CRTM Technical Sub-group
Release Notes: CRTM library v2.2.3

v2.2.3 - released August 13, 2015

* Made minor fixfile changes to include
  1. Corrected the WMO satellite id for TMSP-19 SSMS in the CRTM fixfiles.

* Compute resource information
  N/A. This is a library used in the GSI.

v2.2.2 - released August 12, 2015

* Made minor code changes to include
  1. Report invalid WMO Sensor and Satellite identifiers as a WARNING rather than ERROR.

* Made minor build changes to include
  1. Modification of Intel ifort compiler flags as requested by GSI developers.

* Compute resource information
  N/A. This is a library used in the GSI.

v2.2.1 - released April 20, 2015

* Made scientific changes to include
  1. Revert ATMS spectral and transmittance coefficients to those derived from a boxcar response.

* Compute resource information
  N/A. This is a library used in the GSI.

v2.2.0 - released April 13, 2015

* Made scientific changes to include
  1. Overcast radiances
  2. Reflection correction in microwave sea surface emissivity model for non-precipitating clouds
  3. ATMS snow emissivity model
  4. Cloud optical property coefficient update for infrared ice clouds.
  5. Software updates to address zeus meta-data server issues (file inquiries)
  6. Implementation of the FASTEM-6 microwave sea surface emissivity model.

* Compute resource information
  N/A. This is a library used in the GSI.
Feature list for v2.3.x

- Radiative transfer model update – At this point, this is a purely structural change to allow for more efficient memory usage. Some applications have found current CRTM cloudy calculations are too slow compared to other RT models (e.g. delta-Eddington).

- Aerosol model update – Only the GO-CART aerosol model is supported in the CRTM. Users have requested a version that can specify CMAQ model aerosol inputs.

- netCDF coefficients – for simpler portability and maintenance.

- CSEM integration (v3.0) – The Community Surface Emissivity Model will replace all of the current CRTM emissivity and reflectivity modules.