

Applications Working Group Recommendations and Action Items

IPWG 2014, Tsukuba, Japan, Nov. 20 2014.

Chair: Ali Behrangi

Rapporteur: Paul Kucera

Participants 2014:

Robert Adler , S. Bajracharya, R. Braga, Tufa Dinku, F. Gattari, C. Guilloteu, George Huffman, Kuolin Hsu, M. Kachi, C. Kummerow, D. Melfi, M. Shrestha, S. Tairu Daniel Vila, Pingping Xie.

Action Items to IPWG

- Explore the possibility of developing a global 4 km water vapor channel dataset to improve satellite rainfall estimates; they will provide an initial report in the next six months.
 - Behrangi, Xie, Vila

Action Items to IPWG

- Revise the website data introduction and summaries by improving data table headers, converting algorithm descriptions to product descriptions, and revising the introduction to dataset documentation.
 - Huffman, Kidd, Levizzani, Kachi, Melfi

Action Items to IPWG

- Develop a new document on data formats, meta data, and best practices for dataset developers to help the user community better use the precipitation datasets
 - Leads: Liu, Huffman, Xie

Action Items to IPWG

- Develop a new document that provides information about data recipes and links to relevant software tools to use satellite precipitation datasets
 - IWPG Community

Action Items to IPWG

- Survey to the IPWG community
 - Conduct a survey of available software tools to use the satellite precipitation data
 - Conduct a survey of available data recipes for using satellite precipitation data
 - Conduct a survey to develop a list of example applications that uses satellite precipitation data
 - Kucera will lead the survey and gather the input from the IPWG Community

Action Items to IPWG

- Provide links to user requirements; Include links to these studies to the IPWG web page:
 - Action (George Huffman): Provide a link to the GEO user survey materials for use on the IPWG web page.
 - Action (Stephan Bojinski): Provide a link to the WMO Observation Requirements pages on precipitation for use on the IPWG web page.
 - Action (coordinate with Stephan Bojinski; IPWG members): Investigate the utility of linking to the IPWG web site from OSCAR and other precipitation-related sites.

Action Items to IPWG

- Bias correction of satellite products for hydrologic applications (level 3)
- Encourage developers to provide bias adjusted products besides original products.
- Doing so we need to have clear documentation to describe potential pros and cons (e.g., bias adjustment may not be always better every where)

Lead: Pingping Xie

Recommendations to CGMS

- IPWG strongly recommends to CGMS members to continue the constellation of PMW sensors to ensure quality satellite precipitation products for weather, climate, and hydrological applications
 - Confirmation for currently planned satellites
 - Develop plans for subsequent launches of microwave sensors to ensure continuity of long-term observations that meet the documented needs of the user community
 - Coordinate crossing times of precipitation relevant satellites in an effort to improve the temporal sampling of diurnal cycle, convective systems lifecycles, and severe storms.

Recommendations to CGMS

- IPWG recommends that CGMS members should provide free access of geostationary (IR window and WV channels) satellite data with complete global coverage (including Indian Ocean) to developers of the precipitation products in a timely fashion with a latency of one hour or less to better support short-term applications (e.g., flash flooding, nowcasting, etc.)