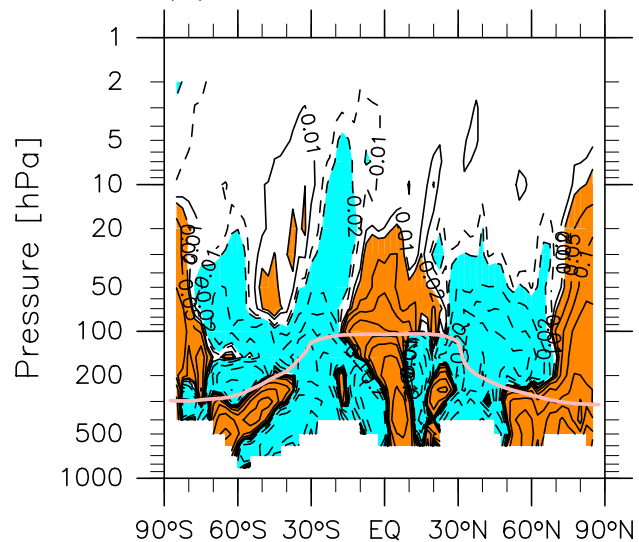
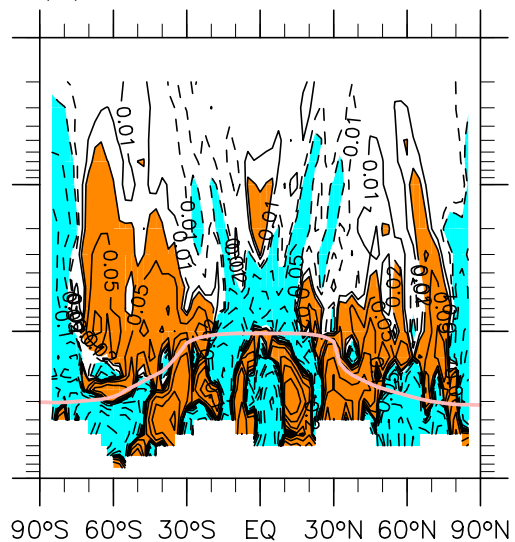


ω_{res} [mPa/s]

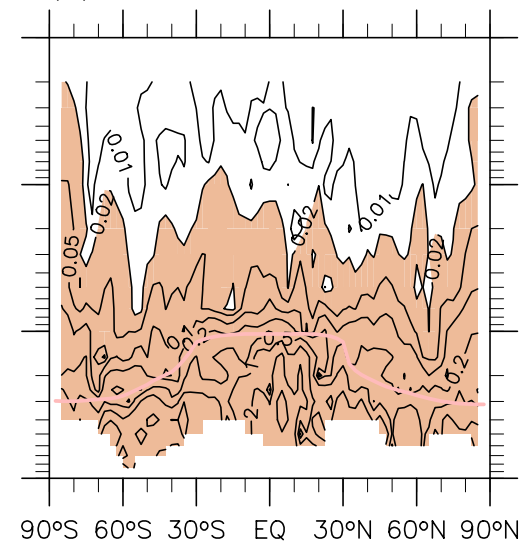
(a) MERRA-2 - REM



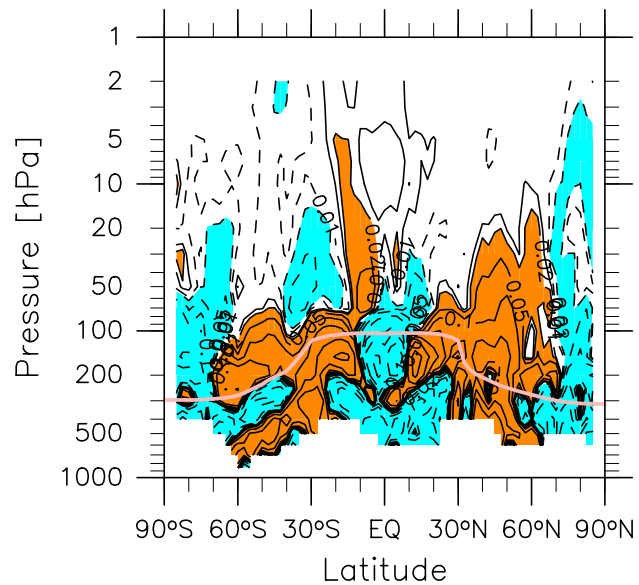
(b) JRA-55 - REM



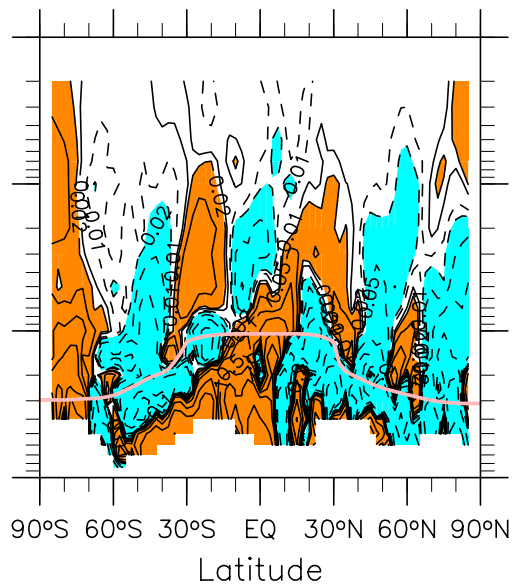
(e) SD



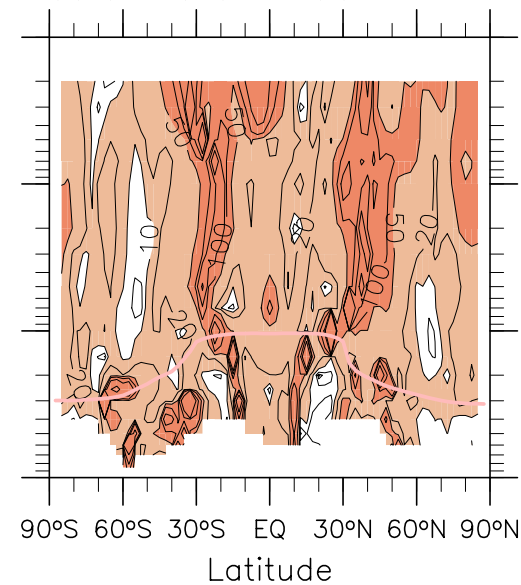
(c) ERA-Int - REM



(d) CFSR - REM

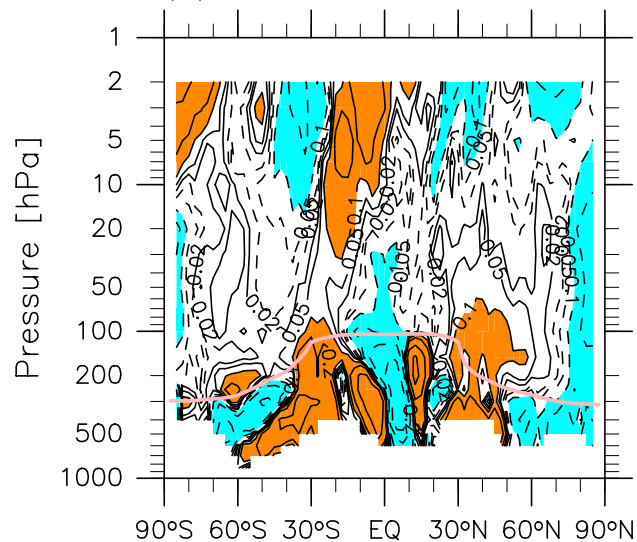


(f) $(\text{SD} / |\text{REM}|) \times 100\%$

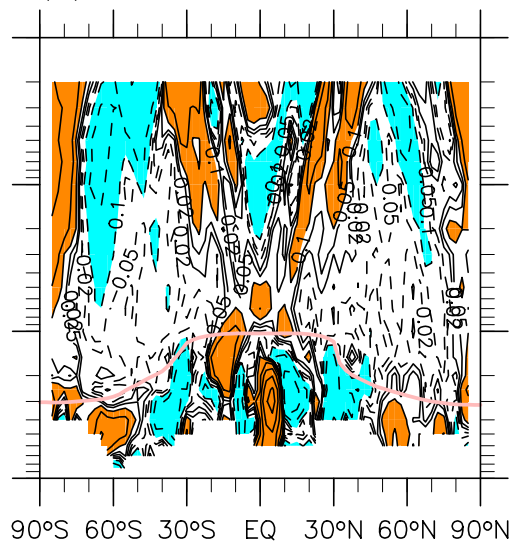


w_{res} [mm/s]

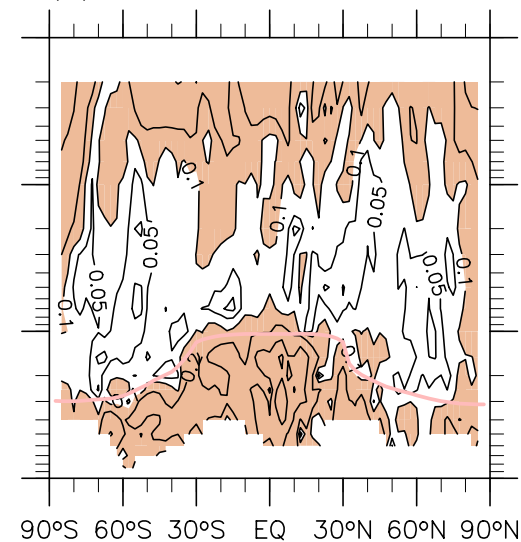
(a) MERRA-2 - REM



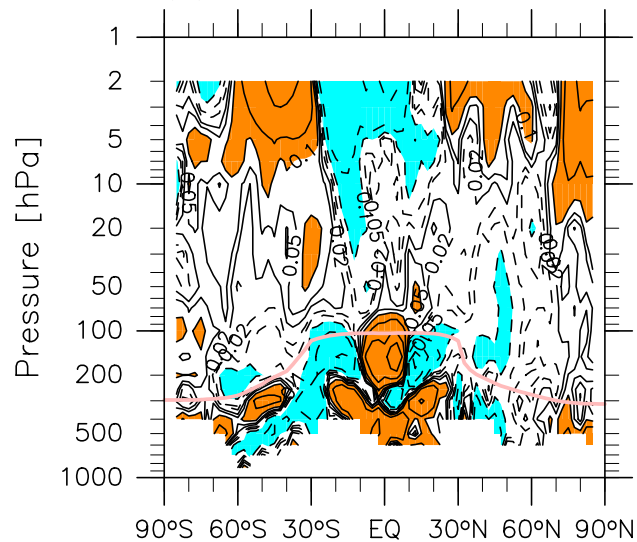
(b) JRA-55 - REM



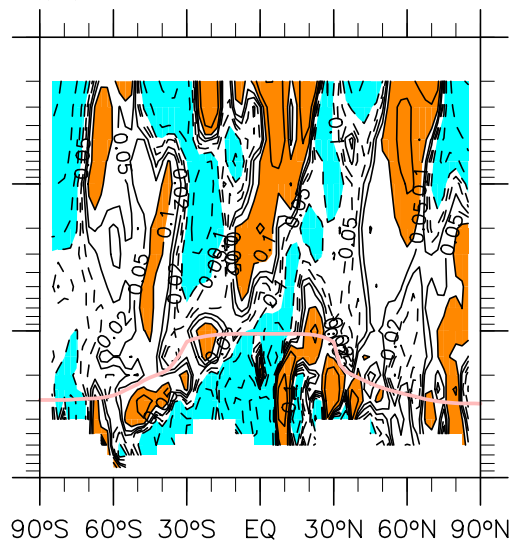
(e) SD



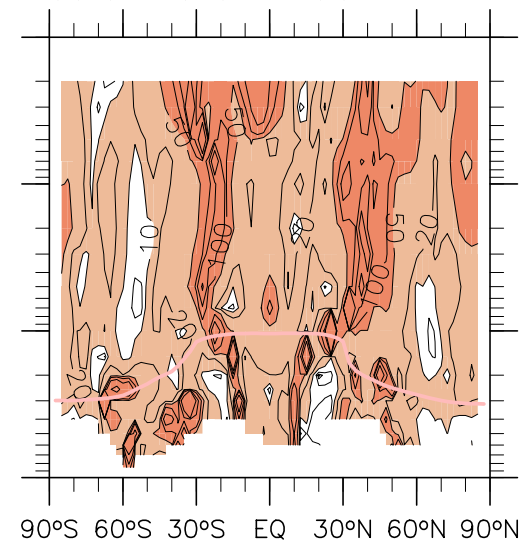
(c) ERA-Int - REM



(d) CFSR - REM



(f) $(SD / |REM|) \times 100\%$



MAM (81-10)

Latitude

Latitude

Latitude

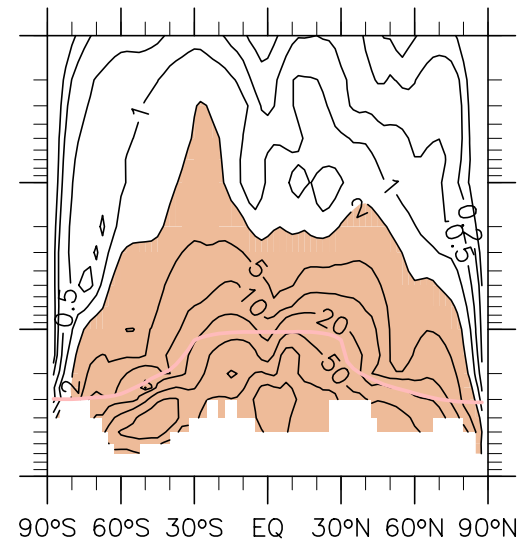
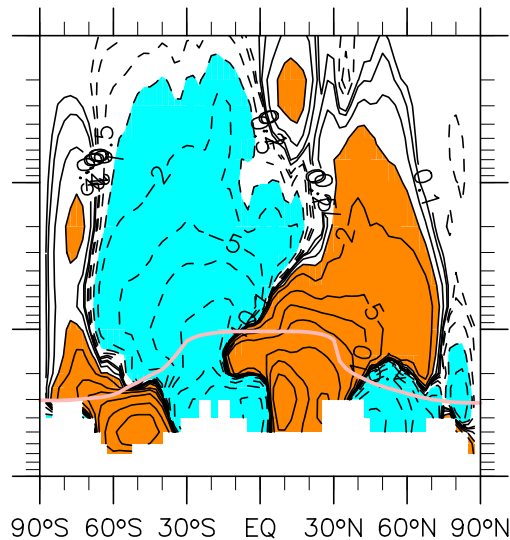
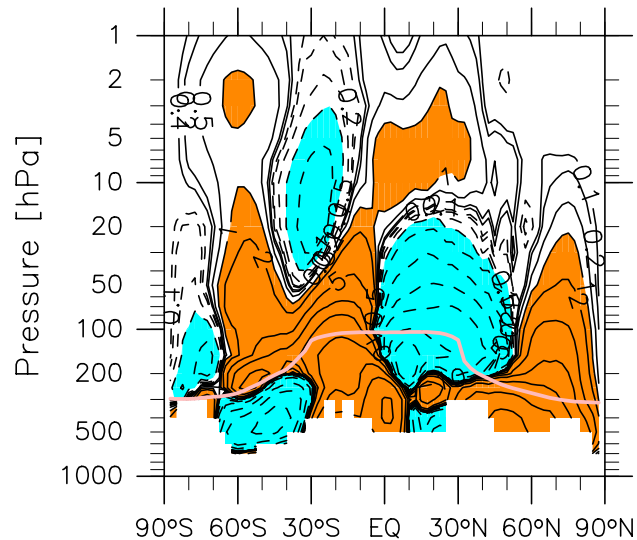
ψ_{vres} [kg/m/s]

MAM (81–10)

(a) MERRA-2 – REM

(b) JRA-55 – REM

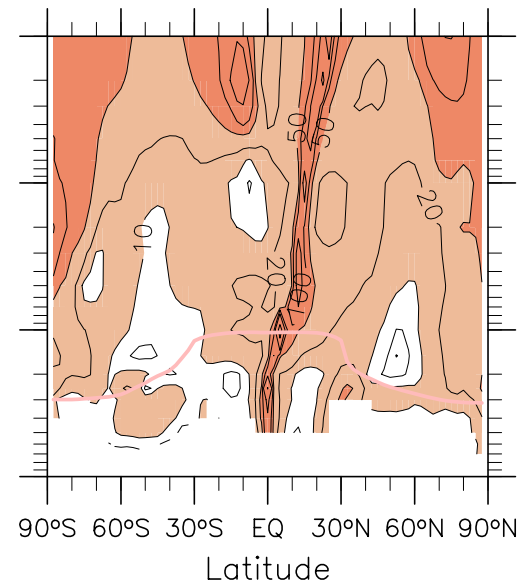
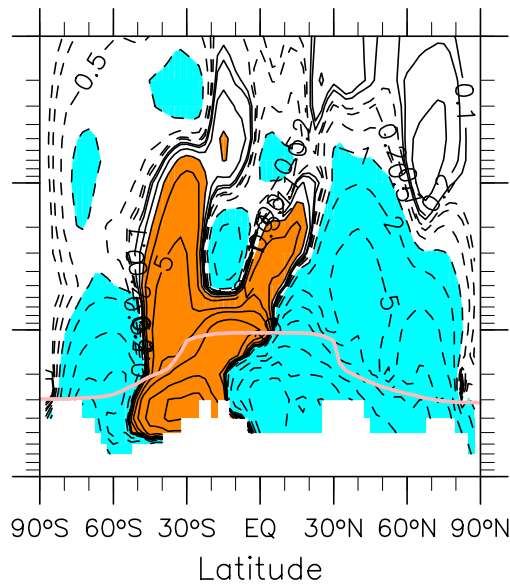
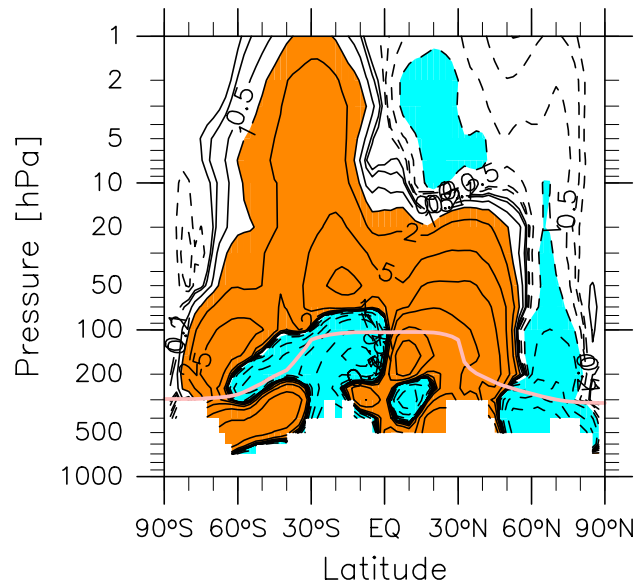
(e) SD



(c) ERA-Int – REM

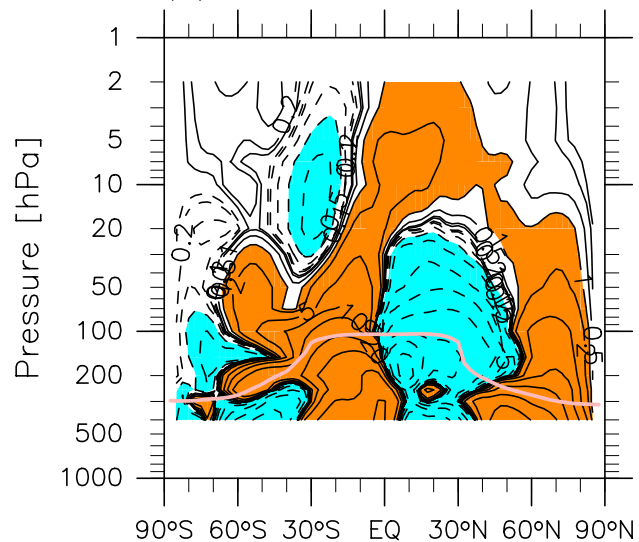
(d) CFSR – REM

(f) $(\text{SD} / |\text{REM}|) \times 100\%$

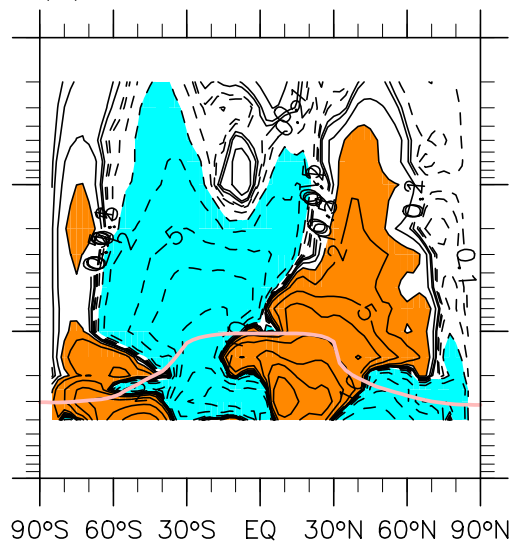


ψ_{wres} [kg/m/s]

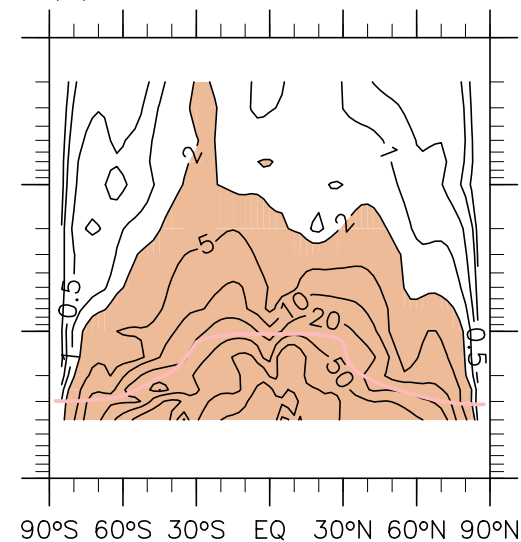
(a) MERRA-2 - REM



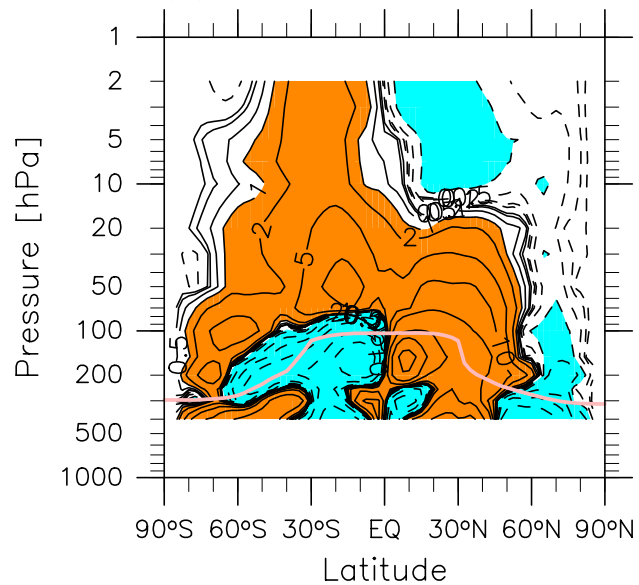
(b) JRA-55 - REM



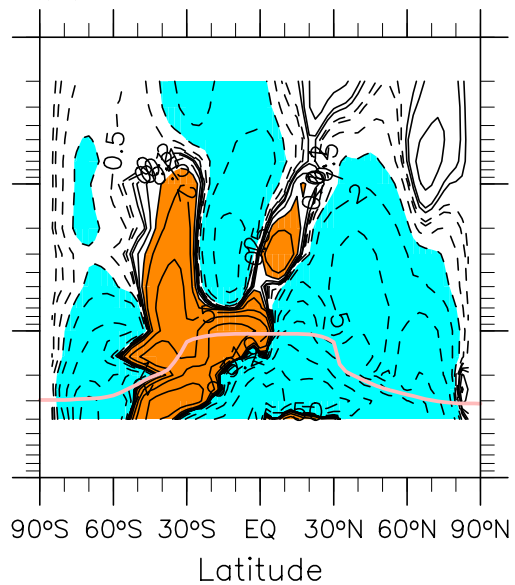
(e) SD



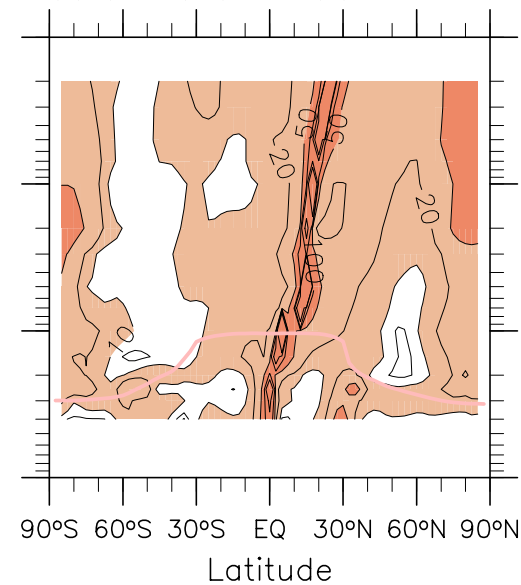
(c) ERA-Int - REM



(d) CFSR - REM



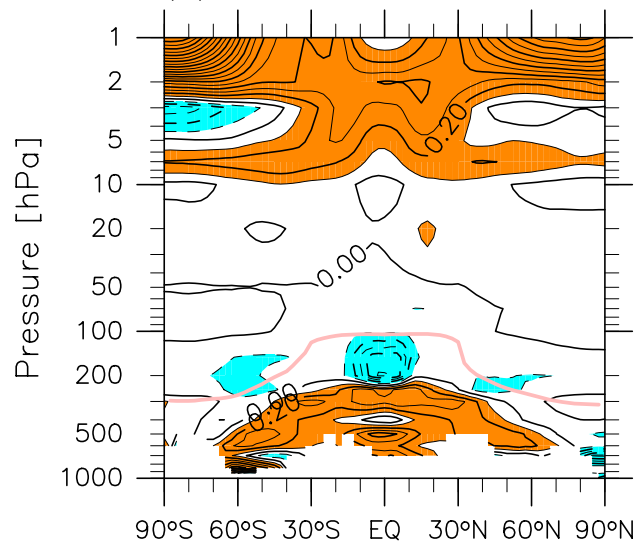
(f) $(\text{SD} / |\text{REM}|) \times 100\%$



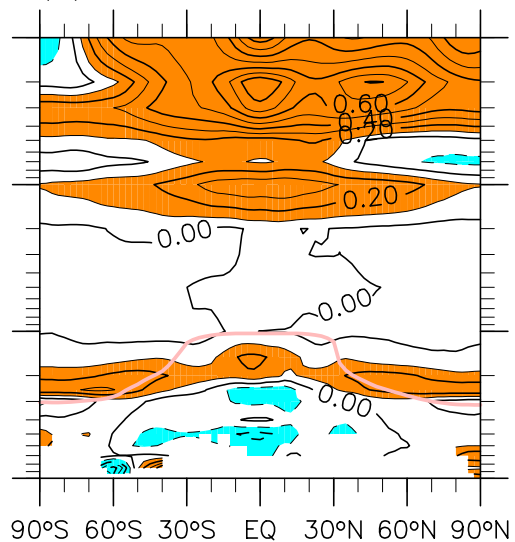
MAM (81-10)

Q_longwave [K/d]

(a) MERRA-2 - REM

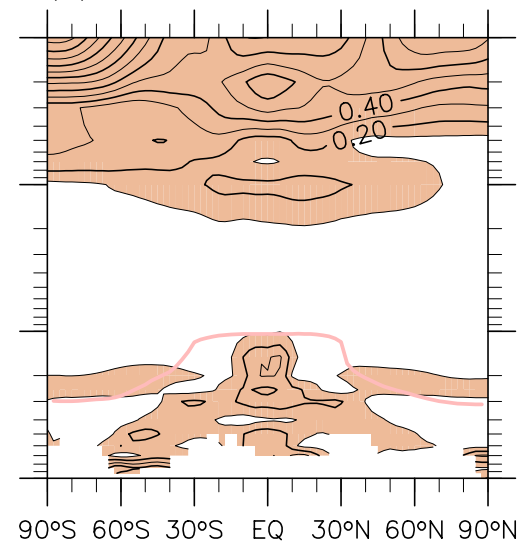


(b) JRA-55 - REM

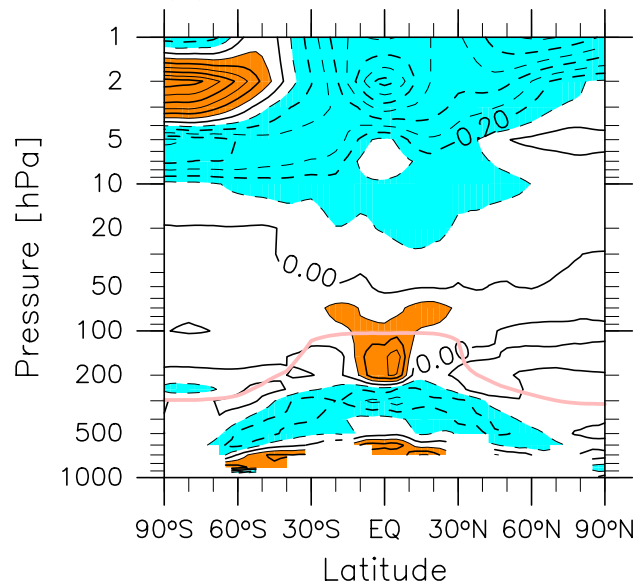


MAM (81-10)

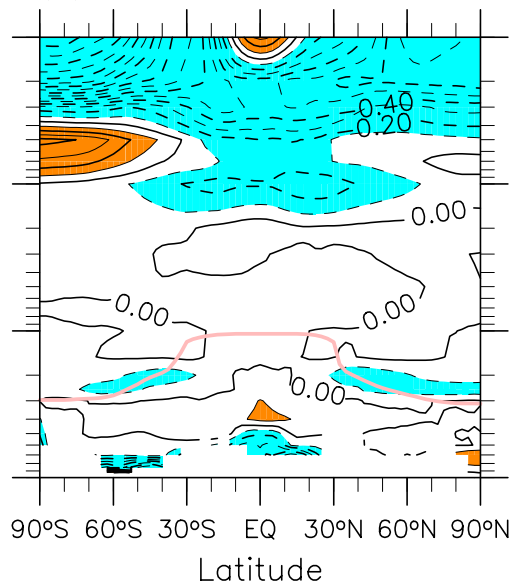
(e) SD



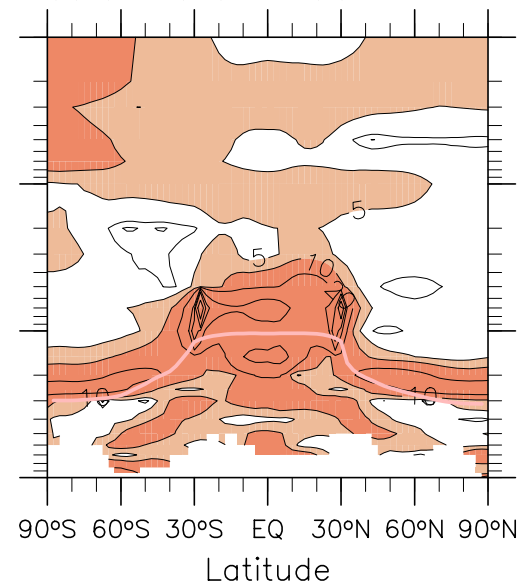
(c) ERA-Int - REM



(d) CFSR - REM

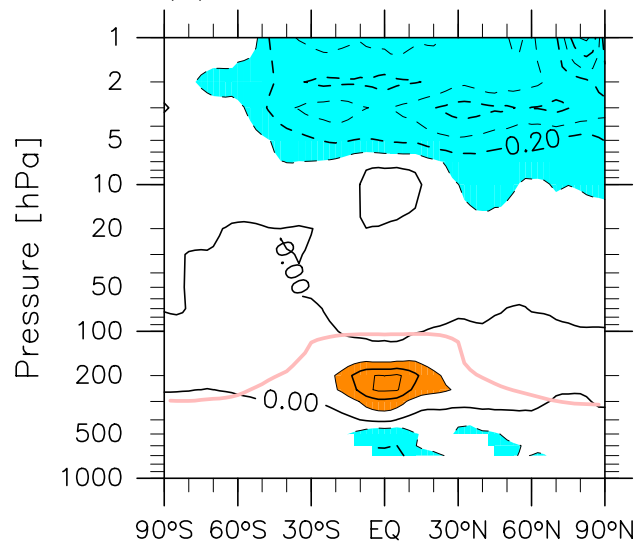


(f) (SD / | REM |) x 100%

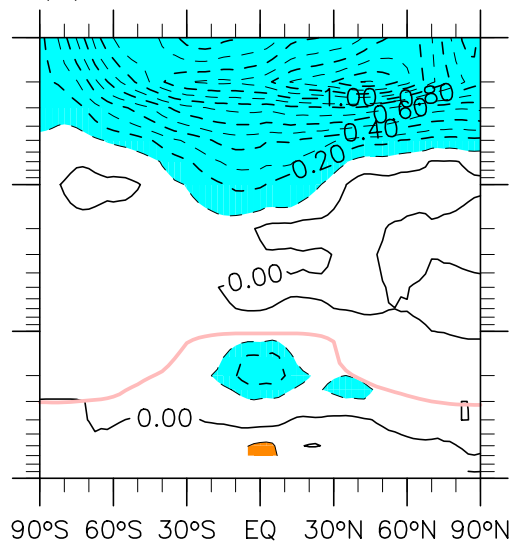


Q_shortwave [K/d]

(a) MERRA-2 - REM

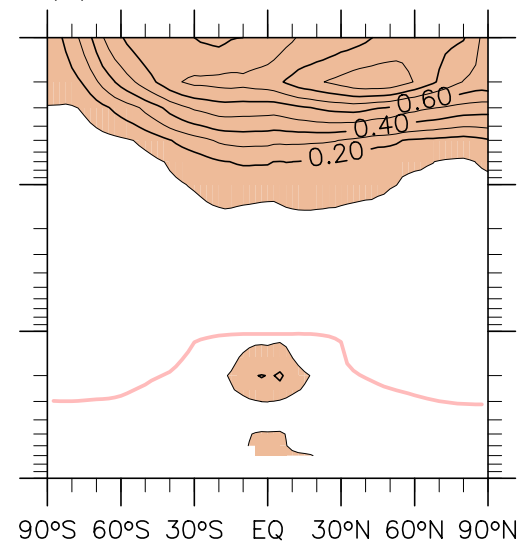


(b) JRA-55 - REM

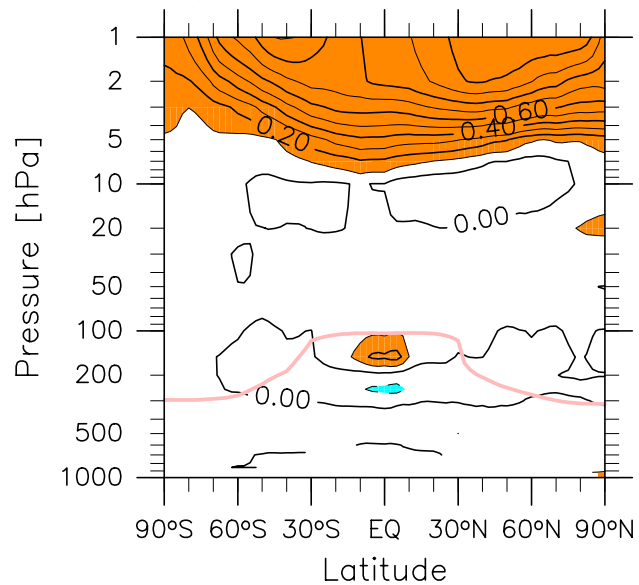


MAM (81-10)

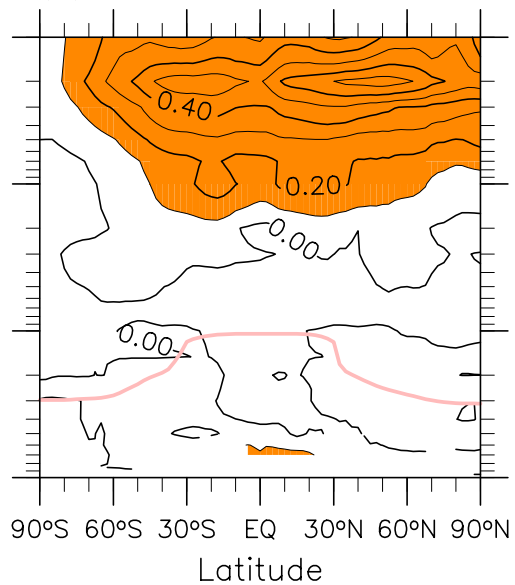
(e) SD



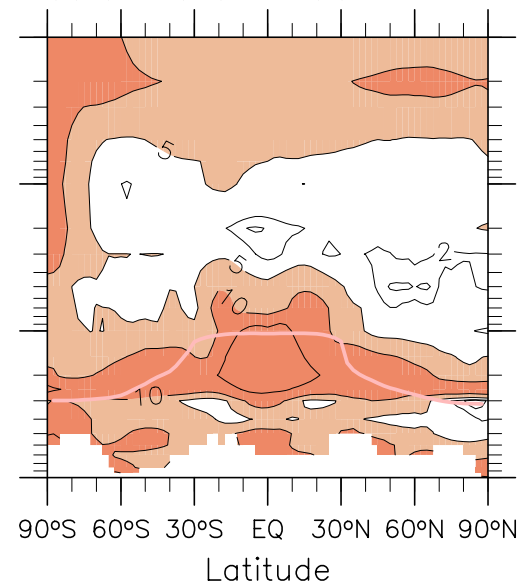
(c) ERA-Int - REM



(d) CFSR - REM

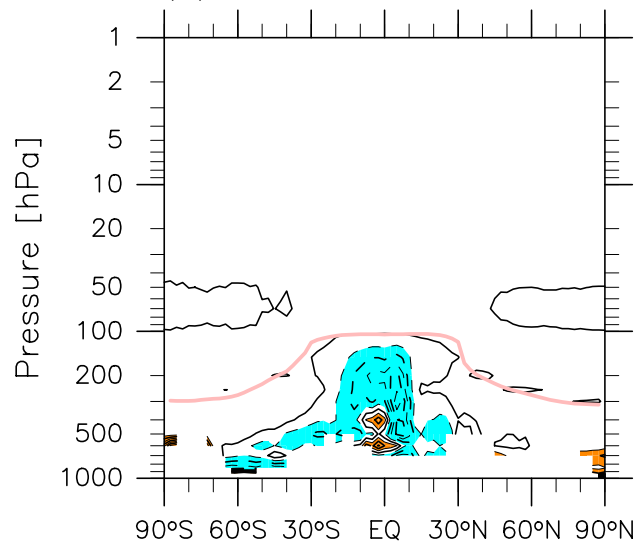


(f) (SD / | REM |) x 100%

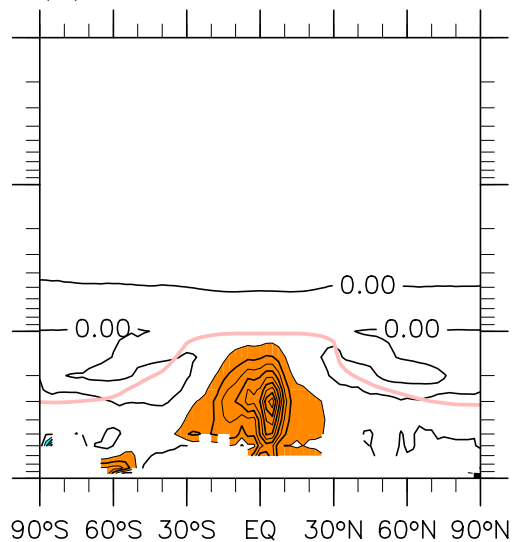


$Q_{\text{total}} - Q_{\text{rad}}$ [K/d]

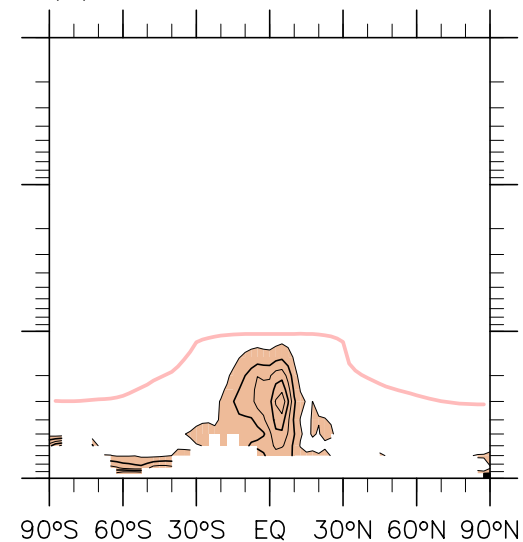
(a) MERRA-2 - REM



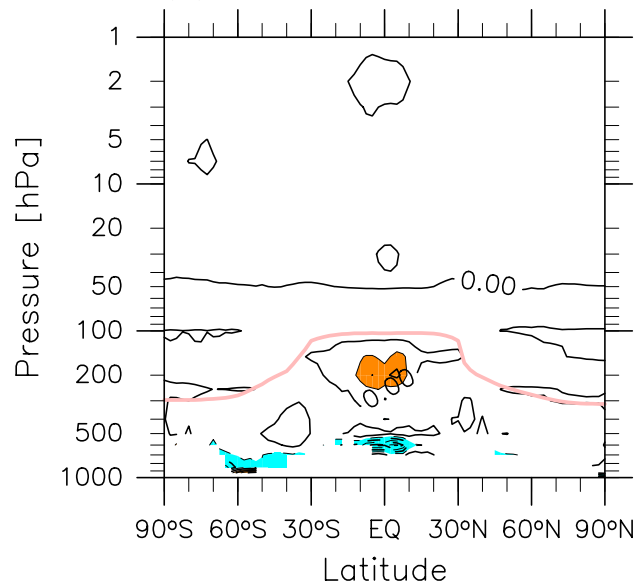
(b) JRA-55 - REM



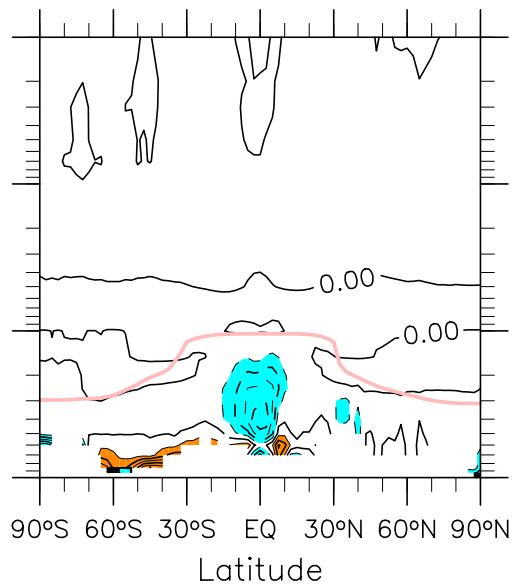
(e) SD



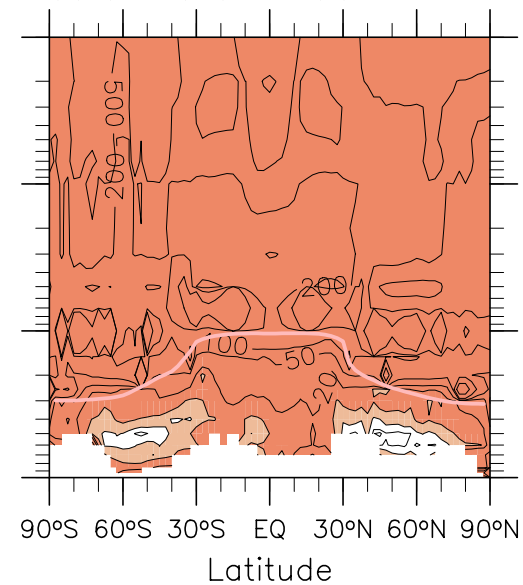
(c) ERA-Int - REM



(d) CFSR - REM

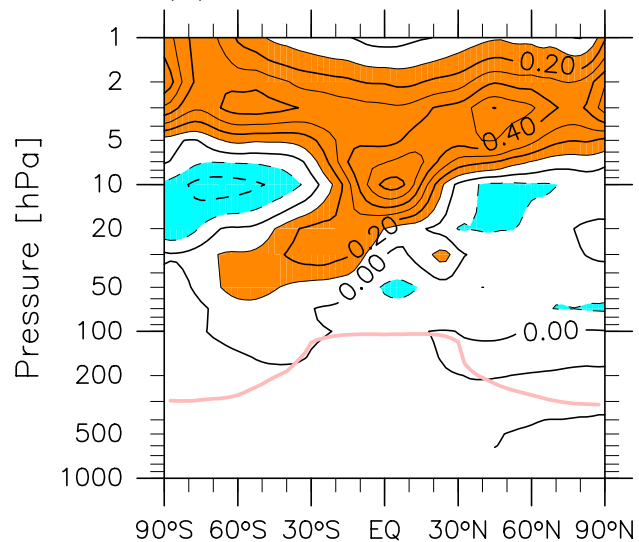


(f) $(SD / |REM|) \times 100\%$

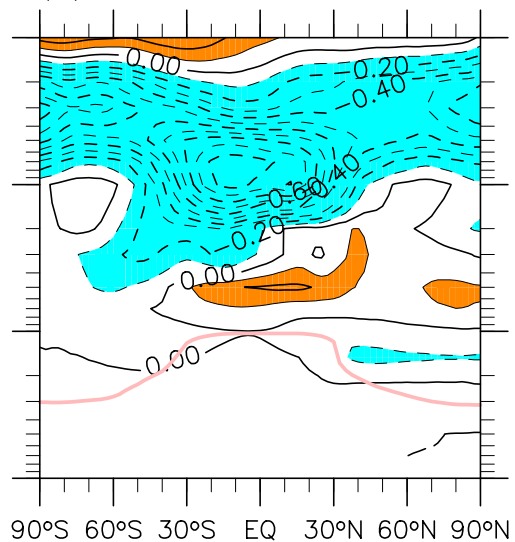


Ozone [ppmv]

(a) MERRA-2 - REM

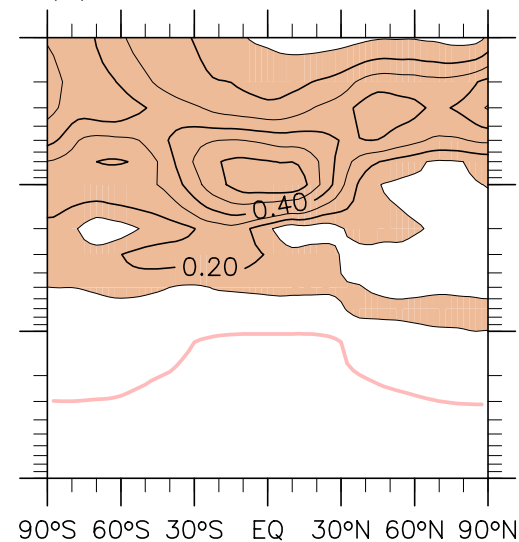


(b) JRA-55 - REM

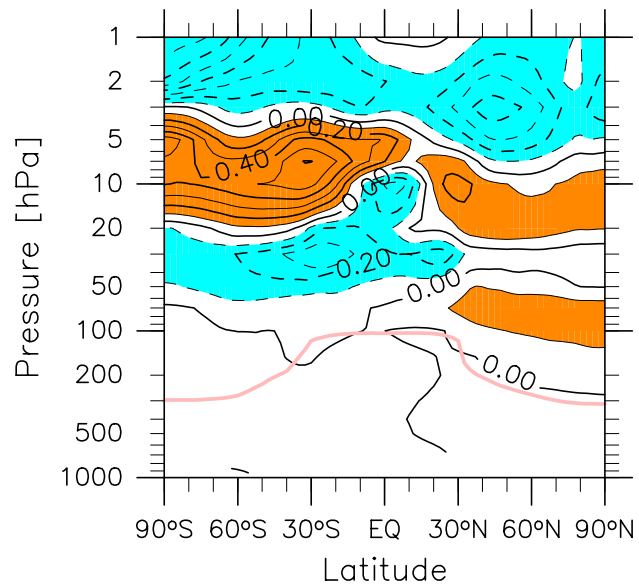


MAM (81-10)

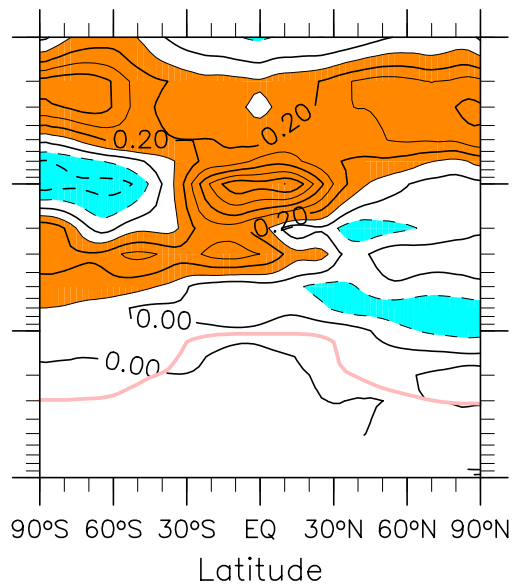
(e) SD



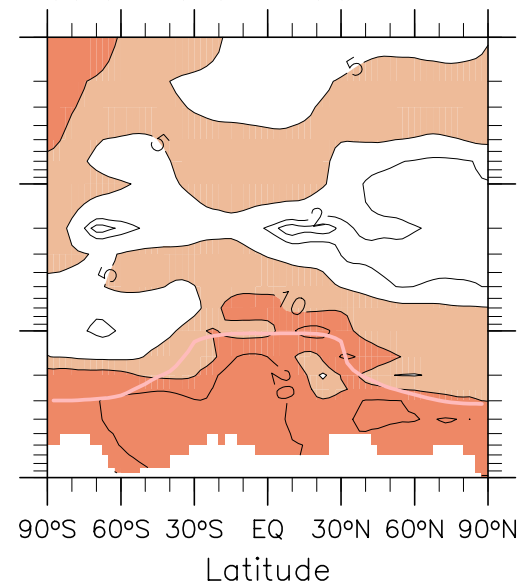
(c) ERA-Int - REM



(d) CFSR - REM



(f) (SD / | REM |) x 100%



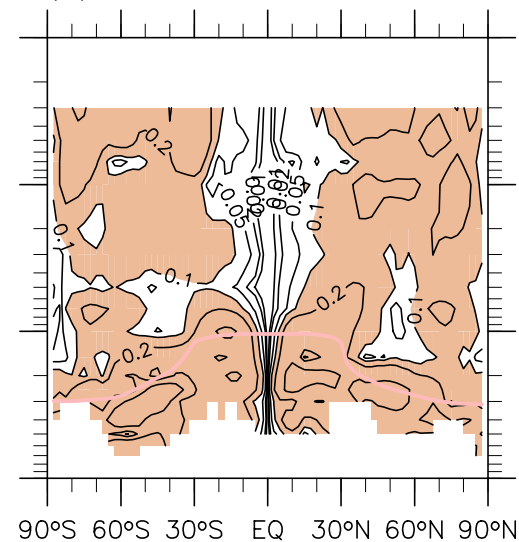
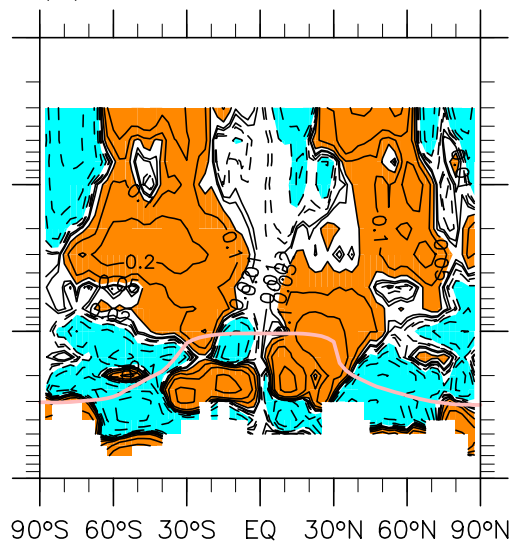
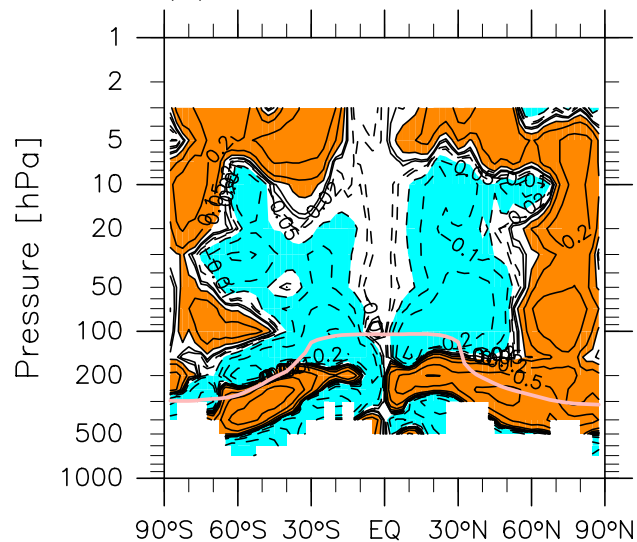
$+f_v^*$

MAM (81-10)

(a) MERRA-2 - REM

(b) JRA-55 - REM

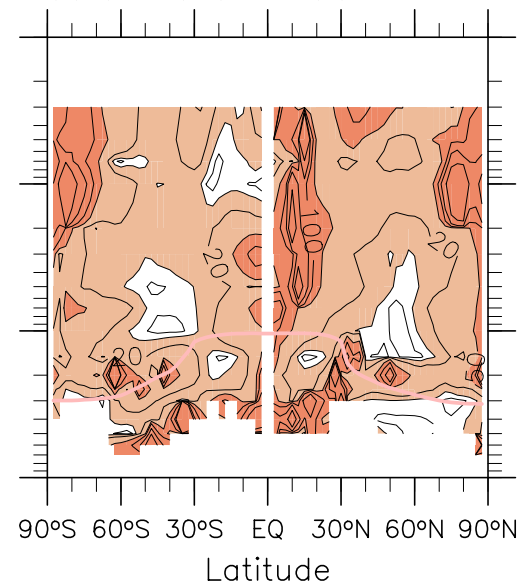
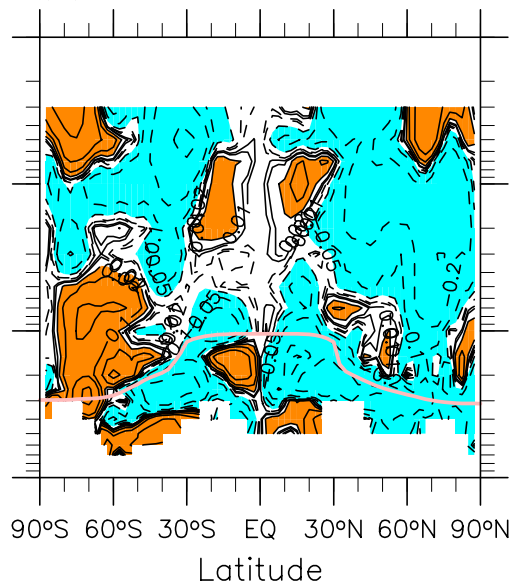
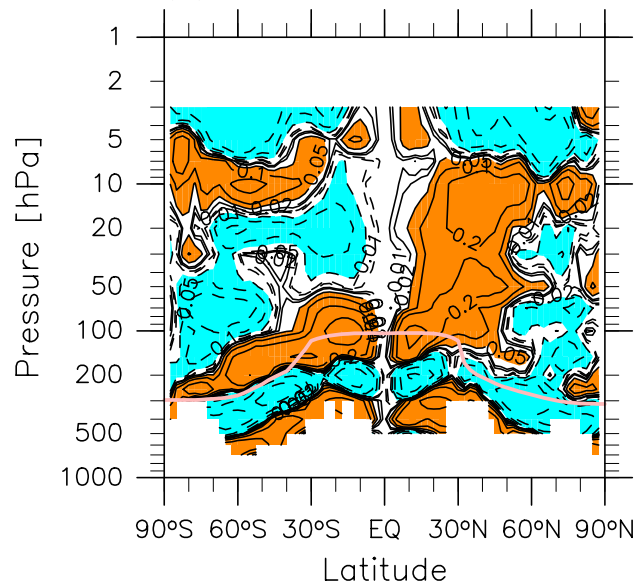
(e) SD



(c) ERA-Int - REM

(d) CFSR - REM

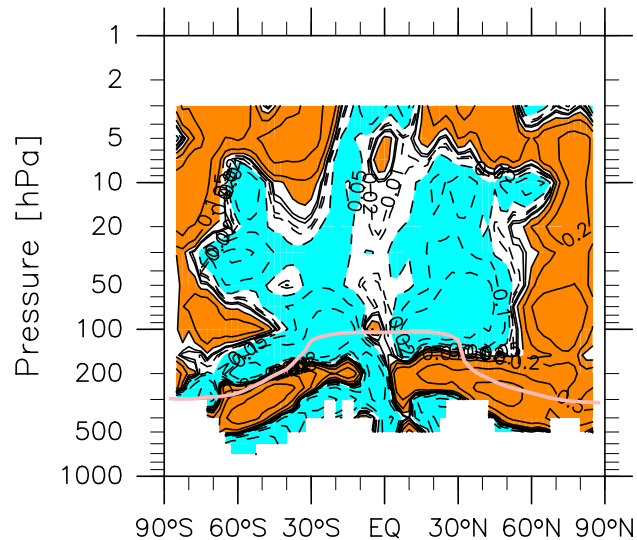
(f) $(SD / |REM|) \times 100\%$



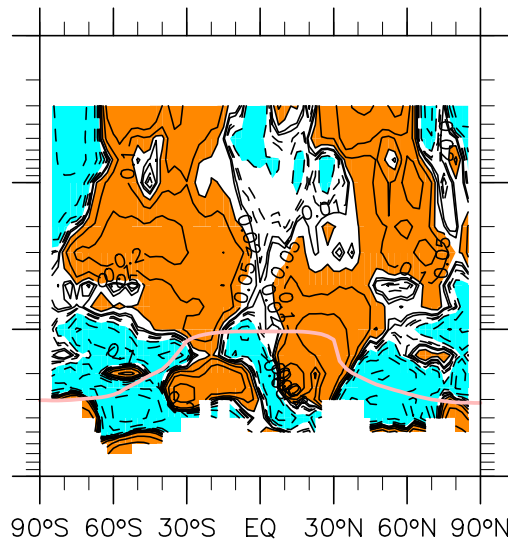
$$+fv^* - v^* \partial u / \partial y - \omega^* \partial u / \partial p$$

MAM (81–10)

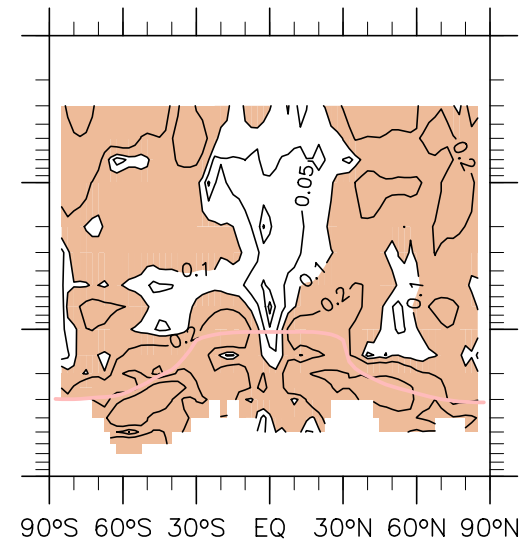
(a) MERRA-2 – REM



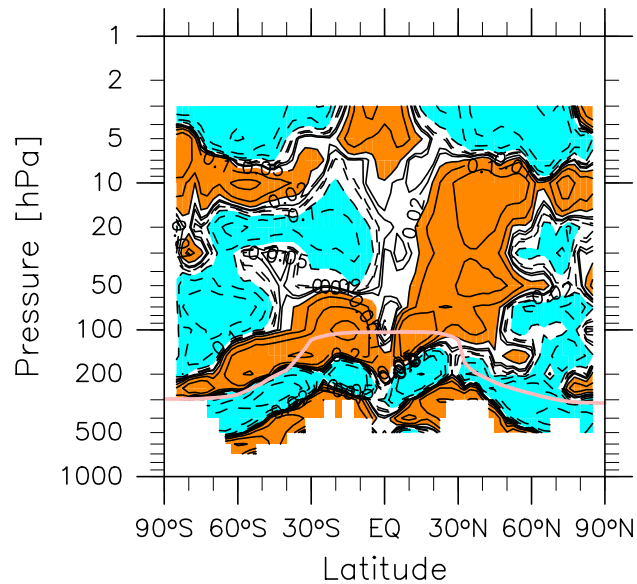
(b) JRA-55 – REM



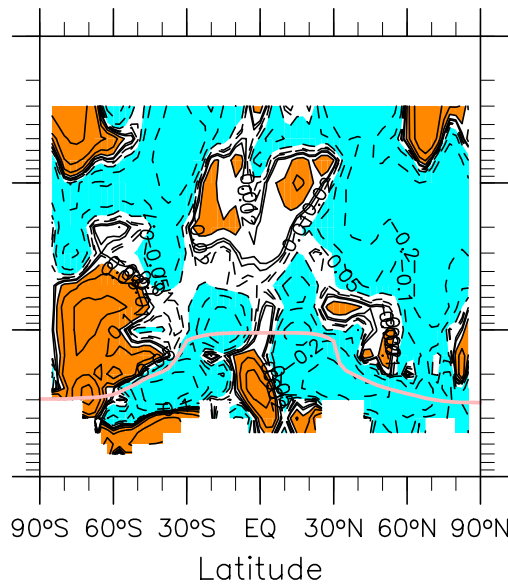
(e) SD



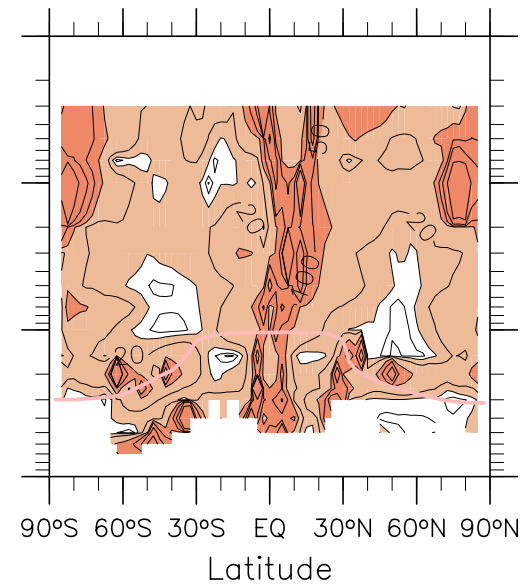
(c) ERA-Int – REM



(d) CFSR – REM

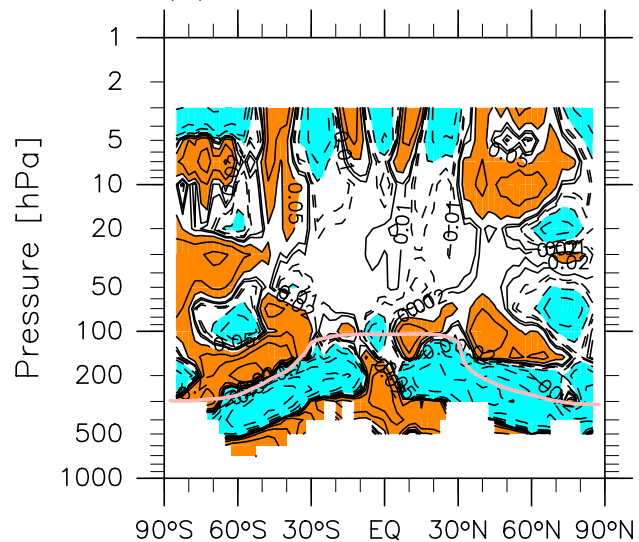


(f) (SD / | REM |) x 100%

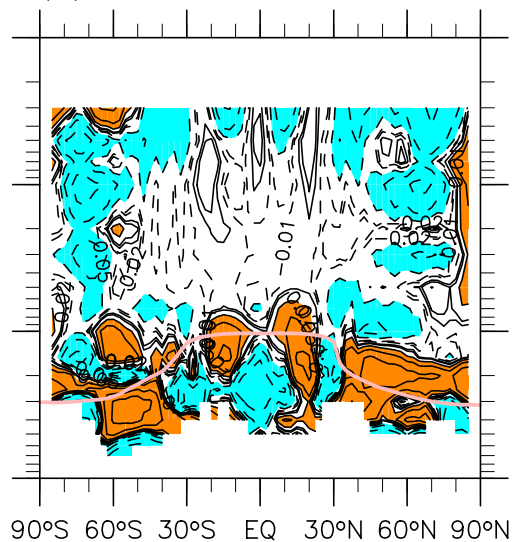


EPFD

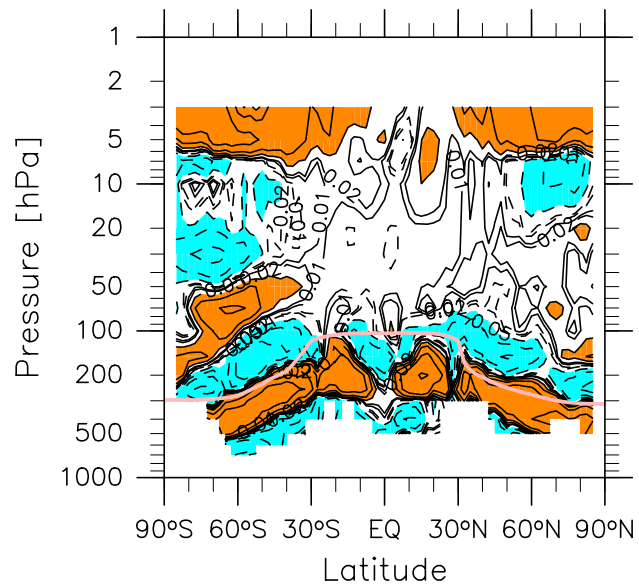
(a) MERRA-2 — REM



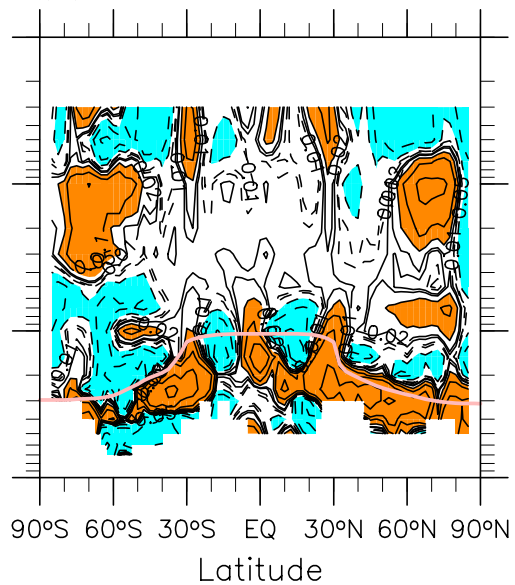
(b) JRA-55 — REM



(c) ERA-Int — REM

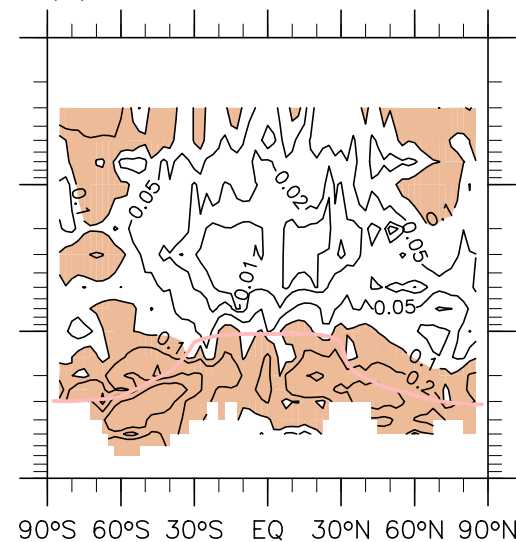


(d) CFSR — REM

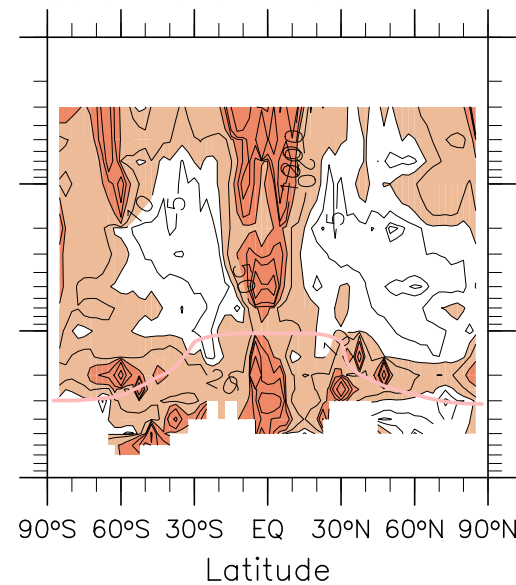


MAM (81—10)

(e) SD



(f) $(SD / |REM|) \times 100\%$



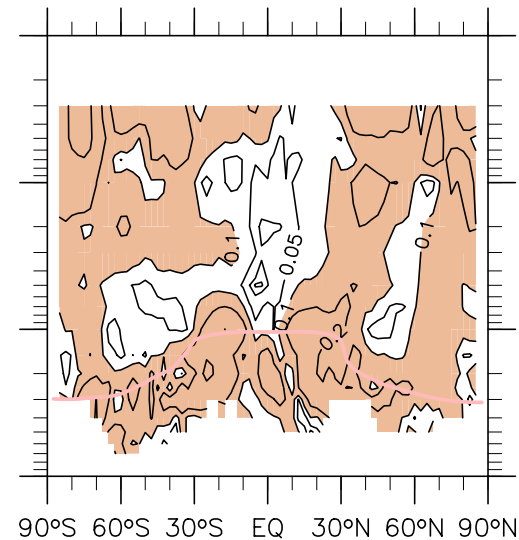
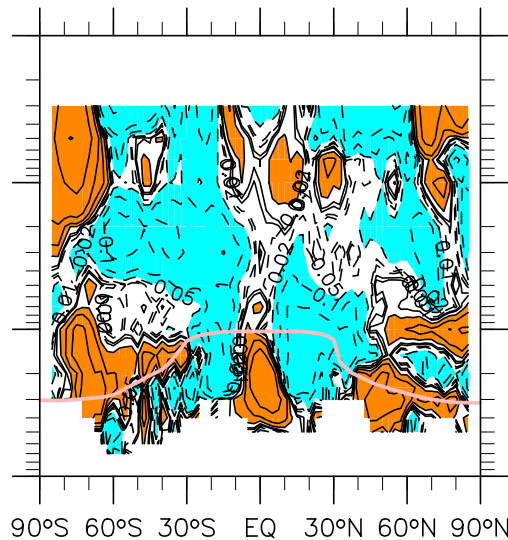
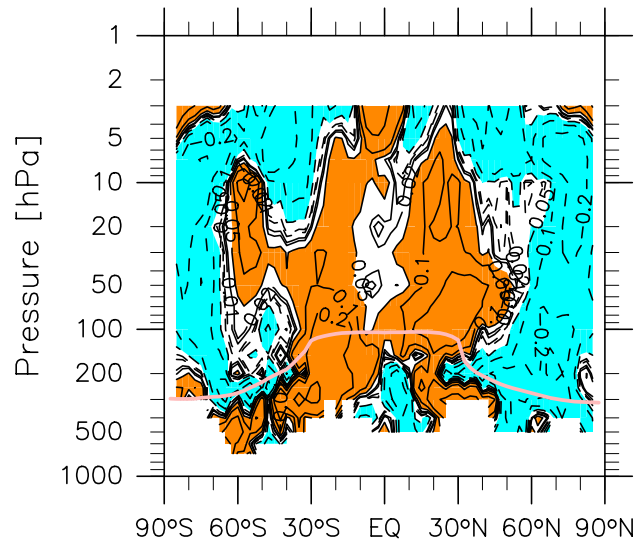
Residual_u

MAM (81-10)

(a) MERRA-2 - REM

(b) JRA-55 - REM

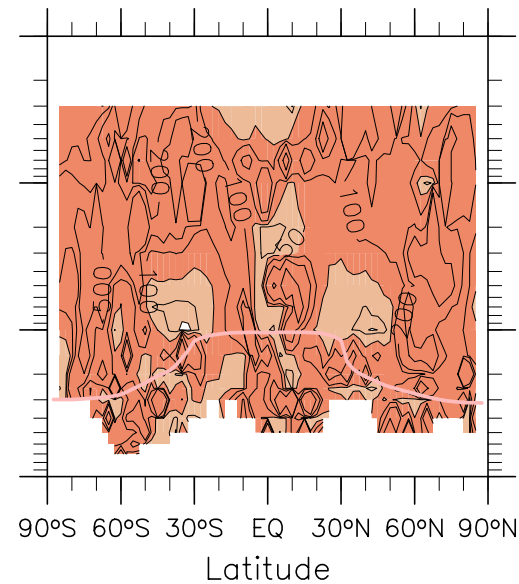
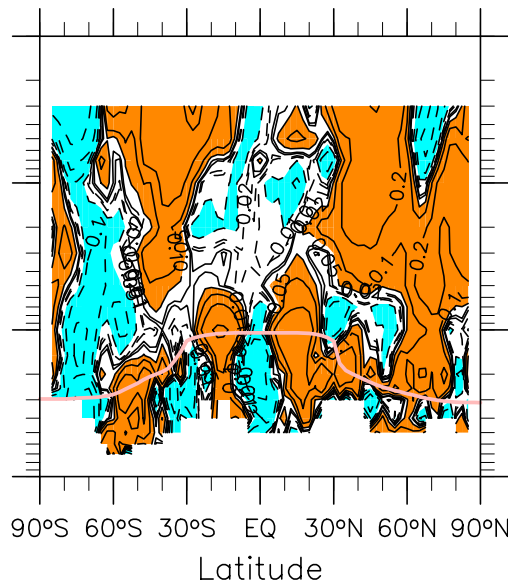
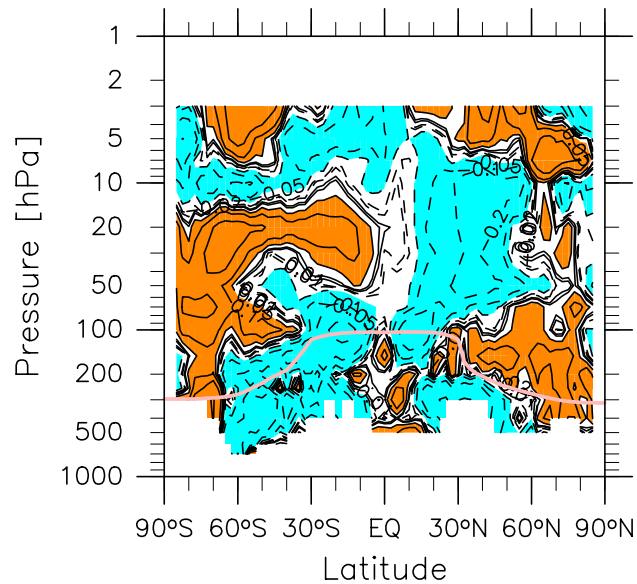
(e) SD



(c) ERA-Int - REM

(d) CFSR - REM

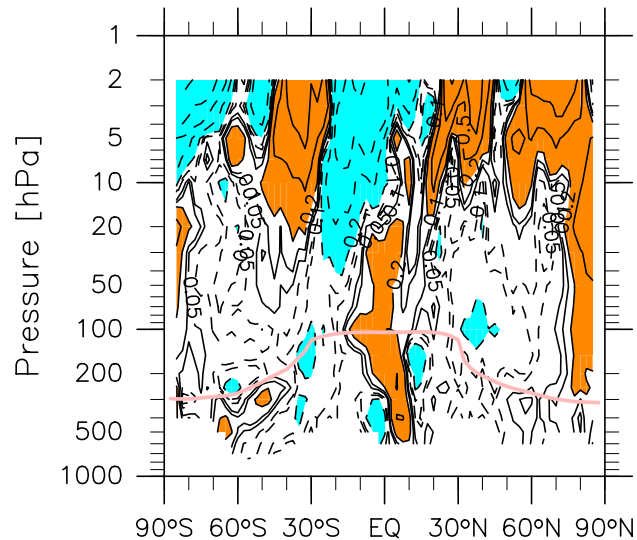
(f) $(SD / |REM|) \times 100\%$



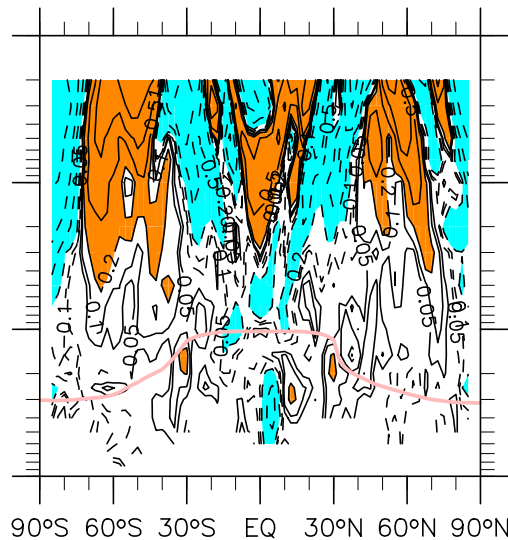
$$-\omega^* \partial\Theta/\partial p$$

MAM (81-10)

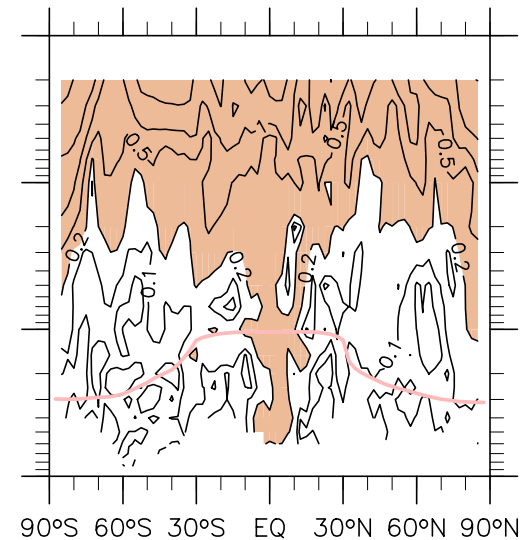
(a) MERRA-2 - REM



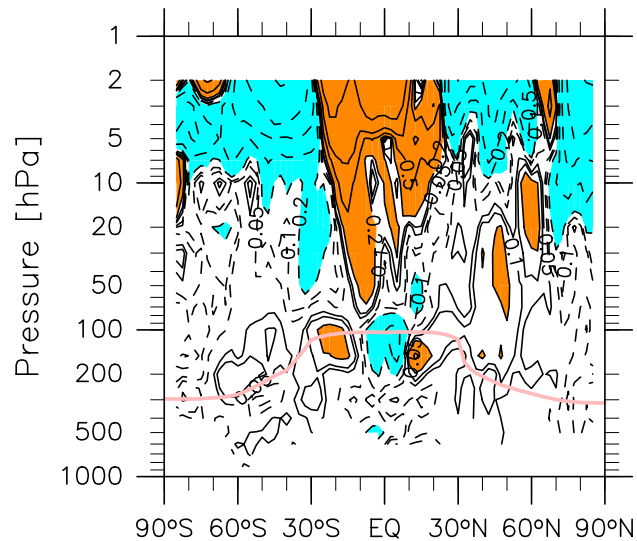
(b) JRA-55 - REM



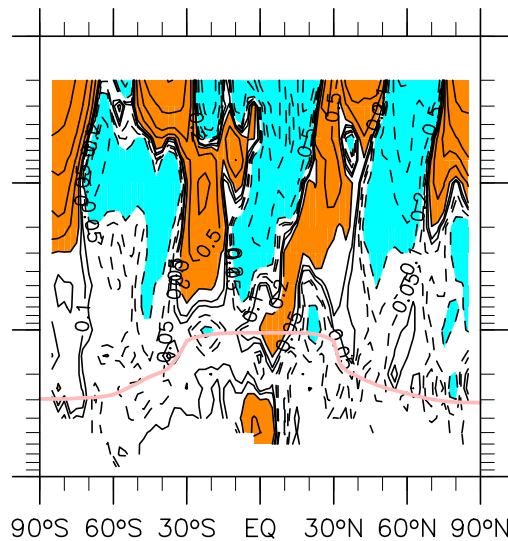
(e) SD



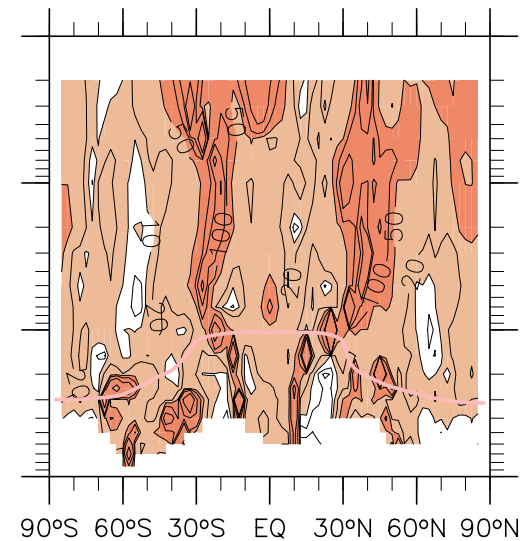
(c) ERA-Int - REM



(d) CFSR - REM



(f) (SD / | REM |) x 100%



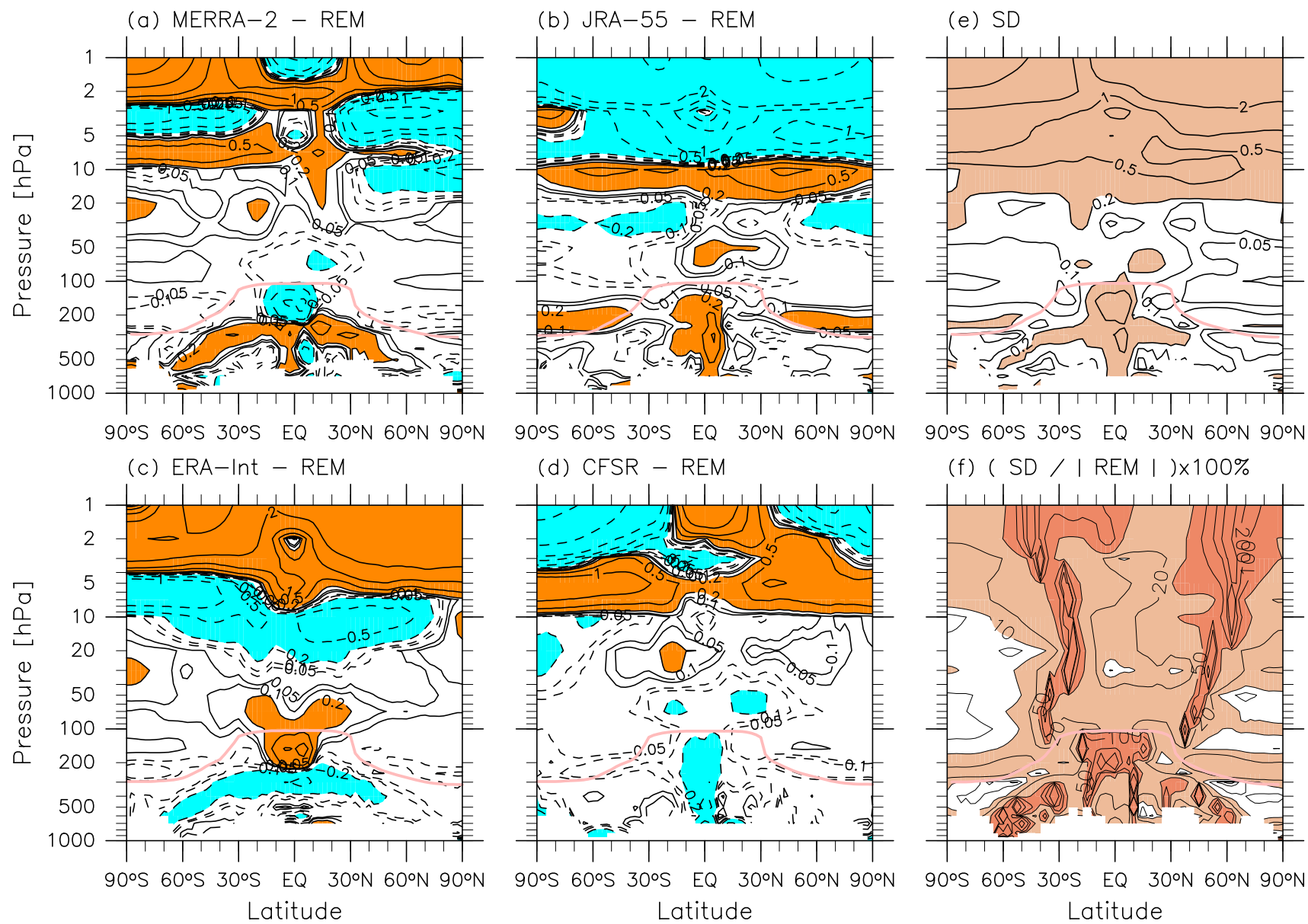
Latitude

Latitude

Latitude

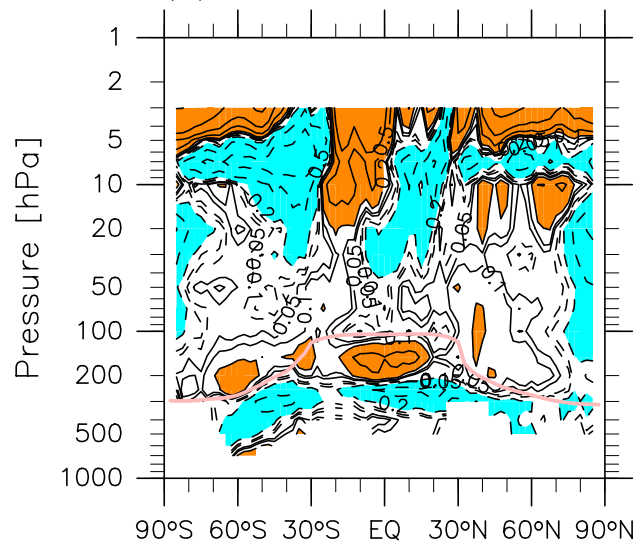
Q_{total}

MAM (81–10)

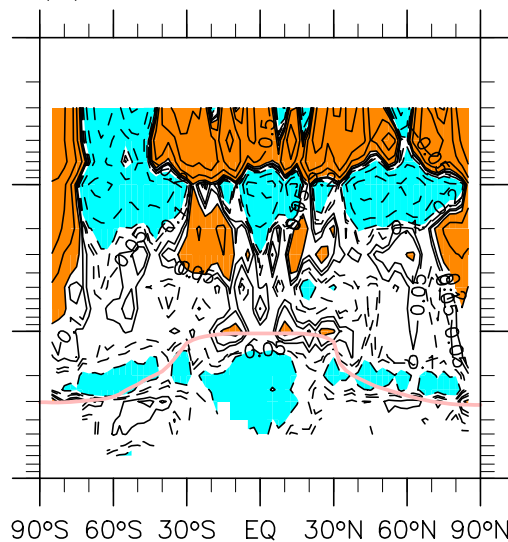


Residual_Θ

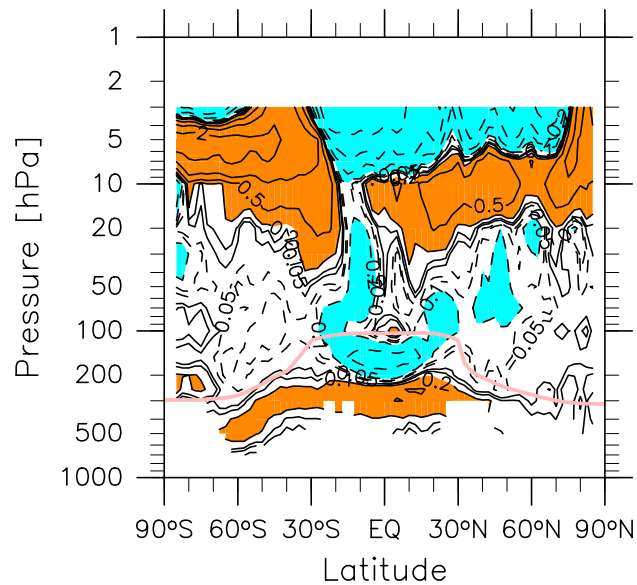
(a) MERRA-2 - REM



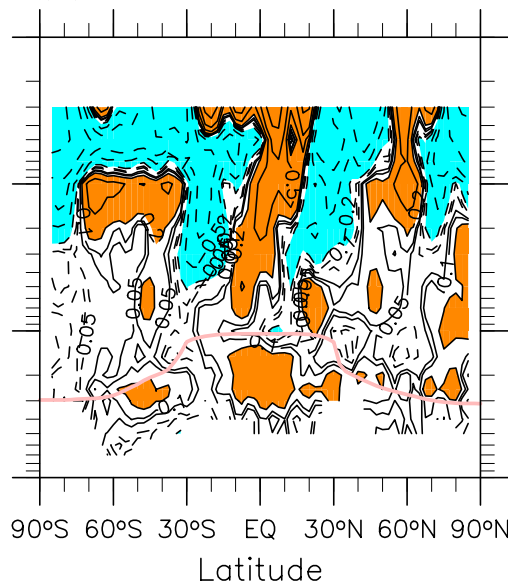
(b) JRA-55 - REM



(c) ERA-Int - REM

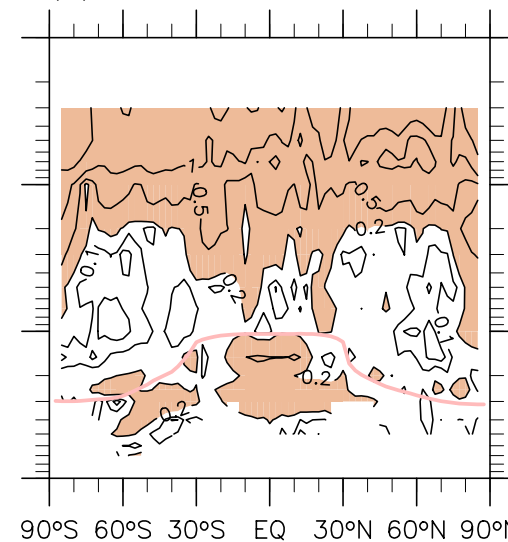


(d) CFSR - REM



MAM (81-10)

(e) SD



(f) (SD / | REM |) x 100%

