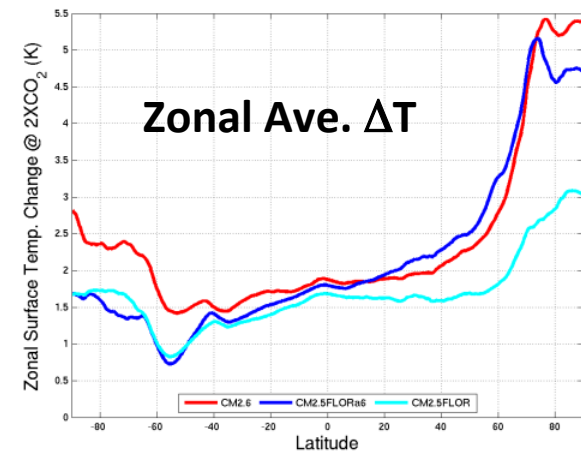
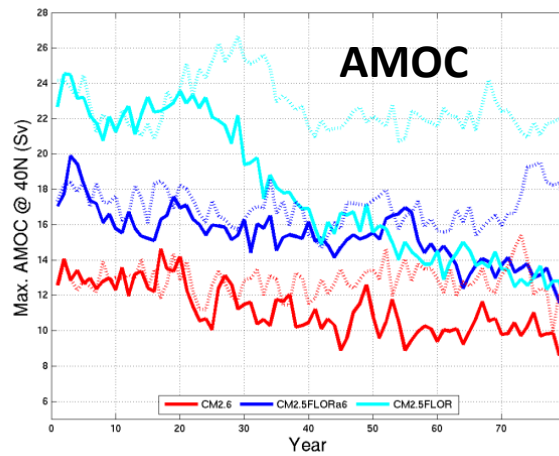
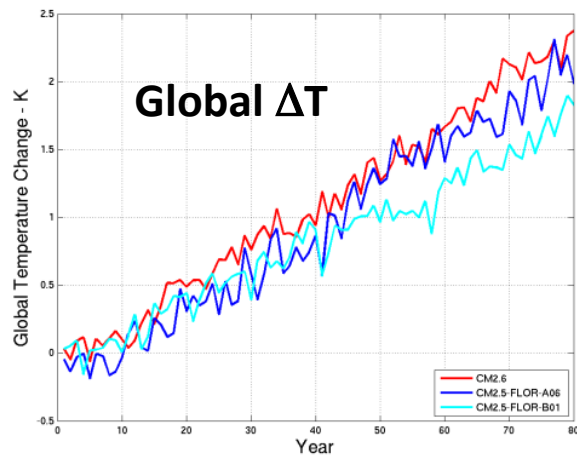
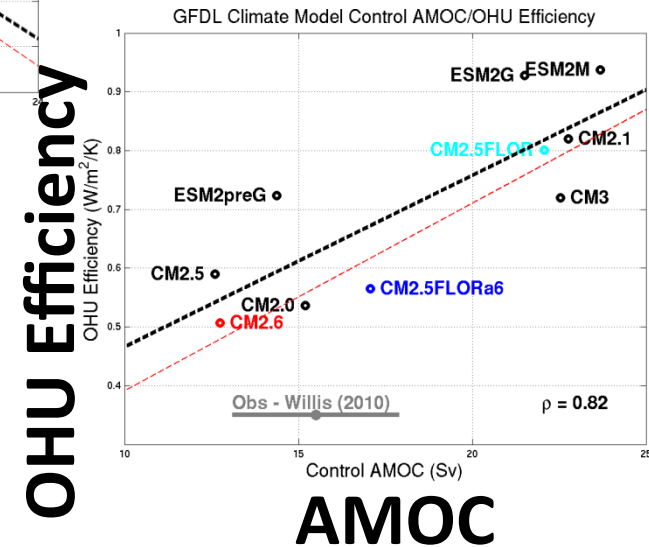
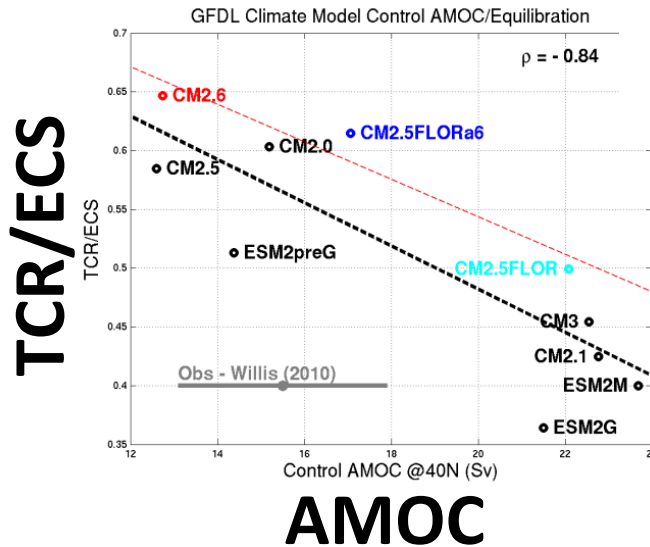
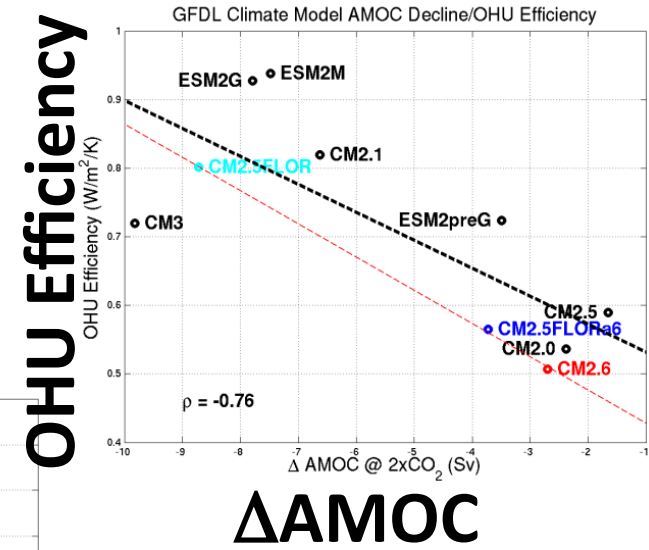
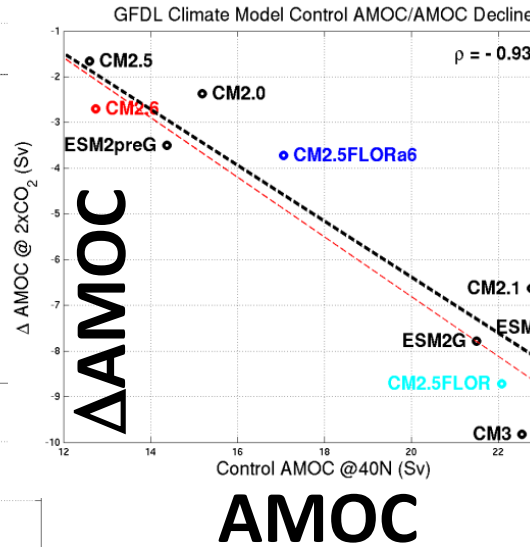
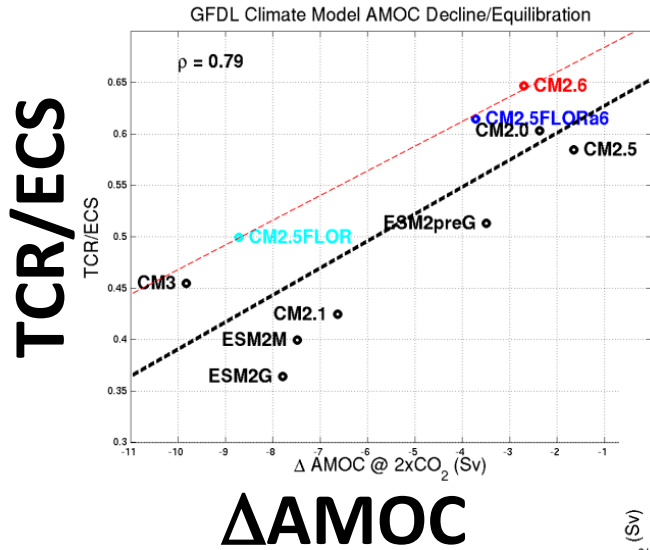


Has coarse ocean resolution biased simulations of transient climate sensitivity?

Model	Atmos. Res.	Ocean Res.	TCR (K)	TCR/ECS
CM2.6	50 km	1/10°	2.0	0.65
CM2.5FLORa6	50 km	1°	1.9	0.62
CM2.5FLOR	50 km	1°	1.5	0.50
+ 7 other GDL CMs	50-200 km	1/4°-1°	1.2-2.0	.36-.61

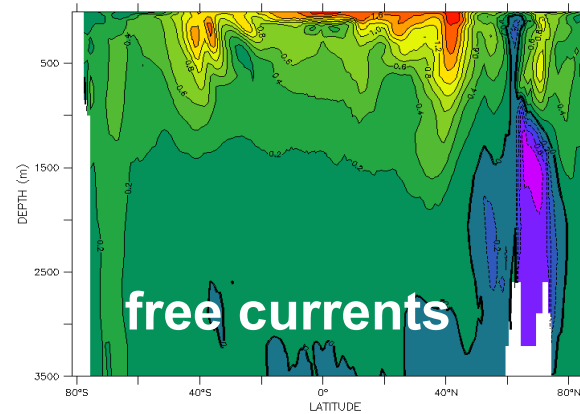
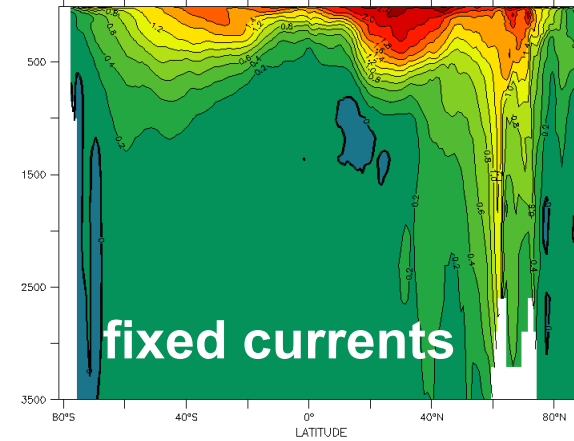
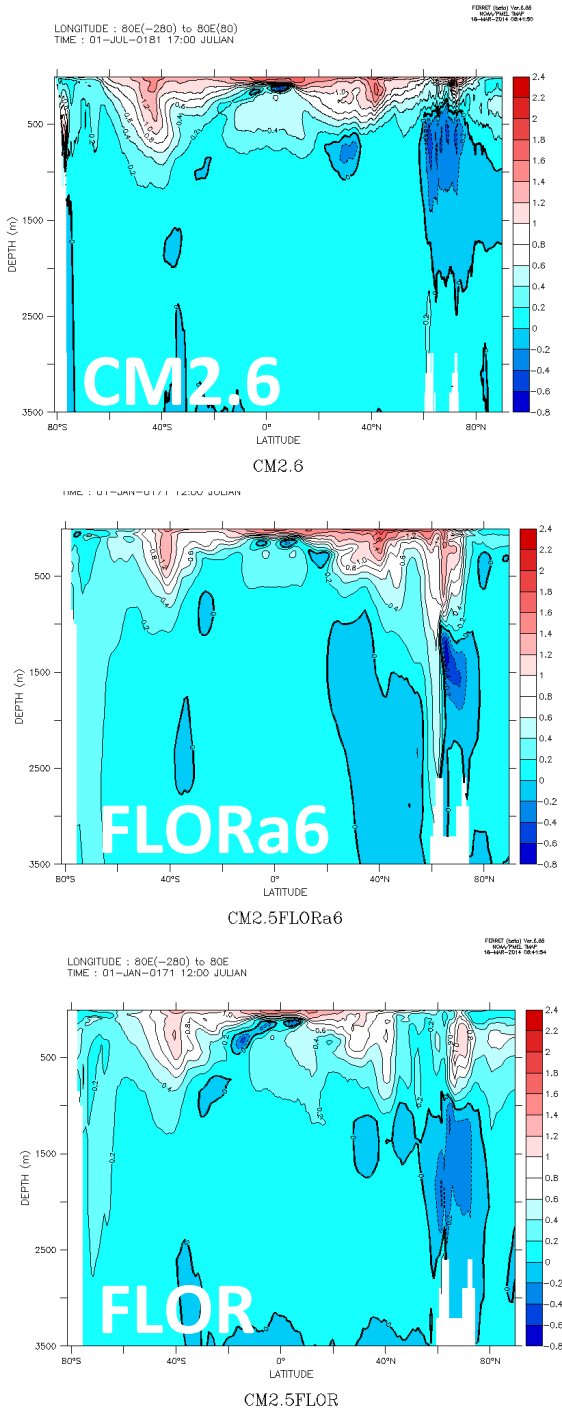


Δ AMOC influences TCR



Warming pattern favors Δ AMOC mechanism

SMALL
↑
AMOC/ Δ AMOC
↓
BIG



Winton et al 2013

See also Rugenstein et al 2013

Questions

- Why $\Delta\text{AMOC} \sim \text{AMOC}$?
- Can resolution help reconcile AMOC and Atlantic OHT observational constraints?
- Is weaker AMOC a general characteristic of eddying models?
- How are eddies involved in the forced response and variability of Southern Ocean convective mixing?