

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	Total Solar Irradiance	Atmospheric	Earth radiation budget (including solar radiance)	TIM measurement/N/A equation	Peter Pilewskie	ERB, ACRIM-L1&II, ERBS, SOVA, VIRGO, and TIM	TIM on Glory and TSIS	Nimbus-7, SMM, UARS, ACRIMSAT, ERBE, EURICA, SOHO, SORCE	all	N/A	N/A	All orbits	1978	present	Total Irradiance (W/m <sup>2</sup> )	N/A	.txt files available from LASP webpage for SORCE TIM; data transmitted yearly to DAAC in hdf4 (same format expected for GLORY and TSIS TIM instruments)	LASP ascii	N/A	J. Kopp, G., and G. Lawrence, 2005. The Total Irradiance Monitor (TIM): Instrument design. Solar Phys. 230, 91-109 Z. Pankratz, C. K., Knapp, B. G., Reukauf, R. A., Fontenla, J., Dorey, M. A., Connelly, L. M., and A. K. Windnagel, 2005. The SORCE Science Data System. Solar Phys. 230, 389-413	climate modeling	GCM modeling groups	TSI measurements constrain proxy and physical models essential for understanding the historical record of climate change and for predicting future climate change. A well established TSI baseline is a foundation for evaluating all other forcings which change the climate by perturbing the planetary radiation balance.	The degree of uncertainty to which solar variations result in climate change is reduced. Public understanding of the importance of solar forcing relative to other (anthropogenic) radiative forcings is improved.	We have not yet held our community workshop because our collaborators at NRL and NIST have not yet received their funding. We hope they will be funded soon so we will hold the workshop within the first 6 months of year 2.
2	Solar Spectral Irradiance	Atmospheric	Earth radiation budget (including solar radiance)	SIM measurement/N/A equation	Peter Pilewskie	SIM, SOLSPEC	SIM on TSIS	SORCE, Space Station	all	N/A	N/A	All Orbits	Apr/2004	present	Spectral Irradiance (W/m <sup>2</sup> /nm <sup>3</sup> )	N/A	.txt and IDL .sav files available from LASP webpage for SORCE SIM; data transmitted yearly to DAAC in hdf4 (same format expected for TSIS SIM instrument)	LASP ascii	N/A	J. Harder, J., Fontenla, J., Lawrence, G., Woods, T., and G. Rottman, 2005. The Spectral Irradiance Monitor: Measurement Equations and Calibration. Solar Phys. 230, 169-204 Z. Pankratz, C. K., Knapp, B. G., Reukauf, R. A., Fontenla, J., Dorey, M. A., Connelly, L. M., and A. K. Windnagel, 2005. The SORCE Science Data System. Solar Phys. 230, 389-413	climate modeling	GCM modeling groups	SSI measurements resolve the underlying mechanisms responsible for sun-induced climate change and help distinguish between natural and anthropogenic causes of climate change. SSI measurements are vital for validating climate model sensitivity to spectrally varying solar forcing.	The degree of uncertainty to which solar variations result in climate change is reduced. Public understanding of the importance of solar forcing relative to other (anthropogenic) radiative forcings is improved.	We have not yet held our community workshop because our collaborators at NRL and NIST have not yet received their funding. We hope they will be funded soon so we will hold the workshop within the first 6 months of year 2.