

TOWR-S Update

October 4, 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 Activities](#)

- TOWRpro v25, ISatSS
- Summer Intern Work
- SPADES

2. [Recent Product Updates](#)

- NOAA-21
- Legacy Data Source Retirements
- ASOS SCPs

3. [New and Upcoming](#)

- GOES-19
- OSCAT-3 Winds
- Advected Layered Precipitable Water
- MeteoSat-TG, Metop-SG

4. [Documentation / Communication / Outreach](#)

- SBC
- VLab Resources
- Roadmap and TOWR-S Activity Plan

TOWR-S Activities



TOWRpro v25 (TOWR-S RPM v25 + APP)

Deployment to begin in **Mid Oct 2024**. For details see [SBC Spotlight Apr. 25, 2024](#).

Support for new products in AWIPS:

- GOES-19 L2s & gridded GLM
- [ABI Flood Maps](#)
- [OSCAT-3 winds](#) (Pacific/Gulf/Atlantic, G Lakes)
- [SAR winds](#) (Pacific/Gulf/Atlantic, Great Lakes)


AWIPS configuration changes:

- [New Gray color scale](#) for the GOES Split Window Channel Difference
- [Increase max range of NESDIS Snowfall rate](#) in colormap/Style Rule
- Support for GOES-R Storage Slot (~105W; currently occupied by GOES-17)

New / changed CAVE menu entries:

- Combined entry for NUCAPS soundings from Metop-C and NOAA-20,21
- Improved display of NUCAPS soundings

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



Channel Differences	x
Split Window (10.3-12.3 μm)	17.1536
Split Window Moisture (10.3-12.3 μm)	17.1536
Split Cloud Top Phase (11.2-8.4 μm)	17.1536
Night Fog (10.3-3.9 μm)	17.1536
Night Fog (11.2-3.9 μm)	17.1536
Day Fog (3.9-10.3 μm)	17.1536



ISatSS in IDP and NWS National Centers

(IDP Satellite Support Subsystem)



Completed:

- IDP-Dev to IDP Ops transition v5.2 (College Park Centers) (9/19/24):
 - OPC/SAB (new IDP Ops capability):
 - ATMS, GPM GMI, AMSR-2, SSMIS MW imagery
 - ASCAT-B/C Scatterometer winds
 - Jason-3, Sentinel-6A wave altimetry
 - GOES Fog and Low Stratus (Full Disk)
 - Proxyvis (Meteosat-9/10, Himawari-9)
 - CIRA Geocolor imagery (GOES-16/18) [also to WPC]
 - AMSR-2 Ocean products [also to WPC]
 - Proxyvis (GOES-16/18) [also to WPC]
- IDPDev (College Park Centers):
 - Updated to ISatSS v6.0 (Jun 2024)
 - SWOT wave altimetry
 - GOES LightningCast
 - Cryosat-2, Sentinel-3A/3B, Altika wave altimetry
 - SOFAR drifting buoys (NMP)
- NHC
 - Updated to ISatSS v6.0 (Jun 2024)
 - SWOT wave altimetry
 - GTWO Mosaic
 - SOFAR drifting buoys (NMP)
 - GOES Full Disk DMW de-duplicator (10/3 gnd seg fixed)
 - OSCAT-3 Winds (cloud only)
 - GREMLIN radar emulation (cloud only)

- AWC
 - Updated to ISatSS v6.0 (Jun 2024)
 - Global imagery mosaics
 - GREMLIN radar emulation
- SPC
 - Updated to ISatSS v6.0 (Jul 2024)

In-work:

- Finalize Geo RGBs for NAWIPS at OPC
- Finalize AWC Mosaics (super-Conus, Alaska)
- MTG imagery tiles/area files evaluation
- G19 ABI/GLM readiness
- OPC/SAB SAR wind speeds
- OPC/SAB GREMLIN radar emulation
- OPC/SAB OSCAT-3 Winds
- SPC Hardware update w/ RHEL-8

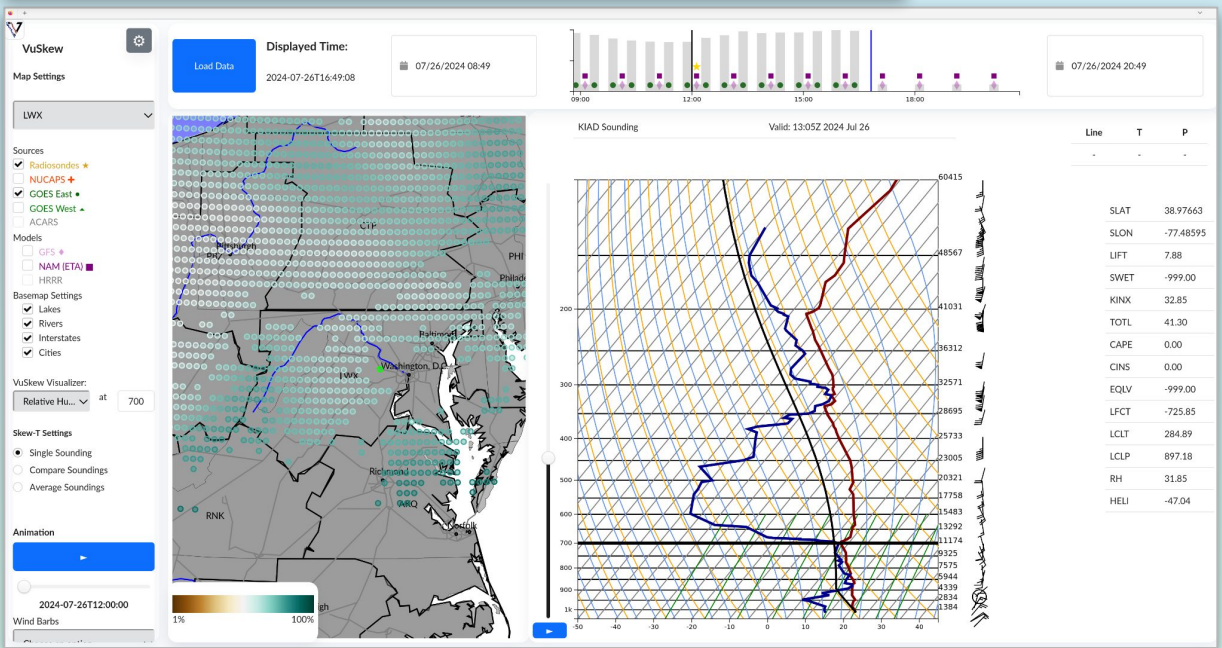
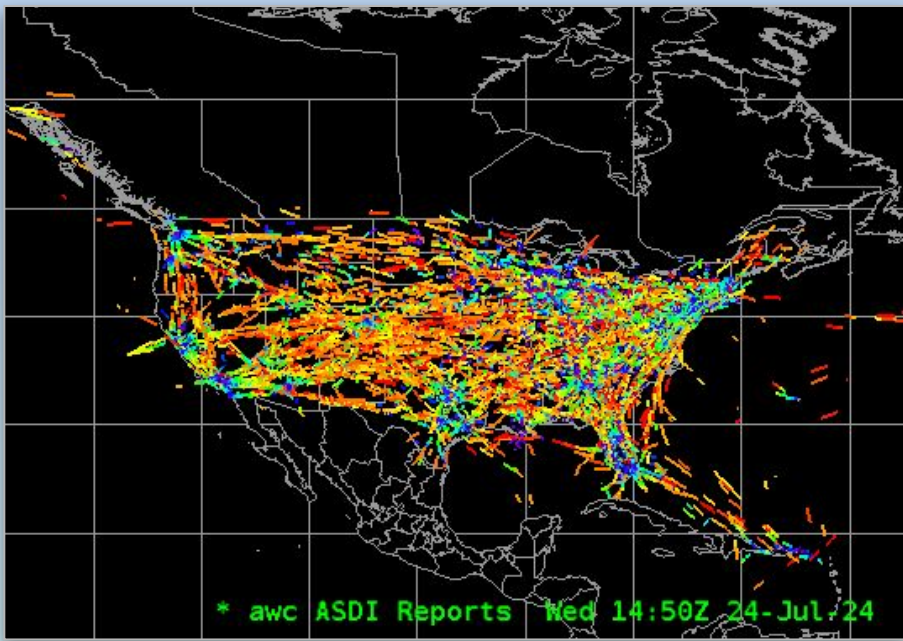
Further reading: [TOWR CCB Monthly](#)



TOWR-S Interns Summer 2024



- AWIPS dbGeo plugin enhancements by EPP/MSI intern
 - Yair (Jordi) Banuelos
 - Purpose: Assist w/ improvement to AWIPS rendering of points, shapes and other polygons in CAVE
 - Render AWC aircraft flight path turbulence
 - Demonstrate application to other sat datasets
 - Thanks for the Guidance of AWC staff
-
- VuSkew: A Cloud-Based Visualization Solution for an Integrated Sounding Viewer by GOES-R Lapenta interns
 - Paige Bartels, Hailey Zangara, Luke Wichrowski
 - Purpose: Connect satellite data with NWS forecasters
 - Encourage use of GOES soundings in operations
 - Easy access to soundings
 - Many visualization methods
 - Thanks for Guidance and Testing by forecasters at:
 - CAE, IND, MFL, NHC



Recent satellite data products / changes



NOAA-21 T20: Product Maturity timeline

All products fully validated

we are
here



Team	Product	Beta Effectivity Date	Provision Effectivity Date	Validated Effectivity Date	Beta Maturity Review Date	Prov Maturity Review Date	Val Maturity Review Date	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	04/11/24	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 Size	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 Concentration	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																										
	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	11/30/23	11/30/23	09/30/24	06/13/24	06/13/24	06/13/24													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/V																					
	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	08/03/23	01/25/24	01/25/24																																		
OCC	Vegetation Health	03/30/23	03/30/23	03/30/23	08/03/23	01/25/24	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	03/20/23	03/20/23	03/20/23					B/P/V																													
VPW	Polar Winds	11/16/23	11/16/23	11/16/23	11/16/23	11/16/23	11/16/23														B/P/V				V																
VFM	VIIRS Flood Mapping	08/24/23	12/14/23	12/14/23	12/14/23	12/14/23	12/14/23										B				P/V																				
NUCAPS	AVTP, AVMP, Ozone, OLR	03/23/23	09/26/23	09/26/23	09/26/23	09/26/23	09/26/23							B							P			V																	
	CO, CO2, CH4	03/23/23	09/26/23	09/26/23	09/26/23	09/26/23	09/26/23					B								P/V																					
MIRS	MIRS Products	12/03/22	03/07/24	03/07/24	03/07/24	03/07/24	03/07/24							P/V																											
SFR	Snow Fall Rate (SFR)	12/03/22	03/07/24	03/07/24	03/07/24	03/07/24	03/07/24																	P			V														
OMPS EDR	OMPS NP Ozone EDR (V8Pro)	03/24/23	03/27/24	10/24/24	03/30/23	10/26/23	10/24/24					B												P																	
	OMPS TC Ozone EDR (V8TOz)	03/24/23	09/19/23	09/19/24	03/30/23	08/03/23	09/19/24					B							P																						
	OMPS LP (SDR & EDR)	06/11/23	06/11/23	09/19/24	4/25/24	4/25/24	09/19/24								B/P																										

Not all of these products will be made available in the SBN; others will be made available via LDM or other mechanisms.

NOAA-21 MiRS (microwave) Rain Rate and Precipitable Water estimates are coming to Blended Hydro Products ~Dec24 / Jan25

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.

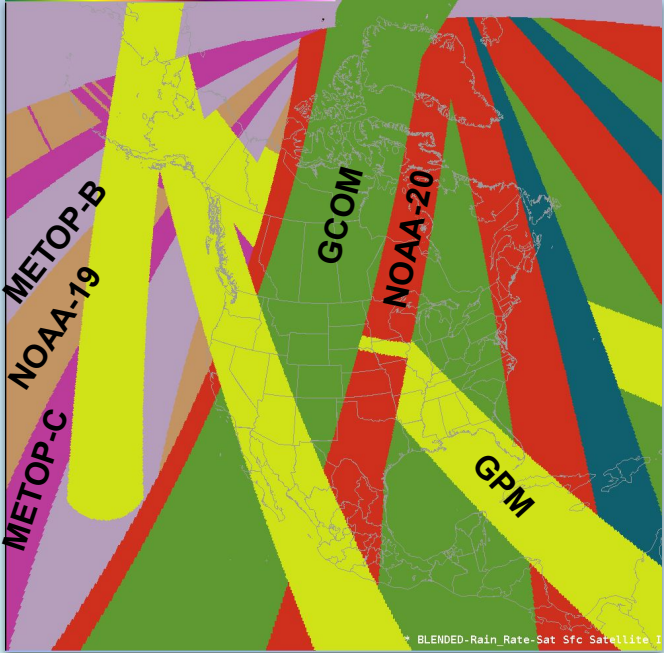
NOAA-21 MiRS (microwave) Rain Rate and Precipitable Water estimates are coming to Blended Hydro Products ~Dec24 / Jan25



From OSP0: Legacy Data Source Retirements



Algorithms/Products	Data Source Retired or to be Retired	Existing Missions/Mitigation	Date of Retirement
MODIS Winds	Aqua/Terra	SNPP and N20 DMV, Metop-B/C AVHRR Winds	Jan 29, 2024
AVHRR Cloud Drift Polar Winds	NOAA 15/18/19	SNPP and N20 DMV (NDE) Metop-B/C AVHRR Winds (NCCF)	April 3 2024
Microwave Integrated Retrieval System (MIRS)	NOAA 19, DMSP 17/18	SNPP and N20 , Metop-B/C and GPM MIRS Products	Jan 15 2025
Blended Rain Rate & Blended TPW	NOAA 19, DMSP 17/18 MIRS	SNPP, N20, N21, Metop-B/C, GPM, GCOM-W1	Jan 15 2025
AMSU TC	NOAA 19 MIRS	MetOp-B/C AMSU	Jan 15 2025
OMI SO2 Alert	Aura	OMPS SO2	Dec 2024
Ensemble Tropical Rainfall Potential (eTRaP)	NOAA 19, DMSP 17/18 MIRS	MetOp-B/C, GOES-16, GOES-17/18, METEOSAT-9/11, Himawari-8/9, S-NPP, NOAA-20, GCOM-W, GPM	Jan 15 2025
Ocean Heat Content	SARAL	JASON-CS/MF Sentinel-6A Poseidon 4	Jan 15 2025



Blended Rain Rate: contributions from Metop-C, NOAA-19, Metop-B, and others

For details see <https://www.ospo.noaa.gov/Products/retirements.html>



GOES-R ASOS Satellite Cloud Products (SCP)



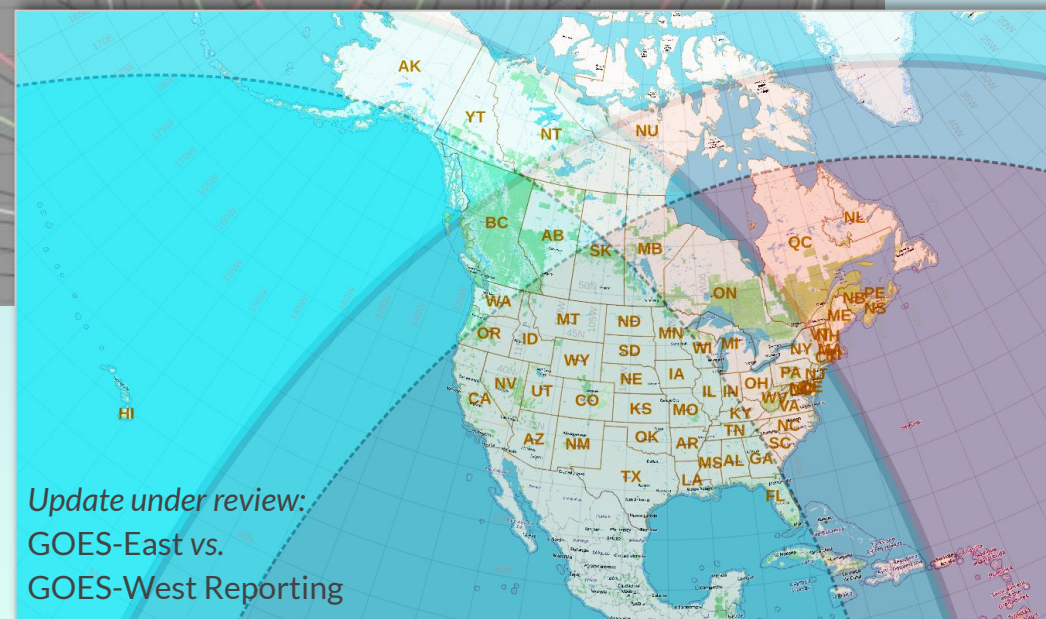
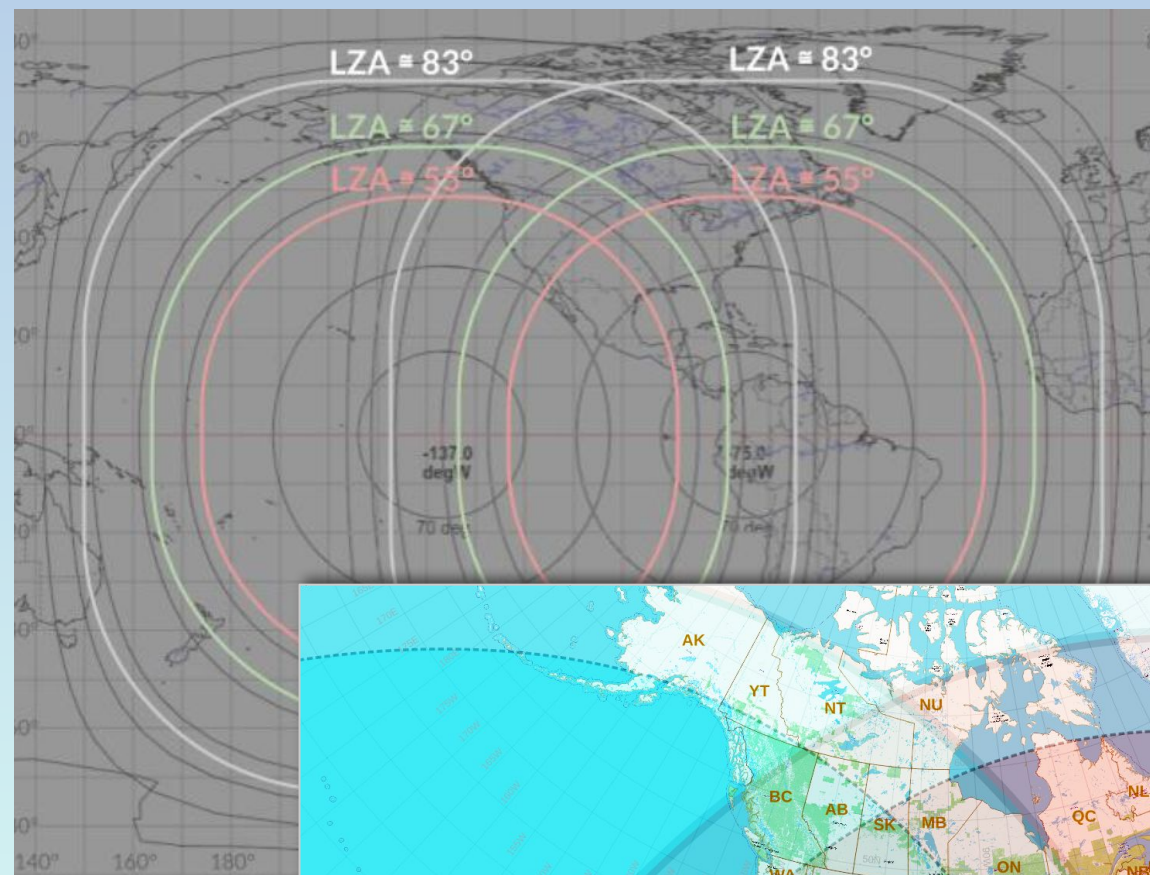
June, September 2024 updates implemented

Routine updates will persist on a quarterly basis

Expected June 2025: update to algorithm resolving GOES-East vs. GOES-West false reportings

GOES-R ASOS SCP station locations have been synced with the AWIPS National Datasets Maintenance (NDM) repository on VLab:

NOAA community may request station changes via <https://vlab.noaa.gov/redmine/projects/awips-ndm/>



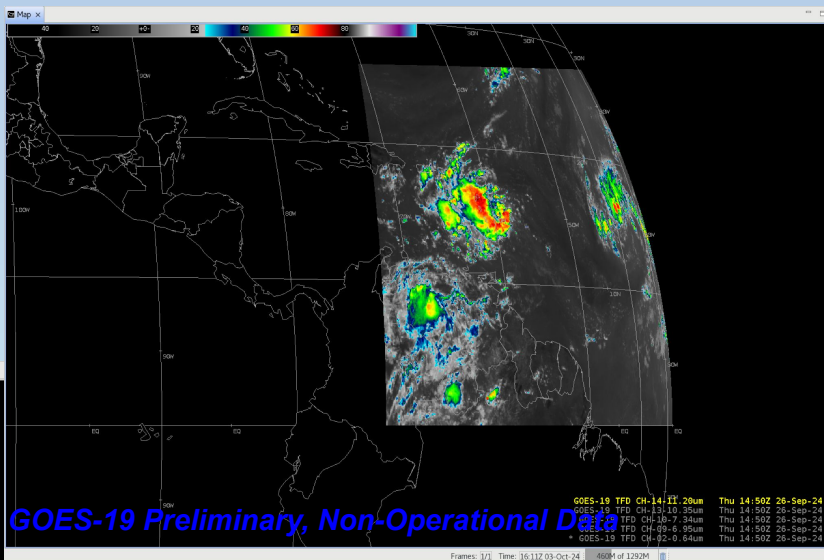
New and upcoming satellites



GOES-19

GOES-19 to become GOES-East April 4, 2025

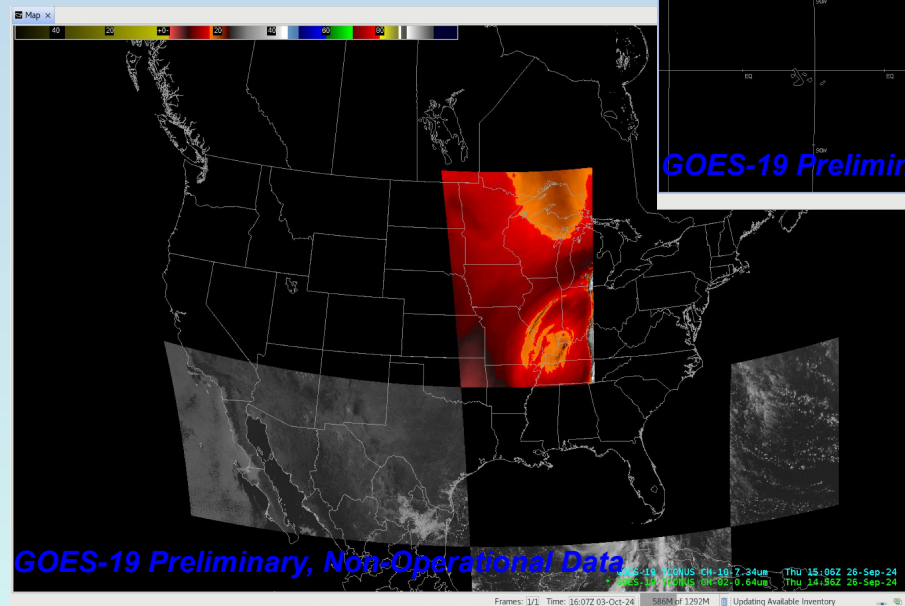
- Post-Launch Testing and Product Validation underway
- [ABI First Public Image Release 9/18](#)
 - Beta L1b & CMI data now via GRB
- Carrying the new [Compact Coronagraph \(CCOR\)](#)
- All data is Preliminary, Non-Operational until April



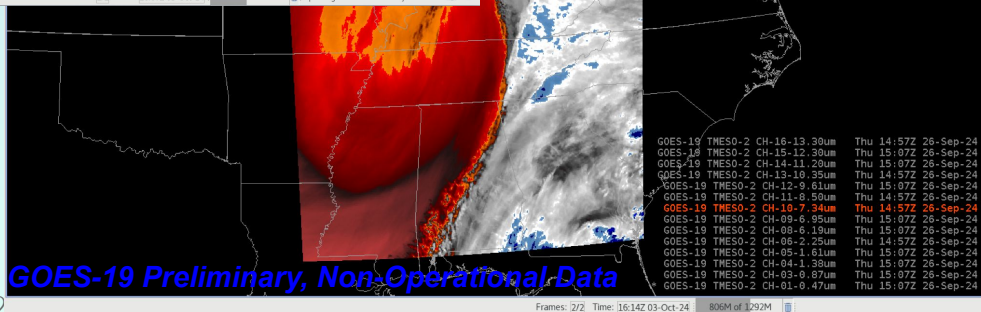
GOES-19 Preliminary, Non-Operational Data

Satellite

- ▶ GOES-16
- ▶ GOES-18
- ▼ GOES-19
 - ▶ TCONUS
 - ▶ TFD
 - ▶ TMESO-2



GOES-19 Preliminary, Non-Operational Data

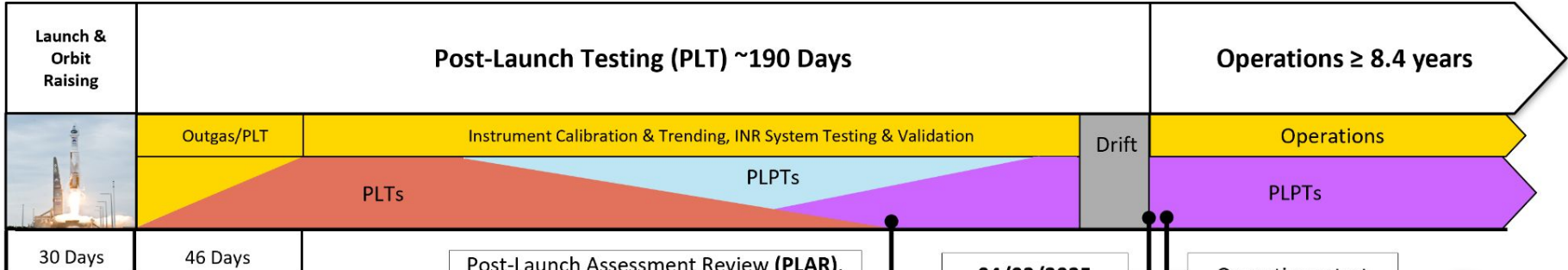


GOES-19 Preliminary, Non-Operational Data

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GOES-19 Post-Launch Science Product Validation Schedule

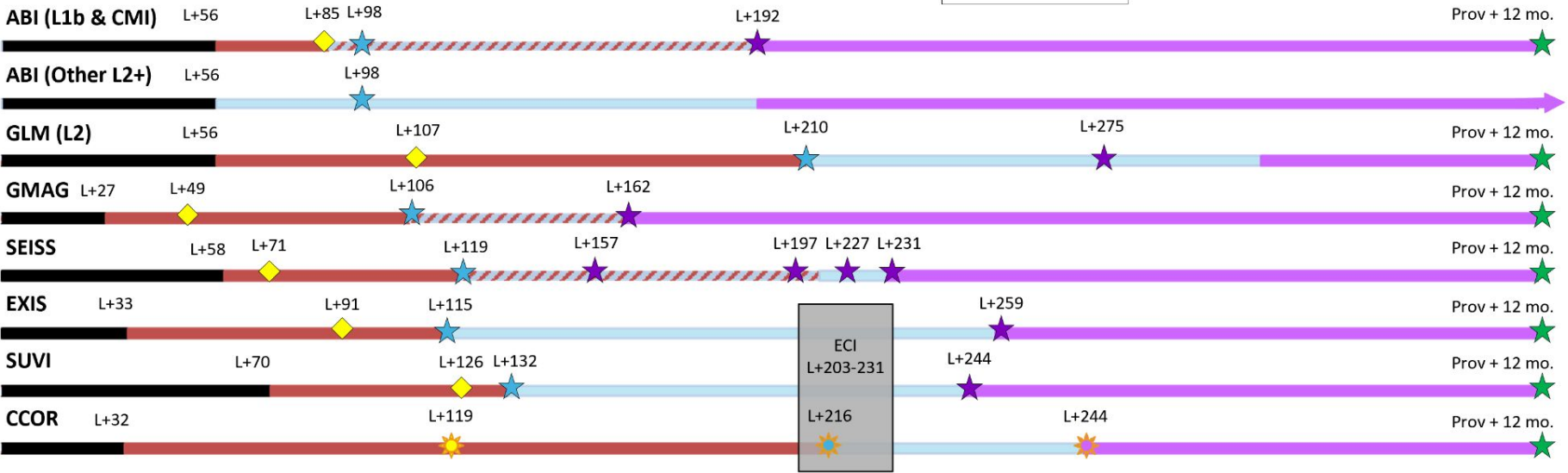


Post-Launch Assessment Review (PLAR),
Handover Readiness Review (HRR),
Ops & Product Handover to OSPO

04/03/2025
Operational
Transition
Readiness
Review (OTRR)

Operations start

Further Details: see
[GOES-R.gov T2O webpage](https://GOES-R.gov/T2O)



LEGEND

Current as of October 1, 2024

Science Products Not Flowing

Internal flow begins

Post-Launch Testing (PLT)

Beta Validated Products

Both PLT/PLPT

Provisionally Validated Products

Post-Launch Product Testing (PLPT)

Fully Validated Products

Post-Launch Product Testing (PLPT) / Full validation testing

First public imagery release

Beta Certification

Provisional PS-PVR

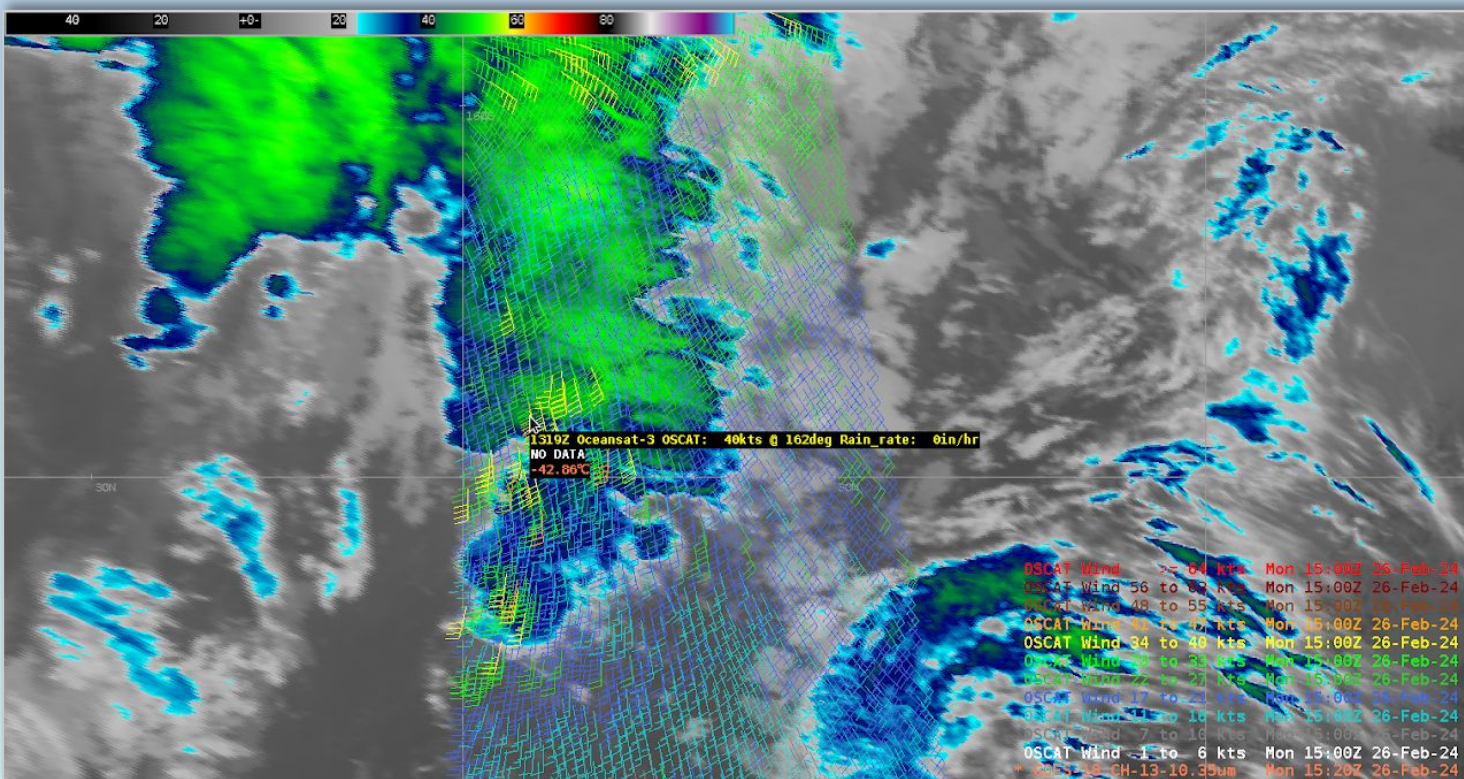
Full Validation PS-PVR

CCOR milestones (owned by SWFO)

Note: All dates are subject to change.

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OSCAT-3 scatterometer winds



[OceanSat-3 / OSCAT-3](#)

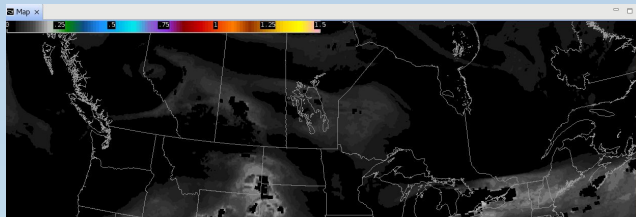
- L2 Ocean Surface Winds files from the OSCAT-3 scatterometer are now ready for AWIPS
- AWIPS support is included in TOWRpro v25
- All Coastal and Great Lakes WFOs will receive in TOWRpro v25, sourced from NESDIS/STAR
- Potentially operational on NCCF Apr/May 2025
- This product will fill the gap left when SCATSAT ceased operating in Feb. 2021.



Advected Layered Precipitable Water (ALPW)



500-300 hPa



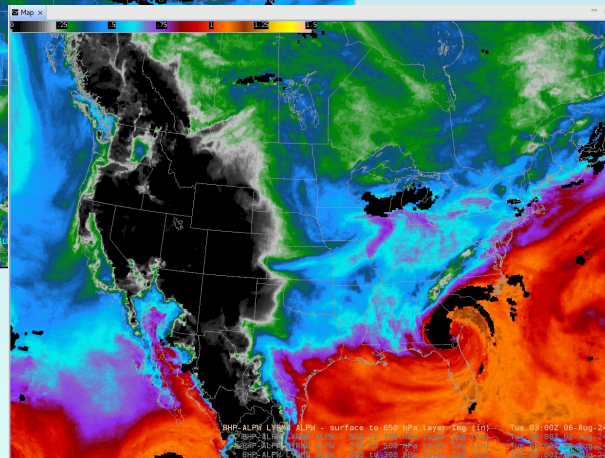
700-500 hPa



850-700 hPa



SFC-850 hPa



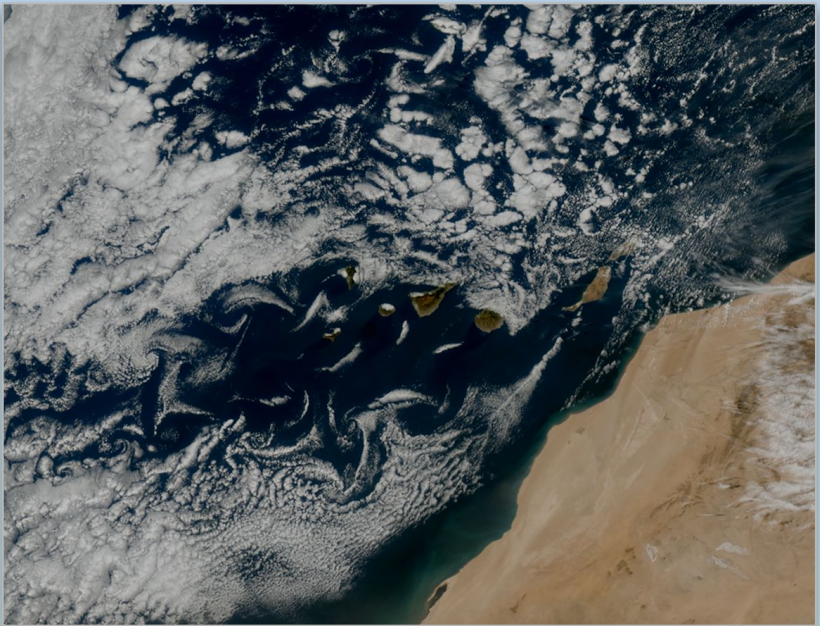
ALPW

- Data available on PDA OPS as of 9/25/2024
- Supported in TOWRpro v25
- Approved by SBNRC 10/3
- SCN to be put out soon
- Hoping to flow over SBN by December 2024, to replace the current product flowing over regional LDM
- [ALPW @CIRA](#)

MeteoSat 3rd Generation

- MeteoSat 3rd Generation (MTG-Imager1) launched Dec. 2022
 - Key instruments: **Lightning Imager** and **Flexible Combined Imager**
- MTG-I1 [data availability schedule](#): (updated Sept 5, 2024)

Central facility			
MTG data release	Data type	Delivery mechanism	Accessible for
24 Sept 2024	Flexible Combined Imager L1c data - continuous feed (compressed via EUMETCast)	EUMETCast Data Store EUMETView	Pre-operational release to all users
To be announced (for details see footnote at MTG-I1 data availability schedule)	Flexible Combined Imager L2 data – continuous feed of a subset of products		
28 Mar 2024	Lightning Imager data - subset of groups and flashes	Open sftp	All users
8 July 2024	Lightning Imager data - continuous feed of all products	EUMETCast Data Store	Pre-operational release to all users



MTG-I1 view of Canary Islands (Mar. 18, 2023)

<https://www.eumetsat.int/features/discover-first-images-mtg-i1>

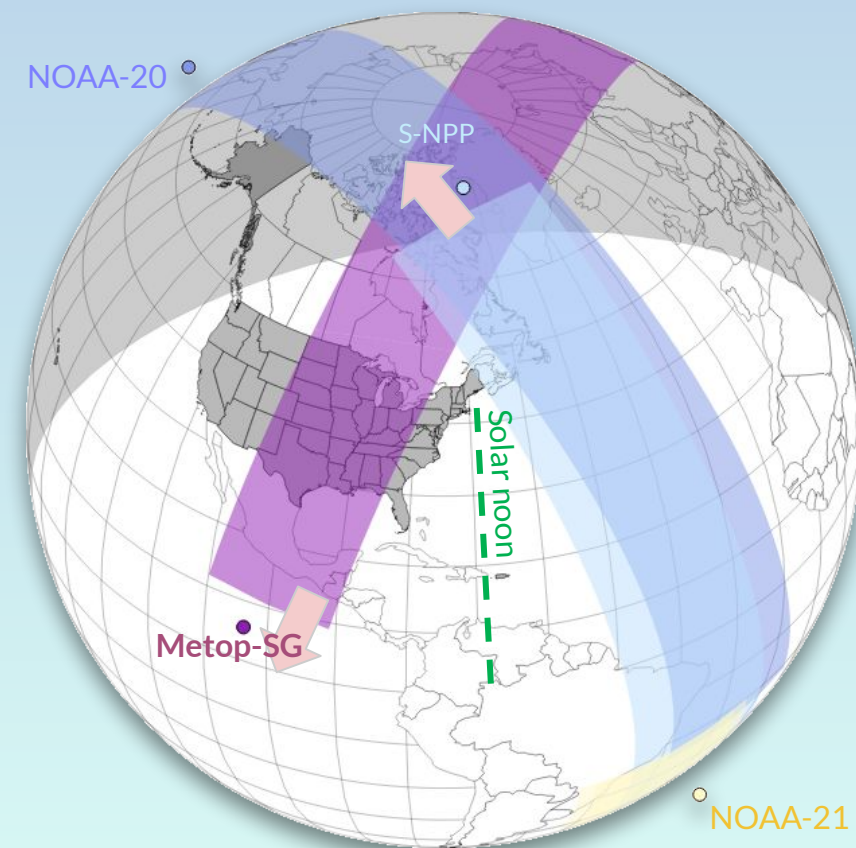
- MTG-I1's Flexible Combined Imager (FCI) resumed observations in May, but lost on-board calibration capabilities and redundancy.
- MTG-I1 will be referred to as Met-12 when declared operational
- [Public Release of Pre-Operational MTG-I1 FCI data](#)

July-Sept. 2025: launch of MTG-Sounder1

Further reading:
<https://www.eumetsat.int/planned-launches>

Metop-Second Generation (Metop-SG)

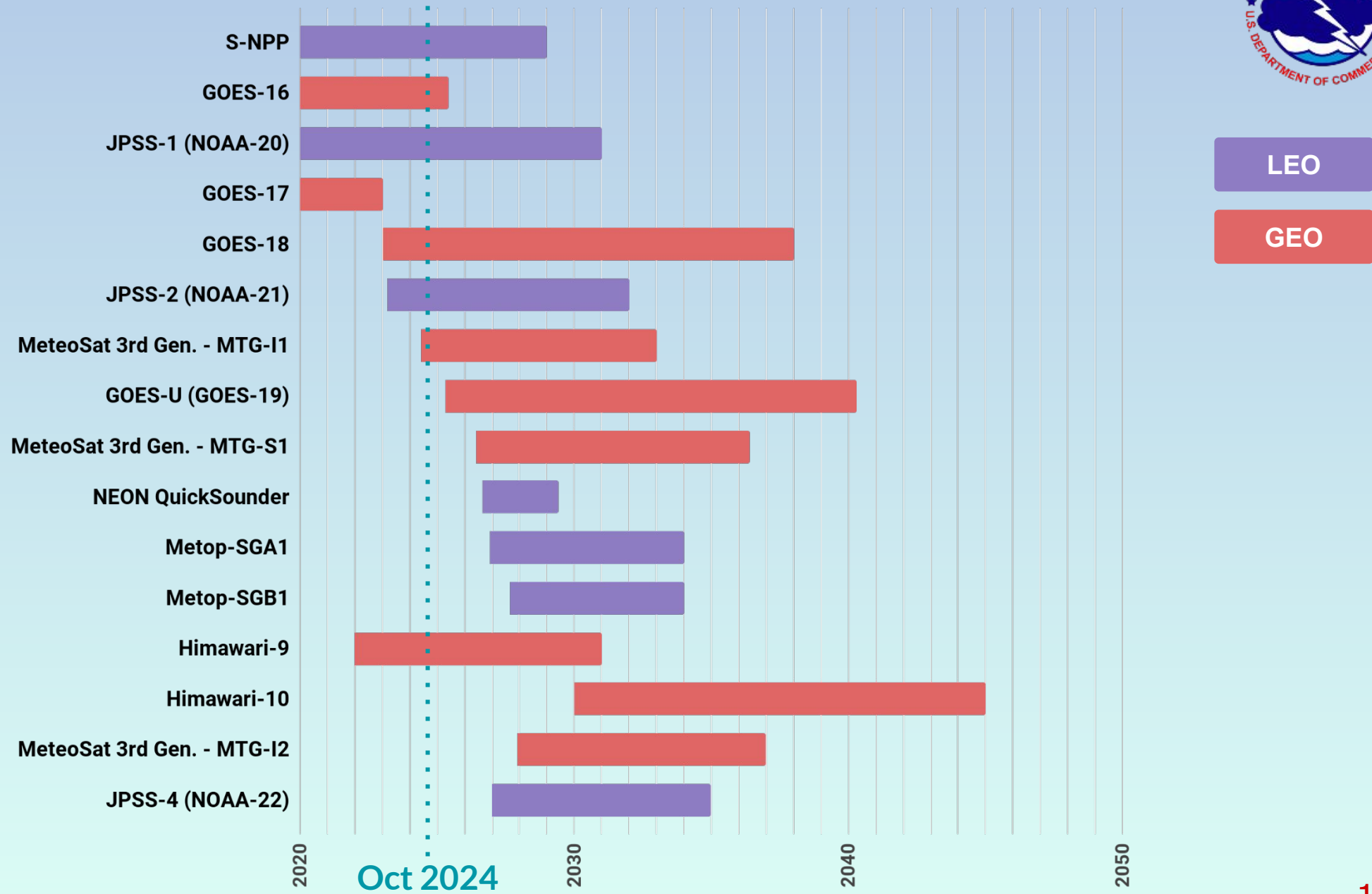
- [Metop-SG A1](#) to launch [Sept-Nov 2025](#); Metop-SG B1 in [June-Aug 2026](#)
 - A-B tandem pairs in sun-synchronous polar (morning) orbit
 - Key instruments aboard A (sorted by importance to NWS forecaster):
 - **METimage**: Meteorological Imager
 - **IASI-NG**: Infrared Atmospheric Sounder Interferometer - New Generation
 - **MWS**: Microwave Sounder
 - **Sentinel-5 UVNS**: Ultra-violet, Visible and Near-infrared Sounder
 - **3MI**: Multi-viewing Multi-channel Multi-polarisation Imager
 - **RO**: Radio Occultation sounder
 - Key instruments aboard B:
 - **MWI**: Microwave Imager
 - **SCA**: Scatterometer
 - **ICI**: Ice Cloud Imager
 - **RO**: Radio Occultation sounder
 - TOWR-S completed [Version 1.2 NWS User Readiness Plan for Metop-SG](#)



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



Operational Schedule of Key Satellites



Documentation / Communication / Outreach



Satellite Book Club (SBC) Seminar Series



Satellite Book Club Seminar Series

Weekly seminar series focusing on satellite data in NWS mission operations

200 Sessions, and counting!

85 Attendees per week

15,200 Total attendees joined live

6,700 YouTube views

2,100 Completions in Commerce Learning Center

Brings together NESDIS staff and NWS forecasters

Fire

Winter

Severe

and more!

Session Details:

- Thursdays @ 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](#).
- SBC videos are now searchable by keyword: <https://vlab.noaa.gov/web/towr-s/sbc-video-search>



Upcoming sessions:

- Oct 10: *Rare November Hailstorm over Lower MI and Use of Air Mass RGB* | TJ Turnage (WFO Grand Rapids)
- Oct 17: *GeoXO OCX Benefits Study* | Mike Jamilkowski (Aerospace Corporation)
- Oct 24: *GOES Data Communication in Media* | Dakota Smith (CIRA)
- Oct 31: *Midwest Winter Sat Challenges Revisit* | Patrick Ayd (DLH)

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TOWR-S Product Baseline



TOWR-S PRODUCT BASELINE

The Product Baseline 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 (Refresh Rate)	Distribution Path	Distribution Source	WMO Header
88GHz Qv Imagery	SNPP/NOAA-20	ATMS	Foundational	Imagery	Granules (90 min)	IDP ISatSS -> OPC/SAB	PDA	N/A
ABI Flood Maps	GOES East/West	ABI	Land	River Ice & Flooding	Regional Mosaics (1 hr)	Regional LDM	PDA/AWC	N/A
Aerosol Detection	GOES East/West	ABI	Atmosphere	Aerosols	Full Disk (10 min), CONUS (10 min), Mesoscale (5 min)	SBN EXP	PDA	IXTA[89]9 KNES
Aerosol Detection	SNPP/NOAA-20	VIIRS	Atmosphere	Aerosols	Granules (10 hr)	TBD	PDA	N/A
Aerosol Optical Depth	GOES East/West	ABI	Atmosphere	Aerosols	Full Disk (10 min), CONUS (5 min)	SBN EXP	PDA	IXTB[89]9 KNES

Showing 1 to 92 of 92 entries

Table of all satellite data products that we are involved with integrating into NWS forecast operations.

Search, sort, filter

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

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

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

[Return to overview](#)



TOWR-S Product Baseline

Graphic overview (Geophysical themes + Instrument sources)

Atmosphere	Clouds	Land	Cryosphere	
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	
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	
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		
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	Ocean	Foundational	
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	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	
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	Sea Surface Temperature ABI SST AMSR2-OCEAN SST Himawari AHI ACSPO SST VIIRS ACSPO SST		
Total Precipitable Water ABI TPW AMSR2-OCEAN ATMS/CrIS MiRS TPW Blended Hydro Suite TPW; %TPW	Sky Cover ABI ASOS SCP	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		
Turbulence ABI CIMSS Turbulence				



Other VLab Resources

Search:

			Bands																Channel Differences															
RGB Name	Use Case	Simple/ Adv./Old	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	5-2	7-13	8-10	9-10	10-8	12-13	13-7	13-11	14-11	15-13	Other					
Air Mass	Inferring cyclogenesis; Identifying air masses	A							xd		d		d	d							x				x									
Ash	Ash detection; SO2 identification	A											d		xd	d	d										x		x					
CIMSS Natural Color	Human perspective from space	A	x	x																										x				
CIRA Geocolor	Human perspective from space	A	x	x	x				d						xd											x				x				
Day Cloud Convection	High convection clouds, low-mid water clouds, land surface distinction	S		xx												x																		
Day Cloud Phase	Convective initiation; Snow squalls	S		x				x								x																		

Showing 1 to 24 of 24 entries

x = included

xx = two colors from same band included

d = included in a channel difference

xd = included as both a single band and channel difference

Table of GOES RGBs with Quick Guides, Use Cases and Bands

Table of GOES L2 products on the SBN with WMO Headers and PDA Shortnames

GOES-R L2 Products on SBN					
The table below lists the GOES-R L2 products that are available via NOAAPort (Satellite Broadcast Network)					
WMO Headers (East)	WMO Headers (West)	Product	PDA Shortname: Full Disk	PDA Shortname: CONUS	PDA Shortname: Meso1,2
IXTA99 KNES	IXTB89 KNES	Aerosol Detection	ABI_L2_ADPF	ABI_L2_ADPC	ABI_L2_ADPM
IXTB99 KNES	IXTB89 KNES	Aerosol Optical Depth	ABI_L2_AODF	ABI_L2_AODC	
IXTC99 KNES	IXTC89 KNES	Cloud Cover Layers	ABI_L2_CCLF	ABI_L2_CCLC	ABI_L2_CCLM
IXTD99 KNES	IXTD89 KNES	Cloud Top Phase	ABI_L2_CTPF	ABI_L2_CTPC	
IXTE99 KNES	IXTE89 KNES	Fog & Low Stratus		ABI_L2_GFLSC_AWIPS	
IXTF99 KNES	IXTF89 KNES	Rain Rate / Quant. Precip. Est.	ABI_L2_RRQPEF		
IXTG99 KNES	IXTG89 KNES	Cloud Top Height	ABI_L2_ACHAF	ABI_L2_ACHAC	ABI_L2_ACHAM
IXTH99 KNES	IXTH89 KNES	Cloud Mask	ABI_L2_ACMF		ABI_L2_ACMH
IXTI99 KNES	IXTI89 KNES	Cloud Top Temperature	ABI_L2_ACHTF	ABI_L2_ACHMC	ABI_L2_ACHTM
IXTJ99 KNES	IXTJ89 KNES	Fire Detection	ABI_L2_FDCCF	ABI_L2_FDCC	ABI_L2_FDCH

Showing 1 to 23 of 23 entries



TOWR-S Monthly News



Supplements these quarterly TOWR-S Update briefings.

See [September edition](#)

Emailed to TOWR-S Update attendees, SOOs, stakeholders, and posted to VLab.

(<https://vlab.noaa.gov/web/towr-s/communications>)

Over 640 recipients - [subscribe here](#)

Comes out 1st or 2nd week of the month

October edition coming Tues Oct 8

November edition on Wed Nov 13

TOWR-S COMMUNICATIONS

September News
Updated September 4, 2024

Jump to:

- [TOWRpro v25](#)
- [GOES-19 Data Availability](#)
- [NWS Satellite Readiness Roadmap](#)
- [ICYMI \(In Case You Missed It\)](#)
- [GOES-19 T2O](#)
- [TOWR-S Quarterly Update Presentation](#)

Recent Updates

TOWRpro v25 Release

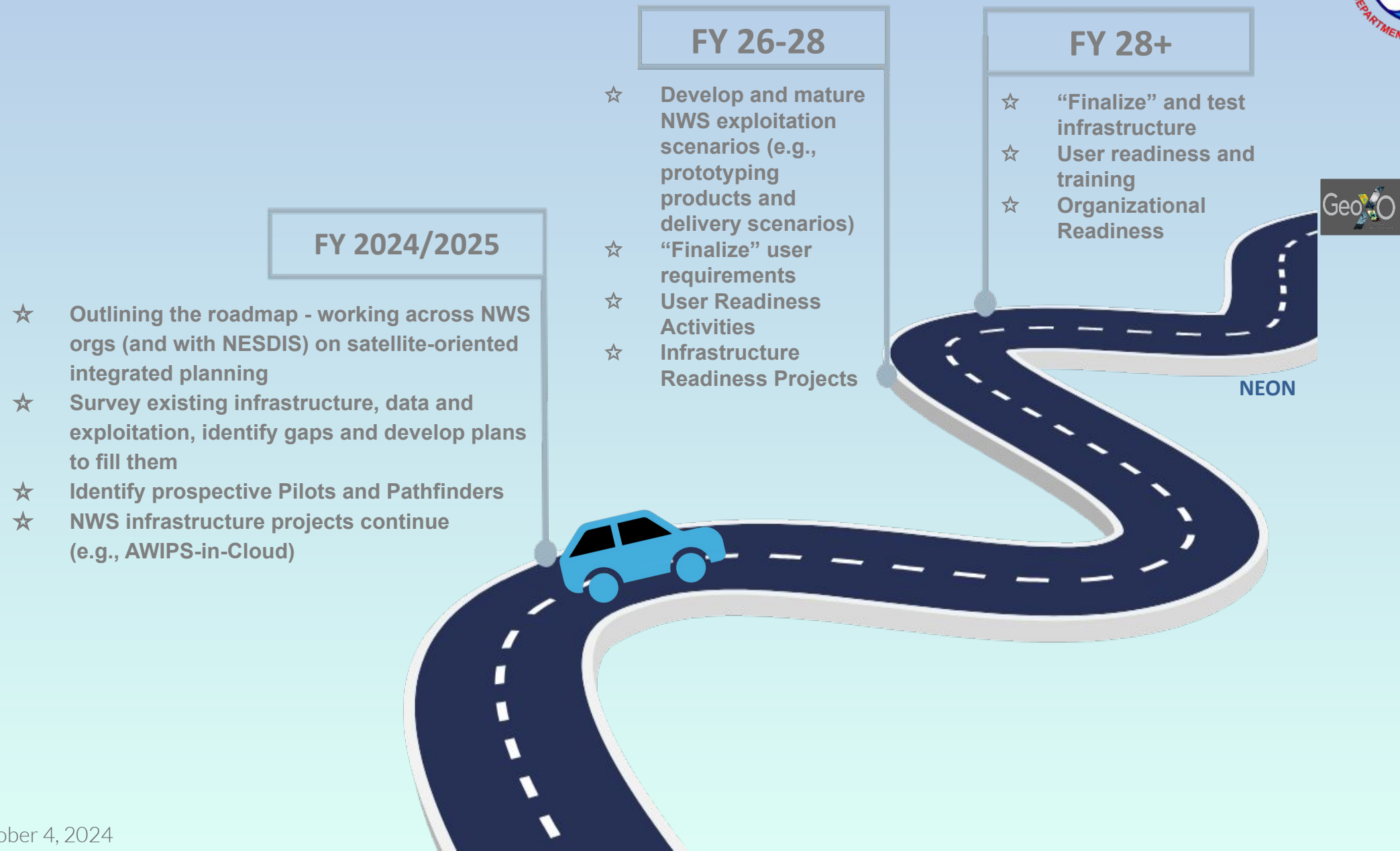
Updates to the TOWR-S RPM and AWIPS Pre-Processor (APP) have been bundled and deployed as TOWRpro v25. Developers on the TOWR-S Team have been working with the NWS Operations Proving Ground on the final adjustments to the RPM. Deployment to additional test sites and the broader field is anticipated to occur throughout September and October. Specific timing will be communicated when available. More details about what the software package entails can be found in this [Satellite Book Club presentation](#). Contact [Lee Byerle](#) or [Emily Maddox](#) with questions.

GOES-19 Data Availability

The first public image release from GOES-19 ABI has been postponed from September 4.

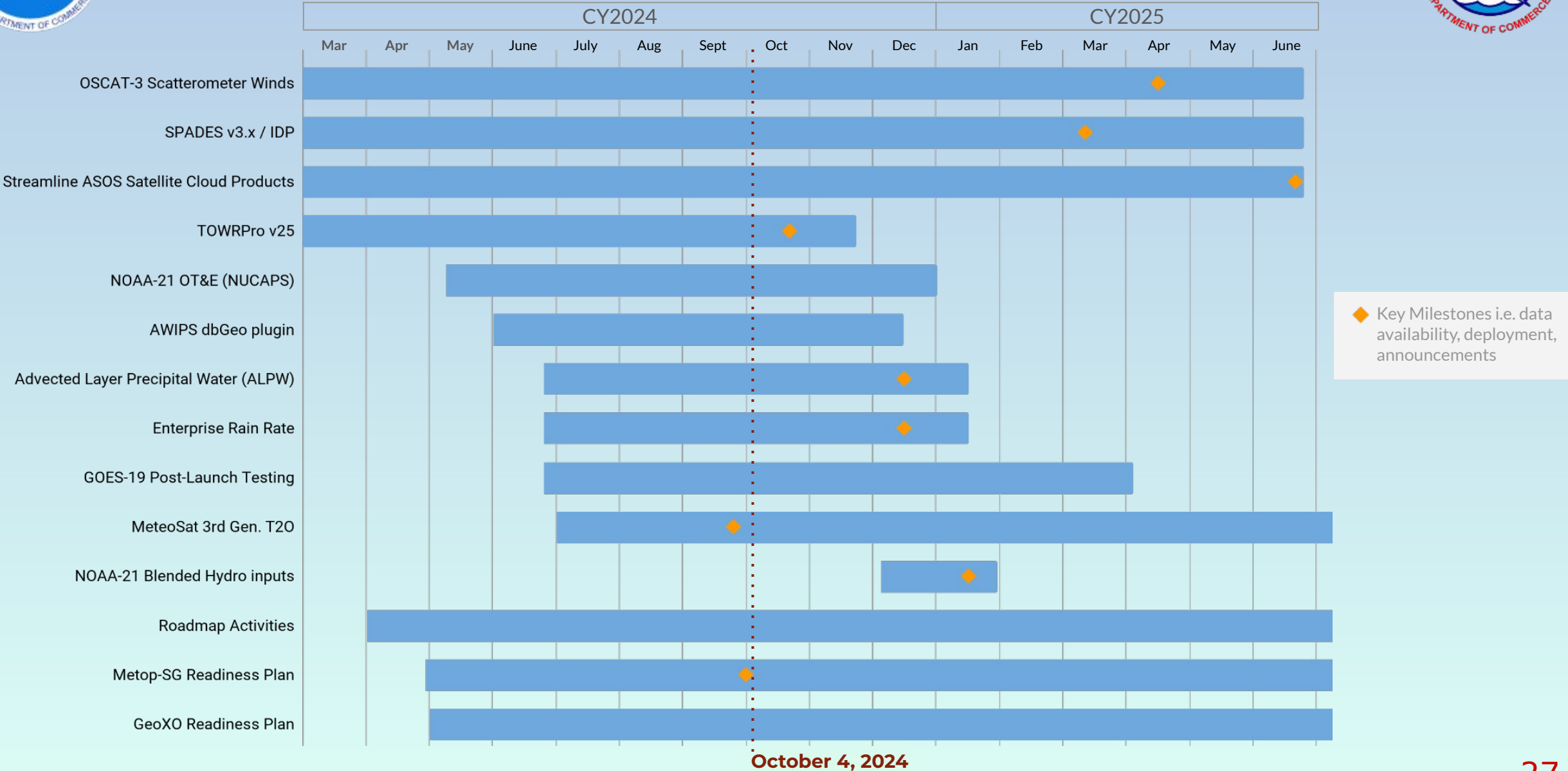


Road to GeoXO, NEON, Space Weather





TOWR-S Activity Plan





Contact Information



- NWS Office of Observations
 - Brian Gockel – brian.gockel@noaa.gov
 - Jordan Gerth – jordan.gerth@noaa.gov
 - Fawaz Al-Mtwali – fawaz.al-mtwali@noaa.gov
- Total Operational Weather Readiness – Satellites (TOWR-S) Team
 - Derek Van Pelt - derek.vanpelt@noaa.gov
 - V Wegman - victoria.wegman@noaa.gov
 - Emily Maddox – emily.maddox@noaa.gov
- 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



January 2025
(tentative, date TBD)