Radiative Transfer and Surface Property Modeling Working Group Report

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Action Items from ITSC-17 (1)

- Tom Kleespies to document the various cloud droplet size distributions used for determining effective radius values.
  - Tom delivered documents prior to his retirement. Needs to be transferred to ITWG/RTSP website.
- Paul van Delst to document available cloud profile datasets.
  - Still to be done. Only dataset explicitly identified so far is that of the C3VP project, http://c3vp.org. Solicitations encouraged.
- Paul van Delst to add the information on IR SRF and MW frequencies for as many instruments as possible (current and historical) on the RTSP-WG website.
  - Incomplete. Just started working on (A)TOVS sensors, reverifying original data sources.
- Paul van Delst to continue working with IPO to obtain CrIS instrument response information for US NWP centres, and determine the path/timeline for dissemination by IPO of the information to non-US NWP centres.
  - Completed. CrIS ATBD containing instrument characterisation has been posted on RTSP-WG website.

Action Items from ITSC-17 (2)

- Alexander Uspensky to notify the RTSP-WG how to obtain the Electro-L (scheduled launch 2008) MSU-GS SRFs and the Meteor-M MTZVA frequencies when they become publicly available.
  - No action. SRFs are available from Roger Saunders upon request.
- Paul van Delst to make available on the RTSP-WG webpage references and/or links to the SSU and VTPR work described in report.
  - No action yet – need to add reference to website:
    - Liu, Q., and F. Weng, 2009: Recent stratospheric temperature observed from satellite measurements, SOLA, 5, 53-56, doi:10.2151/sola.2009-014.
    - Chen, Y., Y. Han, Q. Liu, P. van Delst, and F. Weng : A Fast Radiative Transfer Model for Stratospheric Sounding Unit Channels, submitted to JAOT.
  - CRTM coefficients for the VTPR instrument using available SRF data (scanned from written text by T. Kleespies) were generated. Reanalysis people at NCEP have not yet used model (quantatatively at least).
- Roger Saunders to provide a link to the CAVIAR results to be posted on the RTSP-WG website.
  - Address, http://www.met.reading.ac.uk/caviar/water_continuum.html needs to be added to website.

Action items from ITSC-17 (3)

- Paul van Delst to investigate a common format for optical properties data that will be made available on the RTSP-WG website.
  - No action. Item raised for ITSC-18.
- Yong Han to provide information and reference about the results from Yong Chen's study regarding the effect of spatial inhomogeniety when comparing cloudy calculations and observations.
  - Need to post reference on website,
    - Chen, Y., F. Weng, Y. Han, and Q. Liu, 2008: Validation of the Community Radiative Transfer Model (CRTM) by using CloudSat data. J. Geophys. Res., 113, D00A03, doi:10.1029/2007JD009561.
- Roger Saunders (MetOffice), Ben Ruston (NRL), Marco Matricardi (ECMWF), Louis Garand (Environment Canada), Gang Ma (for NMC) and Paul van Delst (NCEP/EMC) to provide documentation of methodologies used in NWP centres to speed up the assimilation of radiances and quality control (for example parallel processing strategy, OpenMP, number of profiles per call, geographical separation of the data etc.). Specify any machine-dependent characteristics.
  - No action.

Action items from ITSC-17 (4)

- Roger Saunders (MetOffice), Ben Ruston (NRL), Marco Matricardi (ECMWF), Louis Garand (Environment Canada), Gang Ma (for NMC), and Paul van Delst (NCEP/EMC) to provide documentation of methodologies used in NWP centres to convert layer atmospheric state variables to level values.
  - No action.
- Paul van Delst will make available on the RTSP-WG website, optical property data for non-spherical particles used at the JCSDA, as well as any supplied by other attendee's organisations.
  - No action (yet. Just tried to upload but forgot website password!).
- Pascal Brunel to provide the TRATTORIA-2008 workshop summary when it becomes available for inclusion on the RTSP-WG website.
  - Pascal delivered workshop summary via CD (from Thierry Phulpin). Co-chairs still need to upload to RTSP-WG website.