

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

**COMMITTEE FOR OPERATIONAL ENVIRONMENTAL SATELLITES (COES)**

Record of Actions: 2018-1 Meeting

March 21, 2018, 9:00 a.m. EST

Room 7224, SSMC2

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

**PARTICIPANTS**

<b>Agency</b>	<b>Organization</b>	<b>Name</b>
DOC Cochair	NOAA-NESDIS	Ajay Mehta
DOD Cochair	USN	David McCarren
DOC	NOAA NESDIS	David Hermreck
DOC	NOAA-NWS	Joe Pica
DOC	NOAA NESDIS	Al Wissman
DOC	NOAA-NWS	James Yoe
DOD	USN CNMOC	Jeff Best
DOD	USACE	Lysanias Broyles
DOD	USN OPNAV N2N6E	CDR Jeff Dixon
DOD	USAF A3W	Lt Col Chris Hollinger
DOD	USSTRATCOM	Jude Holzer
DOD	NAVOCEANO	Mark Middlebush
DOD	SAF AQS	Matt Nowlin
DOD	SAF AQS	Maj Luke Rederus
DOD	USN NAVO	Lamar Russell
DOD	USAF AFSPC A5	Chris Stock
DOD	PDSA	Dan Weekly
DOT	FAA	Randy Bass
		Bill Caldwell
NASA	JASD	John Lee
NASA	ESD	Ramesh Kakar
NGA	MCR LLC supporting	Elia Sanjume
NRO	Aerospace Corp - Chantilly	Norm Modlin
	NAS NRC	Art Charo
	University of Colorado	Waleed Abdalati
	Global Weather Corporation	William B. Gail
OFCM	Federal Coordinator	William Schulz
OFCM	COES Executive Secretary	Michael Bonadonna
OFCM	COPC Executive Secretary	Kenneth Barnett
OFCM	Lead Meteorologist	Dave Chorney
OFCM	IWRCC Executive Secretary	Sim James
OFCM	STC	Floyd Hauth

Date of Issue: 30 May 2018

1. OPENING REMARKS:

The Executive Secretary initiated the meeting (a first with all virtual participants attendance) and provided administrative comments. The COES co-chair David McCarren welcomed the attendees and reminded participants to suggest agenda items for the next meeting. The agenda was reviewed and approved.

2. ACTION ITEM REVIEW:

The Executive Secretary reviewed Action Items from the previous meeting. Items 2017-4.1 4.2, and 4.4 remain open. Action Item 2017-4.3 is closed.

3. RADIO FREQUENCY INTERFERENCE (RFI) UPDATE:

Al Wissman, NOAA Spectrum Management, provided an update on the latest RFI issues for the GOES and JPSS satellite systems. He noted that the electromagnetic spectrum is a resource critical to NOAA missions that include air, water, space and surface operations, activities and uses. NOAA's National Weather Service relies on accurate, timely and reliable satellite observations to provide better information to save lives and property -- as it builds a Weather-Ready Nation. Mr. Wissman summarized the World Radio Conference 2019 agenda items for their upcoming meeting. These include consideration of frequency bands for the future development of International Mobile Telecommunications, the spectrum for telemetry, tracking and command in the space operation service for non-GEO satellites with short duration missions, regulatory framework for passive bands, and various topics dealing with the allocation of portions of the frequency spectrum. There is a growing demand for 400 MHz to uplink to the Data Collection Platform Report (DCPR) on GOES and other geosynchronous satellites. This band is also used for space allocation purposes. The concept of Satellite DCS use is to enable satellites the ability and authorization to use DCS as a low-rate (300 & 1200 bps) interface for low data rate Launch, Early Orbit, and Anomaly (LEO&A) and/or payload communications and thereby make them a coordinated part of DCS and decrease the risk of RFI to the DCS. NOAA OGC believes that reviews of the concept architecture demonstrates NOAA's ongoing efforts to use spectrum efficiently and share it where-ever possible. Passive sensors are especially vulnerable to RFI because of the very low levels of the detected signal that carries information. Passive bands in the radio frequency spectrum are an essential aspect of the data necessary to protect the public, safeguard our economy and advance our scientific knowledge. The RF spectrum has become a critical resource to many industries and sharing this resource reliably and safely is a technological challenge. NOAA, along with the WMO, CGMS and others, is working to ensure adequate protection of the passive bands from disrupting incursions. A Spectrum Pipeline Reallocation Engineering Study (SPRES) is scheduled for FY19/20. The SPRES objective is to quantify the sharing challenges for federal Earth station users as well as identify techniques to facilitate successful spectrum sharing without causing harm to the integrity or access to NOAA data.

Discussion following the presentation identified the need for more information on analyses and mitigation planning for RFI on passive sensing bands. **See Action Item 2018-1.1.**

4. STIWG UPDATE:

Lysanias Broyles (USACE), Satellite Telemetry Interagency Working Group (STIWG) Chair provided an update on STIWG activities including work on an interagency Memorandum of Understanding (MOU) for Open Data Collection System (DCS). The Satellite Telemetry

Interagency Working Group (STIWG) is a consortium of government agencies advising the GOES Data Collection System (DCS) manager on user requirements as pertinent to hydrologic, meteorologic, oceanic and other environmental data; reporting to the Subcommittee on Hydrology (SOH) of the Advisory Committee on Water Information (ACWI). The GOES DCS is a critical Federal system with an ever-expanding user base providing users, both foreign and domestic, with timely information to protect life and property, maintain safety, make appropriate water resource management decisions, forecast and operate during flood and drought conditions, generate fire weather products to ensure the safety of the public and fire personnel, etc.

Existing MOA's and MOU's with USACE provide fundamental structure to promote collaboration and improve scoping for future development, and establishes end-to-end GOES Coordination between STIWG agencies. Existing MOA/MOU's also allow USACE to establish Support Agreements (SA's) to receive funds from STIWG agencies in support of OpenDCS development through the Resource Management and Advisory contract. STIWG is working with the Hydrologic Engineering Committee to have all SA's in place by FY19.

STIWG OpenDCS will consolidate variants of OpenDCS. The Cove baseline will incorporate SUTRON enhancements and the unified platform will be the official STIWG released and supported software.

#### 5. SUMMARY OF THE DECADAL SURVEY FOR EARTH SCIENCE AND APPLICATIONS FROM SPACE:

William B. Gail, Chief Technology Officer, Global Weather Corporation and Waleed Abdalati, University of Colorado Boulder, provided a summary of the recently completed Decadal Survey for Earth Science and Applications from Space conducted by the Space Studies Board; Division on Engineering and Physical Sciences of the National Academies of Sciences, Engineering, and Medicine.

“Thriving on Our Changing Planet, A Decadal Strategy for Earth Observation from Space” is a report of the Decadal Survey for Earth Science and Applications from Space that was released on 5 January 2018. The task of the Steering Committee for the survey was to assess progress from 2007; develop a prioritized list of top level science and application objectives for 2017-2027; identify gaps and opportunities in the programs of record at NASA, NOAA, and USGS; and recommend approaches to facilitate the development of a robust, resilient, and appropriately balanced U.S. program of Earth observations from space. Five panels supported the work of the Steering Committee.

Earth science and derived Earth information have become an integral component of our daily lives, our business successes, and society's capacity to thrive. Extending this societal progress requires a focus on understanding and reliably predicting the many ways our planet is changing.

The Decadal Community Challenge is to pursue increasingly ambitious objectives and innovative solutions that enhance and accelerate the science/applications value of space-based Earth observations and analyses to the nation and to the world in a way that delivers great value, even when resources are constrained, and ensures that further investment will pay substantial dividends.

Programmatic implementation within the agencies will be made more efficient by increasing program cost-effectiveness, institutionalizing sustained science continuity, and enabling untapped interagency synergies. Improved observations will enable exciting new science and applications by initiating or deploying more than eight new priority observations of our planet and achieving breakthroughs on key scientific questions. Enhanced societal value will be provided to businesses and individuals from scientific advances and improved Earth information, such as increased benefits to operational system end-users, accelerated public benefits of science, and new enabling data for innovative commercial uses.

This report also provides recommended NASA priorities, NOAA observation system opportunities, and programmatics for NASA, NOAA, and USGS.

The report is available at: <http://www.nas.edu/esas2017>

6. OPEN DISCUSSION:

The discussion focused on proposed agenda topics for the next COES meeting:

- Update on JPSS.
- Update on GOES 17.
- Presentation on STAR about upcoming research missions which could provide data useful to operations.

7. ACTION ITEM REVIEW / NEXT MEETING:

The next meetings are tentatively set for June 22, September 21, and December 14, 2018.

The meeting adjourned at 11:05 a.m. EST.

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**2018-1 Meeting Action Items**

**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:** May 30, 2018