As of October 18, 2010

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
Sequential i.d. number to count products, 1,2,3. -- Please list only one variable per row of the spreadsheet.	e.g. Level 1B radiance, albedo, cloud top height, SST, etc...	For Geophysical Variables (only, i.e., not for Level 1b): Please use the drop down menus in cells below to enter the ECV, you may also click on the above link and use pg 6 in the *Guideline for the Generation of Satellite-based Datasets and Products meeting GCOS Requirements* pdf document as a reference.		Please include a name that may be recognizable in the Climate community, e.g. ISCCP, GPCP, GRHSST, PATMOS-x, etc...	List all in one cell. Collateral Products are those which are not proposed as CDRs and are not yet considered to be climate quality, but which are routinely generated as secondary/intermediate outputs from the CDR algorithm. NOAA's CDR Program does not ensure or test the availability or reliability of Collateral Products. Users can contact the code developers for further information.	Please identify which member of your team is primarily responsible for development of this particular product.	List the space sensors which provided the raw data from which your product(s) were generated.	If **you** plan to provide CDR continuity from existing sensors to future sensors (e.g., from JPSS or other missions), please identify the mission and sensors to be used. NOTE: if you did not propose to address future sensors or data sets, please state "N/A"	Please list all spacecraft from which source data were used (e.g., NOAA-8, EOS Terra, SeaWiFS, GOES-14). Please follow the order used in the list of source data sensors.	Please identify all channels used for each type of source data sensor.	Please use a new row for each unique resolution (spatial or temporal) -- Please include the units of the resolution (e.g., mbars, km, degrees).	Please use a new row for each unique resolution (spatial or temporal) -- please include the units of the resolution (e.g., mbars, km, degrees)	As applicable, e.g., • early morning • mid-morning • afternoon	Start of Record: Month/Year	End of Record: Month/Year please say "present" if it is ongoing. note any gaps if they exist (e.g., Feb. 2003)	e.g. Reflectance (unitless), degrees Kelvin, Radiance W/m^2/sr, etc...	If gridded, what is your projection?	e.g. NetCDF4, Binary, HDF4, HDF5 etc...	Is your Metadata compliant with any standards or conventions? e.g., Climate Forecast (CF) Convention, FGDC Standards, ISO 19115-2, etc. If not adhering to a standard, please state "research"	e.g., Clear Sky only, latitudinal or longitudinal range, over oceans only, over land only, etc...	Please provide a full bibliographic reference for 1 or 2 (only) key publicly-available publications that describe your data set or process, if available.	Please state any existing users (either general communities, e.g., energy, health, climate modeling, or specific group {e.g., GFDL, GMAO, FAO, CDC...}). This will help us justify future funding.	List the user groups (not already listed previously) that would likely be interested in the CDR. Who/what is NOAA serving by investing in your work?	Results that stem from use of the outputs. Unlike output measures, outcomes refer to an event or condition that is external to the program and is of direct importance to the intended beneficiaries (e.g., scientists, agency managers, policy makers, other stakeholders). Examples of outcome metrics are the number of alternative refrigerants introduced to society to reduce the loss of stratospheric ozone and scientific outputs integrated into a new understanding of the causes of the Antarctic ozone hole.	The effect that an outcome has on something else. Impact metrics are outcomes that focus on long-term societal, economic, or environmental consequences. Examples of impact metrics include the recovery of stratospheric ozone resulting from implementation of the Montreal Protocol and related policies and the increase in public understanding of the causes and consequences of ozone loss.	Please state whether you have conducted your community workshop (y/n). If so, please provide date/location and URL if web page exists. If not yet held, please state your plans. **BACKGROUND:** Per the 2009 Announcement of Opportunity, "...the Project expects each Product Development Team to conduct an early community workshop (year 1 of funding) in which it will explain the theoretical basis of its algorithm and its proposed CDR development approach. The Team is expected to consider all suggestions and requests for action."
		Domain	**Variable**								**Horizontal**	**Vertical**	**Orbits**	**Start Date**	**End Date**											
1	TOA SW, and LW broadband radiances	30 km	TOA SW and LW flux	ERBE, CERES		Seiji Kato, Norman Loeb	ERBE	CERES	NOAA-9, NOAA-10	SW, LW, TOT	30 km	30 km instaqntaneous	overpass time	Feb. 1985 (NOAA-9) Jan 1987 (NOAA-10)	Jan 1987 (NOAA-9), May 1989 (NOAA-10)			HDF		global and over ocean and all land types	See additional page in pdf	climate seseach community including climae modelers		Radiative energy budget at TOA, surface and within the atmosphere to constrain climate models	Improving climate change prediction	no. I do not have a plan to have a workshop at this moment.
2	TOA spectral radiances	30 km	Cloud proeprties	AVHRR		Patrick Minnis	AVHRR	CERES/MODIS	NOAA-9, NOAA-10	0.65, 3.7, 11, and 12 micron channels	4 km	30 km instantaneous	overpass time													
3		1 degree by 1 degree	TOA SW and LW flux			Seiji Kato, David Doelling		CERES	NOAA-9, NOAA-10			1 degree by 1 degree, monthly	daily				Equal area, geodetic									
4		1 degree by 1 degree	Cloud and aerosol properties			Seiji Kato, David Doelling		CERES/MODIS	NOAA-9, NOAA-10			1 degree by 1 degree monthly	daily													
5		30 km	Surface and atmospheric SW and LW flux			Seiji Kato			NOAA-9, NOAA-10		30 km	30 km instantaneous	overpass time													
6		1 degree by 1 degree	Surface and atmospheric SW and LW flux			Seiji Kato, David Doelling			NOAA-9, NOAA-10			1 degree by 1 degree monthly	daily													

ADM

Loeb, N. G., K. J. Priestley, D. P. Kratz, E. B. Geire, R. N. Green, B. A. Wielicki, P. O. Hinton, and S. K. Nolan, 2001: Determination of unfiltered radiances from the clouds and the earth's radiant energy system instrument, *J. Appl. Meteor.*, 822-835.

Loeb, N. G., S. Kato, K. Loukachine, and N. Manalo-Smith (2005), Angular distribution models for top-of-atmosphere radiative flux estimation from the Clouds and the Earth's Radiant Energy System instrument on the Terra satellite. Part I: Methodology, *Journal of Atmospheric and Oceanic Technology, 22*(4), 338-351.

Loeb, N. G., S. Kato, K. Loukachine, N. Manalo-Smith, and D. R. Doelling (2007), Angular distribution models for top-of-atmosphere radiative flux estimation from the Clouds and the Earth's Radiant Energy System instrument on the Terra satellite. Part II: Validation, *Journal of Atmospheric and Oceanic Technology, 24*(4), 564-584, doi:10.1175/jtech1983.1.

Kato, S., and N. G. Loeb (2005), Top-of-atmosphere shortwave broadband observed radiance and estimated irradiance over polar regions from Clouds and the Earth's Radiant Energy System (CERES) instruments on Terra, *Journal of Geophysical Research-Atmospheres, 110*(D7), doi:D07202 10.1029/2004jd005308.

Scene ID

Minnis, P., et al., 2008a: Cloud detection in non-polar regions for CERES using TRMM VIRS and Terra and Aqua MODIS data. *IEEE Trans. Geosci. Remote Sens.*, **46**, 3857-3884.

Minnis, P., D. R. Doelling, L. Nguyen, W. F. Miller, and V. Chakrapani, 2008b: Assessment of the visible channel calibrations of the TRMM VIRS and MODIS on *Aqua* and *Terra*. *J. Atmos. Oceanic Technol*., **25**, 385-400.

Surface Radiation

Kato, S., and F. G. Rose, and T. P. Charlock, 2005: Computation of Domain-averaged Irradiance Using Satellite-derived Cloud Properties, *J. Atmos. Oceanic Technol.*, 22, 146-164.

Gupta, S. K., D. P. Kratz, P. W. Stackhouse, Jr., and A. C. Wiler, 2001: The Langley parameterized shortwave algorithm (LPSA) for surface radiation budget studies, *NASA technical Report*, TP-2001-211272.

Gupta, S. K. W. L. Darrel, and A. C. Wilber, 1992: A parameterization for longwave surface radiation from satellite data-recent improvements, *J. Appl. Meteorol*., 31, 1361-1367.

Temporal interpolation and Space averaging (TISA)

Young, D. F., P. Minnis, D. R. Doelling, G. G. Gibson, and T. Wong, 1998: Temporal interpolation methods for the Clouds and the Earth's Radiant Energy System (CERES) experiment, *J. Appl. Meteor.*, 37, 572-590.