

GDAP Report SSG-29

Authors: Rémy Roca, Chair Tristan L'Ecuyer, Vice Chair Jörg Schulz, (Ex- Chair) Matthew McCabe, (Ex-Vice Chair)

Co-authors/contributors: GDAP members, data project and assessment leads and reviewers

Rapporteurs: Remko Uijlenhoet and Gianpaolo Balsamo

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GDAP Objectives

The GDAP panels focus its actions in the following 3 activities:

1) Data records

- Guide production and analysis of global data sets with respect to GEWEX questions, e.g., energy and water budget closure;
- Use new data sources in the data sets, e.g. GPM
- Tailor data sets to needs of GCs, e.g., water availability, extremes and PROES activities and directly participate/interact with GCs and PROESs;
- Evaluation of climate models – obs4mips connect;

2) In situ networks

- Guidance of surface networks such as BSRN and GPCC needed for assessments
- Evaluation of satellite products
- Evaluation and tuning of models

3) Data quality assessments

- To assure quality and knowledge about data sets including suitability for applications;
- To improve uncertainty estimation for data records
- Assess adequacy of observing system - Interact with CEOS/CGMS WG Climate

GEWEX Data Products and Integration actions

The dataset produced and/or evaluated within GEWEX/GDAP

- ISCCP (Bill Rossow and NOAA NCEI)
- Aerocom MAC (Stefan Kinne)
- SRB (Paul Stackhouse)
- GPCP (Bob Adler et al.)
- SEAFLUX (Carol Anne Clayson)
- LandFlux (Matt McCabe, Carlos Jimenez)
- Soil Moisture (Wouter Dorigo)
- GEWEX Merged and Integrated Product (Paula Brown and Chris Kummerow)

GDAP Membership Status

Rémy Roca (Chair), LEGOS 2017

Tristan L'Ecuyer (Vice-Chair), University of Wisconsin 2017

Wouter Dorigo, Technical University Vienna 2016

Andrew Heidinger, NOAA/NESDIS 2016

Carlos Jimenez, Estellus, S.A.S., Paris 2017

Christian D. Kummerow, Colorado State University 2017

Hirohiko Masunaga, Nagoya University 2017

Claudia Stubenrauch, Lab. de Meteorol. Dynamique 2016

Tianjun Zhou, LASG/IAP/CAS, Beijing, China 2017

Actions from SSG-28 in red and older in green

- Dave to warm up Karin Lochte asking her what would be need to fulfil our wish. Send Dave a brief containing the details what we want. ✓
- ISCCP processing: Graeme to talk to Tom Carl , I can strengthen while I am there ✓
- Restrict radar to certain areas needed for the GCs, talk to Andreas Becker and Brian Nelson in April. ✓
- Update membership list and circulate with Sonia and Graeme – Found new chairs and leave selection of members to them
- Send G-VAP report to SSG after GDAP review - ongoing
- DOI registration for GEWEX data sets – what is the situation with the individual data set producer. Publication in data journal. – all strive for that, some have issues to find a publication agent
- Several data prices exist –awareness is small. – WDAC data price announcement has been distributed to GDAP
- Connect with GLASS – has not happened, missed their annual meeting
- Consider to do a global fluorescence data set in GDAP – not discussed at last GDAP
- Proposal for mobile ARM on GLASS Pannex activity / has been confirmed to be useful on last day.



- Link to SPARC – SPARC WAVACS has participated in G-VAP workshops, both agree to do complementary work (SPARC concentrating on water vapour above 200 hPa).

GDAP panel presentation notes

Presentation from Remy Roca (via skype)

Membership

- Remy Roca enters as new chair; Joerg Schultz has stepped down as chair; Tristan l'Ecuyer currently moving, hence not involved in GDAP report
- Membership has been shrinking; Remy and Tristan will increase membership within 6 months
- LandFlux (evaporation) people (Miralles et al.) want to leave from the GDAP panel, may leave gap

Science

- Clouds
 - ISCCP (cloud product) from lab to NOAA
 - GDAP: How to deal with new GEO data in research environment?
- Aerosols
 - Aerocom (aerosols): active and growing community
 - MPI aerosol climatology (MAC)
 - Difficulties in terms of assessment
- Surface radiation budget
 - All products developed independently --> consistency?
 - Slow but continuous process of improvement
- Precipitation
 - GPCP, GPM
 - Change in processing SSM/I --> SSM/I-S caused declining trend in global average precip; corrected, now in line (see GEWEX newsletter)
 - GPCP > GPM at high latitudes
 - Precipitation assessment largely done without considering solid precipitation, other products available (e.g. EXTREMES)
- Water vapor
 - No problems
 - Trends from datasets show large differences between products --> accounting for uncertainties is crucial
 - Trends (1998-2008) from various products do not match Clausius-Clapeyron
 - Similar trend analyses for precip?

- SeaFlux
 - No problems, good progress
 - Link on GEWEX website broken
- LandFlux
 - Interesting and relevant work, however, data not shared with GDAP panel members
- Data quality assessments
 - Clouds
 - Water vapour: not available after 10 years --> worrying, what to do?
 - Precipitation: more than 2 products, broadening the scope, including e.g. PERSIANN
 - BSRN: high standards set by new chair; difficult to meet for individual groups
 - Soil moisture: good progress; suggestion from SSG: comparison of soil moisture retrieved from satellite (+ models) with re-analyses (GDAP also to include re-analysis people); soil moisture (Wouter Dorigo) needs an assessment, but needs financial support
- New activities
 - World-wide surface radar rainfall for extremes grand challenge; issues: data formats not yet up to standards with satellite community, merging of individual radars is challenging (also from political perspective)
- Funding
 - Proposal to Copernicus call in Europe may provide significant funding for new assessments

Questions for SSG

- Suggestions for new members from SSG appreciated, in particular from evaporation (LandFlux) community
- Connection with CLIVAR?
- Connection with PROES?