



IWW12 Charge to working groups

WG1: Methods - chaired by Régis Borde and Jeff Key

WG2: Data Assimilation - chaired by Niels Bormann and James Cotton



Recalling Jo Schmetz' talk 1/3

1. CGMS High level priority plan 2014-2018

-> consistent products (**WG1**)

3.2 Establish commonality in the derivation of satellite products for global users where appropriate (e.g. through sharing of prototype algorithms);

3.2.1 Infer guidance from the ongoing intercomparison of AMV products for the future developments towards consistent AMV products. Consider in the guidance the future perspective of having the geostationary ring populated with 16-channel imagers.

- not necessarily same products (friendly competition is beneficial)
- continue sharing of code, intercomparisons and discussion
- strive towards more commonality – similar approaches based on same science



Recalling Jo Schmetz' talk 2/3

High level priority plan 2014-2018 (cont.)

Better error characterisation (**WG1** and **WG2**)

3.5 Develop, and start implementing, methods to describe the error characteristics of satellite data and products;

3.5.1 Address the error characteristics of wind products at the next International Winds Workshop in 2014 and provide a set of guidelines to be considered at the operational centres

- What information could be provided and how could it be evaluated and used?
Need to consider with change to new BUFR format.
- There is need to improve the methodology; errors should be traceable to standards whenever possible; scale and flow dependent errors?



Recalling Jo Schmetz' talk 3/3

2. Reprocessing with unified algorithms (WG1 and WG2)

CGMS-42 recommendation: *CGMS recommends to CGMS members performing a reprocessing of AMVs, to pursue future AMV reprocessing with their own algorithm and in addition with a common algorithm. IWW12 is invited to discuss the implications and derive guidance on the practical implementations.*

- Is this useful to do? Discuss practical approach for reprocessing by producers. Do we add capability to unified AMV algorithm? How? Who? Other ideas? How best to pursue?

3. Other uses of reprocessed AMVs (WG1 and WG2)

Reprocessed AMVs are of scientific interest per se, i.e. beyond their importance to reanalyses, notably in ops4MIPs (observations for model intercomparison projects). They have potential to improve the understanding of processes in the climate system (circulation patterns)

Two examples given – other examples with MISR and scat by Roger Davies and David Halpern

i. Strength of Somali jet and Indian monsoon => direct monitoring from re-processed AMVs

ii. Divergence derived from AMVs tracking marine boundary layer clouds => marine Sc/St plays an important role in the climate system (albedo effect) => study link between dynamics/subsidence and cloud characteristics?

- Other ideas? How best to pursue?



Recalling Lars Peter Riishojgaard's talk....

4. IWW input to the CGMS baseline (WG1 and WG2)

- WMO Integrated Global Observing System (WIGOS): a framework for integrating all WMO observing systems under one umbrella.
- Manual on WIGOS includes a description of the space-based component; this is provided by the CGMS Baseline.
- The CGMS Baseline talks about “*operational capabilities and services*”, and although AMVs are now recognized by WMO as a very important data-type, winds is not listed as a mission for the geostationary constellation
- Could (should?) be considered a driver for the design and operation of the constellation, in terms of e.g.
 - Orbital spacing
 - Scan mode (full-disc versus rapid)
 - Data processing (temporal and spatial density,...)
 - Data dissemination
- IWWG recommendation to include wind mission explicitly?
- Guidance on baseline system e.g. Minimum coverage, interval, frequency...



Follow up from plenary discussions

5. Intercomparison study (WG1 and WG2)

- What else could be done for this study?
- Drilling down to better understand
- Lessons learned
- Future studies? How often? Any extra experiments/ideas?

6. High resolution winds (WG1 and WG2)

- What are NWP requirements to improve high impact weather forecasts?
- Nowcasting needs, benefits
- Discuss issues, limitations
- Who is actively working this problem? Summarize key findings.
- How to best proceed in the future? How to engage and collaborate with the AMV producers / NWP centres?
- Provide some recommendations for ways to collaboratively work issues that remain
- Should a study case be identified for all to work (AMV generation and NWP)?

7. New BUFR format (WG1 and WG2)



IWWG

8. IWW12 (WG1 and WG2)

- Thoughts on meeting format, posters...
- Any suggestions for future workshops

9. IWWG web and wiki pages (WG1 and WG2)

- Thoughts on IWWG web and wiki pages
- Suggestions to improve?

10. Coordination with new ICWG (WG1 and WG2)

- What is best approach?
- Back-to-back meetings with overlap? If so, how often?
- Joint studies? Ideas for what these could/should be?



NWP

11. NWP topics (WG2)

- Correlated errors (spatial & temporal)
- Layer obs operator
- Situation dependent errors
- Thinning/superobbing
- AMVs in tropics – what is needed to get more impact here?
- FSO/denial studies
- Simulated data studies – key conclusions
- Mesoscale vs large scale
- Any other information we would like from producers – covered by BUFR discn?



Method

12. Method topics (WG1)

- Which aspects still need attention and which are OK?
- Low level cloud height assignment
- How tightly constrained is polar tracking to first guess?
- Any extra considerations for polar AMV height assignment
- AMVs in tropics
- Mesoscale vs large scale
- Inversion correction – how applied
- Cloud microphysics and height assignment
- Number of levels and frequency of forecasts used for height assignment
- QI formulation .



Other Items

13. Some other topics...(WG1 and WG2)

- Portable software
- Feedback on the 6th NWP SAF report
 - collaborative follow-up of specific features?
 - suggestions?
- Tracking with hyperspectral data
- Scatterometer wind discussion items
- MISR; evaluation/monitoring/trials of NRT data, follow-on missions