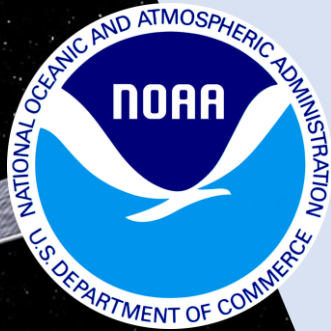




The NOAA NESDIS Wildland Fire Program

National Environmental Satellite,
Data, and Information Service

June 03, 2026

Mike Pavolonis
NOAA/NESDIS Wildland Fire Program Manager

Primary Program Objectives

gro
apt

Improve internal and external coordination

Strengthening partnerships and synchronizing efforts across NOAA.

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aw

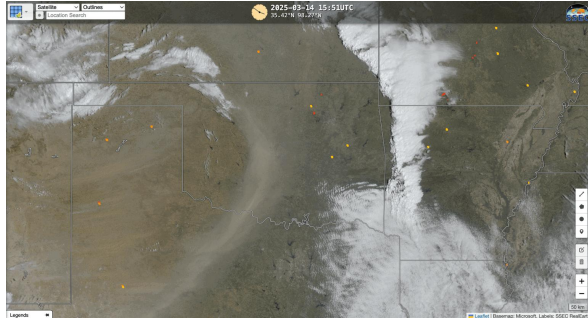
Transform products and services

Innovating to better meet evolving operational needs and mission requirements.

eso



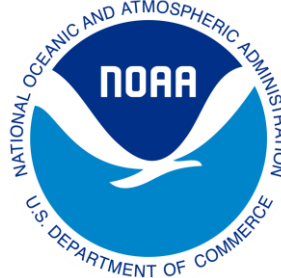
Next Generation Fire System (NGFS)



Developed by NESDIS and the Cooperative Institute for Meteorological Satellite Studies (CIMSS)



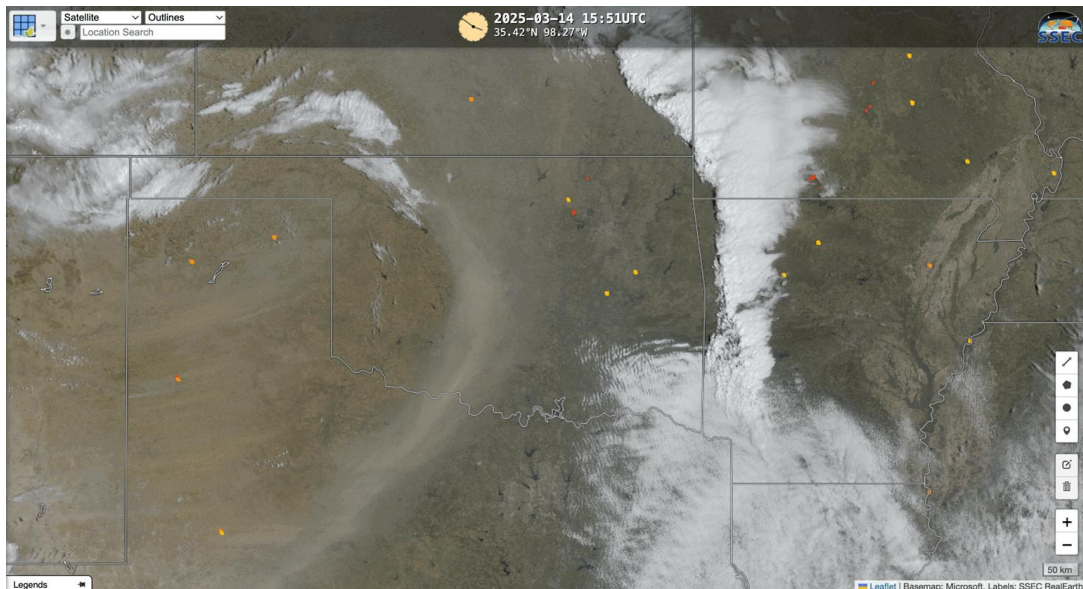
Co-developed with the NWS and other stakeholders



Demonstrated at the NOAA Fire Weather Testbed



NGFS Impacts

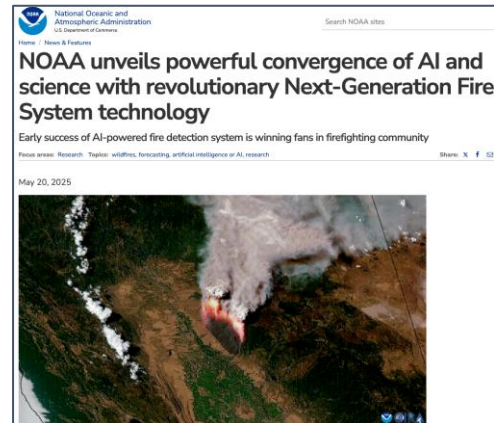


Southern Great Plains wildfire outbreak on March 14, 2025

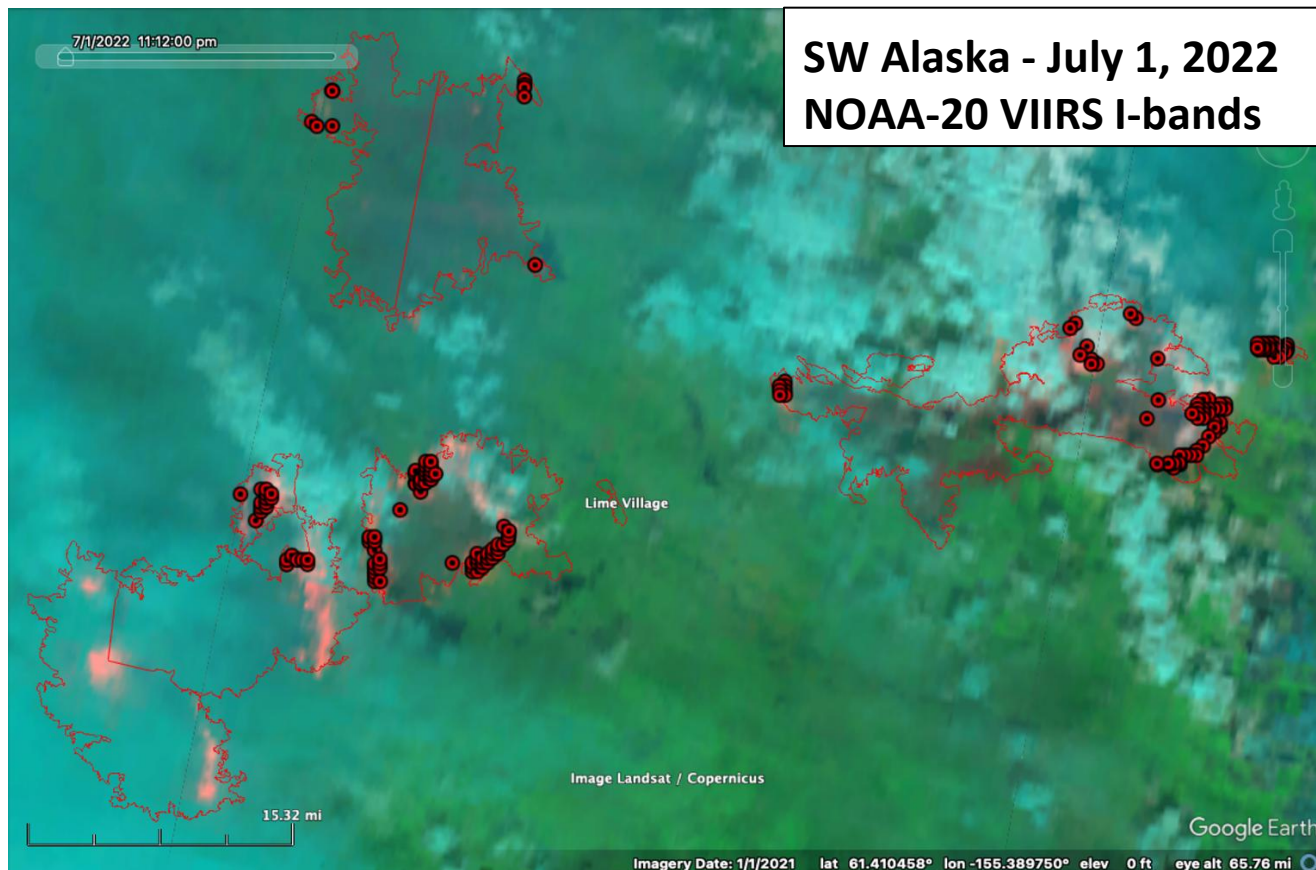


The Norman, OK NWS weather forecast office on March 14, 2025. NGFS tools are visible on screens throughout. Credit: James Murnan

According to Oklahoma Forestry Services: NOAA satellite detections helped save \$850M of structures and property



Enhanced Resilience to Cloud Cover

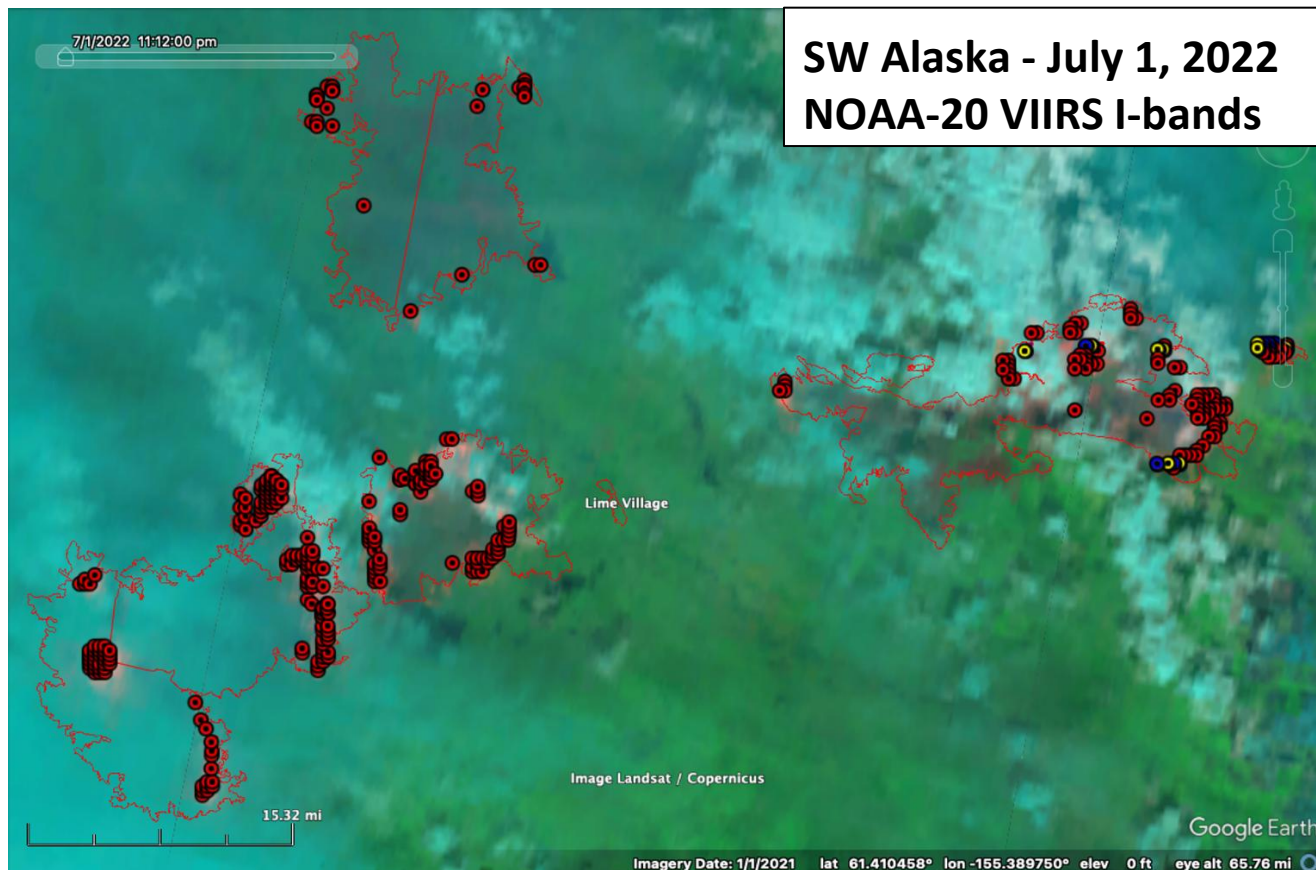


**VIIRS Active Fire
(VAF) Heat Points -
Legacy Source:**

Fire pixels: 176
Energy: 4421 MW



Enhanced Resilience to Cloud Cover



**Next Generation Fire
System (NGFS):**

Fire pixels: 493

Energy: 15,742 MW



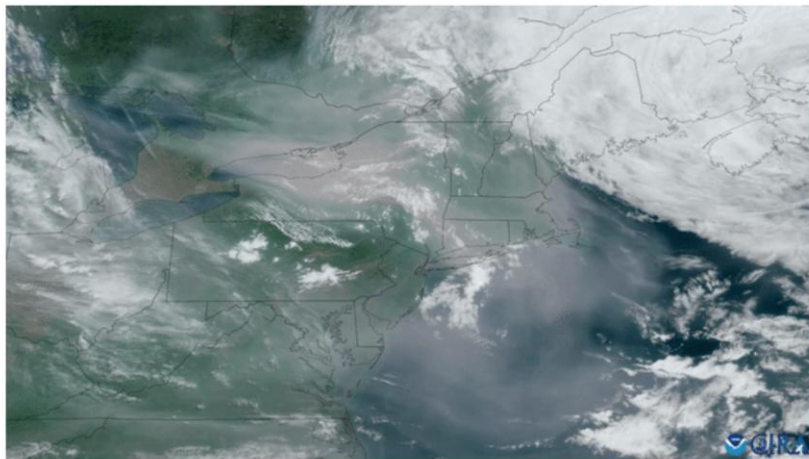
Integration into Air Quality Forecast Models

Something to RAVE About—NOAA is Helping Provide Better Air Quality Forecasts

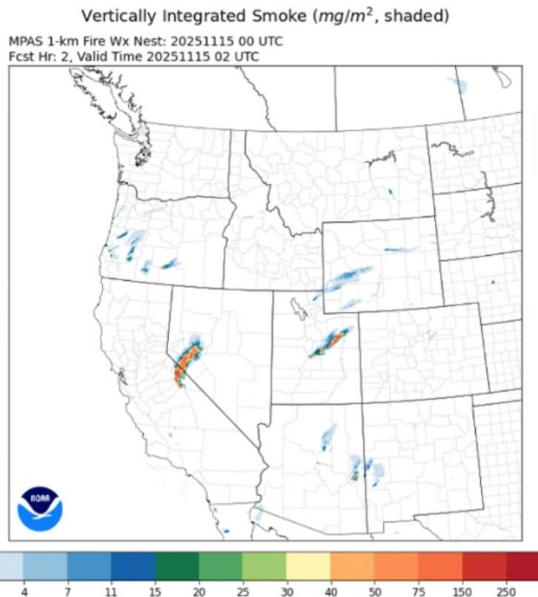
October 19, 2023

A new product called RAVE is now operational in the U.S., which will help better determine the impacts of wildfire smoke on air quality.

Feature Story



The NGFS will replace the legacy GOES algorithm (FDC) in the RAVE (S. Kondragunta et al.)

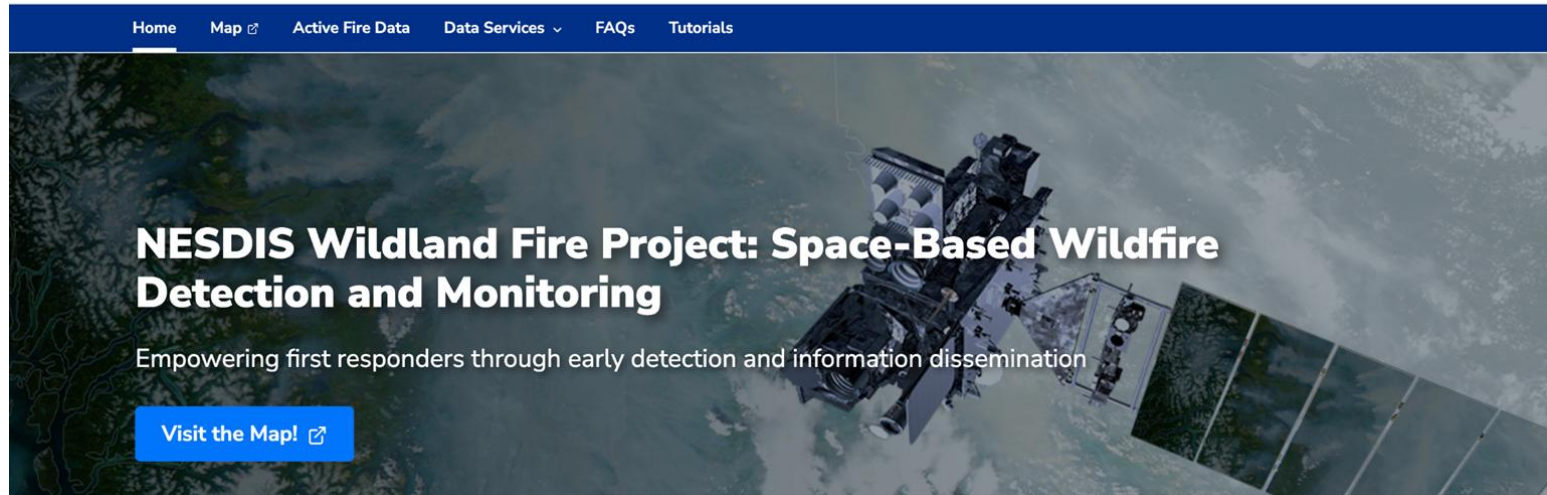


NOAA (GSL) is utilizing the NGFS in the experimental 1-km fire weather Rapid Refresh Forecast System (RRFS) nest

NOAA/NESDIS Wildland Fire Data Portal



Experimental beta release

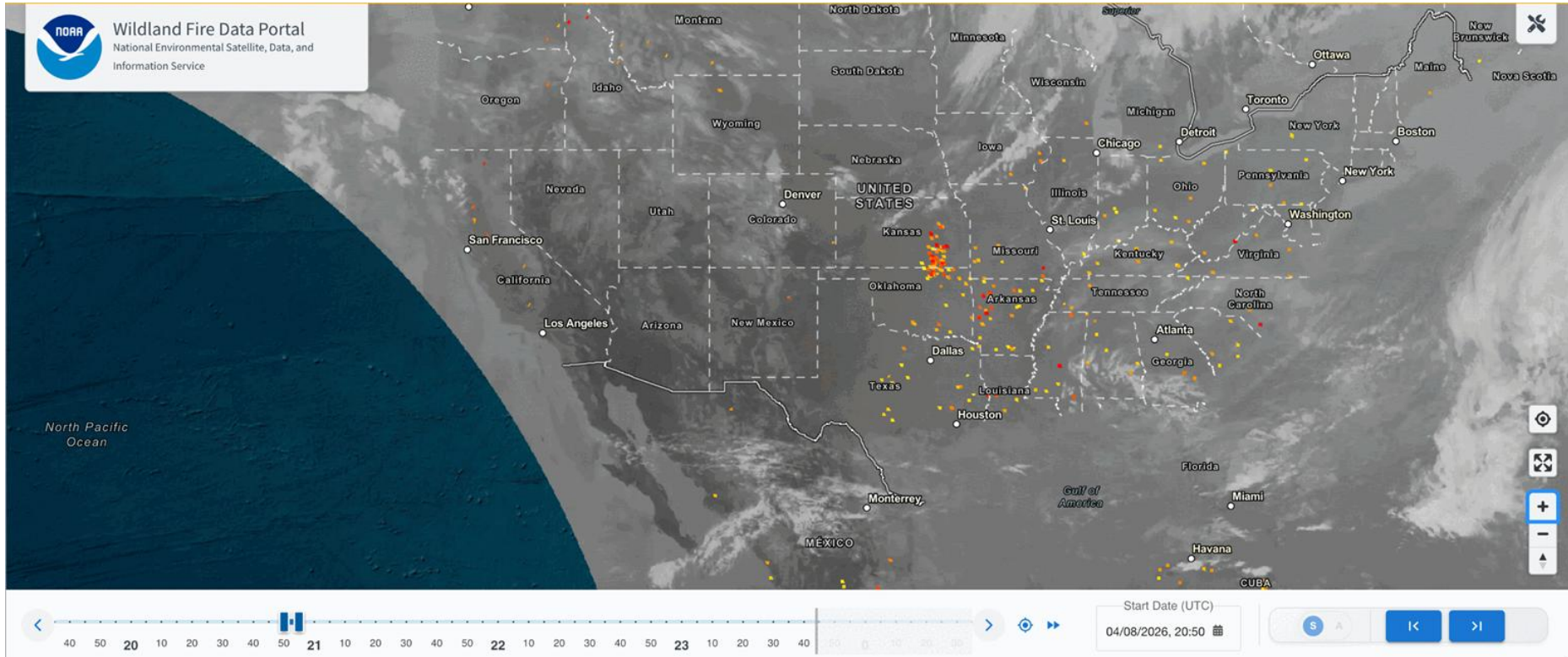


<https://fire.data.nesdis.noaa.gov/>

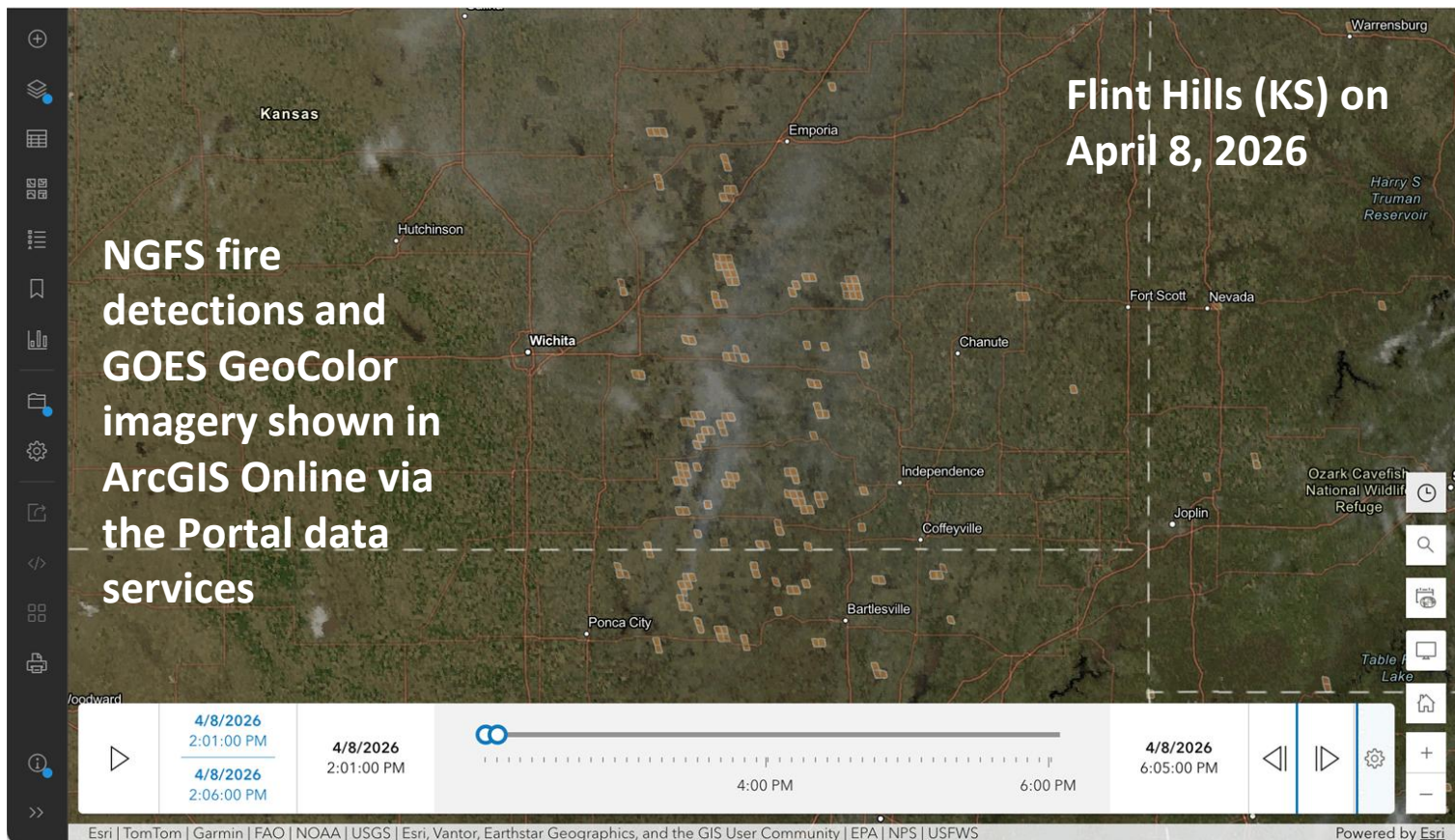
- Enables interoperability through data services
- Map user interface



New Wildfire Start - New Mexico (April 8, 2026)



Wildland Fire Portal Data Services

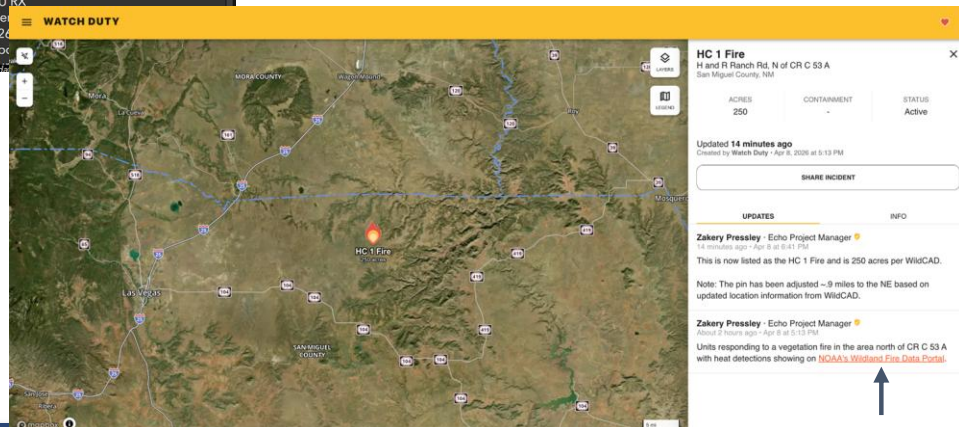


Example Wildland Fire Data Portal Utilization



The Next Generation Fire System and Wildland Fire Data Portal are often cited by WatchDuty

Inyo county, CA fire: The NGFS detection was available 10 minutes before the first 911 call



What's Next?

- Transition of NGFS to NOAA operations for GOES (later in 2026)
- Transition of NGFS to NOAA operations for JPSS/VIIRS (2027)
- Integration of NGFS data into NOAA operational models via the RAVE (Planned, but the timelines is TBD)
- Additional training and documentation material
- Commercial satellite data pilot
- Wildland Fire Data Portal Enhancements:
 - Bug fixes
 - Improved time controls
 - GOES full disk (western hemisphere) coverage
 - Additional supporting data layers
 - Fire detection dashboard
 - VIIRS products

