

WGNE

Conference call minutes

Friday 14 November 2014, 14:00-15:30

PRESENT

Members

Andy BROWN (Co-chair)
Jean-Noel THEPAUT (Co-chair)
Julio BACMEISTER
Michael BALDAUF
Francois BOUYSSSEL
Francois ENGELBRECHT
Saulo FREITAS
Chiashi MUROI
Carolyn REYNOLDS
Ayrton ZADRA

Ex-officios

Jon PETCH
Quentin ERRERA

Invited experts

Oscar ALVES
Michael EK
Junichi ISHIDA
Keith WILLIAMS

Secretariat

Deon TERBLANCHE (D/ARE, WWRP)
Michel RIXEN (WCRP)

EXCUSED

Elena ASTAKHOVA
Saulo FREITAS
Jeanette ONVLEE-HOOIMEIJER
Jon PETCH
Jian SUN
Xueshun SHEN

1. Updates from WWRP and WCRP

Deon Terblanche provided an update on the WWRP Open Science Conference outcomes. The white papers will eventually be turned into a book with the aim to launch it at the WMO Congress in May-June 2015. He highlighted the upcoming WWRP SSC session 17-20 Nov which will bring THORPEX to an official end through a transition of the HIW, PPP and S2S legacy project. He indicated that the session will be attended by a number of funding organization (NOAA, NSF, EU, ANR) for a panel discussion addressing funding for research. Paolo Ruti and Oksana Tarasova have joined the Research Department as Chief WWRP and Chief GAW respectively. To conclude, he finally noted the upcoming "Symposium on Coupled Chemistry-Meteorology/Climate Modelling" to be held 23-25 Feb in Geneva (see http://www.eumetchem.info/index.php?option=com_content&view=article&id=85%3Asymposium-on-coupled-chemistry-meteorology&catid=11%3Anews&lang=en), a relevant event for the WGNE aerosol project.

Michel Rixen provided recalled that WCRP has established 6 Grand Science Challenges (GC) which progress have been reviewed at the last JSC35 session in July. The GC on Cloud Circulation and Climate Sensitivity is closely linked to WGNE at the heart of the weather-climate enterprise. He highlighted the WCRP-IPCC Workshop held in Bern 8-10 Sept addressing lessons learned from AR5 and associated uncertainties to fine-tune WCRP priorities and help IPCC reflect on its own work. As a major outcome of the meeting, he indicated the wish for WCRP to established an Earth System Reanalysis coordinated effort within the community. The Climate Symposium held in Darmstadt, 13-17 Oct, allowed GC to be examined through the lens of climate observations and monitoring networks. He noted the newly established WCP/WWRP International Prize for Model Development, for which a significant number of 2014 nominations were received and are currently being reviewed. WMAC is also preparing the upcoming Summer School on Model Development to be held 15-26 June 2015 at MPI, Hamburg, Germany. He finally noted the following WGNE membership changes effective 1 Jan 2015 as approved by CAS and WCRP JSC:

- Stepping down: Andy Brown, Gary Dietachmeyer, Chiashi Muroi, Xueshen Shen
- Extensions: Jean-Noel Thépaut, Julio Bacmeister, Saulo Freitas, Ayrton Zadra (incoming Chair)
- New members: Oscar Alves, Junichi Ishida, Sun Jian, Keith Williams, Michael Ek

Official letters will follow before the end of the year. He thanked Andy Brown very warmly for his leadership and all members for their active participations in WGNE activities.

2. Review of WGNE29 actions

ACTION ITEM 1: WGNE members and their modelling centres to consider offering to host the modelling summer schools and to make available lecturers for these events.

It was decided to leave this action open. Michel will forward a list of offers when available.

ACTION ITEM 2: WGNE to ensure regular workshops on systematic errors to take place at intervals not exceeding 4 years and to encourage WGNE members and modelling centres to offer hosting the next workshop.

Andy recalled the successful workshop held in 2013. Michel indicated the wish of WMAC to better integrate systematic errors efforts across the programme. Andy recalled that WGNE, as a weather-climate enterprise, seems to be an ideal host for this.

ACTION ITEM 3: Chiashi to conduct systematic comparisons of analyses over the

tropics.

Junichi report on the progress on this item. JMA is conducting a verification against multiple analyses over the tropics using TIGGE data to extend elements from Z500. JMA intends to undertake WGNE TC verification. With regard to the 2013 LAM TC verification (this year's verification), JMA has already gathered the LAM data from some NWP centres and TC analysis data from RSMC TC centres. JMA is now working for this year's verification. JMA will continue to verify the TC track forecast by LAM as usual and are now investing how to verify the TC intensity forecast by LAM. This will be reported on at the next WGNE meeting.

ACTION ITEM 4: Michael Ek to coordinate WGNE polar prediction and predictability activities on behalf of WGNE:

a. Year of Polar Prediction plan to be reviewed by WGNE by end March 2014 (Mike):

Mike provided an earlier feedback from the Polar Prediction Project with also some land emphasis, and water cycles. NOAA and NCAR are well connected to this effort. He highlighted the need for all stakeholders to ensure proper communications.

b. WGNE representation at the PPP steering group meeting at WWOSC (Carolyn or Mike) and at the Barcelona workshop Dec 2014 (Francois Engelbrecht?):

Francois E. reported that Francois Bouyssel would attend the meeting on behalf of WGNE.

c. Modelling centres to conduct systematic comparisons of analyses over Polar Regions (Jean-Noël Thépaut):

Jean-Noël indicated that ECMWF is very active in this area and ready to collect a number of analysis from modelling centers by the next WGNE session.

d. WGNE to provide advice on observation strategies for model development / verification during YOPP including the relative value of single point versus grid box approaches (Francois Bouyssel and Mike Ek).

See point a above.

ACTION ITEM 5: Andy Brown to circulate the spatial verification document to WGNE members.

Done.

ACTION ITEM 6: Modelling centres MUST provide and update information as required for the centre table compiled by Michael Baldauf on behalf of WGNE. Michael to provide Centres with the detail on the information required.

Done.

ACTION ITEM 7: Jean-Noël Thépaut to review with Tom Hamill the realigned TORS of Working Group on Data Assimilation and Observing Systems under WWRP.

On-going.

ACTION ITEM 8: Francois Engelbrecht to circulate the report of the scalability workshop to be held at ECMWF in April 2014 and seek WGNE members views on it.

Francois E. agreed to circulate the report to WGNE. It was suggested to add this topic on the WGNE30 agenda, together with dynamical cores, next generation models.

ACTION ITEM 9: Jeanette Onvlee to liaise with the grey zone team and discuss next steps and priority areas of extending the grey zone project.

Jeanette contacted Pier Siebesma, one of the two main organizers, and transmitted to him the comments made in WGNE-29. He agreed on the desirability to extend the ongoing case to higher resolutions, but to extend the case down to something like 250m level will require significant computational resources for the two LES's used as "truth", and a request for resources at e.g. Brookhaven would need to be made for that. The next step for the cold air outbreak case will be a workshop on 1-3 December at MPI, in which the results obtained for the various models will be discussed and further activities will be considered; see attached email by Pier. Pier notes that for continuation of this experiment with a new case of more extreme convection (tropical?), an essential prerequisite will be to identify people to lead this initiative. This should be investigated during the workshop and discussed at WGNE30 as needed.

ACTION ITEM 10: Julio Bacmeister as WGNE contact person to follow up on high resolution activities in CMIP6.

Julio attended WGCM with Michel. HighResMIP was generally agreed upon, which involves extensive coupled high resolution simulations. 1/4 degree ocean resolution was maybe a little too ambitious. This is now being scaled back so that DECK experiments are affordable. HighResMIP will focus on AMIP runs and bias corrected future SST and some Tier 2 coupled simulations.

ACTION ITEM 11: Jean-Noël Thépaut to circulate the S2S white papers.

Done.

ACTION ITEM 12: WGNE members to consider hosting the next systematic error workshop including a theme on teleconnections in 2016 time frame.

See action 2.

ACTION ITEM 13: WGNE to promote the GASS MJO project dataset to a wider scientific community.

Done.

ACTION ITEM 14: Jeanette Onvlee and Chiashi Muroi to discuss linkages between the planned RDP on LAM TC evaluation and the WGNE TC effort.

Done. Jeanette and Junichi reported on this action 1) in cooperation between the WG on tropical meteorology and the WG on mesoscale forecasting, it was decided to extend the scope of this RDP from verification to evaluation and targeted efforts on improving TC forecasts. A proposal for an RDP with this broader scope will be submitted to the WWRP SSC this November. 2) JMA has almost collected all necessary data and is now conducting verification which will be reported on at WGNE30. JMA can provide our TC

tracking tool. The contact person for this will be Hui Yu from the Shanghai Typhoon Centre.

ACTION ITEM 15: Operational modelling centres to move quicker to adopt new verification techniques for precipitation and to extend to regional models.

Francois Bouyssel agreed to collect updates on new verification technique by WGNE30.

ACTION ITEM 16: Andy Brown, Peter Glecker and Jon Petch to discuss ways to archive and preserve precious historic GASS data sets.

Andy Brown agreed to follow-up on this action by WGNE30. Michel recalled the broader ambition of WCRP to embrace ESGF as the recommended platform for data archiving and dissemination. Andy agreed to consult with obs4MIPs and Michel on these issues. Michael Ek also stressed the need for other WCRP core projects to engage on this road.

ACTION ITEM 17: Saulo Freitas to explore and decide optimal way for the WGNE aerosol project to cooperate with the EUMETCHEM community and as the WGNE activity matures, decide on the feasibility of a joint workshop.

Done. Saulo Freitas provided a quick update off-line:

- WGNE – aerosol project was presented at the last WWOSC (atmospheric and oceanic composition) by Arlindo Silva (NASA/Goddard) in Canada
- A web site is available at <http://meioambiente.cptec.inpe.br/wgne-aerosols>
- Data for model evaluation for the SAMBBA case is ready
- Data for the Beijing case has been negotiated with CMA (Xueshun Shen)
- Arlindo Silva offered a 3-hourly gridded AOD dataset based on MODIS collection 5 developed by his group
- A common tool with COST- Action ES1004 group to perform model evaluation is currently under development. There are 6 different case studies that will be jointly evaluated by WGNE and COST.
- A joint WGNE/COST conference has been planned, see details above. There is a possibility to support the participation of WGNE members. However, the funding is limited and WGNE members are recommended to try first to use their own resources. If this is not possible, please send an email to mrixen@wmo.int with copy to Alexander Blakanov (abaklanov@wmo.int)

ACTION ITEM 18: Xue Shun to investigate the availability of additional data from China related to the Beijing aerosol case study

Xue Shun reported on the possibility to make AWS data (270 stations), ground-based GPS (43), radar data (6) available for the case study around Beijing area, with the exception of the GTS. Aerosol observations are also available for the verification.

ACTION ITEM 19: Jean-Noël Thépaut, Tom Hamill and PDP co-chairs to discuss and propose ways forward for verification against analyses.

Jean-Noël indicated a few informal discussions at the WWRP OSC on this topic and agreed to develop this by WGNE30.

ACTION ITEM 20: Ayrton Zadra to convene a telecom to identify priorities on the way forward regarding the drag project.

Closed. Ayrton indicated that the project is still on-going. Communication is taking place mainly via email and some discussions took place during the WWRP OSC. Anton Beljaars and Irina Sandu at ECMWF will be submitting some new results soon. He also noted the upcoming workshop on momentum budget being organized by Ted Shepherd at University of Reading in April 2015. Ayrton will report on the drag project there.

ACTION ITEM 21: Ayrton Zadra and Francois Bouyssel to coordinate a specific presentation on physics developments at the next WGNE meeting (WGNE-30).

On-going. This will be addressed at WGNE30.

ACTION ITEM 22: Michael Baldauf and Francois Engelbrecht to take over the routine survey of dynamical core developments

On-going. This will be addressed at WGNE30. Work will be initiated in Dec.

ACTION 23: Ayrton Zadra and Elena Astakhova to consider continuation and coordination for issuing the WGNE Blue Book after 2014

Close. Elena Astakhova is taking over Ayrton on developing the WGNE Blue Book.

ACTION ITEM 24: WGNE member and modelling centres encouraged to consider hosting WGNE-30 session tentatively planned for spring 2015 and inform co-chairs and WMO secretariat before end March 2014.

See below.

3. AOB

Francois Engelbrecht attended the WGRC Expert Meeting on Climate Information "Distillation" 29-31 October 2014, Santander SPAIN, on behalf of WGNE. He highlighted the discussions regarding global and regional model resolution and physics (non-hydrostatic vs hydrostatic) and the opportunities for the regional climate modelling community to collaborate more closely with the NWP community.

Andy pointed out the upcoming WWRP SSC and will report back as required.

4. Preparation for WGNE30

WGNE30 will be held 23-26 March 2015 at NCEP, College Park, USA. For people staying until 27 March, there is a possibility to organize some dedicated seminars and face to face meetings with NCEP staff. Logistics preparation is progressing. A daily shuttle will be organized between the hotel and NCEP. The web site is still under development. Michel indicated that invitations will be sent out soon. Co-chairs agreed to develop a draft agenda before the end of the year.

Jean-Noël, Michel and WGNE members thanked Andy warmly for his engagement on WGNE over all these years.