

WGNE
Conference call minutes
Friday 14 June 2013, 14:00-16:00

PRESENT

Members

Andy BROWN (Co-chair)
Jean-Noel THEPAUT (Co-chair)
Julio BACMEISTER
Francois BOUYSSSEL
Gary DIETACHMAYER
Saulo FREITAS
Tom HAMILL
Bill LAPENTA
Chiashi MUROI
Mikhail TOLSTYKH
Ayrton ZADRA

Ex-officios

David JACKSON
Jon PETCH

Secretariat

Nanette LOMARDA (WWRP)
Michel RIXEN (WCRP)

EXCUSED

Xueshun SHEN
Michael BALDAUF

1. Review of WGNE28 actions

ACTION ITEM: WGNE should add a DAOS ex-officio member to ensure effective links between the working groups.

On-going. Tom Hamill will investigate with DAOS about a possible ex-officio representative on WGNE to be invited at the next session but will play this role until replaced by Caroline Reynolds.

ACTION ITEM: Thomas Jung was requested to provide more information to the members of WGNE on the polar workshop scheduled for June 2013 at ECMWF.

Complete.

ACTION ITEM: WGNE request a summary from TIGGE-LAM on the status of various regional Ensemble Prediction Systems and current efforts (projects, workshops etc) to co-ordinate their development.

On hold. Informal feedback from Richard Swinbank on TIGGE seems to indicate that TIGGE efforts are currently awaiting clarification on the future of THORPEX and legacy projects Sub-seasonal to Seasonal (S2S), High Impact Weather (HIW) and the Polar Prediction Project (PPP).

ACTION ITEM: Modelling centres to provide David Jackson (SPARC) with the names of focal points on stratospheric issues.

On-going. All WGNE members from modelling center should forward a focal point for stratospheric issues to David Jackson by mid-July.

David Jackson provided a brief update on initiatives pertaining to the stratosphere namely:

- QBOi aiming at a better representation of tropical stratospheric variability in GCMs (see details at

http://www.met.reading.ac.uk/~pn904784/DynVar_SNAP_Workshop/talks/day1/presentations/osprey.pdf)

- S-RIP – the SPARC Reanalysis Intercomparison Project, for which the report of the April Workshop has been submitted to the SPARC Newsletter and is available at

http://wwwwoa.ees.hokudai.ac.jp/~fuji/s-rip/pub/pdf/SPARC-NL_S-RIP2013_ver2.0_fig.pdf

- SNAP – the SPARC Stratospheric Network for the Assessment of Predictability - the report of the April Workshop has been submitted to the SPARC Newsletter and is attached. (report distributed to WGNE members)

WGNE is supportive of all 3 activities. WGNE Co-chairs will contact all 3 lead people of these efforts.

ACTION ITEM: Ayrton Zadra, Andy Brown and Julia Bacmeister were requested to propose next steps for a study on model momentum budgets

On-going (see agenda item below).

ACTION ITEM: Michael Baldauf was requested to extend the tables with specifications of model characteristics at the various centres to include CPU and run-time information.

On-going. Michael Baldauf has compiled the table and will distribute it in the next few weeks.

ACTION ITEM: WGNE members to feedback to S2S steering group on any key variables missing from list proposed for S2S database.

Complete.

ACTION ITEM: Christian Jakob to provide Duane Waliser a mailing list for use in a call for data/metric tailored for on Interseasonal Variability (ISV) for the boreal summer from modelling centres.

Complete.

ACTION ITEM: Michel Rixen to send background to the WMO RRR process to CoChairs.

Complete.

ACTION ITEM: WGNE encourages Chiashi Muroi and his team to publish the results on verification of TC forecast in global models.

In process.

ACTION ITEM: Modelling Centres are encouraged to continue to investigate and report reasons for precipitation verification behaviour.

On-going. This will be on the WGNE29 agenda.

ACTION ITEM: The Grey-zone project is encouraged to develop a Transpose-AMIP component and to see how best to include a climate component in their work.

On-going. Andy Brown recommended that the climate community should be more involved in this effort. Jon Petch noted that the experimentation mainly focuses on a cold outbreak event.

ACTION ITEM: Jon Petch to ensure that information on the GASS and GLASS key projects are provided to WGNE Co-Chairs for distribution to WGNE members.

On-going. WGNE29 agenda will be planned accordingly.

ACTION ITEM: WGNE members to indicate their interest to participate in GASS and GLASS key projects.

On-going. Francois Bouyssel offered to keep track of centres interested in GASS and GLASS activities.

ACTION ITEM: JWGFVR to provide advice to WGNE members on the most appropriate scores and bootstrapping methods to be used for precipitation verification

On-going. Laurie Wilson offered to provide some inputs from JWGFVR earlier this year. Nanette Lomarda confirmed that JWGFVR is currently working on it and will remind the group about the interest of WGNE for such input to be provided in Sept 2013.

ACTION ITEM: The modeling centers were requested to adopt the advised approach for precipitation verification (e.g. for presentation at next WGNE meeting).

On-going. This will be on the WGNE29 agenda.

ACTION ITEM: Jean-Noël Thépaut, Saulo Freitas and Angelina Benedetti to discuss next steps re aerosol case studies

On-going. See agenda item 3 below.

ACTION ITEM: Request WGSIP information on how aerosols are treated in models for seasonal predictions.

Closed. Informal feedback from Adam Scaife indicates that most models (if not all) use aerosol climatology. The EU SPECS project will perform some dedicated experiment to investigate the role of interactive vs climatological aerosols.

ACTION ITEM: Co-Chairs of WGNE and the WMO Secretariat to design a programme for virtual meetings and reporting schedule to complement future WGNE meeting on a 18 month basis.

Closed. This conference is a first attempt to address this. The next conference call is planned around end of November this year. Michel Rixen will setup a Doodle to that effect.

2. Drag project

Ayrton Zadra provided an update on the "drag project". Invitations were issued early this year and 9 positive answers received, 8 of which from NWP centers (EC-Canada, UKMO, BoM-Australia, Météo-France, Brasil, HydroMet-Russia, JMA-Japan, CMA-China) and UCAR. Some results are expected by late summer (comparisons of surface stresses, etc). Some work is needed to specify output formats, but partners are ready to send some basic outputs. It was suggested to inform GASS about this activity, which they might be interested in from a process study standpoint. It was noted that this work is usually performed in the context of NWP, but that the climate research is less active in this area, a focus also currently lacking in CMIP. Julio Bacmeister wondered about connections to the SPARC "gravity wave drag"?

3. Aerosols

Jean-Noël Thépaut presented the "[Evaluating Aerosols impacts On Numerical Weather Prediction \(NWP\)](#)" brief on behalf of Saulo Freitas, detailing the 3 proposed case studies for aerosol-NWP impacts evaluation, namely the dust storm on 18 April 2012, the air pollution event in Beijing, 12-14 January 2013 and the SAMBBA biomass burning over South America over Sept 2012.

The following timeline is envisaged:

- ~30 Aug: detailed information about case studies
- ~30 Sept: the Centres inform if will/not participate on the exercise and which case studies they will run
- ~30 Jan: model simulations and results should be available.
- 2014 WGNE29 session: discuss the inter-comparison and models performance.

Jon Petch was wondering if GASS should engage and contribute to the initiative.

4. Future directions for WGNE

The conference call ended on discussions regarding the future directions of WGNE.

- Regarding the [WGNE Workshop on Systematic Errors](#), Exeter, UK, 15-19 April 2013, Andy Brown noted the light bias towards climate science and community, versus operational centers. He also pointed out the recommendation of the workshop for a transpose-CMIP effort similar to the Transpose-AMIP approach to identify the development of systematic errors in coupled models.

- Concerning the "[Joint GODAE Ocean View Workshop on Short- to Medium-range coupled prediction for the atmosphere-wave-sea-ice-ocean](#)" NOAA, Maryland, 19-21 March 2013, Bill Lapenta noted that the meeting was well attended and the community well engaged in following-up with the publication of 4 white papers on the topic around fall 2013 and a summary in BAMS.

Regarding [the WMO Commission for Atmospheric Sciences \(CAS\)](#) and the [material presented at the latest Management Group](#), Andy Brown reported that the Commission was pleased about the progress made by WGNE in various areas. He pointed out that WGNE is tackling long-standing problems of interest to both climate and weather communities (e.g. predictability, parameterization, model development) but is also looking at opportunities from new scientific areas such as coupling, etc. WGNE members were in agreement on the future directions stated in the document.

Bill Lapenta remarked that the WWRP OSC tentative program and WGNE priorities are well aligned. Garry Dietachmayer also noted the consistency with their own BoM priorities.

Julio Bacmeister recalled the importance of stratosphere dynamics and its relevance for WGNE, consistent with similar efforts within the SPARC community (see above).

Ayrton Zadra pointed out the bad model scores at EC for January 2013 and was wondering about scores at other centers and whether this would deserve any concerted effort within the community, something which could be looked at during the WGNE29 session.

Andy Brown observed the development of 'research activities' within WGNE and Garry Dietachmayer wondered if there was a need for a priority list on those.

Jean-Noël Thépaut suggested looking at scalability of current modelling approaches. This issue could be considered at the next WGNE29 session where centers would be asked for some input slides. Andy Brown remarked that this is a multi-faceted problem on dynamical cores, data assimilation, ensemble modelling, etc.

Michel Rixen provided a brief update on the WCRP JSC34 and WMAC2 sessions, summarized in the following section.

The WCRP Modeling Advisory Council noted that most WCRP Grand Challenges require major improvements in models to address their challenges. The CMIP6 planning has started with the consultation of the various concerned communities, whilst the analysis of CMIP5 simulations is still on-going. The WMAC will promote model development with 2 new instruments: 1) a dedicated WMO Prize with support of NMHSs and Scientific Unions 2) Summer schools focusing on model development from a physics standpoint. WMAC recommended the “model tuning” workshop to be led by WGCM and the “dynamics-physics” coupling workshop to be led by GASS with support from other WCRP core projects and WGNE, as recommended by JSC34.

5. Next meeting

The next conference call is planned around end of November this year. Michel Rixen will setup a Doodle to that effect. The WGNE29 session will be held in Australia, 10-14 March 2014 and will be kindly hosted at the Bureau of Meteorology in Melbourne by Gary Dietachmayer.