

ITSC Working Group on International Issues and Future Systems

Status of Actions and Recommendations from ITSC-16

John Eyre and Jerome Lafeuille

Scope of the WG

Frequency Management being now addressed in a dedicated group, this report focuses on the following issues:

- **Future perspective for the RARS**
- **Vision for the space-based GOS and adequacy of current plans**
- **Direct Broadcast access to polar orbiter data**

1) Future perspective for the RARS

Recommendations

- ... WMO and the RARS contributing organizations should **pursue the implementation of the global RARS network** ... to cover ... 90 % of the globe for ATOVS data.
- ... consider an extension of the RARS project towards **including FY-3 data** when this data will be operationally available.
- ... consider **including NPP and NPOESS sounding data** as a gap-filling measure until timely availability of this data can be ensured worldwide through the SafetyNet.

Action:

WMO, in collaboration with the IPO, to propose an extension of the RARS project to NPP and NPOESS sounding data at the December 2008 Direct Readout Conference, with the view to initiate action in 2009.

Status of actions regarding RARS

- See ITSC-17 Poster 3.16
 - RARS implementation is being actively pursued, will reach 78% of the globe by end of 2010
 - Extension planned for Crls/ATMS.
 - Extension to FY-3 will be considered once detailed information on Direct Readout will be released (in English)
- Comments:
**The RARS project needs feedback (See enquiry)
Current uncertainty on the SafetyNet.**

2) Vision for the space-based GOS in 2025 and adequacy of current plans

Recommendations

- Space agencies, in consultation with WMO, CGMS and CEOS, to consider contributing to **implement the Vision for the GOS and to ensure long-term continuity of its operational components.**
 - **A permanent effort. Mechanisms for global coordination are being discussed in WMO (January 2010, April 2010)**
- WMO and space agencies to consider establishing a partnership to fly a **preoperational hyperspectral sounder in geostationary orbit** in advance of 2015, as a preparatory mission, in order to allow optimization of the implementation and use of the planned operational IR hyperspectral geostationary missions.
 - **No longer considered. Efforts now focused on preparation of operational series (FY-4-O and MTG-S)**

Vision for the space-based GOS in 2025 and adequacy of current plans (cont.)

Recommendations

- The expected performance of the MIS sounding channels should be evaluated in order to assess to what extent the requirements for microwave atmospheric temperature and humidity sounding will be met for the early morning orbit by NPOESS-C2 and, if relevant, to identify optimization measures or additional capabilities that should be implemented by 2025.
 - **No longer considered, pending redefinition of NPOESS programme.**
- Scenarios should be investigated to provide IR sounding capability from an early morning orbit.
 - **Open. Scenarios need now to consider for both IR and MW sounding.**

Vision for the space-based GOS in 2025 and adequacy of current plans (cont.)

Actions

- John Eyre to highlight the need for Water Vapour channel imagery and for observation of aerosols in the revised draft Vision for the GOS. (31 May 2008)
 - **Completed. It is explicitly mentioned in the Vision document.**
- John Eyre to distribute the (updated) draft Vision of the GOS to the ITWG list, with an explanatory note calling for comments. (30 June 2008)
 - **Completed.**
- ITWG Members to send comments on the draft Vision for the GOS to J. Eyre (john.eyre@metoffice.gov.uk) and J. Lafeuille (JLafeuille@wmo.int) . (15 August 2008).
 - **Completed. Some comments received.**

3) Direct Broadcast access to polar orbiter data

Recommendations

- Satellite agencies operating environmental polar satellites to provide or continue to provide a Direct Broadcast capability on their polar environmental satellite systems, and to make available in a timely manner the Direct Broadcast data processing (L0 to L1, and/or L1 to L2) software, documentation, and related training.
- Satellite agencies operating environmental polar satellites to provide expected formats of level 1b and level 2 datasets at least one year prior to launch, and to establish web sites to provide detailed information on instruments, schedule, products and formats.

Direct Broadcast access to polar orbiter data

Actions

- The IPO to provide information on NPP/NPOESS real time Low Rate Data (LRD) & High Rate Data (HRD) formats and other relevant details by September 2008 and to make available the NPP pre-processing software as soon as practical before the launch of NPP.
- **Some information available, but may be incomplete, to be reviewed by the community**
- CMA to provide detailed information on FY-3A Direct Broadcast protocols, formats and schedules, with Level 0/1 test data sets and pre-processing software, as soon as practical in advance of the FY-3A operational phase.
- **Information officially available in Chinese only, awaiting translation.**

Comments: Evolution of Direct Broadcast towards X-band, with no agreed standard.

Summary

- Good progress on RARS, actions completed, but need feedback from the community
- Actions on the Vision of the GOS formally completed, but recommendations on implementing the Vision are facing important issues given :
 - the current redefinition of NPOESS (JPSS), and
 - need to confirm FY-3 and Meteor-M programmes follow-on.
- Direct Broadcast actions partially completed :
 - need detailed and open information
 - possible standardization issues