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

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

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

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<th>Plot Style &amp; Time Variables</th>
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<td>Scatter Plot Comparisons of SW &amp; LW Surface Flux E13 Obs vs SYN1deg Calculations</td>
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Time Series Plots include observation, observation compared to calculation, bias, and bias distribution.

Monthly Mean Error E13 & WHOI Stratus Buoy – Plotted With Instrument Swap Dates

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.

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https://ntrs.nasa.gov/search.jsp?R=20160009264 2018-05-09T18:27:15+00:00Z