



Introducing Recommendations from CGMS 35 to the 9th International Winds Workshop

Recommendation 35.09:

IWW9 should discuss the results of the studies using the images simulated from NWP model output to track AMVs. Co-Chairs of IWWG are invited to provide a summary report to CGMS36 on results of the ongoing studies on deriving AMVs from images simulated from NWP model. The report should address both the imagers as well as the hyper-spectral sounders.

Report by Lueder van Bremen et al. should be forwarded to CGMS 36

Work should be continued/enhanced using higher horizontal resolution (limited area and nonhydrostatic models) and with a view to hyperspectral applications. Roadmap should be developed to show possible deliverables to CGMS members.



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Recommendation 35.10:

Direct retrievals of wind fields from Doppler Wind Lidars need to be continued beyond the ESA ADM mission.

Direct wind measurements are a high priority data type.

ADM follow-on mission(s) should work toward increased horizontal coverage and include dual perspectives.



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Recommendation 35.11:

IWW9 should discuss the height allocation to atmospheric layers and pursue tests within NWP assimilation and forecast systems.

Layer information for a test period can be provided by CIMSS. Met Office will provide preliminary assessment of innovation statistics.

Tests of using corrected observed temperature rather than assigned pressure to identify the appropriate vertical model level should be carried out.

Ideas for NWP SAF monitoring site or other monitoring efforts ?

Slide: 3

Innovation statistics stratified by height assignment methods would be a useful addition to the SAF webpage





**Additional point for discussion
and a look into the future**

- **With new hyper-spectral sounders (e.g. the IRS on Meteosat Third Generation) we would even better observe 3-d changes of moisture fields**

This would be an appropriate topic for study based on model-simulated imagery



Additional points (1)

- Scale of observation and error correlation length (400 - 800 km?), structure functions?
 - Observation error covariances need renewed estimation; both the Global Observing System and model resolutions have changed since original work
 - Explicit accounting for observation error correlation is encouraged.
- Need for independent height and wind error estimates? If so, what input may be used?
 - Separate estimates of height (hPa), U (m/s), V (m/s) errors should be provided along with estimates of the total error. Where possible estimates should be physically based.



Additional point (2)s

- Generally positive experience with scatterometer data. Encourage NRT availability of ISCAT backscatter data

Highly recommended

- AVHRR winds, use optical depth
- Reprocessing of winds

Will be useful for ECMWF ERA-75 reanalysis