

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

COMMITTEE FOR OPERATIONAL ENVIRONMENTAL SATELLITES (COES)

Record of Actions: 2018-3 Meeting

September 21, 2018, 9:00 a.m. EDT

Room 7224, SSMC2

Office of the Federal Coordinator for Meteorology
Suite 7130, SSMC21325 East West Highway
Silver Spring, MD 20910

PARTICIPANTS

Agency	Organization	Name
DOC Cochair	NOAA-NESDIS	Ajay Mehta
DOD Cochair	USN	David McCarren
DOC	NOAA-NESDIS	Kate Becker
DOC	NWS	Brian Gokel
DOC	NOAA-NWS	James Yoe
DOD	SAF-SP	Lt Col Alan Beaumont
DOD	USN OPNAV N2N6E	CDR Jeff Dixon
DOD	USAF A3W	Lt Col Chris Hollinger
DOD	OPNAV N2C	Jeff Best
DOD	NAVOCEANO	Mark Middlebush
DOD	SAF AQS	Matt Nowlin
DOD	SAF-SP	Dan Weekly
DOE	Off of Bio and Env. Research	Shaima Nasiri
DOT	FAA	Randy Bass
NASA	SMD	David Considine
NGA	MCR LLC supporting	Elia Sanjume
	Aerospace Corp	William Colwell
STPI		Bebe Caldwell
STPI		Georgia Bucher
OFCM	Federal Coordinator	William Schulz
OFCM	COES Executive Secretary	Michael Bonadonna
OFCM	IWRCC Executive Secretary	Sim James
OFCM	STC	Floyd Hauth

Date of Issue: 5 October 2018

1. OPENING REMARKS

The Executive Secretary initiated the meeting and provided administrative comments. The COES co-chairs, David McCarren and Ajay Mehta, welcomed the attendees. The agenda was reviewed and approved.

2. ACTION ITEM REVIEW:

The Executive Secretary reviewed Action Items from the previous meetings. Status is appended at the end of this RoA.

3. COES TERMS OF REFERENCE UPDATE:

The Executive Secretary reviewed changes to the COES ToR based on discussions at the latest ICMSSR meeting where ICMSSR requested that COES revise their Terms of Reference to include objectives that are more actionable. The COES scope and responsibilities related to sharing relevant information were revised and clarified. In addition, COES will collect interagency input for the U.S. delegation that attends the annual international Coordinating Group for Meteorological Satellites (CGMS) meeting. Members were asked to help determine how to convey interagency input to the U.S. delegation attending the annual international CGMS meeting.

The revised ToR also clarified the procedure for adding organizations as COES members.

4. SATELLITE NEEDS WORKING GROUP (SNWG):

Dr. Shaima L. Nasiri (DOE), SNWG Co-chair presented an update on the SNWG activities. The SNWG is aligned under the U.S. Group on Earth Observations (USGEO) of the National Science and Technology Council (NSTC). They described the membership, what the SNWG does and what they have accomplished. This group aims to provide a means to identify federal agency needs for environmental satellite data for consideration by capability providers like NASA, NOAA, and the USGS.

The SNWG survey process allows Federal departments and agencies to communicate their Earth observation satellite measurement or product needs to NASA. Information gathered during this process is used to influence NASA's decisions on future sensors placed into orbit.

The SNWG will communicate its Earth observation satellite measurement or product needs to NASA in the November 2018 timeframe. Agency needs will be tracked and assessed to determine the extent to which NASA can meet the needs.

Information was provided on the number of 2018 survey submissions received through 9/11/2018 and agencies were identified that have yet to respond to the survey. Members were encouraged to ensure their agencies are aware of the SNWG process. A update presentation will be scheduled for the spring 2019 COES meeting. **Action Item 2018-3.1.**

5. COMMERCIAL WEATHER DATA PROJECT UPDATES:

Presentations were given by Lt Col Chris Hollinger (USAF) and Ms. Kate Becker (NOAA-NESDIS) on their programs to obtain and evaluate commercial satellite weather data sources.

Lt Col Hollinger described two program efforts conducted by the Air Force. The first was started with FY17 funds and will assess the viability of commercial satellite weather data to support requirements of the DoD. Its focus is on evaluating radio occultation and total electron count

data. The project will end in August 2019. A report on the findings from this effort is due to Congress in December 2019.

The second effort will use FY18 funds to explore exploiting data to focus on DoD Space-based Environmental Monitoring (SBEM) Gaps 1 and 2 (Cloud Characterization and Theater Weather Imagery), though other SBEM gaps will still be considered. Solicitations will be concentrated on development, test, and evaluation, Cal-Val of COTS sensors, acquisition, and exploitation of existing data, and new tools and techniques to use new or existing data.

Ms. Kate Becker provided an overview of the NESDIS Commercial Weather Data Pilot. She reviewed the recent guidance related to the Weather Research and Forecasting Innovation Act of 2017. This included the need to continue to meet international meteorological agreements, including WMO Resolution 40.

NOAA identified radio occultation (RO) as the initial data set for evaluation. Round 1 activities addressed processes for contract writing and initial evaluation but did not address IT security, data rights and distribution, and real time data ingest.

Lessons learned from the first round were incorporated into Round 2 activities to address the comprehensiveness of data requested and performance of seasonal impact assessment, increase emphasis on vendor validation approaches, and confirm operational features of data requested such as security, timeliness, and availability. The results from Round 2 are expected in 2020. NOAA also continues to pursue internal system readiness for future purchases of operational weather data.

Ms. Becker emphasized that challenges will continue to emerge as NOAA engages an evolving commercial sector. These challenges include price point stability/volatility, competition, and market demands; data licensing and tension between commercial interests at different points in the value chain, impact to partnerships, data sharing arrangements and R&D; operational stability of data and user readiness; interagency coordination and validation lifecycle.

She closed by noting that NOAA will systematically consider commercial capabilities as a potential part of future architectures, along with NOAA programs of record and international partner missions.

6. DOD SPACE-BASED ENVIRONMENTAL MONITORING (SBEM) PROGRAM:

Mr. Matt Nowlin (HQ USAF SAF-AQS) provided an update on the efforts within the DoD to provide future space-based environmental monitoring capabilities. The Space Based Environmental Monitoring (SBEM) Weather Mission is a core responsibility of the Air Force. The AF has short and long-term strategies to meet all Joint Requirement Oversight Council (JROC) requirements.

AF SBEM programs cover cloud characterization and theater weather imagery, ocean surface vector winds and tropical cyclone intensity, space weather, auroral characterization, and energetic charged particles. These program requirements are or will be met by sensors on polar and geostationary satellites.

Mr. Nowlin provided descriptions of each of the satellite sensors or systems that satisfy or will meet the requirements of the SBEM programs. There are short- and long- range plans to provide coverage for satellite data Gaps 1 and 2.

He summarized by noting that the Air Force is moving aggressively to address the SBEM mission and will meet all JROC requirements. Programs are in development to address JROC Gaps and to fulfill Combatant Commands (COCOM) SBEM needs.

7. NEXT MEETING:

The next meeting was tentatively set for December 17, 2018. COES will schedule four quarterly meetings in 2019: March 22, June 21, September 20, and December 13.

The meeting adjourned at 11:00 a.m. EDT.

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Previous Action Items and Status

Action Item 2018-1.1: Review and provide COES a brief summary of analyses and mitigation planning for RFI on passive sensing bands used by current and future environmental satellites.
Responsible Office: NEDSIS, NASA, USAF

Due Date: Dec 21, 2018

Status: Open. COES members will review the RFI analysis prepared by NOAA and coordinate with their respective spectrum management representatives

Action Item 2018-2.1: Refer the AWIPS 2 Arctic and Antarctic satellite data coverage issue to the WG/CSAB for action.

Responsible Office: ExecSec

Due Date: July 31, 2018

Status: Closed. Completed.

Action Item 2018-2.2: Update the COES ToR to have COES gather and provide NESDIS-IA, DoD input for the annual CGMS meeting and have NOAA report back to COES following the meeting.

Responsible Office: ExecSec, DoD COES members, NOAA CGMS participants

Due Date: October 31, 2018

Status: Closed. More specific direction has been added to the ToR

Action Item 2018-2.3: Send the Strategic plan for Federal Weather Enterprise Coordination to COES to consider actions to address stated Goals and Objectives of the plan.

Responsible Office: ExecSec, COES members

Due Date: June 28, 2018

Status: Closed. Completed.

Action Item 2018-2.4: Send the Radio Frequency Interference table developed by CGMS to COES for consideration. Follow up with a discussion of impacts at the fall COES meeting.

Responsible Office: NESDIS/IA, COES Members

Due Date: September 25, 2018

Status: Open. Completed but will be sent again to support AI 2018-1.1.

Action Item 2018-2.5: Provide a summary of your organization's expectations from "partner missions" including NASA research missions and foreign environmental satellite missions.

Responsible Office: DoD, USAF, USN, USA, USMC

Due Date: September 7, 2018

Status: Closed. Discussed at the COES meeting. This is largely covered by SNWG activities.

Action Item 2018-2.6: Discuss satellite ground systems for "partner missions" including data latency needs and DoD expectations at the next COES meeting.

Responsible Office: NESDIS, NASA, USAF,

Due Date: September 21, 2018

Status: Open. SNWG process includes ground system considerations. NESDIS will brief on INST/SCATSAT at COES 2018-4 Mtg.

Action Item 2018-2.7: Report status of commercial weather data project from each agency every COES meeting. Develop/Update a table of CWDP status for the ICMSSR.

Responsible Office: NOAA-NESDIS, USAF, NASA-ESD, ExecSec

Due Date: July 31, 2018

Status: Open. Covered USAF and NOAA programs. NASA scheduled for COES Mtg 2018-4. Then brief ICMSSR.

Action Item 2018-2.8: Secure COES review and submit the abstract for 2019 AMS conference session on Coordination across the Federal Weather Enterprise.

Responsible Office: ExecSec

Due Date: July 21, 2018

Status: Closed. Completed.

Action Item 2018-2.9: Update the COES status briefing for the Summer ICMSSR meeting.

Responsible Office: ExecSec, COES members

Due Date: July 3, 2018

Status: Closed. Completed.

2018-3 Meeting Action Items

Action Item 2018-3.1: Schedule a SNWG update to COES for the spring 2019 meeting.

Responsible Office: ExecSec

Due Date: February 15, 2019