

**FEDERAL COMMITTEE FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH (FCMSSR)**

Record of Actions: 2019-1 Meeting

April 26, 2019 11:15 a.m. EDT

SSMC 2, Room 7224, 1335 East West Highway  
Silver Spring, MD 20910

Office of the Federal Coordinator for Meteorology  
Suite 7130, SSMC2  
1325 East West Highway  
Silver Spring, MD 20910

<b>Agency</b>	<b>Member</b>	<b>Attended for Member (T: by telecon)</b>
DOC/NOAA	Neil Jacobs (Chair)	-
DOD	Dale Ormand (T)	-
DOE	Gary Geernaert	Richard Petty
DHS	Robert Griffin	Jonathan Berkson (T)
DOS	Kenneth Hodgkins	David Turner (T)
DOT/FAA	Pamela Whitely	Paul Fontaine (T)
EOP-OMB	Benjamin Page	Michael Clark (T)
EOP-OSTP	Deerin Babb-Brot	Erik Noble (T)
EPA	Tim Watkins	Rohit Mathur (T)
NASA	Thomas Zurbuchen	David Andrucyk
NSF	William Easterling	-
NTSB	Capt David Helson (T)	-
USDA	Seth Meyer	Mark Brusburg (T)
OFCM	Michael Bonadonna	-

<b>Invited Participants</b>	<b>Agency</b>	<b>Invited Participants</b>	<b>Agency</b>
Anjuli Bamzai (T)	NSF	David Kennedy (T)	DOC-NOAA
William Bauman	DOT-FAA	William Lapenta	DOC-NOAA
Kate Brogan	DOC-NOAA	Don Moore	DOC-NOAA-NWS-AR
David Chorney	OFCM	Katheryn Moser	DOC-NOAA-OAR
Renee Crain	DOC-NOAA-OAR	Ensign Jacklyn Putnam	DOC-NOAA
Kevin Cooley	DOC-NOAA-NWS	CDR Heather Quilenderino (T)	DOD-USN-USNIC
John Cortinas (T)	DOC-NOAA-OAR	Anthony Ramirez (T)	OFCM
Michael Farrar	DOD/USAF	Carven Scott (T)	DOC-NOAA-NWS-AR
Vanessa Griffin (T)	DOC-NOAA-NESDIS	James Sims	OFCM
Floyd Hauth (T)	OFCM	William Spendly (T)	DOD/USA

**Date Issued:** 16 May 2019

### 1. OPENING REMARKS.

Dr. Neil Jacobs, National Oceanic and Atmospheric Administration (NOAA) Acting Undersecretary of Commerce for Oceans and Atmosphere and FCMSSR Chair welcomed participants, made introductions around the room and via telecon, and reviewed and obtained approval of the agenda from members.

### 2. ACTION ITEMS REVIEW.

Mr. Michael Bonadonna (Federal Coordinator for Meteorology) reviewed the status of Action Items recorded at previous FCMSSR meetings.

Action Items 2018-1.1, 1.2, and 1.4 are closed.

Action Item 2018-1.3 remains open. The action is to review and brief FCMSSR on the impact of 1340-series qualification changes approximately one year after OPM implements the change. The request for qualification changes has been coordinated through USAF/A3W, NWS and NOAA and submitted to OPM.

### 3. FEDERAL COORDINATOR'S UPDATE.

Mr. Michael Bonadonna provided a summary of several key Federal Weather Enterprise Coordination activities.

His summary of OFCM activities included:

- Noting that the current Federal Weather Enterprise (FWE) coordinating infrastructure has 25 interagency coordination entities and that these will need to be modified/updated when the ICAWS is established.
- Status of the Budget and Coordination Report FY20 which is projected to be delivered to The Office of Management and Budget (OMB) for review on May 3. OMB clearance for release of the report is expected soon thereafter.
- The FWE Coordination Session was held at the Annual Meeting of the American Meteorological Society (AMS) in January 2019. Eight presentations were planned for the 35th Conference on Environmental Information Processing Technologies however three presentations were not available because of the government furlough. OFCM has been invited to organize a follow-on session for the 2020 Annual Meeting of the AMS and the remaining presentations and others are being planned.
- The 2019 Tropical Cyclone Operations and Research Forum (TCORF)/73d Interdepartmental Hurricane Conference was held March 12 and 13, 2019 at the Rosenstiel School of Marine and Atmospheric Science, University of Miami, Miami, FL with more than 100 in attendance. It had funding support from NOAA, USN, and NSF. The focus was on Tropical Cyclone Research, transition to operations, and an update of the annual National Hurricane Operations Plan which is scheduled for publication on May 1.
- The 2019 Space Weather Enterprise Forum is planned for June 26 at the Yates Auditorium, Dept. of Interior Main Building, Vermont Ave NW, Washington DC. The theme is "Preparing the Nation for Space Weather". It will be a full-day meeting with about 250+ attendees. The intent is to engage the Space Weather community and public.

USGS Director James Reilly is the invited Keynote speaker and a Congressional speaker is also being sought.

- Upcoming National Earth System Prediction Capability (ESPC) events include a NOAA Leadership brief in March to the Executive Steering Group (ESG) leaders where Dr. Jacobs or his representative will brief principals about NOAA's development of its Earth system Prediction Innovation Center (EPIC). An OMB briefing is also scheduled in March to inform their examiners more about ESPC. The formal National ESPC ESG meeting will be scheduled for May 29. The Workshop on Building an Interannual to Decadal Prediction/Projection Capability for Decision Support was rescheduled to 5-6 June 2019, at the Center for Weather and Climate Prediction (NCWCP), College Park MD. This exploratory workshop will discuss the need for coordinated updating of physical earth system predictions to support a wide range of long-term decisions.

OFCM was asked to check into programs that are being prepared for the workshop. **See Action Item 2019-1.1.**

#### 4. IMPLEMENTING SECTION 402 OF THE WEATHER RESEARCH AND FORECASTING INNOVATION ACT OF 2017.

Section 402 of the Weather Act (signed by the President on 19 April 2017) directs The Office of Science and Technology Policy (OSTP) to establish another federal weather coordination committee ('ICAWS'). Since enactment of this law, Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) has approved a proposal for FCMSSR to assume the duties (and name) assigned to this new body, in lieu of creating another committee.

Changes would be to rename FCMSSR as ICAWS and combine ICAWS duties and existing FCMSSR duties into one ICAWS charter. OSTP and NOAA would provide co-chairs for ICAWS. OSTP would submit a legislative change request to make OFCM Director the ICAWS Executive Secretary.

A proposed modified FWE Coordinating Infrastructure was shown and tentatively agreed upon by members.

FCMSSR approved recommending this plan to OSTP in April 2018. OSTP received the recommendation from FCMSSR via OFCM, coordinated implementation with Congress and secured OSTP Director approval in April 2019.

OFCM will draft a new ICAWS Charter, solicit ICMSSR and FCMSSR comments, obtain NOAA and OSTP General Counsel reviews and plan for an ICAWS Charter signing at the new FCMSSR meeting in October 2019. **See Action Items 2019-1.2, 1.3, 1.4 and 1.5.**

#### 5. FEDERAL COORDINATION OF ARCTIC ENVIRONMENTAL SERVICES AND SUPPORTING RESEARCH.

Following direction from the ICMSSR, OFCM organized and conducted a one-day, exploratory meeting to examine the need for improved coordination across the Federal government for arctic environmental services and research.

- Mr. David Kennedy (NOAA Oceanic and Atmospheric Research) summarized information about the Arctic Maritime Symposium that was held 14-16 August 2018. The symposium was motivated in part by Department of Defense concerns about the rapidly changing environment in the Arctic and the increased presence of great power competitors at the seams of multiple combatant commands which challenge U.S. security and prosperity.

The goals of the symposium were to:

- Expand and strengthen relationships between Joint and interagency government organization, academic and policy institutions, and senior leaders with interests in maritime operations in the arctic.
- Improve mutual understanding and appreciation of Arctic maritime operational requirements and opportunities.

Mr. Kennedy highlighted the strategic planning efforts of five agencies that are concerned about the growing international interest in the Arctic regions and the need to share and integrate data for the Arctic.

The symposium and follow-on discussions served as the basis and motivation to bring this topic to the national level, first with the ICMSSR, and then to the exploratory meeting hosted by OFCM for more than 60 participants on April 15.

- Mr. Carven Scott and Mr. Don Moore (both of NOAA National Weather Service (NWS)) provided an overview of NWS Alaska Region capabilities and concerns. Mr. Moore noted the very large area of responsibility for the NWS Alaska Region. This area is also challenged by 12 hurricane-strength storms each year. Rural Alaska is remote, not connected to the road system, and communities are only accessible by plane or boat. Communities are primarily native population and culturally diverse with different communication styles and needs than urban areas. Phone and internet connectivity is limited and can be unreliable making dissemination of hazardous weather difficult.

The NWS service programs include aviation, fire weather, rivers/hydrology, space weather, climate, marine weather and sea ice, public forecasts and warnings, tsunamis, and volcanic ash. Capability gaps encompass many of the service programs and impact situational awareness, economics, Homeland Security, and National Security.

The constant decline in sea ice is compounding problems with coastal erosion and changes in marine habitat. The increasing incidence of freezing sea spray impacts aviation and fishing.

Four emerging mission areas have been identified:

- Increased marine traffic (including Ecotourism).
- Mineral, gas, and oil extraction.
- Infrastructure – (New facilities; Address vulnerable communities; Needs of Alaska’s indigenous populations).
- National and Homeland Security (Food Supply and Supply Chain Management).

Mr. Moore closed by describing the Alaska Environmental Science Services and Integration Center (AESSIC) which is the statewide point-of-contact for all high impact events with 24x7 support. It is designed to enable collaboration among field offices, National Centers as well as other federal and international National Meteorological and Hydrological Services for consistency of services at all levels.

- CDR Heather Quilenderino (USN) Director U.S. National Ice Center provided an overview of US National Ice Center (USNIC) services and issues.

CDR Quilenderino described the USNIC high latitude domain awareness as characterized by observations, analysis and predictions. Ice impacts to maritime operations are extensive and the short-term, sub-seasonal and seasonal forecasts optimize water space and voyage planning for USN and US Coast Guard (USCG).

The forecast collaboration initiative Northwest Passage Transit 2017 was shown as an example of successful daily collaboration with the Canadian Ice Service, USCG District 17, Fleet Weather Center Norfolk, Fleet Weather Center San Diego, International Ice Patrol, NWS Alaska Region, and the USNIC.

The USNIC also participated in an international effort to deploy 18 ice buoys to the central Arctic in June 2018, filling a critical weather observation gap in the Arctic Observation Network.

The USNIC plans to increase collaborations and leverage partnerships to help meet their service obligations.

- Dr. Renee Crain (National Science Foundation) provided a briefing on the Interagency Arctic Research Policy Committee (IARPC).

The IARPC enables the 14 federal agencies that support research in the Arctic to communicate, coordinate, and collaborate to meet the goals of the Arctic Research Plan.

The Arctic Research Program's mission is to improve fundamental understanding of oceanic and atmospheric processes and to support NOAA mission capabilities across the Arctic through targeted sustained observing, synthesis and science communication efforts. Their research goals are policy drivers for programs for the health and well-being of residents, marine ecosystems, understanding of glaciers and sea level, sea ice, and atmosphere composition and dynamics.

The International Arctic Systems for Observing the Atmosphere is an international observing system that provides research and climate grade atmospheric and surface measurements encircling the Arctic Ocean.

Dr. Crain described the mission and tasks of the U.S. Arctic Observing Network and its collaboration with international partners to develop a unified Arctic observing framework to strategically maximize societal, political, cultural and economic benefits.

IARPC collaborations are open to non-Federal Arctic researchers and stakeholders and Dr. Crain invited participants to become part of the IARPC collaborations and be part of implementing Federal research policy.

### **Results of the meeting:**

- Over 60 enthusiastic participants from DOC, DoD, DOE, DHS, DOI EOP, NASA, and NSF.
- Excellent briefings on the importance of the region and why there is a need for cooperation/collaboration to meet agency missions and associated requirements.
- Reviewed Policy Coordination, Operational Collaboration, and Research activities and interests
- Good review of satellite capabilities, sensors, observations and applications.
- Good discussion of research activities and ways to interact/ coordinate R2O possibilities.
- More info needed regarding conventional equipment, sensors, observational coverage or locations.
- Not enough info on international data sources, types, and availability or treaties or agreements that help or hinder obtaining such info OFCM, with assistance from the meeting participants, will develop a summary of organizations and responsibilities for Arctic region environmental services and research.

### **Recommendations from meeting:**

- OFCM, with assistance from the meeting participants, will develop a summary of organizations and responsibilities for Arctic region environmental services and research.
- OFCM will ensure issues regarding Arctic environmental services are addressed in existing elements of the FWE coordinating infrastructure.
- OFCM will assist interested FWE organizations to engage in the IARPC.
- OFCM will reconvene an Interagency Exploratory meeting on Arctic Environmental Services in April 2020.

**See Action Items 2019-1.6, 1.7, 1.8, and 1.9.**

Members from the Federal Aviation Administration and NSF identified Arctic research projects underway or planned. Dr. Jacobs asked whether updates to the magnetic model were helpful to aviation activities. **See Action Item 2019-1.10.**

### **6. NEXT STEPS/CLOSING COMMENTS/ADJOURN:**

Dr. Jacobs thanked everyone for their participation. The next FCMSSR is tentatively scheduled for October 19, 2019. Final draft Action Items will be provided in the meeting summary.

The meeting adjourned at 12:45 p.m.

## FEDERAL COMMITTEE FOR METEOROLOGICAL SERVICES AND SUPPORTING RESEARCH (FCMSSR)

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### Action Items

Action Item Number	Action Item	Responsible Office	Comments	Status	Due Date
2019-1.1	Send Dr. Lapenta the draft agenda for the ESPC Workshop on Building an Interannual to Decadal Prediction/Projection Capability for Decision Support	OFCM	-	Open	05/03/19
2019-1.2	Update the draft ICAWS Charter and secure ICSSR and FCMSSR concurrence	OFCM	-	Open	05/31/19
2019-1.3	Send the ICAWS Charter to NOAA General Counsel	OFCM	-	Open	05/31/19
2019-1.4	Send the draft ICAWS Charter to OSTP for approval	OFCM	-	Open	06/30/19
2019-1.5	Sign the ICAWS Charter	NOAA UNSEC, OSTP	0	Open	10/15/19
2019-1.6	Develop a summary of organizations and responsibilities for Arctic region environmental services and research	OFCM and Partnering Agencies	Track through Arctic Service AIs list	open	06/30/19
2019-1.7	Ensure issues regarding Arctic environmental services are addressed in existing elements of the Federal Weather Enterprise (FWE) coordinating infrastructure.	OFCM	Track through Arctic Service AIs list	open	06/30/19
2019-1.8	Assist interested FWE organizations to engage in the Interagency Arctic Research Policy Committee (IARPC)	OFCM	Track through Arctic Service AIs list	open	Continuous
2019-1.9	Reconvene an Interagency Exploratory meeting on Arctic Environmental Services in April 2020	OFCM	Track through Arctic Service AIs list	open	05/01/20
2019-1.10	Determine whether the frequency and accuracy of the decadal World Magnetic Model update is sufficient for Alaskan Region General Aviation needs	NWS AR, FAA		Open	10/15/19