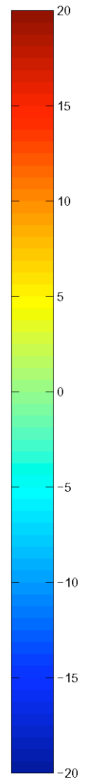
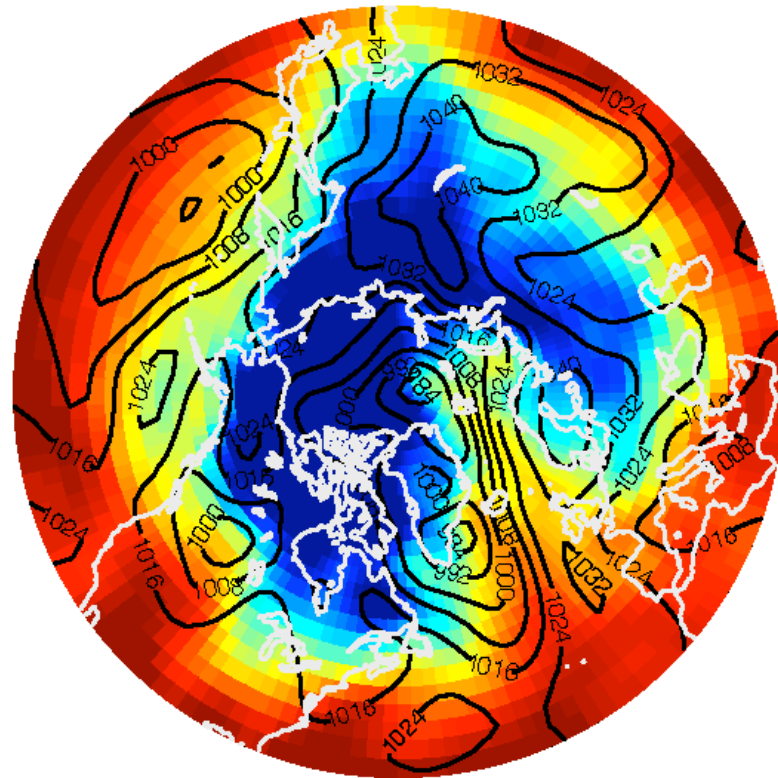
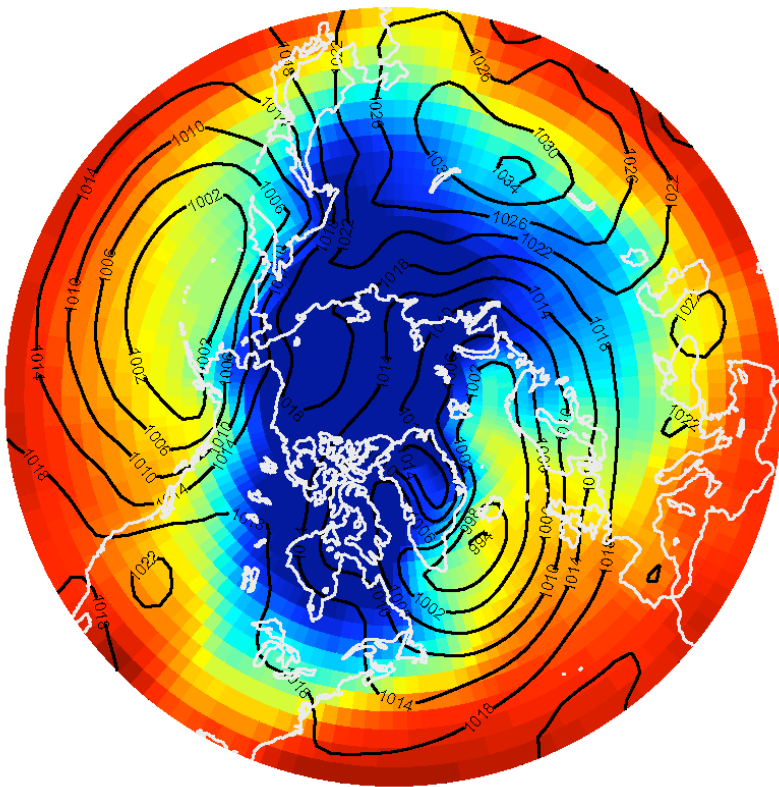


# Wintertime sea level pressure and surface temperature

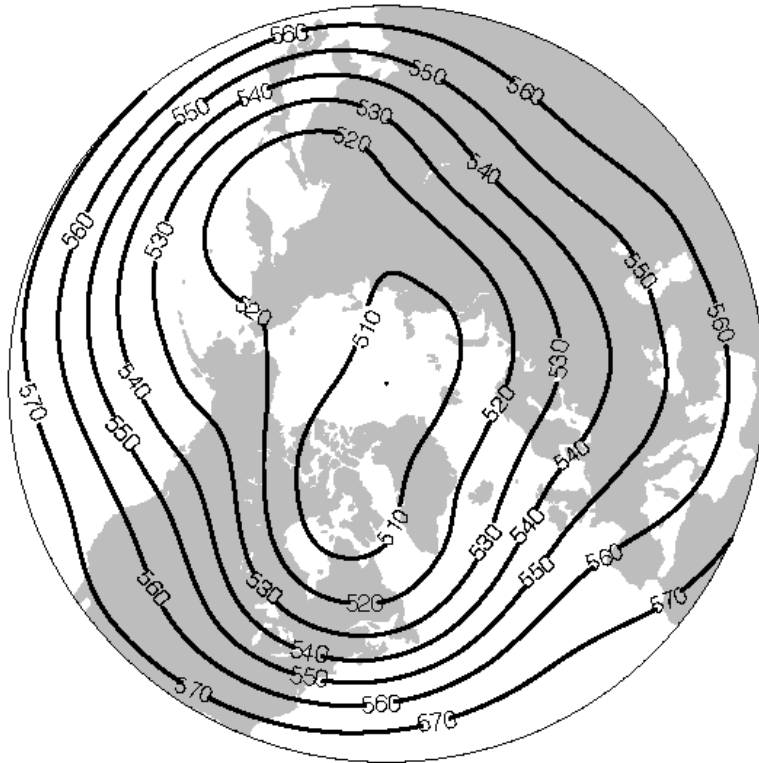
Winter average (DJF)

One day (Dec 4, 1995)

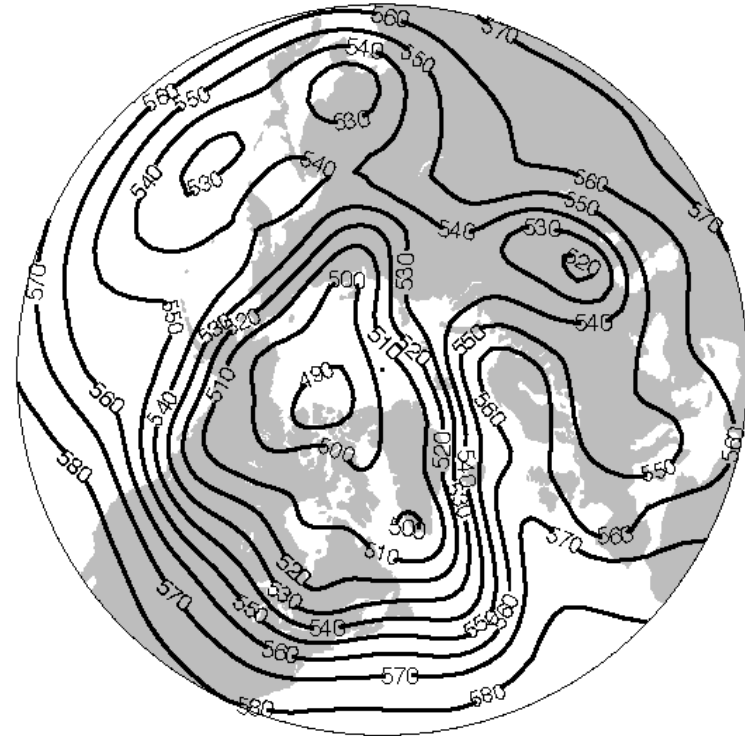


# Wintertime Geopotential Heights

NCEP 500mb heights: DJF 1949 2003



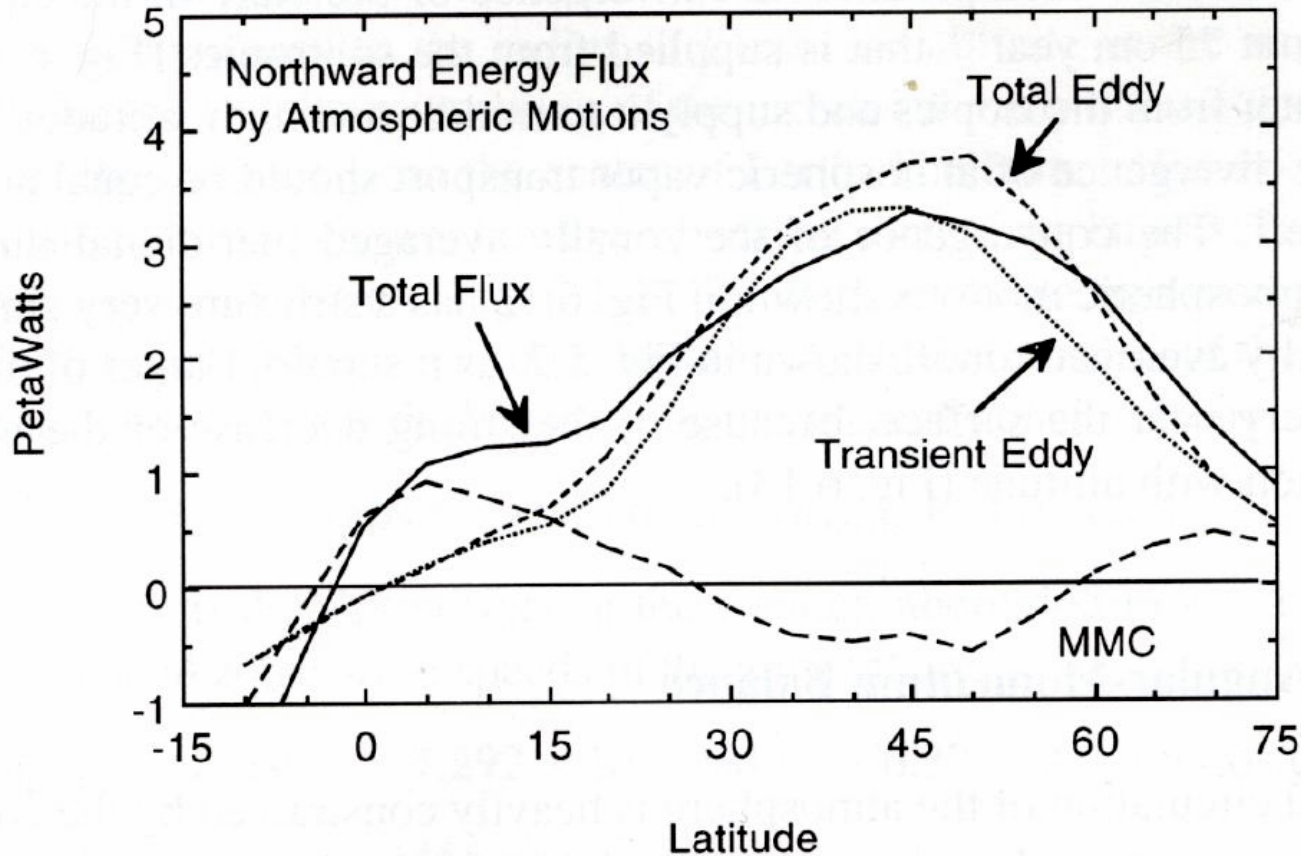
NCEP 500mb heights: Dec 4 1995



N.B. Units shown are decameters! (i.e. 550 dm =5500 m)

Geopotential Height:  $z = \phi/g_0$   
where:  $z$  = geopotential height,  $\phi$ =geopotential,  $g_0$  = reference gravity  
In geostrophic balance,  $z$  contours are streamlines of the flow

# Annually averaged energy flux



**Fig. 6.11** Annual average northward energy flux plotted versus latitude in the Northern Hemisphere. Units are  $10^{15}$  W. Mean meridional circulation (MMC). [Data from Oort (1971). Reprinted with permission from the American Meteorological Society.]

