

3rd U.S. Climate Modeling Summit (USCMS)

**USGCRP: Interagency Group on Integrative
Modeling (IGIM)**

Charge and opening remarks

- Background
- Broad goals for USCMS
- Goals for today's meeting
- Agenda

June 27, 2017

Background

3rd annual USGCRP IGIM Climate Modeling Summit (CMS) to convene the leads from the major (“CMIP-class”) national climate and weather model development groups.

IGIM: Interagency Group on Integrative Modeling, is one of several USGCRP working groups, and consists of managers from DOE, EPA, NASA, Navy, NOAA, NSF, USDA with climate modeling interests and investments. Meets monthly to improve coordination of federal climate modeling activities. Note that IGIM interests are broader than “USCMS”.

Overarching Goal for CMS: To enhance coordination toward a common national climate modeling strategy and communication with the broader modeling community.

The CMS is an annual opportunity for:

- Modeling center leaders to engage in discussion on major objectives and difficulties
- Agency representatives to present relevant current priorities, directions, issues
- Dialogue regarding whether and how we might improve strategies to further U.S. climate science and mission objectives

USCMS 2017

This year's themes and topics are primarily continuation of last year's, with some new potential directions from both the Centers and IGIM.

Themes for 2017:

- Arctic (workshop yesterday)
- Subseasonal-to-seasonal predictability
- MIP's
- Next-generation HPC for climate/weather

Additional potential themes for USCMS future consideration?:

- OSSE's: Development of systematic approach for data collection in order to reduce model biases
- Vulnerability-Impacts-Adaptation: Strategic choice of diagnostics for U.S. center and USGCRP interests
- Cloud modeling: leveraging new high-resolution modeling, assimilation, in-situ and satellite data, toward improvement in global models
- Climate and National Security

Logistical items

Brief summary of the USCMS (both days) shared with IGIM by
September 1, 2017

Suggest to plan ahead for next year's workshop! Select topic today?

Agency representatives will mainly be in listening-mode except for
agency presentations and designated discussion sessions

Reference Goals for USCMS

1. **Strategic:** Enhance understanding of groups' directions and implementations:
 - Common vision for national climate modeling and a roadmap for the roles of the groups within that vision.
 - Document groups' scientific goals, strengths, differences and commonalities.
 - Articulate linkages between the US and the international climate community.
 - Inform one another and IGIM on activities, updates in plans (e.g. MIP plans), progress.
 - Identify critical gaps in US climate modeling capabilities.
2. **Coordination:** Identify opportunities for enhanced coordination among modeling groups:
 - Potential areas of collaboration on shared infrastructure (e.g. data standards, workflows, archives, etc.), software, and modeling approaches.
 - Consider the development of a unified weather-climate capability for the US.
 - Discuss coordination of U.S. model participation in Model Intercomparison Projects (MIPs).
 - Consider common approaches to modeling science and climate prediction and projections.
3. **Outreach:** Identify outreach opportunities, e.g.:
 - Convene targeted "Forum" meetings to enhance communication within the broader modeling community (e.g. regional climate modelers) and with model users, e.g. the CMIP6 meeting.
 - Coordinate interaction with climate model stakeholder communities.
 - Foster a program for climate model interpreters.