

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

**COMMITTEE FOR CLIMATE SERVICES COORDINATION (CCSC)**

**2019-1 MEETING**

May 8, 2019  
2:00 p.m. EDT  
Room 7224, SSMC2

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

Approved 7/01/2019

<b>Attendees</b>	<b>(T) via telecon</b>	<b>Agency</b>
Dr. Fiona Horsfall (Chair)		NOAA
Michael Bonadonna		NOAA
Lt. Col. Robert Branham		USAF
Mike Brewer (T)		NOAA
Mark Brusberg (T)		USDA
Jessie Carman (T)		NOAA
Benjamin D'Angelo		NOAA
Louis Escamilla (T)		US Army
Floyd Hauth (T)		OFCM/STC
David Herring		NOAA
Paul Hierschberg (T)		NOAA
Meghan Hutchings (T)		USN
Ray Kiess (T)		USAF
Doug Kluck (T)		NOAA
Dr. Tsengdar Lee (T)		NASA
Josephine Malilay		CDC
Dave McCarren (T)		USN
Tom Murphee (T)		Naval Post Graduate School
Viviane Silva		NOAA
Dr. James Sims (Executive Secretary)		OFCM
Rachel Steele (T)		USDA
Marina Tomofuleya		NOAA
David Chorney, Sim James, Ken Barnett		OFCM

## **1. OPENING REMARKS:**

The CCSC Chair, Dr. Fiona Horsfall (NOAA/NWS) welcomed the attendees.

## **2. ADMINISTRATIVE REMARKS:**

Dr. James Sims (CCSC Executive Secretary) provided administrative comments, conducted roll call and reviewed the agenda.

Dr. Sims reported that all the Action Items from past meetings were closed but noted that Action Item 2017-1.2 was not completed and should probably be reopened. Members agreed and a revised action was agreed upon later in the meeting. See Action Item 2019-1.1

## **3. CLIMATE CONSIDERATIONS FROM THE INTER-DEPARTMENTAL ARCTIC EXPLORATORY MEETING**

Lt. Col. Robert Branham (USAF) provided an overview of the April 15, 2019, Arctic Exploratory meeting hosted by OFCM in Silver Spring, MD.

More than 60 representatives from DOC, DoD, DOE, DHS, DOI EOP, NASA, and NSF participated in the meeting. The purpose of the meeting was to understand the current state of environmental services in the Arctic region and determine if there is a need to further coordinate services across the federal weather enterprise to meet national and agency missions. Topics included policy coordination, operational collaboration, R2O opportunities, and a discussion of current space and terrestrial environmental monitoring capabilities.

The U.S. strategic national interests in the Arctic are extensive and are related to the indigenous population and their contribution to regional and national economies, the U.S. Sovereign Territory extended economic zones with fisheries, marine mammals, and seafloor extracted petro-chemical and minerals, and the need for secure maritime approaches, borders/coasts and ports. Other factors include the need for free, unhindered and safe navigation across the international air and maritime domains of the Arctic. A list of references was provided that cover national strategy and climate change in the Arctic.

Lt Col Branham characterized the Arctic as being at the front line of Global Climate impacts when considering warming temperatures, ice melt/permafrost, sea level rise, coastal erosion, and weather pattern changes but having limitations in the state of climate services in the Arctic.

Considerable research is underway under the auspices of the Interagency Arctic Research Policy Committee (IARPC) which 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. In addition, the International Arctic Systems for Observing the Atmosphere (IASOA) is an international observing system that provides research and climate grade atmospheric and surface measurements encircling the Arctic Ocean.

The FCMSSR was briefed on the meeting and endorsed four Action Items:

- 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 Federal Weather Enterprise (FWE) coordinating infrastructure.
- OFCM will assist interested FWE organizations to engage in the Interagency Arctic Research Policy Committee (IARPC).

- OFCM will reconvene an Interagency Exploratory meeting on Arctic Environmental Services in April 2020.

Lt Col Branham closed with a summary of upcoming events and websites covering Arctic environmental services and supporting research at conferences/meetings.

Members discussed information about other climate meetings and related activities that should be provided to the committee through presentations at future meetings. See Action Items 2019-1.2, 1.3, and 1.4.

#### **4. INTERDEPARTMENTAL CLIMATE SERVICES DATABASE PROPOSAL**

Dr. Sims and Lt Col Branham presented an overview of the database proposal and its linkages to Climate.Gov. The purpose of the database would be to provide a central location for access to sub- seasonal to seasonal (S2S) products and services that are available from multiple agencies based on categorical needs and security levels. The focus would be on S2S services and information from the Federal Weather Enterprise (FWE) on national, regional, and local levels, to include provision of information from the past as well as the future at time scales from two weeks to beyond.

Mr. David Herring provided a guided tour of NOAA Climate.gov which is managed by NOAA OAR's Climate Program Office and hosted at NCEI-Asheville. Climate.gov is a source of timely and authoritative scientific data and information about climate. Its goals are to promote public understanding of climate science and climate-related events, to make our data products and services easy to find and use, to provide climate-related support to the private sector and the Nation's economy, and to serve people making climate-related decisions with tools and resources that help them answer specific questions. Climate.gov has three portals in one — each of the site's tabs is designed to serve a different audience:

- **News & Features (N&F)** is a popular-style online magazine for the science-interested public covering topics in climate science, adaptation, and mitigation. The section's menu, at the top of the main page, allows users to see the range of topics addressed and the left-hand menu lists the magazines departments (or sections). Some noteworthy sections that are potentially interesting / relevant to the CCSC include event tracker, special section on ENSO, maps and data gateway, global climate dashboard, climate data primer, and dataset gallery.
- **Maps and Data** is a gateway to reusable climate maps and datasets that document various climate conditions. The section aims to serve professionals, officials, and anyone who needs climate data to inform their research, decision-making, or reports.
- **Teaching Climate** offers learning activities and curriculum materials, multimedia resources, and professional development opportunities for formal and informal educators who want to incorporate climate science into their work.

The U.S. Climate Resilience Toolkit (CRT) (hosted and managed by NOAA OAR's Climate Program Office) was launched under the auspices of the U.S. Global Change Research Program. The CRT is a website designed to help people find and use tools, information, and subject matter expertise they can use to adapt and build resilience to climate-related hazards. Main target audiences include municipal planners, sustainability officers, managers of facilities and resources, businesses, and government officials at all levels. The CRT's main menu of content

offerings includes Steps to Resilience, Climate Explorer, and Story Maps to help guide and inform users' exploration of relevant tools and data products for planning and decision-making.

The cross-agency and interagency benefit of the Climate Services and Information Database is that it would provide the Federal Weather Enterprise (FWE) with FULL access to S2S data, products, and services available across the federal government to aid in Impact Based Decision Support Services (IDSS).

Members discussed the benefits of the proposed database and agreed to support creating an action team to develop requirements for the database. Climate.gov could serve as the platform for the interagency database. See Action Item 2019-1.5.

## **5. 4th NATIONAL CLIMATE ASSESSMENT OVERVIEW**

Benjamin DeAngelo (NOAA-CPO) provided an overview of the 4<sup>th</sup> National Climate Assessment.

The 4th National Climate Assessment (NCA4) is available online at:

<http://www.globalchange.gov/notices>. There are two volumes:

- Fourth National Climate Assessment, Vol. I: The Climate Science Special Report (2017)
- Fourth National Climate Assessment, Vol. II: Impacts, Risks, and Adaptation in the United States (2018)

Climate assessments were initiated by a Presidential Initiative in 1989 followed by a legislative mandate for the U.S. Global Change Research Program in 1990 which requires an assessment report every four years. The latest assessment has two volumes (Listed in the bullets above).

Volume I analyzes current trends in global change, both human- induced and natural, and projects major trends for the subsequent 25 to 100 years. Volume II analyzes the effects of global change on the natural environment, agriculture, energy production and use, land and water resources, transportation, human health and welfare, human social systems, and biological diversity. It provided a range of potential impacts, helping decision makers better identify risks that could be avoided or reduced.

Volumes I and II have a chapter on Arctic/Alaska changes in climate conditions. Volume I also has a chapter on the attribution of climate changes due to human and natural influences.

NCA4 future projections are primarily based on widely used Representative Concentration Pathway (RCP) scenarios. RCP is a greenhouse gas concentration (not emissions) trajectory adopted by the IPCC for its fifth Assessment Report (AR5) in 2014.)

The assessment report provides projected impacts of changes in temperature and precipitation, relative sea level rises, human health, air quality, food production, coastal effects, changing seasonality and the potential monetary costs of the projected changes.

Mr. DeAngelo closed with this summary:

- The NCA provides an authoritative, comprehensive resource on climate science, future projections, and sectoral and regional risks.

- Climate science needs to deliver on, and address decision-maker needs at multiple geographic and time scales.
- NCA can provide first-level information that feeds into more granular analyses for private and public.

## **6. CCSC ICMSSR Update Review**

Lt Col Branham provided a brief summary of the presentation planned for the ICMSSR meeting scheduled for May 9. The presentation includes CCSC background, purpose, core responsibilities, membership, meeting frequency, current Action Items, and future interests/activities.

## **7. OPEN DISCUSSION**

Members discussed providing a CCSC overview briefing at a future AMS conference and future topics for the next CCSC meeting. One topic suggested was climate impacts on hydrology and water resources. See Action Items 2019-1.8.

## **8. ACTION ITEM REVIEW / NEXT MEETING**

The Executive Secretary will document any action items taken during the meeting and provide them to members with a draft record of action. The next meeting is scheduled for November 13. The meeting was adjourned at 4:00 pm EDT.

COMMITTEE FOR CLIMATE SERVICES COORDINATION (CCSC)

Action Items

**CCSC Action Item 2019-1.1.** Reopen/rewrite AI 2017-1.2; provide suggested format for database information from the committee members.

**Responsible Office: OFCM**

**Due Date: May 17, 2019**

**CCSC Action Item 2019-1.2.** Provide list of climate meetings and climate service URLs.

**Responsible Office: OFCM**

**Due Date: Continuous effort**

**CCSC Action Item 2019-1.3.** NWS provide CDC with current NOAA climate/health related services and information.

**Responsible Office: NWS/CCSC Chair**

**Due Date: May 17, 2019**

**CCSC Action Item 2019-1.4.** Plan briefing by NWS International Affairs Representative on WMO Polar/Arctic group activities/interests for 2019-02 CCSC meeting.

**Responsible Office: OFCM/NWS**

**Due Date: November 30, 2019**

**CCSC Action Item 2019-1.5.** Request names/volunteers for Interagency Action Team to support the Climate Services Database.

**Responsible Office: OFCM/Members**

**Due Date: June 15, 2019**

**CCSC Action Item 2019-1.6.** Plan S2S update focused on EPIC plans

**Responsible Office: OFCM**

**Due Date: November 30, 2019**

COMMITTEE FOR CLIMATE SERVICES COORDINATION (CCSC)

Future Meetings of Interest

- [ESPC Decadal Prediction Workshop, NCWCP, College Park, MD, June 5-6, 2019](#)
- [Climate Predictions Application Science Workshop \(CPAWS\), Charlotte, SC, June 11-13, 2019 /](#)
- Climate Prediction Center Stakeholder Meeting, NCWCP, College Park, MD, September 24-26
- [NOAA's 44th Climate Diagnostics & Prediction Workshop, Durham, North Carolina, 22–24 October 2019](#)