

INTERDEPARTMENTAL COMMITTEE FOR METEOROLOGICAL SERVICES AND  
SUPPORTING RESEARCH (ICMSSR)

2018-3 MEETING  
AGENDA

August 14, 2018, 2:00 p.m. EDT

SSMC 2, Room 5246  
1325 East West Highway; Silver Spring, MD 20910

<b>Members</b> (T) via telecon	<b>Agency</b>
<i>Jack Kaye(Chair)(T)</i>	NASA HQ/ESD
<i>William Schulz (Vice Chair)</i>	OFCM
<i>Louis Uccellini</i>	DOC/NOAA/NWS
<i>Craig McLean</i>	DOC/OAR
<i>Vanessa Griffin</i>	DOC/NOAA/NESDIS
<i>Ralph Stoffler</i>	DOD/USAF/A3W
<i>Bill Spendley</i>	DOD/USA
Capt Mark Eckert for <i>Chris Ekstrom</i>	DOD/USN
<i>Rickey Petty(T)</i>	DOE
<i>Michael Hurick (T)</i>	DHS/FEMA
<i>John Vimont (T)</i>	DOI/NPS
<i>Farhan Akhtar (T)</i>	DOS
Bill Bauman (T) for <i>Paul Fontaine</i>	DOT/FAA
<i>Mark Kehrli (T)</i>	DOT/FHWA
James Spann (T) for <i>Peg Luce</i>	NASA
<i>David Helson (T)</i>	NTSB
<i>Michael Clarke</i>	OMB
<i>Erik Noble (T)</i>	OSTP
<i>Mark Brusburg (T)</i>	USDA
<i>Michael Bonadonna (Secretariat)</i>	OFCM
<b>Invited Participants</b>	<b>Agency</b>
Eli Jacks, Bill Lapenta, John Murphy	DOC/NOAA/NWS
Richard Varn, Hui Ya Chuang	DOC/NOAA/NWS
John Cortinas (T), Jesse Carman	DOC/NOAA/OAR
CDR Jason Mansour	DOC/NOAA
Lt Col Robert Branham (T), Michael Farrar	DOD/USAF/A3W
LtCol James Reusse (T)	DOD USMC
Dave McCarren, Mary Kate Rogner, Frank Baker, Dan Eleuterio	DOD/USN
Angel McCoy (T)	DOI/BOEM
Chris Cannizzaro (T)	DOS
Paul Pisano (T)	DOT/FHWA
Tsengdar Lee (T)	NASA HQ/ESD
David Chorney, Sim James, Floyd Hauth (T), Ken Barnett	OFCM

Date of Issue: 3 October 2018

## **1. OPENING REMARKS.**

Dr. Jack Kaye, NASA HQ/ESD, ICMSSR Chair for 2018, provided opening remarks and moderated the meeting. Dr. Schulz provided administrative information. Roll call was conducted for participants on site and those using teleconference media. Members approved the agenda and the Record of Action from the last ICMSSR meeting.

## **2. FEDERAL COORDINATOR'S UPDATE.**

Dr. Schulz, the Federal Coordinator for Meteorology presented a summary of three current OFCM/Federal Weather Coordination structure activities. His update covered the following information:

- Tracking outgoing correspondence:
  - The recommendation to OPM for modifying meteorologist qualifications (1340) is being reviewed by DOC and NOAA and additional time is needed to resolve their concerns. AF is prepared to act on this issue if delays continue.
  - Proposal to convert FCMSSR to ICAWS is being discussed by OSTP with Congressional staff to enable a clean implementation. Eric Noble will report on status of this action when updates are available.
- Upcoming Events:
  - FY20 Budget and Coordination Report. OFCM is drafting guidance for agency working level review and will be issued to agencies in December. The suspense for agency inputs will be immediately after release of PBR (approximately late February 2019). The goal is to send the draft report to OMB for their review within 2 weeks following the PBR release.
  - Federal Coordination Session at AMS Conference (January 2019) in Phoenix. This session will include briefings from FAA NEWP, COES, National ESPC, WG/OD (WIGOS), Space Weather, NWS Western Region Cooperation with FEMA, and the Satellite Needs Working Group (from TIPIO). A member suggested that some background on the importance of the agencies working together to move/share data for modeling purposes would help academic AMS members in attendance understand the topics being presented in this session.
  - Data Accessibility vs National Security. This topic is being reviewed by a group headed by Col Gremillion and their recommendations will be provided to the ICMSR when available.
- The proposed new objective for the Strategic Plan was drafted in response to ICMSSR AI 2018-2.1 to include language from Section 105 of the Weather Act regarding 'federal, commercial, and academic partners', and 'forecasting, warning and threat communication'. It states:

“Develop coordination processes that facilitate operational feedback to the research community, and that accelerate the integration of promising research from federal, commercial and academic partners into operational improvements in observing, forecasting, warning and threat communication.

As noted in AI2018-2.1, OFCM will collect any comments on the proposed R2O / O2R objective prior to sending it the FCMSSR for approval.

## **3. COMMITTEE FOR OPERATIONAL ENVIRONMENTAL SATELLITES (COES) UPDATE.**

Mr. Ajay Mehta (NOAA-NESDIS) provided the annual update of COES interests, activities, and issues. He summarized the history, terms of reference, purpose and objectives of COES. The committee met regularly in the 1980s and 1990s until it was deactivated in the NPOESS-era. ICMSSR re-established COES in 2014. The primary purpose of the Committee is to advance the goals of the ICMSSR to achieve interagency coordination in planning for use of sustained environmental satellite systems to support federal meteorological and oceanographic operational services providers and their customers.

COES objectives include focused interagency dialog and coordination of both operational and research satellite issues. The committee maintains close ties with the Committee for Operational

Processing Centers (COPC) which has a near-term environmental satellite data exploitation objective as well as many broader operational issues.

COES has one subordinate working group, the Satellite Telemetry Interagency Working Group (STIWG) which support user interaction on the GOES Data Collection System (DCS).

Additionally, COES has establish dialog with other standing groups currently engaged in various aspects of environmental satellite and data readiness and exploitation, including: U.S. Global Earth Observing (USGEO) Subcommittee, the USGEO Satellite Needs Working Group (SNWG), Committee for Earth Observing Satellites (CEOS), the NOAA Satellite Conference planning committee, and the international Coordinating Group for Meteorological Satellites (CGMS).

COES participants include a wide variety of agencies with satellite interests including DoD, NOAA, NASA, DOE, USGS, FAA, NGA, NRO, and OSTP in observer status. The committee is led by two CoChairs from DOD (USAF A3W or USN N2) and NOAA (NWS or NESDIS) on a rotational basis.

COES has been keeping the interagency partners abreast of evolving DoD Space Based Environmental Monitoring (SBEM) program development and played a significant role in voicing US concerns for the continuity of Indian Ocean satellite coverage.

Current interests include leveraging NASA research satellite capabilities, commercial weather data acquisition programs, radio frequency interference and bandwidth encroachment, and Decadal Survey and NSOSA implications for future environmental satellite systems.

While reviewing the COES update, members expressed concerns about the nature of opportunities associated with research satellites and noted that the data should be more than just opportunistic. There were also concerns about the language in the objectives related to agency requirements and the preference for more tangible information on satellite acquisition programs in future update briefings. **See AI 2018-3.1.**

#### **4. RECAP OF THE ATMOSPHERIC TRANSPORT AND DISPERSION WORKING GROUP**

Due to time constraints, briefing slides provided to summarize the activities of the Working Group for Atmospheric Transport and Diffusion (WG/ATD) were not presented. The slides summarize the group's annual gathering at George Mason University last month. WG/ATD will soon begin to update and revitalize two interagency planning documents on ATD experiments and activities that are 10+ years old.

## **5. SUMMARY OF THE SPACE WEATHER ENTERPRISE FORUM (SWEF).**

Due to time constraints, briefing slides provided recap the 2018 SWEF held on 25 July in the Library of Congress, Washington DC were not presented. The slides describe this very successful event and plans for the SWEF in the summer of 2019.

## **6. HAZARD SIMPLIFICATION PROJECT UPDATE.**

Eli Jacks, Chief, Forecast Services Division Analyze, Forecast, and Support Office provided an update on the Hazard Simplification Program within NWS aimed at improving communication the NWS weather Watch, Advisory, and Warning nomenclature system.

Mr. Jacks noted that the project, initiated several years ago, supports Section 406 of the Weather Act. He described how the project evolved and the changes developed in the NWS watch, warning and advisory (WWA) system.

The changes made were based in part on social science feedback and substantially reduced the number of products being issued in the WWA system. Public surveys showed that the term “Advisory” was very poorly understood, “Warning” was best understood, but Watch/Warning confusion was still present except for Tornado Warning, with no term reaching 70% understanding.

Tests were made on system changes that included color coding and more focused terminology to improve public response to WWA products.

The federal sector is a key WWA system stakeholder. NWS needs to learn more about the level of WWA “institutionalization” within each agency, how changes to WWA would impact agency operations, and how the preferred prototype could be adjusted to better meet agency needs. See **AI 2018-3.2**.

## **7. EARTH SYSTEM PREDICTION CAPABILITY (ESPC) HIGH PERFORMANCE COMPUTER (HPC) DISCUSSION.**

Mr. David McCarren (Navy) gave a presentation on ESPC Future HPC requirements that included a proposal to fund/conduct an interagency study on developing a dedicated-to-earth-system-prediction HPC asset.

He described the ESPC computing needs in terms of weather predictions and seasonal through decadal predictions noting that future computing needs will exceed 1000 times of today’s existing computing capacity. Addressing this gap may possibly require custom built hardware and software. In the exascale era improved prediction accuracy is tied to HPC.

The ESPC program formed an HPC working group to discuss the computing challenges now and in the future. They advocate conducting a study that will help identify the current needs of earth system prediction models and determine whether a purpose-built earth system prediction computer is feasible from cost and efficiency perspectives.

The ICSSR members discussed the merits and cost uncertainties of the proposed study. Technology challenges need to be reviewed including cost and benefits (or risks/impacts) of exploiting cloud capabilities. They suggested research versus operational needs should also be addressed in the study. See **AI 2018-3.3 and AI 2018-3.4**

**8. OPEN DISCUSSION:** Deferred due to time constraints.

**9. ACTION ITEM REVIEW:** Deferred due to time constraints.

### FCMSSR Action Items

<b>FCMSSR AI #</b>	<b>Responsible Office</b>	<b>Text</b>	<b>Comment</b>	<b>Status</b>	<b>Due Date</b>
2018-1.1	OFCM	Send email to OSTP recommending Option A: Rename the FCMSSR as ICAWS and make other changes in order to comply with the 2017 Weather Act. Request a written response from OSTP.	8/14/18: OSTP in discussion with Congress to see if this is an acceptable response	Closed	05/04/18
2018-1.2	USAF A3W, OFCM, FCMSSR Chair	USAF A3W adjusts their 1340-series qualifications proposal letter as advised by FCMSSR and sends it to OFCM. OFCM drafts a cover letter for FCMSSR Chair endorsement and forwards the proposal to OPM	8/3/18: Ltr at HQ NOAA	Open	05/11/18
2018-1.3	USAF A3W, NWS	Review and brief FCMSSR on the impact of 1340-series qualification changes approximately one year after OPM implements the change.		Open	10/31/19
2018-1.4	NOAA	Brief FCMSSR on the NOAA Next Generation Global prediction Strategy as a possible framework for broader enterprise implementation.		Open	10/31/18

### ICMSSR Action Items

ICMSSR AI #	Responsible Office	Text	Comment	Status	Due Date
2016-4.2	OFCM	Provide a copy of the Terms of Reference for the new Committee on Climate Services (CCS) for ICMSSR review.	11/22/17: Latest copy received. Awaiting CCS Chair to concur	Open	02/10/17
2017-4.2	NWS, ICMSSR	NOAA NWS will send a draft of their Section 201 response to ICMSSR members. ICMSSR members will provide recommendations to NOAA	Response submitted	Closed	03/31/18
2018-1.5	OFCM, OSTP	Upon FCMSSR approval of the Section 402 implementation plan, submit the recommend plan to Director, OSTP and work with OSTP to submit a legislation change request to identify the Federal Coordinator as the ICAWS ExecSec rather than a Co-chair.	8/14/18: OSTP in discussion with Congress to see if this is an acceptable response	Open	05/30/18
2018-1.6	OFCM, OSTP, DoD, NOAA-NWS	Coordinate to ascertain NSC position, if any, on security of and potential vulnerabilities from weather related data and products.	Coordinated position paper forwarded to ICMSSR	Closed	02/28/18
2018-2.1	OFCM	Draft a new objective for the FWE StratPlan addressing the need for coordinated R2O / O2R activities. Request FCMSSR approval to add the new objective as a change to the current StratPlan.	Presented during the meeting. Will accept input from ICMSSR then send to FCMSSR for approval	Open	10/31/18
2018-2.2	OFCM, USAF	Convene an exploratory meeting to determine a framework (participants, subjects for considerations, timeline, etc.) for an interagency group to deliberate the need for policy or direction on the availability of potentially sensitive operational weather information.	A3W held meeting, collecting feedback and recommendations	Open	08/01/18
2018-2.3	OFCM	Convene an exploratory meeting to develop an approach for compiling the description of activities and requirements called for in Section 109 of the Weather Act of 2017.	Action passed to IWRCC. Will report back to ICMSSR	Open	07/15/18

**10      NEXT STEPS/CLOSING COMMENTS/ADJOURN**

The ICSSR Chair thanked members for participating in the meeting. The meeting adjourned at 4:10 p.m. The target date for the next ICSSR meeting is 14 November.

## Interdepartmental Committee for Meteorological Services and Supporting Research Meeting 2018-3

### Action Items

**ICMSSR Action Item 2018-3.1.** Revise their Terms of Reference to include objectives that are more actionable.

**Responsible Office:** COES, ExecSec

**Due Date:** October 31, 2018.

**ICMSSR Action Item 2018-3.2.** ICMSSR members will provide comments to NWS regarding the Hazard Simplification project (see <https://www.weather.gov/hazardsimplification/>) noting any potential impacts to their systems or operations that may result from changes to the current WWA schema. Comments may be directed to Eli Jacks at [elliott.jacks@noaa.gov](mailto:elliott.jacks@noaa.gov). NWS also welcomes members to advise of opportunities for additional engagement across their organizations and/or with their stakeholders on the message simplification proposals presented at the briefing.

**Responsible Office:** ICMSSR Members

**Due Date:** October 31, 2018.

**ICMSSR Action Item 2018-3.3.** Ask the National Strategic Computing Initiative (NSCI) if high-resolution, fully coupled, long temporal range environmental prediction is still one of their targeted applications for the high performance computing systems that their member agencies are developing.

**Responsible Office:** OFCM

**Due Date:** August 31, 2018.

**ICMSSR Action Item 2018-3.4.** Based on the response to AI 2018-3.3, request FCMSRR approval of the following course of action:

- If “yes” ESPC will develop processes that ensure a closer working relationship with NSCI to ensure the concerns of the application agencies (e.g. NWS, DOD) are considered, and that the application agencies and Federal Weather Enterprise coordination bodies are more frequently updated on NSCI progress and plans.
- If “no,” or if “yes but only in a research mode, or in another mode that would not meet operational needs”
  - ESPC will coordinate a study to provide information that will enable federal agencies with environmental prediction responsibilities to map an effective path forward towards high-resolution, fully coupled, long temporal range environmental prediction.
  - At a minimum the study will consider options, and combinations of options, including (a) leveraging current and expected national (commercial, academic and federal) “cloud computing” resources, (b) updating computing codes, and (c) designing and building new chips, boards, and or cabinet-level computing assets.
  - Study considerations will include national and intellectual property security, operational reliability, and suitability for cooperative research and research-to-operations activities.
  - The study will include business cases analyses of the options under consideration, to include projected performance and efficiency improvements, and well as cost advantages or disadvantages.

**Responsible Office:** ESPC

**Due Date:** October 22, 2018.