

TOWR-S Update

March 29, 2024

<https://meet.google.com/thn-pkwe-wbr>

Best viewed in
Google Slides.
All are invited to
insert comments.



Office of Observations | GOES-R Program
TOWR-S Team

Total Operational Weather Readiness - Satellites



Overview



1. [TOWR-S resources and activities](#)
2. [New / upcoming satellite data products](#)
3. [NOAA-21 Transition to Operations](#)
4. [New / upcoming satellites](#)

[Appendix](#)

New TOWR-S resources

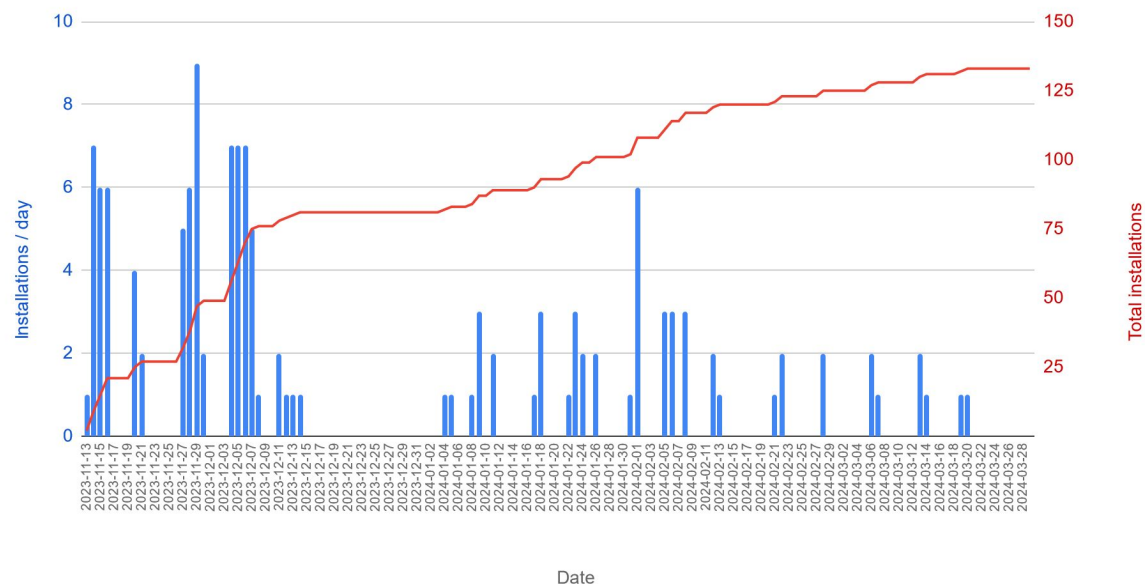


Deployment of TOWR-S RPM v24 and APP (AWIPS Pre-Processor)



RPM v24 installations

Nov. 3 - Mar. 20



- Installed at **133** NWS field sites (>98%)
- NWS Regional LDM feed of **CIRA GeoColor** and **5-minute GLM flash counts** ended Mar. 18.
 - The APP can now compute those parameters on-site
 - This is saving ~1TB/day on the NWS regional LDM



TOWRPro v25 (*TOWR-S RPM v25 + APP*)



Deployment to begin April 25, 2024

Support for new products in AWIPS:

- GOES-19 L2s & gridded GLM
- ABI Flood Maps
- OSCAT-3 scatterometer wind vectors
- SAR winds (Great Lakes and Mid-Atlantic)
- VIIRS Enterprise Active Fires?

AWIPS configuration changes:

- Increase max range of NESDIS Snowfall rate colormap/Style Rule
- Support for GOES-R Storage Slot

New / changed CAVE menu entries:

- Distinguish Metop-C vs. NOAA-21 NUCAPS

+ Updates to the **AWIPS Pre-Processor** ("APP")

Planning two additional TOWRPro deployments in CY2024

Further reading: [TOWR CCB Monthly](#)



ISatSS in IDP and NWS National Centers



Now running in IDP Dev:

- NHC: Global IR Mosaics
- SAB: SSMIS imagery and RGBs
- SAB: GPM GMI
- OPC/SAB: AMSR-2 Ocean & MBT
- OPC/SAB: ATMS 88GHz Qv imagery
- OPC/SAB: Jason-3 Wave altimetry

In work:

- ← IDPDev-IDPOps transition
- Gremlin devOps
- AWC Mosaics
- MTG imagery tiles/area files
- SWOT Altimetry for NHC/OPC

Further reading: [TOWR CCB Monthly](#)

ISatSS = Integrated Satellite Support System

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Recent and upcoming satellite data products / changes

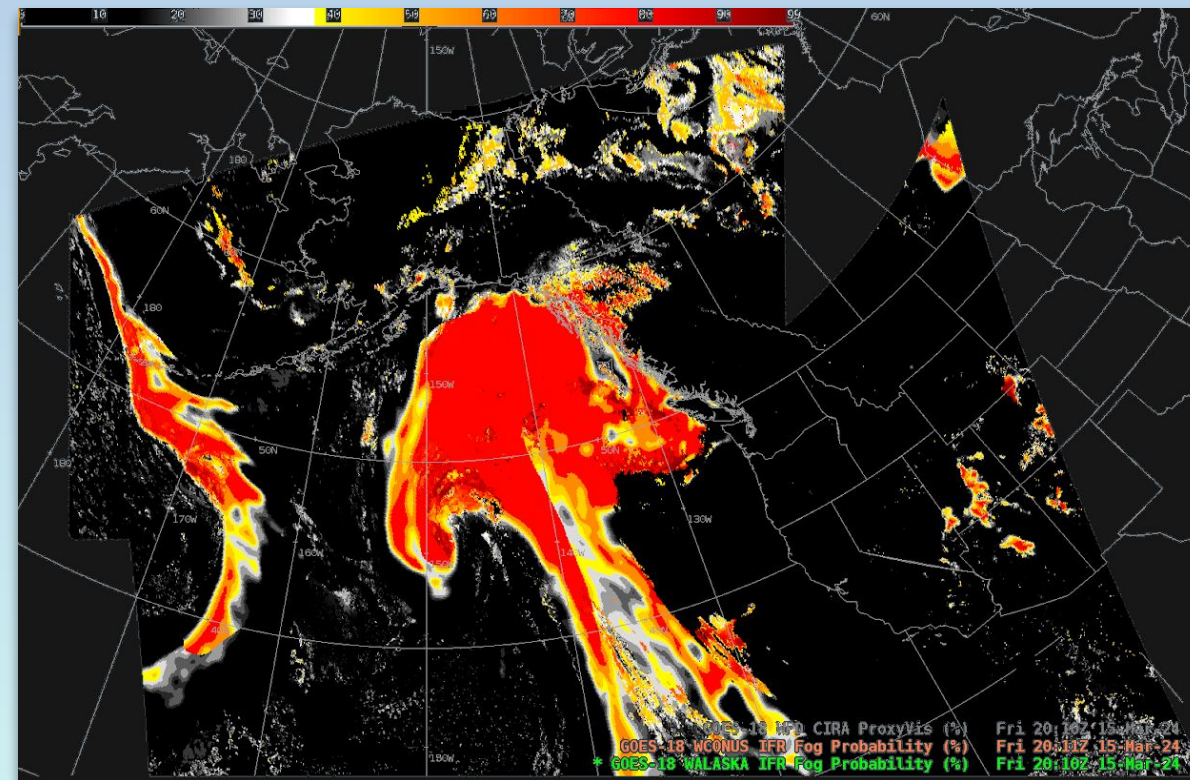
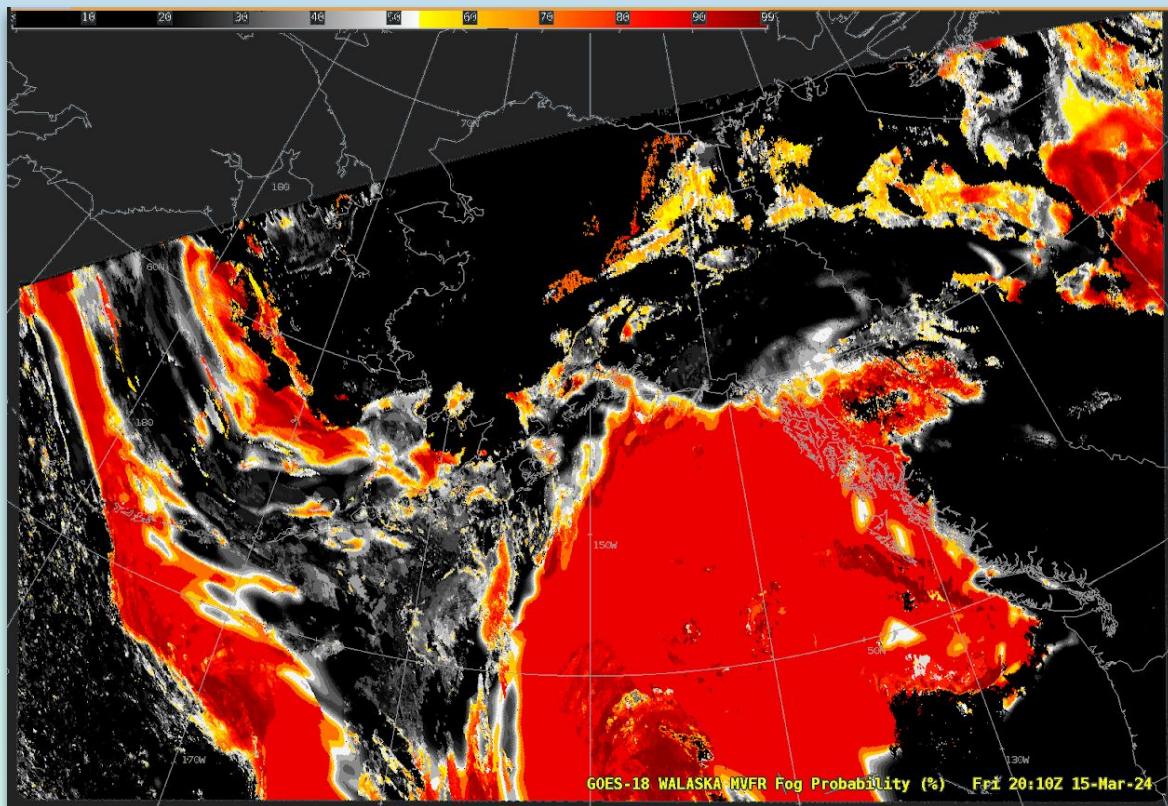


Now going to Alaska NWS sites:

GOES-West Alaska sector Fog & Low Stratus



- This subset of the GOES-West Full Disk product covers the Alaska sector (defined in a Polar Stereographic projection).
- LDM feed began Mar. 15.



GOES-West Fog & Low Stratus: IFR Fog Probability (Alaska + W. CONUS sectors)

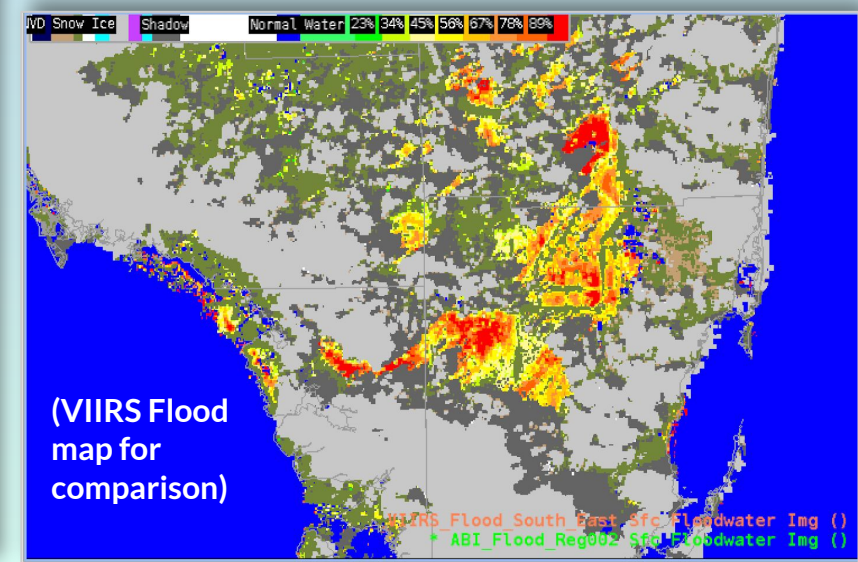
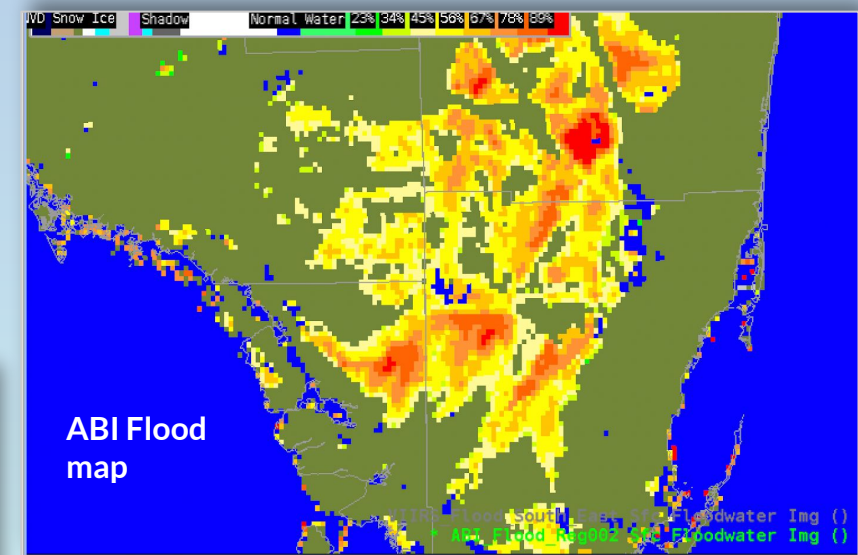
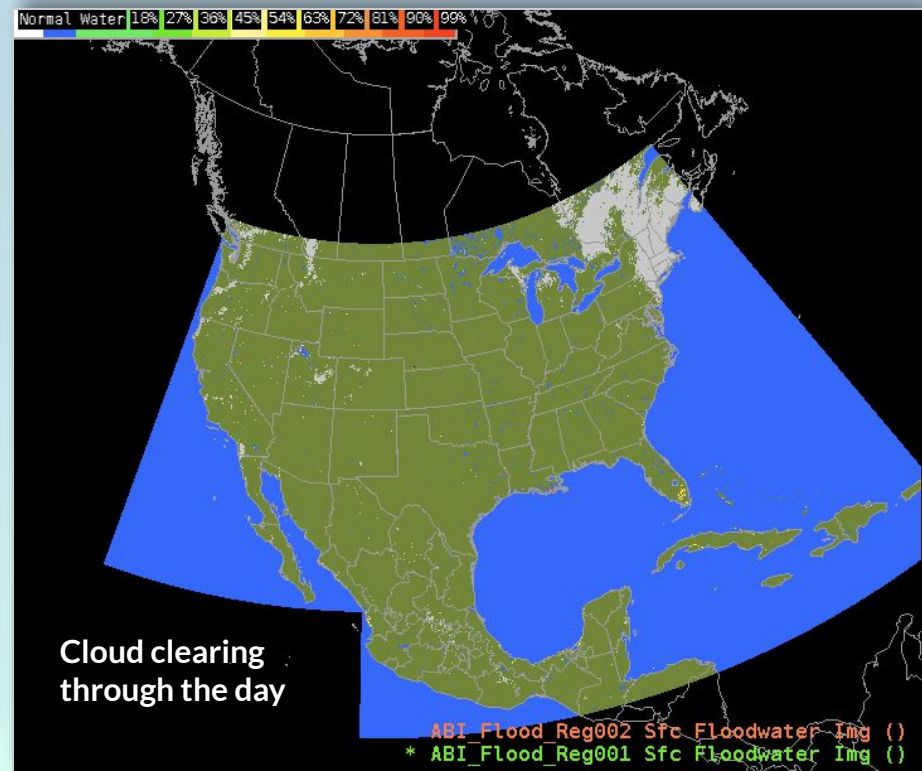
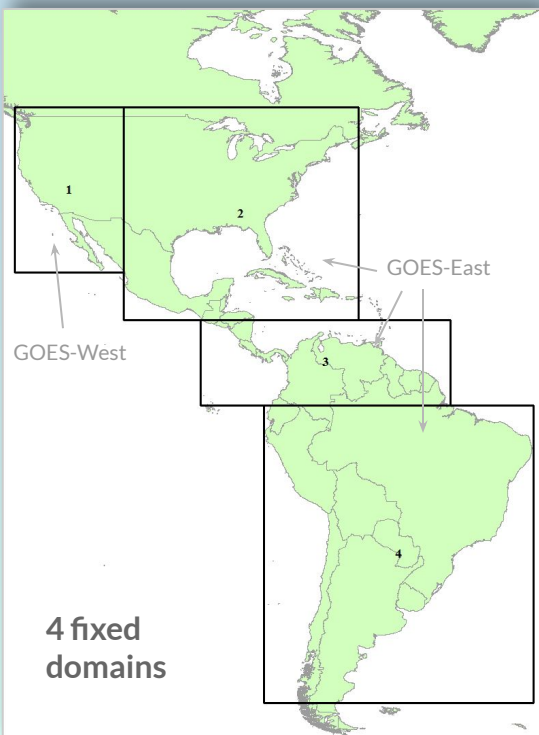
GOES-West Fog & Low Stratus:
MVFR Fog Probability (Alaska sector)

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Now in evaluation: GOES-R ABI Flood Maps

- Daily and hourly composites: maximum flood fraction between each day's first daytime observations and...
 - ...the last daytime observations (*daily*); or
 - ...the max flooding up to the current hour (*hourly*)
- Now sending this over NWS Regional LDM and engaging with AWIPS test sites
- AWIPS configurations will be part of TOWRPro v25, to be deployed in April 2024



h/t Derek Van Pelt



Himawari-9 L2 products -> Pacific Region AWIPS

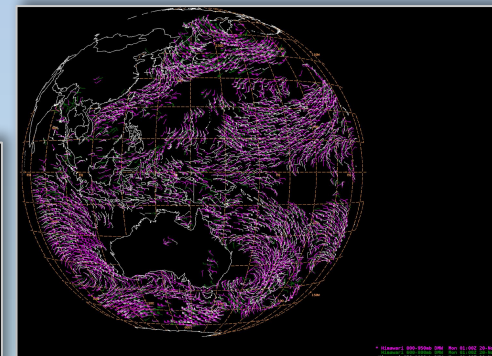
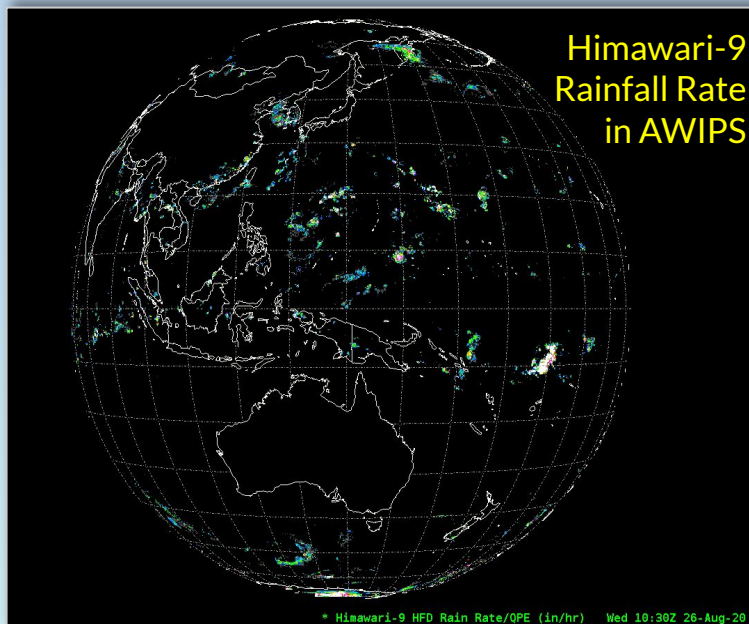


- Now going to Pacific Region AWIPS sites via NCF (as of Mar. 27):

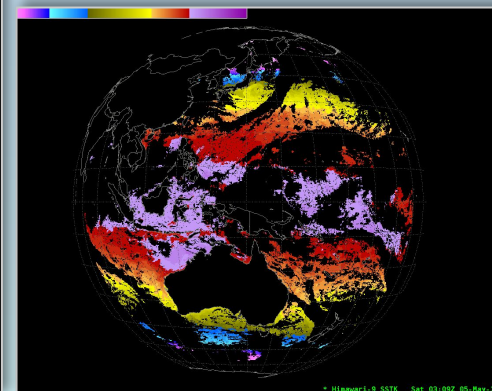
- **H-9 Rainfall Rate estimate**

- This completes the distribution of operational Himawari data products to Pacific Region NWS sites:

- Imagery tiles
- Cloud Top Height
- Cloud Top Temperature
- Cloud Optical Depth
- Cloud Mask
- Cloud Phase
- Derived Motion Winds
- Sea Surface Temperature

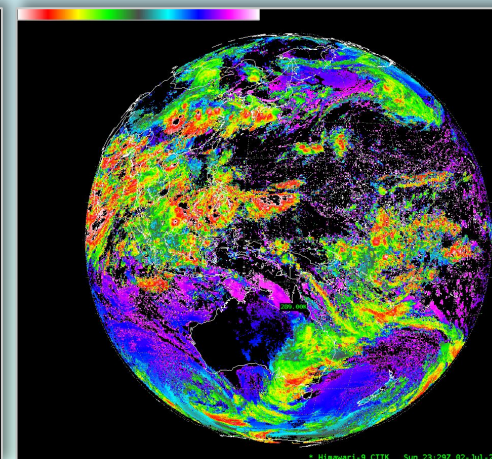


Himawari-9
Derived Motion
Winds



Himawari-9
Sea Surface
Temperature

Himawari-8 AHL
imagery tiles



h/t: Derek van Pelt

Himawari-9
Cloud Top
Temperature

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GOES-R ASOS Satellite Cloud Products (SCP)



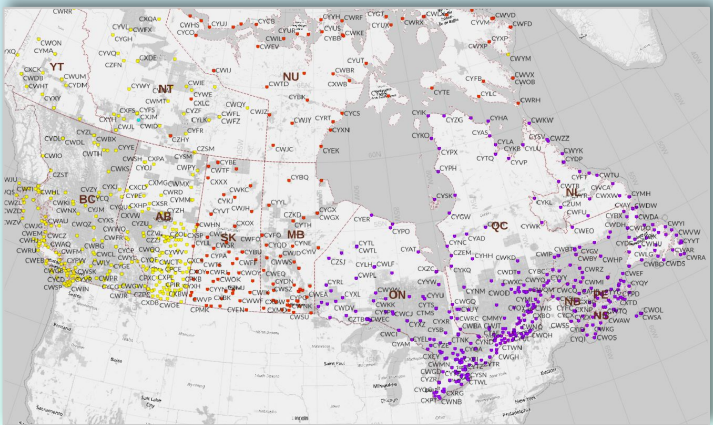
Search:

State	ICAO Code to be Removed	Location Name	Suggested Alternate ICAO Code	Suggested Alternate Location Name	Distance (km)
AK	5GN	TAHNETA PASS, AK	PASP	Sheep Mountain, AK	3.2
AK	BLAIR	Oklahoma	PAEI	EIELSON AFB, AK	43.0
AK	EIELS	Fairbanks	PAEI	EIELSON AFB, AK	1.7
AK	P0Z0	Deering	PADE	Deering, AK	1.8
AK	P9Z1	Klawock	PAKW	KLAWOCK, AK	2.4
AK	PBET	Bethel	PABE	Bethel, AK	1.6
AK	PBIG	Delta Junction/Ft. Greely	PABI	Ft. Greely, AK	2.7
AK	PBRW	Barrow	PABR	Barrow/Wiley Post-Will Rogers, AK	0.7
AK	PBTT	Bettles	PABT	Bettles Field, AK	0.7
AK	PCDB	Cold Bay	PACD	Cold Bay, AK	1.3

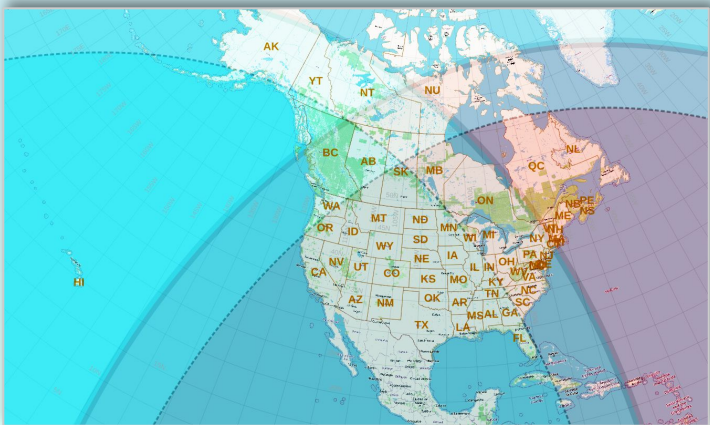
Effective May 29, 2024: remove old & incorrect station IDs ([SCN24-tbd](#))

(149 of 3,267 stations)

Under consideration:
SCPs for Canadian
METAR stations



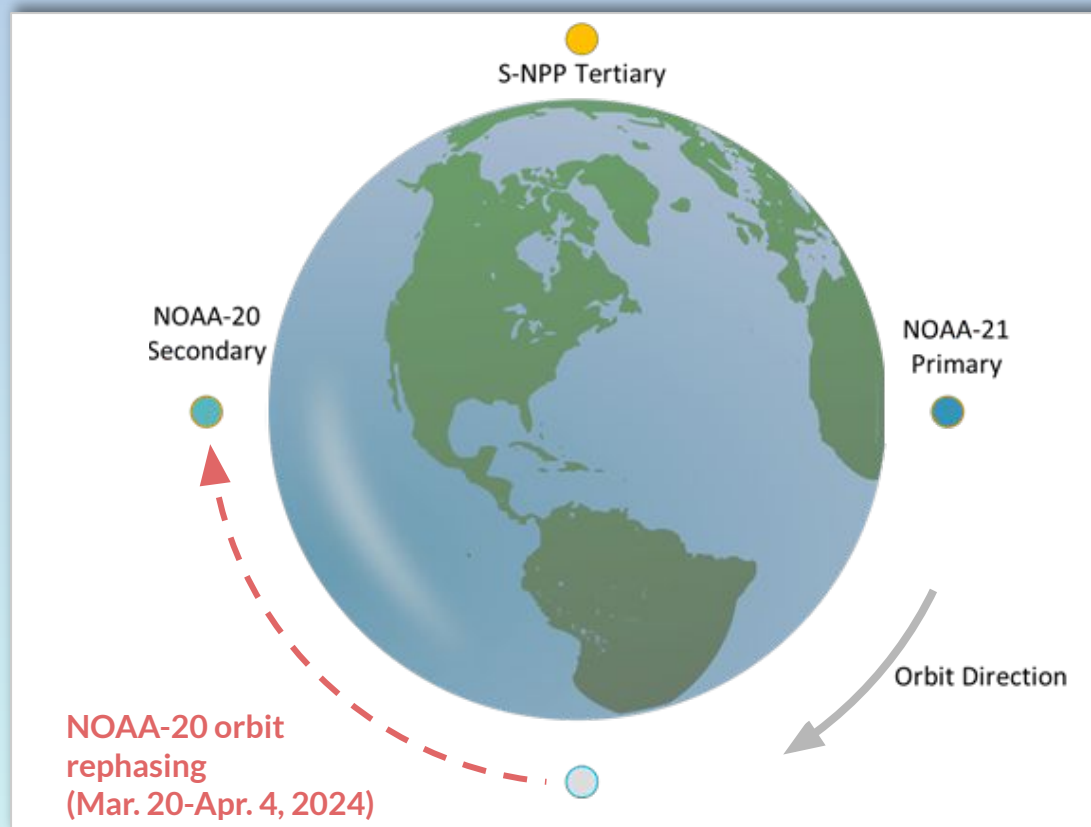
Under consideration:
GOES-East vs.
GOES-West SCPs



NOAA-21 Transition to operations

NOAA-21 and the JPSS Constellation

- NOAA-21 is now the Primary JPSS satellite;
- NOAA-20 is now Secondary;
- NOAA-20 orbit is being re-phased to be opposite NOAA-21 by Thurs., April 4, 2024.
- A brief outage of all NOAA-20 instruments is expected on Apr. 4 (exact time TBD), as NOAA-20 is raised into its final orbit.



Based on the
JPSS-2 Product
Operations Plan



NOAA-21 T20: NWS Operational Test & Evaluation (OT&E)



- OT&E purpose: validate operational requirements independently from end to end in a live environment. Advise recommendation on full deployment to forecast operations.
- [OT&E schedule](#)

Evaluation	Date Range	Status
Initial VIIRS Evaluation (Tertiary Position) - DRO & Terrestrial feed	Aug. 7, 2023 - Sept. 8, 2023	Completed
Initial NCC/ DNB Evaluation (Secondary Position) - SBN	November 16, 2023 - December 20, 2023	Completed
VIIRS Evaluation (Secondary to Primary Transition) DRO & Terrestrial feed	March 11, 2024 - April, 12 2024	In-Progress
NCC/ DNB Evaluation (Secondary to Primary Transition) SBN	March 11, 2024 - April, 12 2024	In-Progress
NUCAPS Evaluation (Primary Position) - SBN	April 2024 - May 2024	Planning
Blended Hydrology Products Evaluation (Primary Position) - SBN	Summer 2024	Planning
Active Fires Products Evaluation (Primary Position) - SBN	Summer 2024	Planning
Flood Mapping Products Evaluation (Primary Position) - SBN	Summer 2024	Planning

7 OT&E test sites:

- Alaska Region HQ (VRH)
- Anchorage, AK (AFC)
- WFO Medford, OR (MFR)
- WFO Gaylord, MI (APX)
- WFO Houston/Galveston, TX (HGX)
- WFO Buffalo, NY (BUF)
- RFC Portland, OR (NWRFC)



NOAA-21 T20: Product Maturity timeline



Team	Product	Beta Effectivity	Provision Effectivity	Validated Effectivity	Beta Maturity Review	Prov Maturity	Val Maturity Review	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33
								11/30/22	12/31/22	01/31/23	02/28/23	03/31/23	04/30/23	5/31/2023	6/30/2023	7/31/2023	8/31/2023	9/30/2023	10/31/2023	11/30/2023	12/31/2023	1/31/2024	2/29/2024	3/31/2024	4/30/2024	5/31/2024	6/30/2024	7/31/2024	8/31/2024	9/30/2024	10/31/2024	11/30/2024	12/31/2024	1/31/2025	2/28/2025	3/31/2025	4/30/2025	5/31/2025	6/30/2025	7/31/2025	8/31/2025
SDR	ATMS TDR/SDR	11/30/22	12/15/22	05/12/23	11/30/22	12/15/22	06/22/23	B	P					V																											
	CrIS SDR	02/23/23	03/30/23	09/26/23	02/23/23	03/30/23	09/28/23				B	P						V																							
	VIIRS SDR	02/23/23	03/30/23	06/23/23	02/23/23	03/30/23	08/03/23				B	P			V																										
Imagery	OMPS SDR (NP & TC)	02/23/23	04/13/23	03/28/24	02/23/23	03/30/23	03/28/24				B		P											V																	
	KPP Imagery EDRs	02/23/23	03/30/23	06/23/23	02/23/23	03/30/23	08/03/23				B	P			V																										
	non-KPP Imagery EDRs	02/23/23	03/30/23	06/23/23	02/23/23	03/30/23	08/03/23				B	P			V																										
Clouds	Cloud Mask	03/30/23	03/30/23	03/30/23	06/22/23	10/26/23	01/28/24				B/P	V																													
	Cloud Phase/Type	03/30/23	03/30/23	03/30/23	10/26/23	10/26/23	01/28/24				B/P	V																													
	Cloud Top Property	03/30/23	03/30/23	03/30/23	10/26/23	10/26/23	01/28/24				B/P	V																													
	Cloud Cover Layer	03/30/23	03/30/23	03/30/23	10/26/23	10/26/23	01/28/24				B/P	V																													
	Cloud Base Height	03/30/23	03/30/23	03/30/23	10/26/23	10/26/23	01/28/24				B/P	V																													
Aerosol	DCOMP and NCOMP	03/30/23	03/30/23	03/30/23	11/30/23	11/30/23	01/28/24				B/P	V																													
	Aerosol Optical Depth and Aerosol Particle	02/10/23	02/10/23	03/30/23	06/22/23	06/22/23	01/28/24				B/P	V																													
Volcanic Ash	Aerosol Detection	02/11/23	02/11/23	03/30/23	08/24/23	08/24/23	01/28/24				B/P	V																													
	Volcanic Ash	03/30/23	03/30/23	03/30/23	08/24/23	08/24/23	01/28/24				B/P	V																													
Cryosphere	Ice Surface Temperature and Ice	05/01/23	05/01/23	05/01/23	08/03/23	10/26/23	1/25/24							B/P	V																										
	Sea Ice Thickness/Age	05/01/23	05/01/23	05/01/23	08/03/23	01/25/24	01/25/24							B/P	V																										
	Binary Snow Cover	05/01/23	05/01/23	05/01/23	08/03/23	01/25/24	01/25/24							B/P	V																										
	Fractional Snow Cover	05/01/23	05/01/23	05/01/23	08/03/23	01/25/24	01/25/24							B/P	V																										
Land	Active Fires	3/30/23	3/30/23	3/30/23	06/01/23	06/01/23	01/25/24				B/P	V																													
	Land Surface Temperature	05/29/23	06/23/23	06/23/23	08/03/23	01/25/24	01/25/24						B	P/V				B/P	V																						
	Surface Albedo	08/02/23	08/30/23	08/30/23	08/03/23	01/25/24	01/25/24											B/P	V																						
	Global Surface Type	06/20/24	06/20/24	09/10/24	06/27/24	06/27/24	09/19/24																				B/P			V											
	Surface Reflectance	08/02/23	11/01/23	11/01/23	08/03/23	01/25/24	01/25/24											B			P/																				
	Green Vegetation Fraction	08/02/23	06/23/23	06/23/23	08/03/23	01/25/24	01/25/24											B/P	V																						
	Vegetation Index	3/30/23	3/30/23	3/30/23	06/01/23	06/01/23	01/25/24																																		
OCC	Vegetation Health	03/30/23	03/30/23	03/30/23	06/01/23	06/01/23	01/25/24						B/P	V																											
	Ocean Color	03/07/24	03/07/24	03/07/24	03/07/24	03/07/24	03/07/24																		B/P/V																
SST	Sea Surface Temperature	03/20/23	03/20/23	03/20/23	06/01/23	01/25/24	01/25/24						B/P	V																											
VPW	Polar Winds	11/16/23	11/16/23	11/16/23	06/01/23	01/25/24	01/25/24																																		
VFM	VIIRS Flood Mapping	08/24/23	08/24/23	08/24/23	06/01/23	01/25/24	01/25/24																																		
NUCAPS	AVTP, AVMP, Ozone, OLR	03/23/23	09/26/23	09/26/23	06/01/23	01/25/24	01/25/24							B																											
	CO, CO2, CH4	03/23/23	09/26/23	09/26/23	06/01/23	01/25/24	01/25/24							B																											
MIRS	MIRS Products	12/03/22	05/12/23	05/12/23	04/27/23	06/22/23	01/25/24		B					P/V																											
SFR	Snow Fall Rate (SFR)	12/03/22	03/07/24	05/21/25	04/27/23	03/07/24	05/22/25		B																																
OMPS EDR	OMPS NP Ozone EDR (V8Pro)	03/24/23	06/20/23	04/25/24	03/30/23	10/26/23	04/25/24					B			P											V															
	OMPS TC Ozone EDR (V8Toz)	03/24/23	09/19/23	04/25/24	03/30/23	08/03/23	04/25/24					B														V															
	OMPS LP (SDR & EDR)	4/25/24	4/25/24	09/10/24	4/25/24	4/25/24	09/19/24																			B/P															

NOAA-21 NUCAPS coming to AWIPS on May 1, 2024 (SCN24-34)

Not all of these products will be made available in AWIPS.

Of those that are, some will be on the SBN; others may reach AWIPS sites via LDM, Cloud or other mechanisms.

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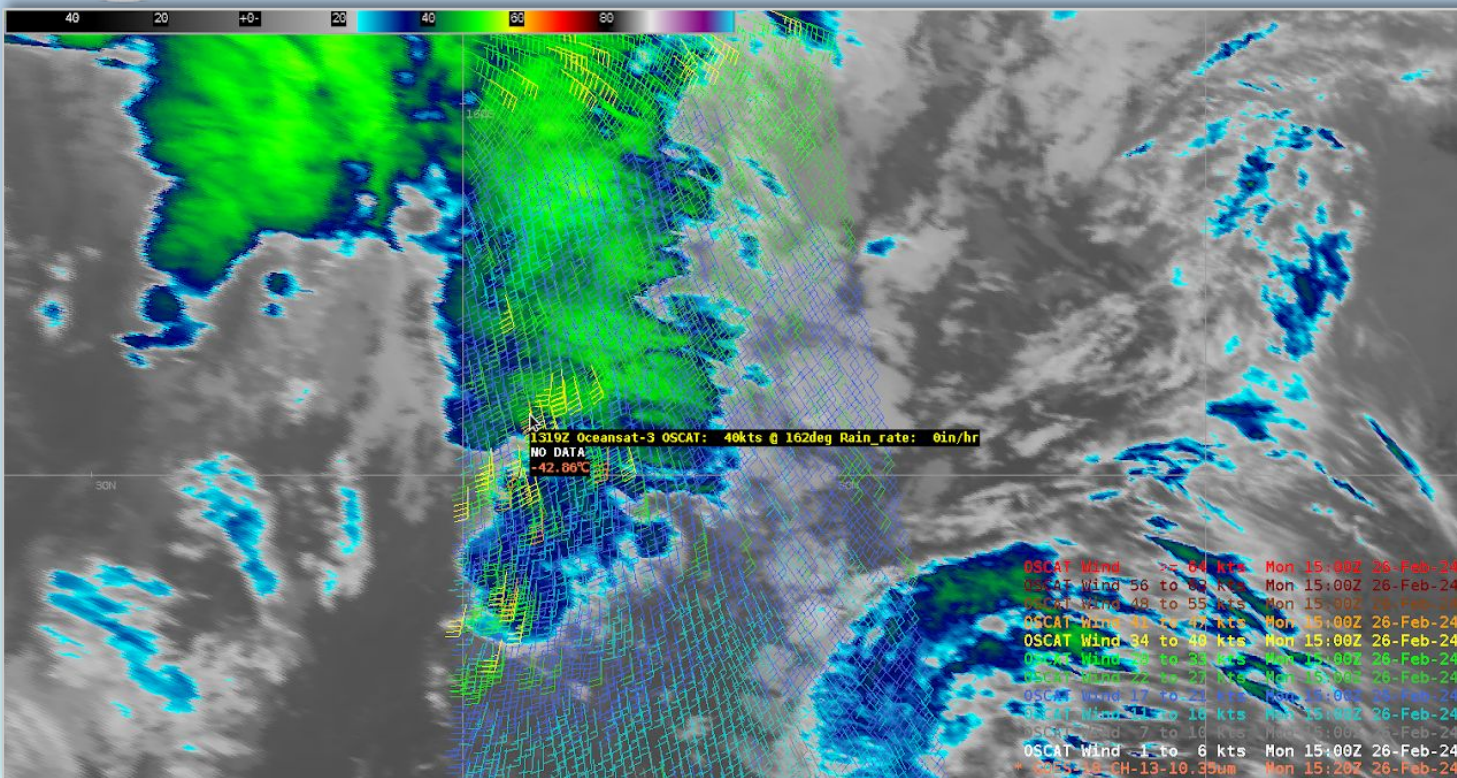
Source: [NOAA-21 Maturity Review Schedule](#) (J. Weinrich, JPSS Pgm. – last updated Mar. 28)

New and upcoming satellites

New / upcoming satellites

OceanSat-3 / OSCAT-3

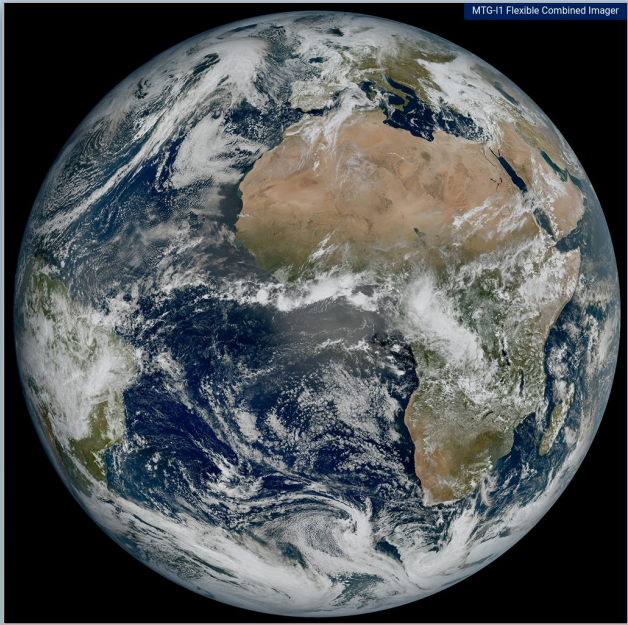
- L2 Ocean Surface Winds files from OSCAT-3 scatterometer are now ready for AWIPS
- Expected to be activated on SBN in fall 2024
- This product will fill the gap left when SCATSAT ceased operating in Feb. 2021.



New / upcoming satellites

- MeteoSat 3rd Generation: [MTG-Imager 1](#)
 - Launched in Dec. 2022. Geostationary @ Longitude 0°; will be renamed **Meteosat-12**.
 - Key instruments:
 - Flexible Combined Imager (FCI)
 - Lightning Imager (LI)
 - MTG-I1 [data availability schedule](#) (updated Mar. 28):

Central facility MTG data release	Data type	Delivery mechanism	Accessible for
Earliest May 2024	FCI L1c data - continuous feed (compressed via EUMETCast)	EUMETCast Data Store EUMETView	Pre-operational release to all users
Earliest May 2024	FCI L2 data—a subset of products	European Weather Cloud	MAG/Close loop/SAFs, for cal/val purposes
Earliest June 2024	FCI L2 data – continuous feed of a subset of products	EUMETCast Data Store EUMETView	Pre-operational release to all users
Jan/Feb 2024		European Weather Cloud	Validation partners: MAG/Close loop/SAFs, for cal/val purposes
28 March 2024	LI L2 data—subset	Open sftp	All users
Earliest April 2024	LI L2 data—continuous feed	EUMETCast Data Store	Pre-operational release to all users



MTG-I1 First Light image (Mar. 18, 2023)

<https://www.eumetsat.int>

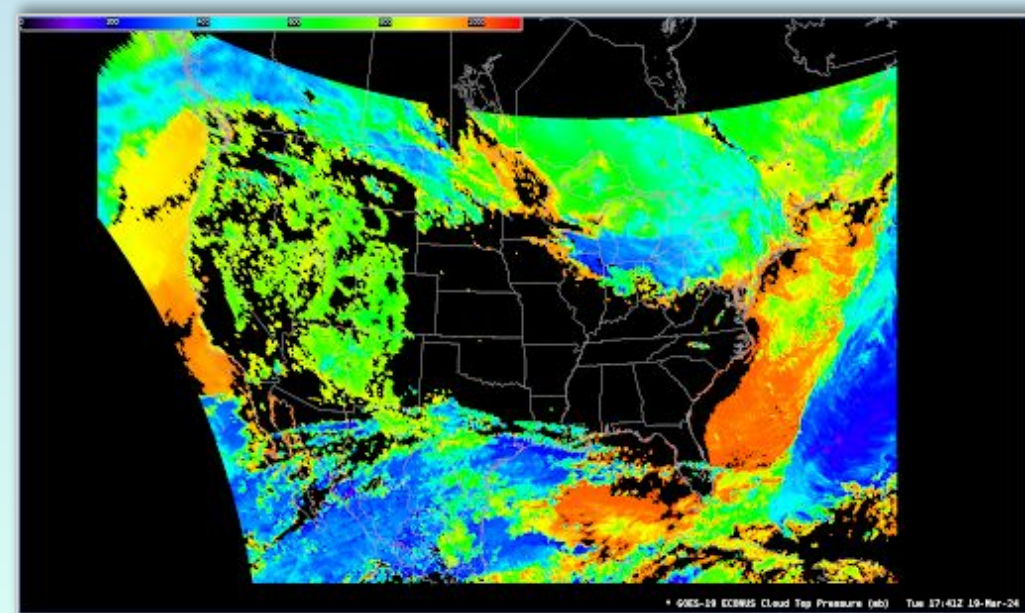
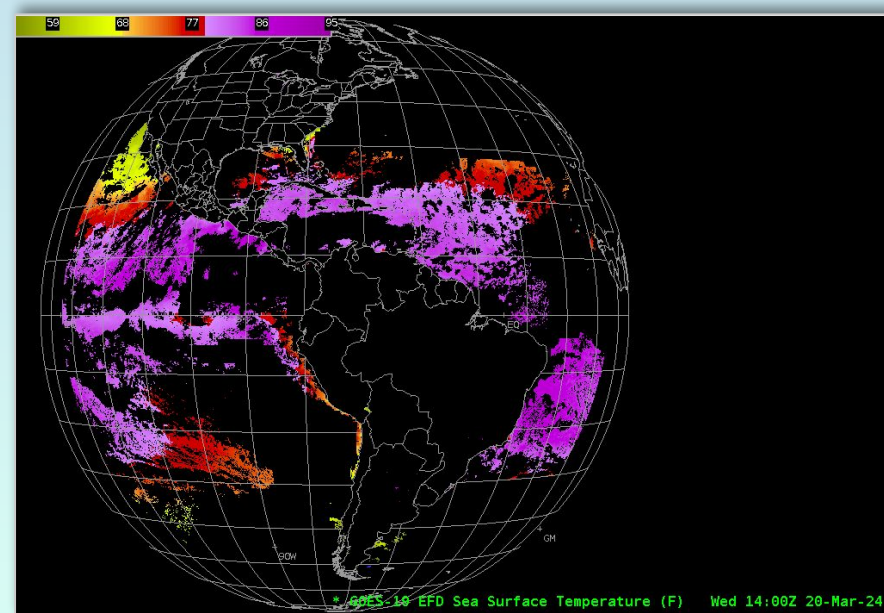
Oct. 2024-Mar. 2025:
launch of MTG-Sounder1

Further reading:
<https://www.eumetsat.int/our-satellites/meteosat-series>

New / upcoming satellites

GOES-U expected to launch June 25, 2024

- Will be commissioned as GOES-East in early CY2025, replacing GOES-16 ([per OSPO](#))
- Will carry the new **Compact Coronagraph** ([CCOR](#))
- Data Operations Exercises (Jan., Mar. 2024):
 - Sent simulated GOES-19 ABI, GLM, and SpaceWx data to NWS TNCF, PDA I&T, GeoCloud, and others

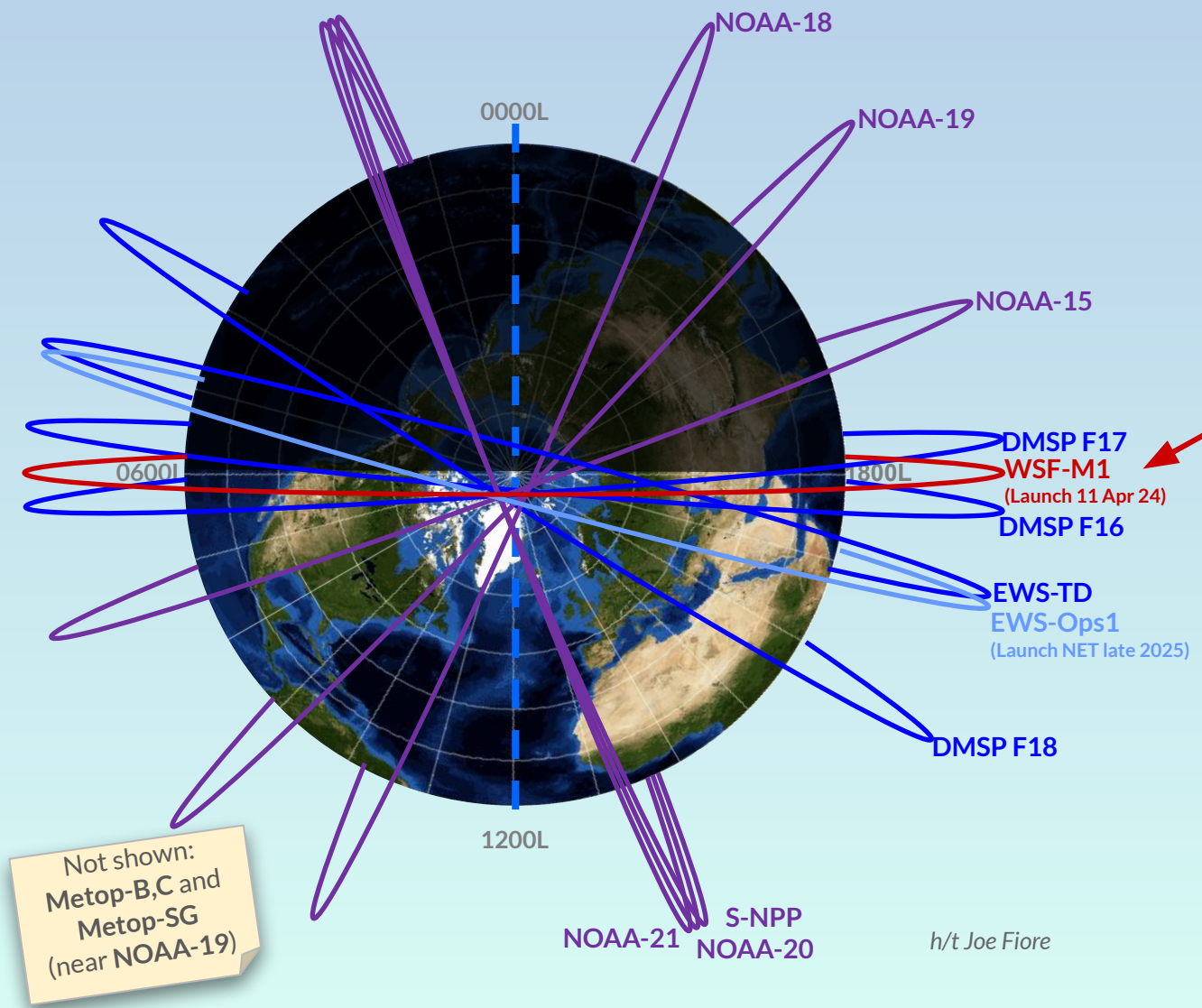


h/t Derek Van Pelt

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New / upcoming satellites



- DoD Weather System Follow-on (WSF)
 - WSF-Microwave 1 (M1) launch date: April 2024
 - Sun-synchronous orbit near DMSP F-16, DMSP F-17

Further reading: [WMO OSCAR](#), [Wikipedia](#)

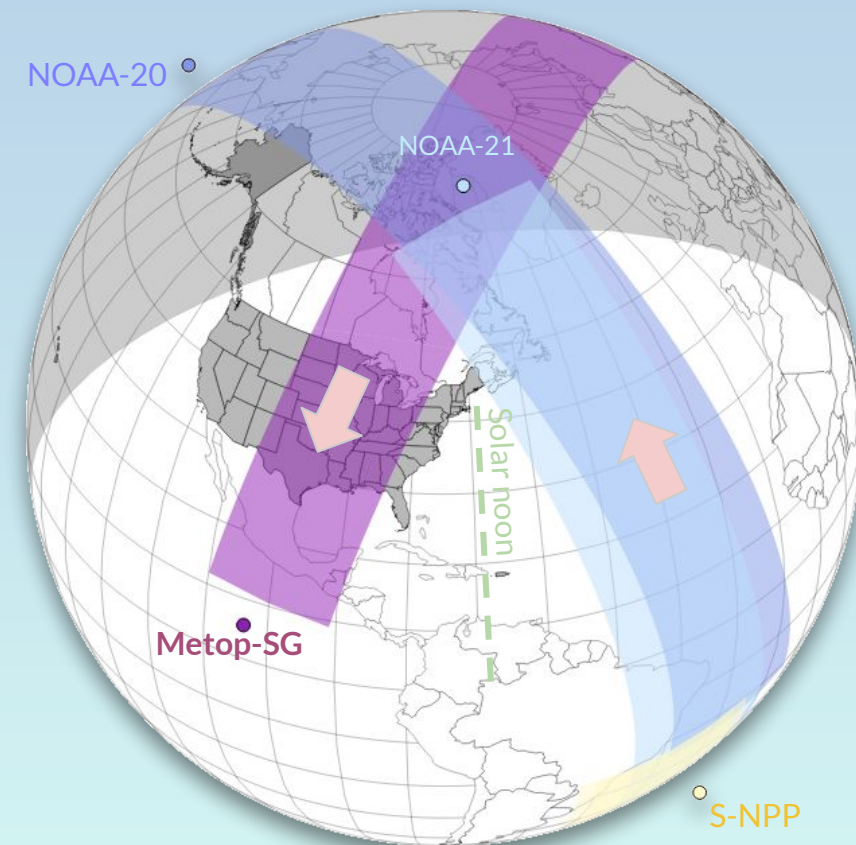
h/t Joe Fiore



New / upcoming satellites



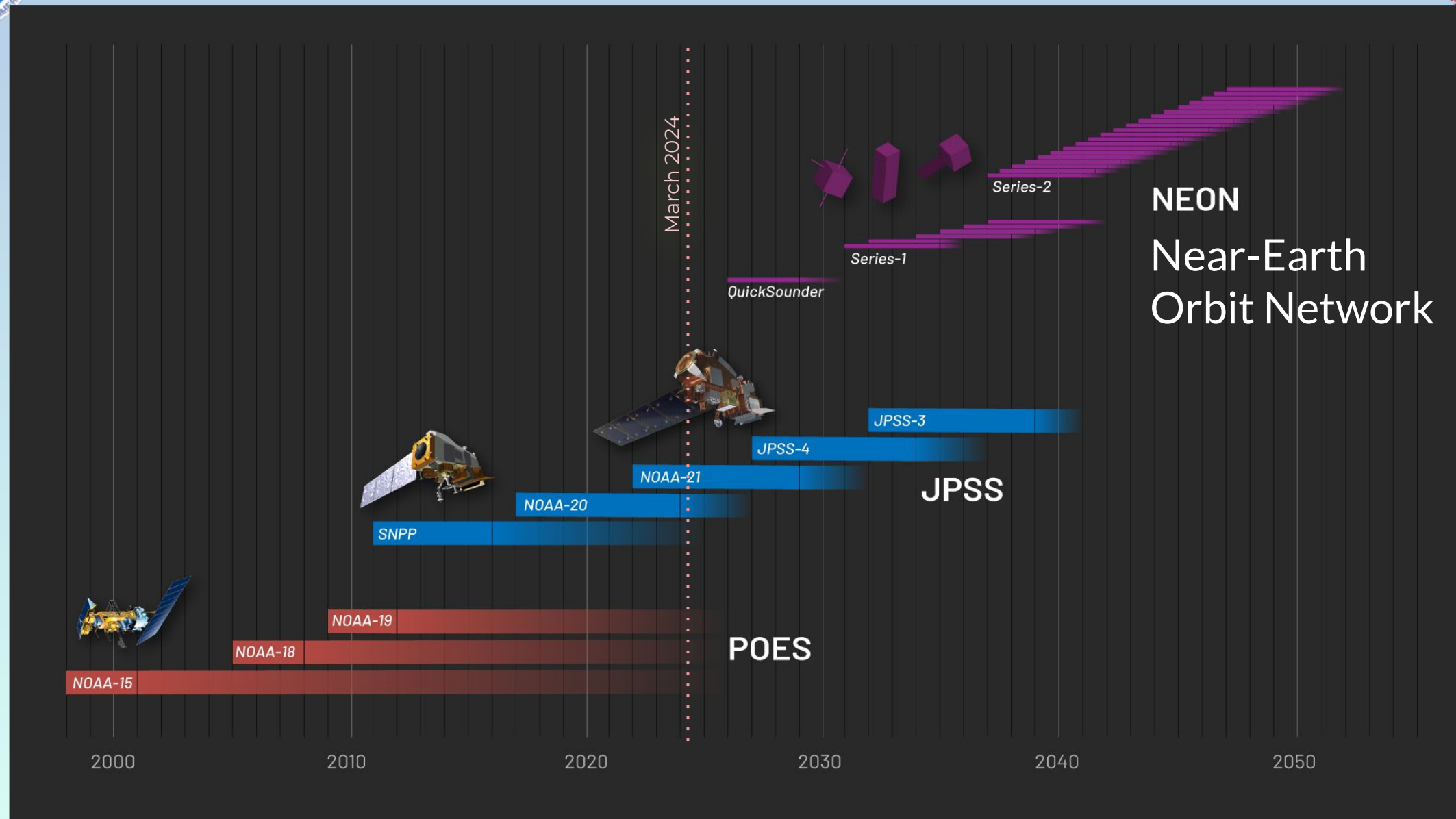
- [Metop-SG-A1](#) (Metop 2nd Gen.) to launch [April-June 2025](#)
 - Sun-synchronous polar (morning) orbit
 - Key instruments:
 - **METImage: Meteorological Imager**
 - **IASI-NG: Infrared Atmospheric Sounder Interferometer - New Generation**
 - MWS: Microwave Sounder
 - Sentinel-5 UVNS: Ultra-violet, Visible and Near-infrared Sounder
 - RO: Radio Occultation sounder
 - RMU: Radiation Monitor Unit (a.k.a. NGRM)
 - 3MI: Multi-viewing Multi-channel Multi-polarisation Imager
 - Due to launch in 2026: **Metop-SG-B1**, w/ key instruments:
 - **ICI: Ice Cloud Imager**
 - **SCA: Scatterometer**
 - MWI: Microwave Imager
 - RO: Radio Occultation sounder
 - RMU: Radiation Monitor Unit (a.k.a. NGRM)
 - TOWR-S is drafting a NWS User Readiness Plan for Metop-SG.



<https://lab.noaa.gov/web/towr-s/polar-planner>



NOAA Low-Earth Orbit (LEO) Satellite Programs



from [Introduction to the Near Earth Orbit Network \(NEON\)](#)
Office of LEO Observations, June 2023



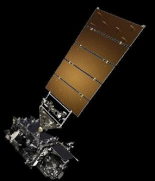
Roadmap to GeoXO



GeoXO Constellation



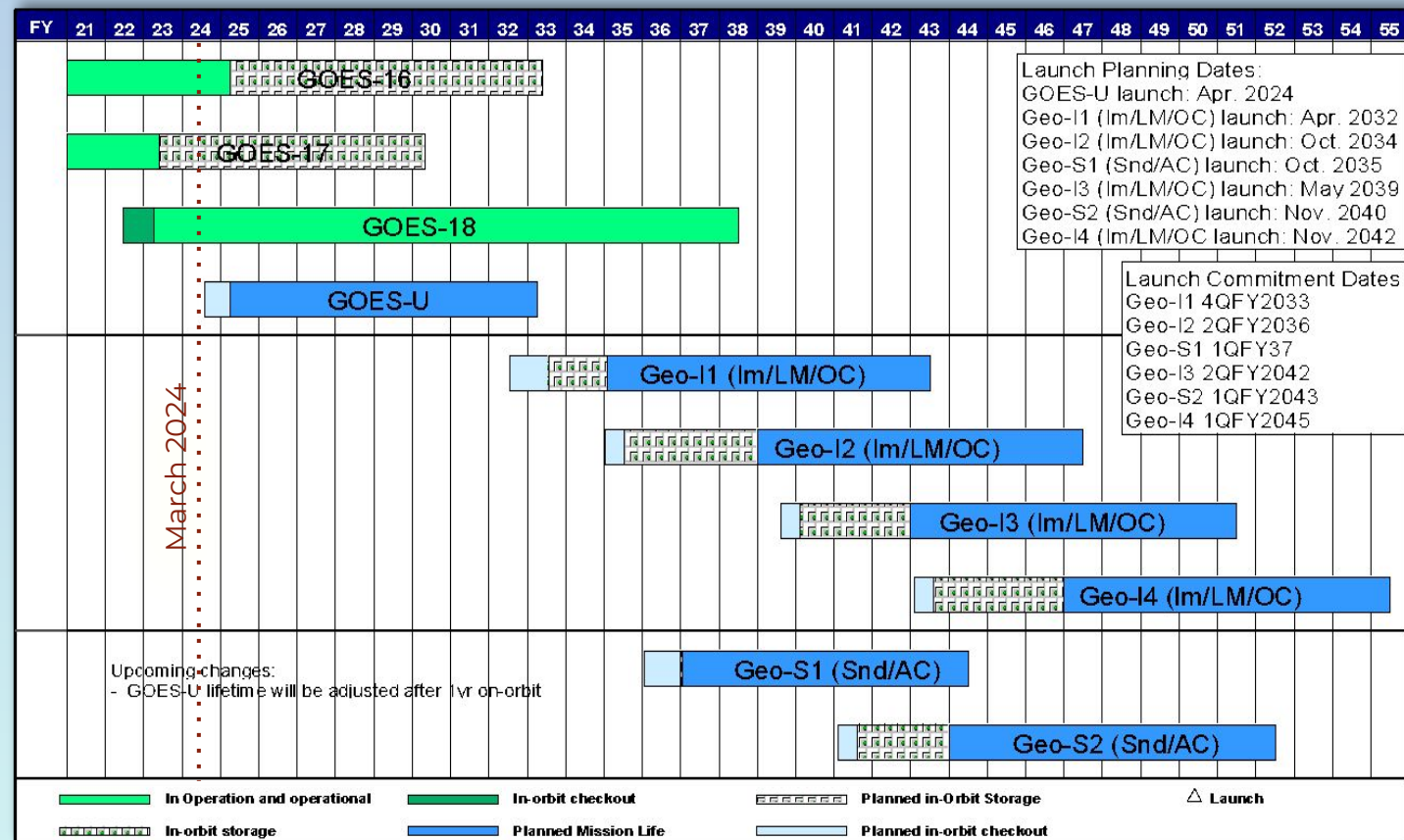
GEO-West
Visible/Infrared Imager
Lightning Mapper
Ocean Color



GEO-Central
Hyperspectral Infrared Sounder
Atmospheric Composition
Partner Payload



GEO-East
Visible/Infrared Imager
Lightning Mapper
Ocean Color

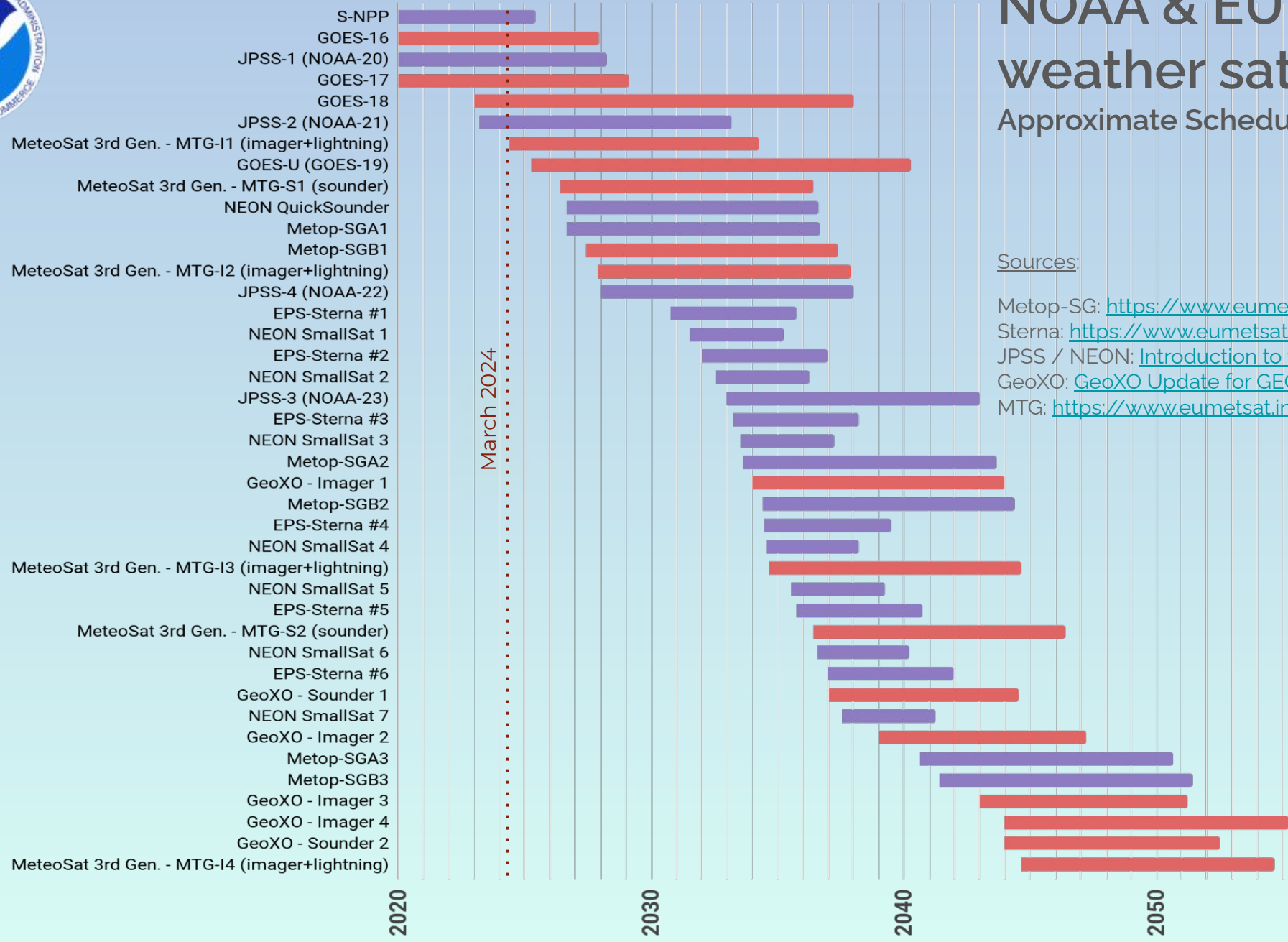


Further reading: [Geostationary Extended Observations - Update for GEO Steering Group](#)
(Pam Sullivan, GEO Observations Director - Feb. 2024)



NOAA & EUMETSAT weather satellites

Approximate Schedule of Operations



Sources:

- Metop-SG: <https://www.eumetsat.int/our-satellites/metop-series>
- Sterna: <https://www.eumetsat.int/eps-sterne>
- JPSS / NEON: [Introduction to the Near Earth Orbit Network \(NEON\)](#)
- GeoXO: [GeoXO Update for GEO Steering Group](#) (Feb. 2024)
- MTG: <https://www.eumetsat.int/our-satellites/meteosat-series>

Appendix



Satellite Book Club (SBC) Seminar Series



VIRTUAL LAB
Total Operational Weather Readiness - Satellites (TOWR-S) Public

Home - Communications - Dataset Guides - Mesoscale Mission Manager - **Satellite Book Club** - TOWR-S RPM - VuSat

SATELLITE BOOK CLUB (SBC) VIDEO SEARCH TOOL
Total Operational Weather Readiness - Satellites (TOWR-S) Team

Satellite Book Club Video Search

altimeter Search

SBC Session 48 - Satellite Data in the Graphical Forecast Editor

SBC Session 48 - Satellite Data in the Graphical Forecast Editor

Satellite Book Club - GFE basics

Satellites Data in GFE

Margaret Curtis
WFO GYX

Watch on YouTube

Transcriptions and timestamps for selected video

Total Results: 5

Timestamp	Transcript
26:20	and even the altimeter wind speeds
26:18	yeah and the altimeter wave heights
12:40	something to get looked at altimeters
26:39	we've got I think six altimeters right
38:40	wind speeds out of the altimeters is one

USA gov US Dept of Commerce National Oceanic and Atmospheric Administration National Weather Service

Disclaimer Information Quality Help Glossary Acronyms

Privacy Policy Freedom of Information Act (FOIA) About Us Career Opportunities

- Thursdays, usually at Noon ET
- Usage examples shed light on user requirements for satellite data products and capabilities.
- Recordings are on [YouTube](#) and the [NWS Commerce Learning Center \(CLC\) website](#).
- Full-text transcripts are available for all SBC sessions – searchable from within VLab.
- SBC videos are now searchable by keyword: <https://vlab.noaa.gov/web/towr-s/sbc-video-search>

[Return to overview](#)



TOWR-S Product Baseline



TOWR-S PRODUCT POSTURE

The Product Posture lists the products serviced by the TOWR-S Team, available to the National Weather Service. Not all products are available at all sites.

Search:

Product Name	Satellite	Sensor	Geophysical Domain	Parameter	Sector	Distribution Path	Distribution Source	WMO Header
88GHz Qv Imagery	SNPP/NOAA-20	ATMS	Foundational	Imagery	Granules	IDP ISatSS -> OPC/SAB	PDA	N/A
ABI Flood Maps	GOES East/West	ABI	Land	River Ice & Flooding	Regional Mosaics	Regional LDM	PDA/AWC	N/A
Aerosol Detection	GOES East/West	ABI	Atmosphere	Aerosols	Full Disk, CONUS, Mesoscale	SBN EXP	PDA	IXTA[89]9 KNES
Aerosol Detection	SNPP/NOAA-20	VIIRS	Atmosphere	Aerosols	Granules	TBD	PDA	N/A
Aerosol Optical Depth	GOES East/West	ABI	Atmosphere	Aerosols	Full Disk, CONUS	SBN EXP	PDA	IXTB[89]9 KNES
Aerosol Optical Depth	SNPP/NOAA-20	VIIRS	Atmosphere	Aerosols	Granules	TBD	PDA	N/A
AMSR2-MBT	GCOM	AMSR-2	Foundational	Imagery	Full Orbit	TBD	PDA	N/A

Showing 1 to 92 of 92 entries

TOWR-S maintains a table of all satellite data products that we are involved with integrating into NWS forecast operations.

Instant search, filter, and sort capability provides access by keyword, satellite, sensor, etc.

Many rows link to [Dataset Guides](#) with AWIPS details.

Note: Distribution Path “TBD” indicates a product in planning - not yet disseminated to users

<https://vlab.noaa.gov/web/towr-s/product-posture>



TOWR-S Product Baseline

Graphical overview (Geophysical themes + Satellite sources)

Atmosphere	Clouds	Land	Cryosphere	Ocean	Foundational
Aerosols ABI Aerosol Detection; Aerosol Optical Depth VIIRS Aerosol Detection; Optical Depth; Volcanic Ash	Cloud Layers ABI Cloud Cover Layers	Fires ABI Fire Hot Spot VIIRS Active Fires	Ice Age, Concentration, Thickness ABI Ice Age & Thickness ABI Ice Concentration & Extent AMSR2-SEAICE-NH ATMS/CrIS MiRS Ice VIIRS Ice Age, Concentration, Thickness	Altimetry Cryosat-2 SIRAL Wave Altimetry JASON-3 Wave Altimetry Sentinel-3A/B SRAL Wave Altimetry Sentinel-6A Poseidon-4 Wave Altimetry	Imagery 5 Geo Comp GMGSI Longwave IR; Visible; Water Vapor ABI SCMI Tiles AMSR2-MBT ATMS 88GHz Qv Imagery GPM GMI Microwave Imagery Himawari AHI Imagery SEVIRI VIS/IR/SWIR/WV SSMIS Microwave Imagery VIIRS Img.EDRs
Cloud Liquid Water ATMS/CrIS MiRS CLW AMSR2-OCEAN	Cloud Mask ABI Cloud Mask Himawari AHI Clear Sky Mask VIIRS Cloud Mask	Land Surface Temperature ABI LST VIIRS LST	Snow Cover ABI Snow AMSR2-SNOW ATMS/CrIS MiRS Snow VIIRS Snow Cover	Sea Surface Temperature ABI SST AMSR2-OCEAN SST Himawari AHI ACSPO SST VIIRS ACSPO SST	
Convection ABI Derived Stability Indices	Cloud Optical Depth ABI Cloud Optical Depth Himawari AHI Cloud Optical Depth VIIRS Cloud Optical Depth	River Ice & Flooding ABI Flood Maps VIIRS Flood Mapping		Sea Surface Winds AMSR2-OCEAN Winds Cryosat-2 SIRAL Winds JASON-3 Winds Metop B/C ASCAT Winds OSCAT-3 Winds Sentinel-3A/B SRAL Winds	
Derived Motion Winds ABI DMW Himawari AHI DMW VIIRS DMW	Cloud Particle Size ABI Cloud Particle Size	Soil Moisture AMSR2-SOIL			
Fog & Low Stratus ABI FLS	Cloud Phase ABI Cloud Phase Himawari AHI Cloud Top Phase VIIRS Cloud Phase				
Lightning GLM Flash Extent Density; Minimum Flash Area	Cloud Top Height ABI Cloud Top Height Himawari AHI Cloud Top Height VIIRS Cloud Top Height				
Profiles ABI Soundings (Legacy Vertical Moisture Profile; Legacy Vertical Temperature Profile) ATMS/CrIS NUCAPS Metop B/C GOME-2 NUCAPS	Cloud Top Pressure ABI Cloud Top Pressure Himawari AHI Cloud Top Pressure VIIRS Cloud Top Pressure				
Rain Rate/Qualitative Precipitation Estimation ABI RR/QPE; Global Hydro-Estimator AMSR2-OCEAN; AMSR2-PRECIP ATMS/CrIS MiRS RR Blended Hydro Suite RR Himawari AHI RR/QPE	Cloud Top Temperature ABI Cloud Top Temperature Himawari AHI Cloud Top Temperature VIIRS Cloud Top Temperature				
Total Precipitable Water ABI TPW AMSR2-OCEAN ATMS/CrIS MiRS TPW Blended Hydro Suite TPW; %TPW	Sky Cover ABI ASOS SCP				
Turbulence ABI CIMSS Turbulence					



TOWR-S monthly news



- Supplements the quarterly TOWR-S Update briefings and the weekly / occasional TOWR-S mailers.

See [latest edition](#)

- Emailed to TOWR-S Update attendees and posted to VLab. (<https://vlab.noaa.gov/web/towr-s/communications>)

TOWR-S COMMUNICATIONS

March News

Updated March 18, 2024

Jump to:

- [NOAA-20 Orbit Maneuver](#)
- [NUCAPS from Metop-C](#)
- [CIRA GeoColor & 5-minute GLM Flash Counts](#)
- [Himawari-9 Rain Rate](#)
- [GOES FLS for Alaska](#)
- [ICYMI \(In Case You Missed It\)](#)
- [OceanSat-3 Winds](#)
- [GOES-U Preparations](#)

Recent Updates

NOAA-20 Orbit Maneuver

On March 20, NOAA-21 will become the **primary** satellite in the JPSS constellation. At that time NOAA-20 will become the secondary satellite and its orbit **will be rephased** to be diametrically opposite NOAA-21.

Until March 20, 2024

Beginning Spring 2024

The orbit drift maneuver is expected to last 15 days, until April 4. All NOAA-20 instruments will experience brief outages during the orbit lowering and raising just before and after the drift; however all NOAA-20 science data and geolocation will remain valid during the drift period, and will be disseminated as normal via Direct Broadcast and NESDIS systems. Nonetheless users should exercise caution when using NOAA-20 VIIRS imagery, NUCAPS soundings, Flood Maps, etc. during the drift.

NUCAPS from Metop-C Now Available

NUCAPS atmospheric soundings from the Infrared Atmospheric Sounding Interferometer (IASI) aboard the European Metop-C satellite became available in AWIPS via SBN on March 11, 2024, at 12:44Z. See [SCN24-14 for details](#). Metop-C NUCAPS soundings, from mid-morning overpasses, complement NOAA-20's early-afternoon NUCAPS soundings, helping to characterize each day's pre-convective environment.

This spring, additional NUCAPS soundings from the NOAA-21 satellite will become available to AWIPS via the SBN. We will post a Service Change Notice once their release date is firm.

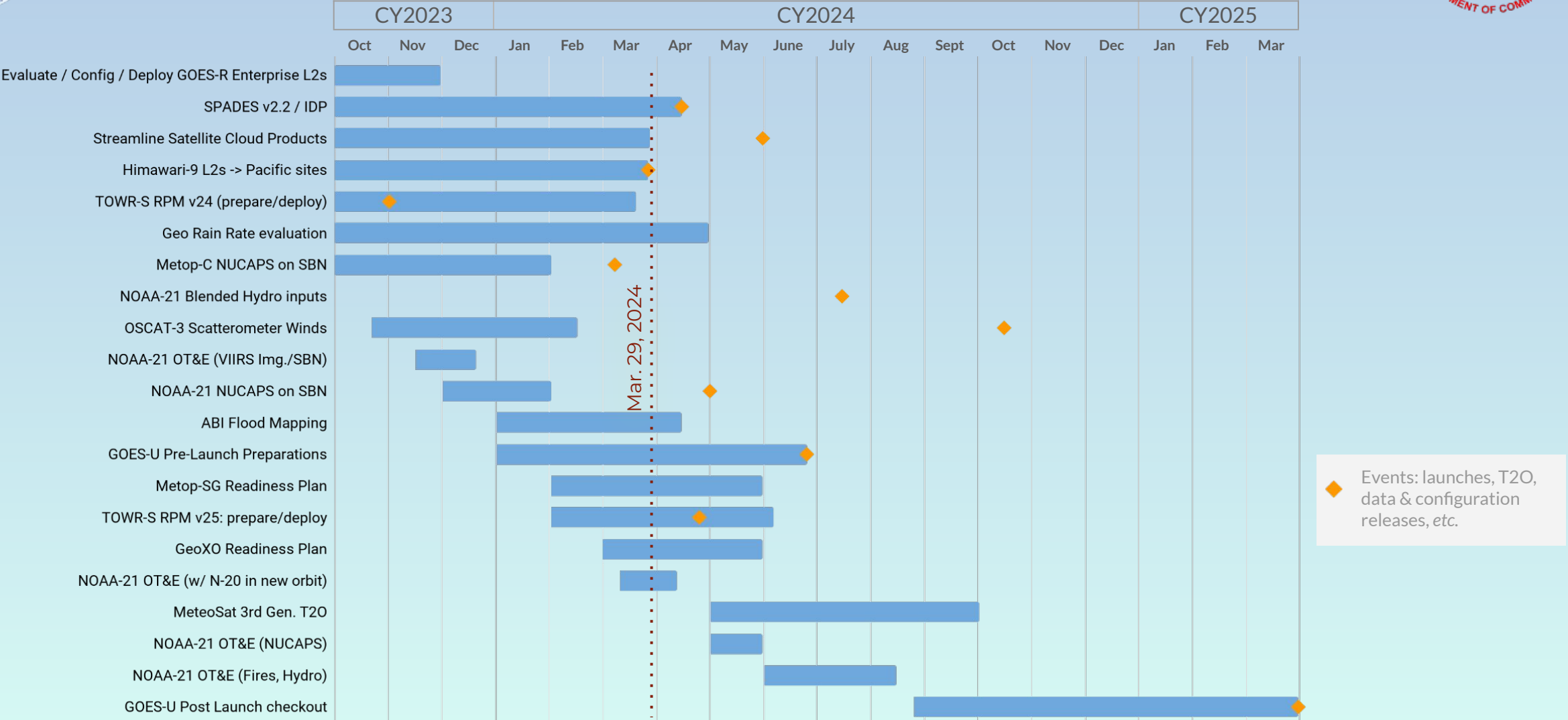
Image caption: Overlay of Metop-C NUCAPS with NOAA-20 NUCAPS on Mar 11, 12:44Z.

CIRA GeoColor & 5-minute GLM Flash Counts

Effective Monday March 18, NWS Central Region will no longer distribute CIRA GeoColor imagery nor 5-minute flash counts from the GOES-R Geostationary Lightning Mapper (GLM) via LDM. Most (126+) NWS AWIPS sites have installed TOWR-S RPM v24 and the new AWIPS Pre-Processor (APP), which can compute these products at each site. Therefore, sites with TOWR-S RPM v24 and the APP installed will not see deprecation of these data products.



TOWR-S Activity Plan



◆ Events: launches, T2O, data & configuration releases, etc.



Contact Information



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- Links
 - [NWSSChat 2.0 #towr-s Channel](#) 
 - [TOWR-S on VLab \(https://vlab.noaa.gov/web/towr-s\)](https://vlab.noaa.gov/web/towr-s)



Next TOWR-S Update



(tentative)
June 28, 2024