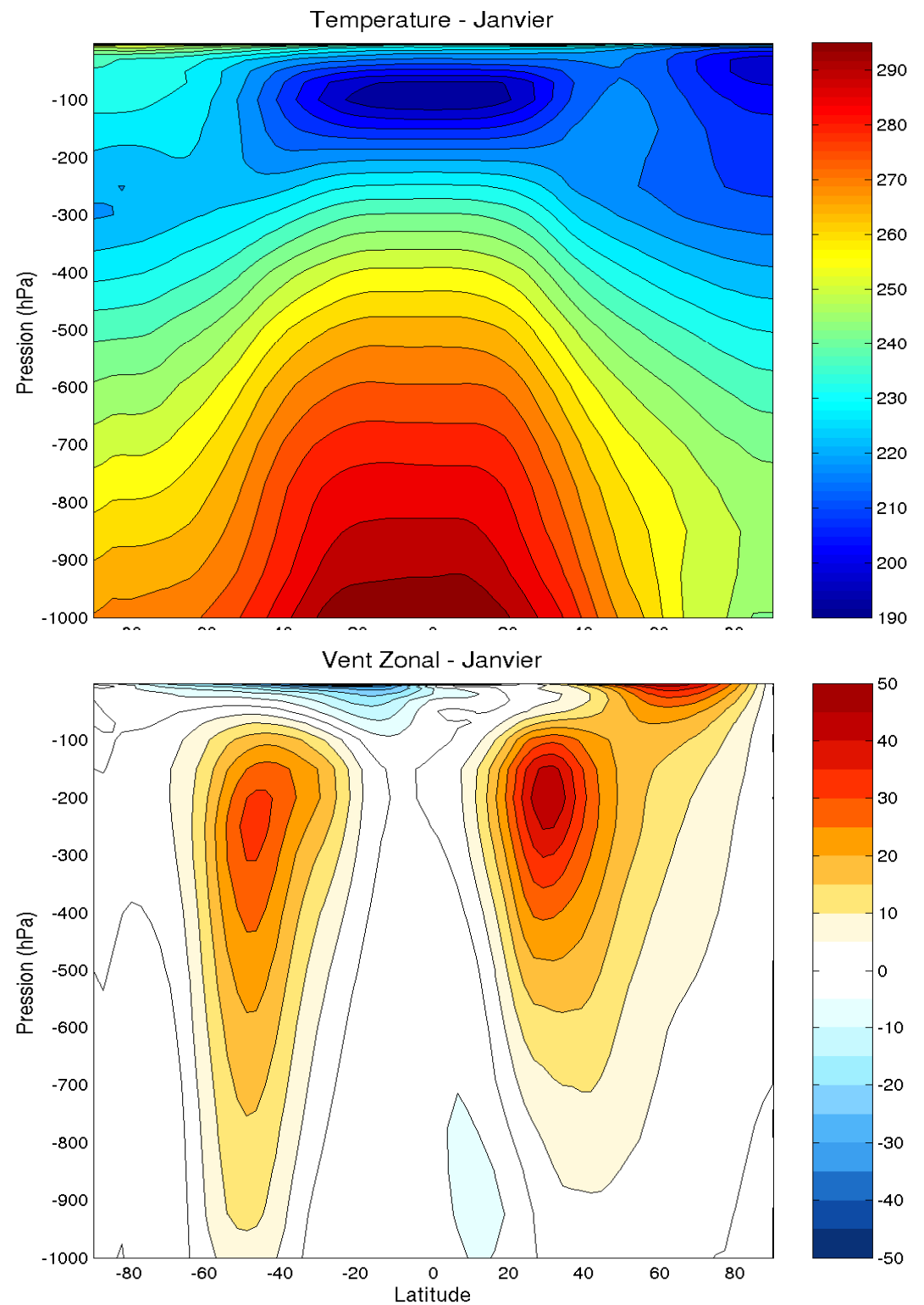


Température

Coupe latitude/hauteur
Janvier

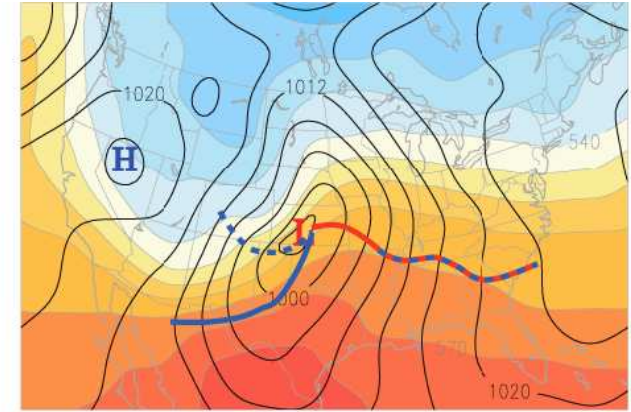
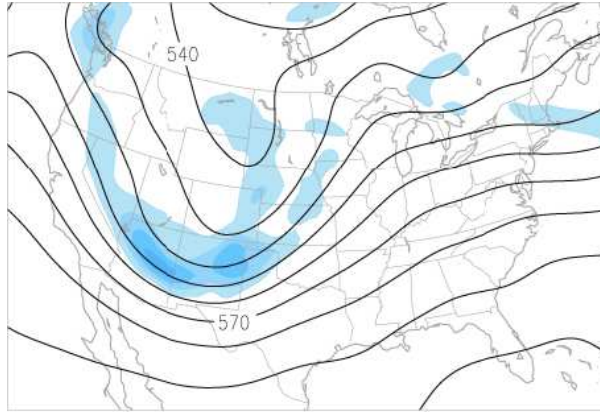
Vent zonal
(ouest-est)



Exemple d'évolution d'une dépression

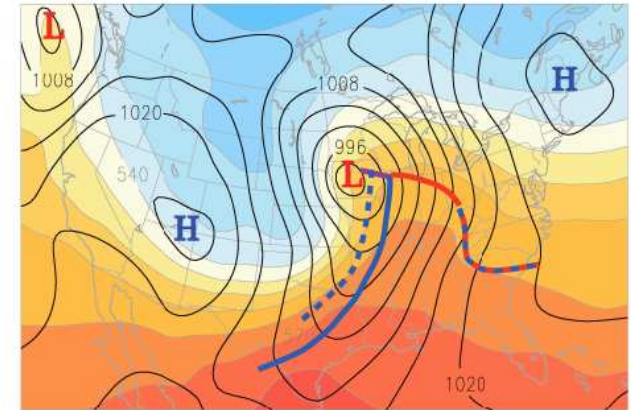
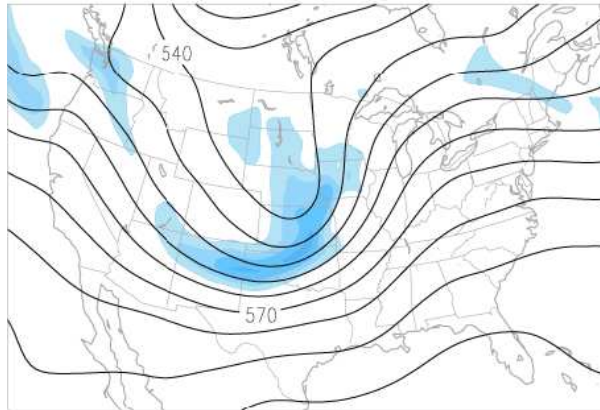
1.

Gauche:
Z à 500 hPa
Vorticité

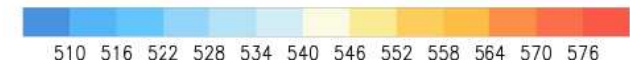
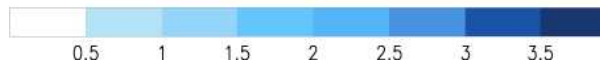
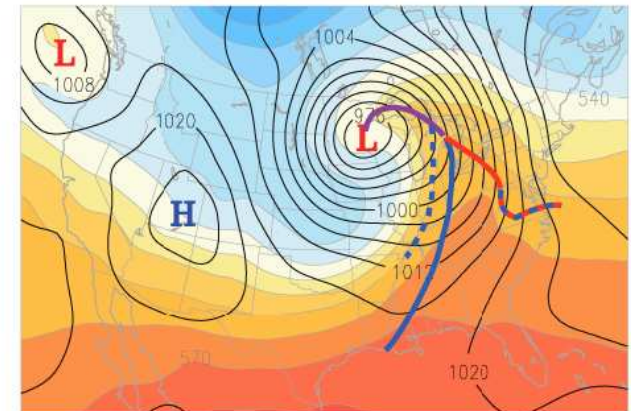
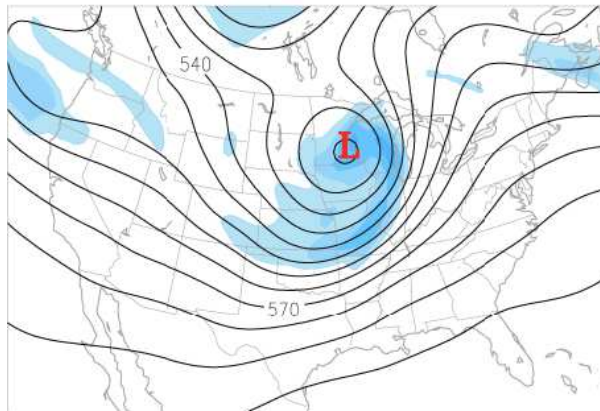


2.

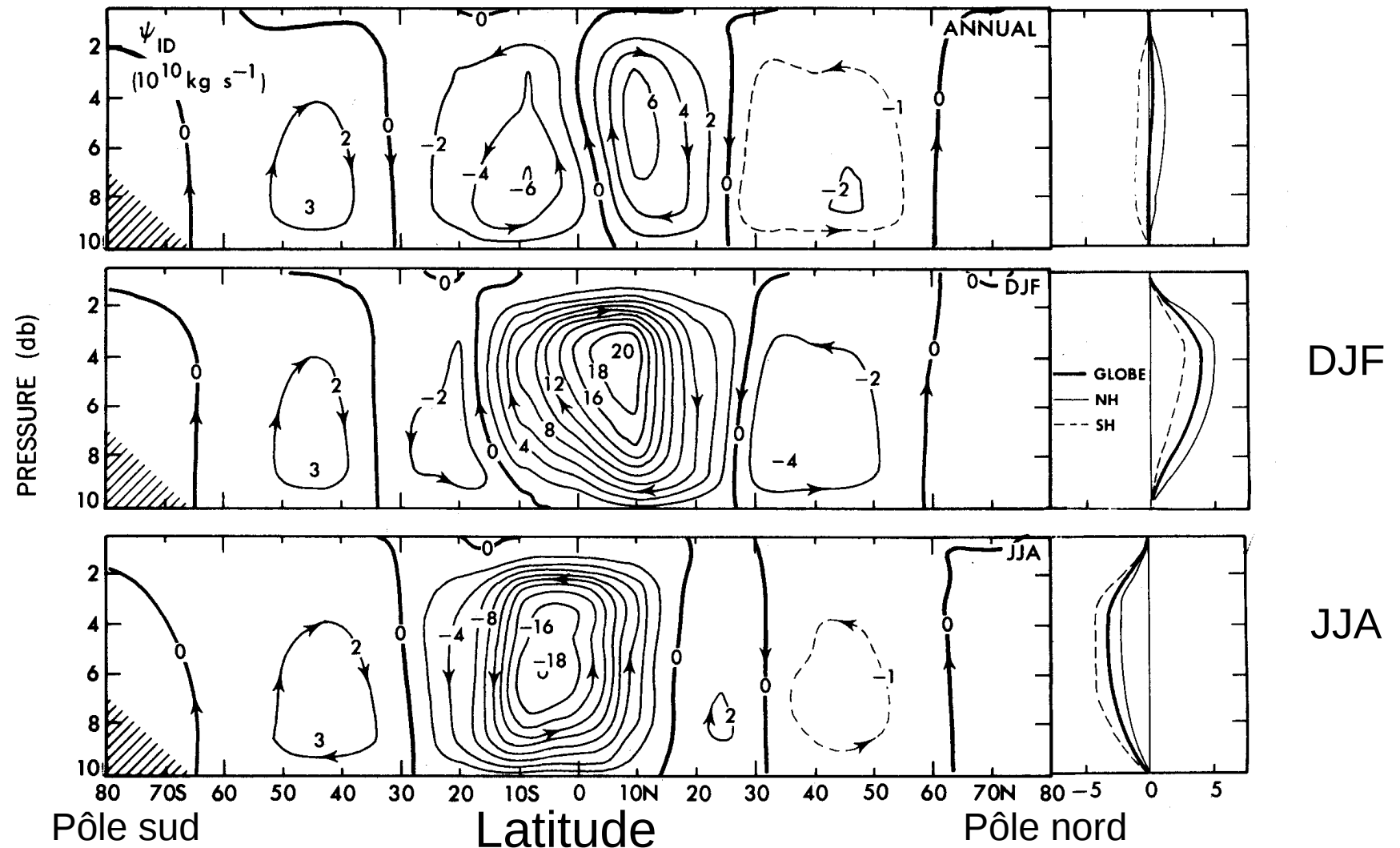
Droite:
Pression à Z=0
Epaisseur 1000-500hPa
(=Température)



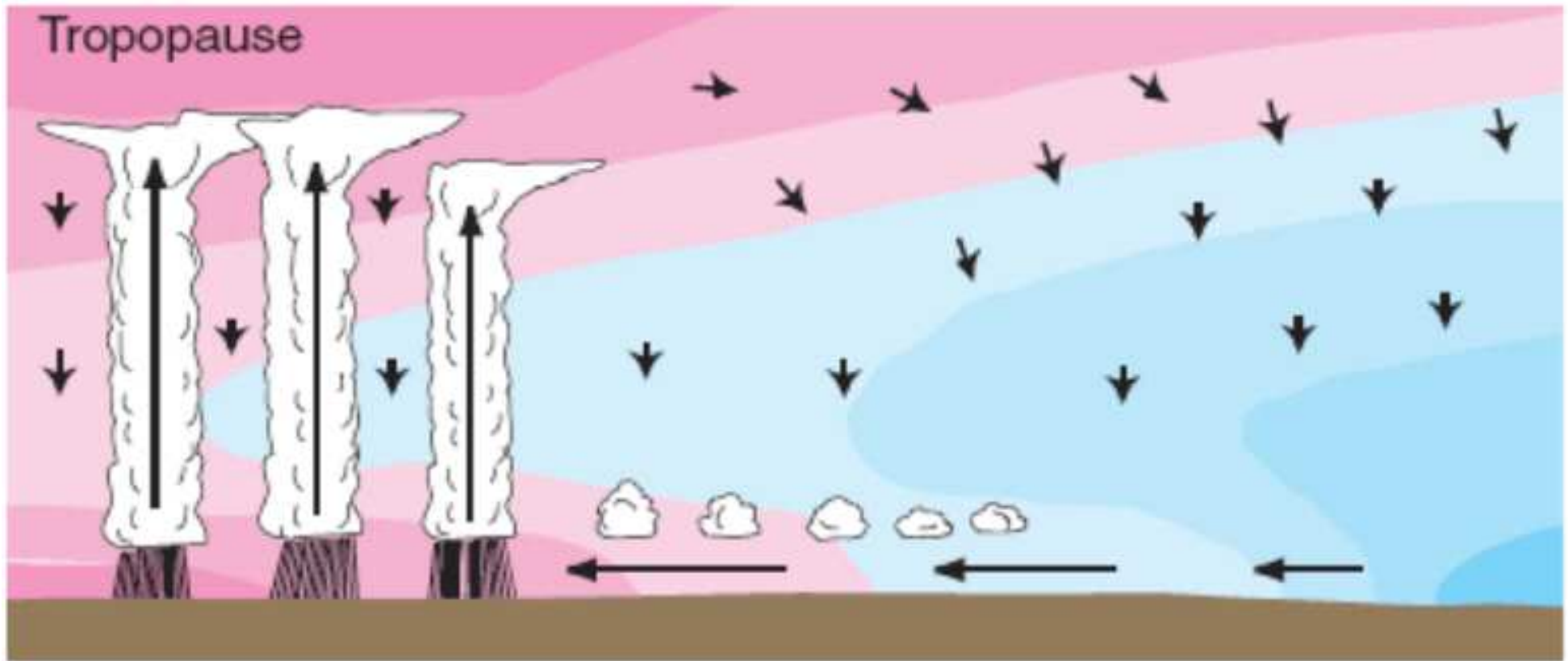
3.



Cellules de Hadley (circulation en moyenne zonale)

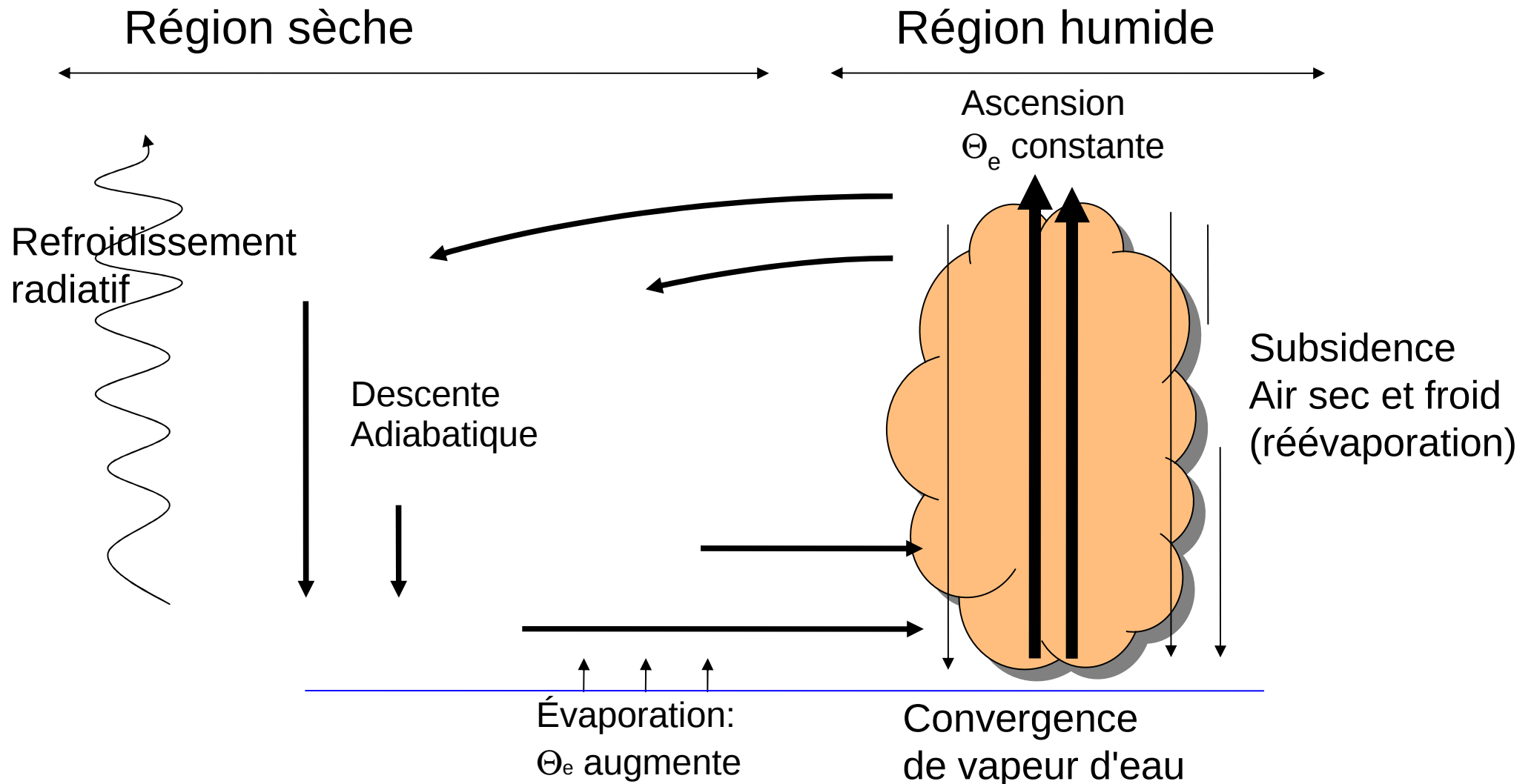


Circulation tropicale: Énergie statique humide



$$E_s = C_p T + gz + Lr$$

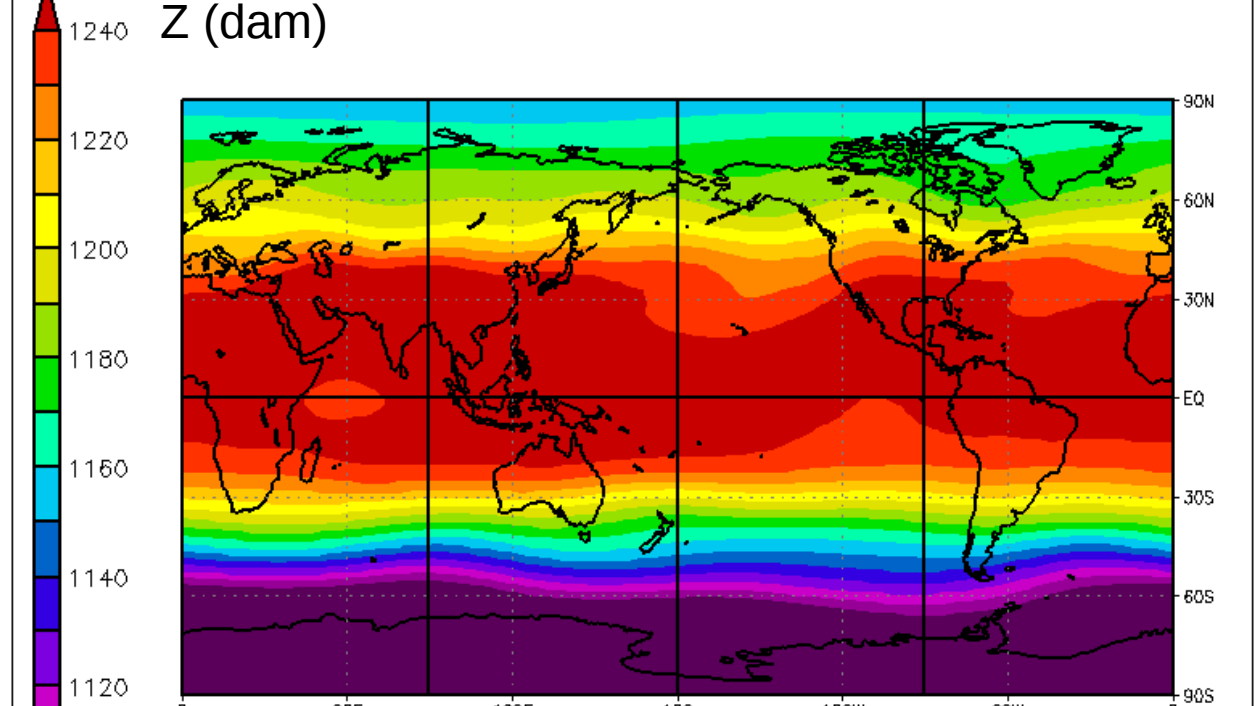
Interaction convection-circulation divergente



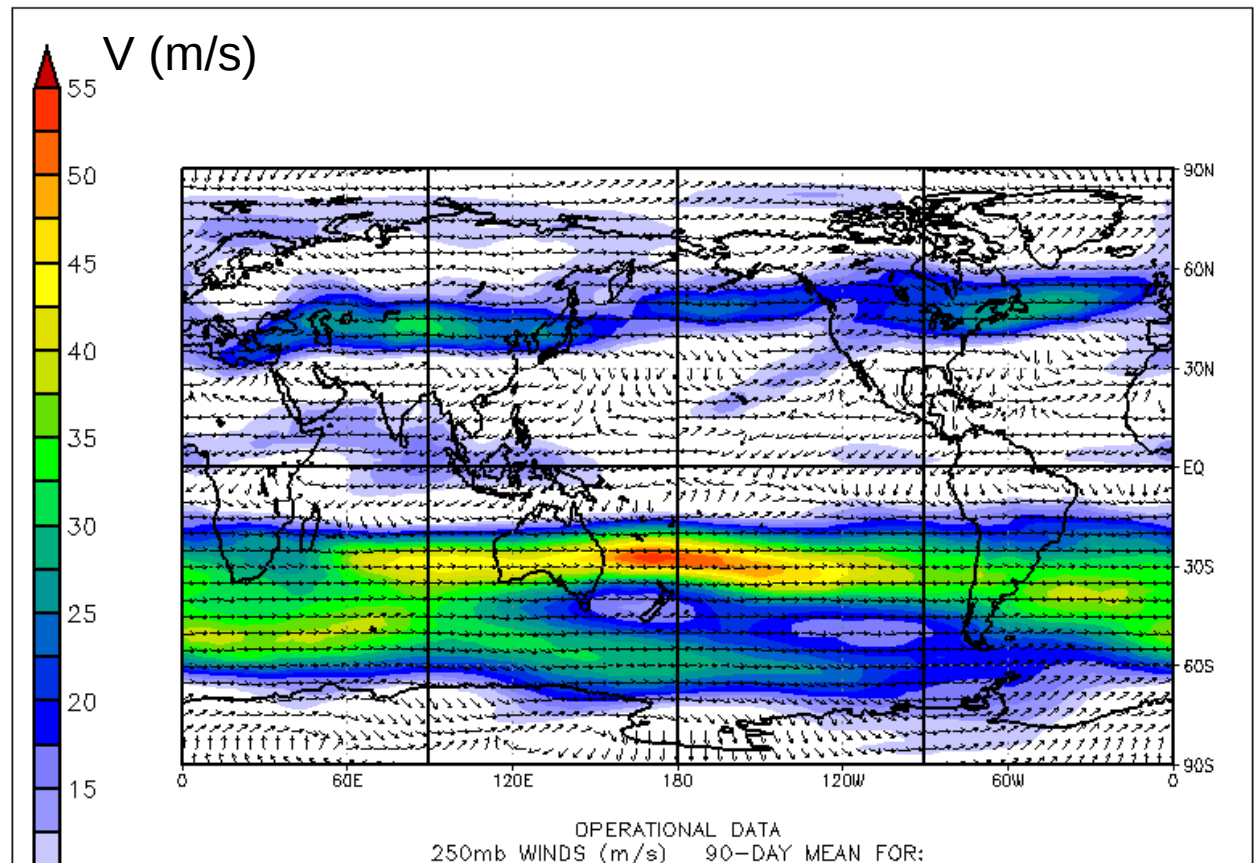
Moyenne été 2006:

Altitude à 200hPa

(altitude élevée=
haute pression)



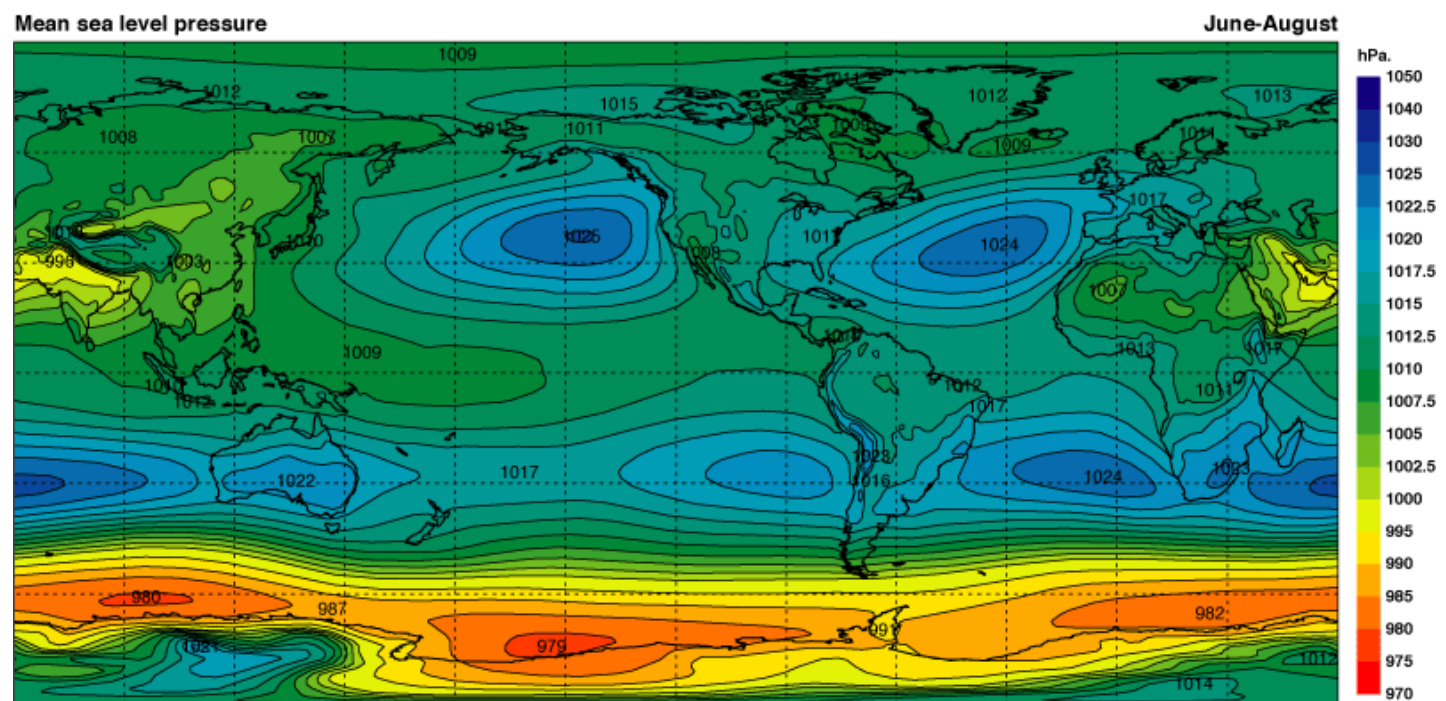
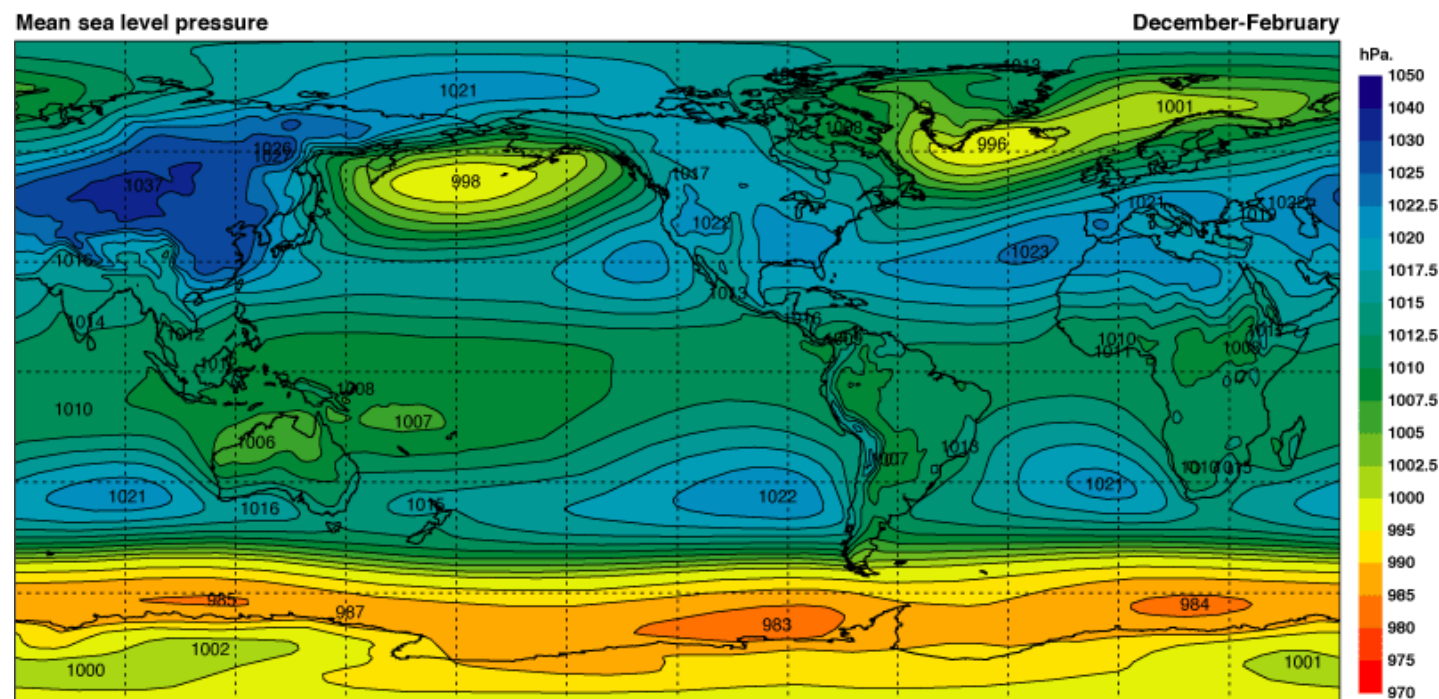
Vent
(direction et vitesse)



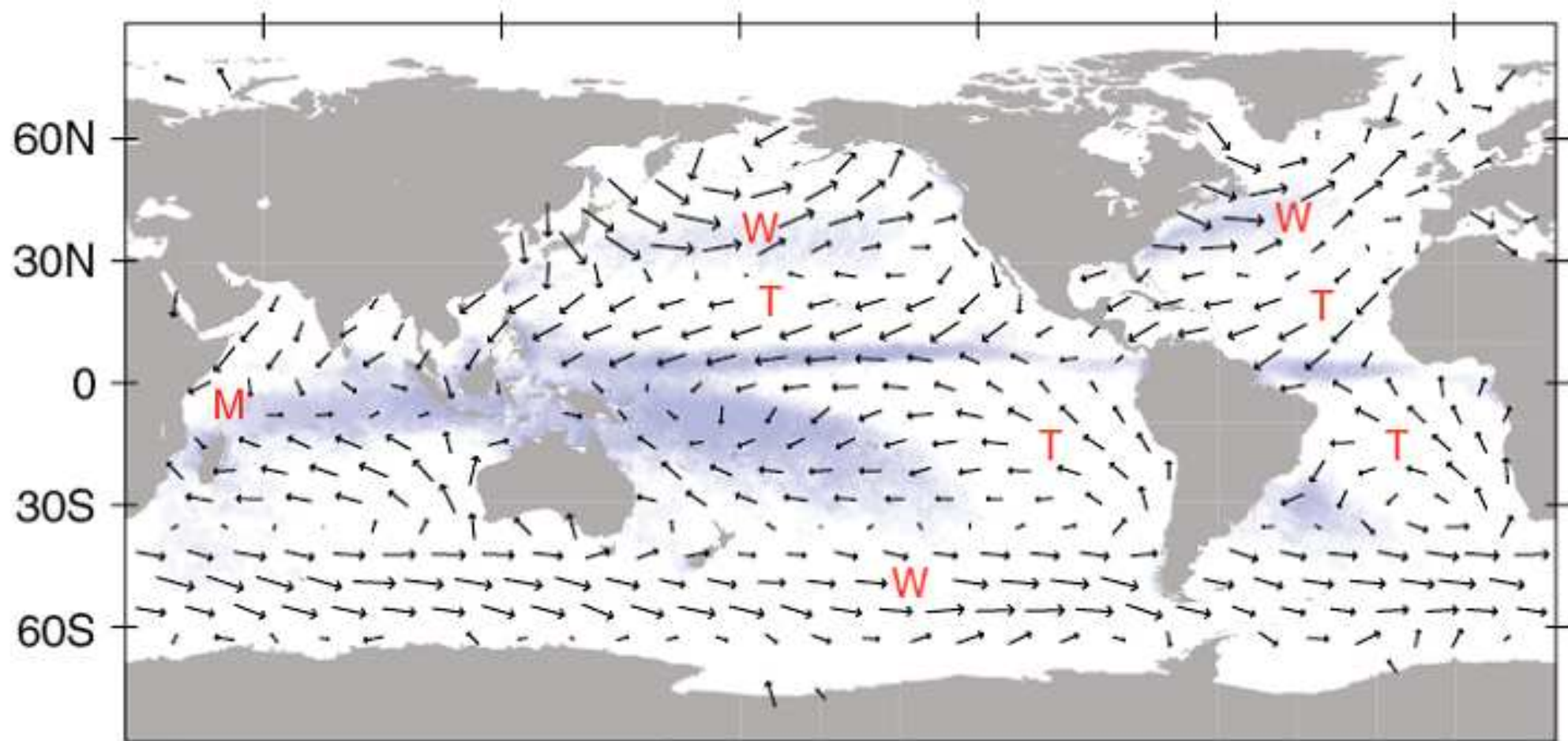
Déc-Jan-Fév

Pression moyenne
au
niveau de la mer

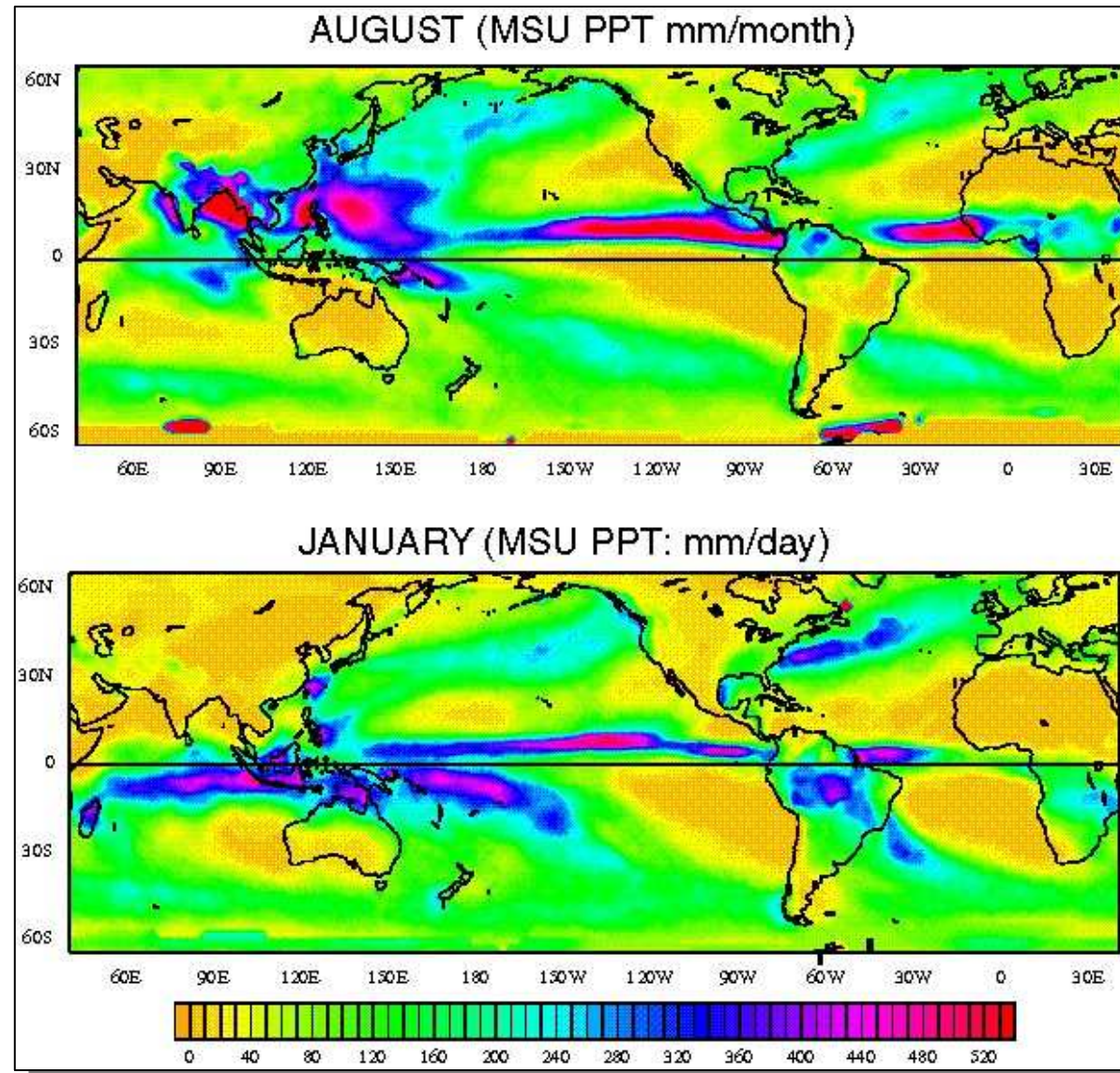
Juin-Juil-Août



Vents de surface (DJF)

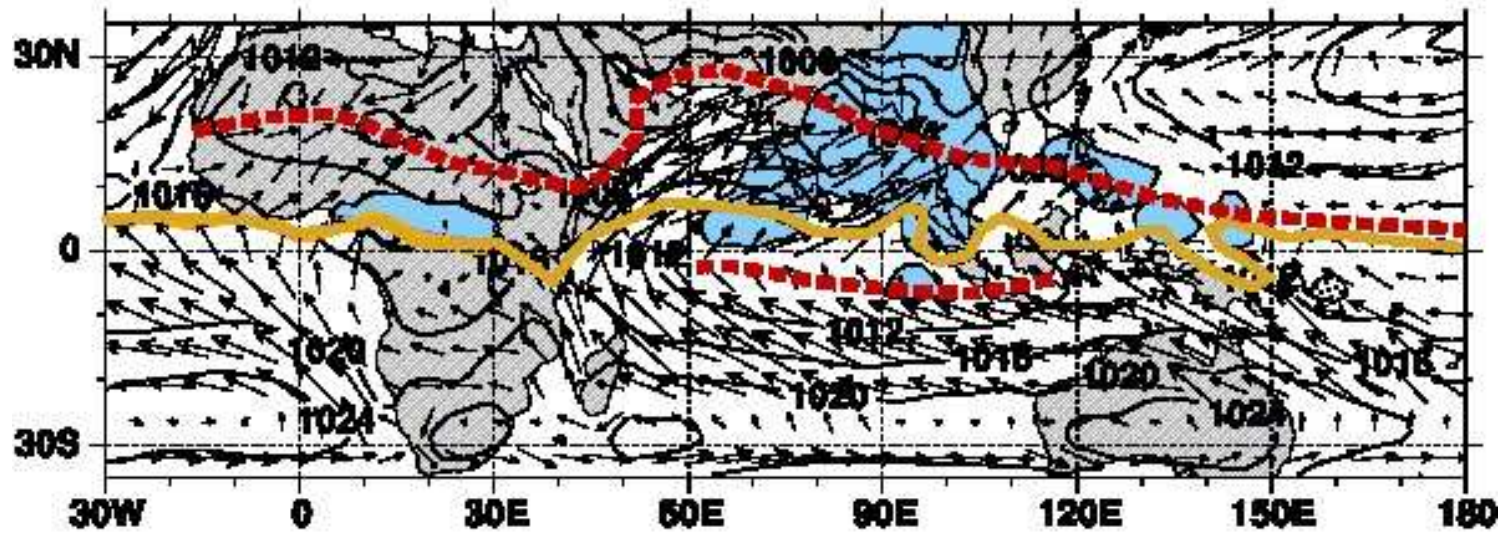


Moussons: pluies sur les continents loin de l'équateur

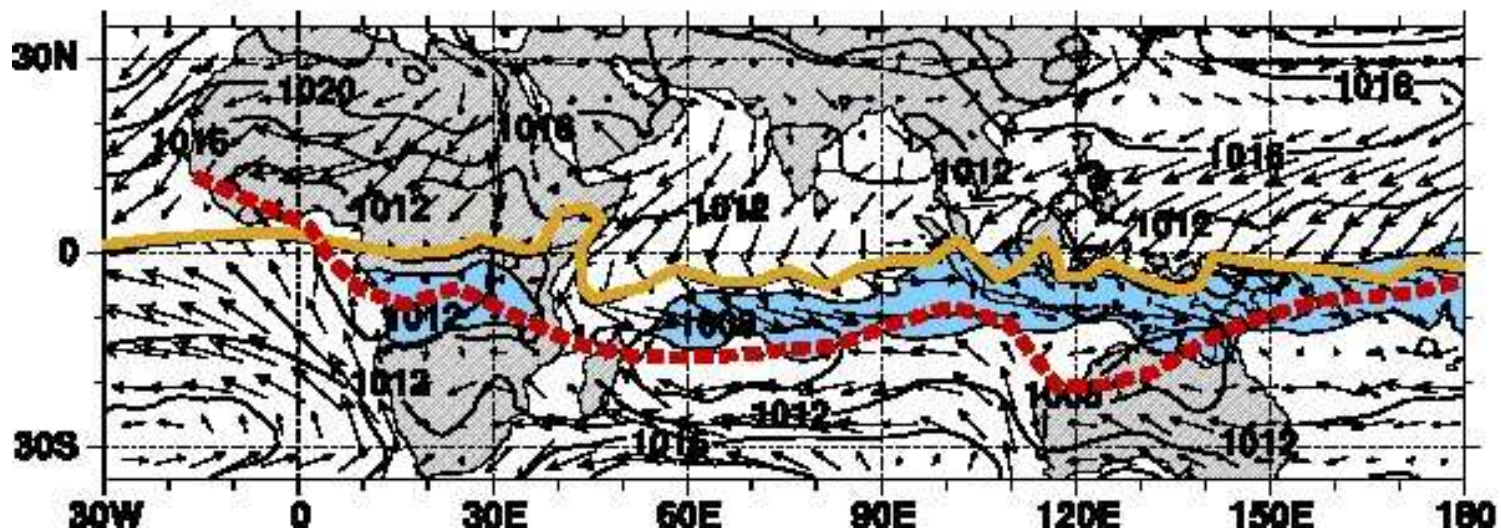


Moussons: inversion du sens du vent

(a) July 1992 MSL Pressure, 925-mbar wind and OLR

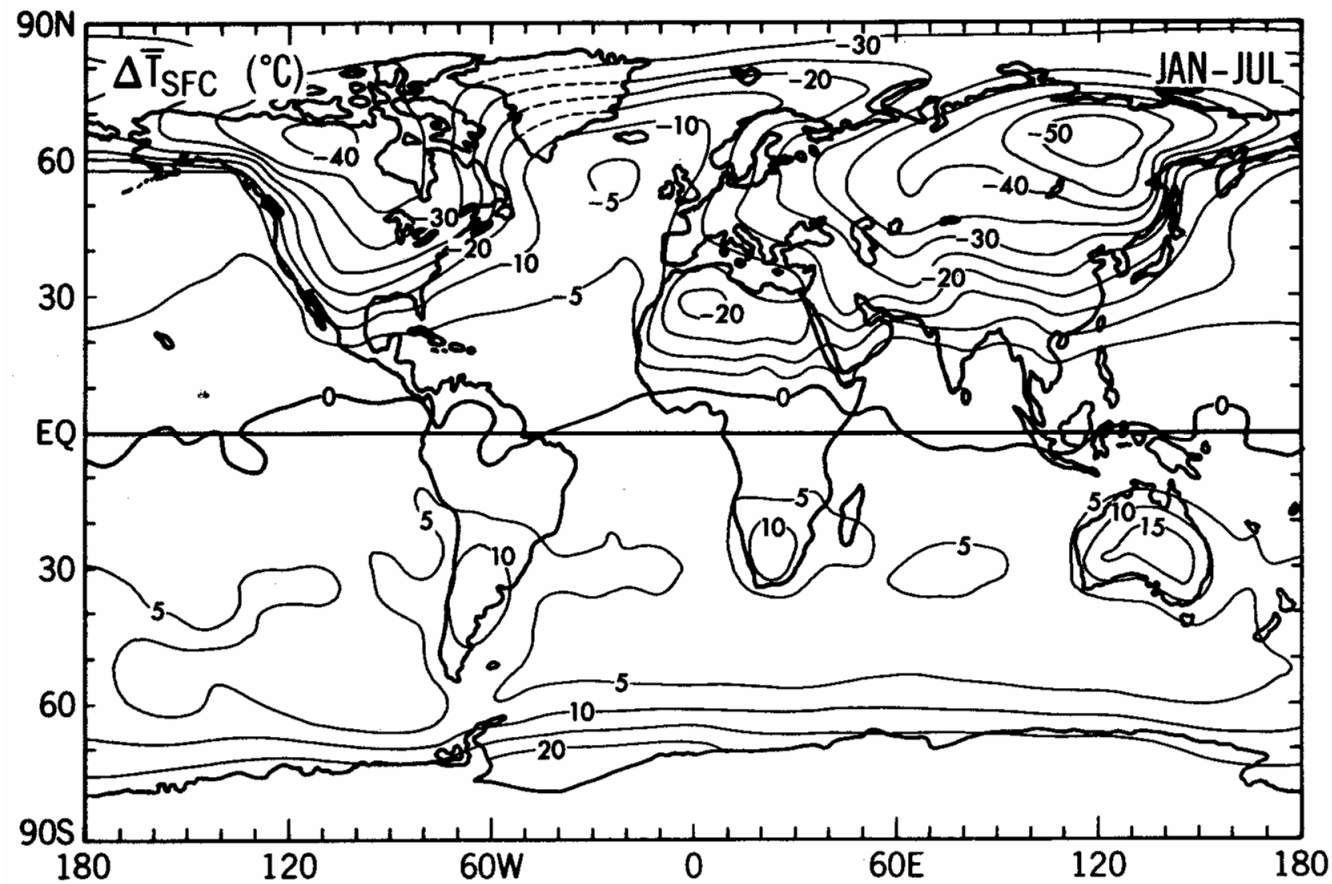


(b) Feb 1992 MSL Pressure, 925-mbar wind and OLR



rain

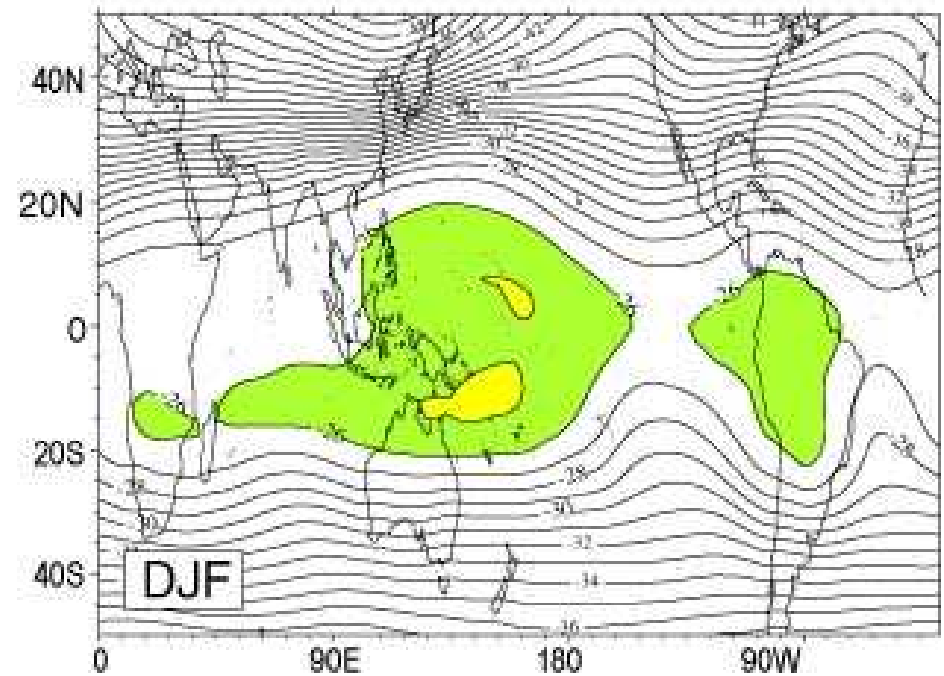
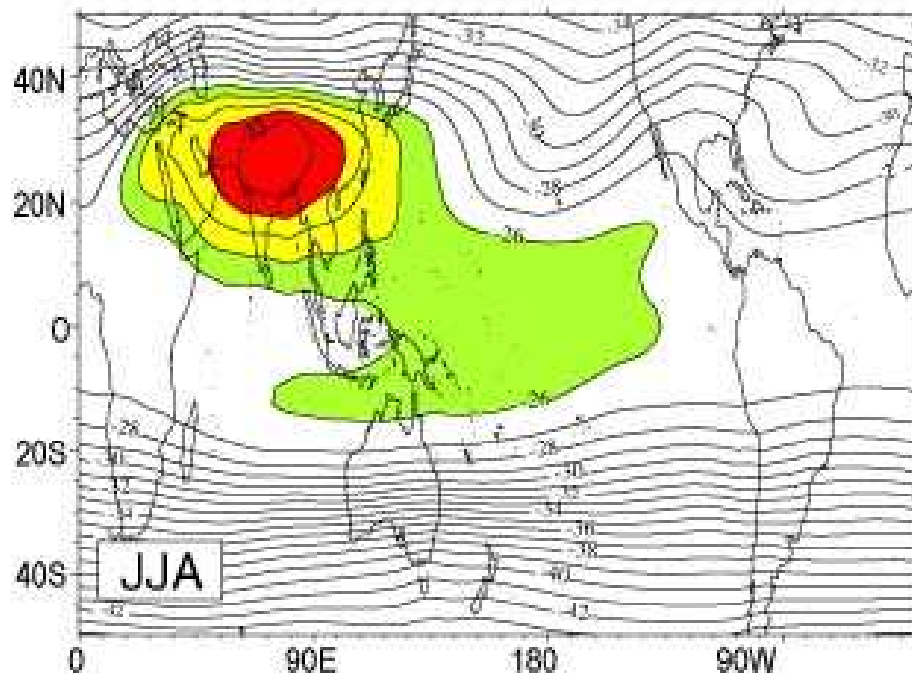
Cycle annuel de la température



Différence Janvier-Juillet

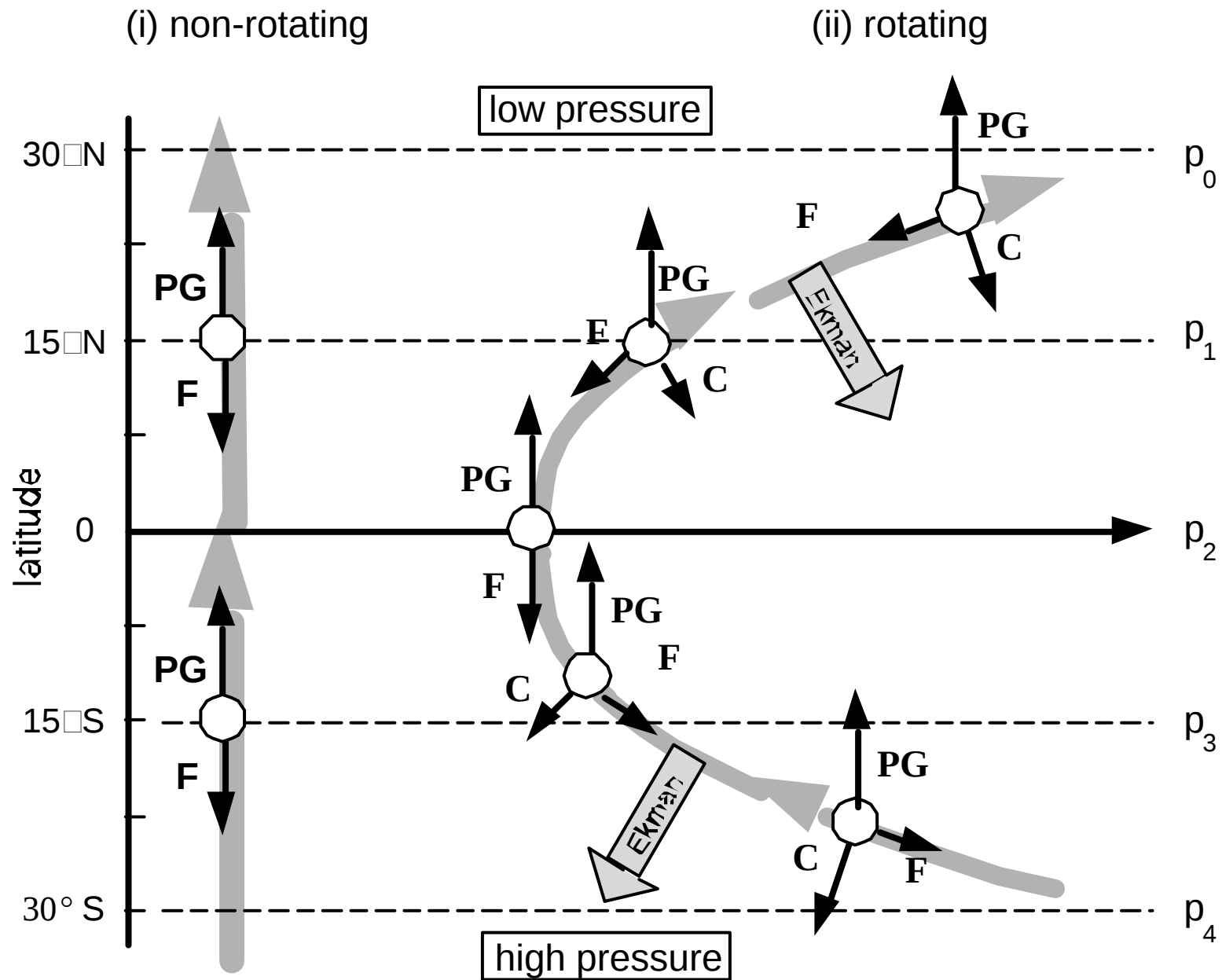
Impacts of Elevated Heat Sources

Mean Upper-Tropospheric Temperature: 200-500 mb



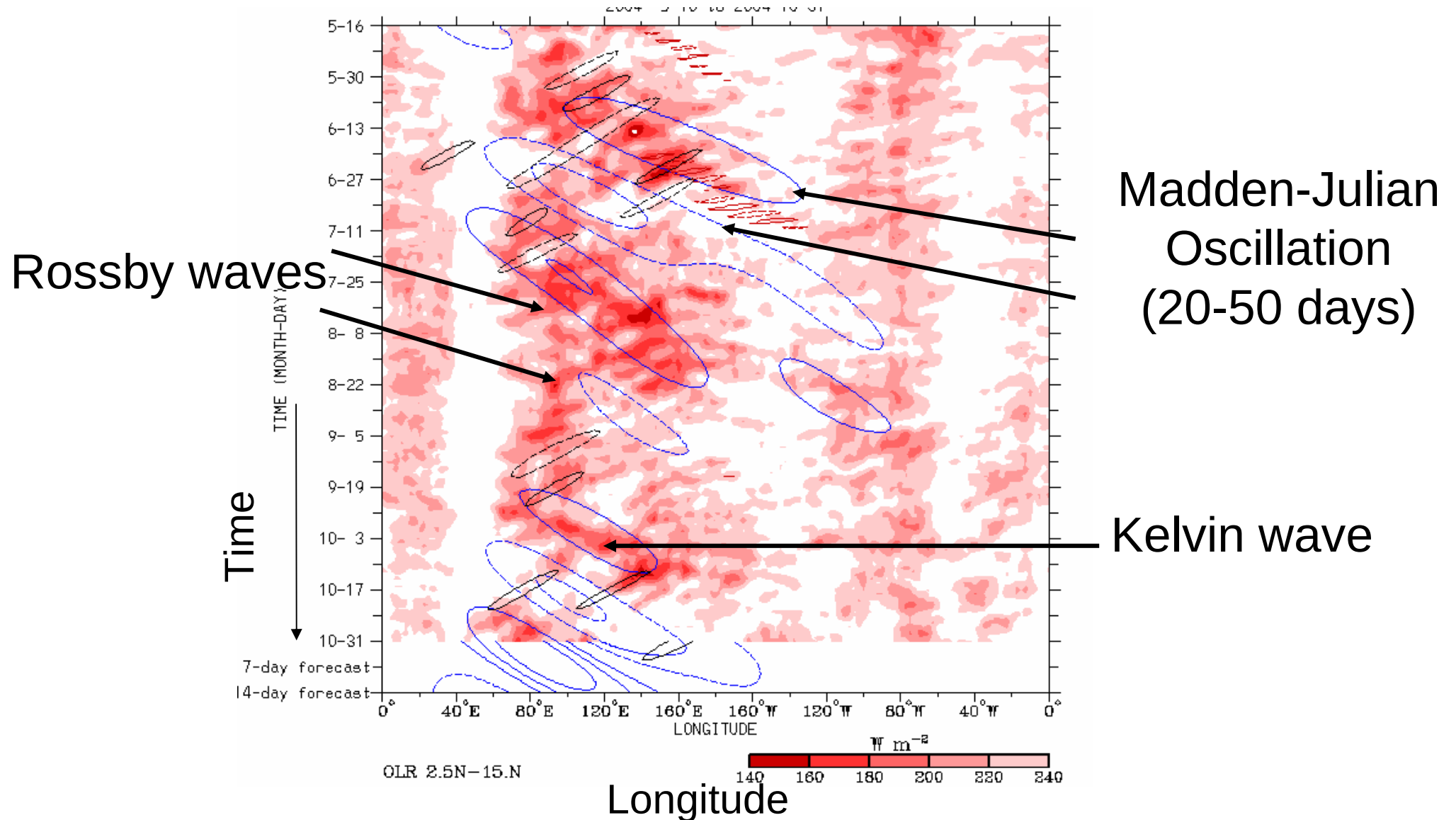
Note the dominating effect of the Himalayas

(a) lower-troposphere



High-frequencies modulated by background state

Evolution of convection: 2.5-15N (ITCZ)



Latitude-time section of OLR along 90E: 1995

Active phases of the monsoon commence near the equator and propagate northward (and southward) across South Asia.

