

As of August 26, 2011

Count	CDR Variable Name	Essential Climate Variable		Algorithm Name	Collateral Products	Responsible Team Member	Source Data Sensors	Future Source Data Sensor	Spacecraft	Channels	Spatial Resolution	Temporal Resolution	Product Units	Projection	Output Format	Metadata Standard	Other Characteristics	Key publication reference	Existing User Groups	Expected User Groups	Outcome	Impact	Community Workshop Status			
		Domain	Variable							Seq. #	Horizontal	Vertical	Orbits	Start Date	End Date											
1	Radiative Fluxes (1)	Atmospheric	Earth radiation budget (including solar radiance)	ISCCP-Rad-ModelE	Downwelling diffuse and direct SW fluxes at surface, Cloud vertical structure	Yuanchong Zhang	N/A	N/A	N/A	N/A	1° equal area	~300 hp for output profile or TBD	3 hourly	07/1983	12/2011	Wm <sup>2</sup>	equal area	Binary/NetCDF	Research	Global for all, clear- and overcast-sky, up and downward, broadband SW and LW from TOA to surface with all input datasets (e.g., aerosol and cloud information) for the product	Zhang, Y., W. B. Rossow, A. Lacis, V. Oinas, and M. I. Mishchenko (2004), Calculation of radiative fluxes from the surface to top of atmosphere based on ISCCP and other global data sets: Refinements of the radiative transfer model and the input data, J. Geophys. Res., 109, D19105.	GEWEX, ECMWF, SRB, ISCCP, CERES, SeaFlux and LandFlux, CloudSat/CALIPSO, ARM, BSRN, CIRC	Satellite observation, Energy, Climate modeling, Climate change	Improving satellite observation and Climate Monitoring; Diagnosing climate forcing and their influences	Helping predict and preventing climate change-caused damages to human and environments; Helping understand the general circulation system	Several GEWEX-RFA (Radiation Flux Assessment) workshops have been held, see, <a href="http://gewex-rfa.larc.nasa.gov/about/">http://gewex-rfa.larc.nasa.gov/about/</a>
2	Radiative Fluxes (2)	Terrestrial	Earth radiation budget (including solar radiance)	ISCCP-Rad-ModelE	Land-Surface albedo and emissivity	Yuanchong Zhang	N/A	N/A	N/A	N/A	1° equal area	N/A	3 hourly	07/1983	12/2011	Wm <sup>2</sup>	equal area	Binary/NetCDF	Research	Global for all, clear- and overcast-sky, up and downward, broadband SW and LW at surface with additional downward diffuse and direct SW fluxes and all input datasets (e.g., aerosol and cloud information) for the product	Zhang, Y., W. B. Rossow, A. Lacis, V. Oinas, and M. I. Mishchenko (2004), Calculation of radiative fluxes from the surface to top of atmosphere based on ISCCP and other global data sets: Refinements of the radiative transfer model and the input data, J. Geophys. Res., 109, D19105.	GEWEX, ECMWF, SRB, ISCCP, CERES, SeaFlux and LandFlux, CloudSat/CALIPSO, ARM, BSRN, CIRC	Satellite observation, Energy, Climate modeling, Climate change	Improving satellite observation and Climate Monitoring; Diagnosing climate forcing and their influences	Helping predict and preventing climate change-caused damages to human and environments; Helping understand the general circulation system	Several GEWEX-RFA (Radiation Flux Assessment) workshops have been held, see, <a href="http://gewex-rfa.larc.nasa.gov/about/">http://gewex-rfa.larc.nasa.gov/about/</a>
3	Radiative Fluxes (3)	Oceanic	Earth radiation budget (including solar radiance)	ISCCP-Rad-ModelE	Water-Surface albedo and emissivity	Yuanchong Zhang	N/A	N/A	N/A	N/A	1° equal area	N/A	3 hourly	07/1983	12/2011	Wm <sup>2</sup>	equal area	Binary/NetCDF	Research	Global for all, clear- and overcast-sky, up and downward, broadband SW and LW at surface with additional downward diffuse and direct SW fluxes and all input datasets (e.g., aerosol and cloud information) for the product	Zhang, Y., W. B. Rossow, A. Lacis, V. Oinas, and M. I. Mishchenko (2004), Calculation of radiative fluxes from the surface to top of atmosphere based on ISCCP and other global data sets: Refinements of the radiative transfer model and the input data, J. Geophys. Res., 109, D19105.	GEWEX, ECMWF, SRB, ISCCP, CERES, SeaFlux and LandFlux, CloudSat/CALIPSO, ARM, BSRN, CIRC	Satellite observation, Energy, Climate modeling, Climate change	Improving satellite observation and Climate Monitoring; Diagnosing climate forcing and their influences	Helping predict and preventing climate change-caused damages to human and environments; Helping understand the general circulation system	Several GEWEX-RFA (Radiation Flux Assessment) workshops have been held, see, <a href="http://gewex-rfa.larc.nasa.gov/about/">http://gewex-rfa.larc.nasa.gov/about/</a>