Distribution and Validation of CERES Irradiance Global Data Products Via Web Based Tools

David Rutan¹, Cristian Mitrescu¹ and David Doelling², Seiji Kato²


NASA’s Clouds and the Earth’s Radiant Energy System (CERES) project produces global, 1-degree gridded, 3 hourly estimates of TOA, atmospheric and surface radiative fluxes in the SYN1Deg and EBAF-surface data products.

New web tools allow plotting, analyzing, and downloading single grid box values associated with surface validation sites:

SYN1Deg: https://ceres-tool.larc.nasa.gov/cave/jsp/CAVESelection.jsp
EBAF-surface (Monthly Means) https://ceres-tool.larc.nasa.gov/cave/jsp/CAVESelection.jsp

86 land and buoy sites available from the above web links.

Plot Style & Time Variables Possible Parameters

Can one identify an error in model/observation comparisons due to instrument swaps on land versus at sea? First, calculate monthly mean bias. Then normalize by series RMS and remove bias for each length of instrument set use. Finally difference first/last month. Results indicates no significant difference between land and buoy at monthly mean time scale.

https://ntrs.nasa.gov/search.jsp?R=20160009264 2020-01-26T15:43:18+00:00Z