

WORLD METEOROLOGICAL ORGANIZATION

ET-SUP-6/Doc. 10.2
(7.XII.2011)

COMMISSION FOR BASIC SYSTEMS
OPEN PROGRAMME AREA GROUP ON INTEGRATED OBSERVING SYSTEMS

EXPERT TEAM ON SATELLITE UTILIZATION AND PRODUCTS

ITEM: 10.2

SIXTH SESSION

GENEVA, SWITZERLAND, 12-16 DECEMBER 2011

Original: ENGLISH

International TOVS Working Group Matters

(Submitted by Dr Anthony Rea)

Summary and Purpose of Document

To provide a summary of the recent 17th International TOVS Study Conference, held in Monterey, California, USA, in April 2010.

ACTION PROPOSED

The sixth session is invited to:

- (a) Note this information; and
 - (b) Recommend any further action in relation to future ITSC Meetings.
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INTERNATIONAL TOVS WORKING GROUP MATTERS

1. The 17th International TOVS Study Conference was held in Monterey, California, USA, on 14-20 April 2010. There were nearly 150 participants representing 20 countries and three international organisations.
2. Issues of interest to ET-SUP covered at the meeting included:
 - Generation and validation of meteorological and environmental products from sounder radiances;
 - Atmospheric chemistry and air quality;
 - Direct broadcast, pre-processing and calibration of sounder radiances;
 - Atmospheric radiative transfer;
 - Surface property modelling and sensing;
 - Assimilation of raw measurements and derived products in NWP;
 - Climate studies; and
 - Future sounders and programmes.
3. Working groups were formed to cover six areas of interest:
 - Radiative transfer
 - Climate
 - Data assimilation and numerical weather prediction
 - Advanced sounders
 - International issues and future systems (including radio frequency)
 - Satellite sounder science and products
4. The major recommendations from the meeting, relevant to ET-SUP, were:
 - that Space Agencies and NWP centres support the use of GIFTS/STORM data for research and development of hyperspectral infrared geostationary sounder products. The GIFTS/STORM concept, is a private venture aimed at flying up to 6 meteorological satellites in geostationary orbit. The proposed sensor, STORM, is based on the Geostationary Imaging Fourier Transform Spectrometer (GIFTS). Further information is available at <http://www.geometwatch.com/main.html>;
 - that the Russian Federation make the Meteor-M mission a fully contributing component of the GOS by providing global datasets and all ancillary information;
 - that satellite operators continue to provide a direct readout capability on their polar environmental satellite systems;
 - that SafetyNet be considered for use as a joint ground system for JPSS and DMSP follow-on missions;
 - that the DMSP follow-on mission should include IR and MW imaging and sounding capabilities;
 - that overpass times for polar orbiting satellites be coordinated between operators;
 - that all relevant space agencies send information to users about planned changes in data processing, formats, and other issues as early as possible;
 - that satellite agencies who are considering a change in frequency or viewing geometry for replacement sensors need to consider the impact on climate monitoring;
 - that a long term capability in GPS-RO be maintained;
 - that a Level-2 retrieval package for IASI should be funded and made available for IASI DB users;
 - that IPO/JPSS should provide timely updates on expected implementation schedules and concerns (including for IPOPP) and a recommendation to NOAA, NASA (or JPSS project

management office) on the completion and distribution of the IPOPP software. IPOPP should include a BUFR conversion module;

- that CGMS should consider harmonization of the appropriate layers of the future X-Band Direct Broadcast services, for instance as concerns frequency or transmission protocols based on CCSDS standards;
- that JMA should consider a broadcast service to facilitate access to Himawari-8 and -9 data, in particular for users in Pacific islands who have limited Internet connectivity;
- that CGMS satellite operators to investigate the potential use of satellite-to-satellite communication (e.g., Tracking and Data Relay Satellite System, TDRSS) as a mechanism to support timely collection and redistribution of polar-orbiting satellite data in future systems.

5. The meeting also concluded that:

- the NWP Working Group encouraged the expansion of RARS as long as it continues to be cost-effective;
- it welcomed the plans of CMA and EUMETSAT to implement the planned IR sensors on FY-4 (by 2015) and MTG (2018) missions respectively. The WG also noted that options were being discussed by NOAA regarding a sounding capability to complement the current GOES-R and -S baseline, and strongly encouraged NOAA to pursue these investigations.

6. The next International TOVS Study Conference (ITSC-18) will be held 21-27 March 2012 in Toulouse, France.
