

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			
		Domain	Variable							Horizontal	Vertical	Orbits	Start Date	End Date											
1	Level 1b radiance	n/a	n/a	Nearly Simultaneous Matched Radiance, CERES	David Doelling	AVHRR/L2 & 3; SMS-1/2 Imagers; GOES-1-14 Imagers	VIIRS	POES, GOES, SMS	AVHRR 1, 2, 6; SMS 1; GOES 1	AVHRR 4 km; SMS 8 km; GOES 1.7 & 8km; GOES-8/14, 4km	N/A	All POES orbits	1978	present	Reflectance (unitless)	equal angle	NetCDF4	research	90N-90S	Minnis, P., L. Nguyen, D. R. Doelling, D. F. Young, W. F. Miller, and D. P. Kratz, 2002: Rapid calibration of operational and research meteorological satellite imagers, Part I: Evaluation of research satellite visible channels as references. <i>J. Atmos. Oceanic Technol.</i> , <b>19</b> , 1233-1249.	GSIS, GOES users, MODIS users, AVHRR users	satellite analysts	Satellite climate record, community enabled to address research outcomes and impacts		8/2010, Asheville, NC
2	cloud amount	Atmospheric	Cloud Properties	CERES	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1-6 (all)	4 km	N/A	All POES orbits	1978	present	cloud/no-cloud; cloud fraction (unitless)	equal angle	NetCDF4	research	90N-90S	Minnis, P., Q. Z. Trepte, S. Sun-Mack, Y. Chen, D. R. Doelling, D. F. Young, D. A. Spangenberg, W. F. Miller, B. A. Wielicki, R. R. Brown, S. C. Gibson, and E. B. Celler, 2008: Cloud detection in non-polar regions for CERES using TRMM VIIRS and Terra and Aqua MODIS data. <i>IEEE Trans. Geosci. Remote Sens.</i> , <b>46</b> , 3857-3867.	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions		8/2010, Asheville, NC
3	effective cloud temperature	Atmospheric	Cloud Properties	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,3,4,5	4 km	N/A	All POES orbits	1978	present	degrees K	equal angle	NetCDF4	research	90N-90S	Minnis, P., S. Sun-Mack, D. F. Young, P. W. Heck, D. P. Garber, Y. Chen, D. A. Spangenberg, R. F. Arduini, Q. Z. Trepte, W. L. Smith Jr., J. K. Ayers, S. C. Gibson, W. F. Miller, Y. Chakrapani, Y. Takano, K.-N. Liou, and Y. Xie, 2010. CERES Edition-2 cloud property retrievals using TRMM VIIRS and Terra and Aqua MODIS data, Part I: Algorithms. Submitted to <i>IEEE Trans. Geosci. Remote Sens.</i>	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions		
4	effective cloud height	Atmospheric	Cloud Properties	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,3,4,5	4 km	N/A	All POES orbits	1978	present	km	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			
5	effective cloud pressure	Atmospheric	Cloud Properties	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,3,4,5	4 km	N/A	All POES orbits	1978	present	hPa	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			
6	cloud phase	Atmospheric	Cloud Properties	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,3,4,5,6	4 km	N/A	All POES orbits	1978	present	unitless	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			
7	cloud optical depth	Atmospheric	Cloud Properties	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,3,4,5,6	4 km	N/A	All daytime POES orbits	1978	present	unitless	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			
8	cloud effective radius	Atmospheric	Cloud Properties	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,3,4,5,6	4 km	N/A	All daytime POES orbits	1978	present	µm	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			
9	clear-sky narrowband albedo	Atmospheric	Albedo	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	1,2,6	4 km	N/A	All POES orbits	1978	present	unitless	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			
10	clear-sky brightness temperature	Atmospheric	Earth radiation budget (including solar radiance)	CERES, VISST	Patrick Minnis	AVHRR/L 2, & 3	VIIRS	POES	4	4 km	N/A	All POES orbits	1978	present	degrees K	equal angle	NetCDF4	research	90N-90S	GEWEX, NOAA ESRL/RUC, climate modelers, FAA/NCAR Aviation safety community	Geophysical product developers, GCM modeling groups, energy community	Climate modelers can assess errors in climate forecasts, Policy makers enabled to make probability-based policy decisions			