

NWS Aviation Weather Center

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Warning Coordination Meteorologist
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Informing flight with weather wisdom



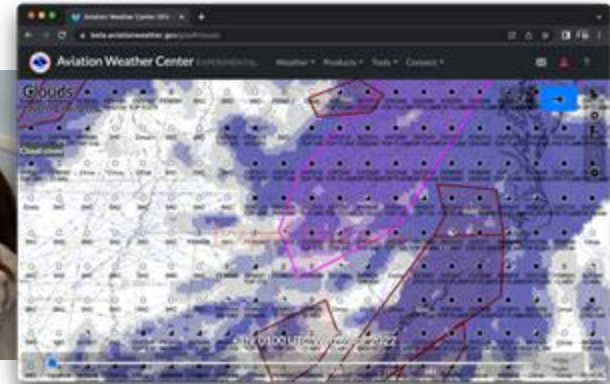
Aviation Weather Center



One of the nine NWS national centers



Domestic and international aviation forecasts and warnings



AviationWeather.gov

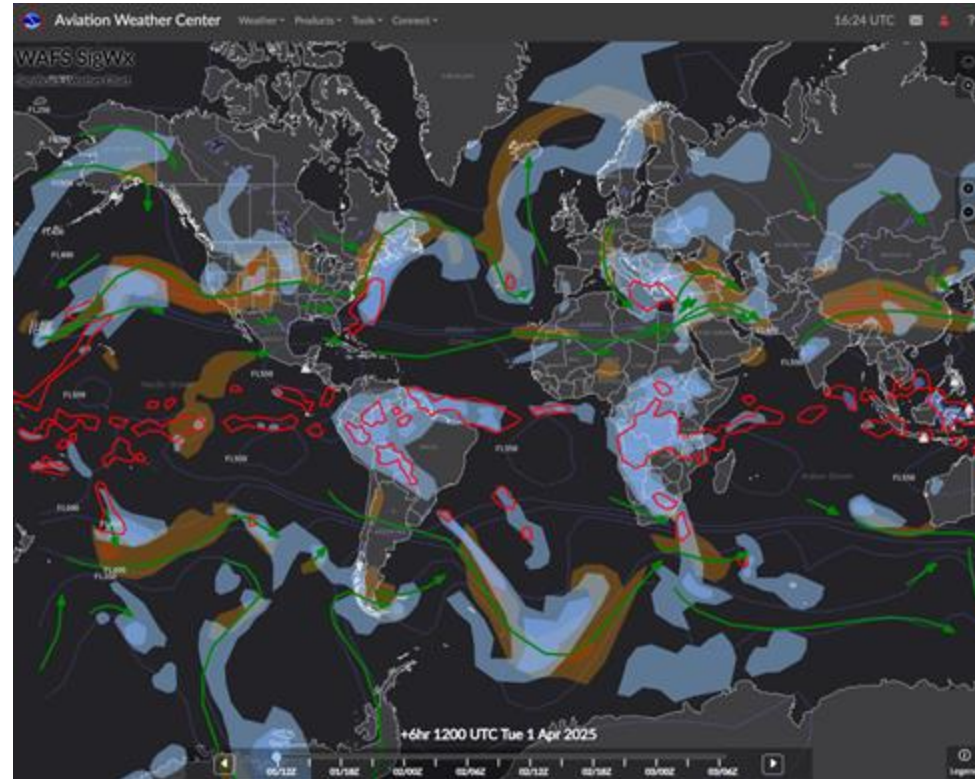
Aviation Weather Enterprise



27 January 2025



- TAC (text) AIRMET retirement
 - G AIRMETS only
 - “Snaps” in time
 - Higher fidelity
- Tropical Area Forecast (FA) retirement
 - Areal text forecast
 - GFA available
- Auto SigWx in collaboration with UKMET

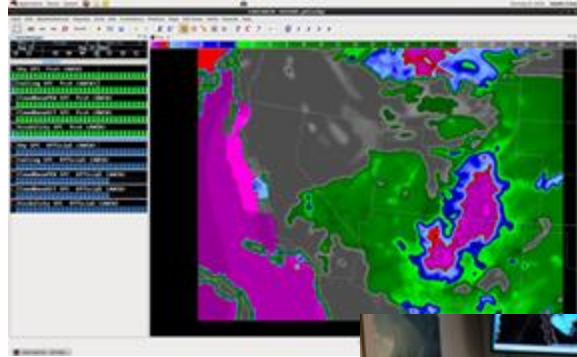


New NAOC Desk

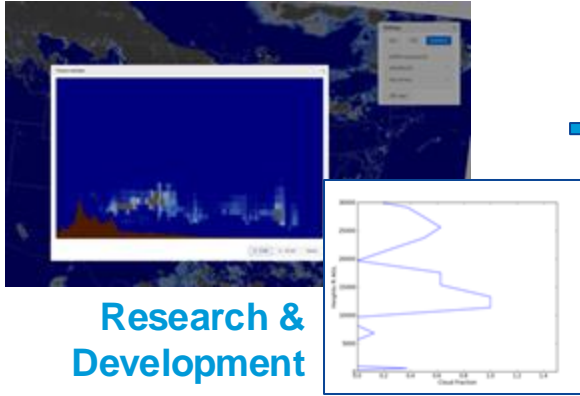


- National Aviation Operations Center (NAOC)
 - Starts April 20
 - Focus on orchestrating operations
 - International SIGMETs
 - Spot forecasts
 - Messaging / expanding decision support services
- Desks by hazard remain
 - G AIRMETs and SIGMETs per hazard (cig&vis, icing, turb)
 - Convective SIGMET
 - Traffic Flow Management Convective Forecast (TCF) March-October
- Lots of training ongoing!

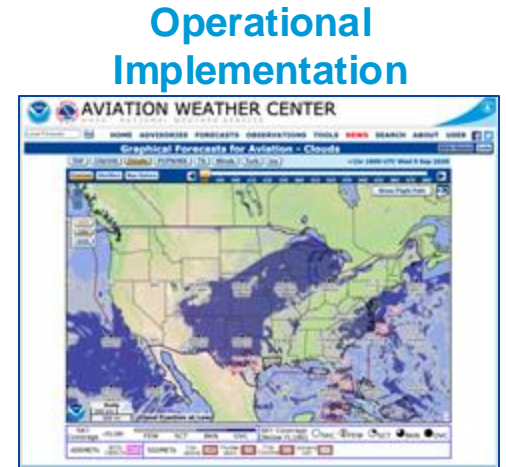
Aviation Weather Testbed



Research to Operations

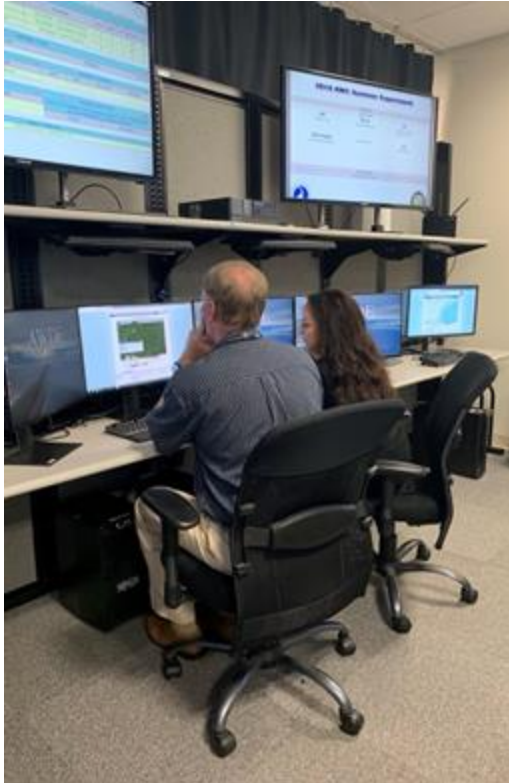


Vision: *“A destination facility as the enterprise leader in realizing the best science, technology, and training for operational aviation meteorology.”*



A continuous collaborative effort to develop, maintain, and integrate new products into operations.

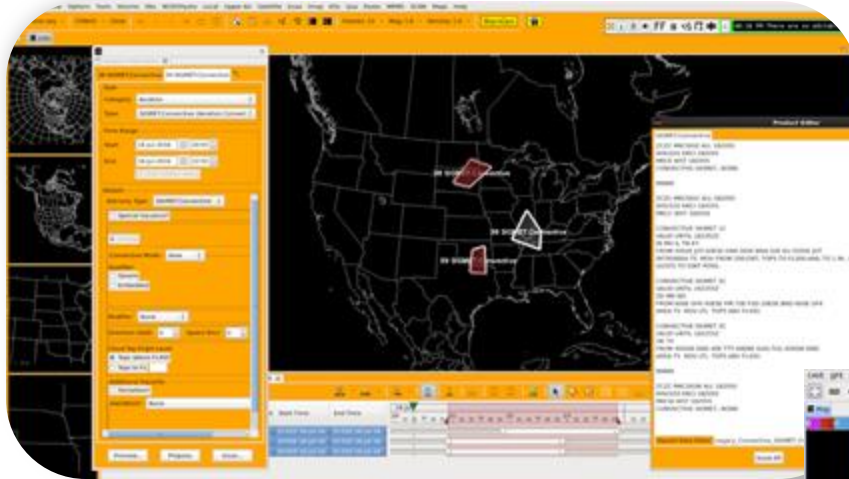
FAA Aviation Weather Demonstration and Evaluation Group (AWDE)



- Lab at the FAA William J. Hughes Technical Center in New Jersey that specializes in Human Factors
- Social science partners in workflow and end-user experience evaluations

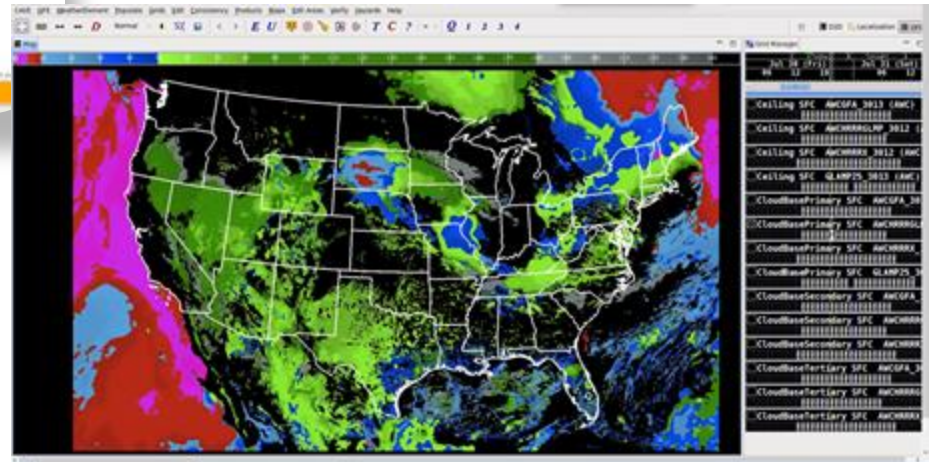


Forecast Workflow Evaluation



AWIPS Hazard Services for aviation development and testing

Field testing grids with
Weather Forecast Offices



User Evaluation



Example: User evaluation of web upgrades

- Working with FAA's AWDE Services
 - Neutral human factors experts
- Participants:
 - Pilots
 - Dispatchers
 - NWS meteorologists

Risk reduction: human factors assessment of what works, what doesn't, and how decisions are made.

Annual Summer Experiment

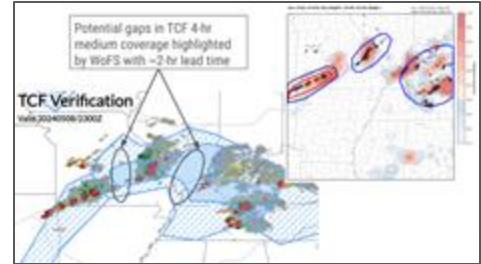
Goal: *To evaluate experimental and prototype products and services to support aviation planning in the National Airspace System (NAS).*



- Integral part of our Research-to-Operations (R2O) process
- Stakeholder engagement and collaboration
- Build relationships between multiple entities in the aviation weather enterprise

Recent Projects

- AviationWeather.gov continuous improvement
- Weather model evaluations
- Aviation Weather Research Program (AWRP) development with FAA
- Explore new products for GA pilots

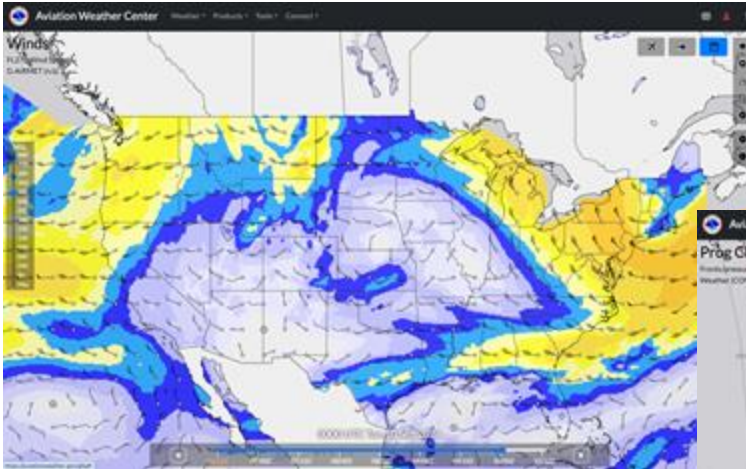


2014-2023

RIP 16 Oct 2023

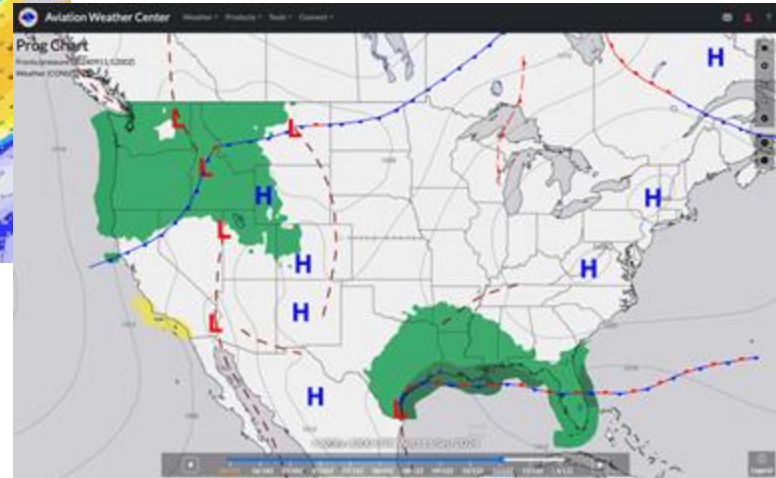


Extended Range

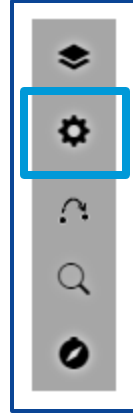
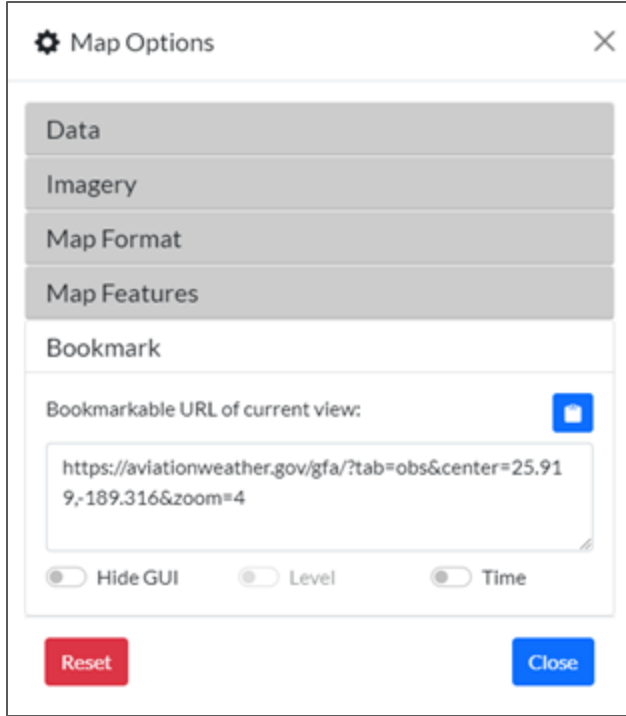


Products to day 4 and beyond

What fields, levels, time ranges are useful?



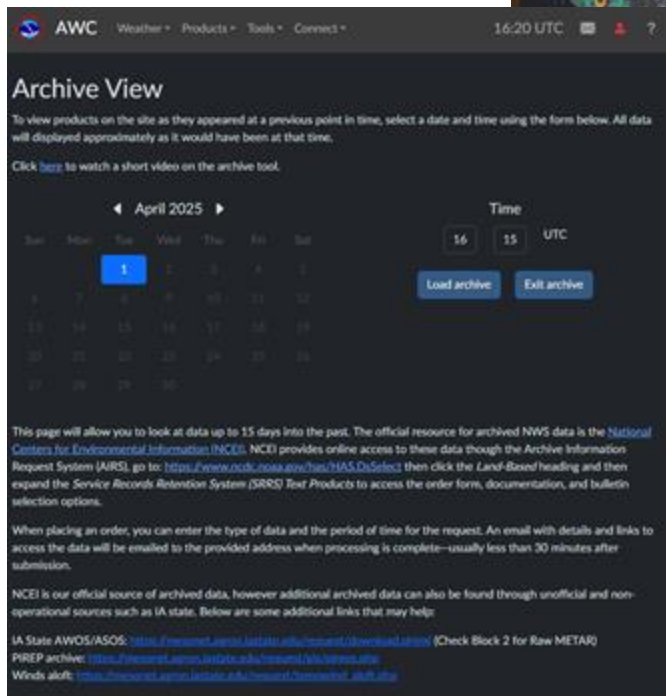
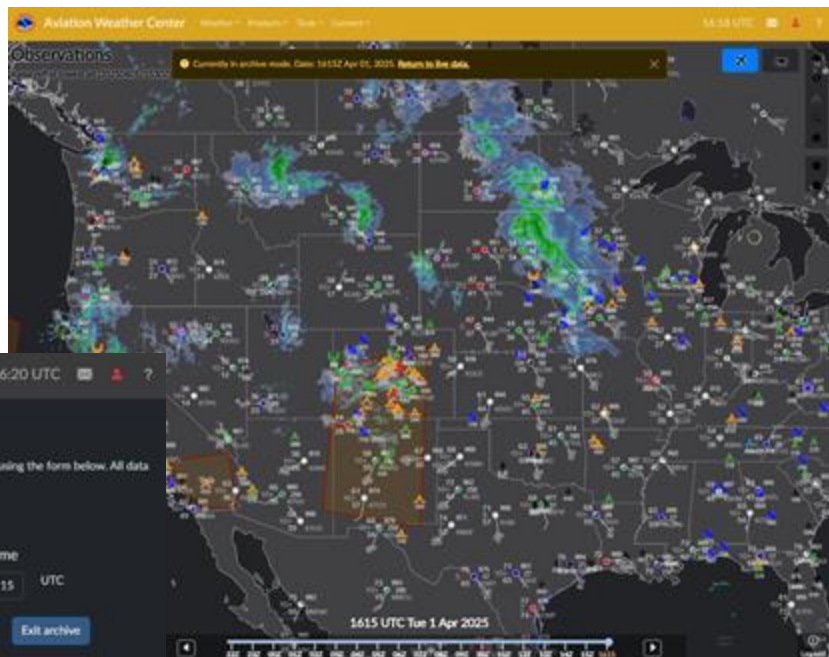
Bookmark



Save URL to re-open the page exactly as it appears on your screen

Archive Mode

- Data back to 2 weeks
- Easy to navigate



The screenshot shows the AWC Archive View page. The top navigation bar includes 'AWC', 'Weather', 'Products', 'Tools', and 'Connect'. The main content area displays a calendar for April 2025 and a time selection interface. The calendar shows the date 1st April 2025 selected. The time selection interface shows 16:15 UTC. Below the calendar and time selection, there are 'Load archive' and 'Exit archive' buttons. The page also contains text explaining the archive view and providing links to the National Centers for Environmental Information (NCEI) and the Service Records Retention System (SRRS).

Archive View

To view products on the site as they appeared at a previous point in time, select a date and time using the form below. All data will be displayed approximately as it would have been at that time.

Click [here](#) to watch a short video on the archive tool.

◀ April 2025 ▶

Sun	Mon	Tue	Wed	Thu	Fri	Sat
		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			

Time: 16:15 UTC

[Load archive](#) [Exit archive](#)

This page will allow you to look at data up to 15 days into the past. The official resource for archived NWS data is the [National Centers for Environmental Information \(NCEI\)](#). NCEI provides online access to these data through the Archive Information Request System (AIRS), go to: <https://www.ncei.noaa.gov/haz/HAS/DataSet> then click the **Land-Based** heading and then expand the **Service Records Retention System (SRRS) Text Products** to access the order form, documentation, and bulletin selection options.

When placing an order, you can enter the type of data and the period of time for the request. An email with details and links to access the data will be emailed to the provided address when processing is complete—usually less than 30 minutes after submission.

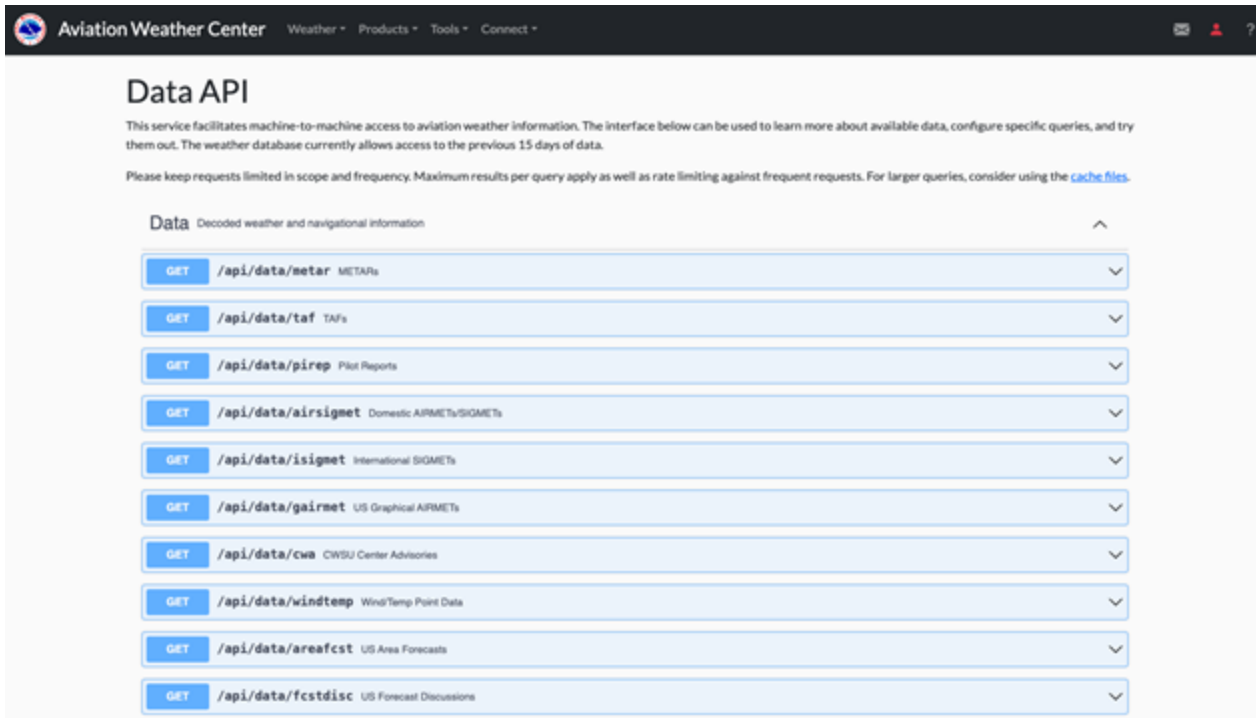
NCEI is our official source of archived data, however additional archived data can also be found through unofficial and non-operational sources such as IA state. Below are some additional links that may help:

IA State AWOS/ASOS: <https://www.ecn.com/ia/state-awos/asos/> (Check Block 2 for Raw METAR)

PIREP archive: <https://www.pirep.com/ia/state-awos/asos/>

Winds aloft: <https://www.ecn.com/ia/state-awos/asos/>

Data Access



The screenshot shows the Aviation Weather Center Data API page. At the top, there is a navigation bar with the logo and text "Aviation Weather Center" followed by links for "Weather", "Products", "Tools", and "Connect". On the right side of the navigation bar are icons for a mail envelope, a person, and a question mark.

Data API

This service facilitates machine-to-machine access to aviation weather information. The interface below can be used to learn more about available data, configure specific queries, and try them out. The weather database currently allows access to the previous 15 days of data.

Please keep requests limited in scope and frequency. Maximum results per query apply as well as rate limiting against frequent requests. For larger queries, consider using the [cache files](#).

Data Decoded weather and navigational information

^

- GET `/api/data/metar` METARs
- GET `/api/data/taf` TAFs
- GET `/api/data/pirep` Pilot Reports
- GET `/api/data/airsignet` Domestic AIRMETs/SIGMETs
- GET `/api/data/isignet` International SIGMETs
- GET `/api/data/gairmet` US Graphical AIRMETs
- GET `/api/data/cwa` CWSU Center Advisories
- GET `/api/data/windtemp` Wind/Temp Point Data
- GET `/api/data/areafcst` US Area Forecasts
- GET `/api/data/fcstdisc` US Forecast Discussions

Tutorials and Other Videos Available



NWSAWC

@nwsawc207 · 510 subscribers · 21 videos

NOAA NWS Aviation Weather Center ...more

[aviationweather.gov](#) and 2 more links

Subscribe



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Home Videos Playlists

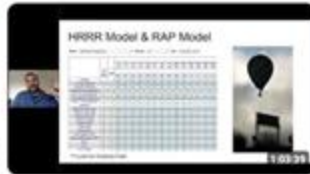
For You

Clear Air Turbulence (CAT)



WRN FLYERS: Turbulence and Low-Level Wind Shear: A Pilot's Perspective

371 views · 1 year ago



Warm Season Low Level Turbulence

234 views · 2 years ago



WRN FLYERS: Low Level Wind Shear and Low Altitude Turbulence: How to Tell the Difference

407 views · 1 year ago



KC Aviators - Convective Weather Workshop

374 views · 3 years ago

Videos ▶ Play all



Graphical Forecasts for Aviation Low Altitude mode...

1.2K views · 10 months ago



What's changing with AviationWeather.gov

1K views · 11 months ago



AWC Winter Weather Dashboard Tutorial

258 views · 1 year ago



AWC Archive View

1.7K views · 1 year ago



FAA Pre-Flight Briefing using Aviationweather.gov

4.6K views · 1 year ago

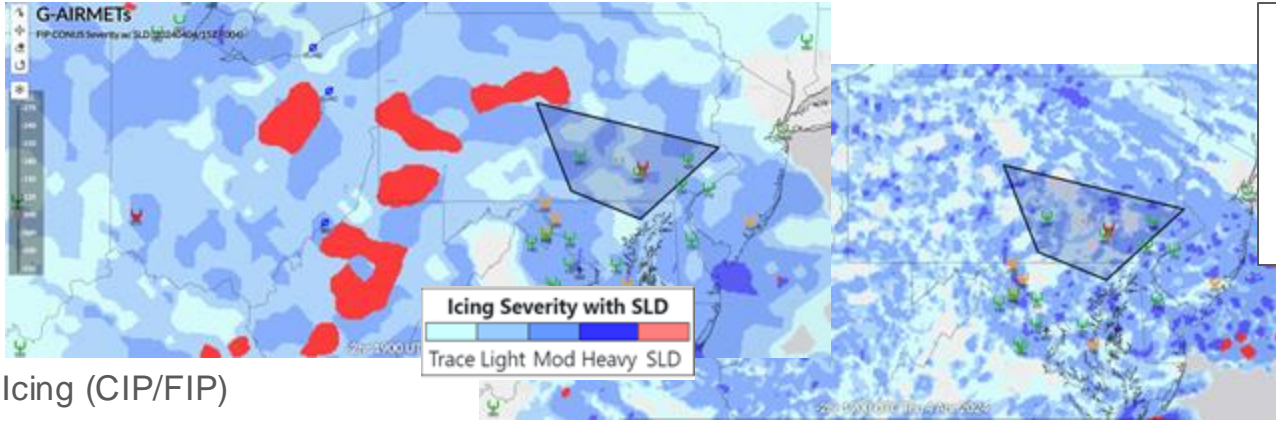


WRN FLYERS: Turbulence and Low-Level Wind Shear: A...

371 views · 1 year ago

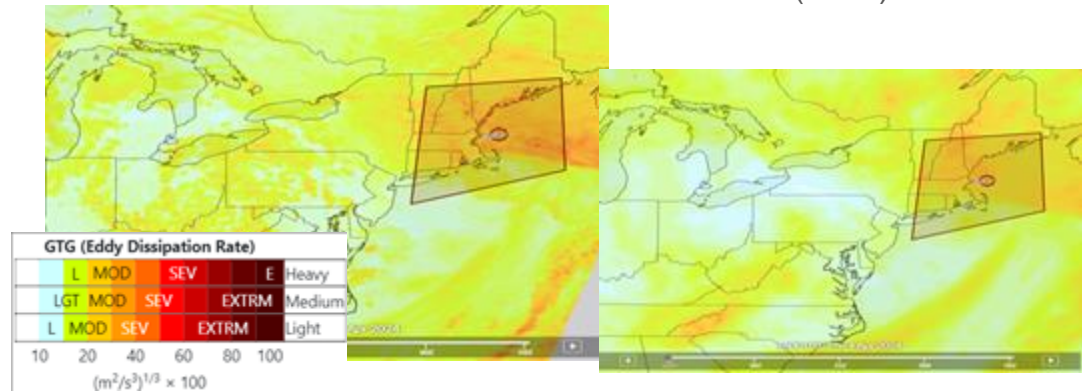
Model Evolution

Currently being evaluated



Turbulence (GTG)

Weather model upgrade: RRFs

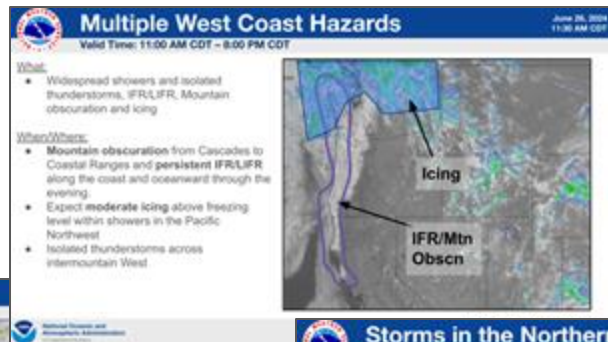
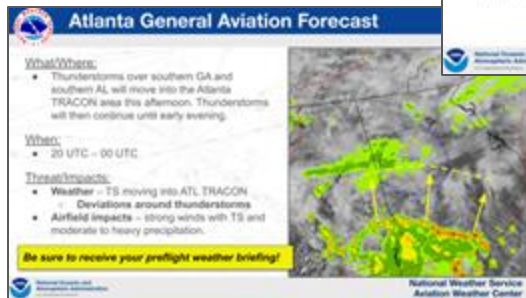


Key Aviation Messages

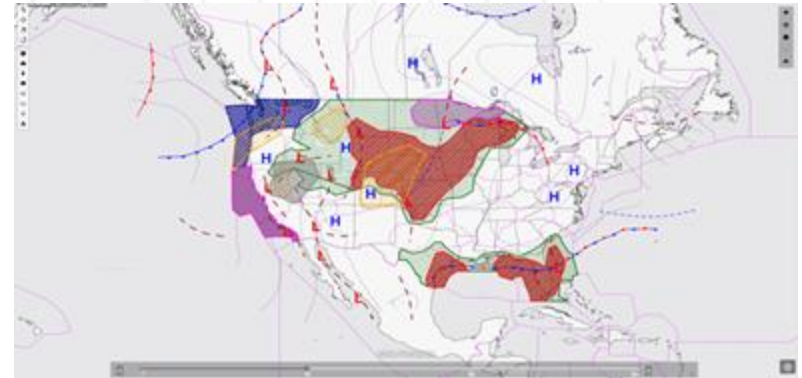
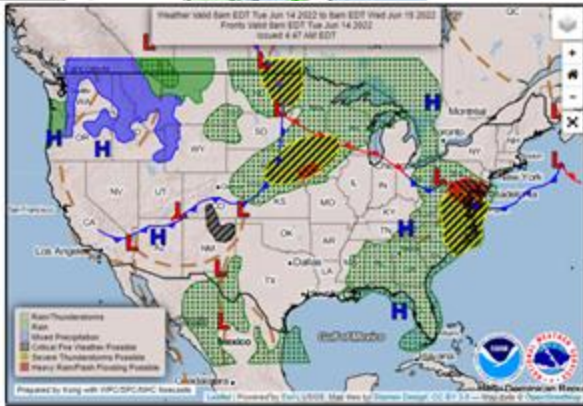
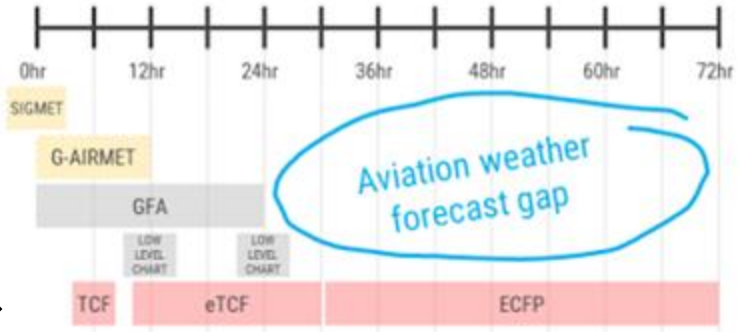
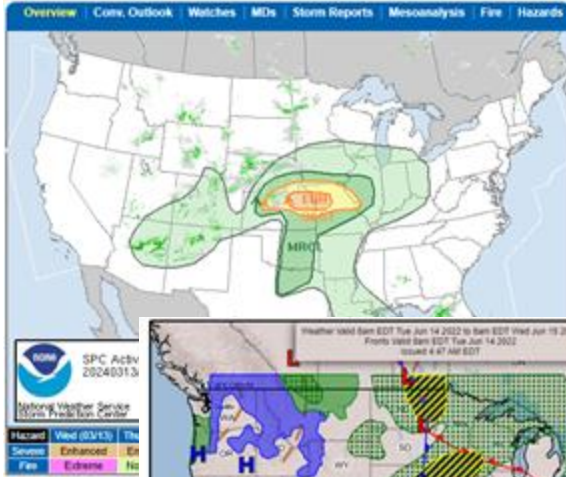
Currently being evaluated

Highlights an area with expected significant impacts to general aviation

- Easy to interpret
- Calls to action



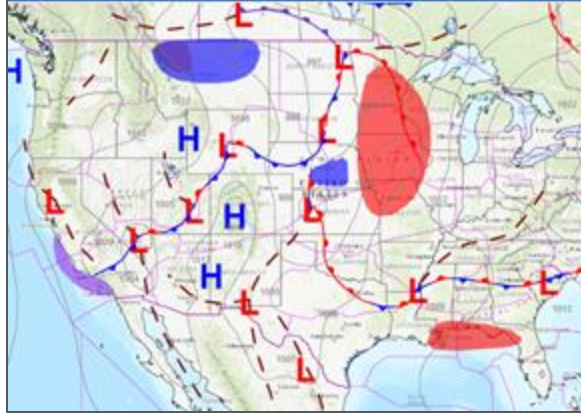
Outlook Graphics



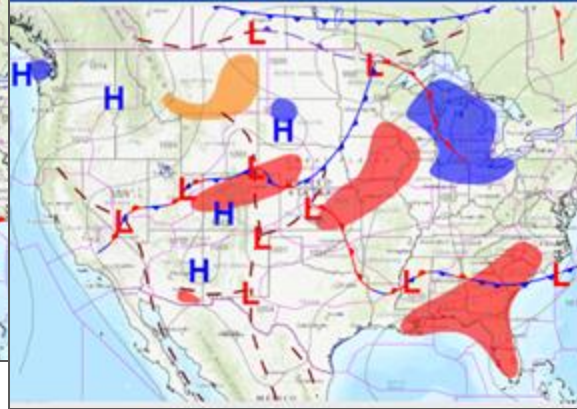
Outlook Graphics

Currently being evaluated

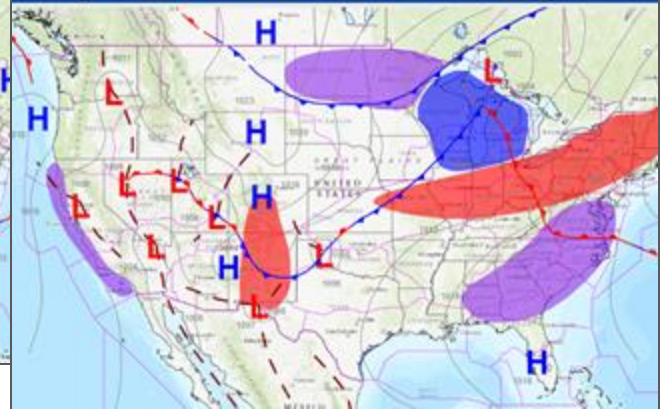
Day 2 AM



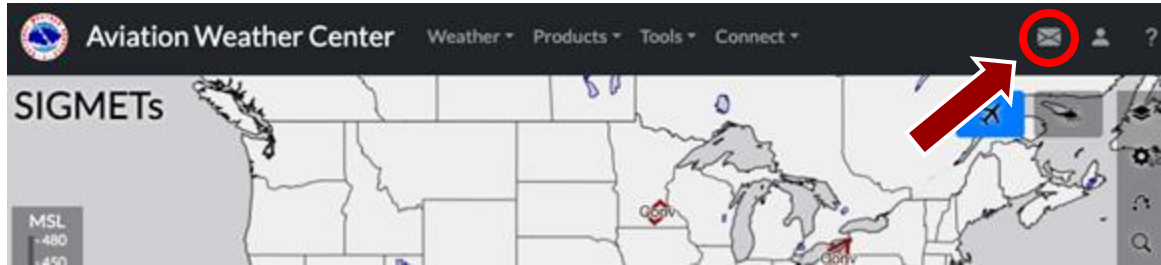
Day 2 PM



Day 3



<https://AviationWeather.gov/>



Reach out through the web site!



Questions?

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AviationWeather.gov

Informing flight with weather wisdom