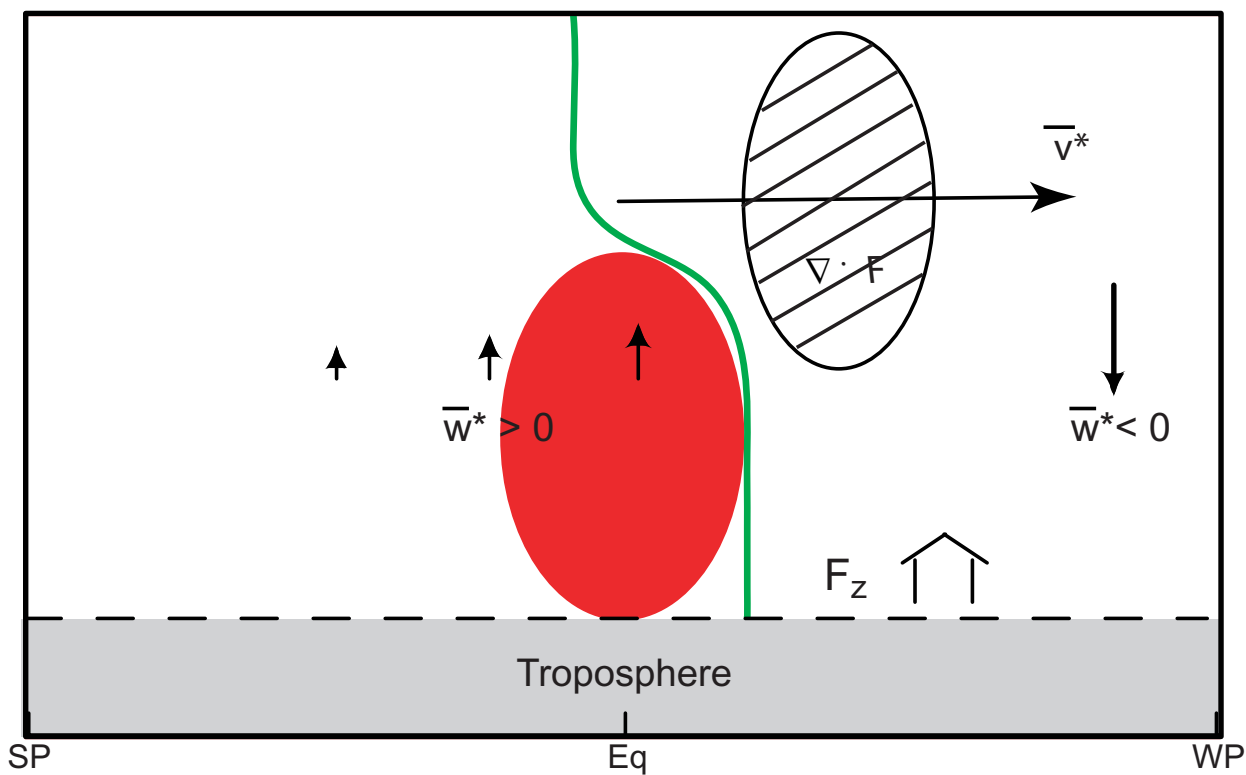


**Interannual Changes in the Stratosphere:
Relationship to Tropospheric Changes and Ozone**

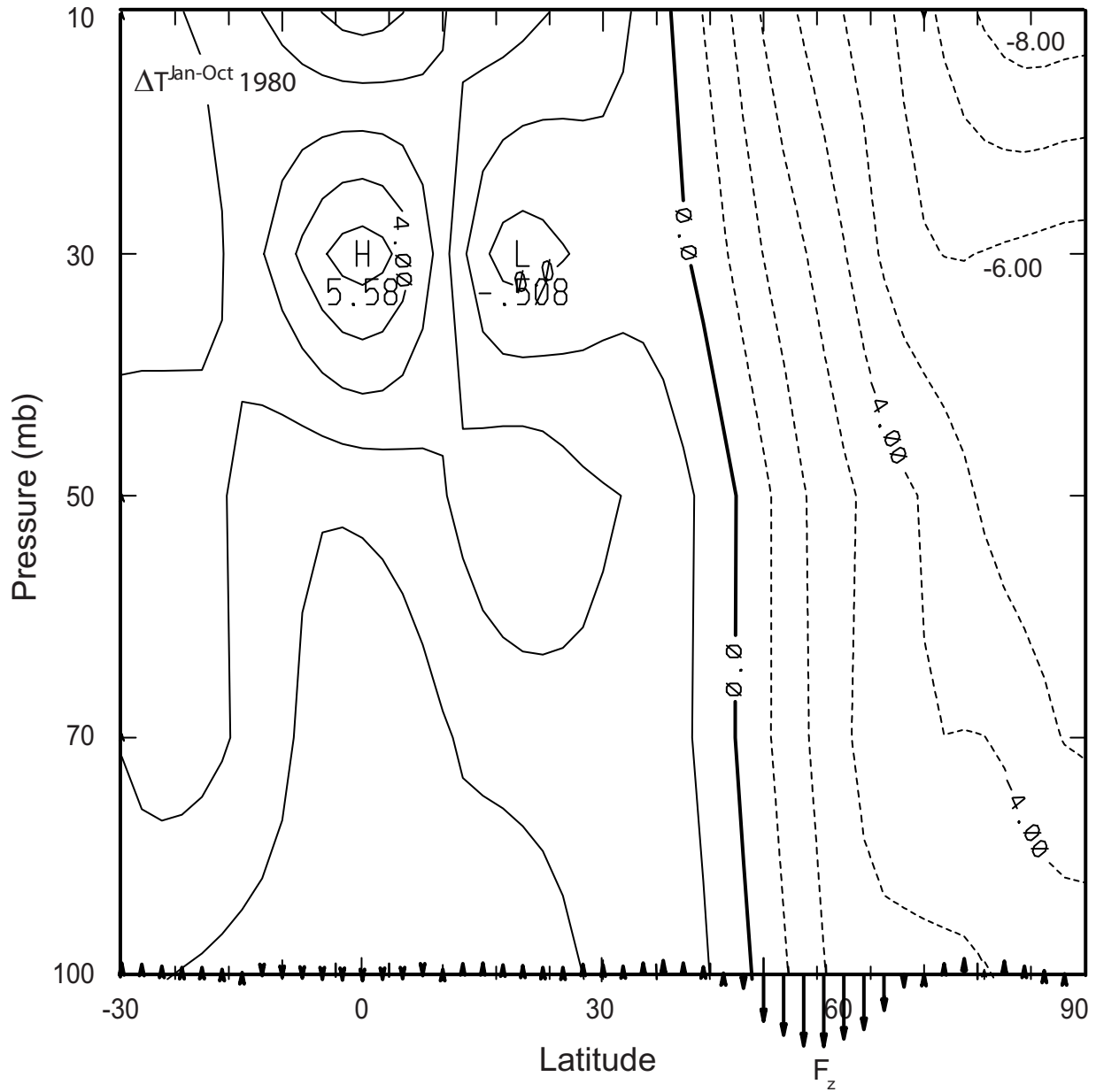
Murry Salby
University of Colorado

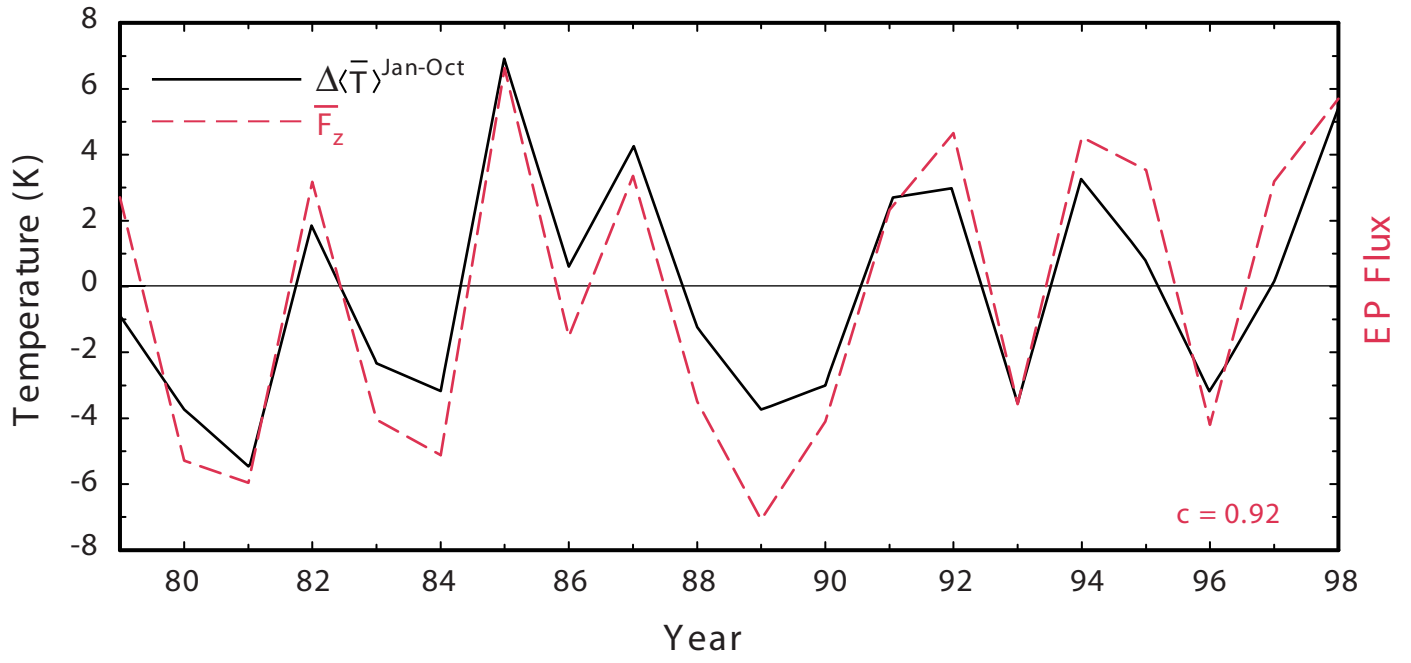
- Northern Winter
- Random Changes between Years
- Systematic Changes

Residual Mean Circulation



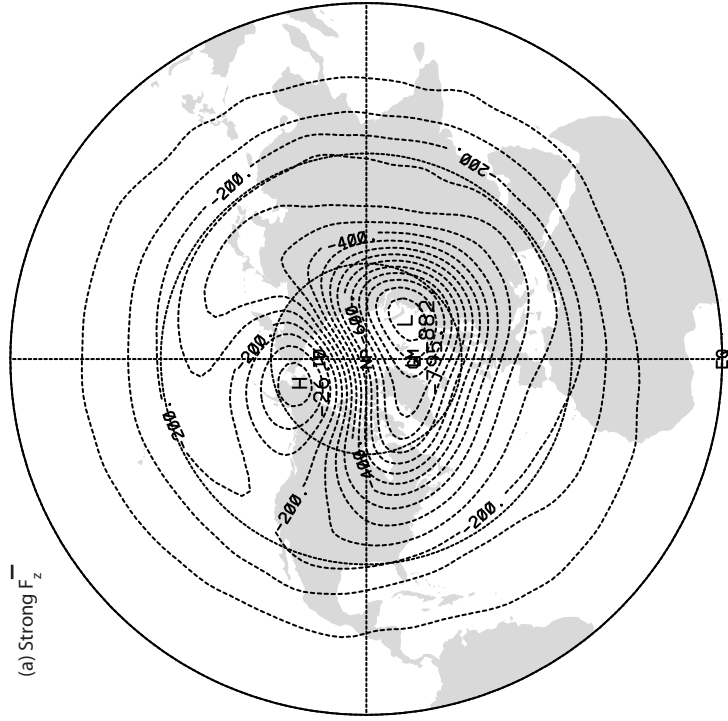
Temperature (K)



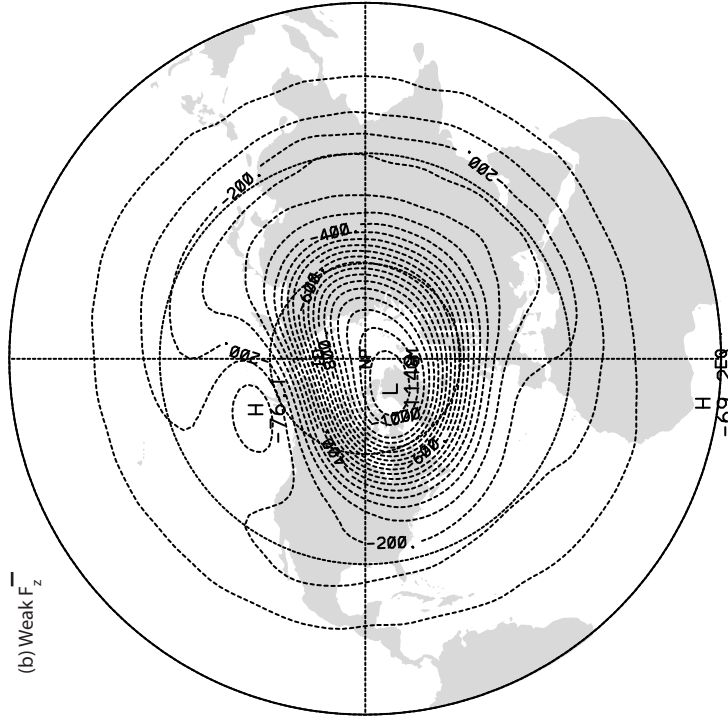


$\Delta Z_{50}^{\text{Jan-Oct}}$

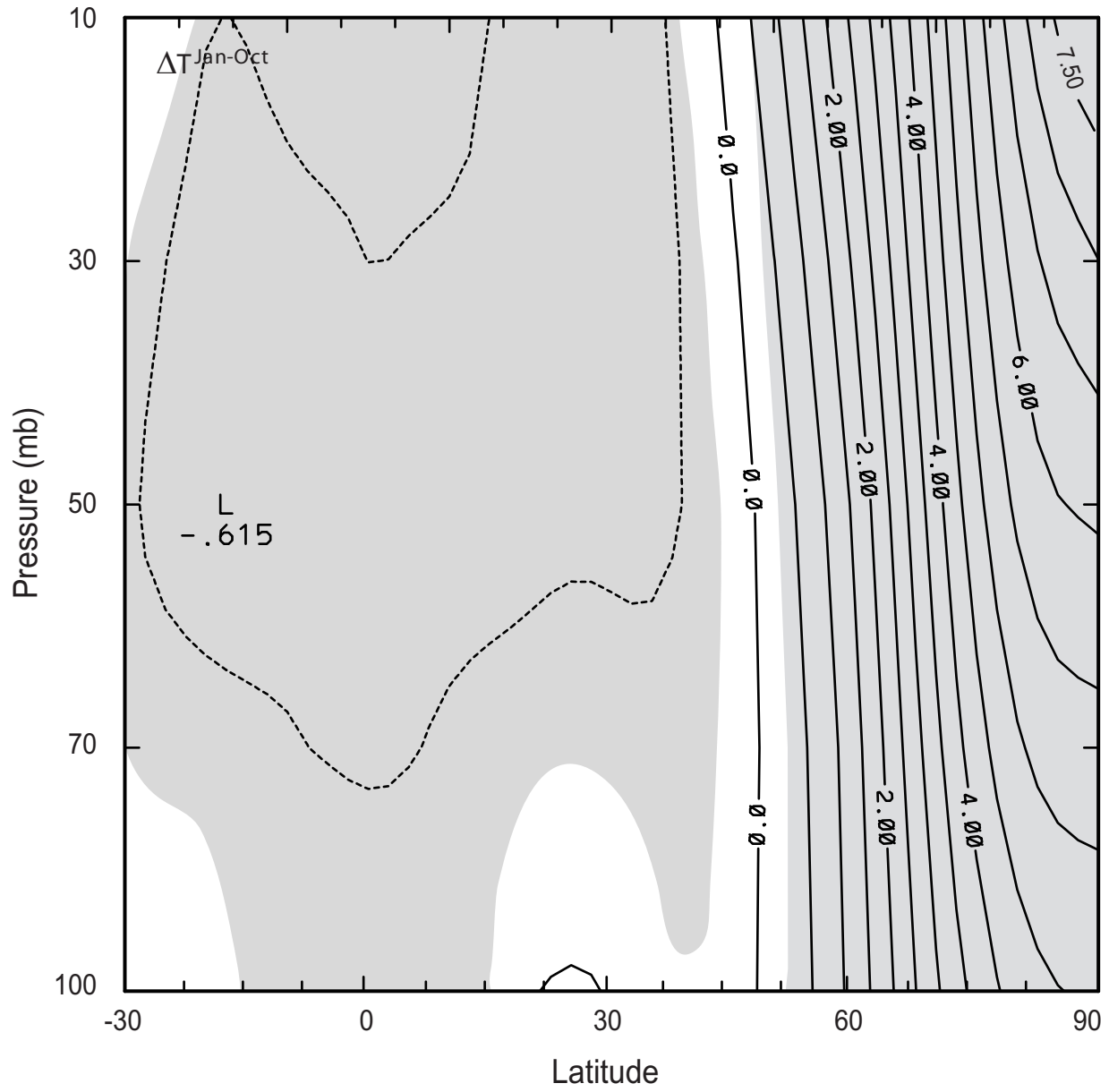
(a) Strong \bar{F}_z

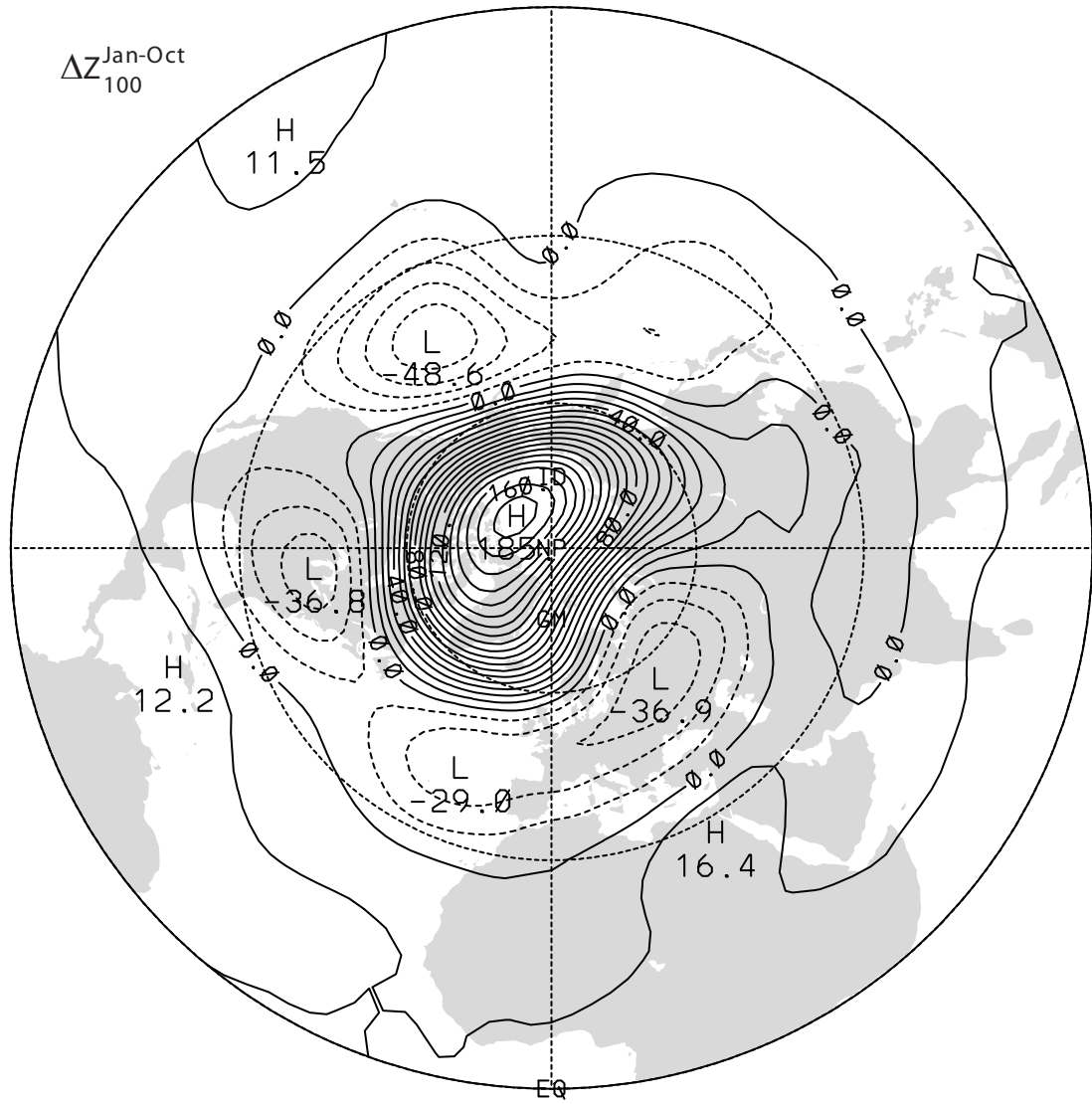


(b) Weak \bar{F}_z

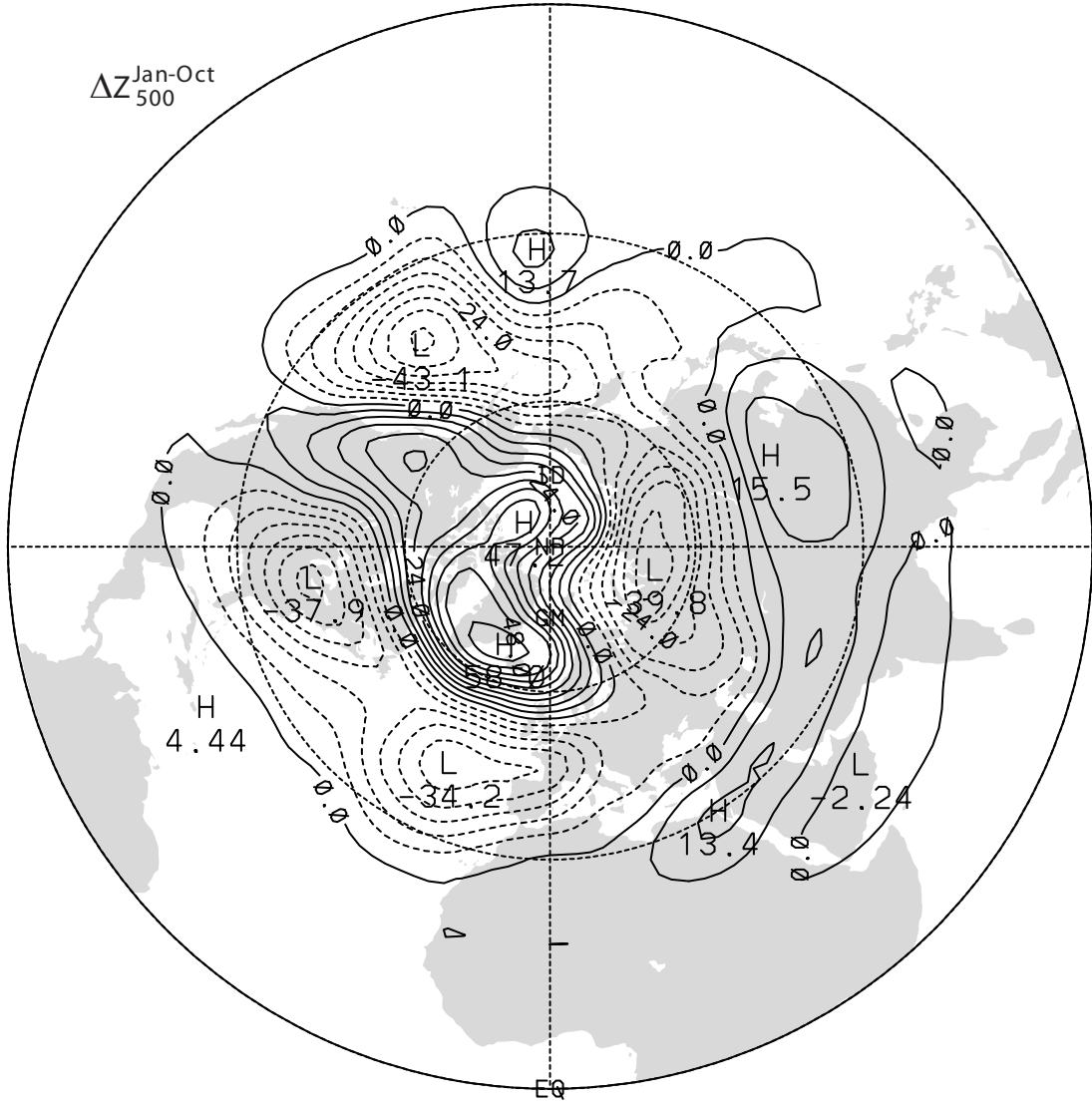


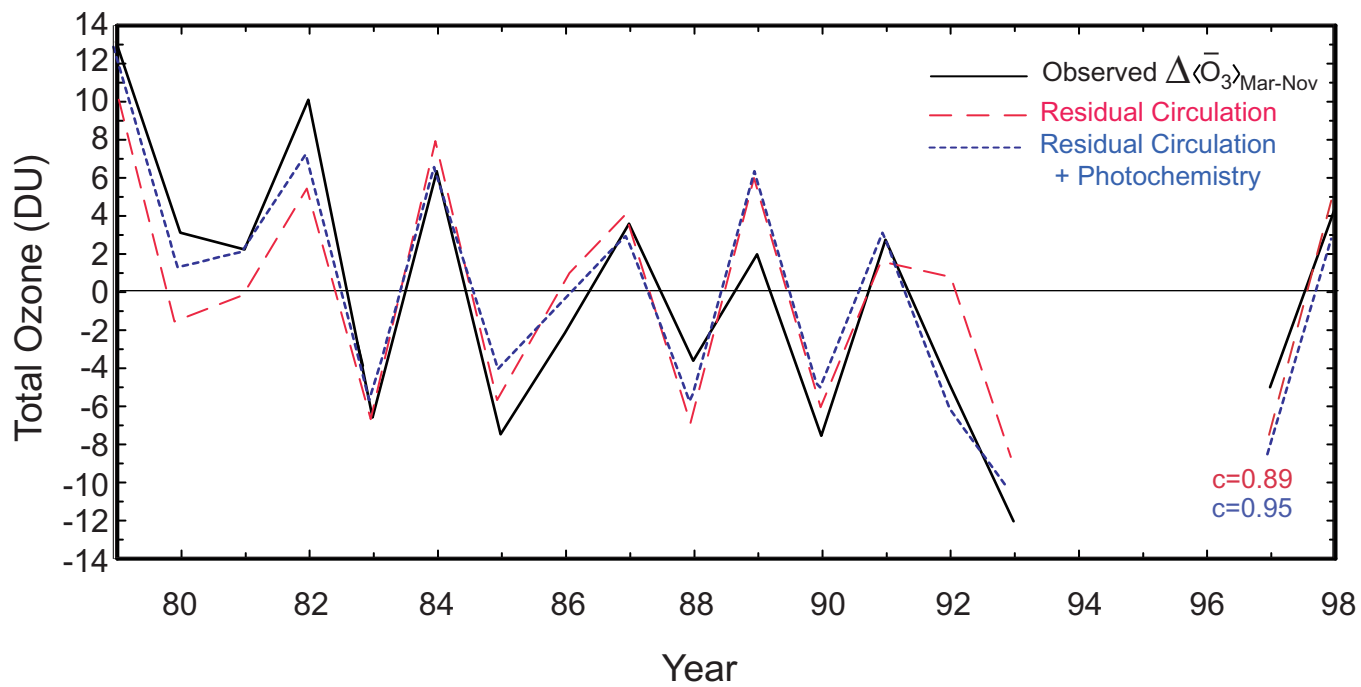
Anomalous Temperature (K)

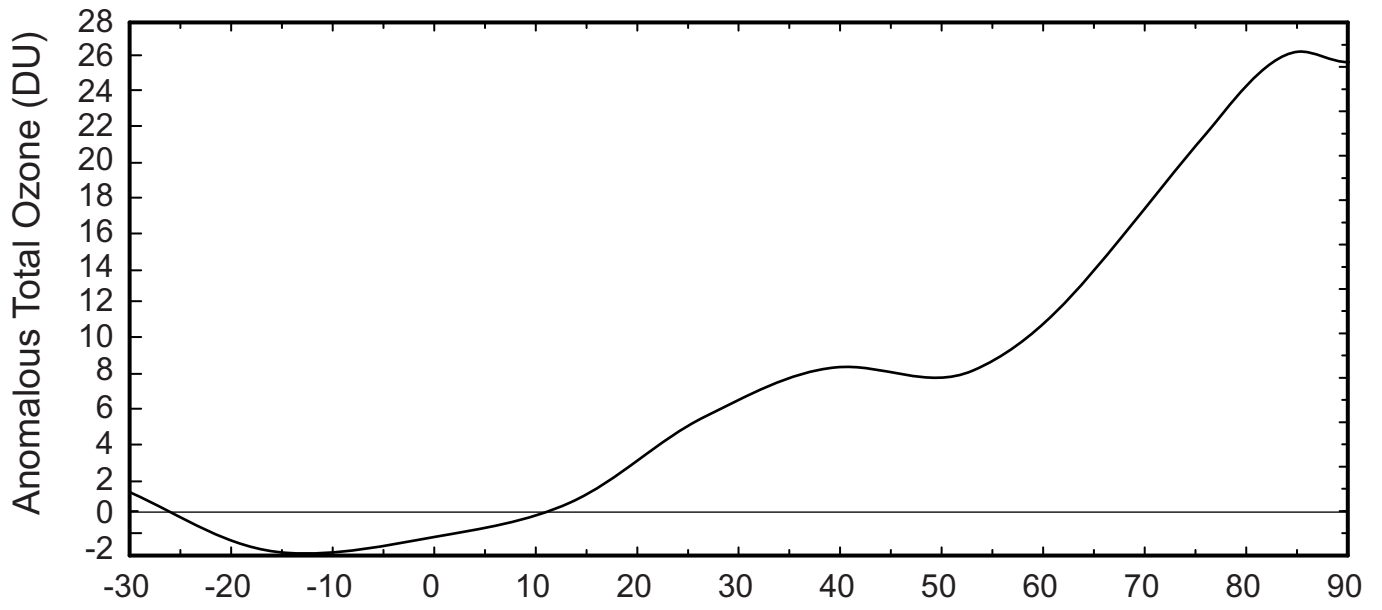


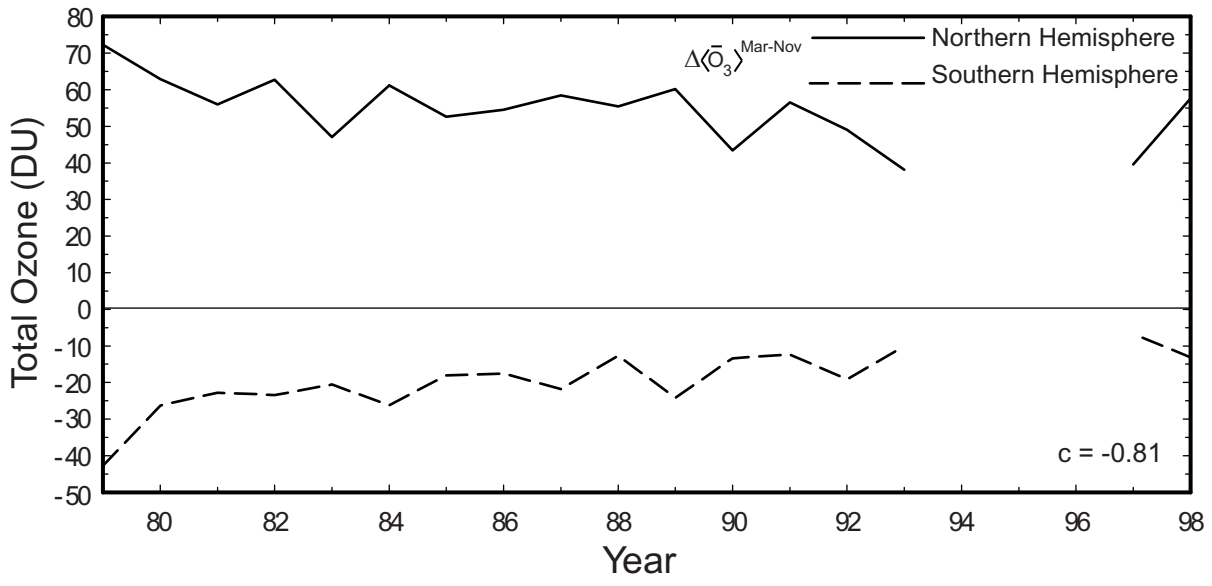


ΔZ_{500} Jan-Oct

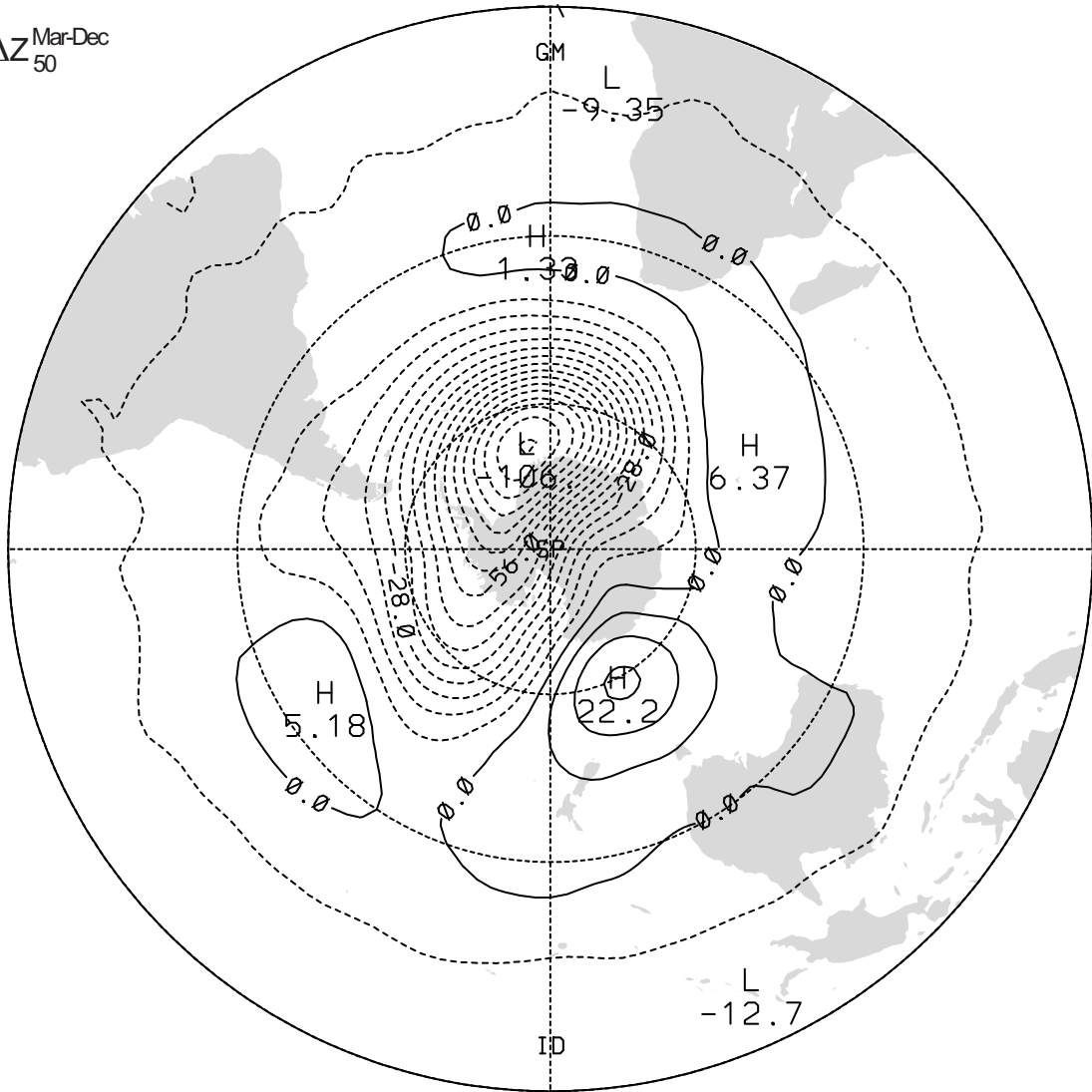




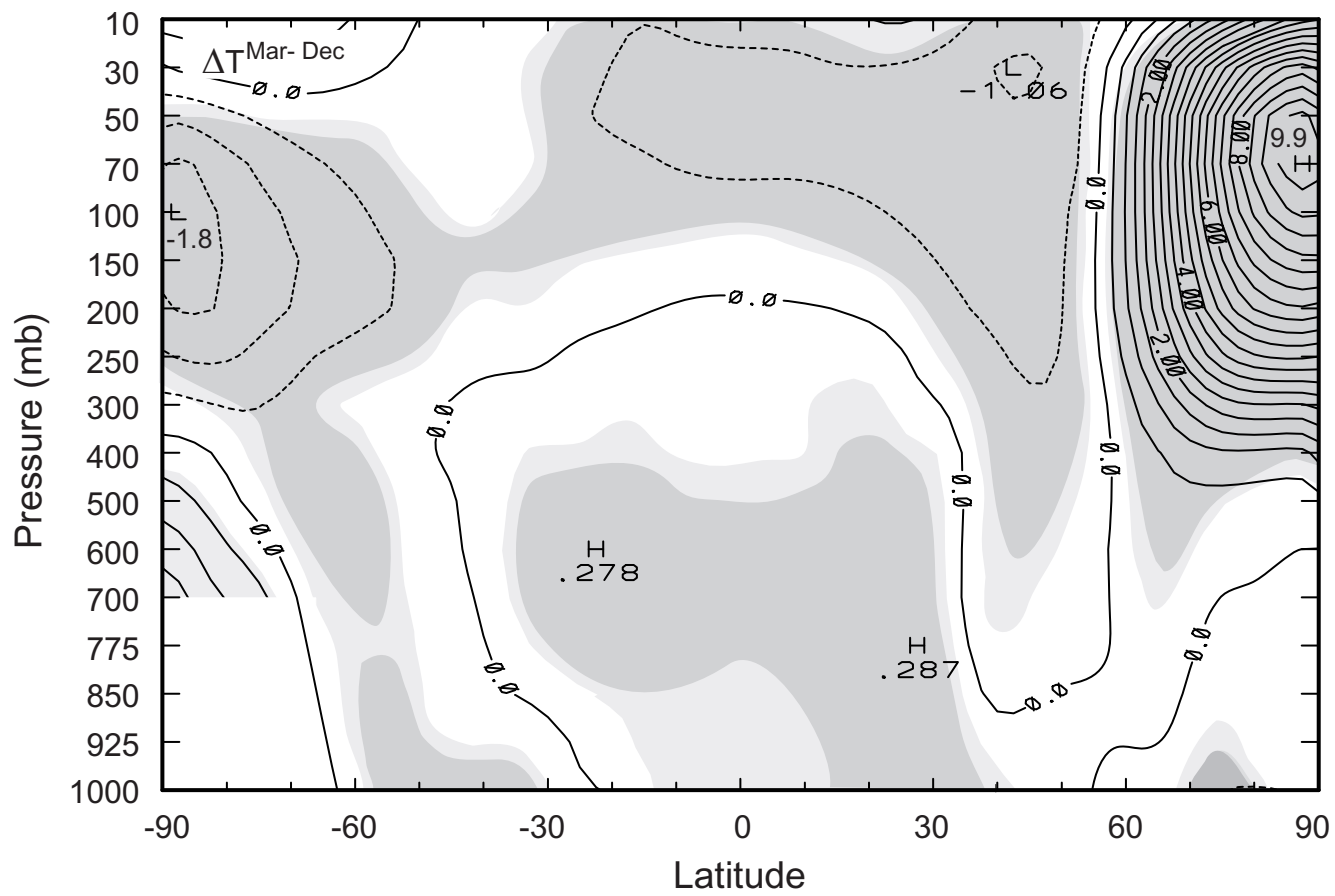


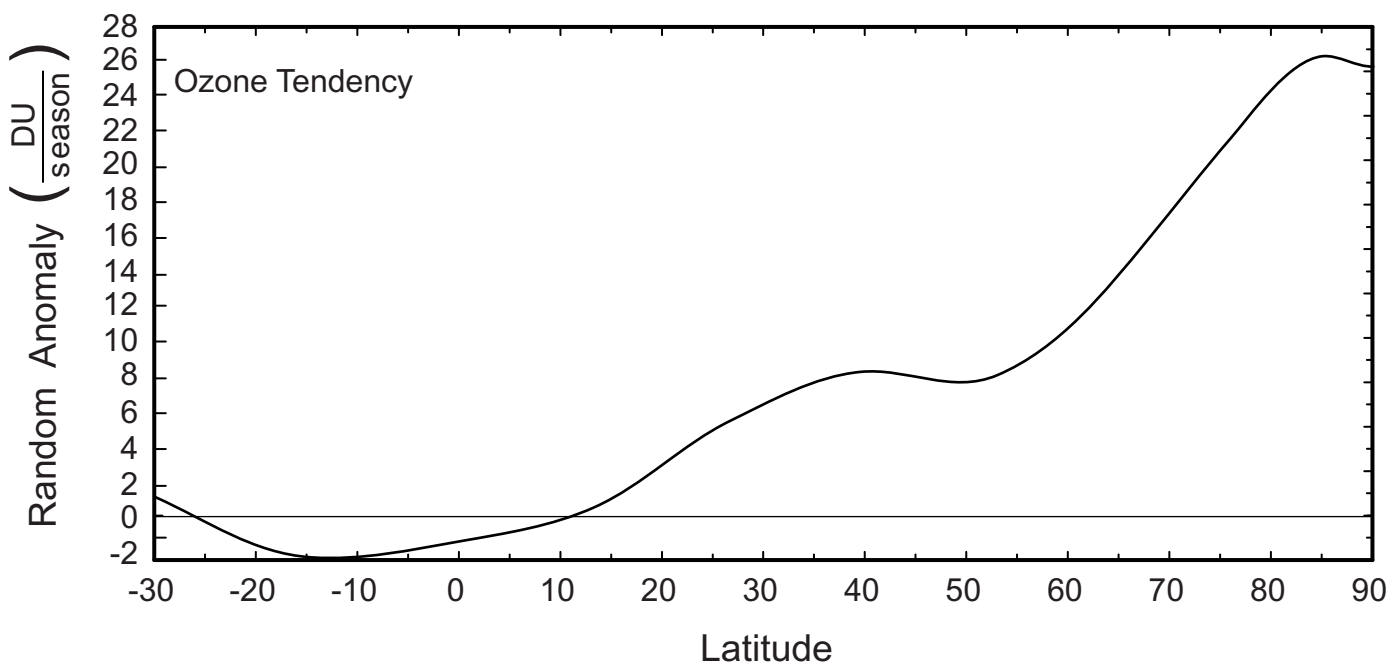
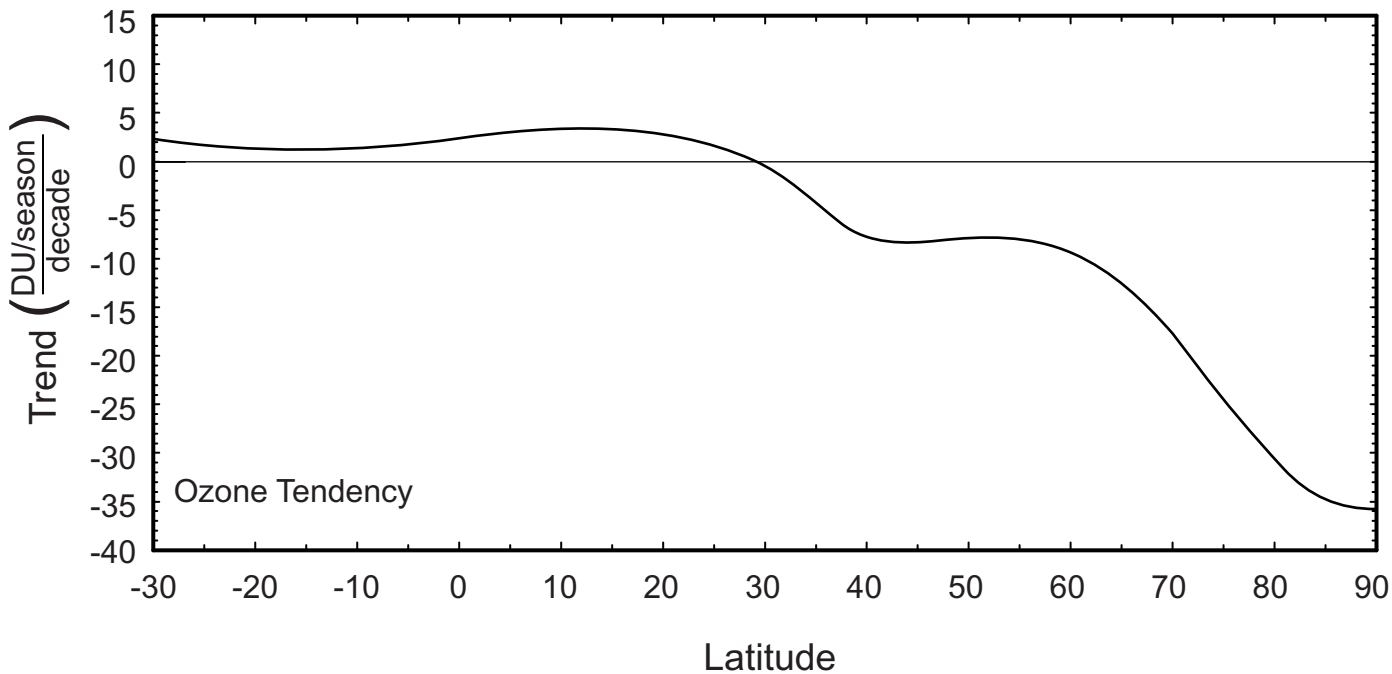


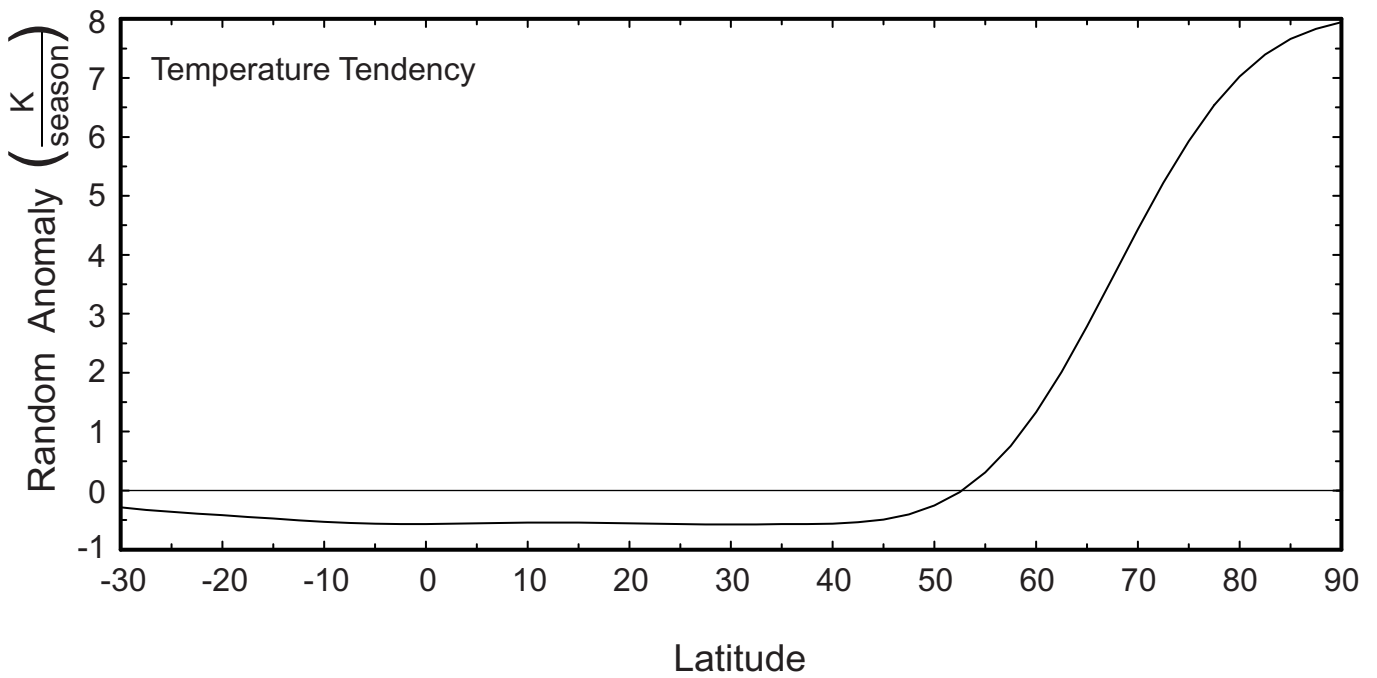
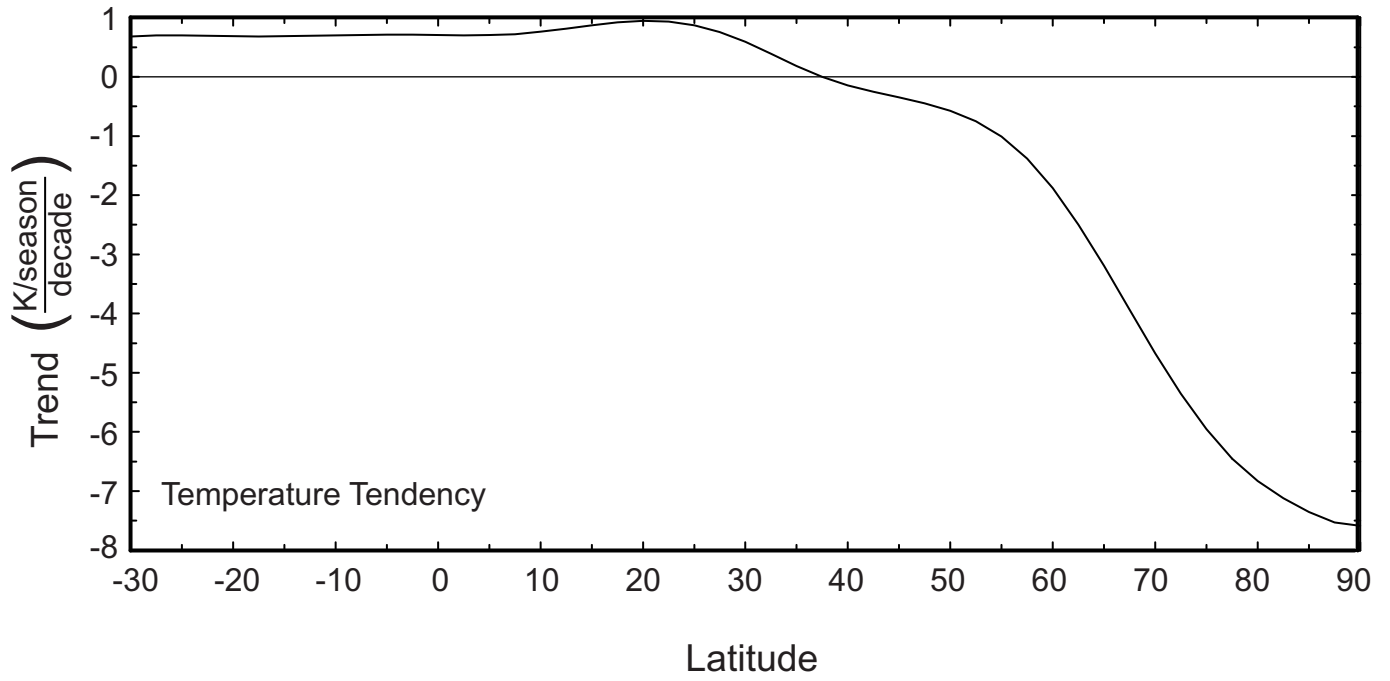
ΔZ Mar-Dec
50



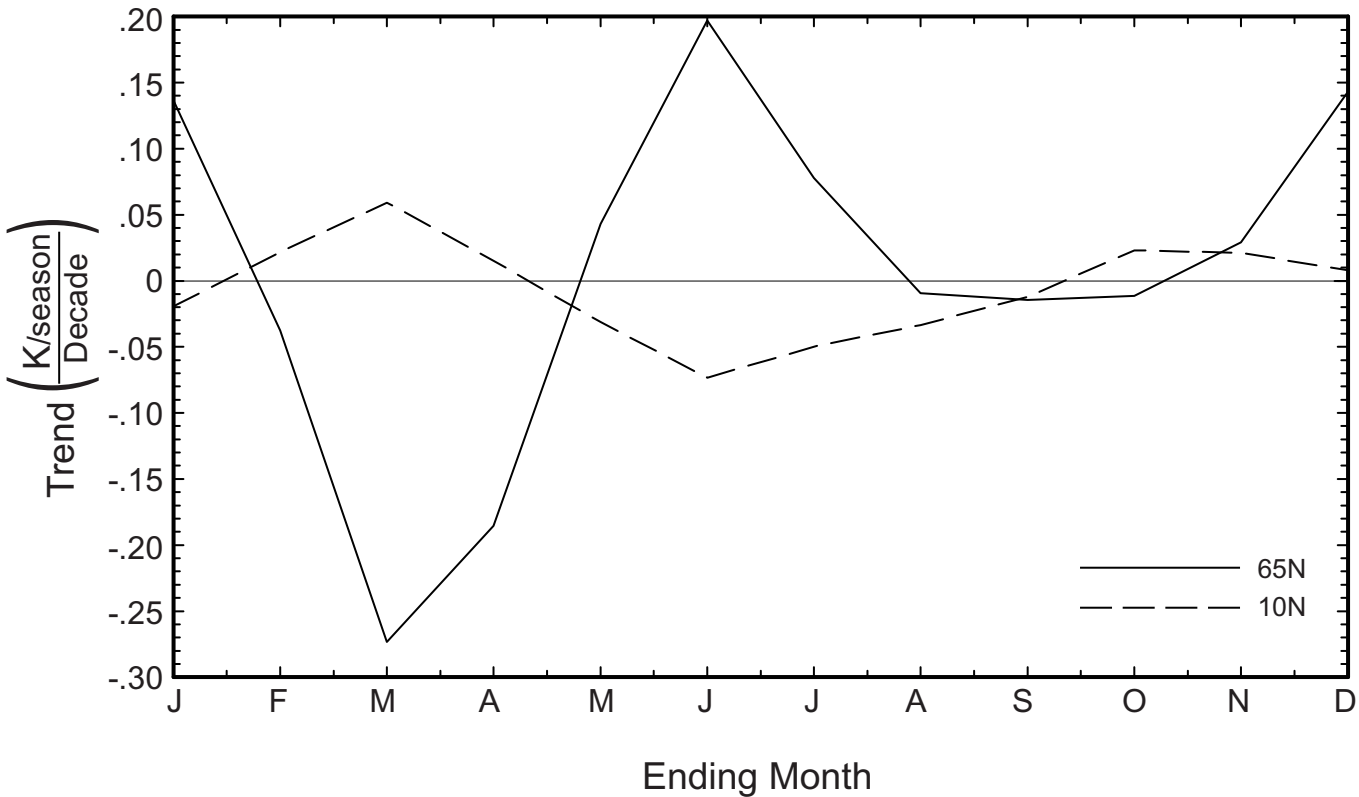
Anomalous Temperature (K)



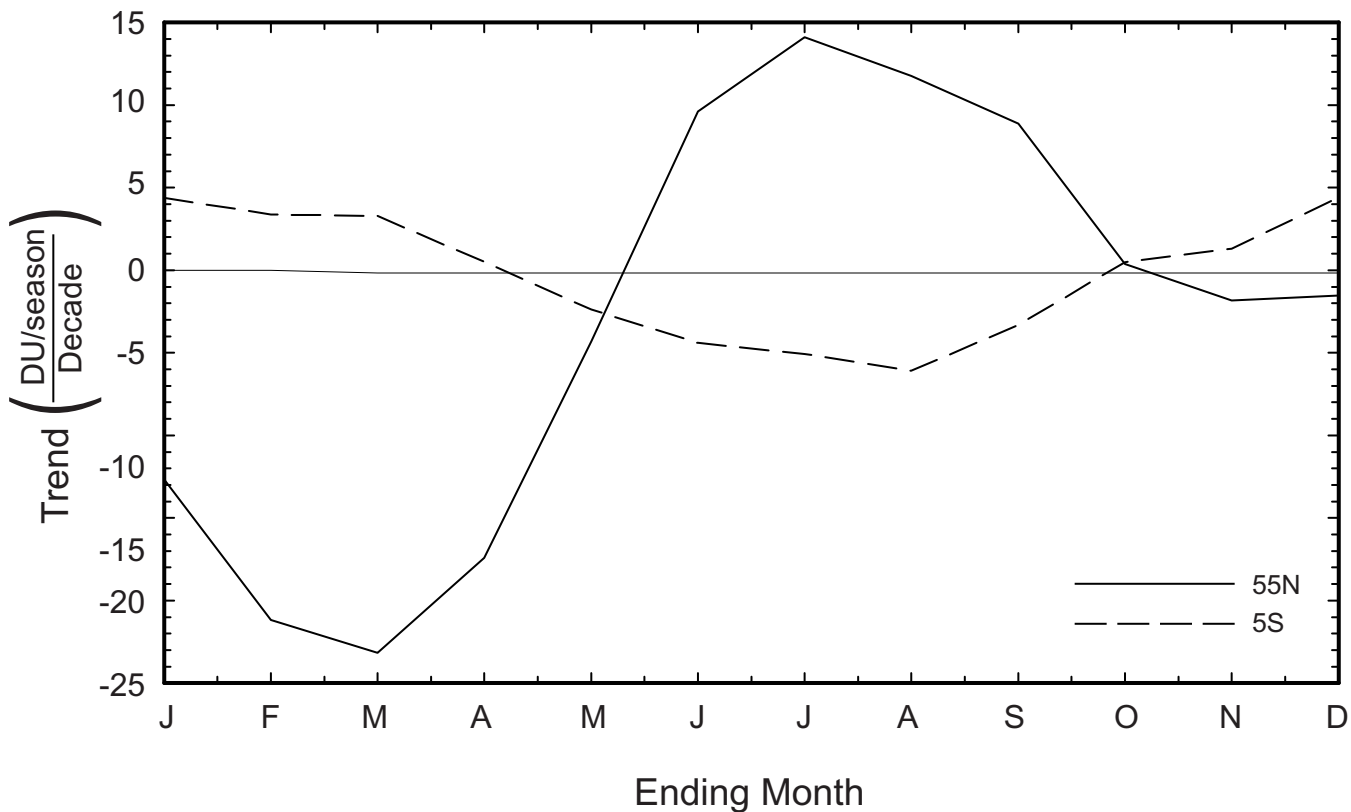




Seasonal-Mean Temperature Tendency



Seasonal-Mean Ozone Tendency



FIN