

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	Satellite	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	SNO Calibrated		Cheng-Zhi Zou	AMSU	AMSU	POSE-1 through NOAA-14	2, 3, 4	110km	N/A	All POES orbits	1978	Sep. 2006	Radiance: mW (sr m2 cm-1)-1	n/a	hdf4	research	global	Zou, et al., Recalibration of microwave sounding unit for climate studies using simultaneous nadir overpasses, J. Geophys. Res., 111, D19114, doi:10.1029/2005JD006798	reanalysis developers such as NCEP and GMAO	ECMWF, CM-SAF, Geophysical product developers; GCM modeling groups	<ul style="list-style-type: none"> <li>Improved understanding on the root-causes of calibration errors responsible for climate trend uncertainties</li> <li>Bias reduced level-1c radiance FCDR for climate product development</li> <li>peer-reviewed assessments that quantify calibration errors</li> </ul>	<ul style="list-style-type: none"> <li>Improved climate instrument design due to better understanding of the instrument errors</li> <li>Improved climate reanalysis development to address societal needs in response to climate change</li> </ul>	yes, community workshop was held in Silver Spring, MD on March 22-24, 2010. The URL address for the meeting is <a href="http://www.star.nesdis.noaa.gov/star/meeting_MSU_AMS_U_S5U2010.php">http://www.star.nesdis.noaa.gov/star/meeting_MSU_AMS_U_S5U2010.php</a>
2	Level 1b radiance	n/a	n/a	SNO Calibrated		Cheng-Zhi Zou	AMSU	ATMS	NOAA-15 through NOAA-19, MetOp-A, EOS AQUA	4-14	45km	N/A	All POES orbits	1998	present	Radiance: mW (sr m2 cm-1)-1	n/a	hdf4	research	global		CM-SAF	Reanalysis developers; Geophysical product developers; GCM modeling groups	<ul style="list-style-type: none"> <li>Improved understanding on the root-causes of calibration errors responsible for climate trend uncertainties</li> <li>Bias reduced level-1c radiance FCDR for climate product development</li> <li>peer-reviewed assessments that quantify calibration errors</li> </ul>	<ul style="list-style-type: none"> <li>Improved climate instrument design due to better understanding of the instrument errors</li> <li>Improved climate reanalysis development to address societal needs in response to climate change</li> </ul>	yes, community workshop was held in Silver Spring, MD on March 22-24, 2010. The URL address for the meeting is <a href="http://www.star.nesdis.noaa.gov/star/meeting_MSU_AMS_U_S5U2010.php">http://www.star.nesdis.noaa.gov/star/meeting_MSU_AMS_U_S5U2010.php</a>
3	Upper-air temperature	Atmospheric	Upper-air temperature	NOAA/STAR dataset		Cheng-Zhi Zou	AMSU/AMSU/SSU	ATMS	TIROS-N through NOAA-19 and MetOp-A, AMSU-A, EOS AQUA, JPSS	AMSU channels 2-4; AMSU-A channels 4-14; SSU channels 1-3	2.5 degrees of latitude by 2.5 degrees of longitude	deep-layer	5-day average and monthly average are both available	1978	present	Kevin	equal lat/lon degrees	text	research	global	Zou, Gao, Goldberg, 2009, "Error structure and atmospheric temperature trends in observations from the microwave sounding unit, J. Climate, 22, 1661-1681.	Climate analysis and modeling communities	Climate analysis and modeling communities; general public interested in global change	<ul style="list-style-type: none"> <li>Improved understanding of global warming trend</li> <li>Improved ability for validating climate model simulations which lead to improved climate projections</li> </ul>	<ul style="list-style-type: none"> <li>Improved public understanding of the past climate change</li> <li>Improved policy decisions on prevention, mitigation, and adaptation strategies for global warming</li> </ul>	yes, community workshop was held in Silver Spring, MD on March 22-24, 2010. The URL address for the meeting is <a href="http://www.star.nesdis.noaa.gov/star/meeting_MSU_AMS_U_S5U2010.php">http://www.star.nesdis.noaa.gov/star/meeting_MSU_AMS_U_S5U2010.php</a>