

Summary of discussions

From previous meeting:

AI #1 Establish international community working group for the development of an algorithm framework and validation requirements.

(GPM continues to support the development of parametric algorithms and unified validation strategies. The activity is thus ongoing)

AI#2 Recommend the consideration of NWP type analysis techniques (such as data assimilation) for the generation of rainfall products.

(These activities are progressing as the blending of retrieval algorithms and model simulations is becoming reality. The activity is thus ongoing)

New research related recommendations/action items

Recommend that algorithm developers be aware that significant progress is being made in merged algorithm/modelling activities and thus encourage that architectures be designed to allow models to be used effectively.

Recommend that JCSDA hold a second precipitation focused workshop to continue encouraging the joint efforts between the observation and data assimilation communities (2008?). Peter B.

Recommend support for novel research efforts aimed at incorporating model products/processes into satellite remote sensing of precipitation

AI: Invite participation of more operational centers within the IPWG at 4-5 star location. Amy Doherty.

Recommend that a second snow/cold seasons workshop be held to share ongoing developments in 2008 at a ski resort (4-5 stars). Propose some kind of inter-comparison on pre-selected cases. (Greg Tripoli)

Statement to CGMS: The IPWG is very disappointed with the lack of progress of the EGPM mission currently in Earthwatch and urges the appropriate agencies to do whatever is possible to move this important mission forward. (VL & PB to draft statement – Euro-speak....)

Statement to CGMS: The IPWG recommends that all space agencies considering radiometers pay attention to channel selections that may be important for precipitation retrievals in cold regions (Peter Bauer to draft statement).

~~Statement: the IPWG is disappointed by the lack of success of GOMAS in the ESA selection process for Earth Explorer missions, in spite of the relevant progress achieved in modelling precipitation in the millimetre-submillimetre range. The Workshop was informed by a CMA representative of thoughts being given in China to a MW mission in geostationary orbit. Aside from the many advantages offered by frequent views of precipitation, recent evidence suggests that these sensors bring potentially great benefit to forecasting of warm season precipitation.~~

Recent research suggests that there would be significant advantages to microwave precipitation measurement conducted from geostationary orbit. These advantages arise not only from the greater temporal resolution of measurements of progressive short lived precipitation systems typical of the summer months, but also from the ability to assimilate the dynamical structure of such precipitating weather into numerical forecast models. It is envisioned that such measurements have the potential to provide the long sought breakthrough in the forecasting of warm season precipitation.

Recommendation: IPWG recommends CGMS to invite its members to plan as early as possible for a millimetre-submillimetre precipitation mission in geostationary orbit, and to provide resources for scientific activities, including collection of experimental data by airborne campaigns. The IPWG looks forward a wide international participation in the scientific activity supporting a possible initiative for a MW mission in GEO.

Recommendation: IPWG recommends that GPM participating agencies support validation and field campaigns to provide cold-cloud precipitation observations in addition to existing and proposed field campaigns (e.g., CARE-C3VP): larger community support can encourage future validation. These efforts should include the full range of relevant frequencies and instrument concepts needed to support the above recommendation for frequency selection.

Additional Issues

AI: Make statement to CGMS that the IPWG stands prepared to support the Frequency Allocation Working Group for microwave channels. IPWG considers this an extremely important subject for the future of rainfall remote sensing (Chris Kidd to draft letter).

Recommend that all space agencies designing sensors think about engineering solutions that detect and reduce the effects of radio interference.

Prepare letter of support from IPWG for the continued operation of the TRMM spacecraft. (R. Adler to prepare draft).

AI: Many new web pages were shown related to IPWG research activities. Make available to Vincenzo. (all)

Recommend that developers of passive microwave algorithms pay attention to low rainfall rates – give some kind of guidance as to the confidence in estimates below their unambiguous detectability threshold

Recommend that inter-calibration efforts continue, and begin linking IPWG validation page to inter-calibration effort (Vincenzo L.) and make available status report on imager inter-calibration issues and potential data treatment (Wes Berg)

Coordinate with the Operations group to recommend NRT delivery of Megha Tropiques data; investigate option for additional ground receiving station to reduce data loss and latency. Peter B.

Recommend that people in research group actually start doing some instead of recommending too much stuff.