

As of October 18, 2010

Count	Climate Record 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	Website URL (if available)				
										Horizontal	Vertical	Orbits	Start Date	End Date												
1	Deep Layer Temperatures from 4 different layers	Atmospheric	Upper-air temperature	RSS V3.2	Diurnal Cycle Climatology	Carl Mears	MSU, AMSU-A	ATMS	POES, EOS-AQUA, Metop-A	MSU 2,3,4 x 2.5 degrees	AMSU 5,7,9 x 2.5 degrees	~5 km	All POES orbits, all AQUA and Metop orbits	1978	present	Kelvin	Latitude/Longitude grid - each cell is 2.5 degrees by 2.5 degrees.	3 versions to please users. netcdf3, binary, text	CF (netcdf only)	82.5S to 82.5N - Mid-Trop and above. 70S to 82.5N Lower Trop.	Mears, C. A. and Wentz, F. J. Construction of the Remote Sensing Systems V3.2 atmospheric temperature records from the MSU and AMSU microwave sounders, Jour. Of Atmos. And Ocean Technology, vol. 26, 1040-1056. Mears, C. A. and Wentz, F. J. Construction of the Remote Sensing Systems V3.2 lower tropospheric temperature records from the MSU and AMSU microwave sounders, Jour. Of Atmos. And Ocean Technology, vol. 26, 1493-1509	climate modeling researchers, climate change research	policy makers, educational users (K-12 and university), general public	Climate change community and society is enabled to evaluate the existence and magnitude of temperature changes.	Increased public understanding of climate change. Appropriate mitigation and adaptation strategies adopted in a timely manner.	www.remss.com/msu/