

# **Working Group on Data Assimilation and Numerical Weather Prediction**

**At ITSC-25**

Christina Köpken-Watts, DWD

Brett Candy, Met Office

# Aims and Scope

- The aim of the Working Group on Data Assimilation and Numerical Weather Prediction is to increase the impact of satellite data in NWP.
- The group considers sounding instruments currently in orbit
  - "TOVS heritage", such as ATOVS, SSMI/S, ATMS, AIRS, IASI, CrIS, HIRAS
  - MW imagers with (sounding) channels relevant for NWP, such as GMI, AMSR-2, MWRI,...
  - Geostationary instruments with sounding channels, such as SEVIRI, FCI, ABI, AHI, GIIRS, ...
- The group achieves its goals by exchanging ideas and information on new techniques and progress and by providing a means of communication between NWP centres, satellite agencies and other groups engaged in work with satellite data.

Working group pages at <https://itwg.ssec.wisc.edu/nwp/>

# Communication

- We have an active email group which is used generally to discuss/alert the community to:
  - Unexpected anomalies, shifts in operational satellites
  - Notification of changes / withdrawals to the satellite network
  - Highlight meetings of interest
  - ....
- We maintain a spreadsheet of current satellite data use at each centre.
- Interact with the WMO DBnet coordination group and other groups as required

# Actions Since Last Meeting

The majority of actions are closed. Thanks to those in the WG who supplied information etc. We will focus on those that are ongoing

- **Action DA/NWP 24-6 on WG Members:** Share impact assessment results for FY-3E with the working group, NOAA and CMA as soon as possible in particular to provide evidence for support of the early morning orbit. Still interested in this e.g. online reports, presentations  
Status: **ONGOING. Please let us know of any papers on this**  
(e.g. Steele et al. 2023, <https://www.ecmwf.int/en/elibrary/81525-assimilating-fy-3e-mwbs-2-obs-and-assessing-all-sky-humidity-sounder-thinning>)
- **Action DA/NWP 24-4 on WG co-chairs:** Organise a task team to perform experiments to establish the impact of data latency (esp. DBNet data) in both global and local assimilation systems.
- Status: **ONGOING / discuss at the wg meeting.**

Full list at <https://itwg.ssec.wisc.edu/nwp/action-item-status/>

## Activities since Last Meeting

- Summer 2024 online meeting. Included presentations on AWS instrument and RT models
- User led meeting to share experiences of verifying impact in convective scale models.  
Thanks to those who gave presentations
- Interaction with DBNet Coordination Group to provide input from NWP WG on questions relating to IASI and CrIS data reception and distribution
- Preparation of advice to data providers on presentation of key instrument diagnostics (instrument health) with international group

<https://itwg.ssec.wisc.edu/nwp/guidance-on-the-provision-of-instrument-performance-diagnostics/>