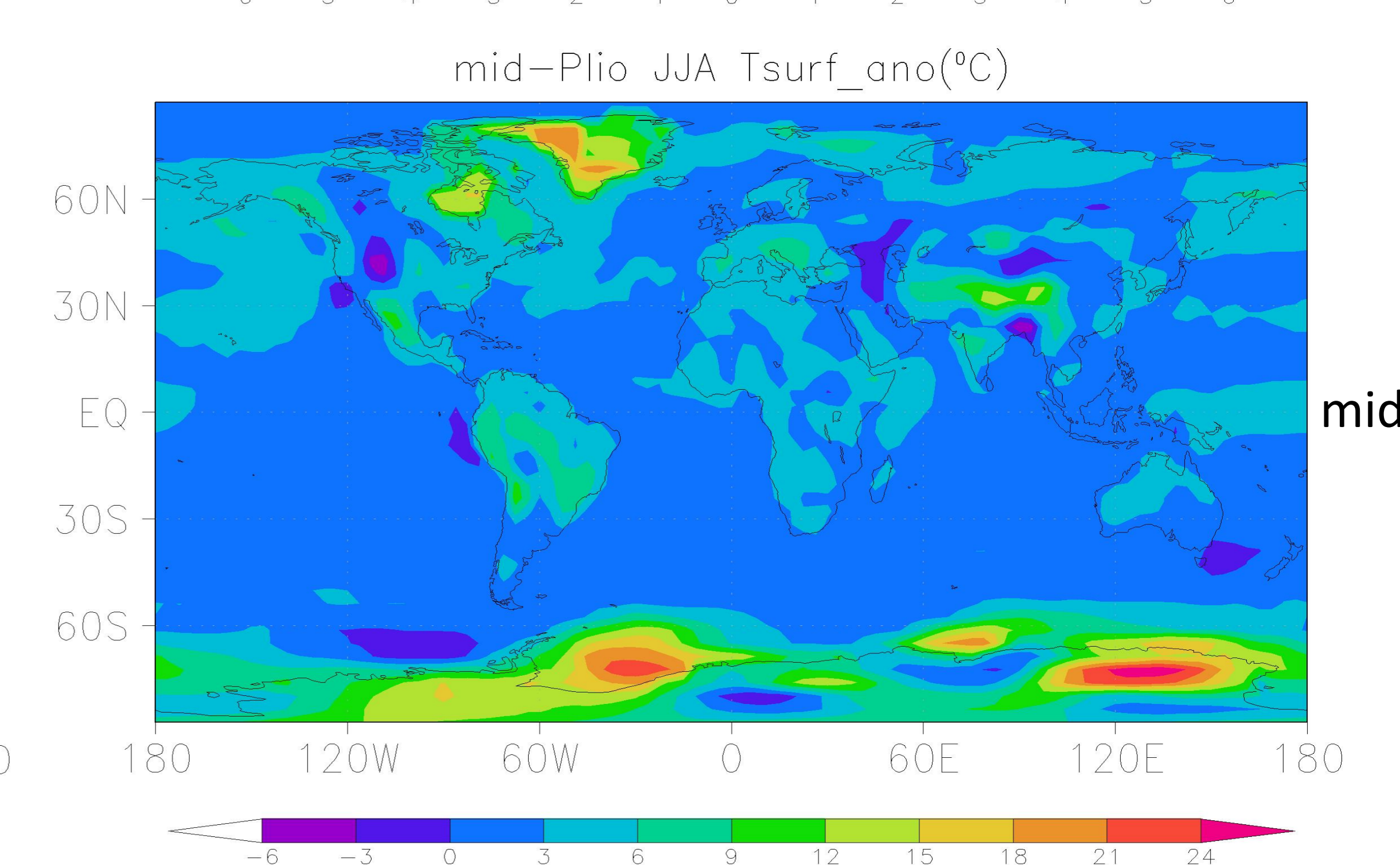
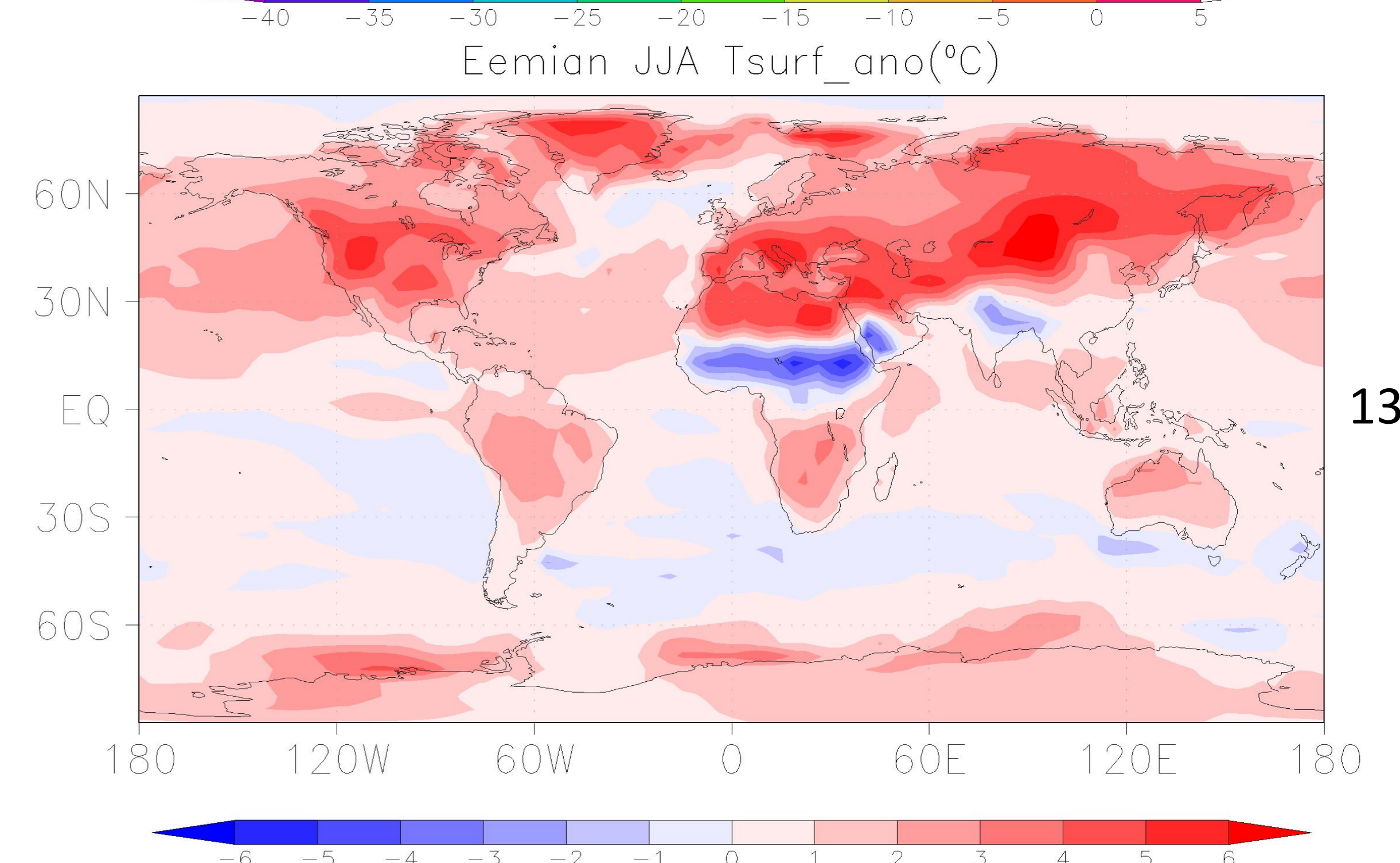
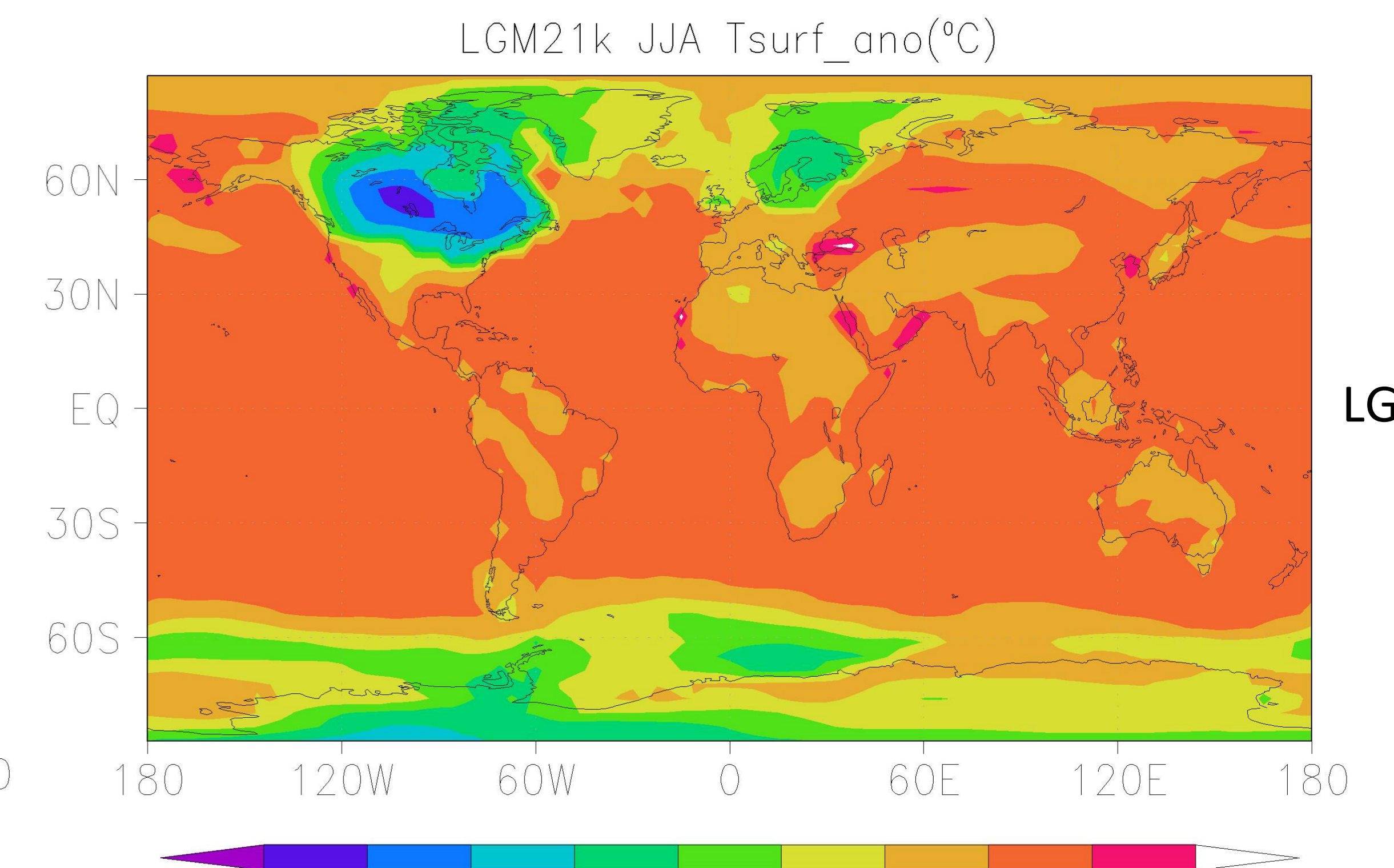
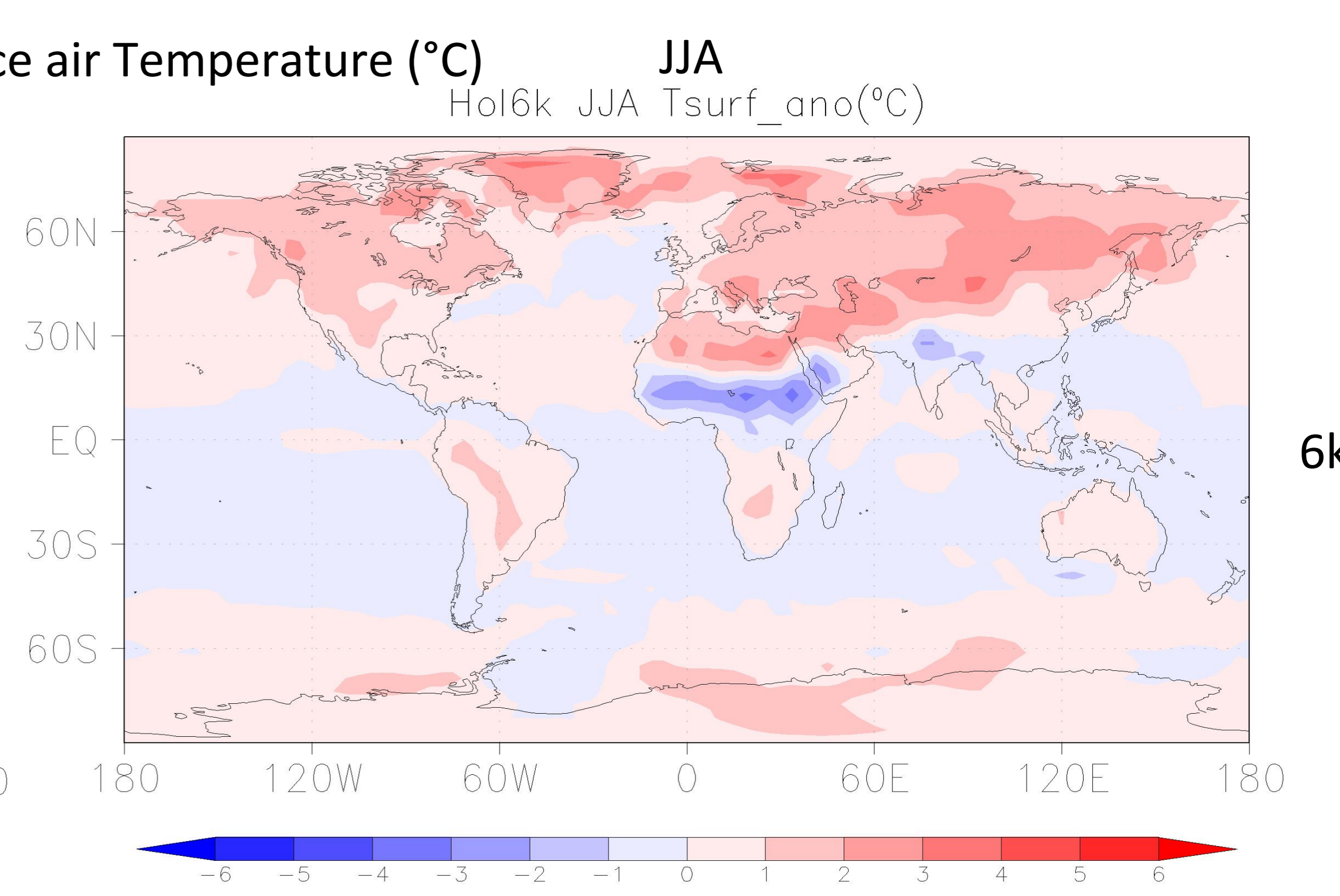
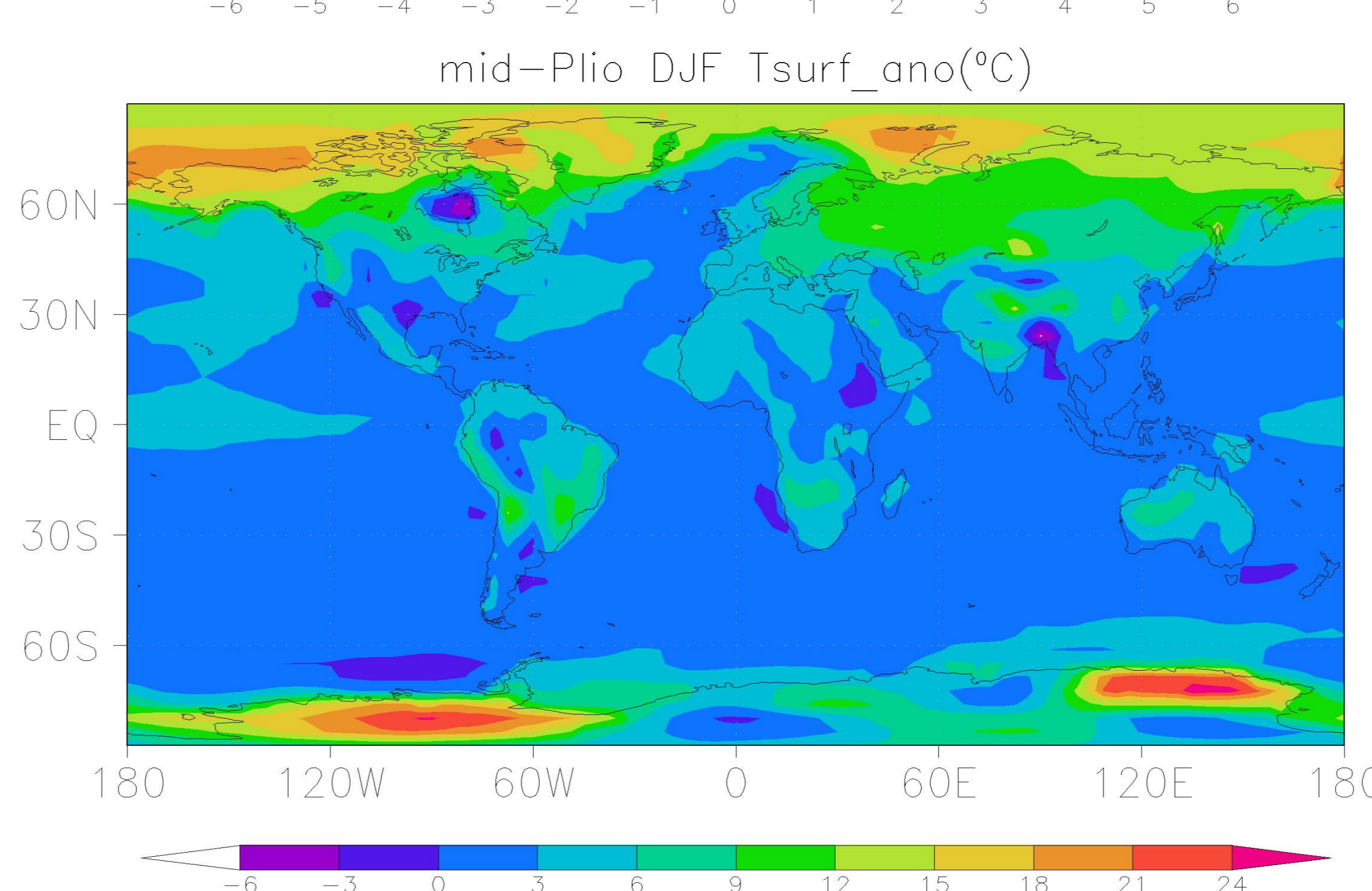
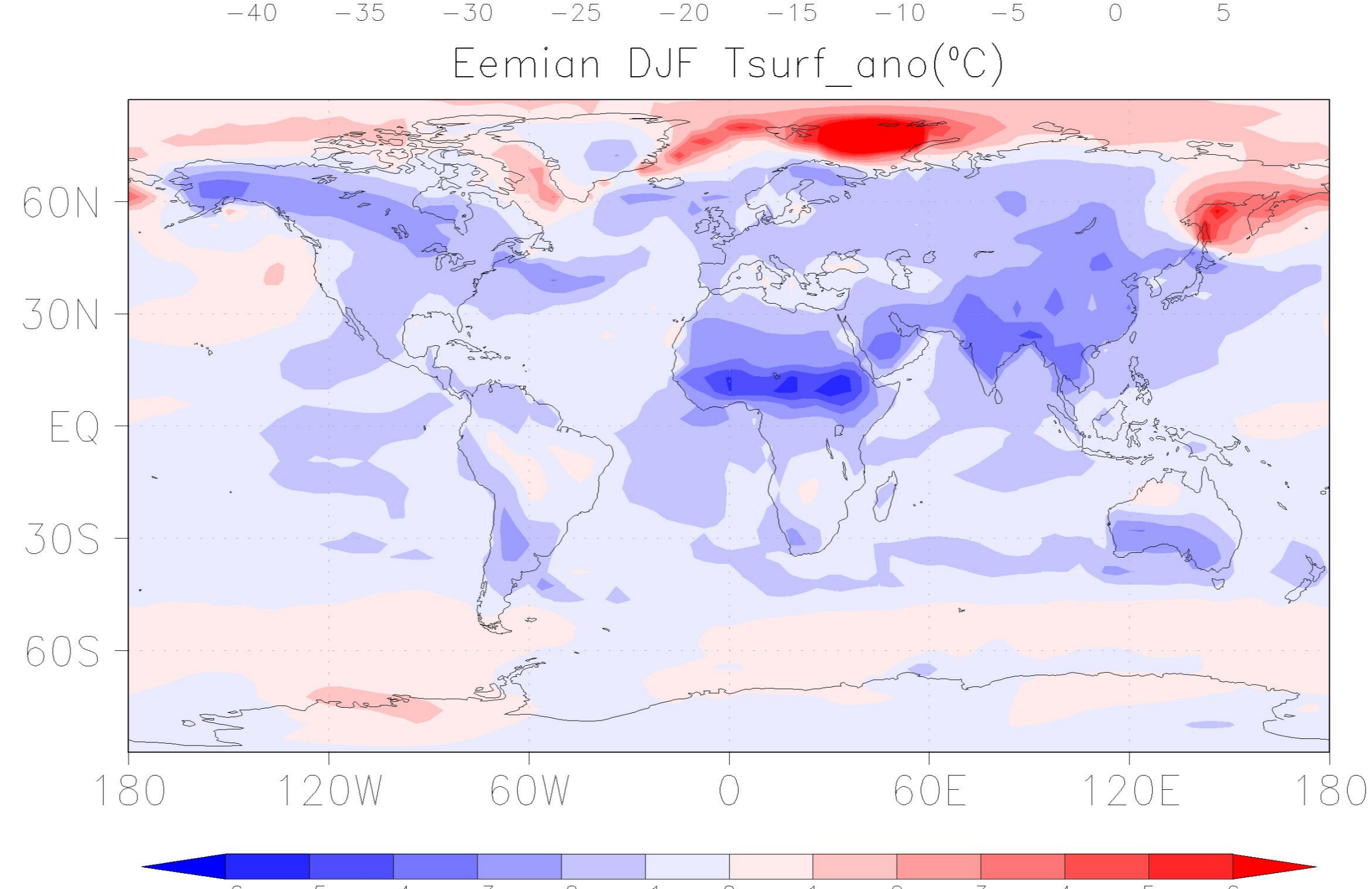
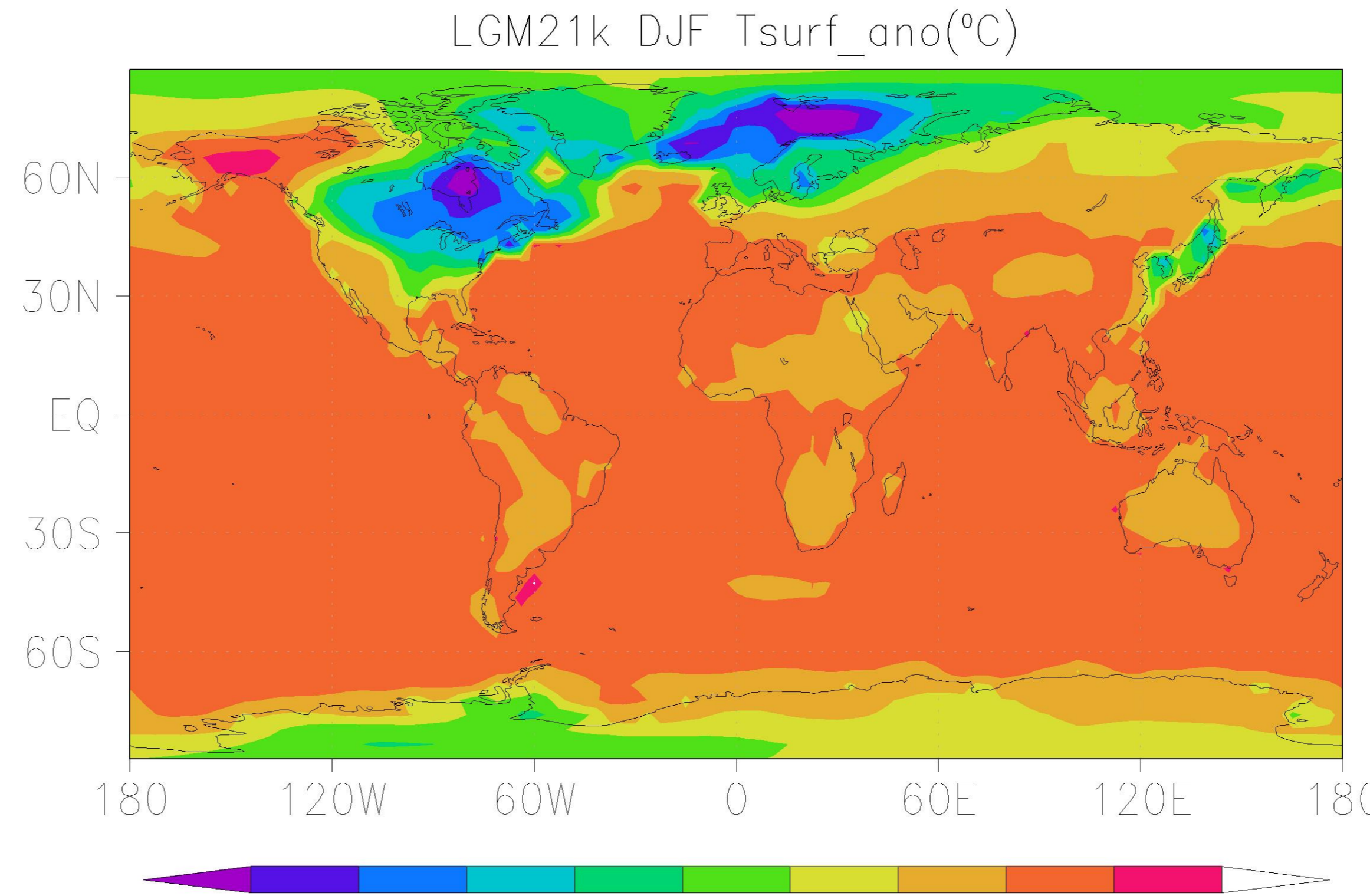
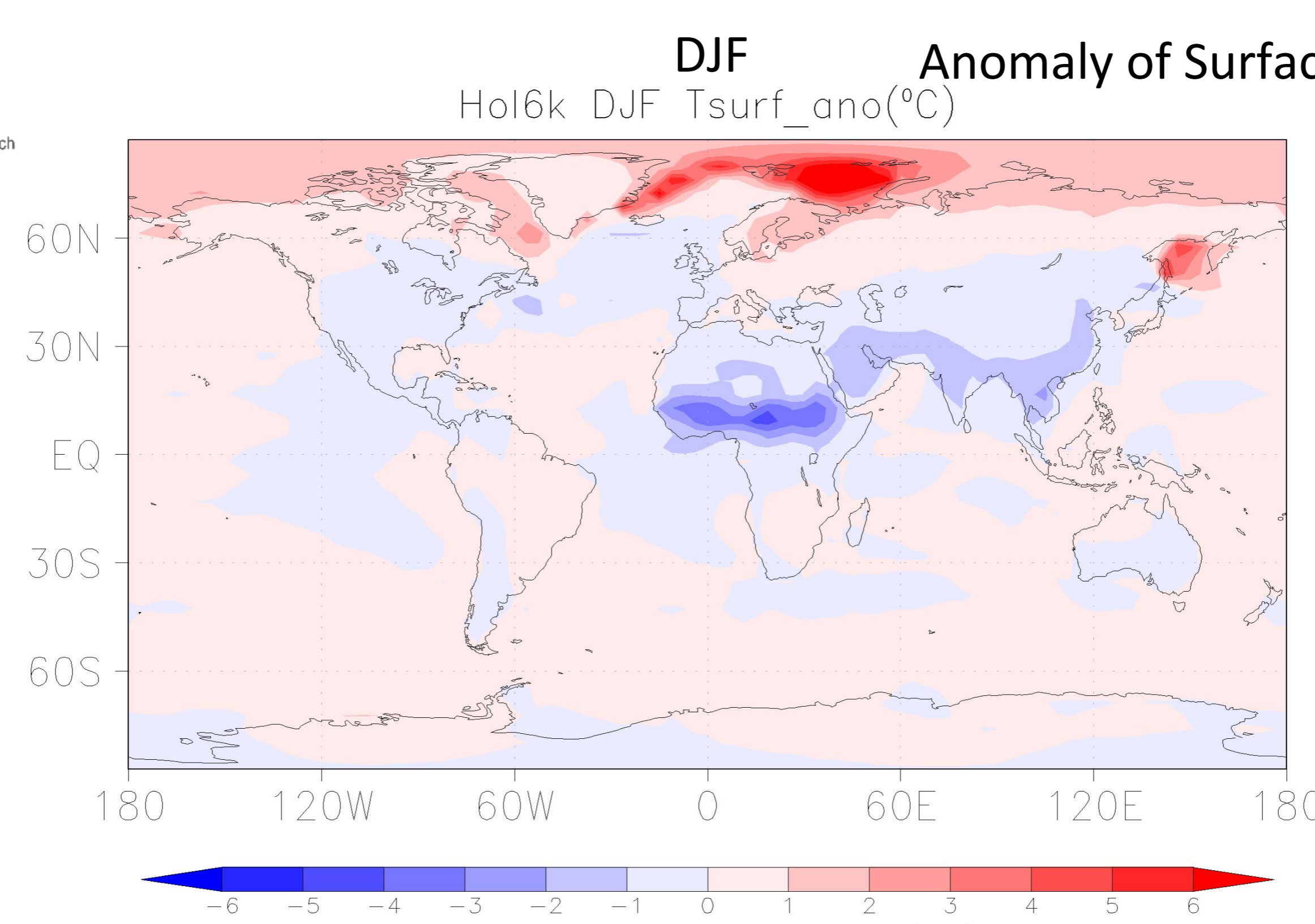
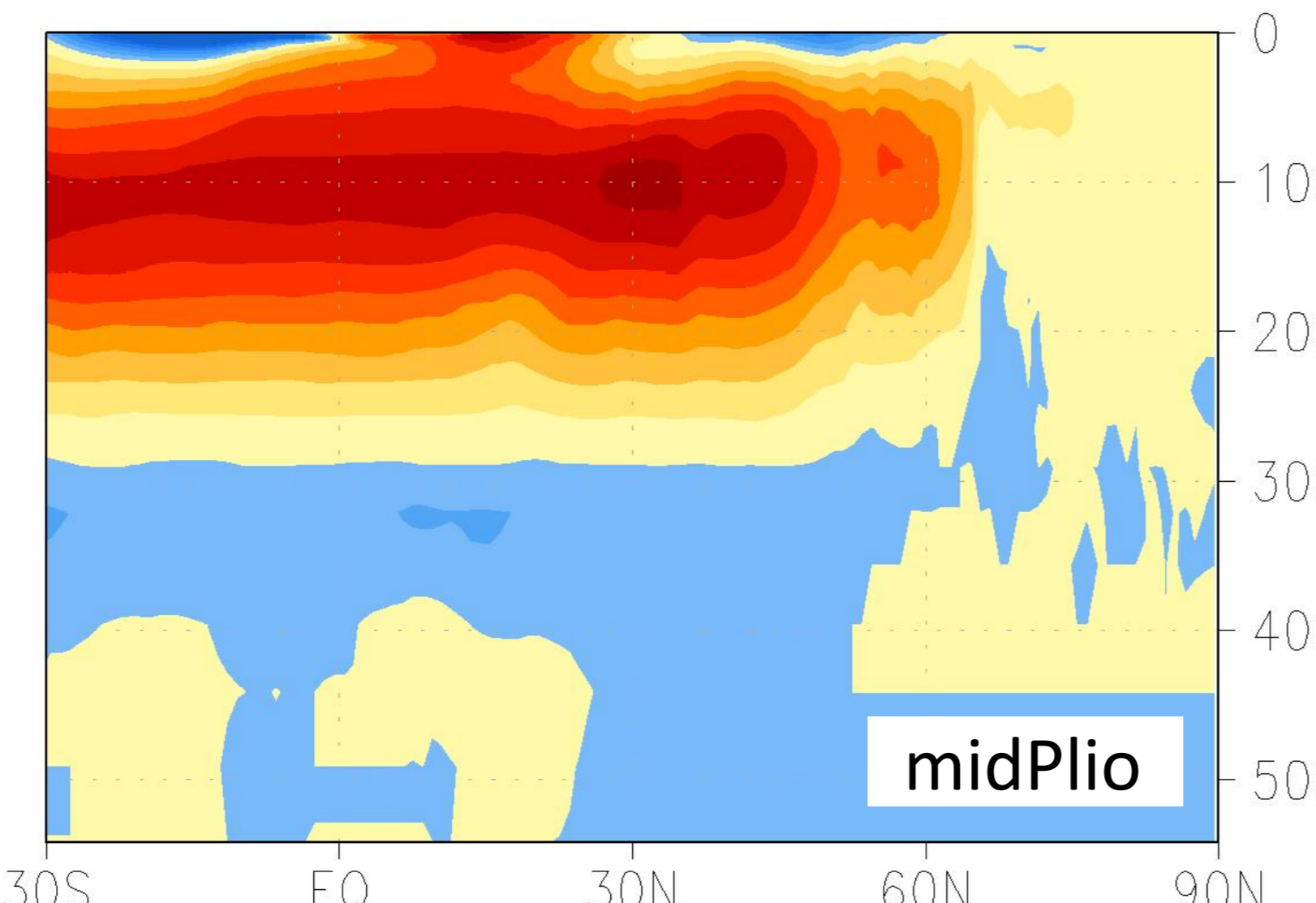
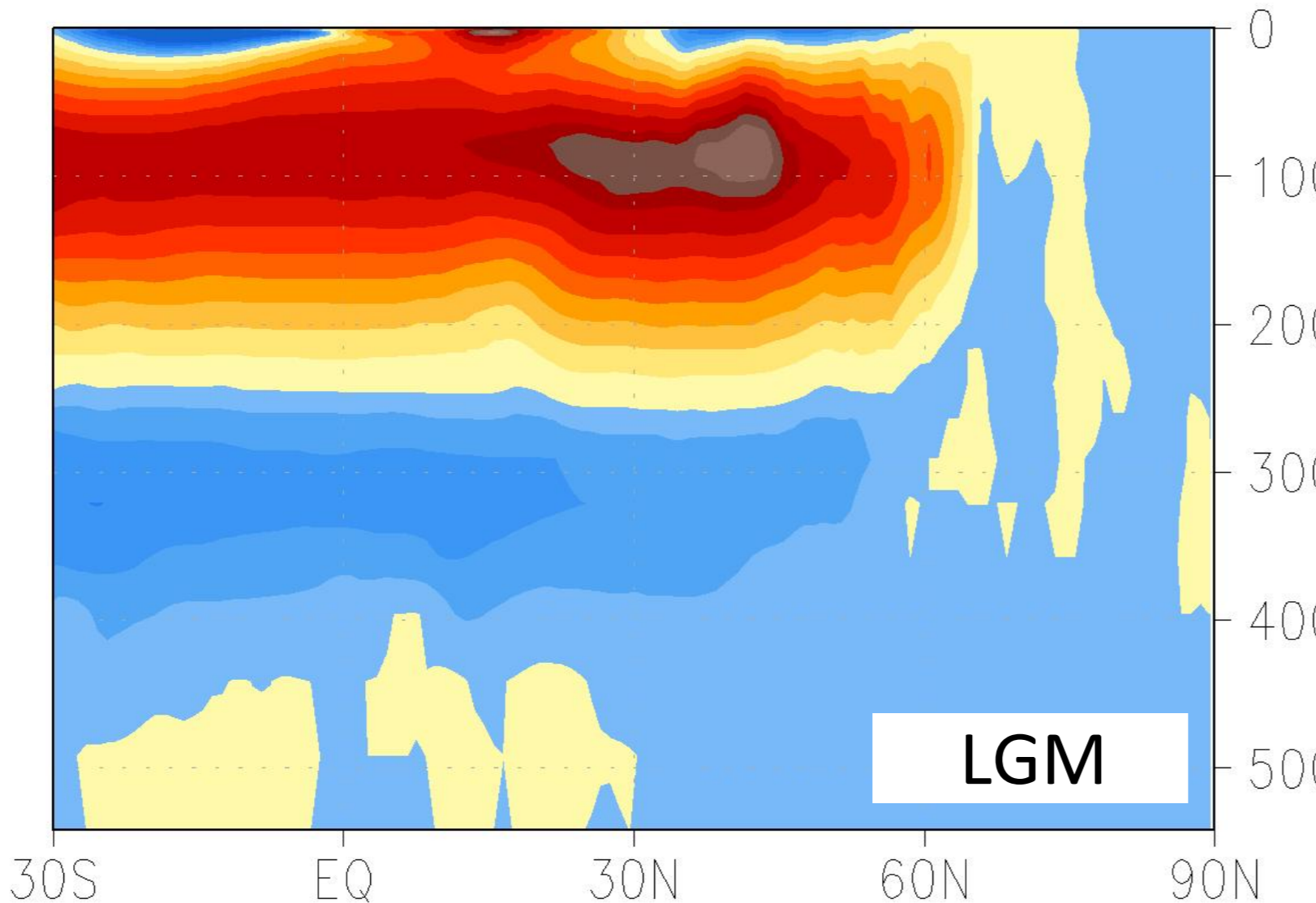
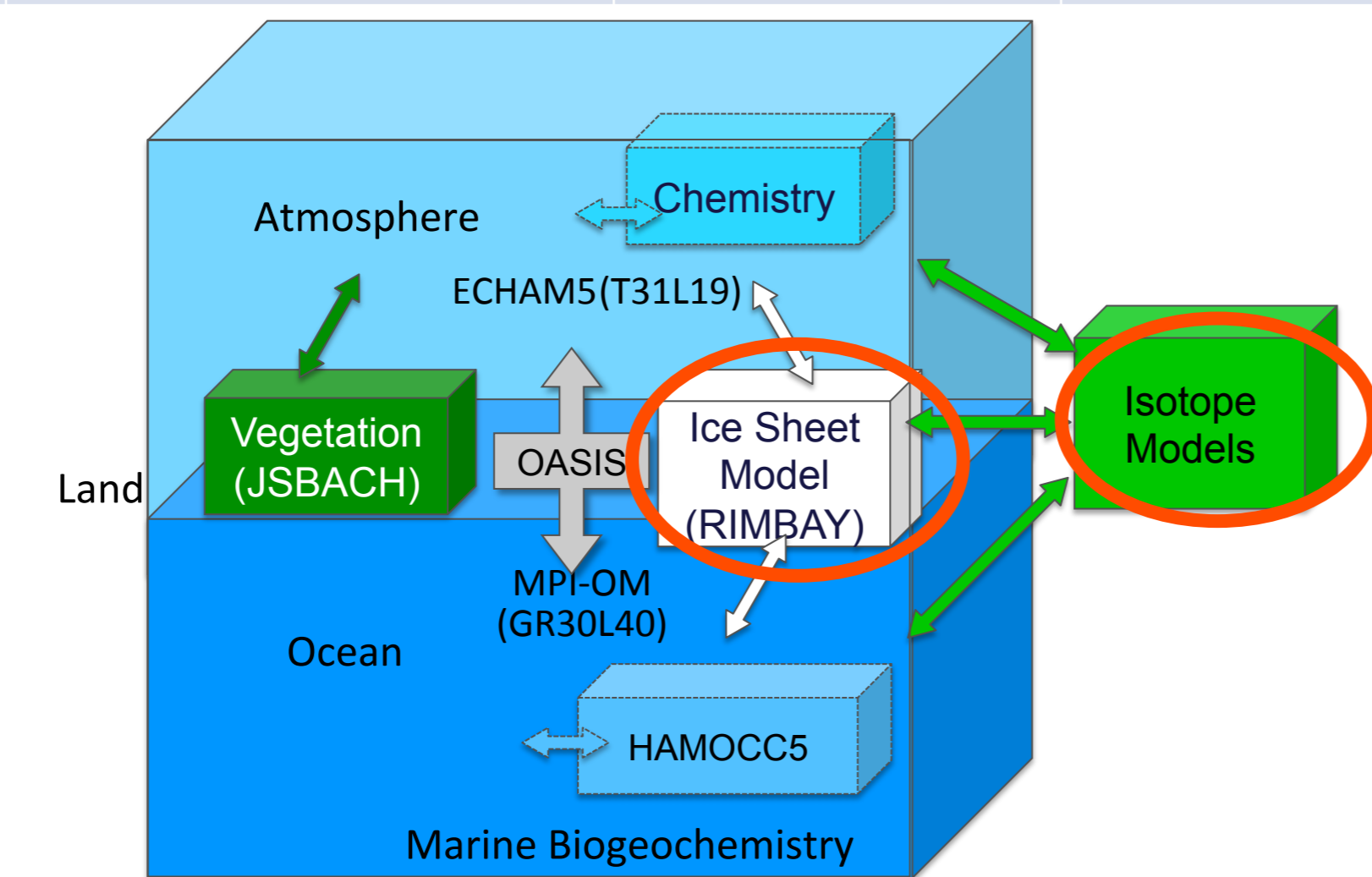
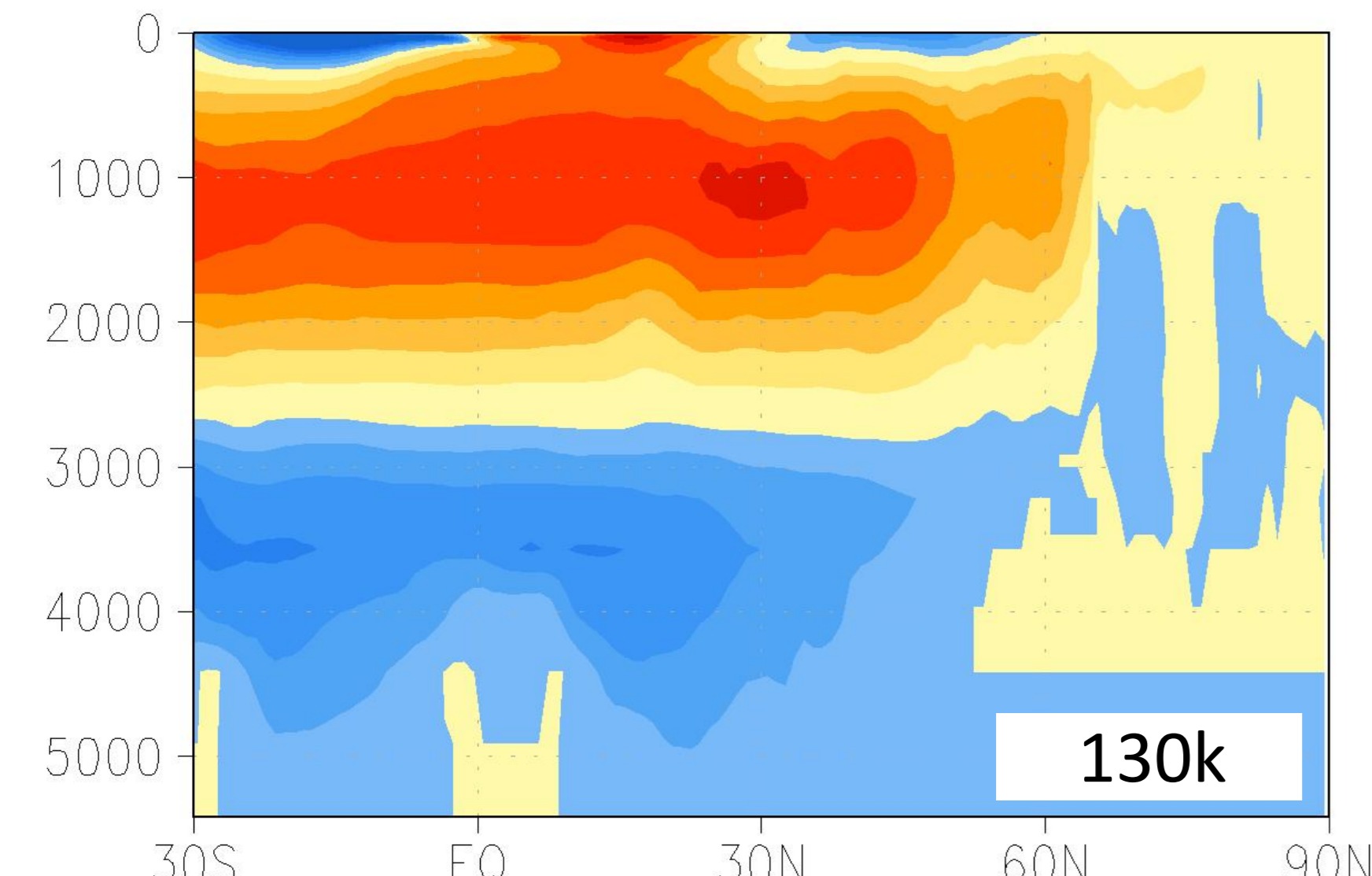
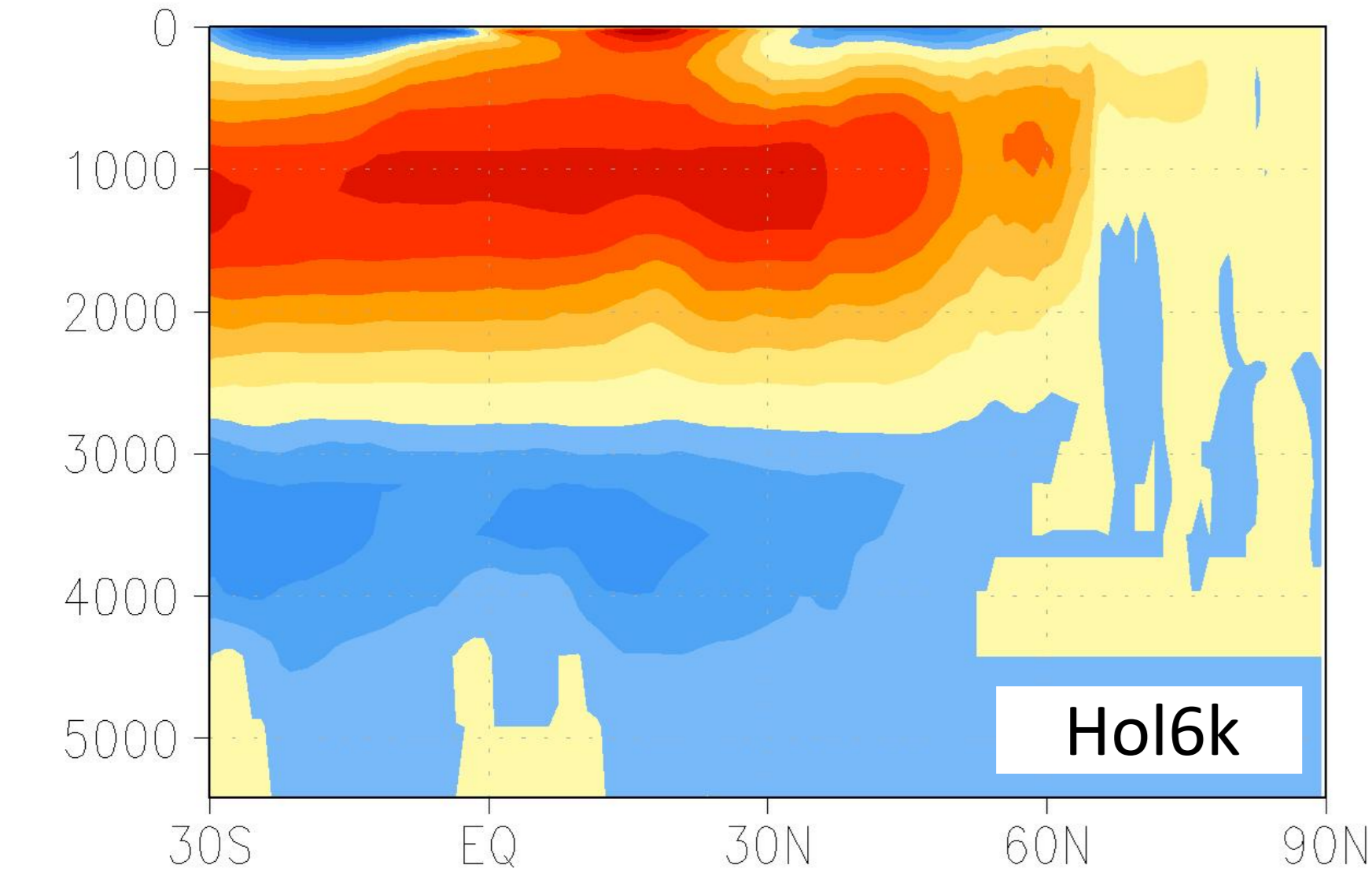
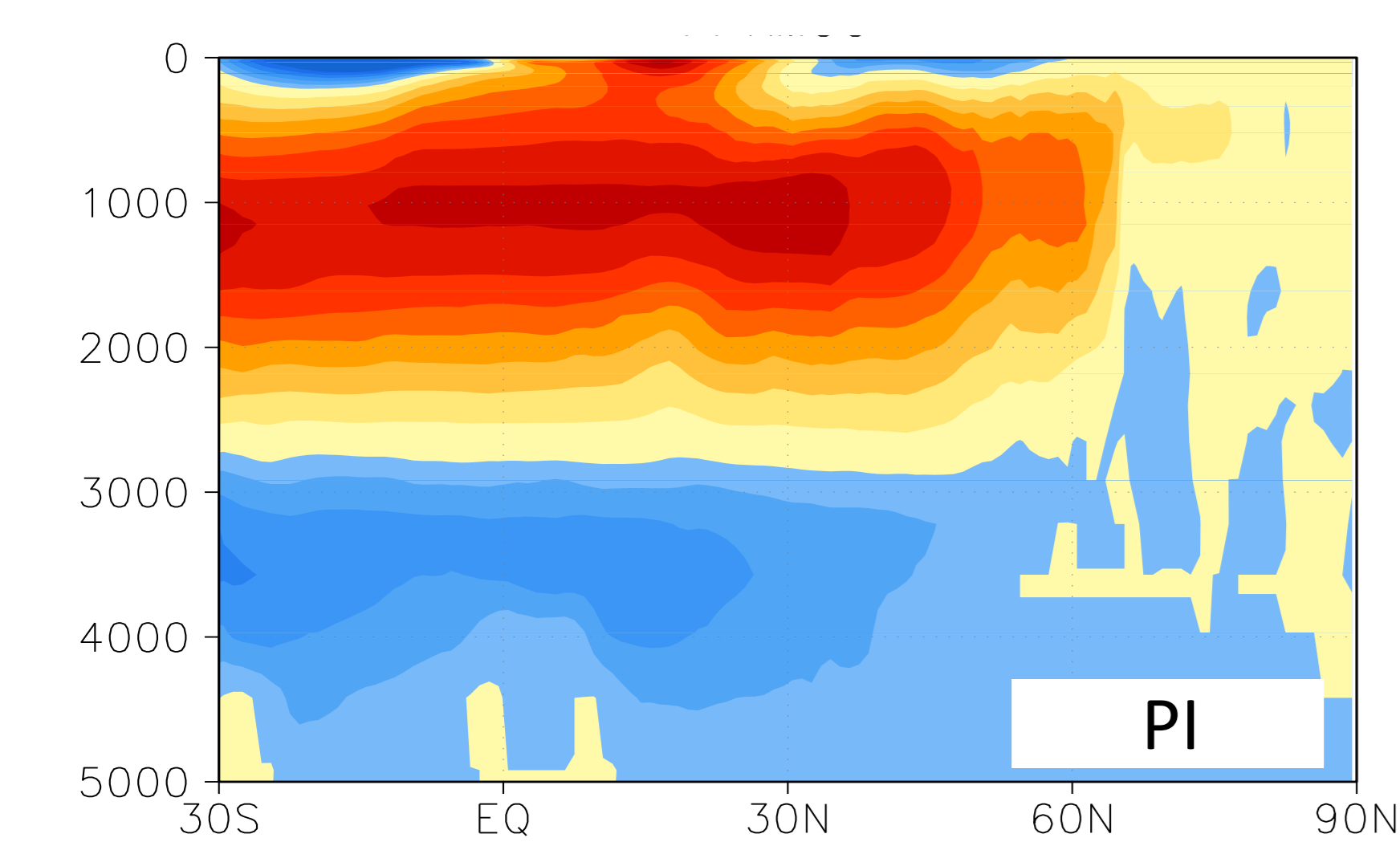


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Conclusions:

1. Compared with the PI, the Atlantic Meridional overturning circulation (AMOC) in our LGM run shoals by ~500m to the water depth of ~2500m. Nevertheless, this LGM ocean state is not fully equilibrated with boundary condition, representing an inherent transient nature of glacial ocean. (Zhang et al, submitted)
2. The orbital forcing (obliquity) plays an important role on mid Holocene and Eemian climate with respect to warming in the high latitudes. The anomaly of cloud and precipitation contribute to cooling in mid Africa, Arabian Peninsula and mid India. (Pfeiffer and Lohmann, submitted, Wei et al., 2012)
3. Our mid Pliocene simulation reproduces strong warming in the northern high latitudes, consistent with reconstructions (Stepanek and Lohmann, 2012). Due to sea ice reduction over the Southern Ocean, the Antarctic Bottom Water formation becomes weaker than today.

	CO2	CH4	N2O	Orbital forcing	Ice Sheet	Vegetation
Pre-industrial	280ppm	760ppb	270ppb	PI	PI	PI(Dynamic)
Holocene 6k	280ppm	650ppb	270ppb	6k BP	PI	PI(Dynamic)
LGM	185ppm	350ppb	200ppb	21k BP	21k	PI(Dynamic)
Eemian	257ppm	512ppb	239ppb	130k BP	PI	PI(Dynamic)
Pliocene	405ppm	760ppb	270ppb	PI	PlioMIP	PlioMIP



6k

LGM

130k

midPlio