

## International Commission on Dynamical Meteorology

Minutes of meeting in Davos, 9 July 2013

Attendees: Richard Swinbank (President), Richard Grotjahn (Secretary), Nili Harnik, Pat Harr, Christian Keil, Michael Kurgansky, Igor Mokhov, Jianping Li, Olivia Martius, Mu Mu, Hisashi Nakamura, John Nielsen-Gammon (Past President), Thomas Spengler

1. RS opened the meeting and welcomed the participants, especially new members of the commission. The attendees introduced one another.

2. The minutes from Melbourne (2011) and Kunming (2012) were approved.

3. RS reported on the Kunming workshop on dynamics of high impact weather and climate extremes. Over 140 people attended. A post-workshop book is in development; a proposal was written and submitted to Cambridge University Press (CUP) for review. The reviewers primarily identified some gaps in topics covered by the book; these gaps have now been filled by inviting additional authors to contribute. A decision by CUP whether to accept the revised proposal is expected shortly. [The proposal was subsequently accepted.]

4. Following the success of the Kunming meeting, some members proposed that ICDM organise a workshop focused on dynamical processes in polar regions. TS provided a detailed draft proposal that provided an excellent basis for discussing the workshop. The venue would be in Norway. He envisions around 20 invited speakers and 80-100 attendees. There would be no parallel sessions. Topics include sea ice and atmosphere-ocean interactions as well as others listed in the proposal. The topics were organized into 4 groups. The workshop would last 4 days, implying 8 half-day sessions. There would be panel discussions as well as breakout sessions.

ICDM members suggested other topics such as the general area of connection to midlatitudes and topics of key interest to operational centers. MK emphasized including the Southern polar region, not just Arctic. Informally, IAMAS commission ICPM has expressed interest as well as WWRP's PPP. These groups are having meetings at a similar time, so it makes sense to coordinate or combine them. HN pointed out that Japan has a 'Green project' focused on sea ice reduction so there may be additional interest from participants in that project. It was unclear how much the workshop should focus on weather (prediction) versus polar climate. Concern was expressed about the originally proposed timing of Summer 2014 given that PPP interest is not likely to be formalized until Fall 2013; proximity to IUGG 2015 was to be avoided so March 2015 was suggested. It was suggested that the breakouts be organized around specific questions to prompt and to focus the discussions. (Example questions might be: What are the knowledge gaps in a given topic? What are particularly challenging forecast situations? How can dynamics better inform forecasters and vice versa? Etc.)

5. A status report on DACA-13 was requested. Generally the meeting is very well run. For example, web access seems much better than in Melbourne 2011. Several problems with the venue were mentioned:

- 1) No drinks or snacks were available in any of the poster areas, which devalues the posters. Many people at the afternoon coffee & poster break meet downstairs by the refreshments and stay there until well into the poster session. While having the posters up for a long time facilitated their exposure, many posters were in spaces that were lightly visited.
- 2) The space for our commission meeting, and perhaps other commissions, was not well suited for the task. No table was available – but was needed by the Secretary, if not other participants. Since the meeting was in a room used for oral presentations, the start of our meeting was delayed by people overstaying the oral session, .Since the food and drink were (needed to be) placed next to the sole entry door, more than a dozen people helped themselves to the coffee choices, and even the sandwiches, again disrupting the meeting. People arriving early for the oral session after our meeting further shortened the useful time for our meeting.

6. A discussion was initiated about possible session topics for the IUGG assembly in Prague 2015. This list was developed as a starting place; perhaps only some of these topics will develop into sessions. The list is as mentioned and is not in any way prioritized. There was overlap between some topics.

1. General session on dynamics
2. Monsoons, tropical dynamics, TCs (possibly joint with ICCL)
3. Combinations of weather and climate; weather as simulated in climate models; seamless prediction (across different time scales)
4. Linked sessions on new WWRP projects: polar prediction, subseasonal to seasonal prediction, high-impact weather.
5. Extremes theme on weather and climate time scales, including rare events
6. Mesoscale dynamics, including mountainous regions, and PBL (especially air/sea interaction)
7. Data assimilation and ensemble forecasting

Emails were received from members who could not attend. Dave Nolan expressed interest in helping organize a session on tropical dynamics, tropical cyclones, or lead a whole Monsoons/Tropical session. Sumant Nigam offered to organize a monsoon session. Members of ICDM were asked for further comments , and new ideas for sessions, to help develop the programme for Prague.

[At the ICPM meeting, which RS & TS attended, a joint session on stratospheric dynamics at high latitudes was also suggested.]

7. There was discussion of new members of ICDM. The current membership has 5 people with terms expiring in 2013. Two (NH, HN) are completing their first terms and agreed to continue in a second term. ICDM appreciates and thanks those people (MM, Adam Scaife, Zhemin Tan) who have completed their second term for their service.

Expertise of the retiring members includes: nonlinear instability and stability, predictability of weather and climate, data assimilation, climate variability, stratosphere-troposphere interactions and long-range forecasting, mesoscale atmospheric dynamics, boundary-layer processes

One person was nominated and elected: Wansuo Duan of LASG, CAS Beijing whose interests are predictability of weather and climate, data assimilation, and ensemble forecasting.

Other names suggested include:

Volkmar Wirth (University of Mainz, Germany; Tropopause dynamics, Rossby wave trains, mountain meteorology, LES-modeling, hurricanes, general circulation),

Mathias Rotach (IMGI, Innsbruck, Austria, Boundary layer dynamics, atmospheric dynamics mountain meteorology, air pollution modeling)

Elizabeth Barnes (Colorado State U, USA, large-scale atmospheric dynamics and climate, eddy-mean flow dynamics (e.g. annular-modes, wave propagation), the use of simplified models to understand the general circulation, air quality and its ties to the large-scale circulation, effects of climate change on tropospheric and stratosphere-troposphere transport).

Vanda Grubisic (NCAR, USA, mesoscale atmospheric dynamics focusing on mountain lee waves and rotors, atmospheric wakes, orographic precipitation, and other phenomena)

After discussion, it was agreed that RS sound out MR and EB about their interest in joining ICDM; if they were interested, an election would be held via email. RG would contact VG about her interest. Other candidates would be considered in the future.

8. With the arrival of people for the next set of oral presentations, there was no time to discuss any other business, and the meeting was ended.