Earth's Radiation Budget
January Climatology

The ERBE included a solar monitor to measure radiation from the sun arriving at the top of Earth's atmosphere. A map of incoming radiation, however, was not a standard product of the analysis. This map was generated by dividing the outgoing short wavelength radiation, measured by ERBE, by the albedo, reversing the processing used to create the albedo map. The ERBE short wavelength sensor measures radiation between 0.2 and 5 microns.

For comparison visible light ranges from 0.4 to 0.7 microns (blue to red). The short wavelength thus includes visible light and near infrared.

Short Wave Radiation In (W/m^2)

- 0 / No Data
- 2 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 250
- 251 - 300
- 301 - 350
- 351 - 400
- 401 - 450
- 451 - 500

Data downloaded from International Research Institute for Climate and Society at Columbia University's Earth Institute (http://iridl.ldeo.columbia.edu/SOURCES/.NASA/.ERBE/). Grid size is 2.5° by 2.5°. Mercator projection. WGS84 Geoid.

Earth's Radiation Budget
January Climatology

The ERBE short wavelength sensor measured radiation between 0.2 and 5 microns traveling outward from the earth at the top of the atmosphere. This January clear sky climatology data set was created by averaging cloud-free observations for the month. Some areas of the earth were not cloud free during the time of observation and thus have no data.

For comparison visible light ranges from 0.4 to 0.7 microns (blue to red). The short wavelength thus includes visible light and near infrared.

150°W 120°W 90°W 60°W 30°W 0° 30°E 60°E 90°E 120°E 150°E 180°

60°N 30°N 0° 30°S 60°S

Short Wave Radiation out
(W/m^2, clear sky)

- No Data
- 0 - 50
- 51 - 100
- 101 - 150
- 151 - 200
- 201 - 250
- 251 - 300
- 301 - 350
- 351 - 400

Data downloaded from International Research Institute for Climate and Society at Columbia University's Earth Institute (http://iridl.ldeo.columbia.edu/SOURCES/.NASA/.ERBE/). Grid size is 2.5° by 2.5°. Mercator projection. WGS84 Geoid.

Earth's Radiation Budget
January Climatology

The ERBE long wavelength sensor measured radiation between 5 and 50 microns traveling outward from the earth at the top of the atmosphere. This January clear sky climatology data set was created by averaging cloud-free observations for the month. Some areas of the earth were not cloud free during the time of observation and thus have no data.

For comparison visible light ranges from 0.4 to 0.7 microns (blue to red). The long wavelength sensor thus measures radiation in the thermal infrared range.

Long Wave Radiation out
(W/m^2, clear sky)

- No Data
- 135 - 140
- 141 - 160
- 161 - 180
- 181 - 200
- 201 - 220
- 221 - 240
- 241 - 260
- 261 - 280
- 281 - 300

Data downloaded from International Research Institute for Climate and Society at Columbia University's Earth Institute (http://iridl.ldeo.columbia.edu/SOURCES/.NASA/.ERBE/). Grid size is 2.5° by 2.5°. Mercator projection. WGS84 Geoid.