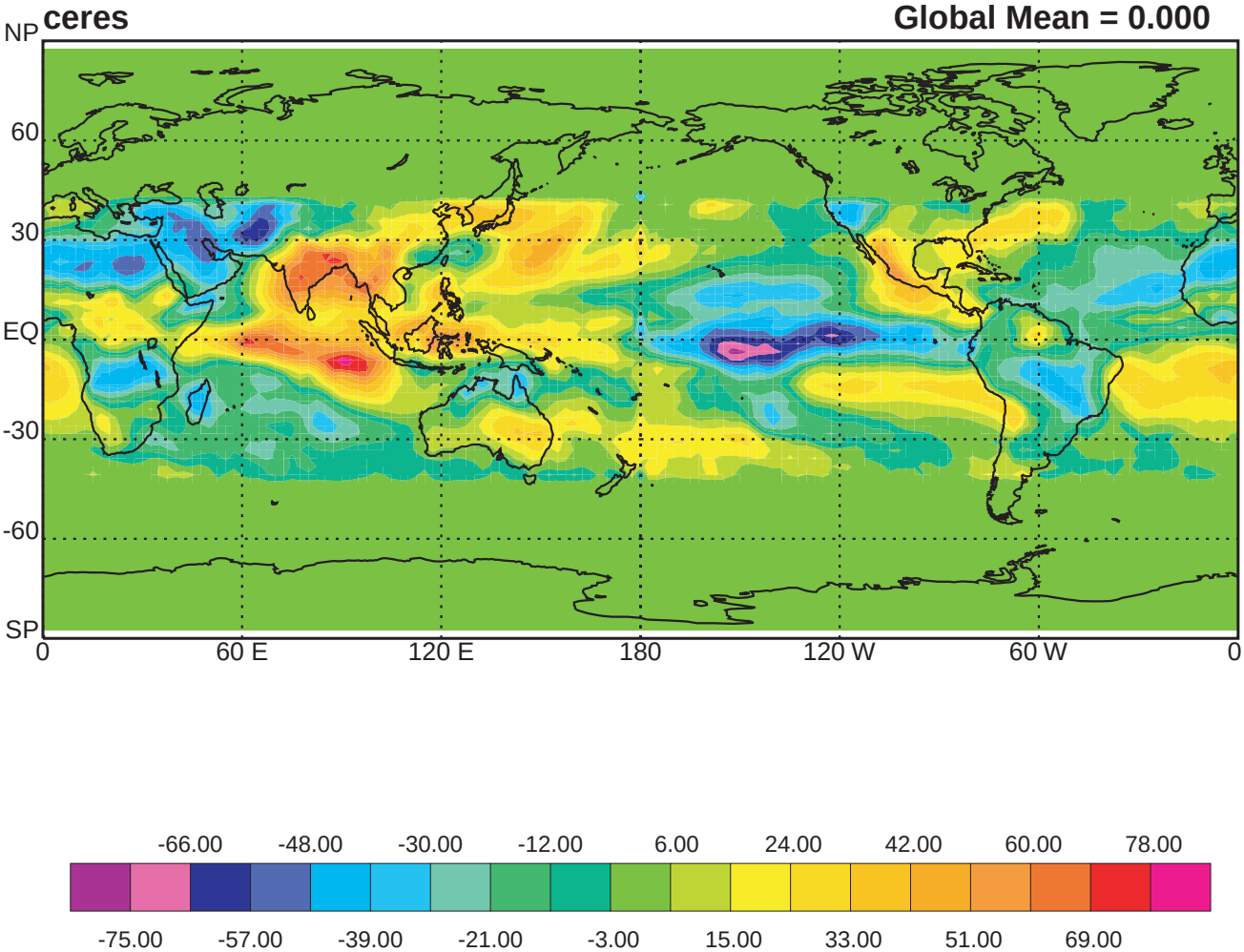
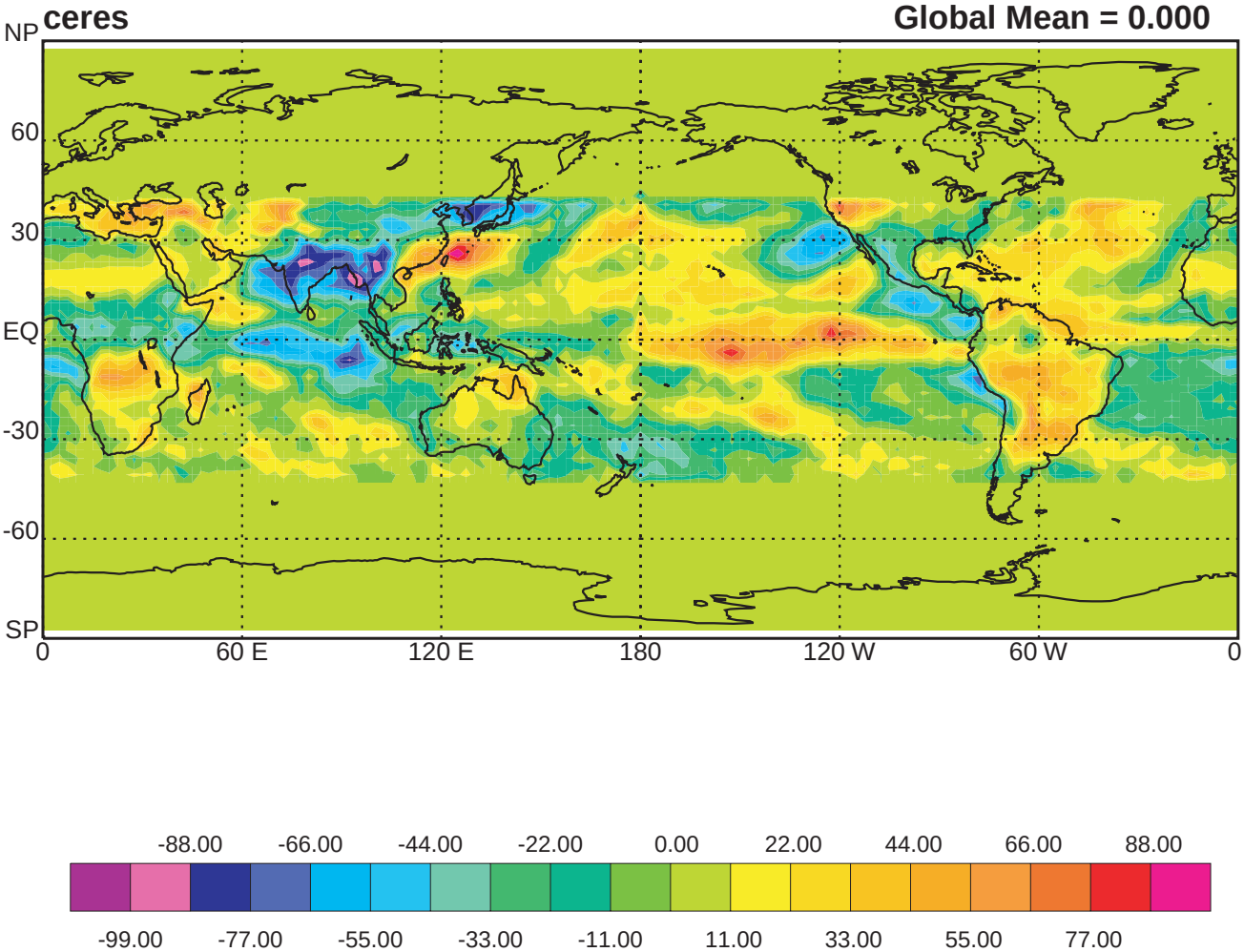
OLR minus zonal mean: FM98 minus JA98

W m^{-2}



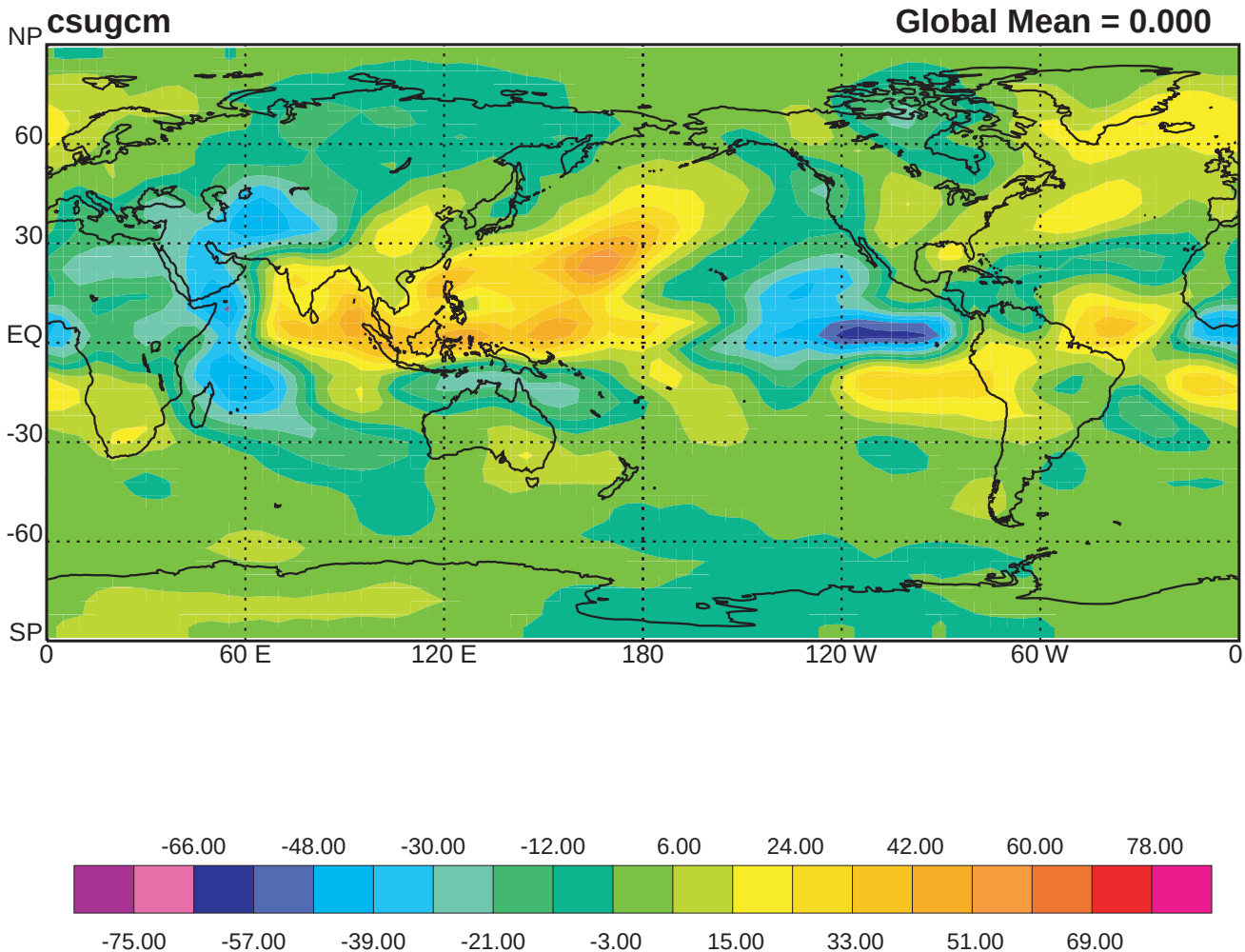
Reflected solar minus zonal mean: FM 98 minus JA 98

W m^{-2}



OLR minus zonal mean: FM 98 minus JA 98

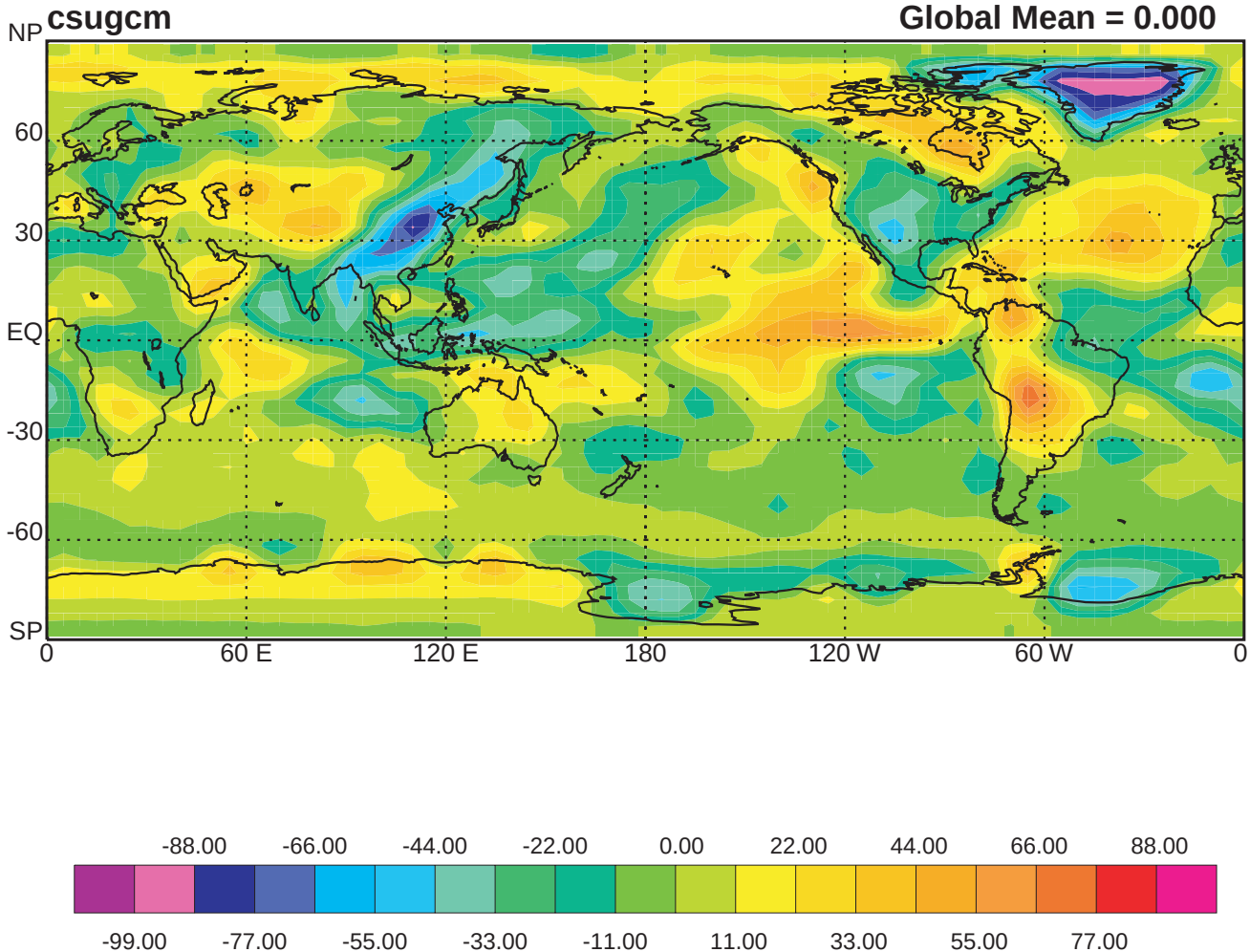
W m^{-2}



Mar 16, 2000

Reflected solar minus zonal mean: FM 98 minus JA 98

W m^{-2}



Flying TRMM, TERRA, and AQUA in the CSU GCM

1. Investigate the sampling of CERES sensors

What can one month of satellite data tell us?

What are the impacts of adding TERA and AQUA?

Can diurnal cycle of convection be captured?

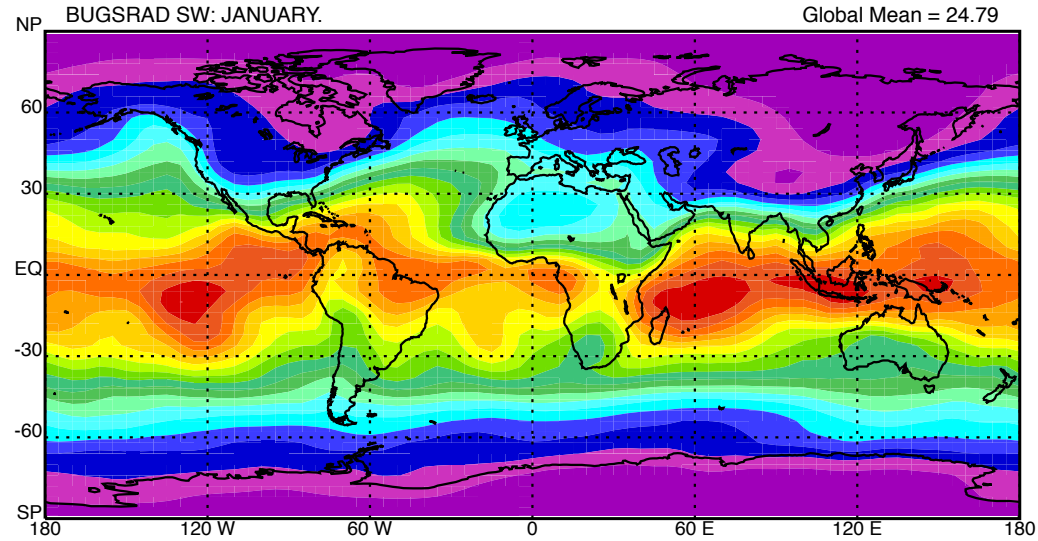
2. Investigate partial coverage of grid cell by satellite swath

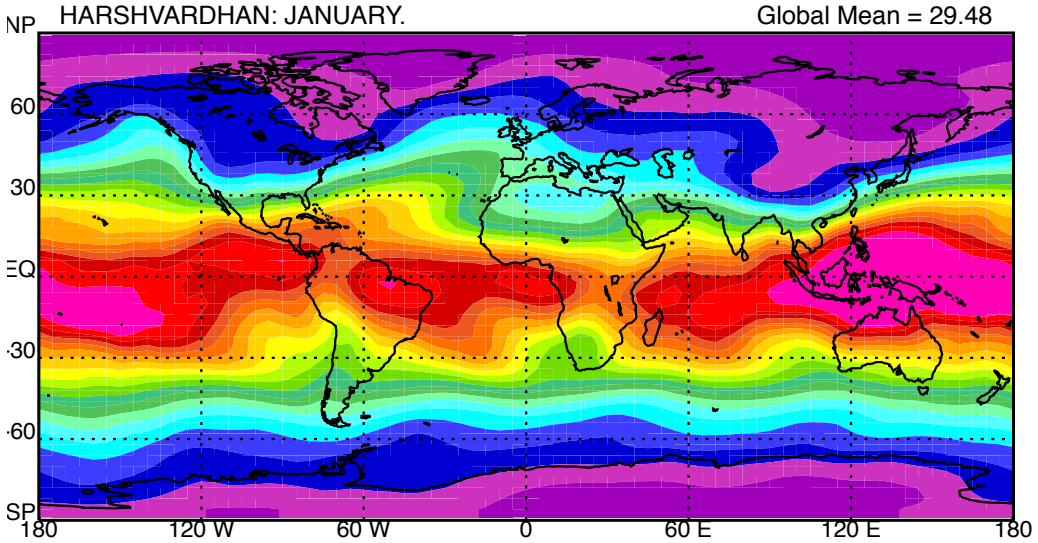
A common problem when converting pixel data to grided data

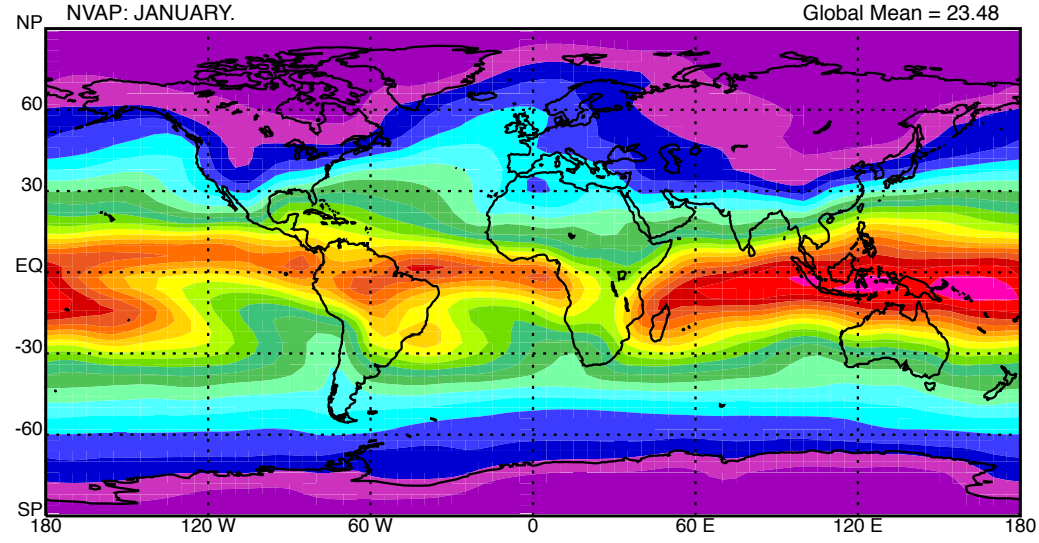
BUGSrad

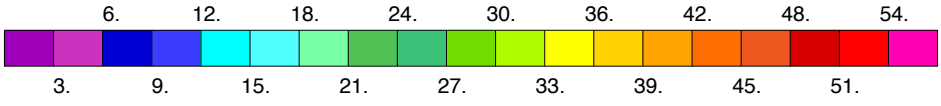
- **Based on the radiation transfer code developed by Fu and Liou (1992).**
- **Gaseous absorption is calculated using the correlated k-distribution method in 6 shortwave and 12 longwave spectral intervals (Fu and Liou 1992).**
- **It uses a delta-two stream and adding methods to calculate the fluxes in the 18 spectral intervals.**
- **Uses ADT theory to calculate the optical properties of water and ice clouds (Stephens et al. 1990).**

PRECIPITABLE WATER (mm)

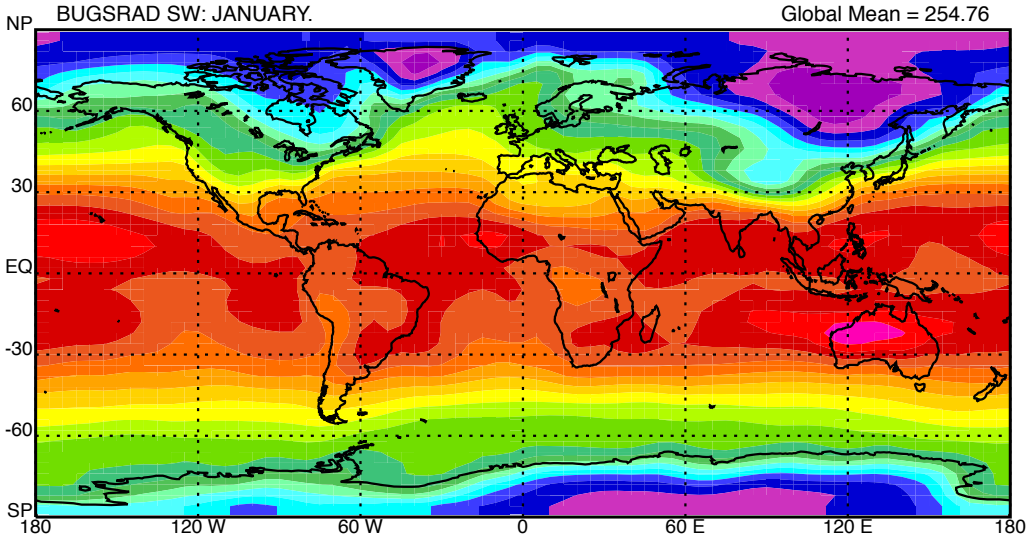


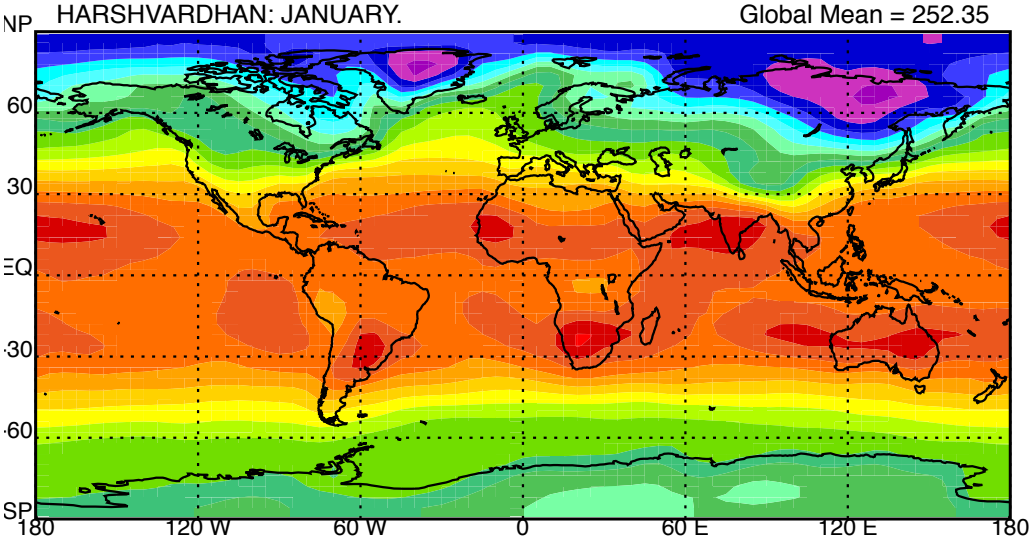


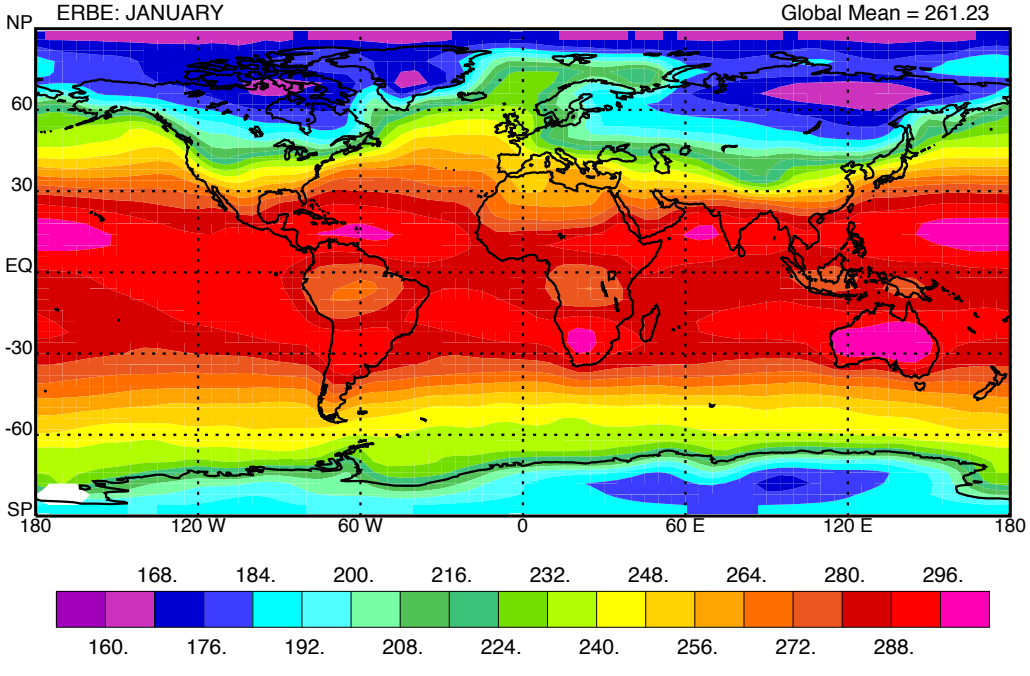




TOA CLEAR-SKY OUTGOING LONGWAVE (W/m2)

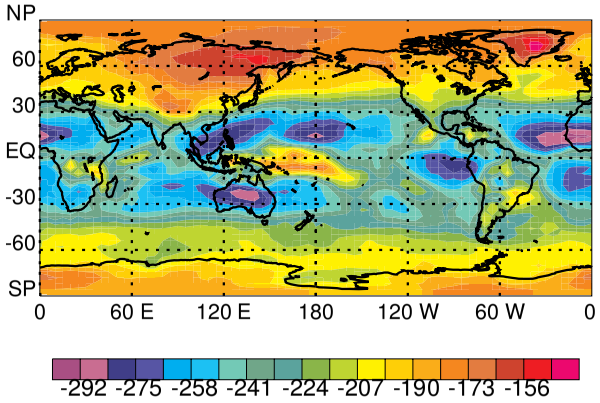






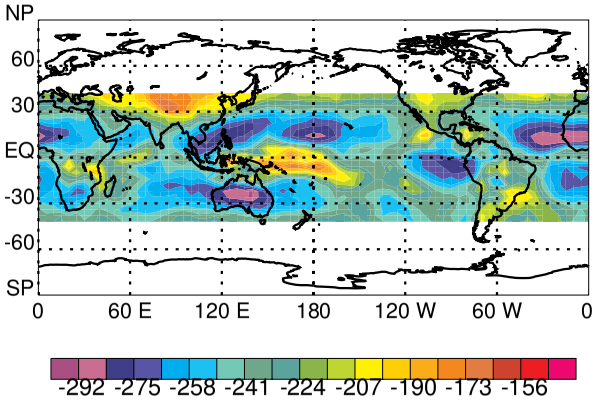
TOA OUTGOING LONGWAVE FLUX

January w/m^2 Global Mean = -226



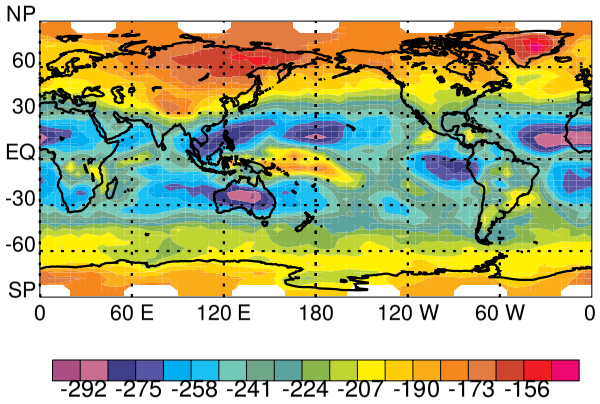
TRMM SAMPLED OLR

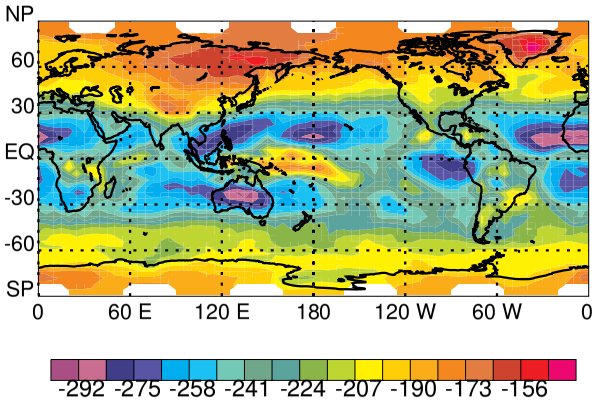
January w/m^2 Global Mean = -240



TRMM+EOS(AM) SAMPLED OLR

January w/m^2 Global Mean = -227



TRMM+EOS-AM+EOS-PM SAMPLED OLR

January w/m^2 Global Mean = -227