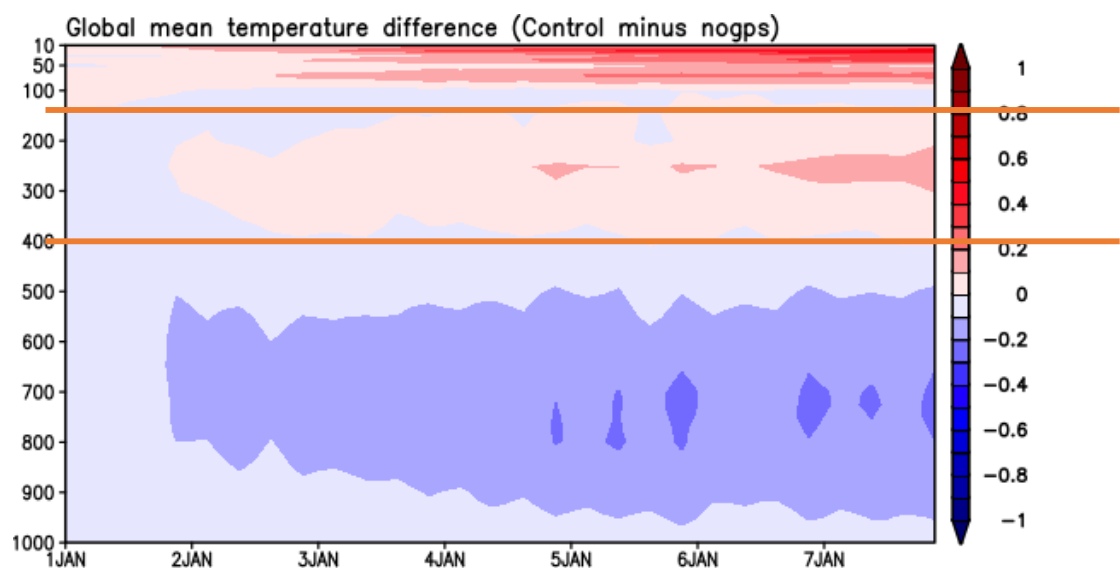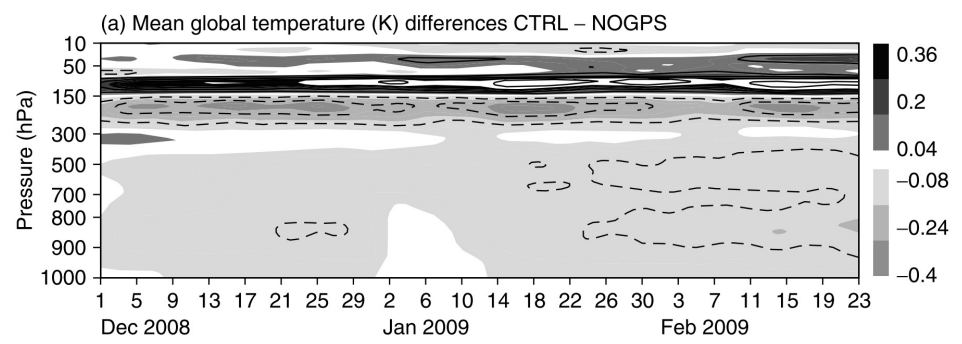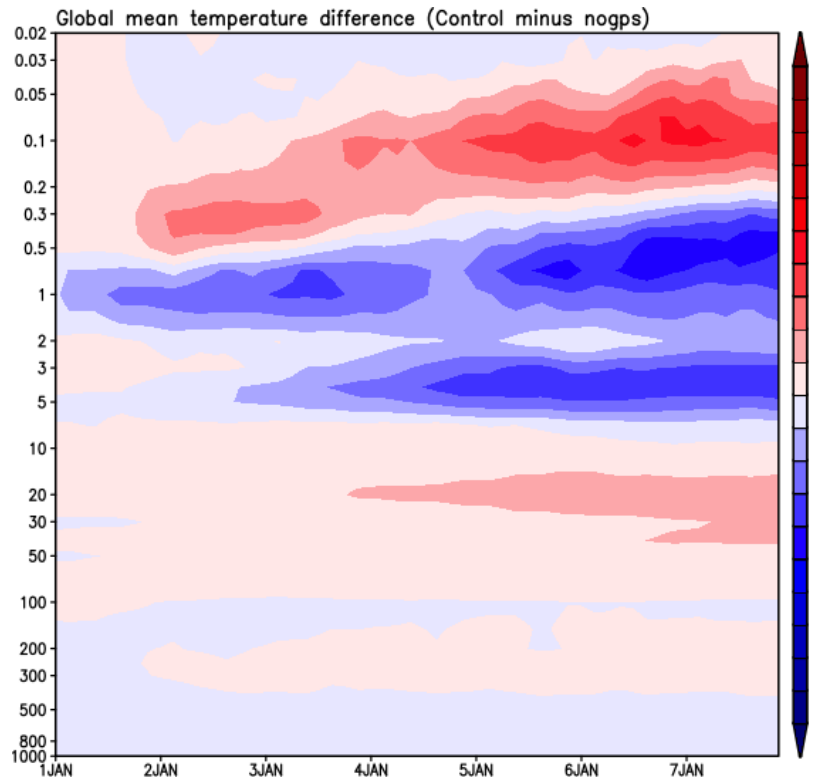Atmospheric
Measurement
Techniques

Open Access

Supplement of

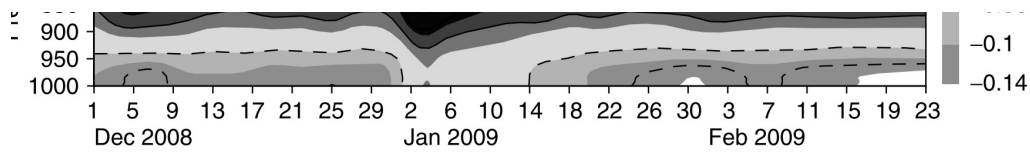# GNSS-RO residual ionospheric error (RIE): a new method and assessment

Dong L. Wu et al.
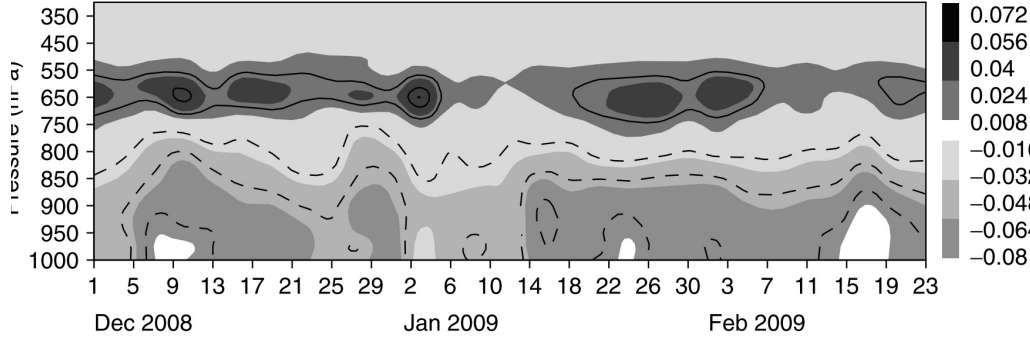
Correspondence to: Dong L. Wu (dong.l.wu@nasa.gov)

Poli et al 2010

Global mean temperature difference (Control minus nogps)

(a) Mean global temperature (K) differences CTRL − NOGPS

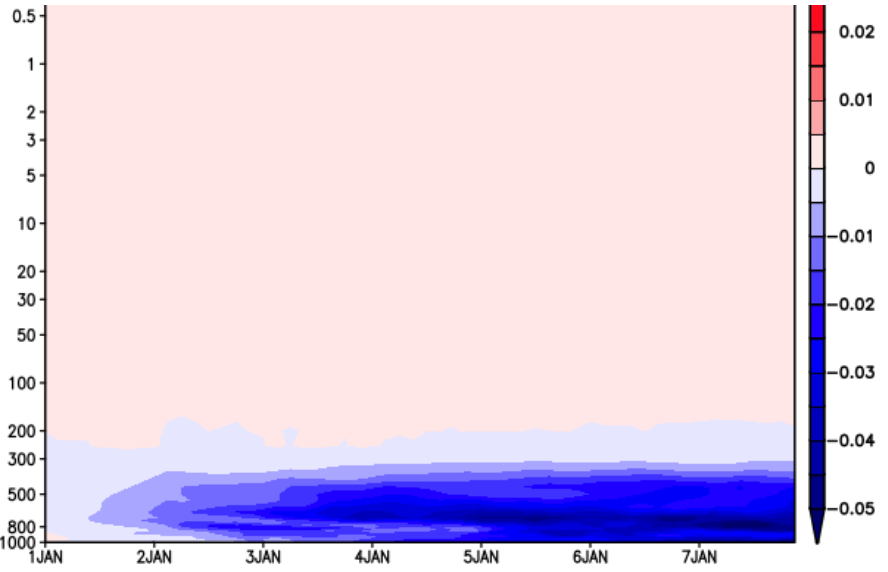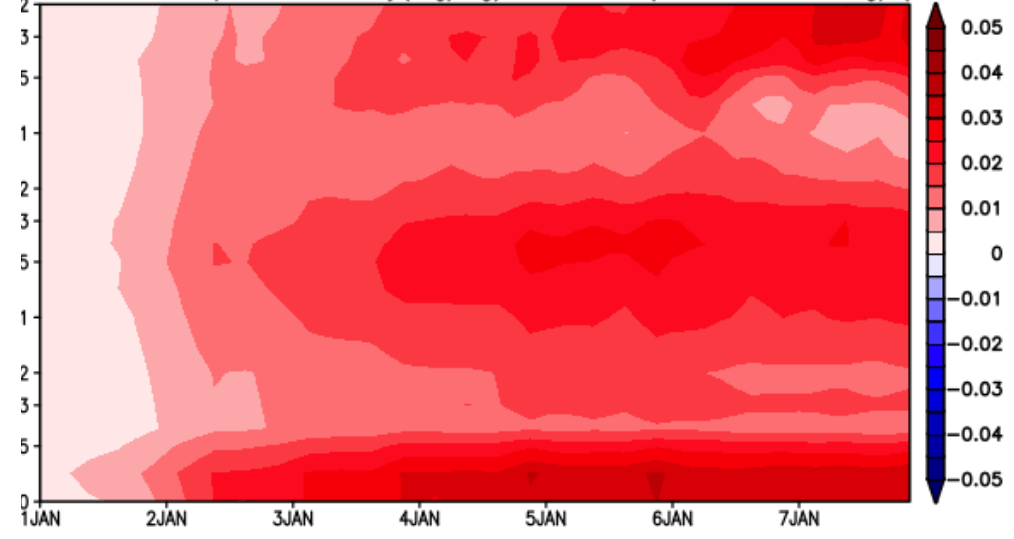Global mean temperature difference (Control minus nogps)

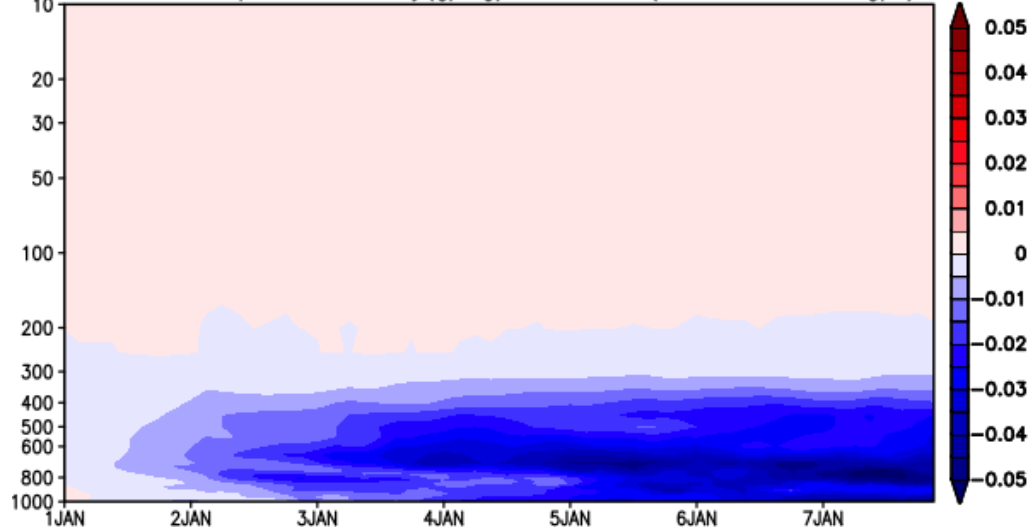Need an independent data to evaluate the impact

(b) Mean specific humidity (g kg^{-1}) differences CTRL − NOGPS: Land

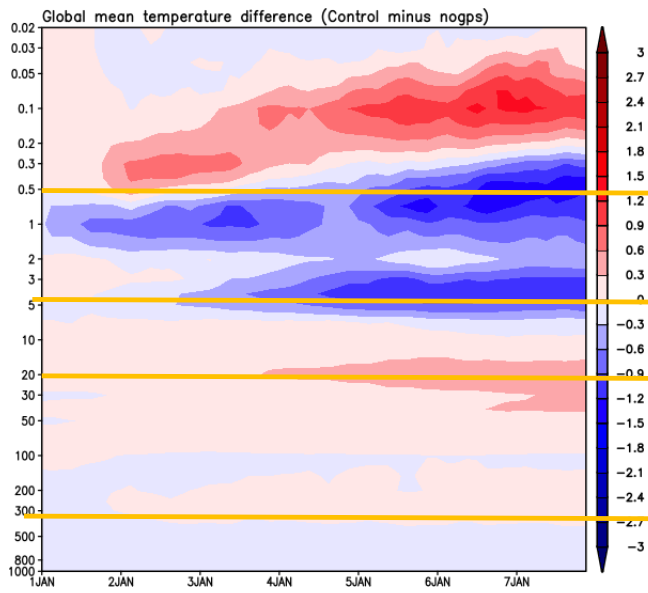Global mean specific humidity(mg/Kg) difference (Control minus nogps)

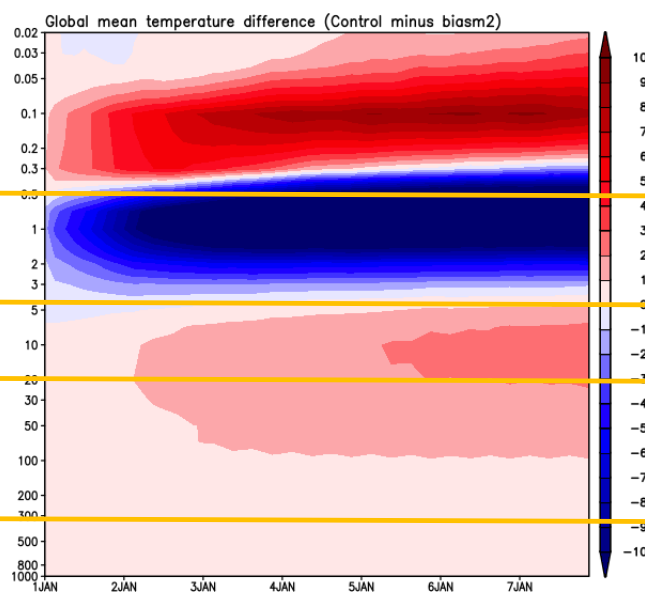Global mean specific humidity(g/Kg) difference (Control minus nogps)
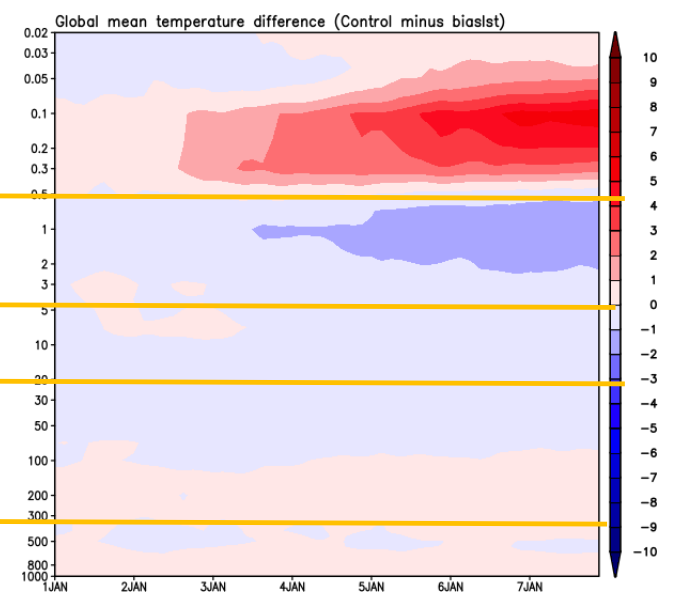
Global mean temperature profile (Day 1 to Day 7)
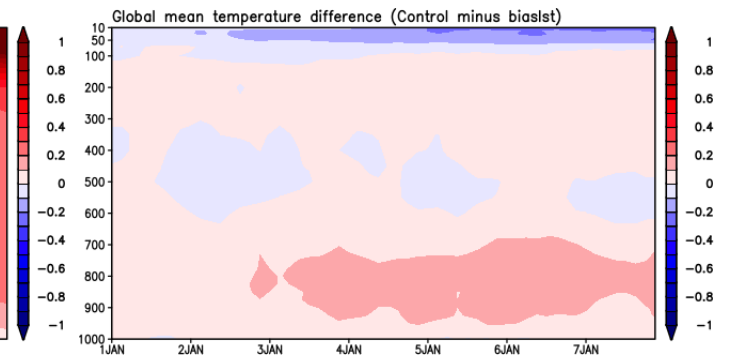
Control - nogps

Control – biasm2

Control - biaslst

3-hourly mean temperature profile for first 7-days
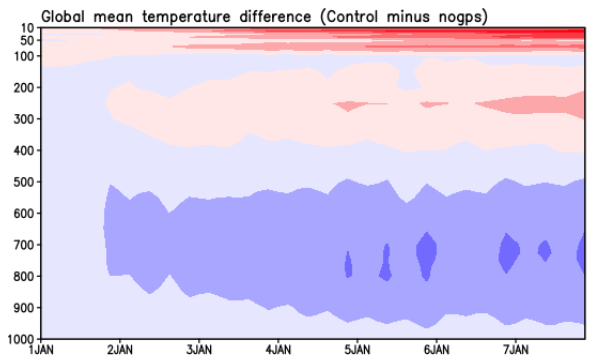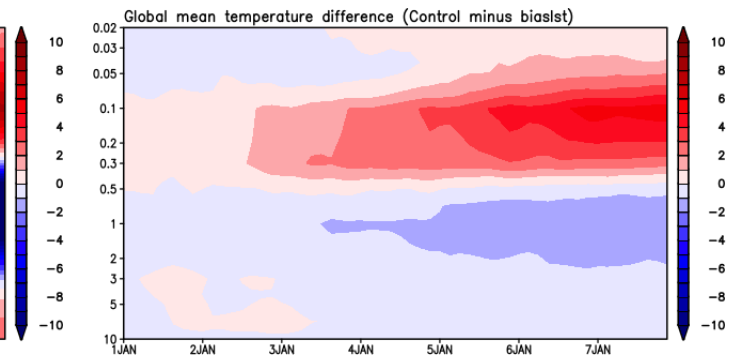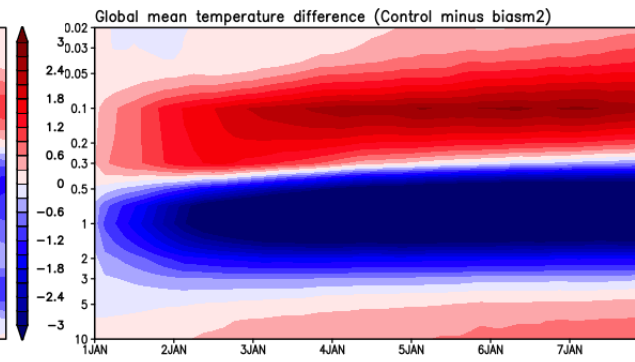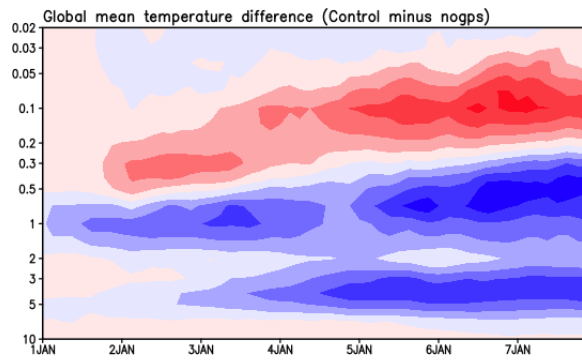
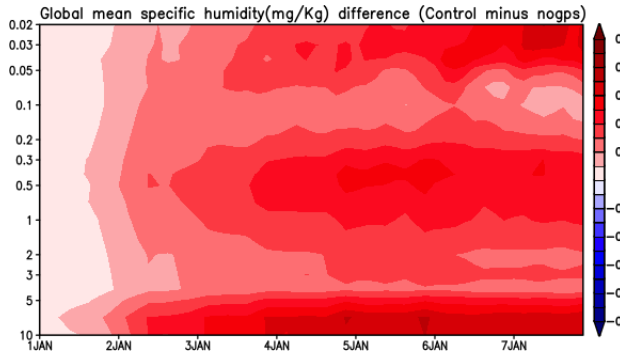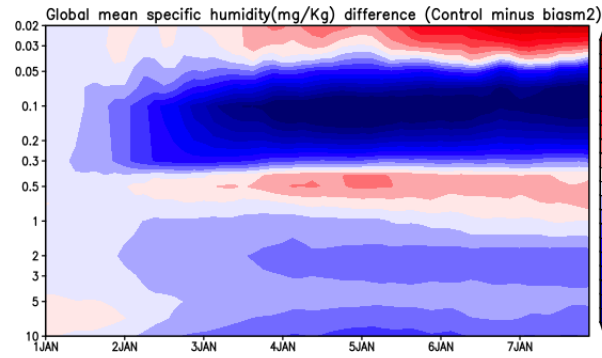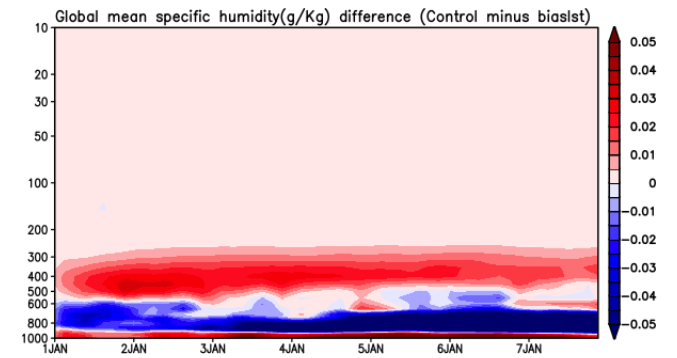Control - nogps   Control – biasm2   Control – biaslst
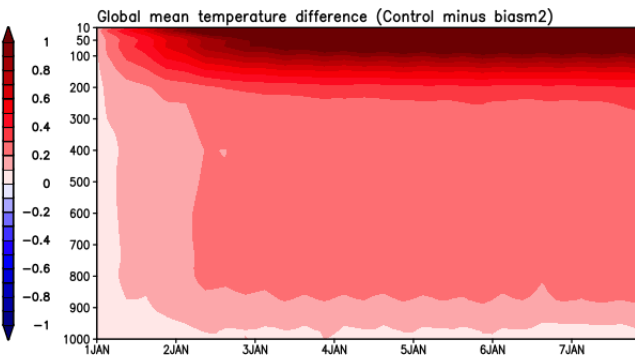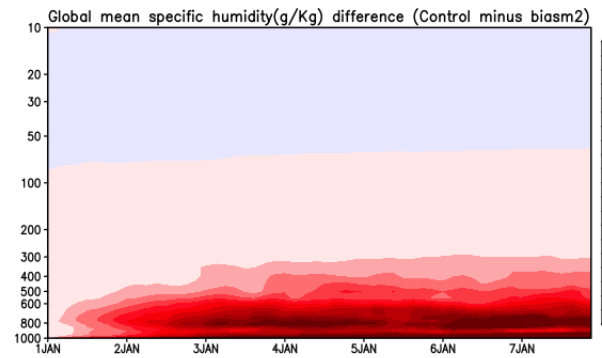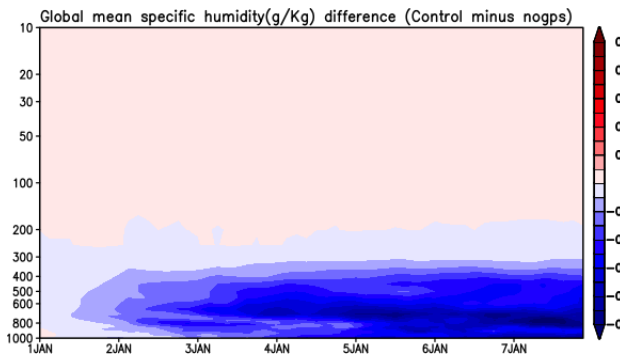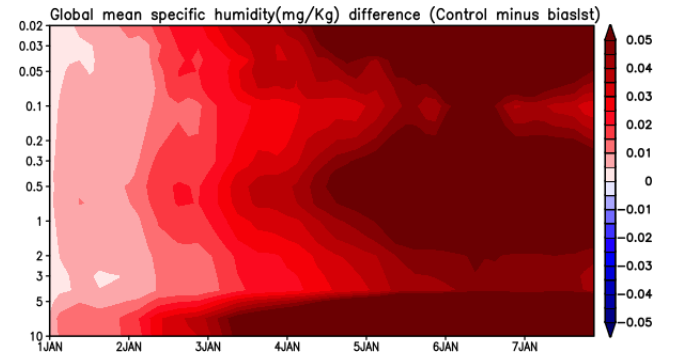
Global mean temperature differences

Control - nogps   Control – biasm2   Control – biaslst

Global mean specific humidity

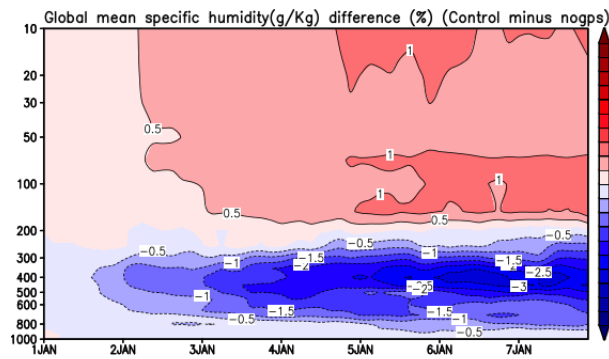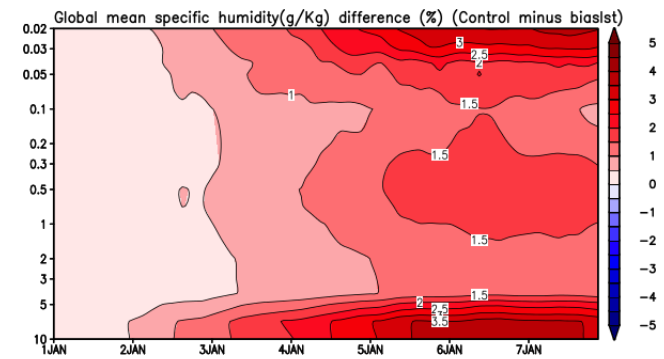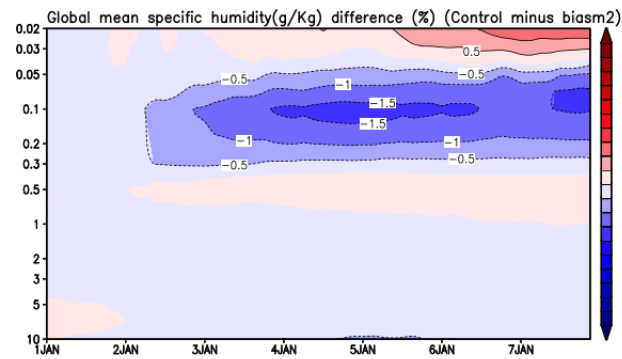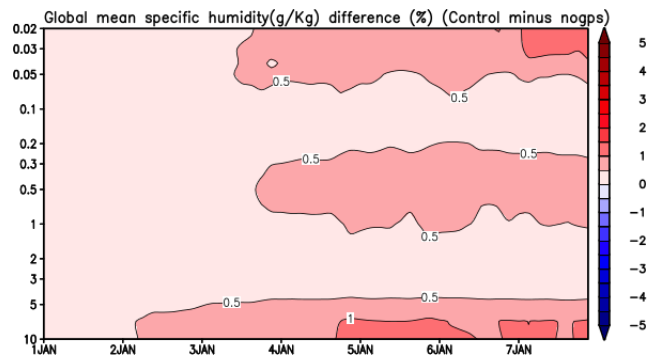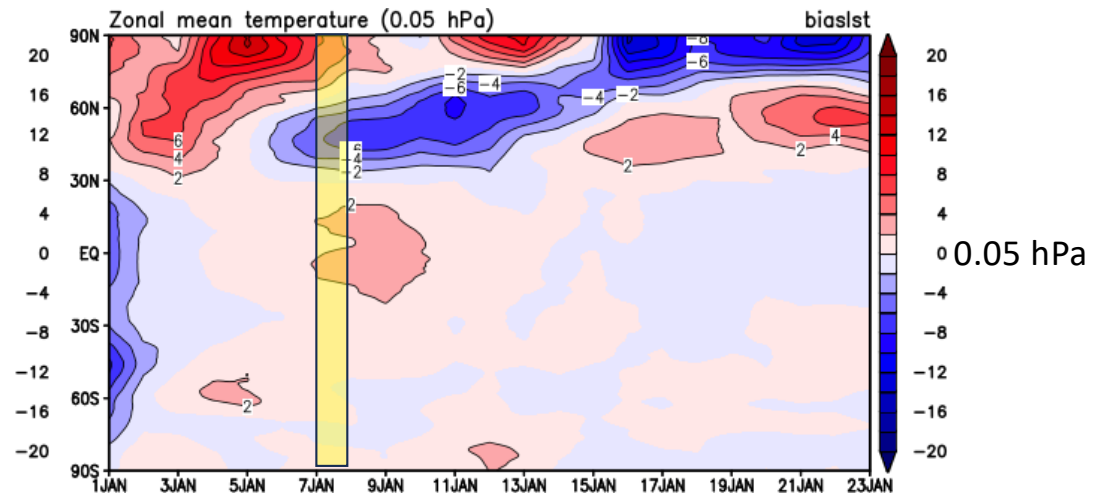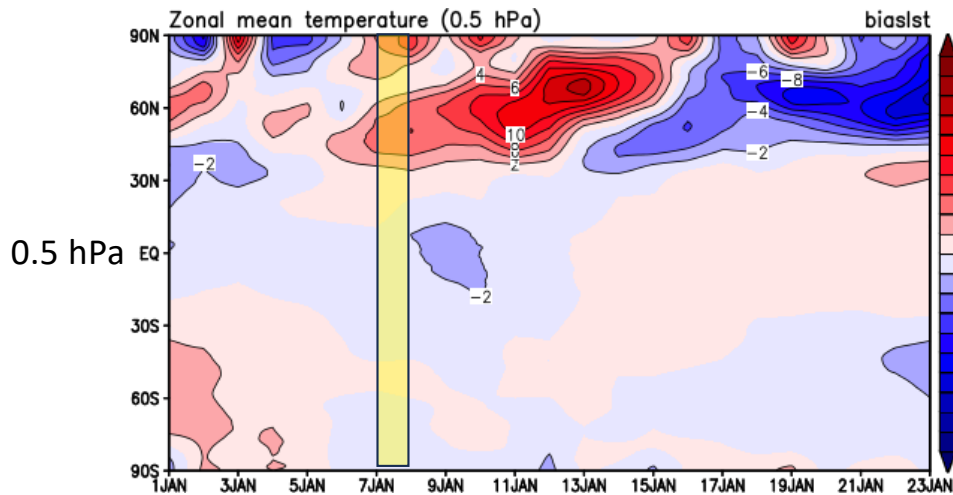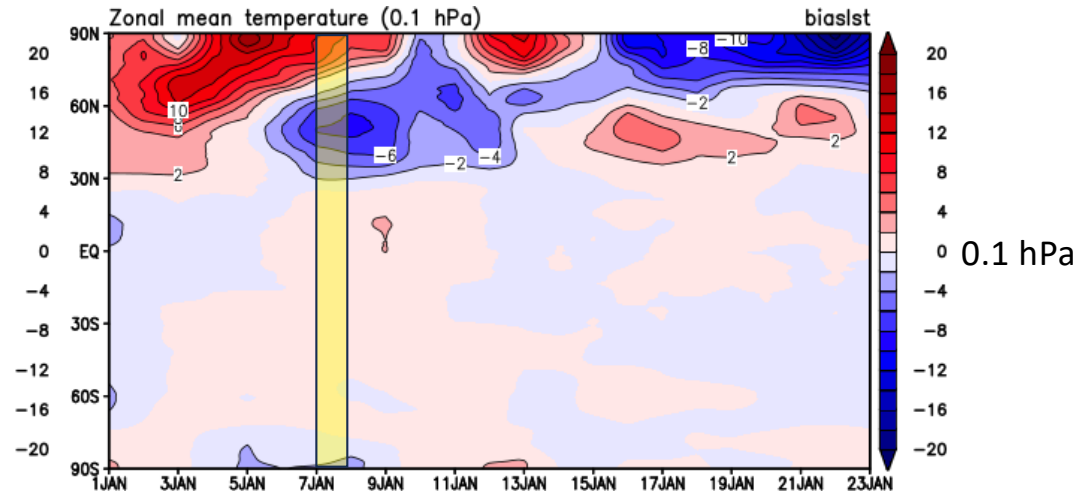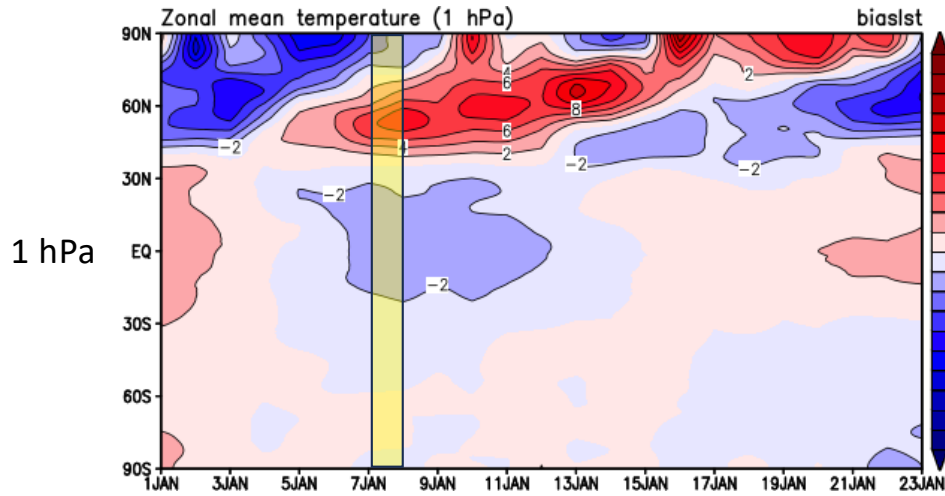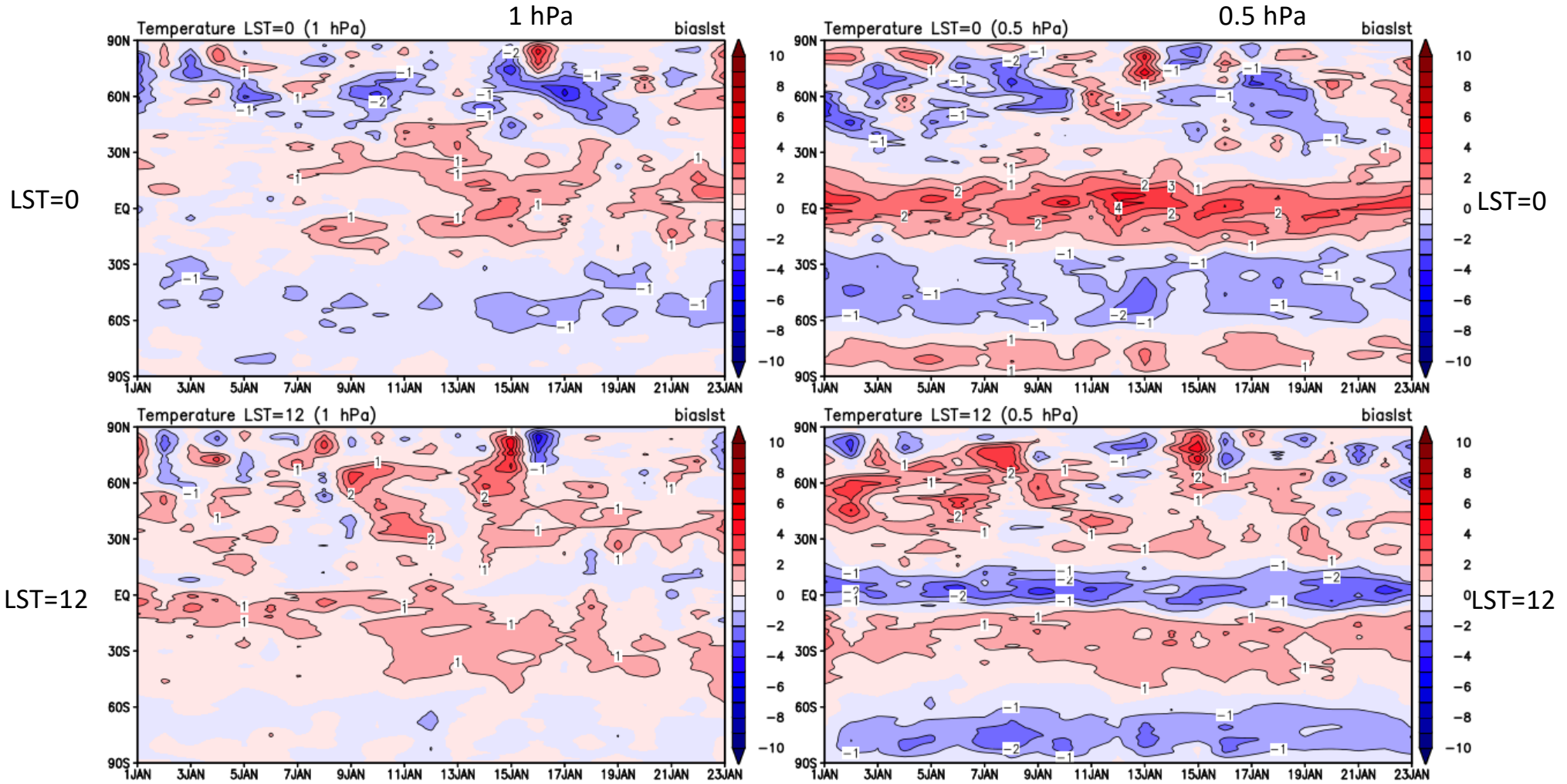Control - nogps   Control – biasm2   Control – biaslst
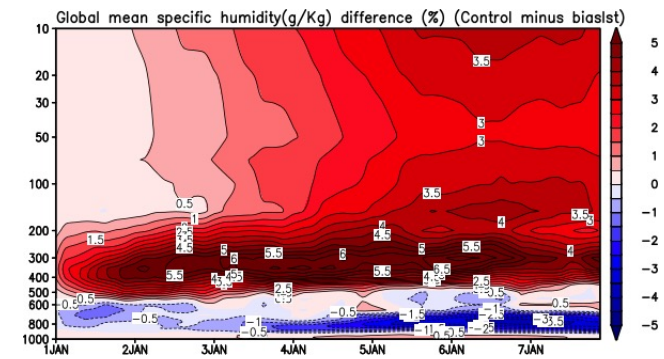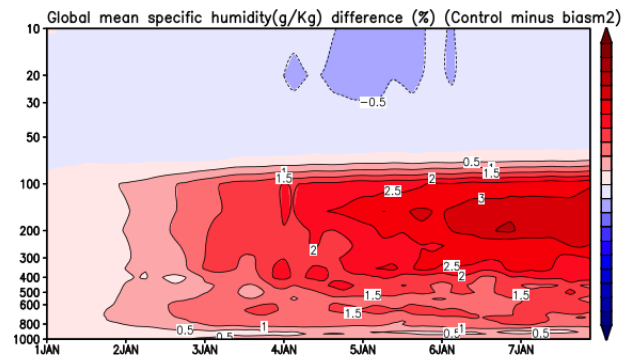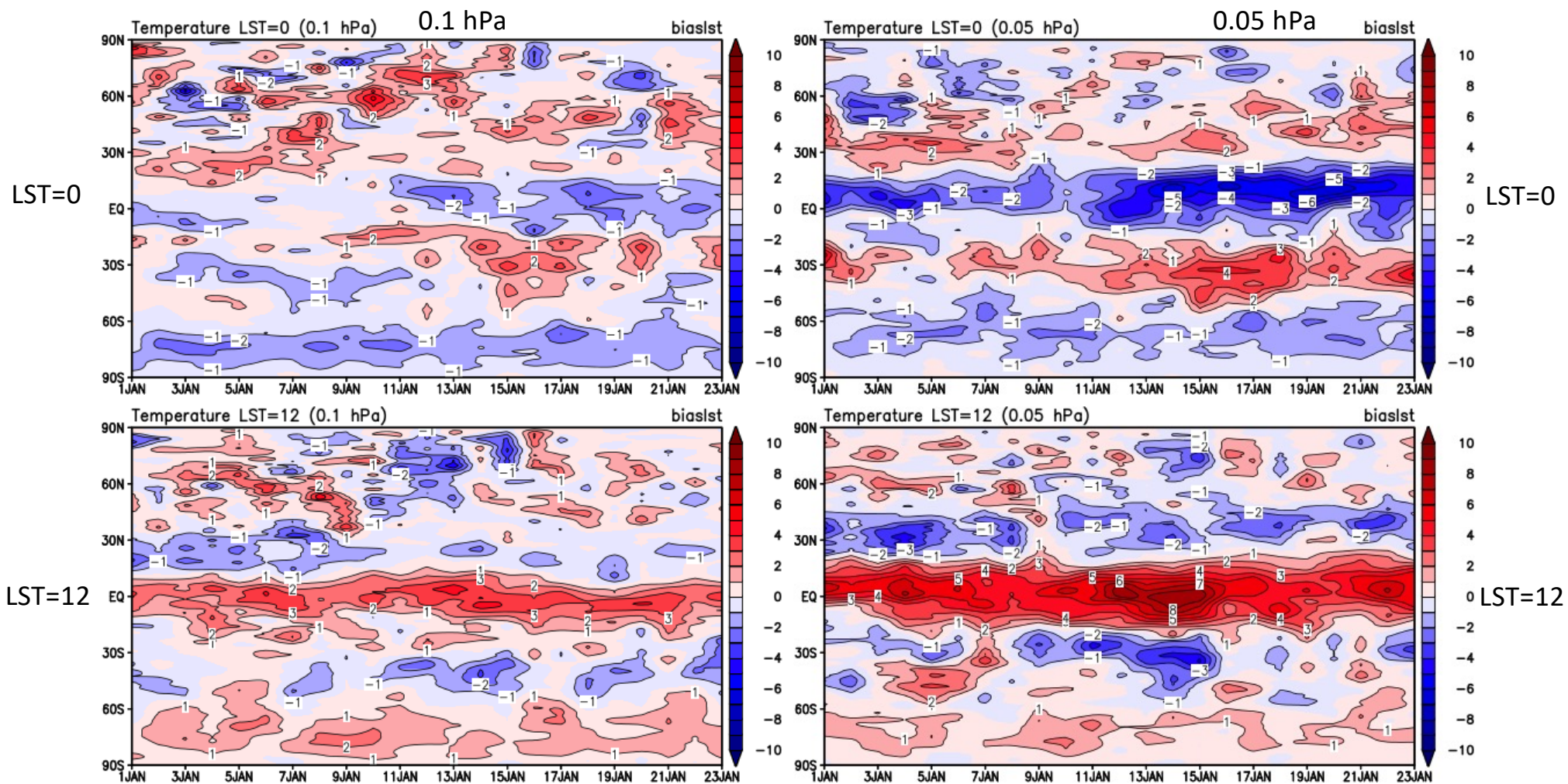
Global mean specific humidity (% difference)

Zonal mean temperature anomalies (biaslst, Day 1-23) (after time mean)

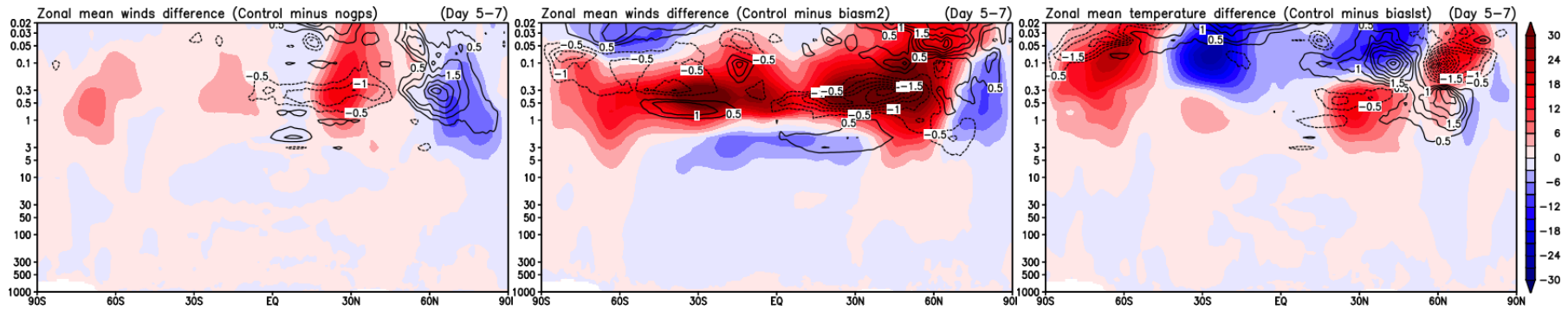Diurnal variations of zonal mean temperature (biaslst, Day 1-23)

Diurnal variations of zonal mean temperature (biaslst, Day 1-23)

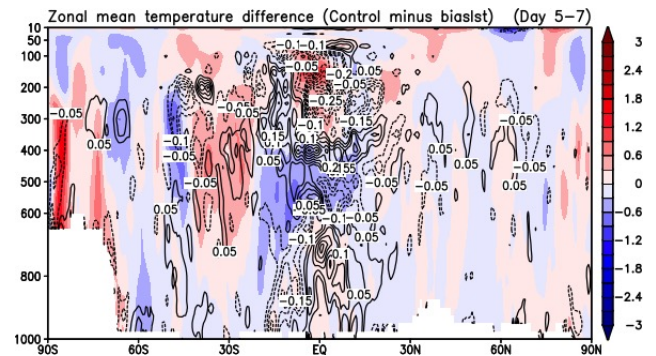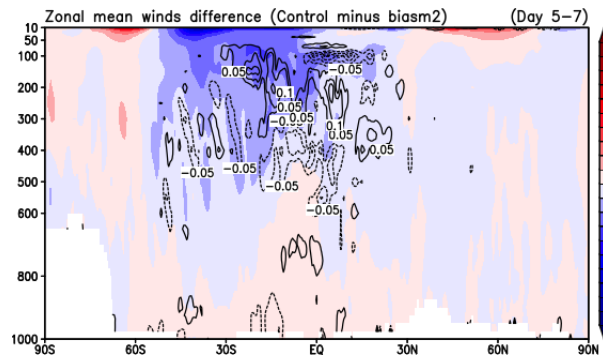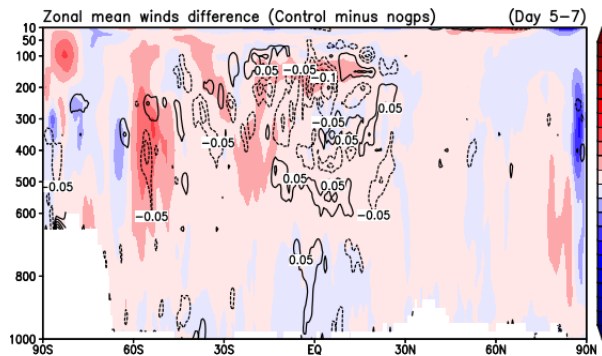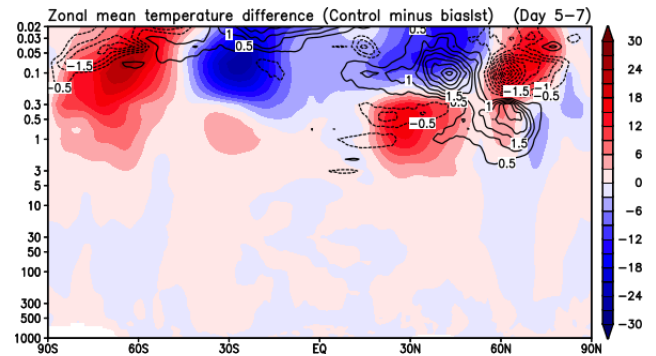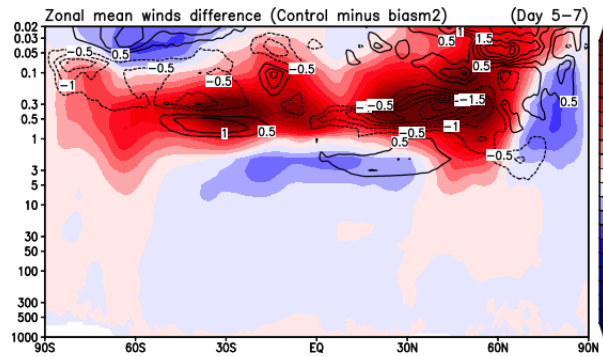(a) CTL – NoGPS (b) CTL – BiasM2 (c) CTL – BiasLST
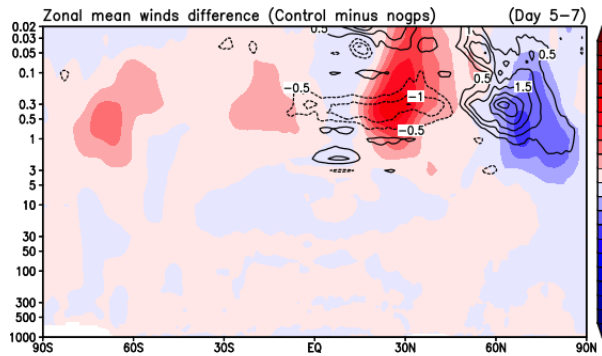
Zonal mean winds differences (Day 5-7)
shading: zonal winds
Contour: meridional winds

Control - nogps   Control – biasm2   Control – biaslst

Zonal mean winds differences (Day 5-7)
shading: zonal winds
Contour: meridional winds
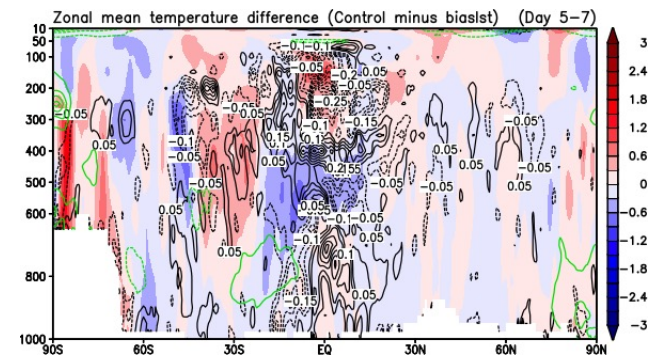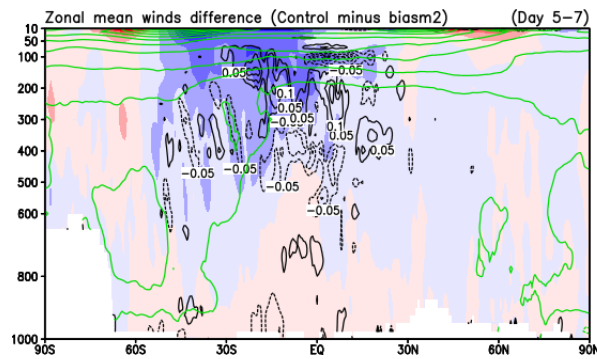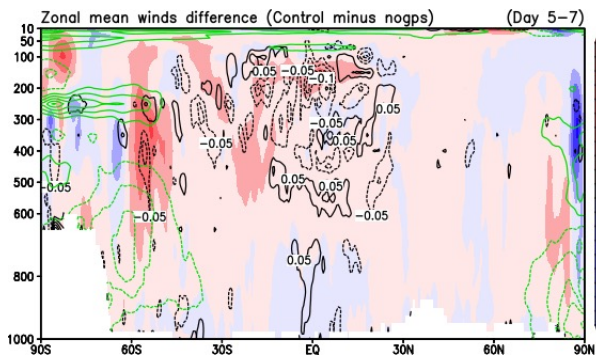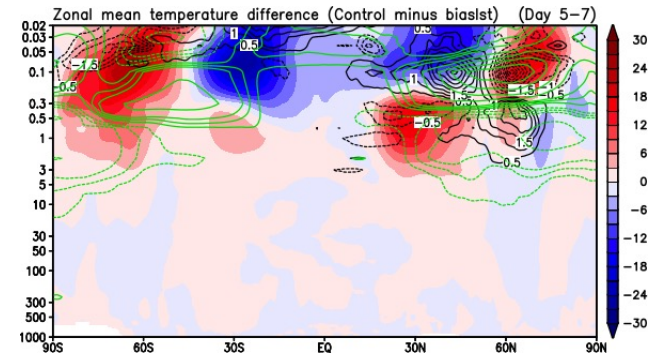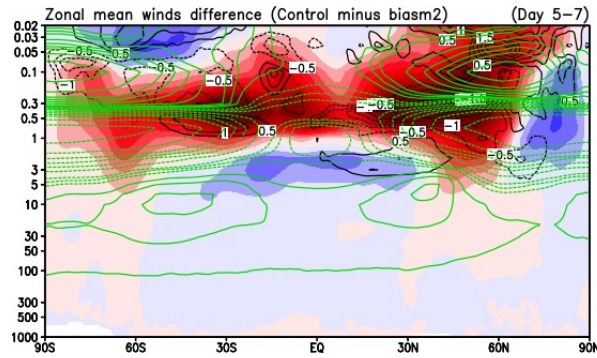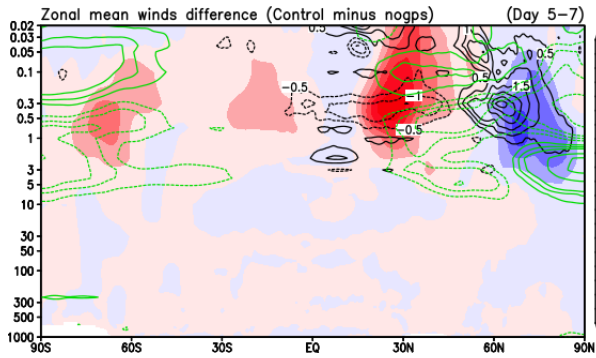
Control - nogps

Control – biasm2

Control – biaslst

Zonal mean winds differences (Day 5-7)
shading: zonal winds
Contour: meridional winds
Green contour: temperature