Working Group/Observational Data (Satellite Data)

draft Spring 2017 COPC (reviewed 3.23.17)

Co-Chairs:

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Satellite Data Requests

Phases: Access Approval, Change Approval, Implementation, Closure

Data	Requestor	Provider	Delivery	Status/Phase
GCOM-W Lvl 1b and Lvl 2 Prods	557th & FNMOC	NESDIS	March 2017	Implementation
SMAP	557th	NESDIS	N/A	Access Approval (data not yet acquired - TBD)
Radarsat	FNMOC	NESDIS	April 2017	Implementation
SSMIS Upper Air Soundings (UAS) Unified Pre-Processor (UPP)	NESDIS	FNMOC	April 2017	Implementation
S-NPP Ice Concentration	557th	NESDIS	April 2017	Implementation
MIRS	NAVO	NESDIS	March 2017	Closure

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SAPHIR 1A Radiances * (*understood to be data of opportunity only)	FNMOC	NESDIS	March 2017	Implementation
ScatSat	FNMOC	NESDIS	N/A	Access Approval (data not yet acquired - TBD)
SMDB Buoy and Satellite SST	FNMOC	NAVO		Implementation
GNSS Level 1b and level 2 Ocean Surface Wind Data	FNMOC	NESDIS	N/A	Access Approval (data not yet acquired - TBD)
GCOM RDR	FNMOC	557th WW		Implementation
SMOP	557th	NESDIS	March 2017	Closure

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INSAT-3D	FNMOC	NESDIS	N/A	Access Approval (data not yet acquired - TBD)
Sentinel-3A	NESDIS	NAVO	April 2017	Access Approval
IceCube	FNMOC	NESDIS	N/A	Access Approval (data not acquired – ESPC System owner pushed request back to CSAB)
Topical	FNMOC	NESDIS	N/A	Access Approval (data not acquired – ESPC System owner pushed request back to CSAB)

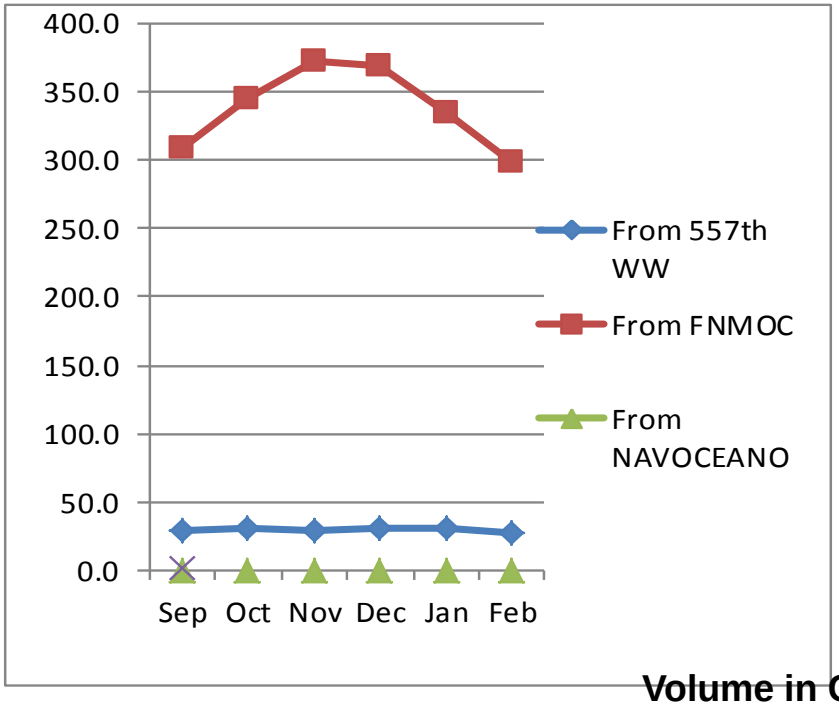
Recent Activities

- NESDIS/DAPE and FNMOC staffs continue to work DAPE Gateway access to new distribution server at FNMOC (testing ongoing)
- NAVO switched to "gzip" format for SST/buoy matchup data delivered to FNMOC to accommodate new security system/software requirements at FNMOC.
- NAVO initiated transfer of Sentinel-3A Sea Surface Height Anomaly data to FNMOC.
- NAVO is coordinating with NESDIS to implement a mechanism for testing and tracking data transfer rates to NESDIS.

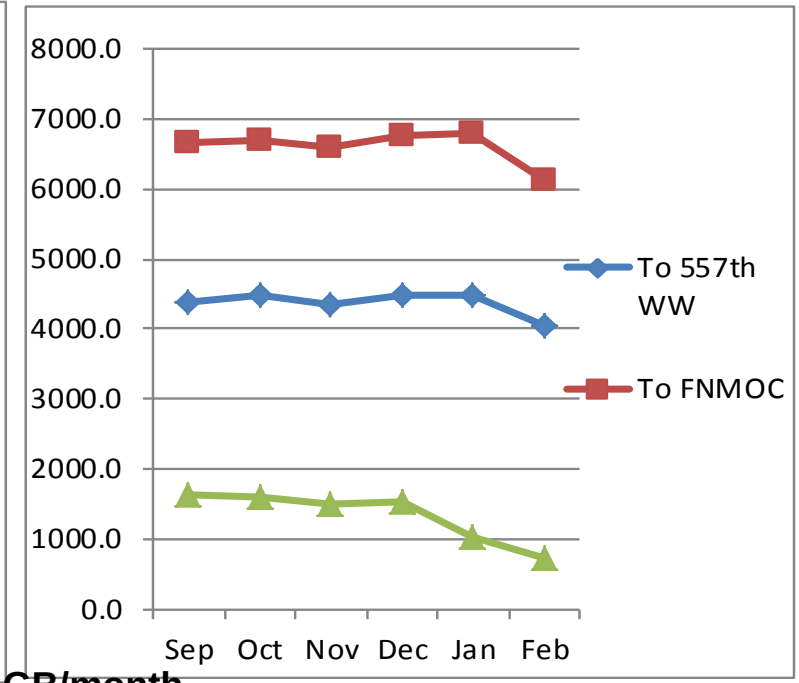
DAPE Gateway Statistics
September 2016 to February 2017

	Sep	Oct	Nov	Dec	Jan	Feb
From 557th WW	29.7	30.6	29.6	30.3	30.6	27.7
From FNMOC	308.2	345.0	372.6	367.9	334.6	298.0
From NAVOCEANO	0.1	0.1	0.1	0.1	0.1	0.1
	Sep	**Oct**	**Nov**	**Dec**	**Jan**	**Feb**
To 557th WW	4387.7	4486.6	4332.9	4468.6	4481.2	4038.9
To FNMOC	6667.6	6700.3	6590.9	6758.5	6779.4	6121.5
To NAVOCEANO	1635.6	1609.3	1519.4	1542.7	1021.6	747.4

Data sent to NESDIS



Data sent from NESDIS



Volume in GB/month

CIP Fail-over

ESPC CIP Fail-over

- The CIP fail-over scheduled for March 28-30, 2017, was postponed due to the threat of severe weather in the Central U.S.
- Fail-over rescheduled for April 18-20, 2017
  - The fail-over is scheduled to start at 1150Z and end at 1600Z
  - This is a full fail-over
  - The OPCs will need to check connectivity and ensure that they are able to put data on the DAPE Gateway at the CIP and receive products from the CIP
  - NDE and GOES data should continue to flow from PDA during the fail-over

Note – CIP is Critical Infrastructure Protection (i.e. COOP site) for ESPC that functions as a transparent backup for the most critical ESPC data services.

Ongoing Activities

Jason-2

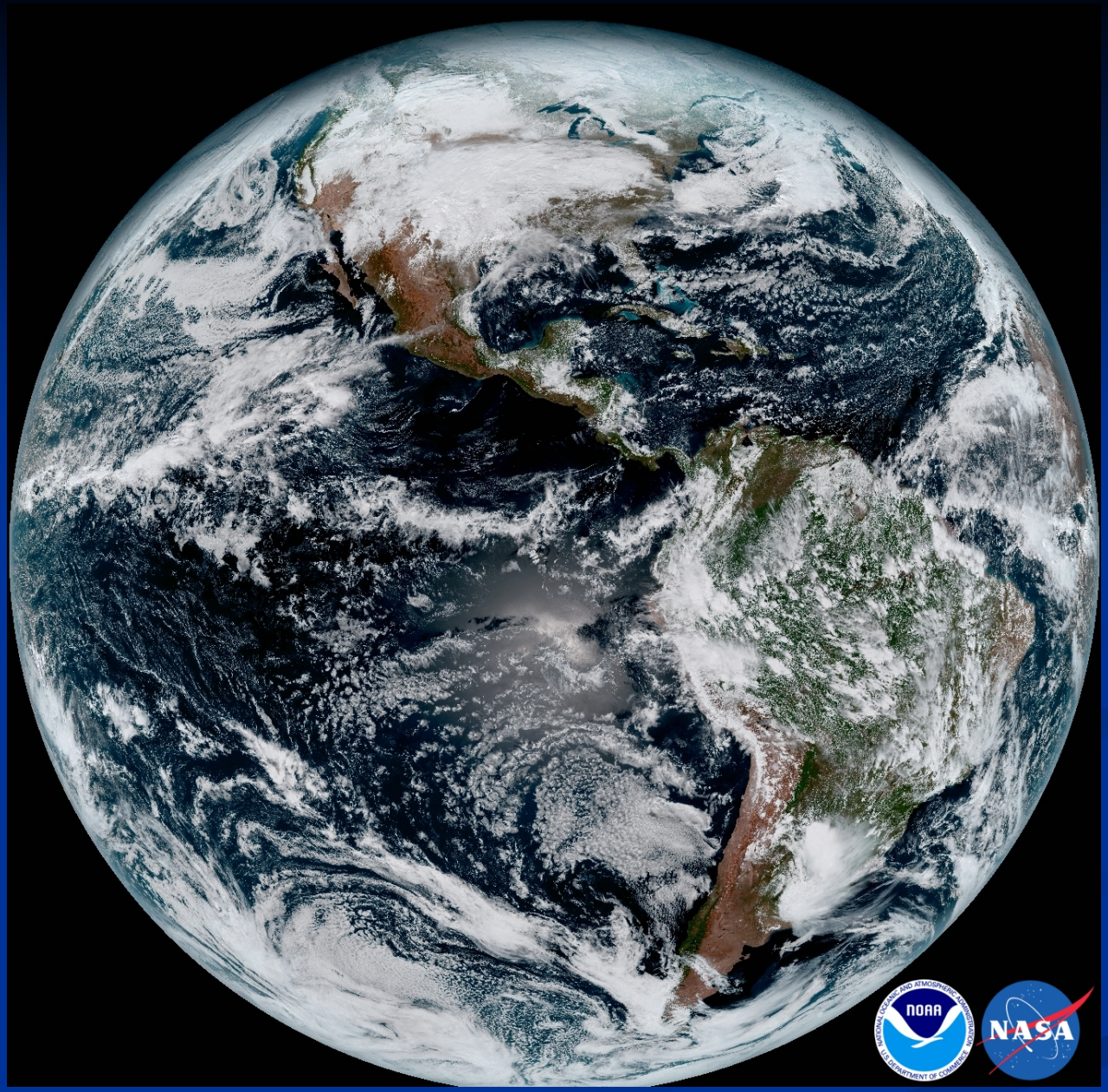
- Jason-2 Interleave orbit achieved on 14 October 2016
- NAVO commenced operational delivery of J-2 Interleave SSHa products on 8 Nov 2016
- Attainment of interleave orbit increased Jason Series contribution by 100% and reduced orbit ground-track spacing by 50%, from 315 km to ~155km, respectively, greatly improving mesoscale feature detection and characterization
- Currently in safe-hold mode
  - Staff s are working to recover the satellite

Sentinel-3A

- The Sentinel-3A satellite launched on February 16, 2016 in a new 27 day exact repeat orbit (ERO), which will provide additional improvement for mesoscale characterization.
- The NAVOCEANO ADFC gained access from NOAA/STAR for the NRT datasets on August 25 ,2016, and STC datasets on January 5, 2017.
- Sentinel-3a NRT/STC SSHa operational product delivery to Navy modelers began February 6, 2017.
- Sentinel-3a wind/wave products are not currently available. Work is in progress.

GOES-16 (GOES-R)

- Satellite was successfully launched on November 19, 2016
- GOES-R became GOES-16 when it reached geostationary orbit (day 14)
- Satellite currently positioned at 89.5° W longitude for checkout and validation (expected duration 1 year)
- The GOES-16 ABI sensor will send full disk images of earth every 15 minutes
- Methodology for data access via PDA has been established
- 557th will have a direct readout
- Data access request form may be required by NESDIS
- Satellite in Post Launch Testing (PLT)
  - Appears to be performing well
  - Some data has been released but not for operational use



Composite color full-disk visible image of the Western Hemisphere was captured from NOAA GOES-16 satellite at 1:07 pm EST on Jan. 15, 2017 and created using several of the 16 spectral channels available on the satellite's sophisticated Advanced Baseline Imager.

Meteosat-7 Follow-on

- Meteosat-8 arrived at 41.5° E on 21 September 2016
- Meteosat-8 became primary IODC mission on 1 February 2017
- Meteosat-7 to end all data dissemination on 31 March 2017
- Meteosat-7 to be moved to "graveyard orbit" in 2017
- NOAA to access Meteosat-8 data directly from EUMETSAT ops servers
- OPCs are coordinating access and exchange protocols

Other Activities

Mission Partner (Federated) Gateway

- WG/OD standing by to assist as required by gathering representative proxy data to test the operational effectiveness of the gateway – reference COPC action item

Product Distribution and Access (PDA)

- NDE 2.0 and PDA transited to full operations on March 8, 2017
  - Four data sets stopped being made available to the DAPE with this transition
  - An urgent Configuration Change Request (CCR) was issued to allow the DAPE to pull these data from PDA and make these data available to FNMOC
  - 10 additional data sets are in parallel processing and will be possibly turned off on April 6, 2017

DMSP

- F-19 continues autonomous transmission of real-time imagery/mission sensor data (may continue into 3rd QTR 2017 but with mapping degradation over time)
  - FNMOC submitted a requirement to AF to receive DRO F-19 microwave data via Mark IVB.
  - 557th WW has met FNMOC request for data and is shipping along with direct readout for all DMSPs.
  - SSMIS sensor spun down March 2017 and has failed making microwave data unavailable
  - F-18 and F-17 microwave data via Mark IV-B continues to be made available.
- F-20 was cancelled, final disposition under way.

Risk Reduction for Windsat

- The Operationally Responsive Space (ORS) COWVR mission will only have ground processing software /raw data to FNMOC (launch Oct/Nov 2017)
- Navy and Air force working together on risk reduction for Windsat and DMSP.
- WSF-M timeframe, 557th WW and FNMOC will be delivered raw data and run the ground processing software

COSMIC 2

Per latest NOAA update to the Committee for Environmental Satellites:

- COSMIC-2 Team is positioned for a successful mission and on schedule to support a C-2A launch in 2017. Launch may slip into 2018 depending on launch vehicle readiness.

Thank you -- questions?