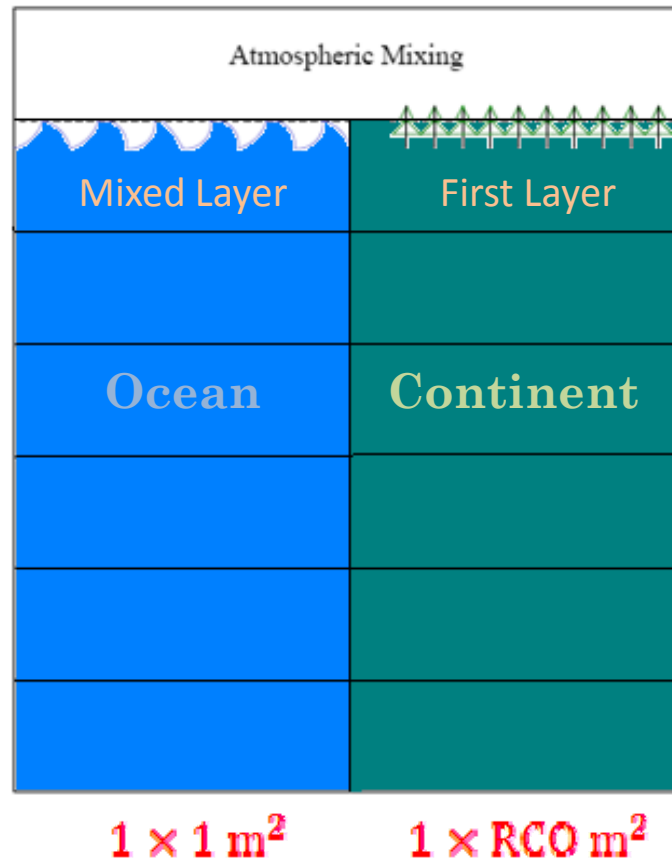


Group Meeting

6.11.2009

Wen-Jen

Head-Box Model



$$\text{RCO} = \frac{\text{Area of Cot.}}{\text{Area of Oc.}}$$

Communication of Energies

$$U_{fl}^{(n+1)} = U_{fl}^n + E_{s(f)}^{(n+1)} - E_{r(f \rightarrow a)}^{(n+1)} + E_{r(a \rightarrow f)}^{(n+1)} - E_{b(f \rightarrow a)}^{(n+1)} - E_{l(f \rightarrow a)}^{(n+1)}$$

$$U_{ml}^{(n+1)} = U_{ml}^n + E_{s(m)}^{(n+1)} - E_{r(o \rightarrow m)}^{(n+1)} + E_{r(a \rightarrow m)}^{(n+1)} - E_{b(m \rightarrow a)}^{(n+1)} - E_{l(m \rightarrow a)}^{(n+1)}$$

$$U_{atm}^{(n+1)} = U_{atm}^n + [E_{r(m \rightarrow a)}^{(n+1)} + E_{r(f \rightarrow a)}^{(n+1)}] - [E_{r(a \rightarrow m)}^{(n+1)} + E_{r(a \rightarrow f)}^{(n+1)}] + [E_{b(m \rightarrow a)}^{(n+1)} + E_{b(f \rightarrow a)}^{(n+1)}] + [E_{l(m \rightarrow a)}^{(n+1)} + E_{l(f \rightarrow a)}^{(n+1)}]$$

fl: The first layer of the continent box;

ml: The mixed layer of the ocean box;

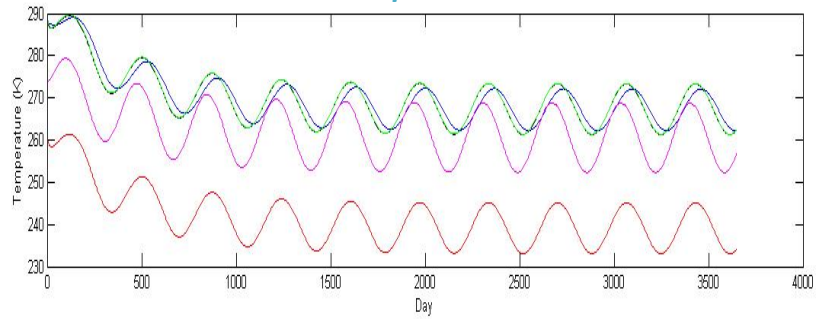
atm: The atmospheric energy center (512mb);

Ps: E_l : Latent Heat Flux

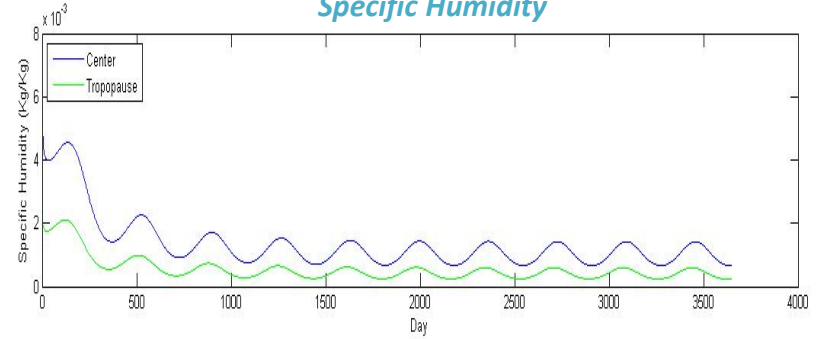
$$E_l (KJ) = [Precipitation(Kg) - Evaporation(Kg)] \times [Latent Heat(KJ/Kg)].$$

30°N~60°N

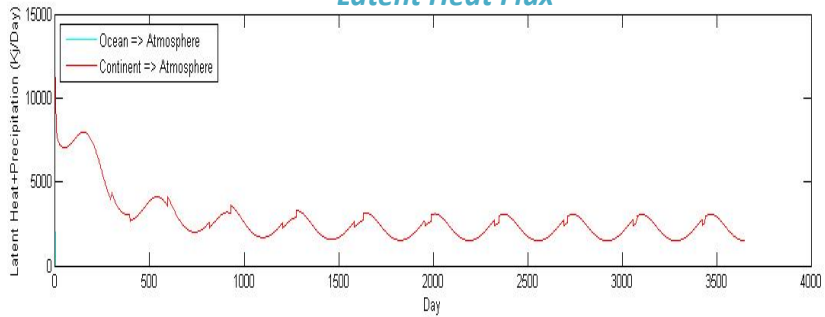
Temperatures



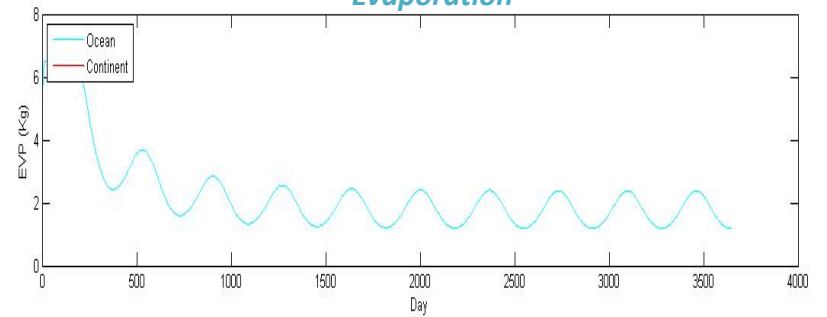
Specific Humidity



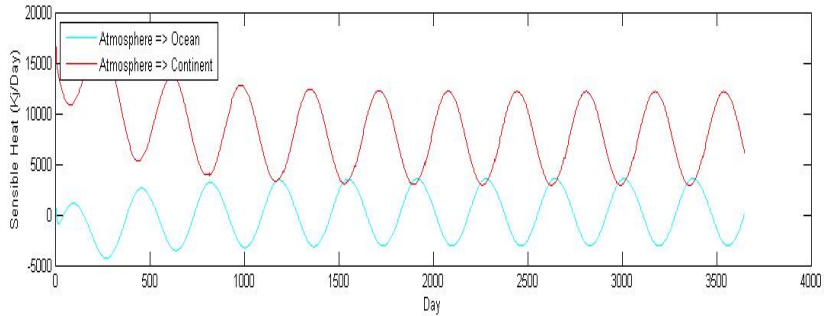
Latent Heat Flux



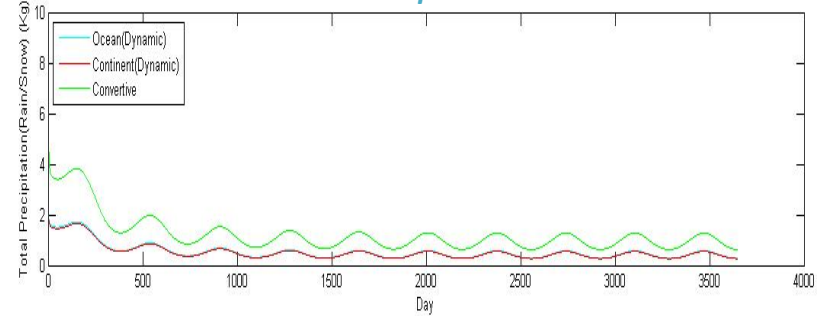
Evaporation



Sensible Heat Flux

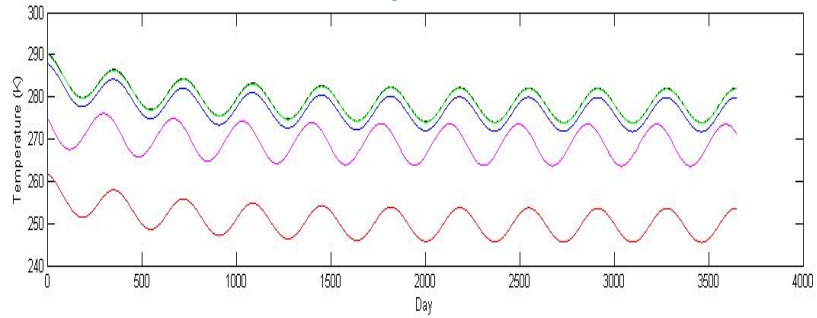


Precipitation

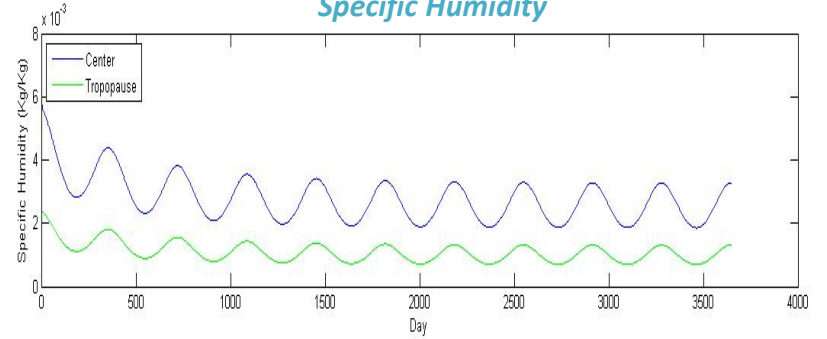


30°S~60°S

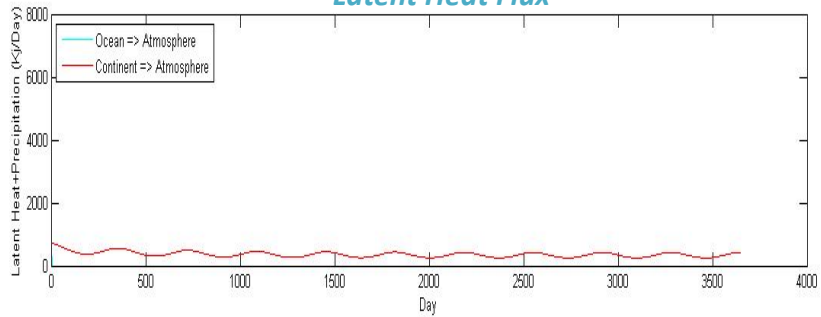
Temperatures



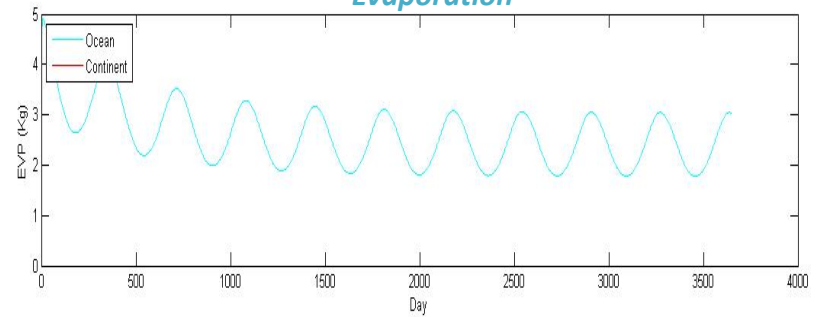
Specific Humidity



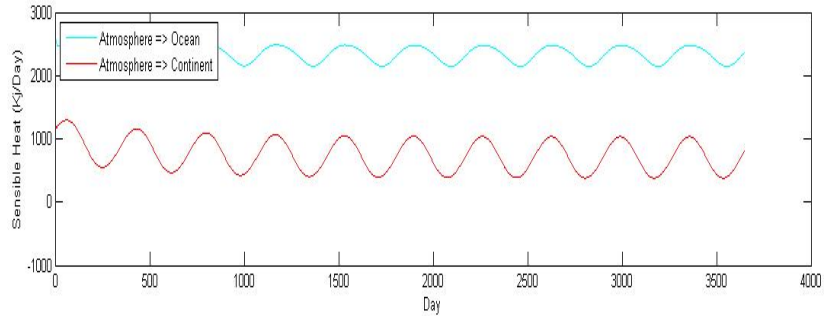
Latent Heat Flux



Evaporation



Sensible Heat Flux



Precipitation

