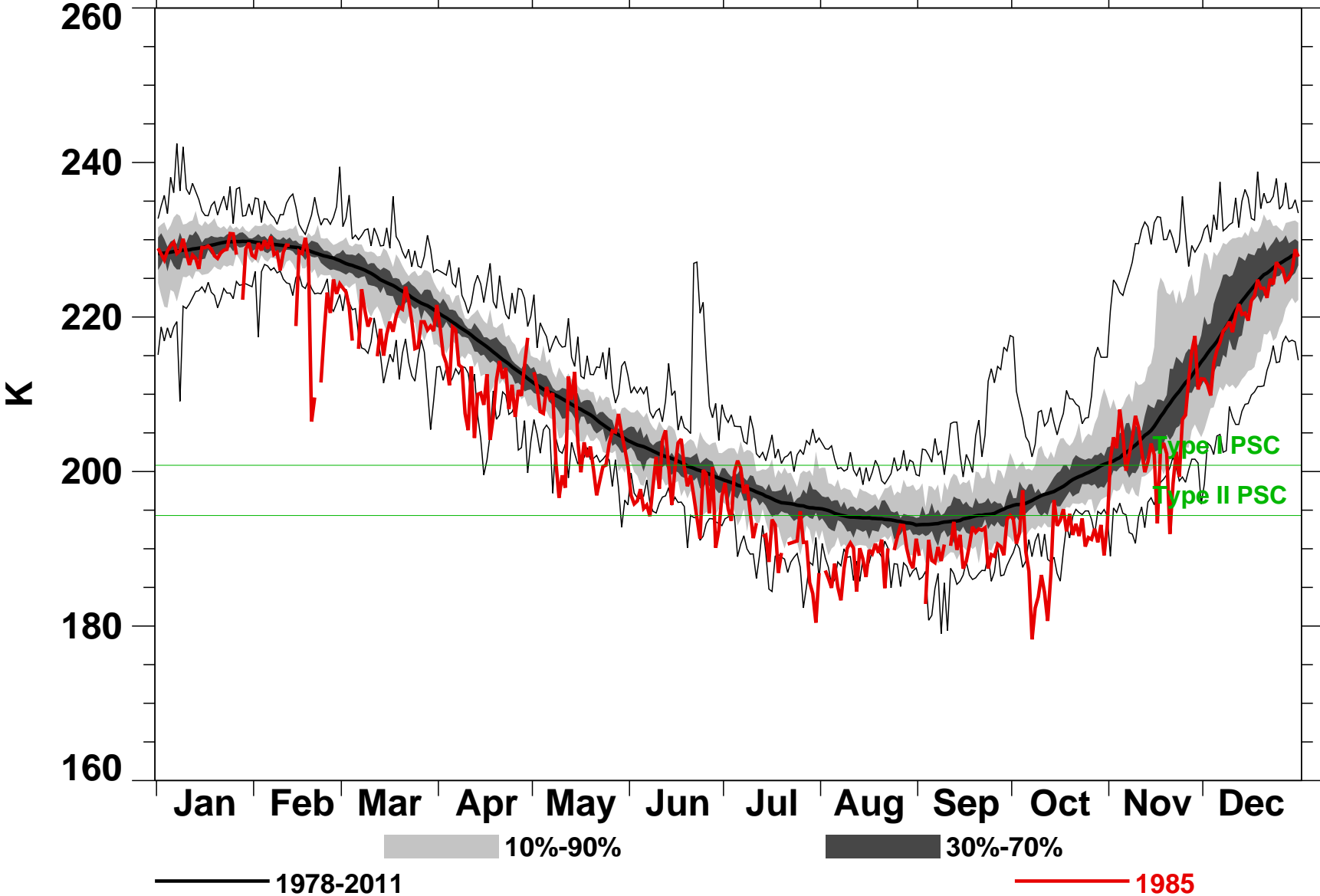


# 90°S Mean Temperature 150 hPa

$\text{HNO}_3 = 6 \text{ ppbv}$ ,  $\text{H}_2\text{O} = 4 \text{ ppmv}$



10%-90%

30%-70%

1978-2011

1985

P. Newman (NASA), E. Nash (SSAI), C. Long (NOAA)