Reorganization at the Top

The Weather Act of 2017 called for the formation of an Interagency Committee for Advancing Weather Services “to improve coordination of relevant weather research and forecast innovation activities across the Federal Government.” This will now become a reality as the Interagency Committee for Advancing Meteorological Services (ICAMS), with the charter recently signed by OSTP director Dr. Kelvin Droegemeier and Commerce Undersecretary Dr. Neil Jacobs.

While we do not know yet how far reaching the effects of this reorganization will be, we do know that committees formed out of the ICAMS will likely replace both the National ESPC Executive Steering Group and the ICMSSR – though we expect our oversight groups to retain all the familiar faces of our executives. Read our Project Managers’ letters on page 2 for their take.

Working Group Headlines

Several working groups comprised of subject matter experts routinely meet surrounding various topics to support the common science goals of the respective participating agencies. Summaries of the working groups’ recent activities are included below.

Common Model Architecture (CMA)

Supporting development of interoperable models in compliance with NUOPC standards

Upcoming topics:
• Model verification and validation
• Congrats on retirement to co-chair Mark Iredell!

Model Component Liaisons (MCL)

Tracking conformance to MCL model component repository guidelines; reconcile MCL repository guidelines w/ Unified Forecast System guidelines

Upcoming topics:
• New co-chair Jun Wang of NCEP/EMC
• NUOPC cap unification for HYCOM, CICE

AGU and AMS Sessions

The National ESPC will host two sessions at the AMS annual meeting in January. The first is “Using ESMF and NUOPC to Accelerate Innovation in Coupled Models” in the 11th Conference on Transition of Research to Operations. The second is “Metrics Connecting Earth System Processes to Useful Predictions” in the 9th Symposium on the Weather, Water, and Climate Enterprise. We will also be hosting a session at AGU in December on “Subseasonal to Seasonal Climate Prediction, Processes, and Services”. Both meetings will be largely virtual, giving those who can’t travel new opportunities to participate.

Cloud Demonstration Project Makes Recommendations

Security, speed, and resource concerns have driven an ongoing conversation on the efficient exchange of ensemble fields between operational partners. As part of this discussion, an assessment of the feasibility and costs associated with using the cloud for the data exchange of the NUOPC ensemble was reported at the June ESG meeting. The Cloud Demonstration Project interagency team, with representatives from the Air Force, Navy, Canada, and NOAA CIO examined several configuration options and found the cloud use practicable for relatively low cost. They recommended funding a prototype cloud data exchange test and determining cost sharing options.
Working Group Headlines, cont.

Physics Interoperability (PI)
Establish community-based strategy, software standards, and software development for interoperable physics driver
Upcoming topics:
• Investigating single column model process studies
• Continued updates on the CCPP

Unified Ensemble Operations (UEO)
Currently meets on an ad-hoc basis and otherwise participates in NAEFS coordinating calls
Upcoming topics:
• Integrating the Air Force GALWEM ensemble into NAEFS/NUOPC
• Advising cloud demonstration project

Coupled Global Modeling (CGM)
Connecting the community coupled modeling efforts
Upcoming topics:
• Global modeling and coupling infrastructure
• ALE ocean modeling
• Coupled data assimilation

Content Standards Committee (CSC)
Investigating and standardizing commonalities in research and operational modeling workflows
Upcoming topics:
• Developing the Community Physical Constant Dictionary (CPCD) for consistency in Earth System modeling

High Performance Computing (HPC)
Addresses scientific and computational challenges in the exa-scale computing era
Upcoming topics:
• Advising on cloud demonstration project
• Comparison study of agency HPC acquisitions

Project and Program Managers (PM)
Provides a forum for various agency programs to share funding, research, and operational priorities; align the R&D pipeline; share outcomes and lessons learned.
Upcoming topics:
• FY21 funding priorities
• Potential S2S research collaborations

What the Project Managers are Talking About...

I am sure many of you have been hearing that there is change coming to the National ESPC oversight structure. We have been in the middle of talks with the Office of Science and Technology Policy about how the high level structure might be changed to better support our needs and the needs of the Federal coordinators office. Recently a new charter was signed for the Interagency Committee for the Advancement of Meteorological Services (ICAMS) – we now await the first meeting of ICAMS on 27 August, 2020. The Agencies have been insistent that the functions of the National ESPC and other groups be maintained as all this moves to this new structure. While much uncertainty still exists we are working to make this a smooth transition. We are interested in your thoughts on our current range of groups and what needs to be maintained and what might be merged with other efforts. While there are many efforts focused on some of these tasks the ESPC groups provide an active forum for these issues to be addressed in a free and open dialogue not focused on any single agency’s perspective. And we think this independence in action makes a difference in the broader community.

- Dave McCarren, Project Manager

I’d like to second Dave’s comments about the organizational changes that the federal meteorological coordinating infrastructure is undergoing. I believe these changes will benefit us by better folding together the Earth system prediction sciences, rather than being rooted in the meteorological history upon which the Federal Committee for Meteorological Services and Supporting Research (FCMSSR) is based. One further point has been made very clear through the discussions in various venues: our leadership values our active coordination efforts very highly; they were emphatic that these functions not be terminated, but instead transitioned to the new, more complete organization. One of the strengths of our groups has been the ability to work across agency lines, as well as across the research-operations continuum, and these are precisely the traits to be preserved. Leadership additionally emphasized the need to ensure the new organizational structure explicitly prevents stovepipes, whether between agencies, disciplines, or function. It has been reassuring to hear such strong support for the work our groups do, and know that we will continue.

- Dr. Jessie Carman, Asso. Project Manager for Research

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