

SESSION IV

NEW RETRIEVAL SYSTEMS

Chairperson: Ramesh C. Bhatia

Main focus was on the new techniques developed for derivation of Atmospheric Motion Vectors from the Geostationary Meteorological Satellite systems. There were five presentations during this session.

The first presentation by Chris Velden brought out results of several advances in winds processing and assimilation being explored at CIMSS. These include winds derived from rapid scan imaging, the use of 3.9 um for night-time wind retrievals, water vapor assimilation into NWP and derivation of vector fields from simulated data of potential future instruments.

Tim Olander presented results of work done at CIMSS to produce a platform independent version of the UW-CIMSS processing algorithm within the McIDAS environment. The new software is currently under evaluation and will soon be made available to the interested data processing centers and research institutes. It includes the latest post-processing QC module incorporating techniques of CIMSS and EUMETSAT.

Ken Holmlund presented details of the new MSG Atmospheric Motion Vector (AMV) retrieval scheme highlighting changes with respect to the current METEOSAT AMV scheme and the expected areas of improvements. Validation results showed that the new retrieval scheme will provide improved AMVs with MSG.

Presentation by José Miguel Fernández also showed good results of work done at Satellite Applications Facility (SAF), Spain for EUMETSAT in support of nowcasting, using data from future MSG systems, particularly the HRV channel at 1 km resolution.

The last presentation by Jianmin Xu of China showed the results of new work done at National Satellite Meteorological Center, China for development of Analysis tools that is used in their AMV derivation scheme. Using these tools image animations, parameters, scatter diagrams etc. can be visualized thereby providing a way to monitor the calculation process of individual vectors. Such facilities can be very useful to investigate specific problems.

All presentations were followed by a number of questions/comments from the distinguished audience. Main conclusion of the discussions during the session was to encourage the further developments of new retrieval systems in view of their importance for a number of users.

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