



Introducing recommendations from CGMS 37 to the 10th International Winds Workshop

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Introducing recommendations from CGMS 37 to the 10th International Winds Workshop (1)

Recommendation 37.18: WMO encourages CGMS members to repeat the very informative international operational AMV algorithm intercomparisons at regular time intervals of about 3-4 years.

Questions: Is the time interval too long? Who takes the lead? Funding of activity?

Recommendation 37.19: CGMS members should provide support to the next IWW10 meeting by approving participation of scientists and operational staff working on the utilisation and derivation of satellite winds and, if possible, by providing some support to travel of relevant people from the research community.

Done. More members could contribute.



Introducing recommendations from CGMS 37 to the 10th International Winds Workshop (2)

Recommendation 37.20: Efforts to enhance the use of AMVs in NWP should continue to address both the quality of the AMVs as well as the way the product is utilised in NWP assimilation systems.

This winds workshop is a forum to address and iterate on the issues.



Introducing recommendations from CGMS 37 to the 10th International Winds Workshop (3)

Recommendation 37.21: In view of the success of the polar winds all efforts should be undertaken to continue such products as long as possible from imaging instruments in polar orbits.

In the CGMS 37 report this recommendation is followed by the following text:

"The potential deployment of an imager in a highly elliptical orbit raised interest and the Working Group (added: i.e. the working group II at CGMS) expressed strong support."



Introducing recommendations from CGMS 37 to the 10th International Winds Workshop (4)

(Recommendation 37.22: IWWG 10 is requested to address the development of a stand-alone software package for the derivation of AMVs from imaging satellite instruments.)

This will be addressed later in a separate discussion

Recommendation 37.24: JMA is invited to report at IWW10 on the derivation and quality of AMVs derived from the MTSAT imaging at time intervals as short as 7 and 4 minutes, respectively.

Talks from JMA at this workshop



Introducing recommendations from CGMS 37 to the 10th International Winds Workshop (5)

Recommendation 37.25: On the basis of existing scientific prototype software for product retrievals, NOAA and EUMETSAT offer to other satellite operators existing prototype algorithm software for testing and further development.

This is a general recommendation which does include AMV software too. The idea is to foster an open scientific exchange on the basis of state-of-the-art prototype/science software.



From EUM-WP-31 to CGMS 37 (1)

Recommendation 37.23: CGMS endorsed and recommended all topics listed in EUM-WP-31 section 6 for a detailed discussion at IWWG 10.

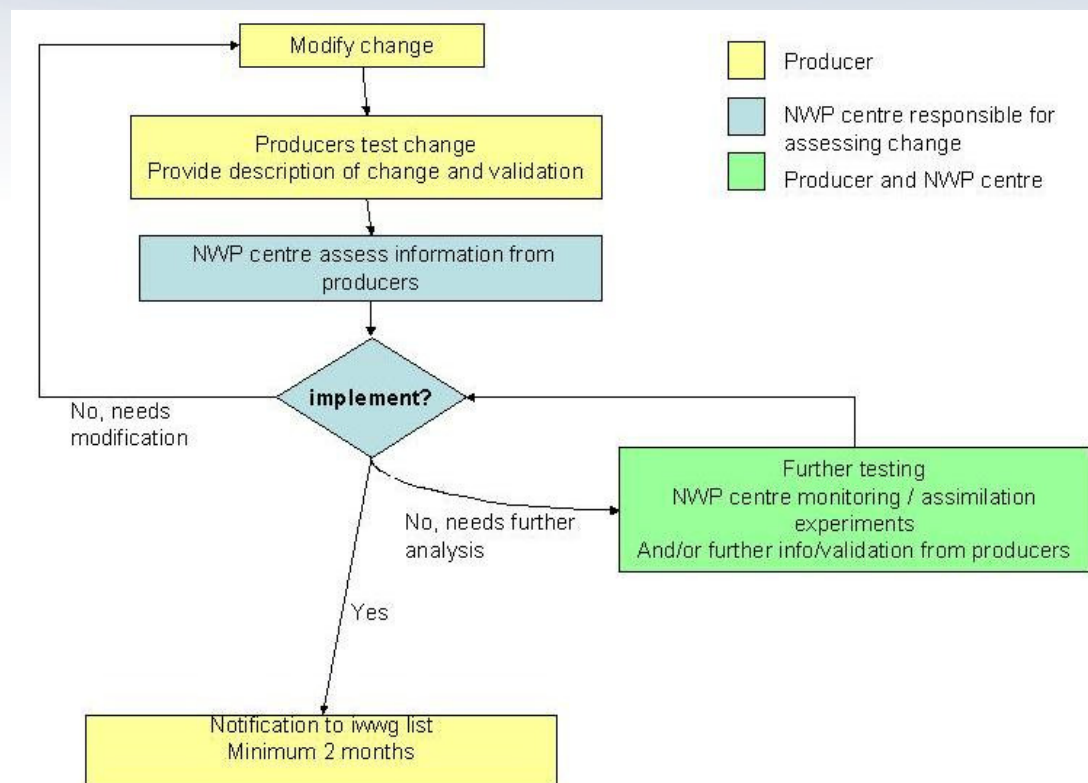
The following list taken from EUM-WP-31 is a kind of repository of relevant issues however it is not complete.



From EUM-WP-31 to CGMS 37 (2)

What is the best process to be followed when making updates to operational AMV processors?

Proposal (see right) is that the NWP centre responsible for assessing the change takes the final decision on implementation, but taking into account requirements from the producers.



from Forsythe and Daniels, 2009



From EUM-WP-31 to CGMS 37 (3)

Re-evaluate approach for height assignment of low-level winds.

Height assignment validation in general for all levels of AMVs,
especially using the A-train data.

Further studies using AMVs derived from simulated imagery based
on NWP model output.



From EUM-WP-31 to CGMS 37 (4)

Representing AMVs as layer observations

This was addressed in the paper: "Identifying the Uncertainty in Determining Satellite-Derived Atmospheric Motion Vector Height Assignments" by C. S. Velden and K. M. Bedka.

The paper provides a very good starting point and may benefit from additional information in the image data for the derivation of AMVs (e.g. variability in pixel-based heights from new height assignment schemes, e.g. from CCC scheme at EUMETSAT and JMA, and from information on cloud optical depth).



From EUM-WP-31 to CGMS 37 (5)

Use of additional information on cloud characteristics (e.g. microphysics) within the AMV derivation schemes
=> height allocation based on optimum estimation which simultaneously provides information on cloud microphysics?