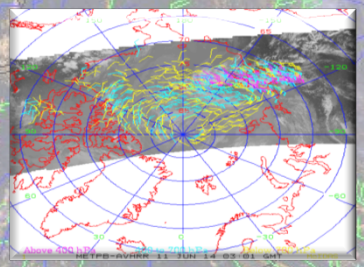
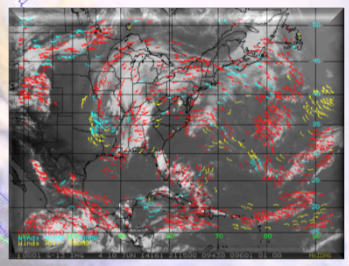
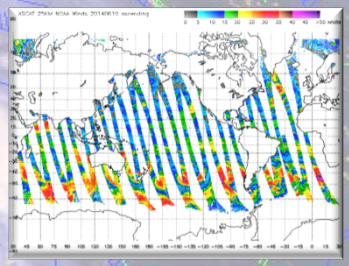
Operational Wind Products at NOAA/NESDIS

Current Status & Updates

Hongming Qi[1], Jaime Daniels[2]
William Pennoyer[1], Andrew Bailey[2], Jeffrey Augenbaum[1]
1: NOAA/NESDIS/OSPO/Satellite Products & Services Division (SPSD)
2: NOAA/NESDIS/STAR/Satellite Meteorology & Climatology Division (SMCD)

12th International Winds Workshop, Copenhagen, Denmark
June 16, 2014

TOPIC

- Status of NESDIS' GOES and POES Satellites
- Operational AMV System and Products
  - AMV System Architectures
  - AMV Products, Monitoring and Distribution
- Operational ASCAT processes and products
- Coming Update on Systems and Products

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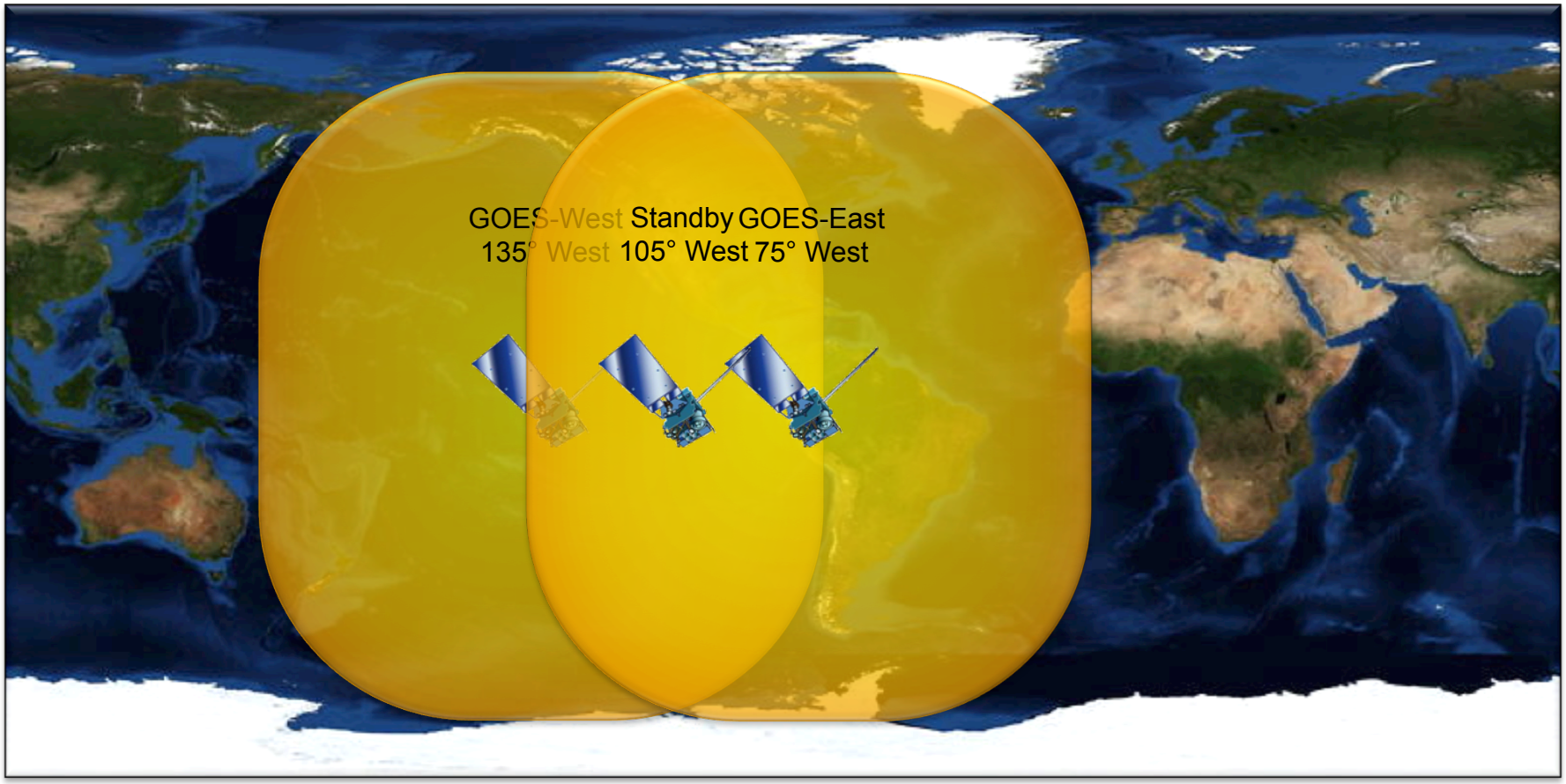
Nominal GOES Constellation



- Primary source of data for short term forecasting, especially of severe weather such as tropical storms
- Continuity of Operations since 1974
- GOES 13/14/15 improvements over GOES 10/11/12
  - Spring and fall eclipse outages are avoided by larger onboard batteries
  - Improved navigation and radiometrics

Status of GOES Satellites

Spacecraft	Launched	Status (Effective Date)
GOES-8	04/13/1994	*Decommissioned* (May 5, 2004)
GOES-9	05/23/1995	*Decommissioned* (Jun 15, 2007)
GOES-10	04/25/1997	*Decommissioned* (Dec 2, 2009)
GOES-11	05/03/2000	*Decommissioned* (Dec 16, 2011)
GOES-12	07/23/2001	*Decommissioned* (Aug 16, 2013)
GOES-13	05/24/2006	*Operational @ 75W* (Oct 18, 2012)
GOES-14	06/27/2009	On Orbit Storage @ 105W (Feb 13, 2013)
GOES-15	03/04/2010	*Operational @ 135W* (December 14, 2011)

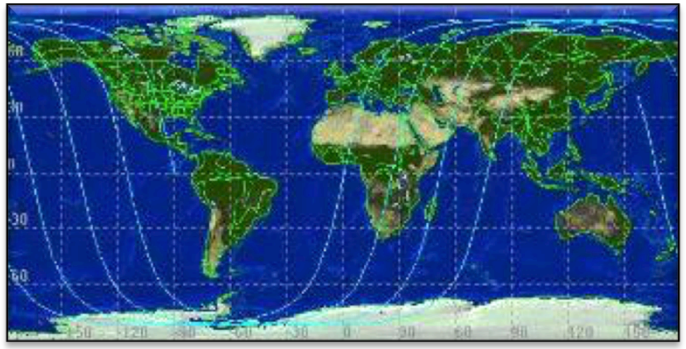
Spacecraft	Launch Date
GOES-R	2016

http://www.oso.noaa.gov/goesstatus/

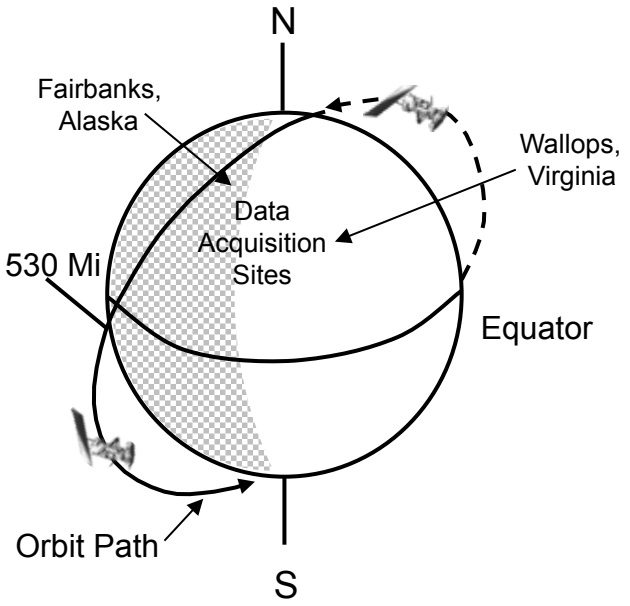
POES Constellation

AM Orbit (Metop-B)

PM Orbit (S-NPP)



- Two polar operational satellites; one in morning and one in afternoon orbit. Each orbit is 102 minutes
- Since May 2007, NOAA using EUMETSAT satellite operationally for mid-morning orbit through NOAA/EUMETSAT partnership
- Each satellite provides world-wide coverage every 12 hours (6-hour global sampling for the pair)
- Directly broadcasts data to global users



- Continuity of operations since early 1960s

Suomi NPP - Mission Status

- Launched (***October, 2011***)
- First visible/reflective images (***November, 2011***)
- First infrared/thermal images (***January, 2012***)
- NPP renamed Suomi NPP (***January, 2012***)
- PM Primary (***May, 2014***)

Status of POES Satellites

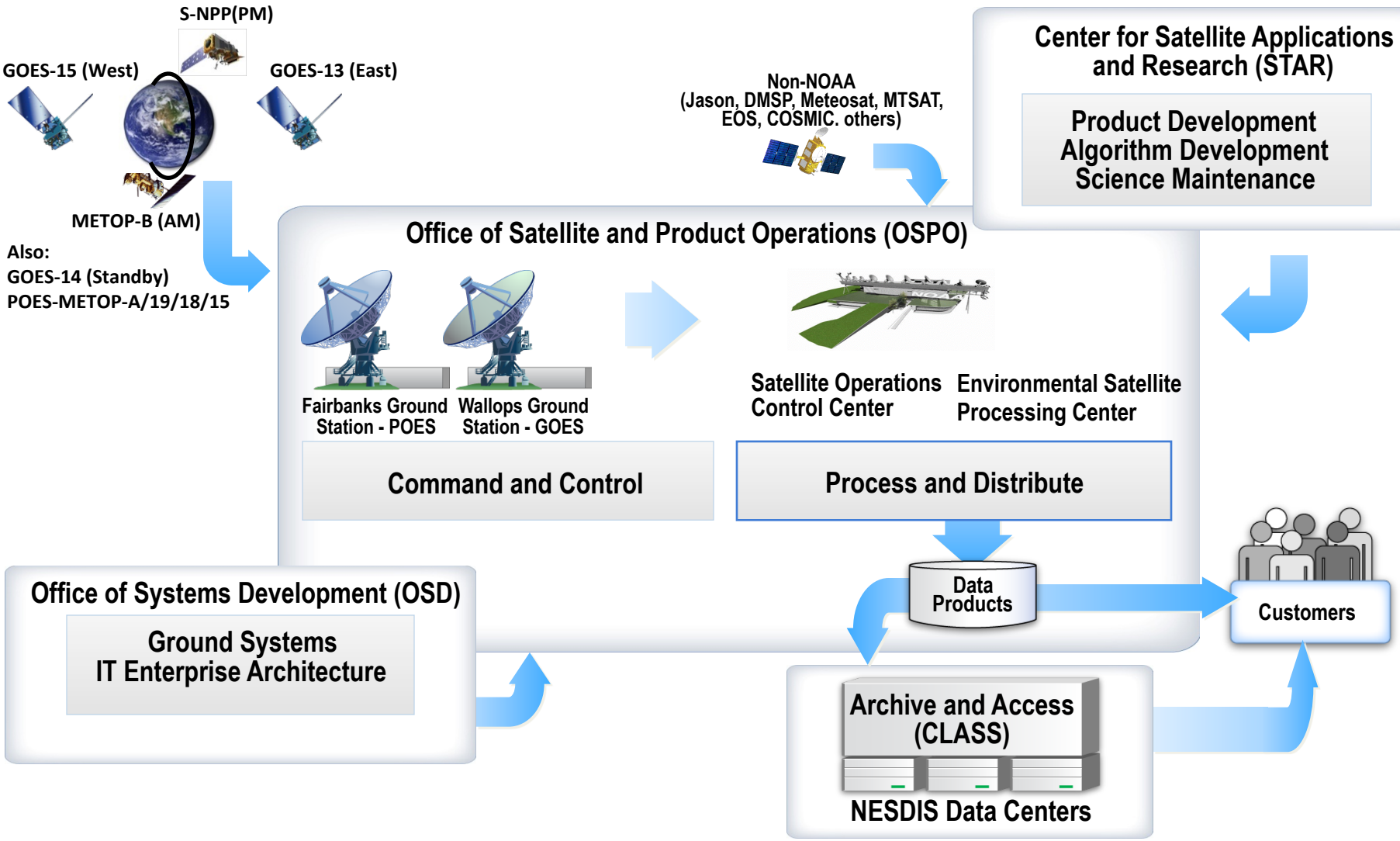
Spacecraft	Launched	Status (Effective Date)
NOAA-11	09/24/1988	*Decommissioned* (Jun 16, 2004)
NOAA-12	05/14/1991	*Decommissioned* (Aug 10, 2007)
NOAA-14	12/30/1994	*Decommissioned* (May 23, 2007)
NOAA-15	05/13/1998	*AM Secondary* (Dec 15, 1998)
NOAA-16	09/21/2000	*Decommissioned* (Jun 6, 2014)
NOAA-17	06/24/2002	*Decommissioned* (Apr 10, 2013)
NOAA-18	05/20/2005	*PM Secondary* (Aug 30, 2005)
METOP-A*	10/19/2006	*AM Backup* (May 21, 2007)
NOAA-19	02/06/2009	*PM Prime Services Mission* (Jun 2, 2009)
SNPP	10/28/2011	*PM Primary* (May 1, 2014)
METOP-B*	09/17/2012	*AM Primary* (Apr 24, 2013)

Spacecraft	Launch Date
JPSS-1	2017
METOP-C*	2017

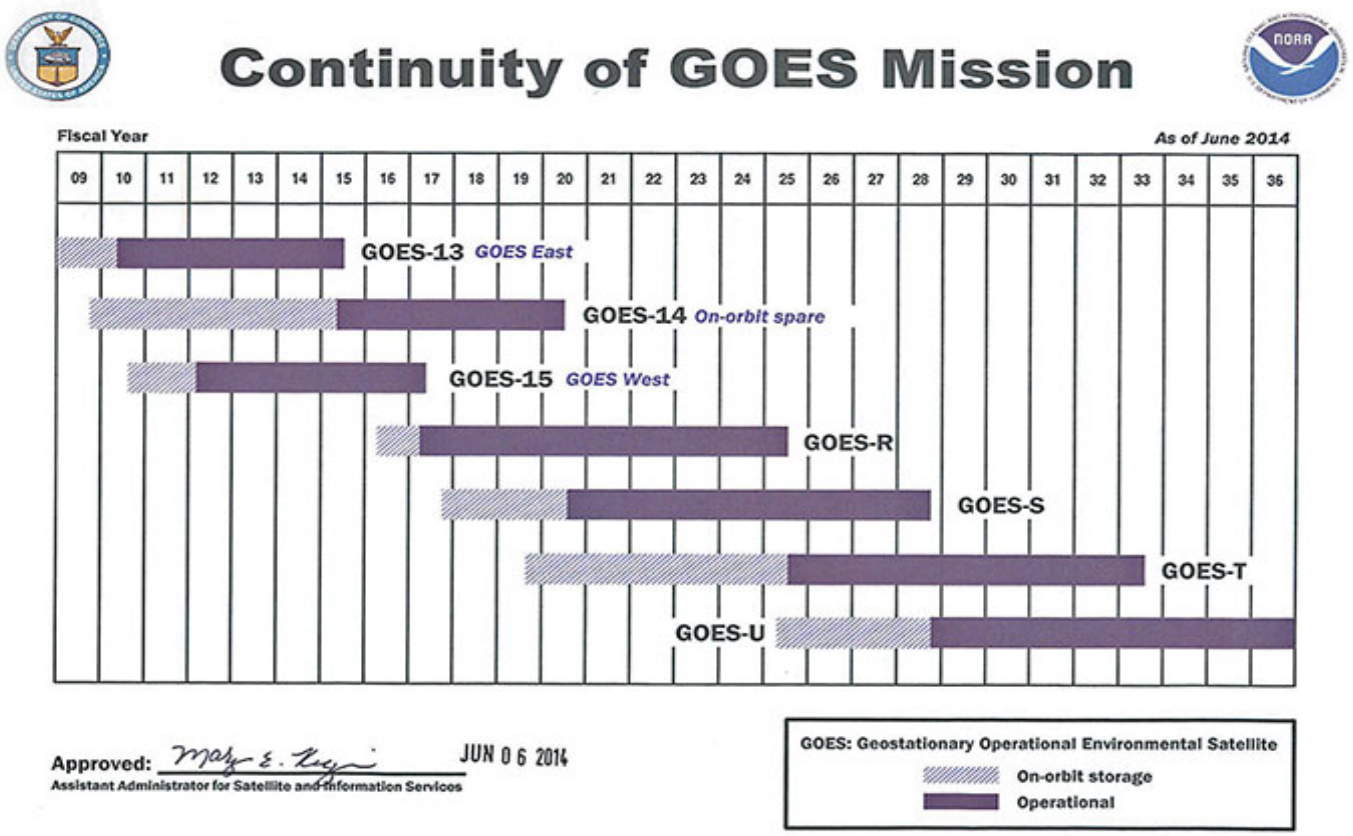
http://www.oso.noaa.gov/poesstatus/

* *Owned and operated by EUMETSAT*

Satellite Information Flow

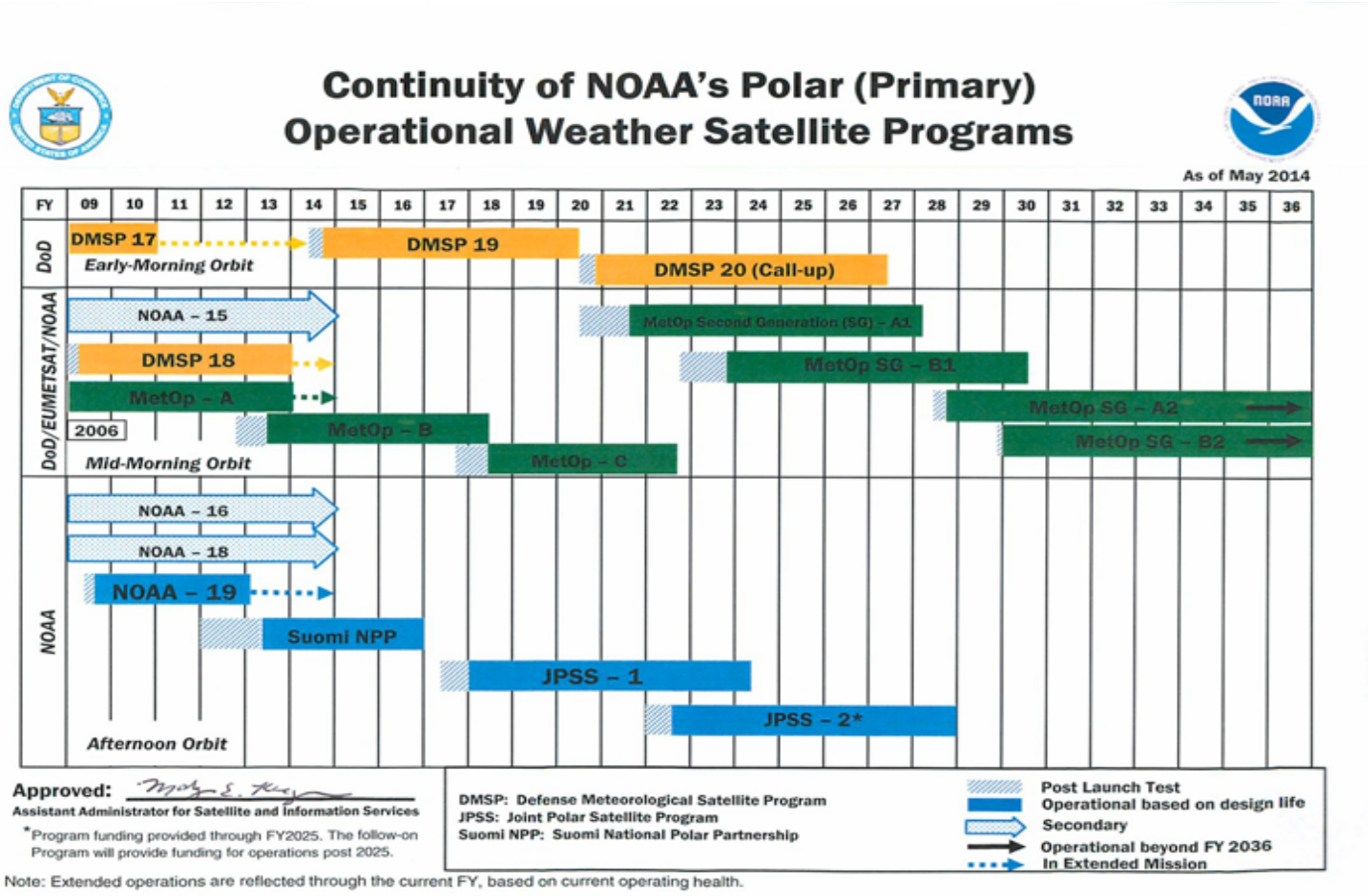


GOES Flyout Schedule



http://www.nesdis.noaa.gov/flyout_schedules.html

POES Flyout Schedule



http://www.nesdis.noaa.gov/flyout_schedules.html

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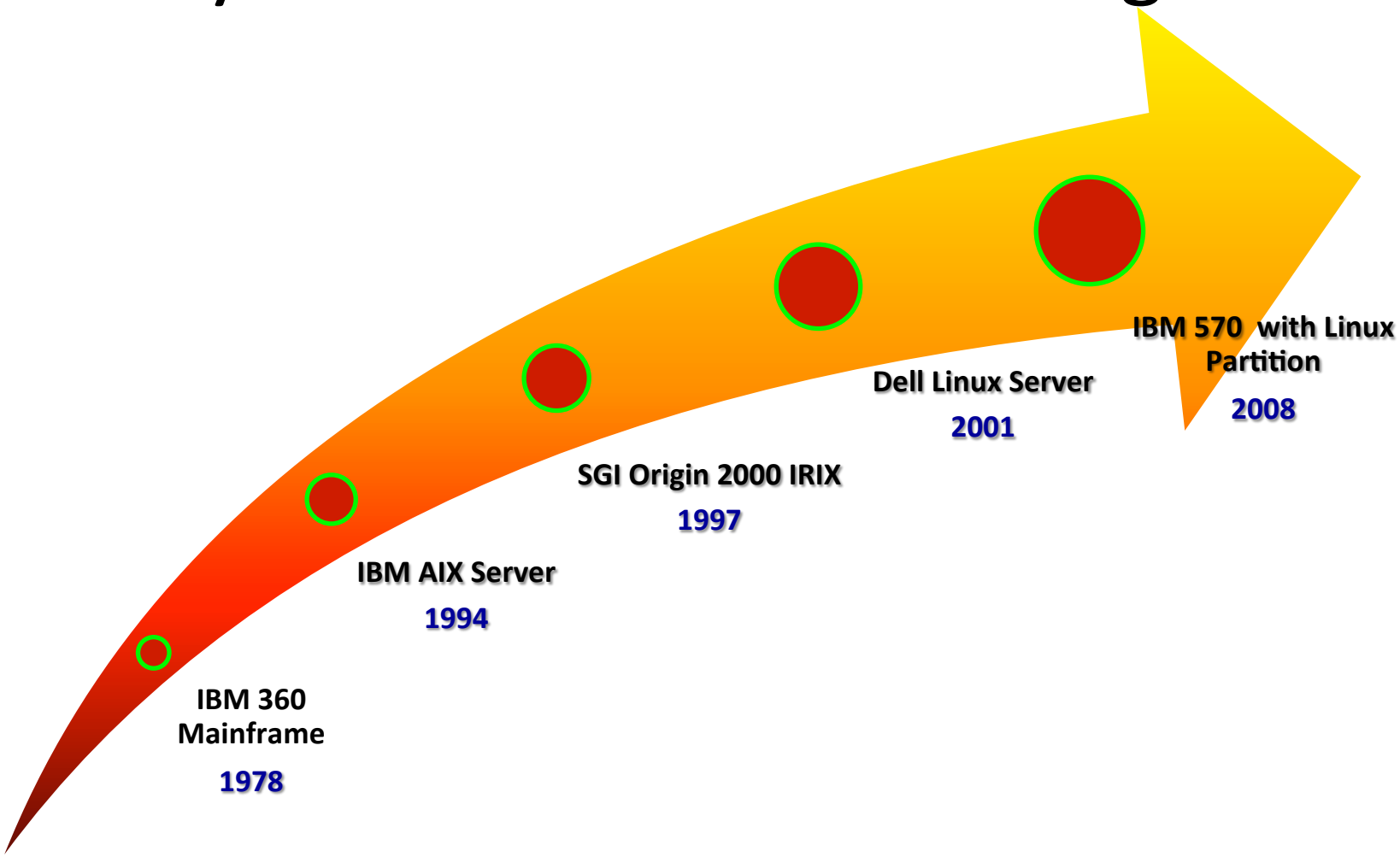
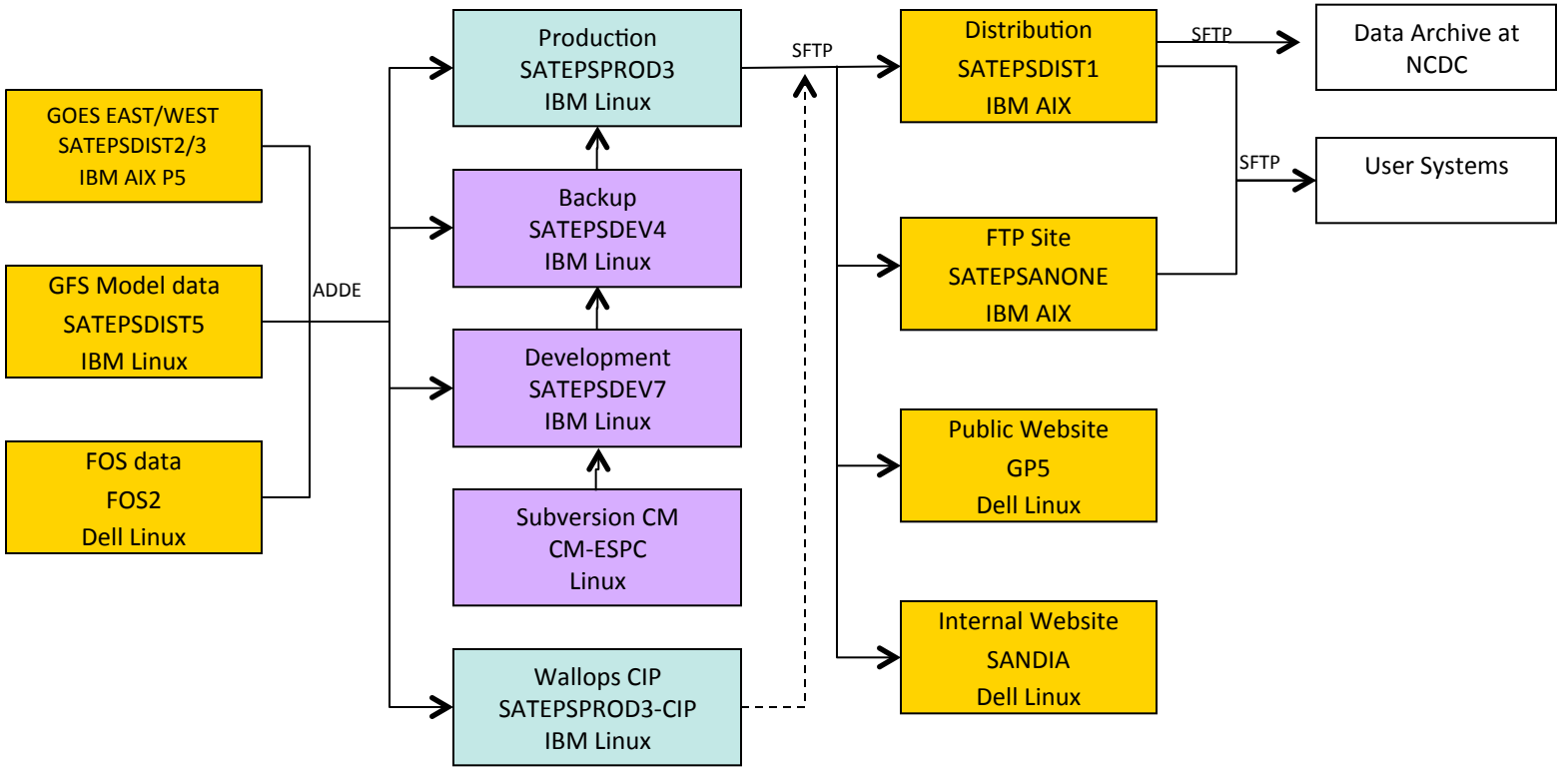
Operational AMV Systems

- GOES and POES AMV System
  - Generate GOES, MODIS, AVHRR and MTSAT-2 AMV products
  - Based on McIDAS
- New NDE system
  - An Enterprise System developed for S-NPP
  - Generate S-NPP VIIRS Polar Winds

Operational GOES/POES AMV System: System Architecture Change



GOES Winds System Architecture and Data Flow



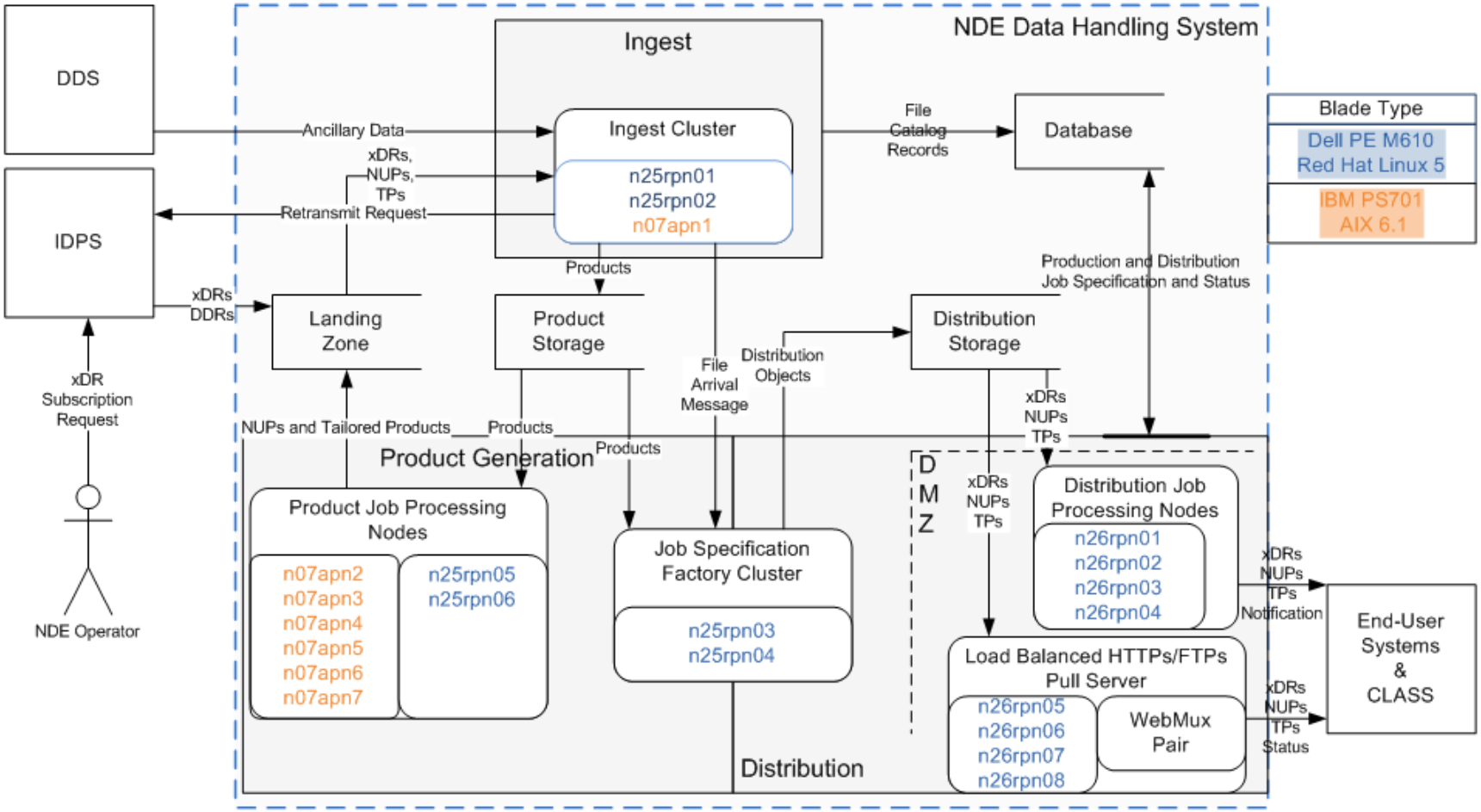
SATEPS Security at ESPC/NSOF

Production Zone
Development Zone
Distribution Zone (DMZ)
External User Zone

New OSPO NDE System

- S-NPP Data Exploitation (NDE) is an enterprise system to generate and distribute the NOAA Unique Products from S-NPP
- NDE Data Handling System (DHS) consists of Ingest, Product Generation, Product Distribution and Monitoring subsystems
- Numerous servers (IBM and Linux) and SAN
- VIIRS Polar Winds is one product from NDE

OSPO NDE System Diagram



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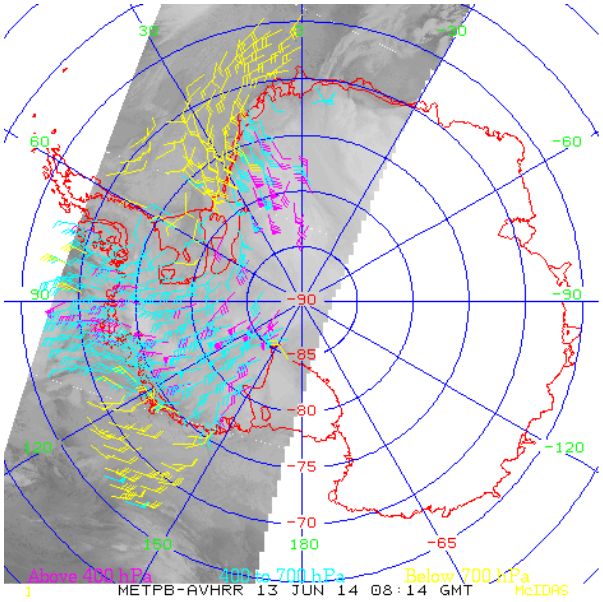
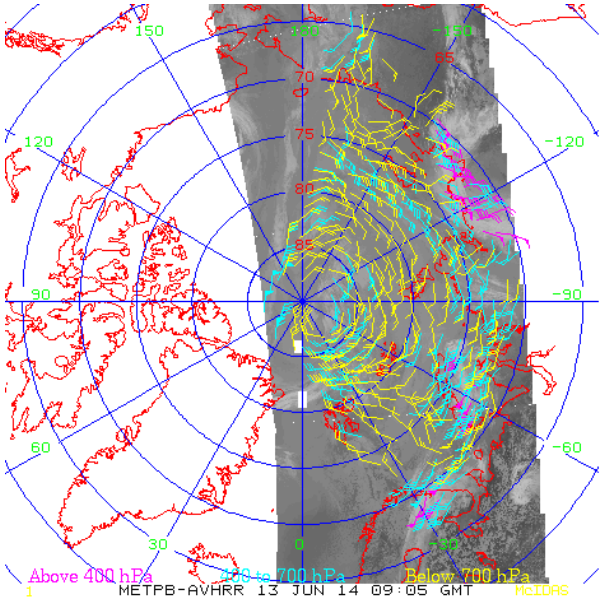
Update on Operational AMV Products (1/4)

- Discontinued AMV products in recent years
  - NOAA-17 AVHRR Polar Winds in September 2010 (AVHRR Scan Motor Issue)
  - TERRA MODIS Water Vapor Winds in July 2013 (Bad Water Vapor Channel)
  - NOAA-16 AVHRR Polar Winds in June 2014 (Decommissioned Satellite)

Update on Operational AMV Products (2/4)

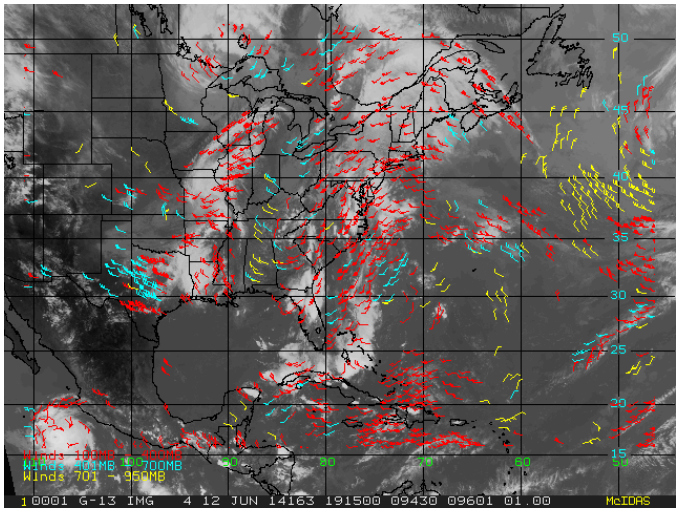
- New/updated AMV products in operation
  - Metop-B AVHRR Winds since ***April, 2013***





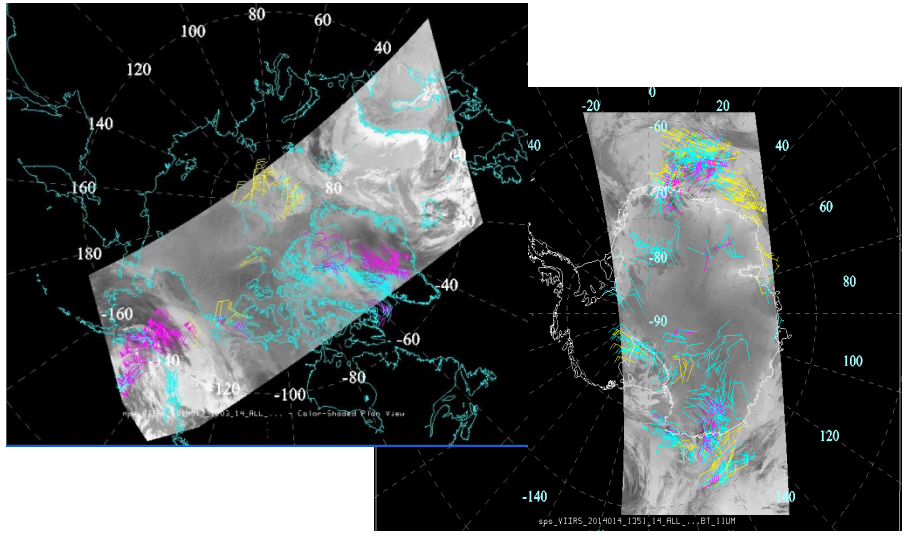
Update on Operational AMV Products (3/4)

- New/updated AMV products in operation
  - GOES Hourly Winds in ***May, 2014***
    - Increase the frequency from 3-hourly to hourly
    - The Quality Flag EE is available now



Update on Operational AMV Products (4/4)

- New/updated AMV products in operation
  - S-NPP VIIRS Polar Winds in ***May, 2014***
    - First AMV product using GOES-R AMV Algorithm
    - Available Formats: NetCDF4 and BUFR
    - Running and distributing via new OSPO NDE system



Operational AMV Products (1/4)

AMV Products	Frequency (hours)	Image Sectors	Image Interval (min)	WMO Header
GOES				
LWIR (10.68um) Cloud-drift	1	CONUS/PACUS	15	JACX11 (GOES-E) JCCX11 (GOES-W)
	1	NHEM/SHEM	30	
SWIR (3.9um) Cloud-drift	1(Nighttime)	CONUS/PACUS	15	JQCX11 (GOES-E) JRCX11 (GOES-W)
	1 (Nighttime)	NHEM/SHEM	30	
Water Vapor (6.55um)	1	NHEM/SHEM	30	JECX11 (GOES-E) JGCX11 (GOES-W)
Visible (0.625um) Cloud-drift	1 (Daytime)	CONUS/PACUS	15	JHCX11 (GOES-E) JJCX11 (GOES-W)
	1 (Daytime)	NHEM/SHEM	30	

Operational AMV Products (2/4)

AMV Products	Frequency (hours)	Image Sectors	Image Interval (min)	WMO Header
GOES SOUNDER				
Sounder WV (7.4um)	1	Tropical	60	JKCX11 (GOES-E) JMCX11 (GOES-W)
Sounder WV (7.0um)	1	Tropical	60	JNCX11 (GOES-E) JPCX11 (GOES-W)
AQUA/TERRA MODIS				
LWIR (11um) Cloud-drift	2	NHEM/SHEM (poleward 65^{o})	100	JBCX11 (TERRA) JICX11 (AQUA)
Water Vapor (6.7um)	2	NHEM/SHEM (poleward 65^{o})	100	JLCX11 (AQUA)

Operational AMV Products (3/4)

AMV Products	Frequency (hours)	Image Sectors	Image Interval (min)
MTSAT-2			
LWIR Cloud-drift	3	NHEM	30
	6	SHEM	30
SWIR Cloud-drift	3	NHEM	30
	6	SHEN	30
Water Vapor	3	NHEM	30
	6	SHEM	30
Visible Cloud-drift	3 (Daytime)	NHEM	30
	6 (Daytime)	SHEM	30

Operational AMV Products (4/4)

AMV Products	Frequency (hours)	Image Sectors	Image Interval (min)	WMO Header
AVHRR				
LWIR Cloud-drift	2	NHEM/SHEM (poleward 65°)	100	JCVX98 (Metop-B) JCVX95(N19) JCVX97(Metop-A) JCVX94(N18) JCVX91(N15)
VIIRS				
LWIR (10.76um) Cloud-drift	2	NHEM/SHEM (poleward 65°)	100	N/A

Operational GOES AMV Monitoring

Monitor of GOES-E HD Winds Operations

Thursday, 06/12/2014 17:27:46 UTC		Prev Day <<				Wednesday, 06/11/2014					>> Next Day												
		00Z	01Z	02Z	03Z	04Z	05Z	06Z	07Z	08Z	09Z	10Z	11Z	12Z	13Z	14Z	15Z	16Z	17Z	18Z	19Z	20Z	21Z	22Z	23Z
Northern Hemisphere (NH)	CD	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	SW	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	VZ	Wnd Bufr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	WV	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
Southern Hemisphere (SH)	CD	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	SW	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	VZ	Wnd Bufr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	WV	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
CONUS	CD	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	SW	N/A	N/A	Wnd	Wnd	Wnd	Wnd	Wnd	Wnd	Wnd	Wnd	Wnd	Wnd	Wnd	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	VZ	Wnd Bufr	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
Sounder Water Vapor	10C	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	10T	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A
	11C	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr	Wnd Bufr
	11T	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A	Wnd Bufr	Wnd Bufr	Wnd Bufr	N/A	N/A	N/A

Operational POES AMV Monitoring

AVHRR NOAA 15/16/18/19/METOP-A and METOP-B HD Winds Monitor

Thursday, 06/12/2014 17:28:55 UTC

METOP-A High Density Winds

N. H.	06/12/14 13:35 Wind BUFR	06/12/14 11:53 Wind BUFR	06/12/14 10:12 Wind BUFR	06/12/14 08:31 Wind BUFR
	06/12/14 06:49 Wind BUFR	06/12/14 05:08 Wind BUFR	06/12/14 03:27 Wind BUFR	06/12/14 01:45 Wind BUFR
	06/12/14 00:04 Wind BUFR	06/11/14 22:22 Wind BUFR	06/11/14 20:41 Wind BUFR	06/11/14 19:00 Wind BUFR
	06/11/14 17:18 Wind BUFR	06/11/14 15:37 Wind BUFR	06/11/14 13:56 Wind BUFR	
S. H.	06/12/14 12:44 Wind BUFR	06/12/14 11:03 Wind BUFR	06/12/14 09:21 Wind BUFR	06/12/14 07:40 Wind BUFR
	06/12/14 05:59 Wind BUFR	06/12/14 04:17 Wind BUFR	06/12/14 02:36 Wind BUFR	06/12/14 00:54 Wind BUFR
	06/11/14 23:13 Wind BUFR	06/11/14 21:32 Wind BUFR	06/11/14 19:50 Wind BUFR	06/11/14 18:09 Wind BUFR
	06/11/14 16:28 Wind BUFR	06/11/14 14:46 Wind BUFR	06/11/14 13:05 Wind BUFR	

METOP-B High Density Winds

N. H.	06/12/14 14:30 Wind BUFR	06/12/14 12:48 Wind BUFR	06/12/14 11:07 Wind BUFR	06/12/14 09:26 Wind BUFR
	06/12/14 07:44 Wind BUFR	06/12/14 06:03 Wind BUFR	06/12/14 04:21 Wind BUFR	06/12/14 02:40 Wind BUFR
	06/12/14 00:59 Wind BUFR	06/11/14 23:17 Wind BUFR	06/11/14 21:36 Wind BUFR	06/11/14 19:55 Wind BUFR
	06/11/14 18:13 Wind BUFR	06/11/14 16:32 Wind BUFR	06/11/14 14:51 Wind BUFR	
S. H.	06/12/14 13:39 Wind BUFR	06/12/14 11:58 Wind BUFR	06/12/14 10:16 Wind BUFR	06/12/14 08:35 Wind BUFR
	06/12/14 06:53 Wind BUFR	06/12/14 05:12 Wind BUFR	06/12/14 03:31 Wind BUFR	06/12/14 01:49 Wind BUFR
	06/12/14 00:08 Wind BUFR	06/11/14 22:27 Wind BUFR	06/11/14 20:45 Wind BUFR	06/11/14 19:04 Wind BUFR
	06/11/14 17:23 Wind BUFR	06/11/14 15:41 Wind BUFR	06/11/14 14:00 Wind BUFR	

NOAA-18 High Density Winds

N. H.	06/12/14 10:19 Wind BUFR	06/12/14 08:37 Wind BUFR	06/12/14 06:55 Wind BUFR	06/12/14 05:13 Wind BUFR
	06/12/14 03:31 Wind BUFR	06/11/14 22:25 Wind BUFR	06/11/14 20:43 Wind BUFR	06/11/14 19:01 Wind BUFR
	06/11/14 17:19 Wind BUFR	06/11/14 15:37 Wind BUFR	06/11/14 13:54 Wind BUFR	06/11/14 12:12 Wind BUFR
	06/11/14 10:30 Wind BUFR			
	06/12/14 09:28 Wind BUFR	06/12/14 07:46 Wind BUFR	06/12/14 06:04 Wind BUFR	06/12/14 04:22 Wind BUFR

NOAA-19 High Density Winds

N. H.	06/12/14 14:24 Wind BUFR	06/12/14 12:42 Wind BUFR	06/12/14 10:59 Wind BUFR	06/12/14 09:17 Wind BUFR
	06/12/14 07:35 Wind BUFR	06/12/14 07:35 Wind BUFR	06/12/14 05:53 Wind BUFR	06/12/14 04:11 Wind BUFR
	06/12/14 02:29 Wind BUFR	06/12/14 00:47 Wind BUFR	06/11/14 23:05 Wind BUFR	06/11/14 21:23 Wind BUFR
	06/11/14 19:41 Wind BUFR	06/11/14 17:59 Wind BUFR	06/11/14 16:17 Wind BUFR	06/11/14 14:35 Wind BUFR
	06/12/14 13:32 Wind BUFR	06/12/14 11:50 Wind BUFR	06/12/14 10:08 Wind BUFR	06/12/14 08:26 Wind BUFR

Operational MTSAT-2 AMV Monitoring

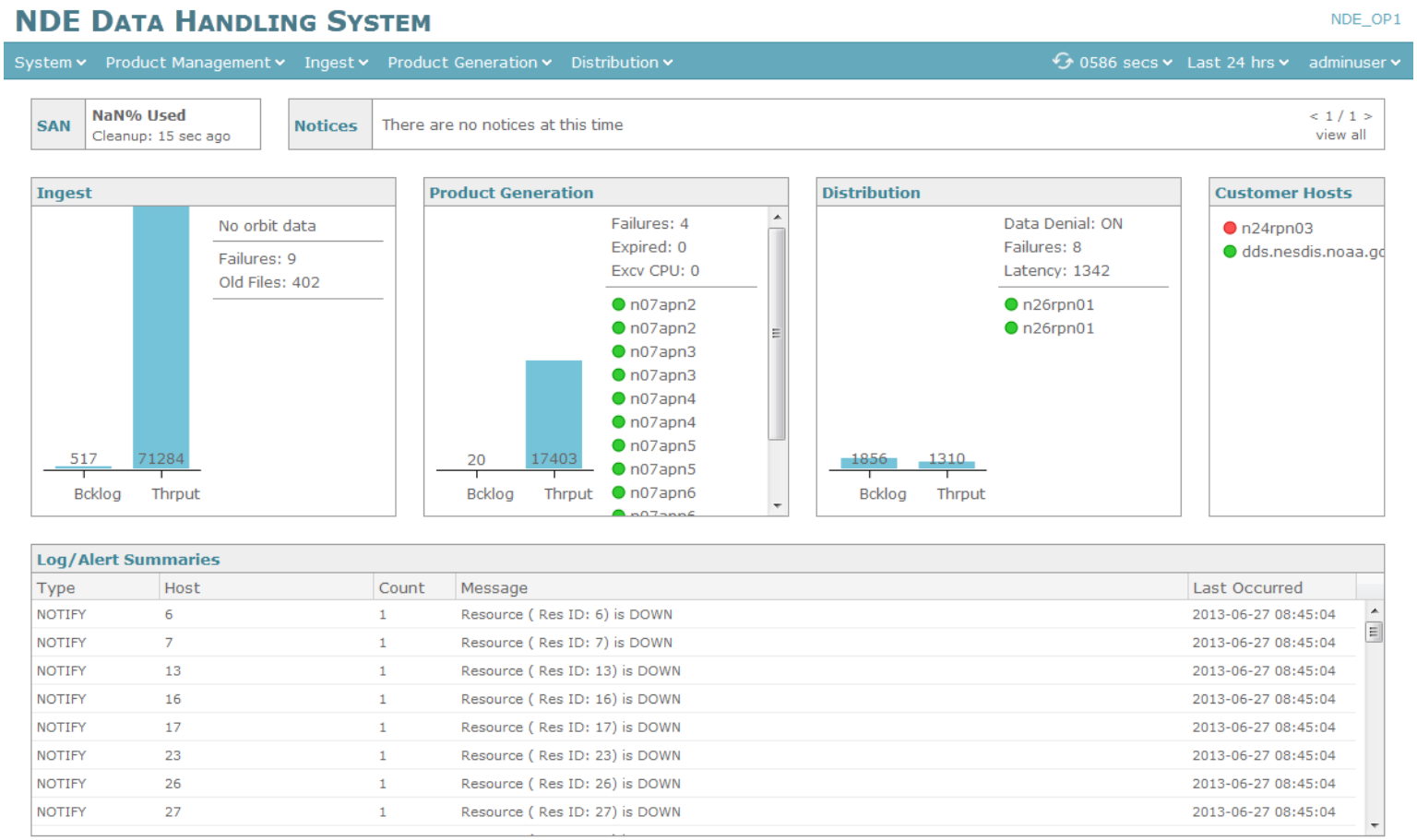
GOES-EAST HD Winds | GOES-WEST HD Winds | MT-SAT HD Winds | MODIS HD Winds | AVHRR HD Winds

More Info ...

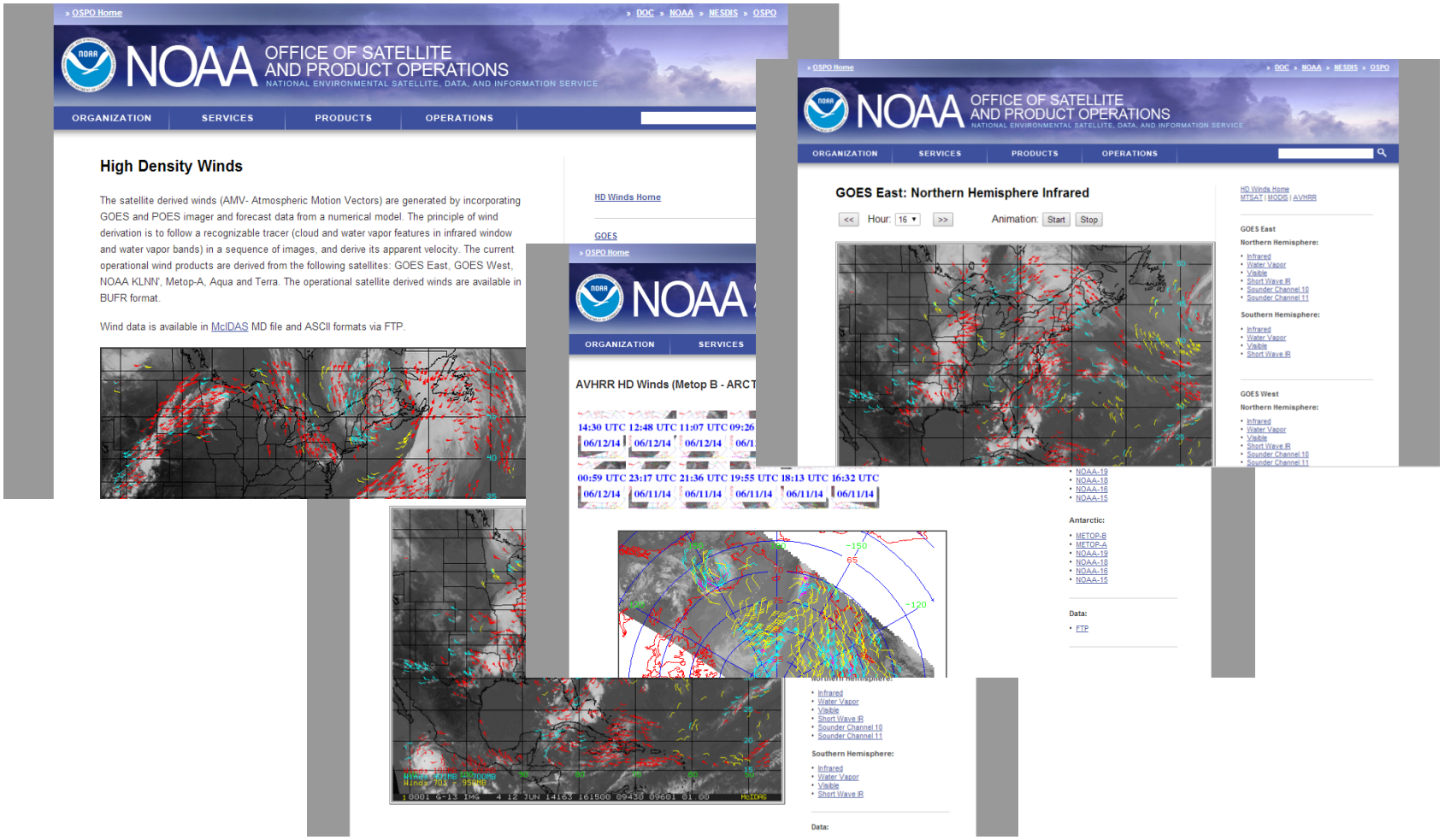
Monitor of MTSAT-2 HD Winds Operations

Thursday, 06/12/2014 17:31:14 UTC		Prev Day <<	Thursday, 06/12/2014				>> Next Day	
		00Z	03Z	06Z	09Z	12Z	15Z	18Z	21Z
Northern Hemisphere (NH)	CD	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR		
	SW	Wind BUFR	N/A	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR		
	VZ	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR	N/A		
	WV	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR	Wind BUFR		
Southern Hemisphere (SH)	CD	Wind BUFR	N/A	Wind BUFR	N/A	Wind BUFR	N/A		N/A
	SW	Wind BUFR	N/A	Wind BUFR	N/A	Wind BUFR	N/A		N/A
	VZ	Wind BUFR	N/A	Wind BUFR	N/A	N/A	N/A		N/A
	WV	Wind BUFR	N/A	Wind BUFR	N/A	Wind BUFR	N/A		N/A

OSPO NDE Process Monitoring



OSPO AMV Products Web Pages

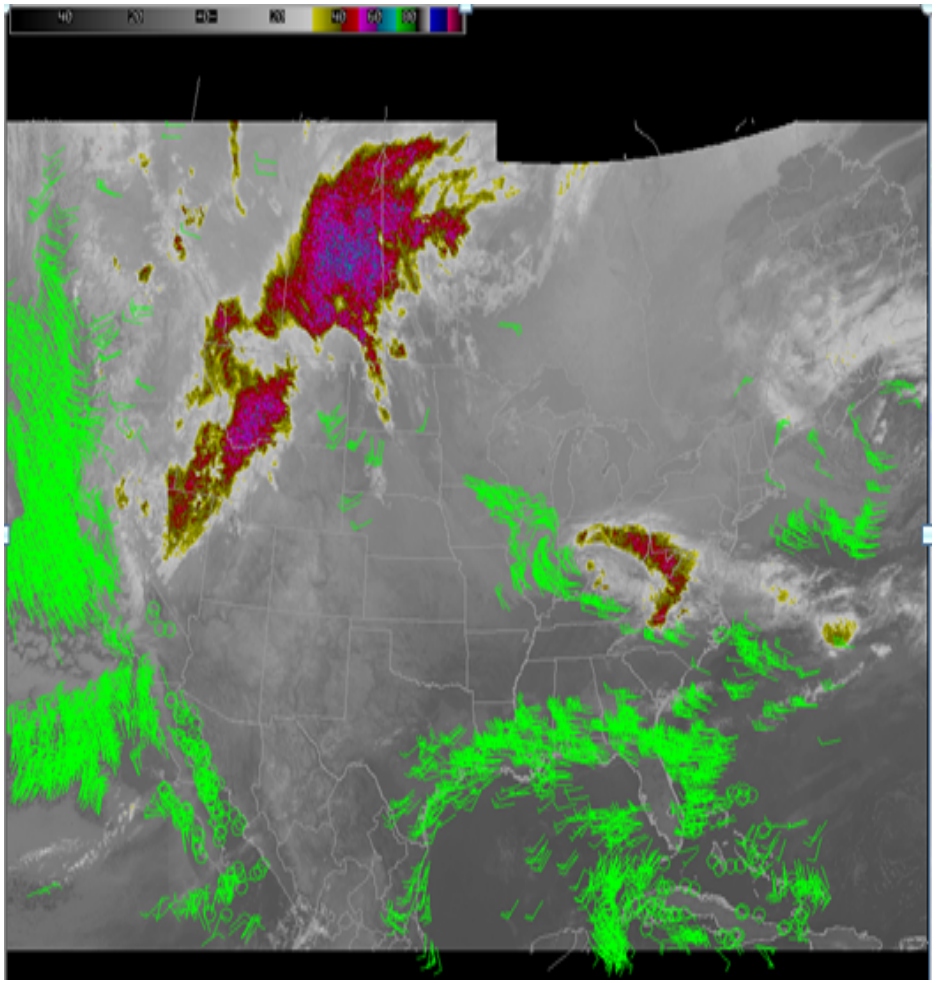


http://www.ospo.noaa.gov/Products/atmosphere/hdwinds/index.html

Operational AMV Products Distribution

- GOES, POES and MODIS AMV products continue to be distributed via SATEPSDIST1 (DDS) server for NOAA users and via GTS for international users
- S-NPP VIIRS Polar Winds is being distributed via OSPO NDE distribution subsystem (FTPS transfer protocol is needed)

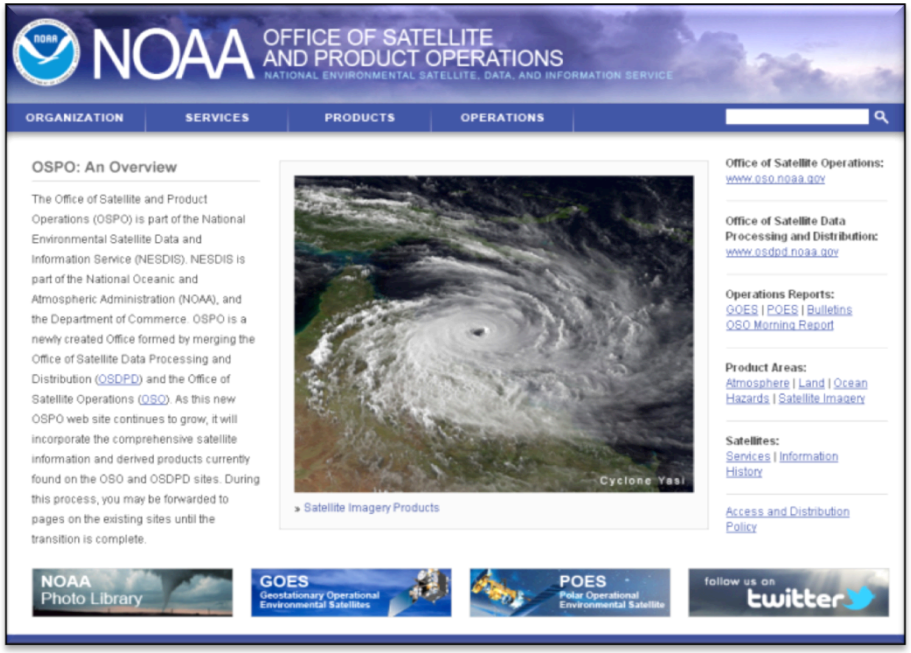
Day to Day Uses of AMV at AWIPS



- NWS AWIPS gives the field forecasters access to a multitude of digital data to help them in daily forecast preparation
- AWIPS display software allows for easy integration of AMVs with a multitude of other data sources like model analyses/forecasts, observations from other observation systems)

Data Access & Distribution Policy

Contact: NESDIS.data.access@noaa.gov



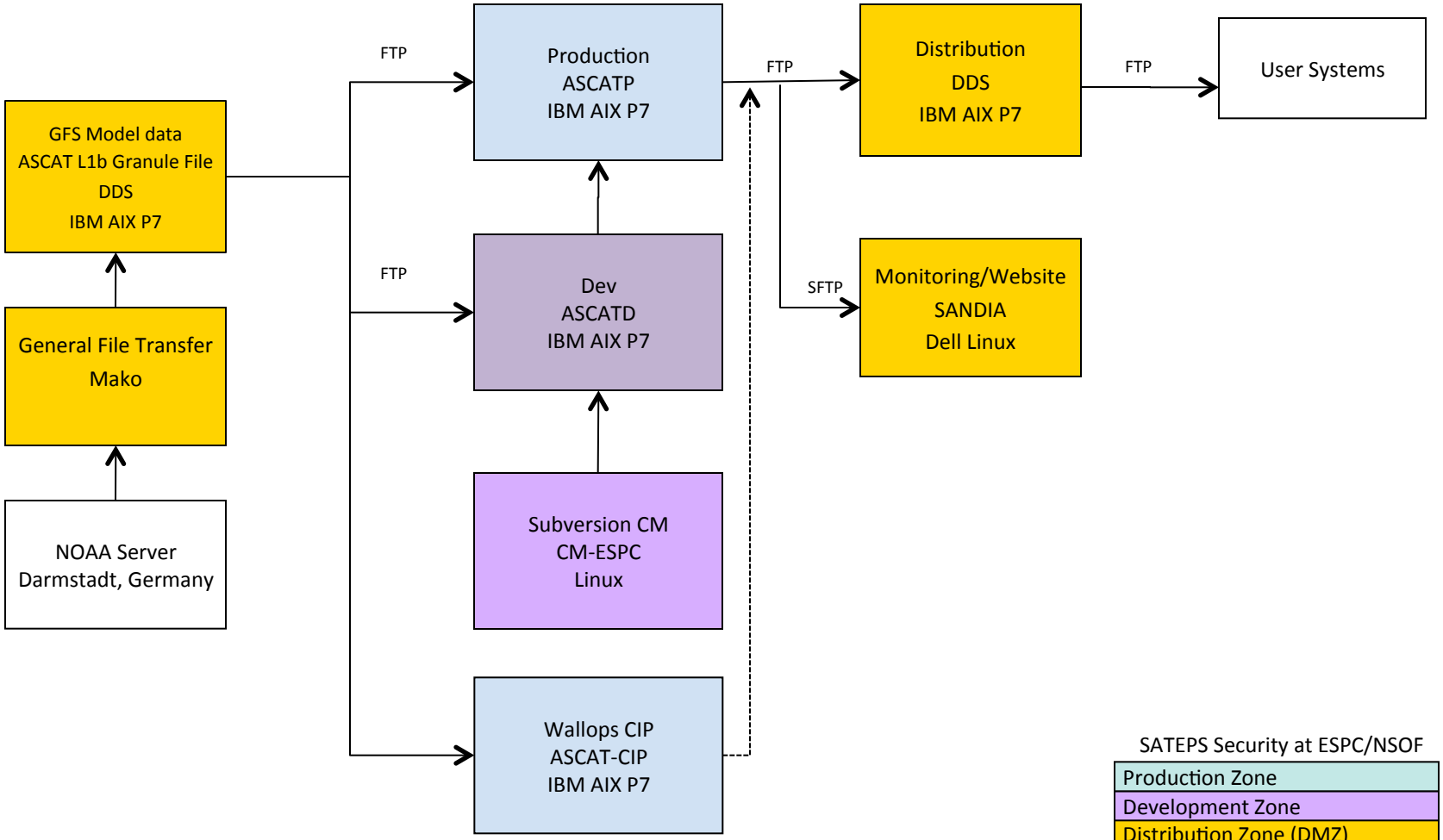
www.ospo.noaa.gov

- To consistently vet user requests for near real-time satellite data and products based on organizational affiliation or type of application
- To effectively manage data distribution resources to ensure effective system performance
- To be in compliance with policy, procedures and required interconnection agreements with NIST/DOC IT security regulations
- To factor ESPC IT system planning and future distribution resource availability and capacity needs into data access decisions

TOPIC

- Status of NESDIS' GOES and POES Satellites
- Operational AMV System and Products
  - AMV System Architectures
  - AMV Products, Monitoring and Distribution
- Operational ASCAT processes and products
- Coming Update on Systems and Products

ASCAT Ocean Surface Wind System and Data Flow



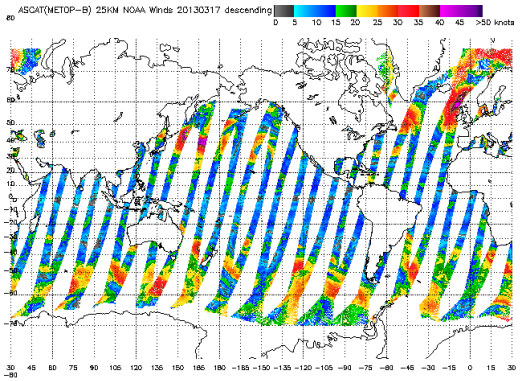
Operational ASCAT Winds (1/2)

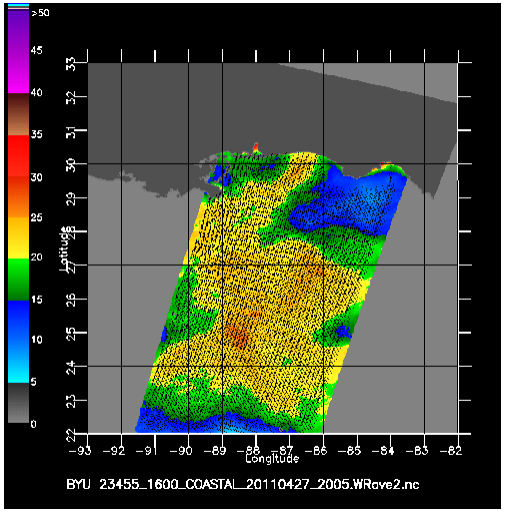
- Metop-B and Metop-A ASCAT
  - 50 km and 25 km OSVW products
    - 50 km
      - 3-min granule files in BUFR and binary
      - 3-min ASCAT-lite files for NAWIPS (binary)
    - 25 km
      - 3-min granule files in BUFR and binary
      - 3-min ASCAT-lite files for NAWIPS (binary)
      - 3-min ASCAT-lite files for AWIPS (BUFR)

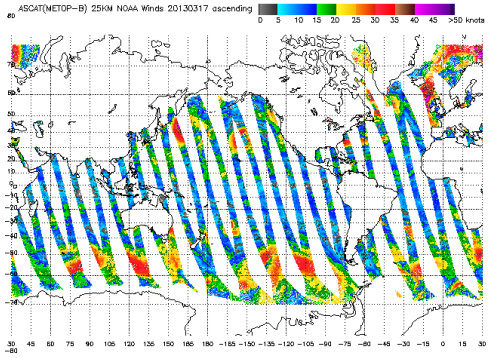
Operational ASCAT Winds (2/2)

– Enhanced resolution wind products

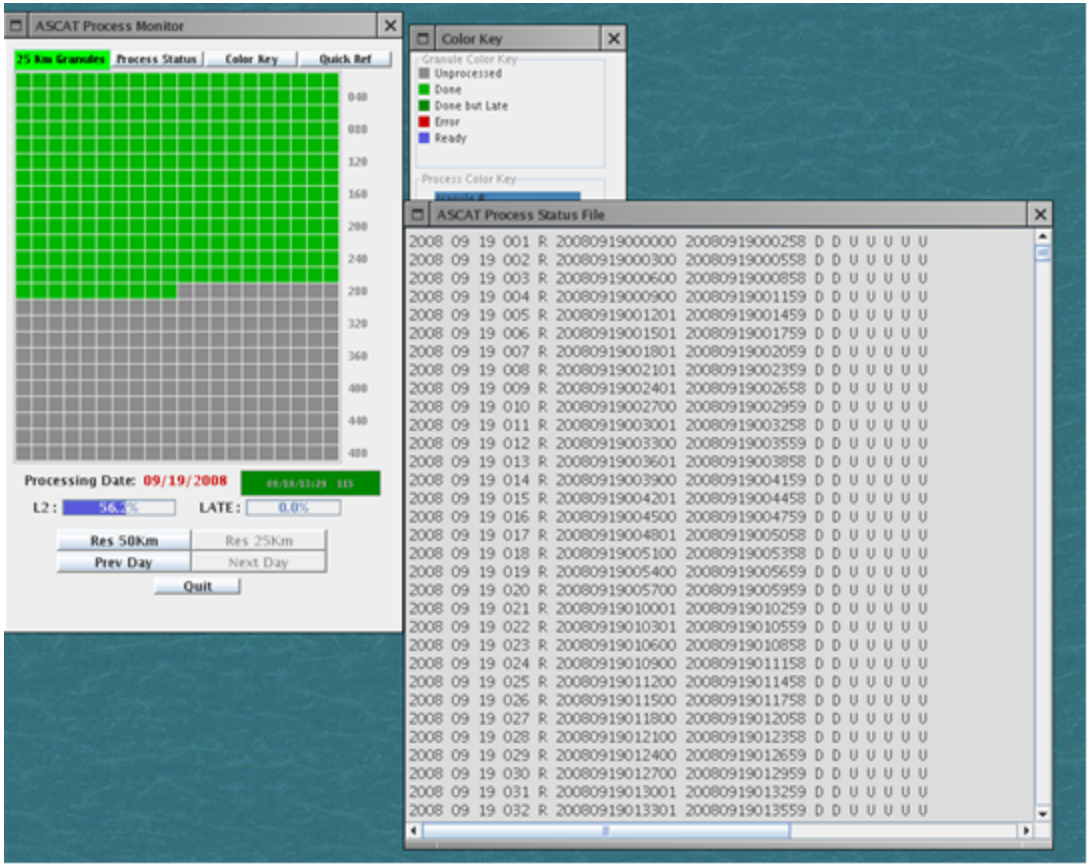
- Tropical cyclone storm sector wind speed imagery







ASCAT Winds Monitoring



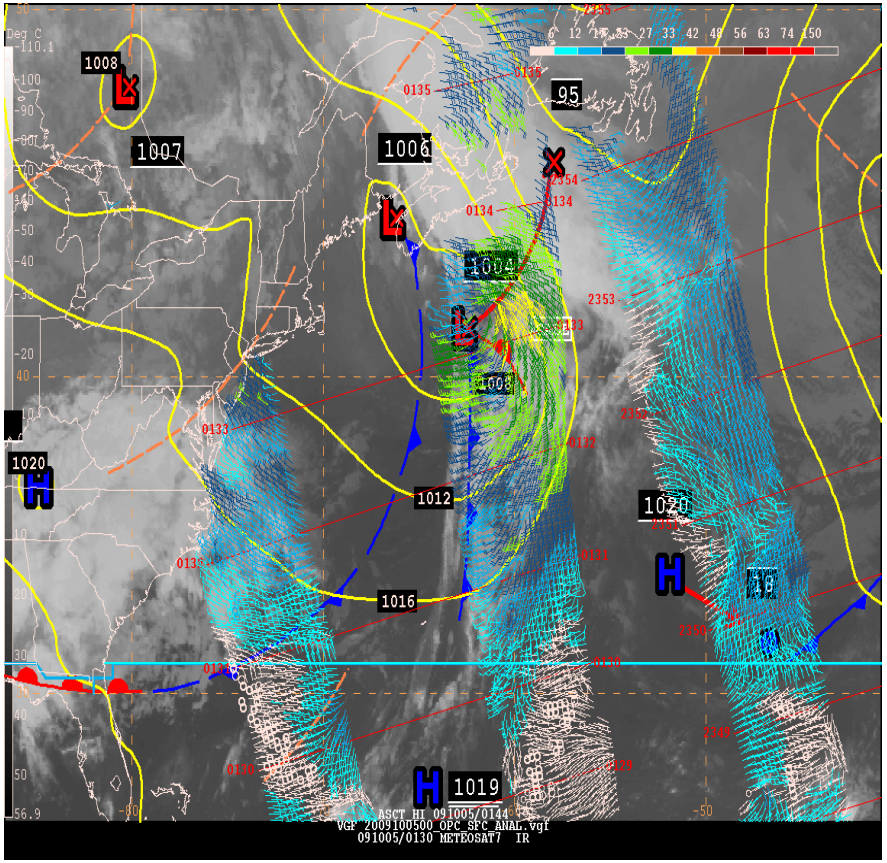
- A Java based automatic monitoring tool for ASCAT winds
- Monitoring the process on 3-minute granule level
- Ability to display the status from data ingest, process and distribution

Operational ASCAT Winds Distribution

- ASCAT winds are distributed via DDS server
- Main NOAA users
  - National Hurricane Center (NHC)/Tropical Prediction Center (TPC)
  - Ocean Prediction Center
  - Alaska and Pacific Regions
  - Coastal Weather Forecast Offices
  - Great Lakes Weather Forecast Offices
  - Environmental Modeling Center (EMC)

Day to Day Uses of ASCAT at OPC

- Identify weather features
- Marine wind warnings
- Short term marine forecasts
- Real-time Verification



TOPIC

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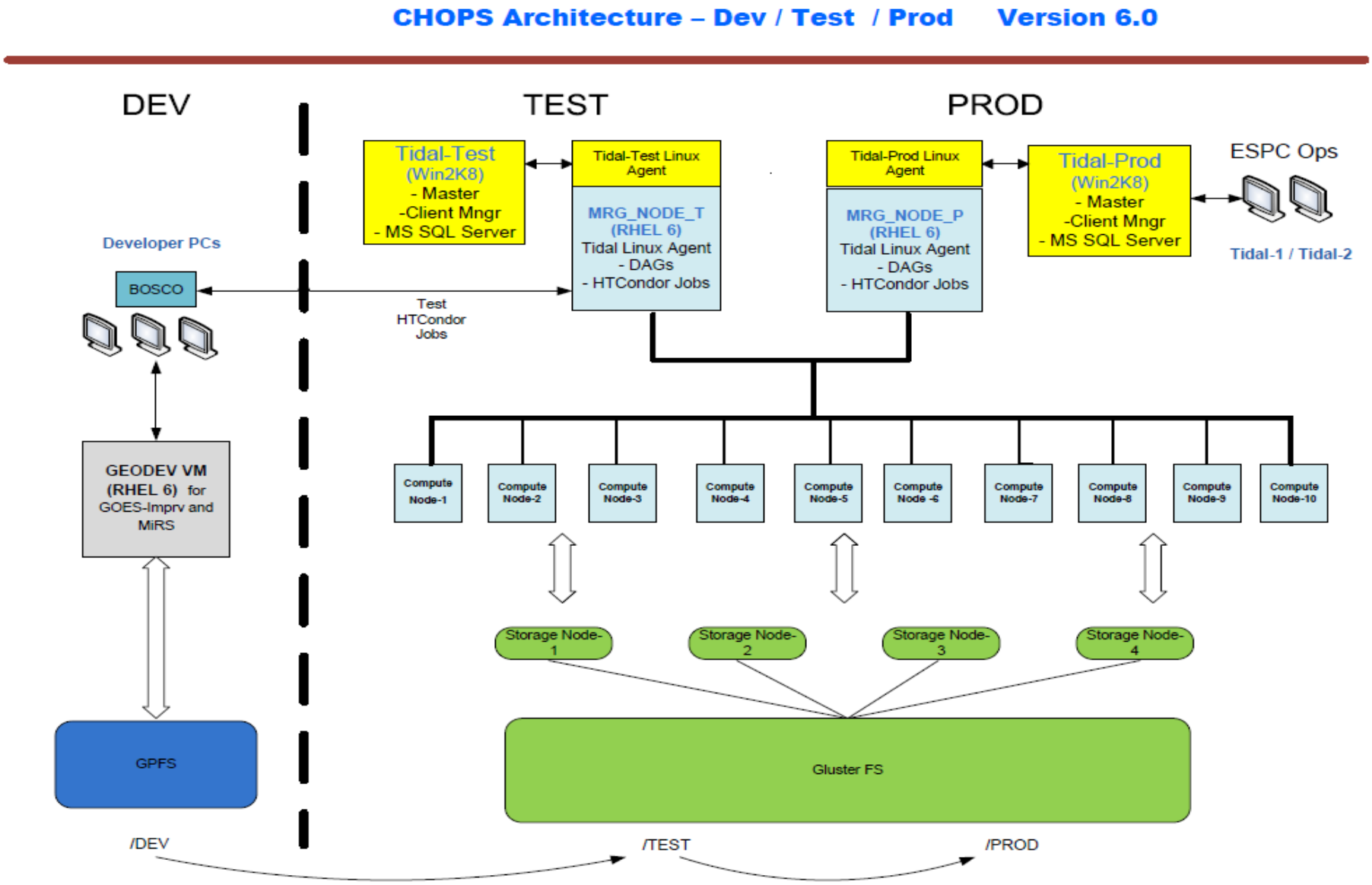
Update on AMV Systems

- Working on CHOPS (**C**onsolidated **H**igh-throughput **O**perational **P**roducts **S**ystem)
- Based on the Red Hat MRG product (Messaging/RealTime/Grid). The components include HTCondor and GlusterFS
- CHOPS is designed to provide high-throughput computing for satellite product generation so all AMV processes except S-NPP VPW will be run on the CHOPS

CHOPS Architecture Diagram



Update on AMV Products

- New Improved GOES Winds (Available in October 2014 and expected operation in July, 2015)
  - Using GOES-R algorithm with current GOES data
  - Available in NetCDF4 format and BUFR format with new BUFR table(expected)
  - Will run on CHOPS
  - Plan to provide users longer testing period in parallel with current GOES AMV products

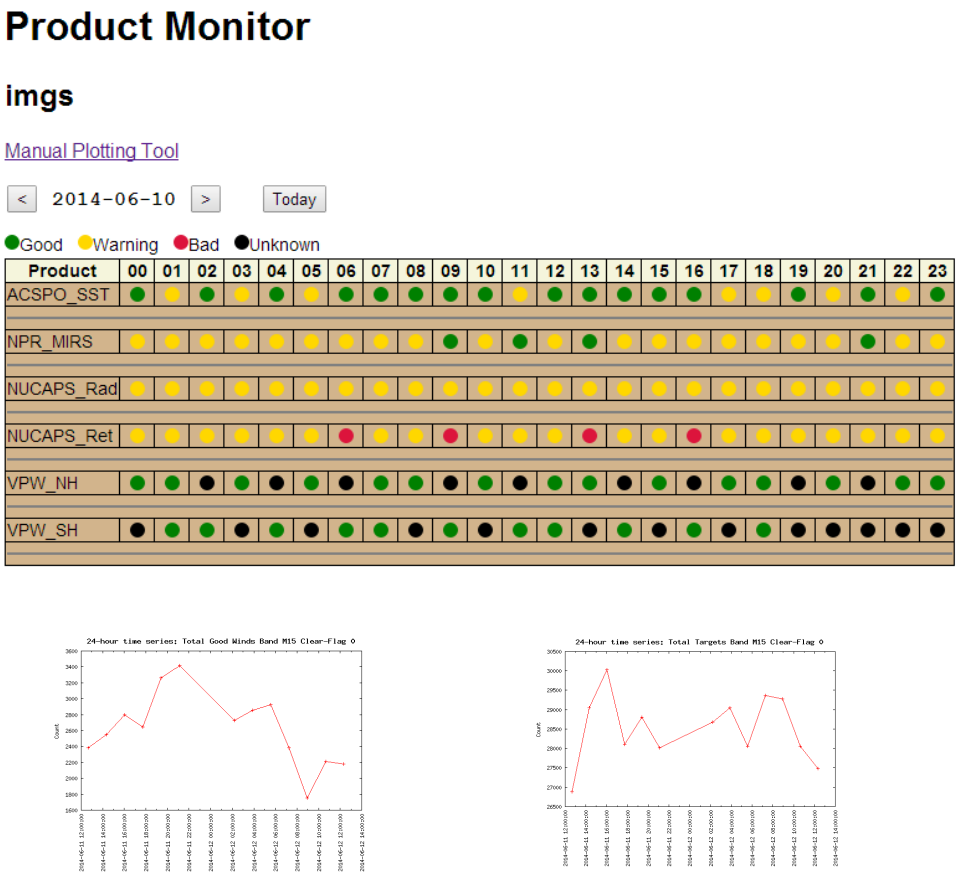
Update on AMV Products

- MODIS/AVHRR Winds with GOES-R Algorithm (November, 2015)
  - Will be generated by the same GOES-R algorithm as S-NPP VIIRS Polar Winds
  - Avoid the different error characteristics from different algorithm
  - Will run on CHOPS

Update on AMV Products

- Himawari-8 Winds (April 2016)
  - Himawari-8 will be launched in September 2014 and will replace current MTSAT-2
  - Same GOES-R algorithm will be used to generate H-8 AMV products
  - Will run on new CHOPS
  - Will provide H-8 AMV products to NWS/AWIPS

Future AMV Quality Monitoring



- Working on new quality monitoring tool which has one database as the backend
- More information of the process and products on metadata and database
- Benefit the monitoring of AMV product quality in the longer term

Contact Information for Operational Wind Products

Hongming Qi

Winds PAL (Product Area Leader)

At NESDIS/OSPO

Email: *Hongming.Qi@noaa.gov*

Contact Information

24/7 Help Desk	ESPCOperations@noaa.gov
User Services	SPSD.UserServices@noaa.gov
Data Access	NESDIS.Data.Access@noaa.gov
Webmaster	SSDWebmaster@noaa.gov
Web	www.ospo.noaa.gov
Find us on Facebook	www.facebook.com/NOAANESDIS
FOLLOW US ON twitter	www.twitter.com/usnoaagov_ospo

Comments and Questions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Ačiū
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Þakka þér fyrir
Takk
Danke!
Teşekkürler
Salamat
Mahalo
Cảm ơn bạn
谢谢您
dhanayawad
Grazie
multumesc!
Хвала
Kiitos
Bedankt
¡gracias!
Спасибо
Σε ευχαριστώ
감사합니다
obrigado!
Hvala
Go raibh maith agat
THANK YOU!
ありがとうございました
Domo
merci!
Благодаря
a dank!
Paldies
תודות
Toda
TÄNAN
vďaka!
Asante