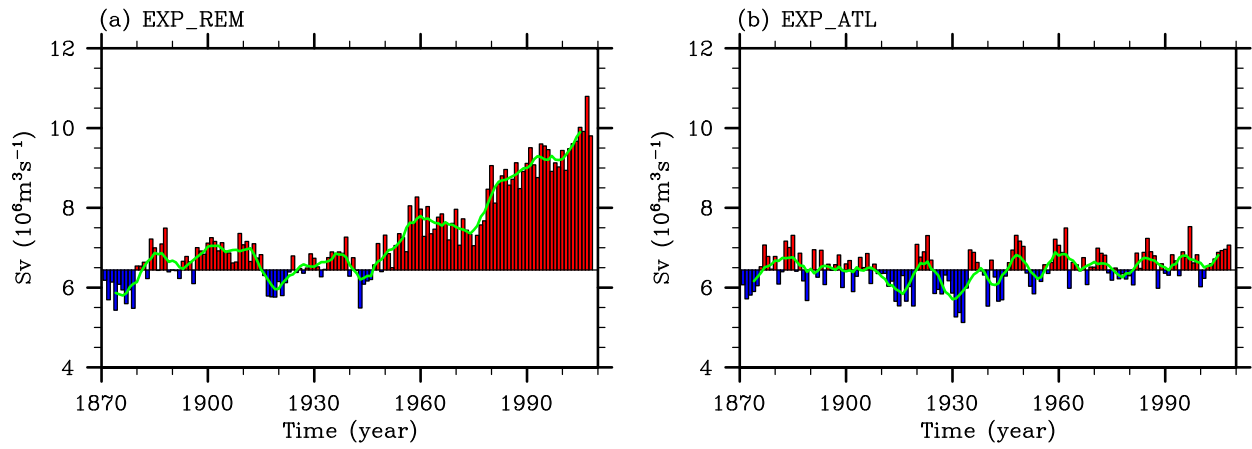
13

14

15

16

CCSM3_POP: AMOC Index (Max at 30°S)



1

2 **Figure 3.** Time series of the simulated AMOC index (maximum overturning stream function) at

3 30°S obtained from (a) EXP_REM and (b) EXP_ATL.

4

5

6

7

8

9

10

11

12

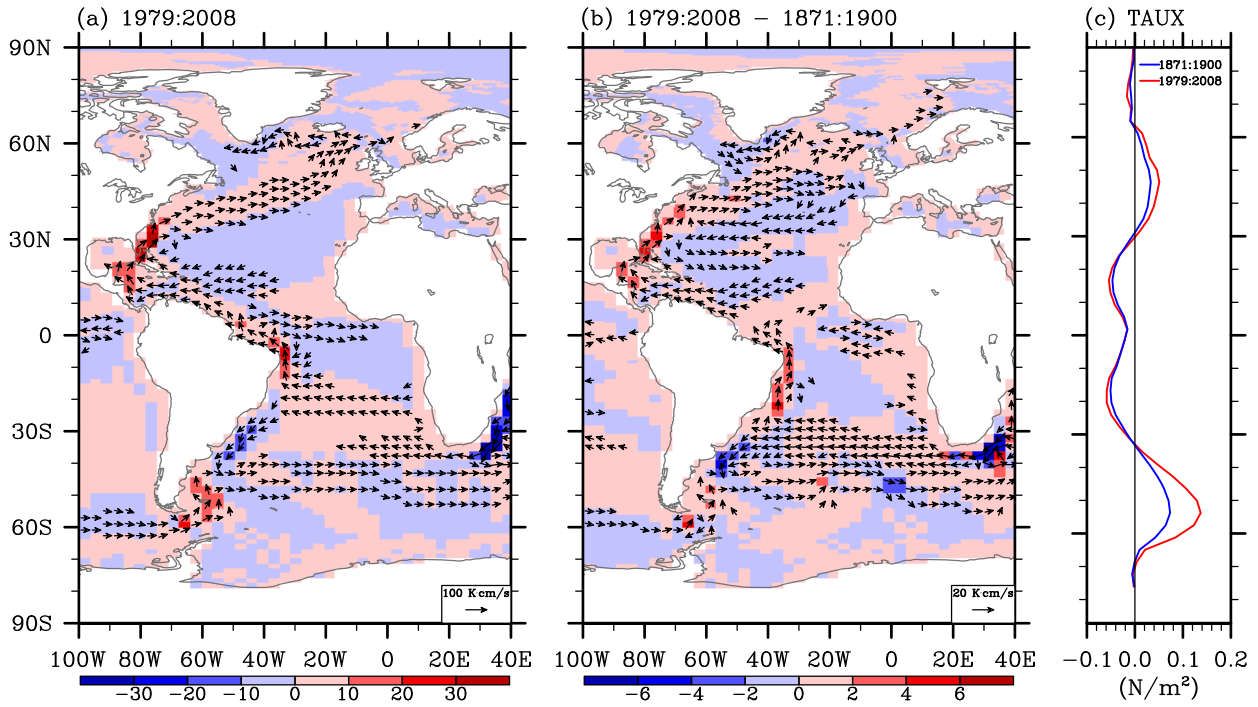
13

14

15

16

17



1
2 **Figure 4.** (a) Simulated pathways of the northward heat transport (contours) and heat transport
3 vector (vectors) averaged in the upper 3000 m for 1979-2008, obtained from EXP_CTR. The
4 unit is K·cm/sec. (b) Differences in the simulated northward heat transport (contours) and heat
5 transport vector (vectors) between 1979-2008 and 1871-1900 periods, obtained from EXP_CTR.
6 (c) Globally averaged zonal wind stress for 1871-1900 and for 1979-2008 periods, obtained from
7 the 20CR.

8

9