# 2017 - US Climate Modeling Summit

June 27, 2017

NASA HEADQUARTERS, Washington, DC To join via a computer, the link is AAAA To join via phone: the toll-free number is BBBB

## **Background:**

Scope and participants of the meeting are within the general USCMS terms of reference:

- Participation is institutional and at high level to enable decisions
- Exchange of information between modeling Center leads and agency leads is intended to lead to improved coordination among Centers and among sponsoring agencies

The first part of the meeting will include updates from USCMS Chair and the Centers, with particular focus on updates and activities during the past year.

The second part of the meeting will be dedicated to more specific exchanges among Centers with the goal of enabling decisions on joint actions on specific USCMS items.

The meeting will conclude with a set of specific tasks and/or actions, including a process in place to monitor efforts to track progress associated with tasks and actions.

## Agenda:

#### Part I

7.45: Security. ID process. Badging.

8:00 – 8:15 am <u>IGIM Introduction</u> [G. Geernaert/ D. Considine]

8:15 – 10:05 am USCMS Chair and Center Updates

8:15 – 8:30 am USCMS Chair update [V. Ramaswamy]

8:30 – 10:05 am

Moderator: S. Bauer. Rapporteur: R. Joseph and A. Bamzai

Center updates (15 minutes per center)

- What is new since last year in science, priorities, challenges
- Highlights of USGCRP priority-relevant current activities
- Highlights of center "grand challenge" topics that would benefit from enhanced national coordination, as topics for future meetings
  - ACME
  - CESM
  - GFDL
  - GMAO
  - GISS
  - NCEP

10:05 – 10:25 am Arctic Workshop report out [S. Pawson]

10:25 - 10:40 am Break

10:40 – 11:00 am Climate and National Security WG report out [G. Geernaert]

#### Part II

### 11:00 – 12:30 Subseasonal-to-Seasonal-to-Decadal Modeling

Moderator: Arun Chawla. Rapporteurs: H. Archambault and D. Koch

- (35 min). Each of the 6 modeling Centers describes in 5 minutes (max. 3 PowerPoint slides) their current ongoing research and what challenge/s are they are planning on addressing over the next 3 years. The Center's representatives will describe the top priorities at their center related to understanding and predictions:
  - 1) System development what is your highest priority and most urgent issue being addressed?
  - 2) Scientific research what processes/sources of predictability are being investigated? What is the state of understanding and prediction?
    - o ACME
    - o GFDL
    - o GMAO
    - o <u>NCAR</u>
- (40 min).
  - NRC S2S Report and WWRP/WCRP S2S Project [D. Waliser (JPL) (on webex/phone)]: (20 min)
  - Panel [H. Tolman, R. Leung, A. Molod, W. Large]
    Discussions on the system development/ scientific research pathways, and the US modeling Centers' thrusts in S2S2D. (20 min)

• (15 min). Panel summarizes the outcomes, flagging the most important gaps in understanding and for predictions, and frames 2 principal action items including a provocative/leading question to be addressed by CMS at next year's Summit?

12:30 – 1:30 pm Lunch

Moderator: J. Dunne. Rapporteurs: D. Barrie and F. Lipschultz

1:30 – 2:00 pm HPC and Exascale computing update

- Exascale Computing and Earth System Modeling [D. Bader]
- Challenges in HPC for Climate Prediction and Projections [F. Indiviglio];

2:00 – 3:00 pm Modeling Intercomparison Projects (MIPs)

Panel: J-F. Lamarque, G. Schmidt

<u>US-centric initiative derived from RFMIP</u>, AeroCheMIP, DAMIP. E.g., Aerosol forcings and contrasts with GHG effects on the US continental-scale.

3:00 – 3.15: <u>VIACS</u> [A. Ruane] (on webex/phone)

3:15 – 3:40: Land issues, irrigation, water and carbon cycles – prospective next year topic? [R. Leung, J. Dunne]

- ACME
- NCAR
- GFDL
- <u>CESM</u>

3.40 – 3.55: Break

4:00 – 5:30 USCMS organizational issues

Moderators: H. Tolman and V. Ramaswamy. Rapporteurs: J. Carman and Jennifer Salem-Arrigo

In reference to the opportunities/actions that have been discussed, centers will discuss organizational arrangements for the coming year.

- Recap of actions, POCs and timing.
- Nominate USCMS chair and co-chair for the year (rotating yearly among the Center Directors) and define logistical support (+1 from center).
- Discuss communication needs/plans for the year (e.g. for input to 2018 USCMS organization and actions implementation)
- Identify topics of interest for future meetings
- Identify possible workshop topics and workshop chair for 2018

### **Modeling center representatives**

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