Highlights

•Inter-comparison study

•Study with simulated images

•Demonstration of need for further examination of impact of non-constant, high resolution fields of view in tracking, e.g. convection

•Renewed attention to relation of tracer elements to height assignment process

•Considerable progress in AMV generation from MISR data

•Renewed attention to Error specification (QI,EE)

•Welcome use of the A-train to better understand relevant physics and for verification

•Beneficial impact of AMVs and other wind products documented

AMV inter-comparison study

(Recommendation 35.07)

•Project is important in terms of optimizing AMV estimation and QC and should be extended.

•Recommendation to continue and extend this activity

•Clearly define/document goal of study,

•Selection of 2008 / 2009 date, if possible to give summer and winter date.

•Coordinated with study on simulated images - same dates etc.

•Extension of comparison methods

AMV inter-comparison study

(Recommendation 35.07)

•Inter-comparison of retrievals: height, wind, all QI components, EE components (total error (m/s), horizontal error components (m/s), height error (hPa), wind determination error (m/s))

•Independent verification of AMVs.

•Common grid to be considered for verification but not (necessarily) for wind retrievals

•Tracking box size and height assignment box size to be common (even size)

•producers should document precisely steps of AMV processing, shortened ATBD

•Action: Ken, Iliana

Simulated images study

(Recommendation 35.09)

•Recommendations:

•Model studies should be used to relate AMV measurements to actual atmospheric motion

•Model studies should be used to study error characterization including error structure functions

•Recommend experiments with higher horizontal and vertical resolution

CGMS wind statistics on IWWG web-site

(Recommendation 35.12)

- CGMS wind statistics should be put on the IWWG Web Site

- Web site entry should include the local methods used in generating statistics in addition to CGMS specified criteria (e.g. for handling outliers).

- Discuss updates to CGMS specified criteria at next IWW meeting

AMV Extraction Methodologies

•Examination should be undertaken of the relative merits of different extraction methodologies (e.g. rapid scan) at different (high) temporal and spatial resolutions

•The use of rapid scan in the context of mesoscale modelling and data assimilation (NWP) should be examined

Tracking

Recommendations

•more stringent tests before derivation of vector: cloud phase, check change of vertical development, to the extent possible use channels common to all satellites

•Continued investigation of methods that relate tracking targets to the population used for height assignment (e.g. method proposed by Ryo Oyama & Regis Borde)

Quality Control

- Error characterisation:
  - QI to be developed further eg for smaller scale application

  - Expected Error to include total error [m/s], horizontal components of total error[m/s], height error[hPa], wind determination error[m/s].

- Feasibility of reporting expected errors in BUFR to be examined

Action: Le Marshall, Holmlund

The Future

Future capability and related benefits need to be documented

•A study should be presented at the next IWW on the use and benefits of hyperspectral observations for the measurement of atmospheric motion