



## OUTLINE

- **Thanks to all of you for your contributions and attendance at this and past workshops**
- **Recalling actions and recommendations from CGMS-43**
- **New actions and recommendations from CGMS-44**
- **Other Items of Relevance to CGMS**

## The Five International Working Groups under CGMS

- **ITWG:** The International TOVS Working Group is also convened as a sub-group of the Radiation Commission of the International Association of Meteorology and Atmospheric Sciences (IAMAS). ITWG continues to organize International TOVS Study Conferences (ITSCs) which have met every 18-24 months since 1983.
- **IWWG:** The International Winds Working Group was established in 1991 and became a Working Group of CGMS in 1994.
- **IPWG:** The International Precipitation Working Group was established as a permanent Working Group of the Coordination Group for Meteorological Satellites (CGMS) in June 2001.
- **IROWG:** The International Radio Occultation Working Group was established as a permanent Working Group of CGMS at the 37th meeting in October 2009.
- **ICWG:** The International Cloud Working Group was established as a permanent Working Group of CGMS at the 42nd meeting in May 2014.

## CGMS Actions for IWWG

**CGMS43.A43.09 - IWWG to define the experiments for the next AMV inter-comparison at the next IWW workshop in 2016.**

**CGMS44.A44.11 - IWWG to develop a detailed plan for the 3rd wind inter-comparison, including concept and deliverables, and an estimate of the required resources. (from CGMS 44 Plenary)**

- A key goal of these AMV inter-comparison studies is to learn and understand similarities and differences in AMVs produced at different operational centres, and ultimately, to improve their quality and consistency.
- IWW13 Plenary discussion planned (Friday morning). IWWG co-chairs will work to draft a detailed plan. To be reported at CGMS-45.

**CGMS44.A44.10 - IWWG to pursue inter-comparisons of Meteosat-8 and FY-2/4 winds over the IODC region. During the transition phase also Meteosat-7 should be considered (from CGMS-44 WGII)**

- Good opportunity for key players here at IWW13 to discuss initial ideas and plans. IWWG co-chairs can help facilitate. To be reported at CGMS-45.



## CGMS Recommendations for IWWG

**CGMS43.R43.11 - ICWG and IWWG to liaise as appropriate on the provision of further information characterising the AMV derivation for enhanced QC and error characterisation. (from CGMS-44 WGII)**

**CGMS44.R44.05 - To enhance coordination, ISWGs to discuss with ICWG co-chairs key items for collaboration.**

- IWW13 Plenary discussion planned (Tuesday morning). To be reported at CGMS-45.
- New AMV derivation schemes applied to the next generation of instruments are/will make use of pixel-based cloud products from new and improved cloud retrieval schemes
- New cloud retrieval schemes can provide
  - Improved cloud heights
  - cloud microphysical properties
  - Estimates of retrieval error
- Opportunities to improve QC and assignment of observation errors to AMVs



## CGMS Recommendations for IWWG

**CGMS43.R43.12 - IWWG to liaise with the application focal points in the WMO Rolling Review of Requirements (RRR) process (on IPET-OSDE) to provide feedback on the winds-related observation requirements in the RRR database. (from CGMS WGII)**

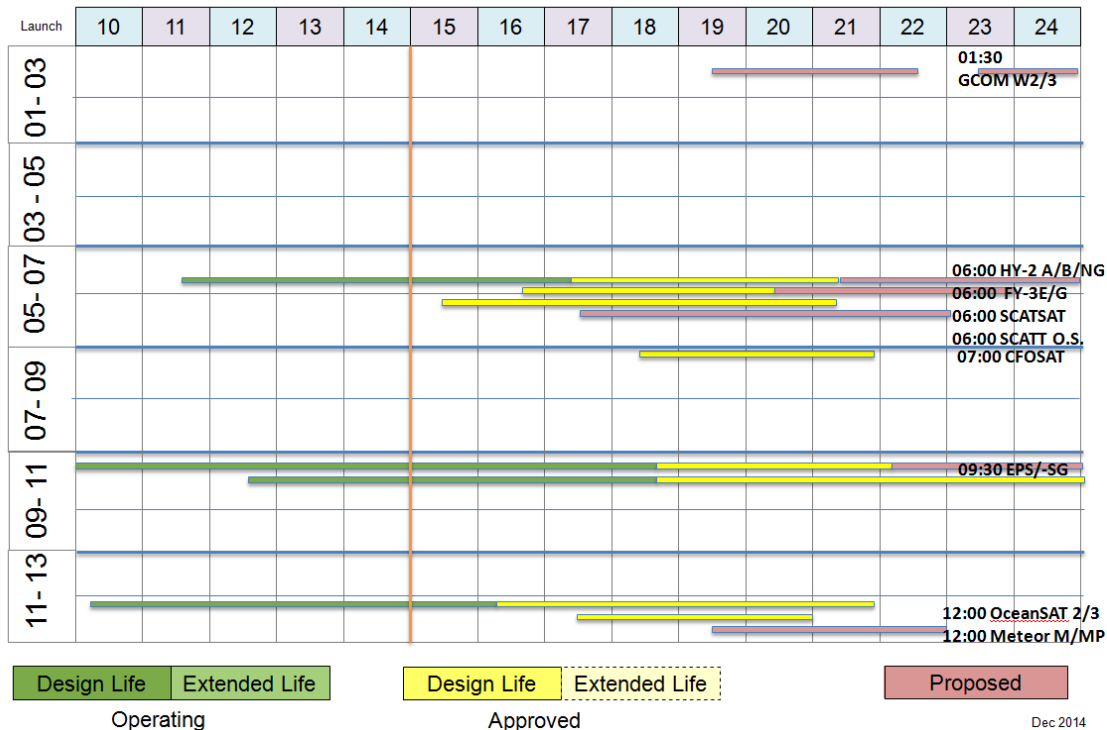
- IWW13 Plenary discussion planned (Friday morning). To be reported at CGMS-45.
- IWWG will ensure that:
  - The requirements for wind measurements captured in the Observing Systems Capability Analysis and Review Tool (OSCAR)/Requirements represent our best current knowledge
  - These requirements are then brought to the attention of the space agencies as drivers for the development of future GEO systems

<https://www.wmo-sat.info/oscar/>

## CGMS Recommendations for IWWG

**CGMS44.R44.17 - Satellite operators to consider coordination of orbits for scatterometer instruments and to provide open and timely access to data in order to maximise independent coverage and benefits to nowcasting and NWP from assimilation of scatterometer wind data. (from CGMS WGII)**

**Need to fill Scatterometer wind data gaps and improve coverage through coordination**



No Scat missions planned for 0300/1500 orbit

Many missions planned around 0600 orbit

ScatSat 0830 (OSCAT gap filling mission). Possibility to drift ~2hrs once launched.

Descending equator crossing time

## Other Items of Relevance to the CGMS

**IWW12.4 - IWWG community to agree a new standard BUFR template, which when rolled out should be adopted by all producers.**

- Has been an active area of discussion and activity since IWW12.
- Several iterations on a new satellite winds BUFR sequence
- Working to define all the variables that need to be included in this sequence that will accommodate all the AMV algorithms from each of the satellite wind producers.
- We are working to use common approaches and variables to the extent possible to simplify and maximize the use of the wind observations.
- Plenary session on the IWW13 agenda to discuss this topic



## Other Items of Relevance to the CGMS

**IWW12.6 - Continue research into improved derivation and assimilation of high resolution winds for use in high resolution data assimilation and nowcasting. ICWG and IWWG to liaise as appropriate on the provision of further information characterising the AMV derivation for enhanced QC and error characterisation.**

- This is an important, exciting, but complex topic.
- Development of high resolution winds and an accompanying assimilation strategy are needed for improving forecasts of high impact weather events using high resolution models.
- The advent of the next generation geostationary imagers with higher spatial, temporal and spectral resolution will bring unprecedented opportunities to generate winds at smaller scales at higher cadence that can be used to improve the initialization of the atmospheric state within regional NWP systems.

## Other Items of Relevance to the CGMS

**IWW12.6 - Continue research into improved derivation and assimilation of high resolution winds for use in high resolution data assimilation and nowcasting. ICWG and IWWG to liaise as appropriate on the provision of further information characterising the AMV derivation for enhanced QC and error characterisation. (*cont'd*)**

- Numerous ongoing research activities that involve the derivation of rapid scan AMVs and use of these AMVs in regional NWP
  - Himawari-8/AHI (JMA, NOAA, EUMETSAT, BoM)
  - GOES-14 super rapid (1-min) scan data (NOAA)
  - Metosat/SEVIRI rapid scan data (EUMETSAT, NWCSAF, Met Office)
  
- Dedicated session (“High Resolution Satellite-derived Winds”) in the IWW13 agenda
  
- IWWG wiki pages (<https://groups.ssec.wisc.edu/groups/iwwg/activities>) capture the challenges and ongoing research in this area



## Other Items of Relevance to the CGMS

- **We would like to formally announce and recognize our new IWWG co-chairs whose chairmanship begins after IWW13:**
  - Regis Borde (EUMETSAT, Darmstadt, Germany)
  - Steven Wanzong (University of Wisconsin/CIMSS, Madison, Wisconsin, USA)