

# Report of Working Group IV

## Global Data Dissemination

## Objectives of WG IV

- The Group provides a forum for the discussion and distribution of information on satellite data dissemination from current and future CGMS members' satellite missions, data exchange and retransmission. Furthermore, the Group strives to standardise tools and equipment that will enable any authorised user to receive data from any satellite operator.
- Issues being discussed
  - Direct readout and direct dissemination
  - Other satellite-based dissemination services
  - Internet-based services
  - Global data exchange
  - Consolidation of user requirements for data to be disseminated
  - Coordination of formats and code forms for satellite data
- Participants: CMA, CNSA, CSA, EUMETSAT, JMA, KMA, NOAA, ROSCOSMOS, ROSHYDROMET, WMO

## Direct readout and direct dissemination

- The existing Global Specification baseline for GEO satellites was discussed and the group agreed that it is necessary to review the suitability for the new dissemination environment with both direct readout, direct dissemination and DVB-based dissemination methods
- Due to the fact, that the next generation of LEO systems will most likely employ a combination of high-rate X-band services and low-rate L-band services, there is a clear need to revise the baseline for the specification of the direct readout services. A draft specification was presented by EUMETSAT and the LEO satellite operators committed to reviewing the draft, with the goal to provide a revised version for CGMS-41, to serve as the baseline for the next generation of direct readout services
- The transition for the next generation GEO and LEO satellites has very significant dissemination aspects and the WG concluded that it would review the transition in light of the guidelines on user preparation for new satellites agreed by WMO CBS-XV in September 2012.

## Other satellite-based dissemination services

- Significant progress has been made on the deployment of DVB-based dissemination services, even though some regions are still not served by full DVB-based services.
  - The CMACast system of CMA operational since June 2012. CMA has established a portal supporting registration and supply of reception stations.
  - JMA is investigating data dissemination using a commercial telecommunication satellite to support the transition between current and the next generation HIMAWARI 8/9 satellites to be launched in 2015, and to serve user communities in regions with poor internet access like the Pacific.
  - WMO and NOAA agreed to discuss future possibilities of NOAA disseminating via GEONETCast-Americas certain environmental data to users in Central and South America,

## Internet-based services

- Internet plays an increasing role in data dissemination and is also used for operational data flows. There are however limitations in robustness and scalability related to the number of simultaneously supported users and the data throughput, depending on the infrastructure.
- Internet services were presented to the Working Group in the context of
  - Access to real time Elektro-L data
  - Improving access to Russian EO data for national applications in Russia as well as for GMES related projects.
  - Access to HIMAWARI 8/9 real time products

## Global data exchange

- The new functionality of WMO WIS became operational in January 2012, and CGMS satellite operators have progressed well in implementing the WIS infrastructure and have started the operational use of WIS.
- CGMS members are now encouraged to utilise the operational infrastructure of WIS in particular for the description, inclusion and provision of their satellite meta data to WIS GISCs
  - such that satellite data becomes discoverable within WIS
  - and also consider using WIS in the context of provision of their satellite data.
- A CGMS-WMO Task Force on Metadata implementation is proposed to be created, for the purpose of interfacing with the WMO in the context of the revision of the WMO core metadata profile.
- The Working Group supports the expansion of RARS to advanced sounder data and the broader IGDDS initiatives in order to further expand the access to and use of satellite data and products

## Consolidation of user requirements for data to be disseminated

- The WG was informed that CBS XV recently adopted the Procedure for Documenting Regional Requirements for Satellite Data Access and Exchange and was informed that WMO RA V is now using this as a basis for documenting the regional needs for satellite observation data and derived products .
- The CGMS members are urged to support the building of regional task teams/groups documenting regional requirements for data access and exchange in all Regions.

## Coordination of formats and code forms for satellite data

- The Working group agreed on the importance of CGMS satellite operators reporting regularly on progress of format definitions, and that in particular in the context of transitions to the new satellite generations in the coming years this is a key task.

## Contribution to HLPP

- The Working Group raised several actions and recommendations which are implicitly or explicitly already covered by the initial version of the HLPP

The following HLPP items were proposed to be reformulated:

- Maintain the CGMS Direct Broadcast Global Specifications and harmonise and enhance them by including other dissemination means
  - To maintain the standard and allow affordable user stations
- All CGMS satellite operators to utilize operationally the WIS infrastructure for satellite data provision and discovery
  - All satellite operators utilize the WIS infrastructure for their data provision, in particular the provision of data for global exchange to their associated GISC
  - All satellite data is described in metadata in accordance with WIS requirements
  - All satellite meta data has been made available within WIS



## Contribution to HLPP

- Prepare operational users for the new generation of meteorological satellites through user readiness programmes, with implications for product generation, dissemination and user training, taking into account the “guidelines for ensuring user readiness for new generation satellites” adopted at CBS-XV
  - To take into account the existing guidelines from CBS-XV