



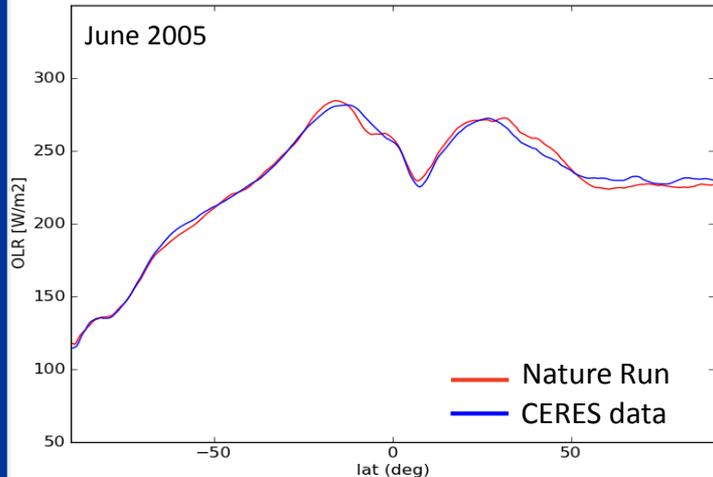
7km GEOS-5 Nature Run (7km-G5NR)

Validation of Cloud and Radiation Fields

Global Modeling and Assimilation Office

Clouds play a key role in Earth's radiation budget, reflecting sunlight and trapping thermal energy. The top-of-atmosphere Nature Run radiation budget was validated against the CERES instrument aboard the EOS Terra and Aqua platforms. The excellent thermal validation is shown below. The solar validation is shown in the Normalized SCF to the right (white indicates more cloud and stronger cooling due to reflection of sunlight.)

Outgoing Longwave Radiation at top-of-atmosphere



Normalized Solar Cloud Forcing (SCF)

