

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

COMMITTEE FOR OPERATIONAL ENVIRONMENTAL SATELLITES (COES)

Record of Actions: 2016-2 Meeting

June 29, 2016, 1:00 p.m. EDT
Room 7224, SSMC2

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

PARTICIPANTS

(T): Participated via telecon

Agency	Organization	Name
DOC Cochair	NOAA-NESDIS	Dr. Tom Burns
DoD Cochair	NAVDEP NOAA (N2N6E5)	CAPT Erika Sauer
DOC	NOAA JPSS	Mr. John Furgerson
DOC	NOAA-NESDIS	Mr. Derek Hanson
DOC	NOAA-NESDIS	Mr. Daniel Karlson
DOC	NOAA OMAO	LCDR Jason Mansour
DOC	NOAA-NWS	Dr. Kevin Schrab
DOC	NOAA-NESDIS	Dr. Karen St. Germain
DOC	NOAA OMAO	CDR Chris VanWestendorp
DoD	HQ USAF A3W	Lt Col Marc Allen
DoD	HQ USAF A3W	Lt Col Ken Burton
DoD	USN-N2N6	LCDR David Colbert
DoD	SAF-PDSA	Mr. Jose Harris
DoD	OSD-ATL	Ms. Marsha Korose <i>(T)</i>
DoD	NAVOCEANO	Mr. Mark Middlebush
DOT	FAA	Mr. Randy Bass
NASA	HQ NASA	Dr. Jack Kaye
NGA	Metoc	Ms. Elia Sanjume <i>(T)</i>
NRO	Aerospace Corp	Mr. Norm Modlin <i>(T)</i>
NSF	AGS	Dr. Pat Harr
OSTP	USGEO	Mr. David Hermreck <i>(T)</i>
OSTP	STPI	Dr. Jason Gallo
OFCM	Federal Coordinator	Dr. William Schulz
OFCM	COPC ExecSec	Mr. Kenneth Barnett
OFCM	STC	Mr. Floyd Hauth
OFCM	COES Exec Sec	Mr. Michael Bonadonna

Date of Issue: July 19, 2016

1. OPENING REMARKS:

The COES Executive Secretary, Mr. Michael Bonadonna (OFCM), welcomed the group, reviewed the meeting preparations and provided administrative comments.

The COES Cochair Captain Erika Sauer (USN) welcomed the participants, reviewed the agenda and approved the Record of Action from the previous meeting.

2. ACTION ITEM REVIEW: The Executive Secretary reviewed all open and pending Action Items. The chart below indicates the status following the meeting.

AI #	Text	Responsible Office	Comment	Status	Due Date
2015-3.1	Determine the anticipated latency of INSAT-3D data through the proposed data retrieval path through EUMETSAT to NESDIS to US users. Provide results to the COES.	NESDIS	12/22: NESDIS will brief out IODC data dissemination plan after June 2016 CGMS mtg. 6/29: NESDIS IA stated that EUMetSat will be moved to 41 ½ degrees by September 2016. Data path to be determined. More updates next COES meeting.	In Progress	09/07/16
2016-1.1	Following any pertinent updates/actions related to the NOAA Commercial Space Policy (ie. public release of NESDIS process document, Commercial Weather Data Pilot activities), request a briefing from appropriate POCs.	COES ExecSec	6/24: CWDP briefing scheduled for 6/29 COES Mtg	Closed	TBD
2016-1.2	Coordinate with the USGEO program and develop a briefing for the ICSSR outlining methods for interagency coordination of environmental satellite issues to answer ICSSR Action Item 2016-1.5.	COES ExecSec and Cochairs	6/1: ES Coordination briefing presented to ICSSR	Closed	05/16/16
2016-1.3	Send the Cochairs the last update briefing the COES provided to the ICSSR. Brief COES status and activities to ICSSR.	COES ExecSec and Cochairs	6/1: COES update included in briefing to ICSSR	closed	05/16/16
2016-1.4	Request a briefing from the USGEO on the Satellite Needs Working Group (SNWG).	COES ExecSec	6/24: SNWG briefing scheduled for 6/29 COES Mtg	closed	05/16/16

All other previous Action Items have been closed.

3. SATELLITE NEEDS WORKING GROUP (SNWG):

Dr. Pat Harr (NSF) presented a briefing on the newly established Satellite Needs Work Group (SNWG) of the US Group on Earth Observations (USGEO) Subcommittee of the National Science and Technology Council (NSTC). This new group aims to provide a means to identify federal agency needs for environmental satellite data and their stated needs for consideration by capability providers like NASA, NOAA, and the USGS.

A process was established to collect agency needs for sustained observations, which reflects a government-wide approach to develop Earth-observing satellites. It also addresses the current challenges agencies face in transitioning experimental observations into sustained observations to support services and research in the public interest. A key benefit of the process is that it should reduce uncertainty about whether measurements will be continued.

Agencies will continue to need satellite data from NASA, and their needs should serve as input to NASA decisions on which measurements to transition from experimental to sustained observations.

The USGEO Satellite Needs Process is primarily focused on the transition of space-based observations from experimental to sustained status. Through this process, NASA and USGEO will coordinate to identify unmet high-priority needs for sustained measurements and ways to address them.

Dr. Harr described the annual satellite needs process as follows:

- Federal departments and agencies can communicate their Earth observation satellite measurement or product needs to NASA and other providers of satellite observations and the needs will be used to influence decisions on future sensors placed into orbit.
- Process stages:
 - STAGE 1: User agencies identify high-priority needs for sustained and unmet satellite-based earth observations or products.
 - STAGE 2: Submission by SNWG to USGEO and agencies for concurrence. Submission to OSTP/OMB for information.
 - STAGE 3: Analysis of agency input by NASA and provider agencies and interactions among NASA, other provider agencies, and user agencies to sharpen agency inputs as needed.

Dr. Harr provided further details regarding the collection of agency high priority needs. Information submitted should identify the agency and its contacts, the context for satellite measurement or product need, the satellite measurement or product need, the value of the measurement, and any additional comments relevant to the collection information.

He noted that the submission should assume that the NASA staff have no knowledge of your agency. It is also important to document the agency mandated responsibilities and how space-based remote sensing can or does aid its mission. The key is to provide sufficient detail so NASA can sufficiently understand the context and details of the need.

It is important to note that agency needs are not agency requirements. SNWG reporting does not constitute a detailed requirements analysis. Needs are an expression of agency need as it

relates to public services or research in the public interest. All high priority continuity and unmet needs should be submitted. The needs will be used as a starting point for dialogs between NASA and the agencies.

The intent of USGEO is to release a subset of the information collected to the public. However, some fields will be removed before public release.

Current Time Line

Kick-off meeting at NASA	June 17, 2016
Cut off for submitting needs	September 1, 2016
SNWG send submissions back to agencies for senior review	September 12, 2016
Agency review due back to SNWG	October 7, 2016
SNWG passes needs to USGEO Subcommittee for concurrence	November 1, 2016
USGEO submission to NASA	December 1, 2016
NASA completes analysis of needs, provides feedback including unmet needs to SNWG	June 1, 2017
NASA budget submission to OMB (note that NASA may not be the only agency satisfying agency needs and in that case there may be a different timeline)	September 1, 2017

4. INTERAGENCY COORDINATION OF ENVIRONMENTAL SATELLITE ISSUES:

The Mr. Bonadonna provided a review of the briefing on interagency coordination of environmental satellite issues presented at the most recent meeting of the Interdepartmental Committee for Meteorological Services and Supporting Research (ICMSSR) held on June 1, 2016. This was in response to ICMSSR AI 2016-1.5 which reads “Schedule a presentation at the next ICMSSR meeting on interagency coordination and cooperation on environmental satellite issues. Following the ICMSSR briefing, determine whether the topic should be brief to FCMSSR.”

His presentation covered the background of coordination among Federal Agencies, the EOP and international partners and groups. He also provided examples of successes (major accomplishments) through interagency coordination and challenges related to observation gaps, data distribution, and the use of data.

Coordination among Federal agencies includes the Federal Weather Enterprise Coordinating Infrastructure, the Federal Plan for Meteorological Services and Supporting Research, bilateral and multilateral coordination through partnerships and cooperative arrangements, and operations and mission execution of NOAA, USAF, USN, NASA, USGS environmental satellite missions, data centers, and service providers.

Examples of successes include the OFCM’s Committee for Operational Processing Centers (COPC) facilitating operational-level coordination for environmental data acquisition, processing and exchange; broad Federal support for the Space Weather Interagency coordination that led COVR and COSMIC-2 missions; and, recognition by the GAO of the

value of coordination between DOD and NOAA to improve interagency coordination of environmental satellite issues.

Mr. Bonadonna listed and discussed challenges in observing gaps such as ocean surface vector winds, tropical cyclone intensity, and Low Earth Orbit Energetic Charged Particle. Other challenges relate to Indian Ocean coverage and Polar Orbiter coverage of the early morning (0530/0630) orbit.

He also presented challenges involving data communication and dissemination, and data exploitation. Data flow is expected increase ten-fold within a few years and agencies need to update dissemination processes to prepare for additional data. In each of the challenges he provided some recommended ways to address or help resolve the related issues.

His conclusions:

- Coordination between Federal Agencies, EOP, and International groups exists but needs improvement
- Many successes have been achieved through interagency coordination
- Many challenges still exist
- 15 potential solutions were recommended for interagency consideration

Bottom Line: The FWE agencies need to work together to solve environmental satellite issues beyond the reach or scope of individual agencies.

Discussion during and following the briefing included comments about how much data is enough, the issue that not all data are being used, funding problems related to all of the challenges listed, the need for data in climate monitoring, crop monitoring and health areas, the importance of data for research as well as for operations, and the continuity of data as satellite sensors evolve or are replaced.

COES members agreed to review this revised briefing and provide comments or changes for incorporation into an updated briefing for its next meeting. See Action Item 2016-2.1.

5. OPEN DISCUSSION:

Discussion was centered on the American Space Renaissance Act and the areas it will potentially address related to commercial and government environmental satellites. The bill includes separate sections covering military, civil and commercial policy topics, from changes to responsibilities for space situational awareness to giving the NASA administrator a fixed five-year term. It may also cover how to do weather coordination in the United States.

6. COMMERCIAL WEATHER DATA PILOT PROGRAM:

Dr. Karen St. Germain (NESDIS) reviewed NOAA's Commercial Weather Data Pilot (CWDP) program, the NESDIS Commercial Space Activities Assessment Process, and the NOAA Commercial Space Policy.

In January, NOAA released the Commercial Space Policy to establish the broad principles for the use of commercial space-based approaches to meet NOAA's observational

requirements. To supplement the principles established in the policy, NESDIS has released the draft NESDIS Commercial Space Activities Assessment Process.

The NESDIS process lays out the phases NESDIS will follow leading to any potential commercial data acquisition. First, NESDIS will release one or more Requests for Information (RFIs) to gather a sense of commercial capabilities and convey our interest in a new dataset. Based on assessment of the RFI responses, NESDIS will then release one or more Requests for Proposals (RFP) to acquire and evaluate commercial data, which will include the data specifications they require. Based on RFP responses, NOAA may purchase data from one or more vendors for analysis and evaluation through a demonstration project.

Because specifications are unique to each individual dataset, RFPs are an appropriate vehicle for sharing data specifications rather than through the policy or the process. The RFPs will focus on individual systems and allow for an in-depth, detailed description of requirements. Following the demonstration project and the pending results, NESDIS may issue one or more RFPs to purchase data from commercial sources for operational use by NOAA.

On May 24, 2016, NESDIS released an RFI to support NOAA's CWDP program. The RFI is the first step to bring radio occultation data from commercial companies to NOAA. The RFI seeks pre-launch data in order to facilitate broad participation and will gather the latest industry input as we consider what criteria will be included in a future RFP, the next step in carrying out the Pilot.

On June 21, 2016, NESDIS released an RFP to support the Commercial Weather Data Pilot. The draft RFP is open for public comment through July 15, with initial comments/questions due July 1. The RFP seeks on-orbit Radio Occultation data for the purposes of assessing the potential viability of this data in NOAA's weather modeling and forecasting. Comments received to the draft RFP will inform development of the final RFP, anticipated for release later this summer.

In conjunction with the draft RFP open comment period, on July 7 NESDIS will host the third in their series of Community Engagements with the commercial space industry. Topics will include addressing questions about the draft RFP and an update on NESDIS commercial efforts more broadly.

Dr. Germain will keep COES up-to-date on the Commercial Weather Data Pilot program process and progress.

7. ACTION ITEM REVIEW / NEXT MEETING:

The Executive Secretary documented one action item and will send that to members for review. The cochair commented that any action items should be as actionable as possible. The next meeting is tentatively scheduled for September 7, 2016 1-3 P.M.

8. ADJOURN: The meeting adjourned at 3:05 P.M. EDT.

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2016-2 Meeting Action Items

Action Item 2016-2.1: Review the draft “Environmental Satellite Coordination” briefing presented at the COES meeting 2016-2. Provide feedback to the Executive Secretary by the due date. The ExecSec will revise the briefing, coordinate changes with the COES CoChairs and present it next COES meeting.

Responsible Office: COES Members, ExecSec

Due Date: July 15, 2016