

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

COMMITTEE FOR OPERATIONAL ENVIRONMENTAL SATELLITES (COES)

Record of Actions: 2017-1 Meeting

March 17, 2017, 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
DOC Cochair	NOAA-NWS	Mr. Joe Pica
DoD Cochair	USN	Mr. David McCarren
DOC	NOAA-NESDIS	Ms. Jennifer Clapp
DOC	NOAA-NESDIS	Mitch Goldberg
DOC	NOAA-OMAO	LCDR Jason Mansur
DOC-NESDIS	Aerospace Corp	Mr. Michael Bedard (T)
DoD	HQ USAF A3W	Lt Col Ken Burton (T)
DoD	USN-N2N6	CDR David Colbert
DoD	SAF-PDSA	Mr. Jose Harris (T)
DoD	NAVOCEANO	Mr. Mark Middlebusher
DoD	HQ USAF A3-SS	Maj William Pryor
NASA	HQ NASA	Dr. Jack Kaye (T)
NASA	HQ NASA	Dr. Ramesh Kakar (T)
NASA	HQ NASA	Dr. Tsengdar Lee (T)
NASA	HQ NASA	Ms. Sandra Smalley
	MIT-LL	Dr. Bill Blackwell (T)
NGA	SXOW	CDR Price (T)
NGA	MCR LLC supporting	Ms. Elia Sanjume (T)
NRO	Aerospace Corp	Mr. Norm Modlin (T)
OSTP	USGEO	Dr. Alexis McKetrick
OFCM	Federal Coordinator	Dr. William Schulz

Date of Issue: April 3, 2017

1. OPENING REMARKS:

Mr. Michael Bonadonna , COES Executive Secretary, opened the meeting and provided administrative comments. The COES co-chairs welcomed the attendees and conducted a roll call of participants attending the meeting and on the phone.

The agenda for this meeting and ROA from the last meeting were approved.

2. ACTION ITEM REVIEW:

The Executive Secretary reviewed the Action Items from previous meetings. The members asked to keep this action open through the next meeting.

AI #	Text	Responsible Office	Comment	Status	Due Date
2016-3.1	Draft and coordinate a letter from the Federal Coordinator to NTIA describing the impact of spectrum allocation reduction on the Federal Weather Enterprise.	OFCM, COES Members	11/29: Letter has been drafted and coordinated. Pending approval. Will be statused at the March COES mtg	In progress	03/17/17
2016-4.1	Review the draft COES Terms of Reference (ToR) document. Provide any recommendations for changes to the Executive Secretary	COES Members	1/6/17: a few comments received and incorporated	Closed	01/06/17
2016-4.2	Collect and adjudicate any comments received on the draft COES ToR and provide a final version for approval at the next COES meeting in March 2017.	ExecSec	2/27/17: Comments collected and adjudicated. Final version sent to COES	Closed	02/23/17
2016-4.3	Schedule next meeting for March 2017; include update briefings on JPSS and GOES-16.	ExecSec	Scheduled for 3/17 @ 1-3p. JPSS brief on agenda.	Closed	02/02/17

3. STRATEGIC PLAN FOR FEDERAL WEATHER ENTERPRISE COORDINATION:

Dr. William Schulz, Federal Coordinator for Meteorology, provided a summary of the Strategic Plan for Federal Weather Enterprise Coordination. This was produced by the Joint Action Group for Federal Plan Revision, which included representatives from many ICMSSR agencies. OFCM has been responsible for producing an annual Federal Plan for Meteorological Services and Supporting Research since 1964. Over the years, document

swell to over 200 pages, contained multiple detailed budgetary spreadsheets, and generally was not widely used.

The new process entails production of quadrennial Strategic Plan and Annual Reports. The first version of the Strategic Plan will be submitted to the Federal Committee for Meteorological Services and Supporting Research (FCMSSR) for approval in April 2017. The top-level Goals for the draft Strategic Plan are as follows:

1. Improve the resolution, frequency, information content and sustainability of global observing capabilities.
2. Make Federal forecasting processes more resilient for all relevant time and spatial scales.
3. Ensure availability of effective and consistent decision support products, information and services.
4. Conduct productive, synergistic interagency research efforts.
5. Develop, recruit, and sustain a professional diverse federal workforce.
6. Coordinate messaging about FWE priorities and needs.

The Annual Report will be developed as a compact (~50 pages) document providing the status of actions towards achieving the goals and objectives of the Strategic Plan. It will contain a few high-level budget spreadsheets based on the public President's Budget (PB) submission to satisfy statutory requirements of Public Law 87-843 which calls for an annual review of Federal spending on meteorology. The annual report will be published in March 2018 and every year thereafter to support Federal agency budget processes.

COES will be tasked to provide input to the annual plan each year.

4. COES TERMS OF REFERENCE (ToR):

Per ICMSSR AI2015-1.6 OFCM will "Update the Terms of Reference documents for all Committees, Working Groups, and Joint Action Groups subordinate to the ICMSSR to include formalized engagement with OSTP" by April 1, 2017, the Executive Secretary called for a final voice concurrence on the COES Terms of Reference (ToR) document. The ToR was sent to the COES members on Dec 20, 2016 for review and comment. All comments were received and incorporated into the revised document.

Based on discussion during the meeting NASA membership will be broadened to include all three Divisions of the Science Mission Directorate: Earth Science Division, Heliophysics Division, and the Joint Agency Satellite Division.

COES cochairs will rotate according to the following paragraph: "Cochairs will serve a two-year appointment. NOAA cochairs will rotate between NWS and NESDIS. DOD chairs will rotate between the USAF and USN. Rotations will be staggered between NOAA and DOD each year."

The Executive Secretary will revise COES ToR document to include comments raised during the meeting then distribute the signed version. **See Action Item 2017-1.1.**

5. JPSS UPDATE:

Dr. Mitch Goldberg, Chief Scientist, Joint Polar Satellite System (JPSS) gave a User-focused update on the status of JPSS and the Suomi-National Polar Program (S-NPP) spacecraft and ground system. He presented background information explaining the utility of polar-orbiting environmental satellites and a detailed discussion on their benefits to numerical weather prediction. Dr. Goldberg described new capabilities provided by S-NPP for wildland fire detection and monitoring using a near IR imagery channel and the outstanding Night Visual Imagery capability.

He reported that S-NPP has been on orbit for the past five years delivering exceptional data to the user community. Assembly and preparation for JPSS-1 are proceeding on-track for a 4th Quarter Fiscal Year 2017 (4QFY17) launch. Procurement activities for JPSS-2 are also on track for a 1QFY22 launch. Approval and funding for JPSS-3 and JPSS-4 have been received from Congress. The program life cycle is baselined through 2038 to establishing a robust architecture for a fault tolerant observing system. Additionally, JPSS and EUMETSAT have signed a partnership agreement to implement a cooperative Joint Polar System Program and share ground assets at McMurdo, Antarctica and Svalbard, Norway.

Dr. Goldberg concluded his talk with an extensive discussion of science applications and user engagement. Details can be found in the briefing slides.

6. NASA's TROPICS CUBESAT MISSION:

The Time-Resolved Observations of Precipitation structure and storm Intensity with a Constellation of Smallsats (TROPICS) investigation will develop and launch a constellation of CubeSats to study the development of tropical cyclones through rapid-revisit sampling. The mission's Principal Investigator, Dr. William Blackwell of the Massachusetts Institute of Technology's Lincoln Laboratory provided an overview for COES discussion.

TROPICS will be the first demonstration that science payloads on low-cost CubeSats can push the frontiers of spaceborne monitoring of the Earth to enable system science. It will fill gaps in our knowledge of the short time scale—hourly and less—evolution of tropical cyclones. Our current capabilities are an order of magnitude slower. TROPICS will complement CYGNSS by making direct measurements of temperature, humidity and precipitation, in rapidly developing tropical cyclones. The mission has the potential to make frequent precipitation measurements, expanding on the coverage of the GPM mission.

TROPIS is a new CubeSat approach for Microwave Sounding which enables constellations of spacecraft to be placed on orbit. It will employ innovative instrument technologies and should enable the exploding commercial sector for CubeSat buses, components, launch services, and mission operations.

Dr. Blackwell provided an TROPICS overview including the science objectives, the CubeSat constellation observatory configurations, and mission implementation. His summary and path forward posited:

- We can now use a global constellation of CubeSats to determine the dynamic and thermodynamic relationships in rapidly evolving storms
- TROPICS will provide the first high-revisit microwave observations of precipitation, temperature, and humidity on a near-global scale
- TROPICS addresses PATH Decadal Survey mission objectives using a low-cost, easy-to-launch CubeSat constellation
- Measurements will complement GPM, CYGNSS, and GOES-R missions with high refresh, near-all-weather measurements of precipitation and thermodynamic structure
- TROPICS will increase our understanding of critical processes driving significant and rapid changes in storm structure/intensity
- Program ramping up now for 2020 launch readiness.

7. OPEN DISCUSSION:

- USSTRATCOM as directed ORS to use its ORS-8 mission to deliver a gap filler capability for Gap 1 (Cloud Characterization) and Gap 2 (Theater Weather Imagery). The nascent mission is being planned to launch in 2020/2021.
- The group discussed having USAF, NESDIS, and NASA provide updates on their commercial data buy initiatives for the next COES meeting in June. They would also like a brief status on GOES-16.
- The next CGMS meeting will be held in South Korea during the week of June 11, 2017.
- The National Space Weather Partnership (NSWP) managed by OFCM will conduct the 2017 Space Weather Enterprise Forum (SWEF) on June 27, 2017 at the NTSB Conference Center, at L'Enfant Plaza, Washington DC. All are welcome to participate.

8. ACTION ITEM REVIEW / NEXT MEETING:

The Executive Secretary thanked the participants for a very productive meeting. He will edit and sign the COES ToR then send it to COES members. The next meeting will be scheduled for the week of June 19-23, 2017 pending on the availability of the Co-chairs. **See Action Item 2017-1.2.**

The meeting adjourned at 3:00 P.M. EDT.

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2017-1 Meeting Action Items

Action Item 2017-1.1: Revise COES Terms of Reference (ToR) document to include comments raised during the meeting then distribute the signed version.

Responsible Office: Executive Secretary

Due Date: March 31, 2017

Action Item 2017-1.2: Schedule next meeting for June 2017 and arrange to have DOC, DOD, and NASA provide updates on their Commercial Space Data procurement initiatives.

Responsible Office: Executive Secretary

Due Date: June 1, 2017