

**INTERDEPARTMENTAL COMMITTEE FOR METEOROLOGICAL
SERVICES AND SUPPORTING RESEARCH (ICMSSR)**

Meeting 2017-4 Record of Actions

**1:00 p.m. EST
November 28, 2017**

SSMC 2, Room 7224, 7th Floor Conference Room
1325 East West Highway,
Silver Spring, MD 20910

| Participant (T) via telecon | Agency |
|--|-----------------|
| <i>Craig McLean (Chair)</i> | DOC/OAR |
| <i>William Schulz (Vice Chair)</i> | OFCM |
| John Murphy for <i>Louis Uccellini</i> | DOC/NOAA/NWS |
| Vanessa Griffin, for <i>Steven Volz</i> | DOC/NOAA/NESDIS |
| Chris Ekstrom | DOD/USN |
| Col Michael Gremillion, for <i>Ralph Stoffler</i> | DOD/USAF/A3W |
| <i>Rickey Petty (T)</i> | DOE |
| <i>John Vimont (T)</i> | DOI/NPS |
| <i>Robert Mason (T)</i> | DOI/USGS |
| <i>Paul Fontaine (T)</i> | DOT/FAA |
| <i>Mark Kehrli (T)</i> | DOT/FHWA |
| <i>Rohit Mathur (T)</i> | EPA |
| <i>Jack Kaye(T)</i> | NASA HQ/ESD |
| <i>Don Eick (T), CAPT David Helson (T)</i> | NTSB |
| <i>Michael Clark (T)</i> | OMB |
| <i>Steve Clarke (T)</i> | OSTP |
| <i>Mark Brusberg (T)</i> | USDA |
| <i>Michael Bonadonna (Secretariat)</i> | OFCM |
| Fred Toepfer, David DeWitt, Jennifer Sprague, Darone Jones (T) | DOC/NOAA/NWS |
| John Cortinas, Gina Eosco, Jessica Snowden | DOC/NOAA/OAR |
| LCDR Jason Mansur | DOC/NOAA/OMAO |
| Bill Spendley (T) | DOD/USA |
| Lt Col Robert Branham (T) | DOD/USAF |
| LtCol John Reusse | DOD USMC |
| Dave McCarren (T), Capt AJ Reiss, Jim Vermeulion (T) | DOD/USN |
| Angel McCoy | DOI/BOEM |
| Rick Heuwinkel (T), Bill Bauman (T) | DOT/FAA |
| Paul Pisano (T) | DOT/FHWA |
| Tsengdar Lee (T) | NASA HQ/ESD |
| Anjuli Bamzi (T) | NSF |
| Floyd Hauth (T), Tony Ramirez, Ken Barnett, Erin McNamara | OFCM |

Date of Issue: 15 DEC 2017

1. OPENING REMARKS.

Mr. Craig McLean (NOAA-OAR) and ICMSSR Chair for 2017 provided opening remarks and moderated the meeting. He emphasized the importance of face to face meetings of the ICMSSR as a way to achieve the needed agency collaboration. A lot of progress has been made over the past year but there is still much to do in finding ways to work more closely together. His term as Chair will end in January but he believes the transition to the new chair will go smoothly because of the great administrative support by the Federal Coordinator and his staff. 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 key OFCM/Federal Weather Coordination structure activities. His update provided the following information:

- National Academies of Science Consensus Report: Integrating Social and Behavioral Sciences. NOAA (NWS and OAR) and FHWA sponsored the National Academies of Sciences Board of Atmospheric Sciences and Climate to produce a Consensus Study Report on integrating social and behavioral sciences (SBS) into the weather enterprise.

Released in November, the report includes recommendations that merit consideration by ICMSSR and FCMSSR. The study was spurred by challenges in effectively communicating weather hazards with inherent uncertainties, informing decisions about evacuations, developing resilient infrastructure, and providing response/recovery support.

The Weather Research and Forecasting Innovation Act of 2017 includes the charge to

“...enhance the integration of social science knowledge into weather forecast and warning processes.”

SBS is not just for external communication; it can help us understand transition of research into operations throughout the entire forecast process. Examples of SBS Research Needs range from proliferation of weather information sources to GOES-R satellite information, and hydrometeorological modeling/forecasting advances.

Collectively, the weather enterprise should consider the following recommendations as priority actions:

- Invest in leadership to build awareness.
- Build capacity throughout the weather enterprise.
- Focus on critical knowledge gaps.

A key report conclusion was that efforts to advance meteorological research and numerical weather prediction should continue, but to realize the greatest return on investment from such efforts require engaging the social and behavioral sciences.

Comments from OAR representatives noted that with the current attention on the Weather Act the time is right to increase our use of the social sciences. In addition to all the positive benefits cited in the Academy study the involvement of the private sector to increase public understanding of weather information and the increased communication/interaction of forecasters and modelers are very important.

Discussion by members centered on how to get agencies to enhance capacity building. The consensus was to conduct an exploratory meeting to assess agency interest in addressing the recommendations of the BASC Consensus Report. (See Action Item 2017-4.1).

- Budget and Coordination Report FY19.

A Working Group has been formalized and guidance on FY19 data request is being developed. Members recommended that it would be useful to have a formal budget request from OMB. The OMB member agreed with the recommendation.

- ICMSSR Chair. At the last meeting members agreed to a rotational system for the Chair.

Agencies that opted to be part of the Chair rotation were DoD, Commerce, USDA (but not quite yet), and FAA. Agencies that opted out of the rotation were OSTP, NRC, EPA, DoS, NTSB, OMB, and DHS/USCG. Agencies undecided were Energy, NASA, DHS/Other, and DoI.

Dr. Schulz provided a short summary of the Chair's responsibilities and stated his preference was to have a non-DOD, non-Commerce Chair in the next rotation to foster a more inclusive ICMSSR. He asked for a volunteer. Since no one volunteered he will continue soliciting for a Chair to take over for next year.

3. IMPLEMENTING THE WEATHER RESEARCH AND FORECASTING INNOVATION ACT: SECTION 402.

Dr. Schulz presented the FCMSSR guidance regarding implementation of Section 402 of the Weather Research and Forecasting Innovation Act of 2017 and the options being considered by the JAG for ICAWS implementation.

The FCMSSR guidance was to "Reconvene Joint Action Group for Interagency Committee for Advancing Weather Services (JAG/ICAWS) to develop options to broaden FCMSSR Chairmanship beyond the Undersecretary of Commerce for Oceans and Atmosphere. Draft a modified FCMSSR charter to include ICAWS duties as outlined in Section 402 of the Weather Research and Forecasting Innovation Act of 2017 and secure ICMSSR concurrence."

At their meeting, FCMSSR members stated they wished to see a "pros and cons" approach to different options for FCMSSR leadership. The JAG developed four options:

- Option 1: Status Quo (assumes FCMSSR charter re-written to include ICAWS duties); FCMSSR Chair: NOAA Administrator.
- Option 2: Two, Equal Chairs: NOAA and OSTP (assumes FCMSSR charter re-written to include ICAWS duties); FCMSSR Chair: NOAA Administrator and senior OSTP representative
- Option 3: Two Chairs: NOAA permanent + rotator (assumes FCMSSR charter re-written to include ICAWS duties). FCMSSR Chair: Rotates among agencies; 1 or 2 serving concurrently.
- Option 4: Two Chairs: OSTP permanent + rotator. (assumes FCMSSR charter re-written to include ICAWS duties). FCMSSR Chair: Rotates among agencies; 1 or 2 serving concurrently.

An additional consideration is to make a name change: FCMSSR to ICAWS. This satisfies the law and could fit better using the Weather Act as the coordination mandate (vice rescinded OMB Circular A-62).

Members commented that keeping the ICAWS as specified in the law would be consistent with the language in the Act and rewriting the FCMSSR charter could accommodate the intent of the legislation. DoD suggested, and OSTP supported the idea, that a legislative change request could be submitted requesting Part (b) be changed to designate the Federal Coordinator as Executive Secretary instead of Co-Chair.

The next step is to take feedback from ICMSSR to JAG (JAG meeting 6 Dec 17). They will adjust/refine/create options based on ICMSSR feedback and adjust the FCMSSR charter. ICMSSR is expected to approve charter changes and the leadership option recommendation by/at their March 2018 meeting and send the results to the FCMSSR meeting scheduled for April 2018.

4. COMMITTEE FOR OPERATIONAL PROCESSING CENTERS (COPC) UPDATE.

Ms. Vanessa Griffin gave a presentation on the activities of and current issues being addressed by the COPC. She summarized the COPC's mission and coordinating structure.

Recently completed activities included obtaining Indian Ocean Data Coverage, working with NCO to establish data exchange with both IDP College Park and IDP Boulder to ensure greater redundancy/availability, and transitioned the NWS Telecommunications Gateway (NWSTG) from a single legacy site into the new IDP system to provide a full backup for the NWSTG/GTS services.

Ongoing/Future activities include coordinating the PDA/DAPE Gateway enterprise distribution system and established the appropriate agreements for continued data exchanges; establishing diverse data routes/access from UK, JMA, and Germany for added redundancy; continue work with COES to obtain satellite data "operationally" within a reduced timeline; and finalizing the FCM-P14-2017 Federal Plan for Cooperative Support and Outage Mitigation Among Operational Processing Centers.

In addition, the Satellite Group is working to coordinate future CIP and CBU activations to monitor the OPCs impacts, mitigate the impact of the GOES-16 to GOES-East transition, mitigate the AMV data gap due to the change of GOES-East, and coordinate the implementation of JPSS data to the OPCs.

The Conventional Group's activities include developing U.S. concept/strategy for implementation of new WIGOS station IDs since much longer station IDs will require very complex OPC software changes, assisting the National Science Foundation for GTS distribution of Antarctic meteorological and ocean observations, mitigating NWP impacts of data gaps from GOES-16 Transition to GOES-East, and planning the 2nd Observational Data Workshop Spring/Summer 2018.

Ms. Griffin closed by noting that the COPC and its active working groups provide a forum for issue discovery and consistent work to maintain and improve an interagency cooperative and coordinated approach through shared efficiencies and leveraging joint capabilities.

5. SEASONAL TO SUB-SEASONAL PROVISIONS OF P.L.115-25.

Dr. Fred Toepfer provided a briefing on S2S provisions of the Public Law 115-25 and how they affect the Federal Weather Enterprise. TITLE II addresses "Sub-seasonal and Seasonal Forecast Innovation". Section 201 amends the Food Security Act of 1985. It defines and authorizes NOAA's Sub-seasonal and Seasonal (S2S) forecast and coordination responsibilities and authorizes \$26M in each of the years 2017 and 2018.

The ability to observe and predict severe weather events has improved markedly over the last few decades. Forecasts and warnings are being made with greater accuracy, geographic specificity, and lead time, which allows people and communities to take appropriate protective measures. Yet, as many recent hazardous weather events have illustrated, social and behavioral factors -- including

people's contexts, experiences, knowledge, perceptions, and attitudes -- shape responses to weather risks.

A better understanding of social and behavioral factors is needed to improve hazard monitoring, assessment, forecasting, and communication processes, and to aid emergency management and inform protective action strategies such as evacuations. Social and behavioral science insights can also aid strategies to develop more resilient urban infrastructure and other efforts to improve weather readiness, and to assure effective long-term recovery from weather disasters.

Government agencies, private sector weather companies, and academic research institutions in the weather enterprise all have critical roles to play in advancing the support for and application of research at the intersection of weather and social and behavioral sciences. This report suggests a 3-pronged approach to: (1) invest in leadership to build awareness of the many ways social and behavioral science can help advance goals of the weather enterprise, (2) build sustainable institutional capacity to support and apply social and behavioral science research; and (3) invest in research that will fill critical knowledge gaps.

The policy of Congress is that it is in the public interest to maintain an active Federal involvement in providing and improving the use of weather and climate information, among users and private providers of this information.

This Public Law directs:

- The Undersecretary, acting through the Director, National Weather Service shall collect and use information to make usable, reliable, and timely foundational forecasts of sub seasonal and seasonal forecasts of temperature and precipitation. The forecasts and impacts of forecasted conditions would be provided to the public, including public and private entities engaged in planning and preparedness.
- The Undersecretary shall build upon existing forecasting and assessment programs and partnerships, including consulting with the Secretary of Defense and Secretary of Homeland Security to determine highest priority S2S needs to enhance national security
- The Undersecretary shall foster effective communication, understanding, and use of S2S forecasts by intended users to include assistance to state forecast communication coordinators to enable local interpretation and planning. Assistance is limited to \$100K per year per state.
- Each Federal Agency and Department shall cooperate with the Undersecretary in carrying out these this section as appropriate. A suggested action is for each Federal Agency and Department member of the ICMMSR to formally define their own appropriate level of cooperation with NOAA in meeting the provisions of this Act.
- Not later than 18 months after date of enactment, the Undersecretary shall submit to Congress (relevant House and Senate Committees) a report including:
 - An analysis of how NOAA's S2S forecasts are used for public planning and preparedness.
 - NOAA's specific plans and goals for the continued improvement of an S2S forecasting capability, including products to meet the need described in 1.
 - An identification of the needed research, monitoring, observing and forecasting requirements to meet the specific plans and goals for continued improvement.

NWS is leading a Panel to develop a plan for the S2S program and to write the required report using Cross-NWS, NESDIS, and OAR membership. They would like to use ICMMSR and FCMMMSR as appropriate to meet needed formal federal Agency and Department consultation.

Members discussed possible ways to meet the provisions of Public Law 115-25. One useful approach would be for ICMSSR members to define/provide their agency's levels of cooperation with NOAA in meeting the provisions of this Law. See Action Item 2017-4.2.

6. FCMSSR AGENDA.

Tentative topics for the Next ICMSSR meeting, planned for February 2018:

- Interagency Weather Research Coordination Committee Update.
- Finalize Weather Act Section 402/FCMSSR Chair Recommendation.
- Budget Coordination Report FY2019 update.

Tentative topic for next FCMSSR meeting, April 2018:

- Weather Act Section 402 Recommendation.

Members were invited to suggest additional meeting topics.

7. OPEN DISCUSSION.

Comments were made about the importance of conveying the limits of confidence in weather information provided to decision makers.

8. ACTION ITEM REVIEW.

The Secretariat reviewed the status of current and previously taken Action Items. FCMSSR Action Items 2017-1.2, 1.3, and 1.4 are closed. ICMSSR Action Items 2017-3.1, 3.3, and 3.4 are closed. Open Action Items for FCMSSR and ICMSSR are shown below.

Open FCMSSR Action Items

| FCMSSR AI # | Responsible Office | Text | Comment | Status | Due Date |
|------------------------|-------------------------------|---|--|---------------|-----------------|
| 2017-2.1 | OFCM, FCMSSR Agencies | Reconvene JAG/ICAWS to develop options to broaden FCMSSR Chairmanship. Draft a modified FCMSSR charter to include ICAWS duties as outlined in P.L.115-25 S 402 and secure ICMSSR concurrence. | JAG/ICAWS convened. Options will be presented to ICMSSR then FCMSSR with a revised Charter | Working | 04/24/18 |
| 2017-2.2 | | Publish the Strategic Plan for Federal Weather Coordination as presented during the 24 October 2017 FCMMSR Meeting. | Mtg set with RADM (Ret) Galludet to review and sign cover letter. | Working | 11/03/17 |

ICMSSR Action Items

| ICMSSR AI # | Responsible Office | Text | Comment | Status | Due Date |
|--------------------|---------------------------|---|--|---------------|-----------------|
| 2016-2.2 | OFCM, NWS, FAA, DHS | Continue interagency engagement on MPAR and the related radio-frequency spectrum auction. Regularly present updates to the ICMSSR and FCMSSR. (replaces ICMSSR AI 2015-1.2) | Will remain open until executed regularly | Open | Quarterly |
| 2016-4.2 | OFCM | Provide a copy of the Terms of Reference for the new Committee on Climate Services for ICMSSR review. | Still debating the definition of Climate Services | Open | 02/10/17 |
| 2017-1.4 | OFCM | Establish a Joint Action Group to review OPM 1340 standards and make a presentation to the ICMSSR with recommendations. | No action taken | Open | 06/07/17 |
| 2017-2.2 | OFCM | Schedule a date for the 2nd Observational Data Workshop. | Target Dates Set | Open | 07/30/17 |
| 2017-3.1 | OFCM | Poll the ICMSSR members to determine which Departments and Agencies are interested in serving as ICMSSR Chair. Develop a rotation scheme and secure ICMSSR concurrence at the December meeting. | To be discussed at ICMSSR meeting 2017-4 | Closed | 12/15/17 |
| 2017-3.2 | OFCM | Update and publish FMH-1. Follow up with a revision once the ice pellet / small hail reported requirements issue has been resolved. | Changes regarding reporting of cloud layers above 12,000 will be held until FAA concurs. All other changes were accepted. The final version of FMH-1 will be published by the end of November. | Open | 01/31/18 |
| 2017-3.3 | OFCM | Review all OFCM groups to ensure they support the FWE Strategic Plan. Report out at December ICMSSR meeting. | All FWE are needed to execute the Strategic plan and will prepare input | Closed | 12/15/17 |

| ICMSSR AI # | Responsible Office | Text | Comment | Status | Due Date |
|----------------|-----------------------|---|---|--------|----------|
| | | | for the ABR on StratPlan Goal progress | | |
| 2017-3.4 | OFCM | Contact NESDIS/SAB to examine their potential inclusion on OFCM groups involved in disaster response i.e. WG/DIAP | Action completed. NESDIS/SAB will participate in WG/DIAP | Closed | 10/30/17 |

9. NEXT STEPS/CLOSING COMMENTS/ADJOURN

The ICMSSR Chair thanked members for participating in the meeting. The meeting was adjourned at 3:00 p.m. Target dates for ICMSSR meetings in 2018 are:
8 March, 13 June, 12 September, and 12 December.

**INTERDEPARTMENTAL COMMITTEE FOR METEOROLOGICAL SERVICES
AND SUPPORTING RESEARCH
(ICMSSR)**

MEETING 2017-4

Action Items

ICMSSR Action Item 2017-4.1.

Use an upcoming monthly meeting of the NOAA-NSF group on Social and Behavioral Sciences (SBS) as an exploratory meeting to assess agency interest in addressing the recommendations of the BASC Consensus Report (“Integrating Social and Behavioral Sciences Within the Weather Enterprise”). Seek as a minimum, participation in this meeting by NOAA, NSF, FHWA, FEMA (the agencies identified in the BASC report) and DoD, but extend the invitation to all interested agencies. Return a recommendation to ICMSSR on the need for formalization of this group under the federal weather coordination structure.

Responsible Office: NOAA-OAR, NSF

Due Date: March 15, 2018

ICMSSR Action Item 2017-4.2.

NOAA NWS will send a draft of their Section 201 response to ICMSSR members NLT. ICMSSR members will provide recommendations or edits back to NOAA by 15 May 2018.

Responsible Office: NWS, ICMSSR

Due Date: 31 March 2018