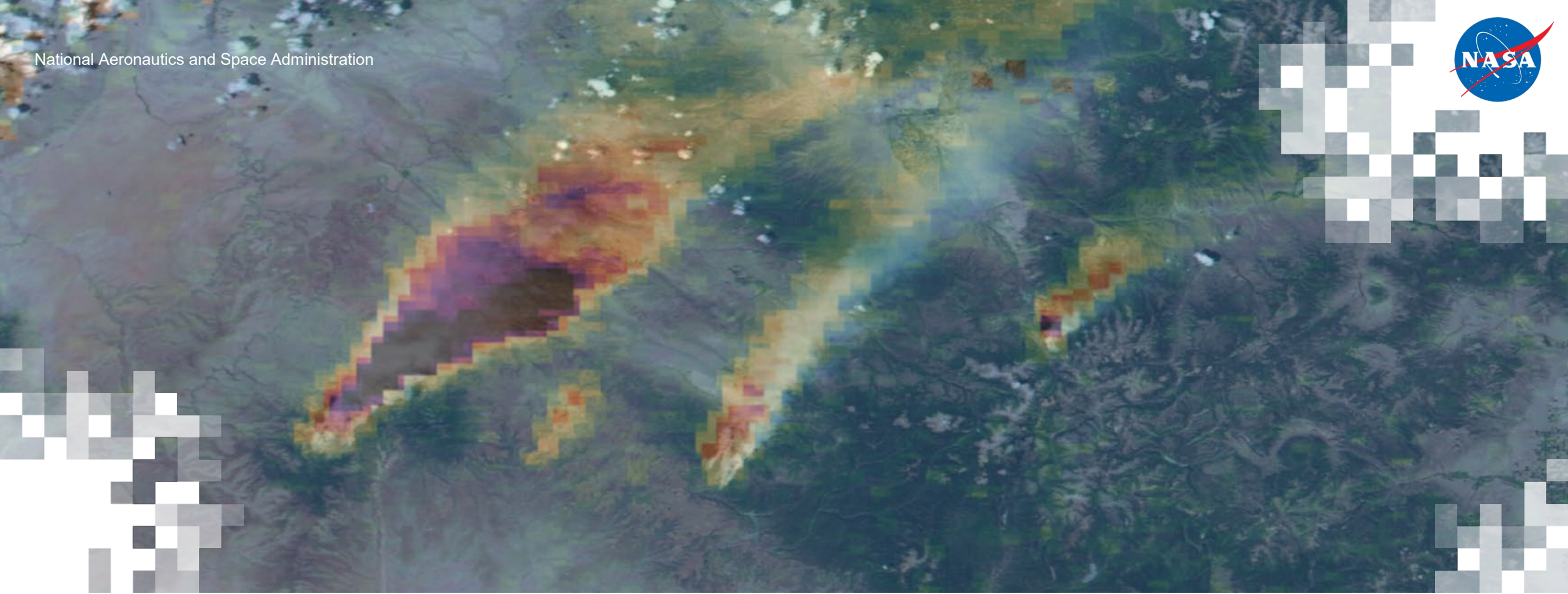
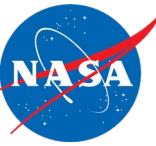
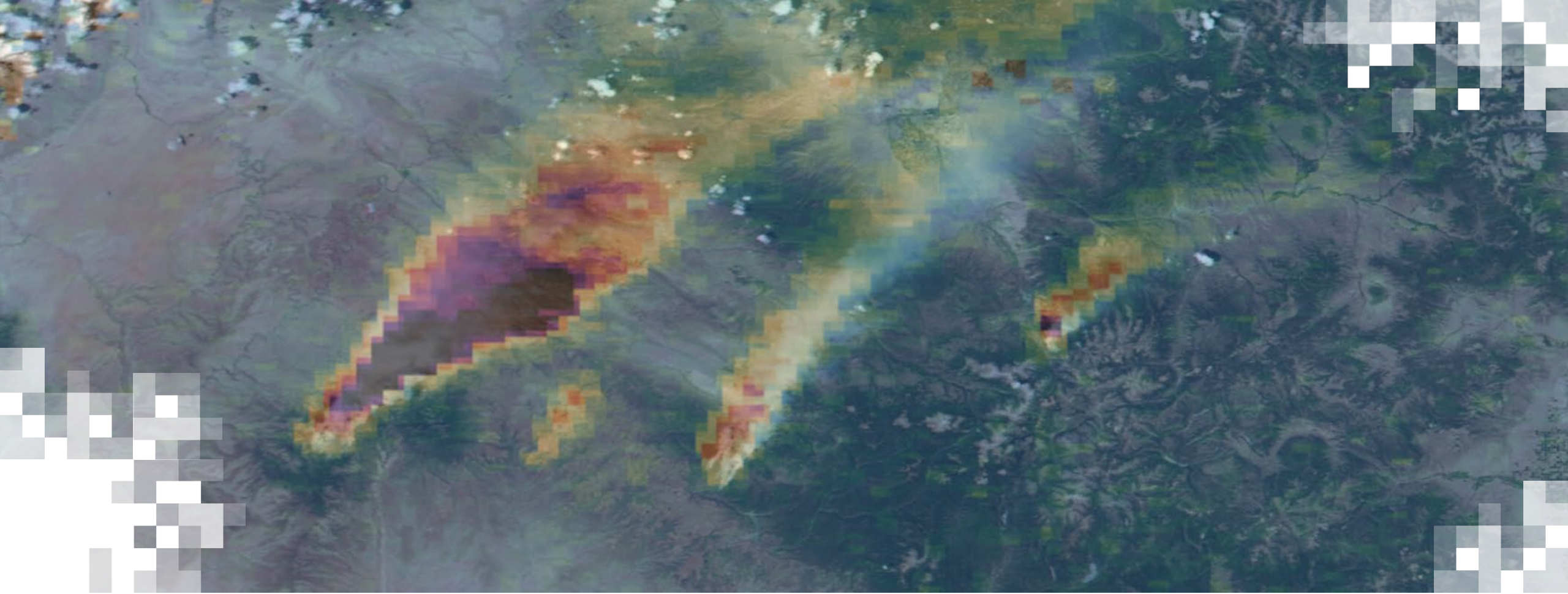




NASA Satellite Observations and Tools for Air Quality Management

Carl Malings (Morgan State University), Aaron Naeger (NASA Marshall Space Flight Center (MSFC)), & Caterina Mogno (University of Maryland Baltimore County)

August 10, 2026



About ARSET

About ARSET

- **ARSET provides accessible, relevant, and cost-free training on remote sensing satellites, sensors, methods, and tools.**
- Trainings include a variety of applications of satellite data and are tailored to audiences with a variety of experience levels.



AGRICULTURE



DISASTERS



ECOLOGICAL CONSERVATION



HEALTH & AIR QUALITY



WATER RESOURCES



WILDLAND FIRES

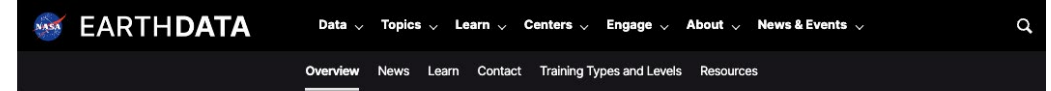


About ARSET Trainings

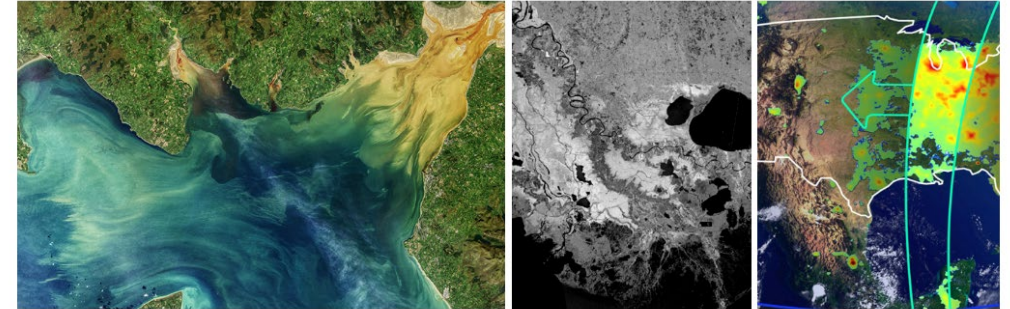
- Online or in-person
- Live and instructor-led or asynchronous and self-paced
- Cost-free
- Bilingual and multilingual options
- Only use open-source software and data
- Accommodate differing levels of expertise
- Visit the [ARSET website](https://www.earthdata.nasa.gov/data/projects/arset/learn) to learn more:



[www.earthdata.nasa.gov/
data/projects/arset/learn](https://www.earthdata.nasa.gov/data/projects/arset/learn)



Home / Find Data / Projects / ARSET



ARSET

Applied Remote Sensing Training Program

Build skills to use remote sensing data for a range of applications related to air quality, public health, agriculture, disasters, ecological conservation, water resource management, climate resilience, and wildland fires. From "How do satellites work?" to "How can I use satellite data to make a flood map?" there are trainings available for all levels of experience.

Not sure where to start? Browse our [list of trainings](#). You can filter by theme, training level, and training type. Or, browse our [Online Resource Guide](#) to quickly see descriptions of all of our online trainings since 2015.

Learn more about our [types and levels of training](#).

New to remote sensing and Earth observations? Check out our new interactive online, self-paced Fundamentals of Remote Sensing training on the ARSET learning management system to start learning.

[Contact us](#) or find answers to Frequently Asked Questions on our [Resources page](#).

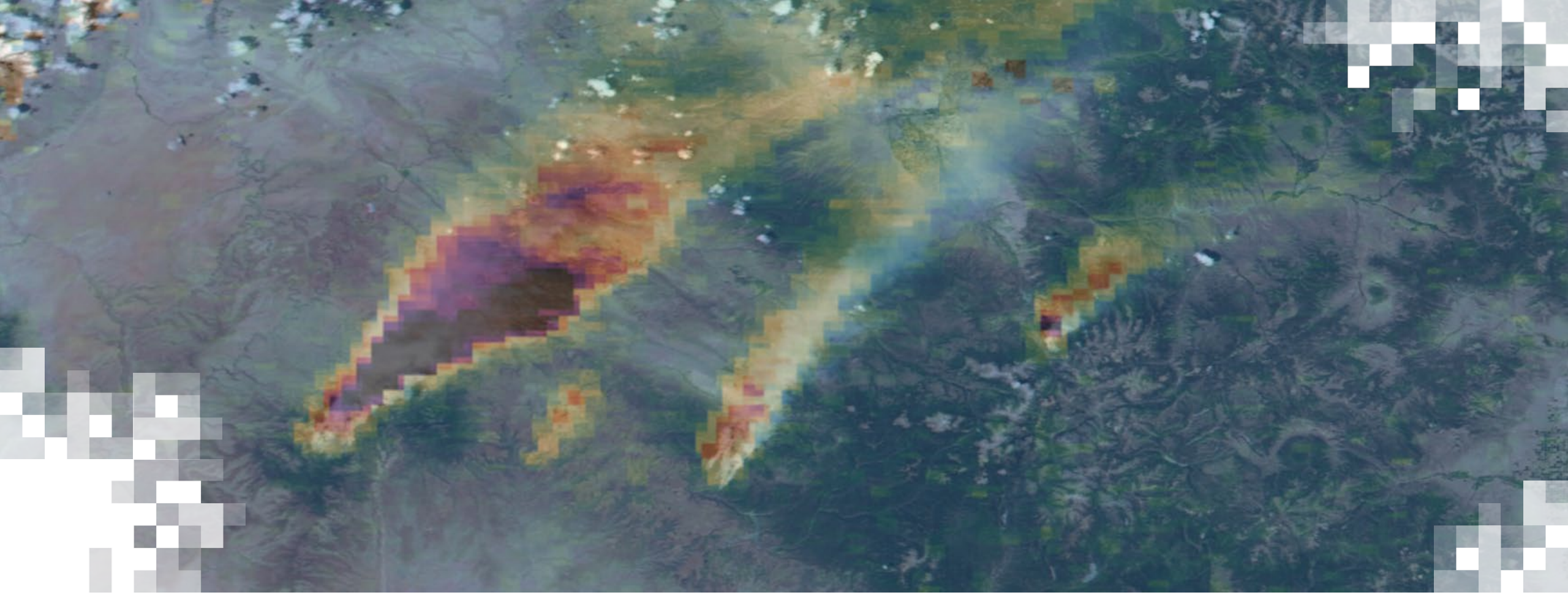
Don't miss a training! To join our mailing list and get updates on the latest trainings, send an email with no subject line to arset-join@lists.nasa.gov and follow the instructions sent in the reply.

FUNDING PROGRAMS
NASA Earth Action
Program



EARTH SCIENCE DIVISION
EARTH ACTION





NASA Satellite Observations and Tools for Air Quality Management Overview

NASA's Earth Observing Fleet (January 2025)



Source: NASA GSFC Scientific Visualization Studio <https://svs.gsfc.nasa.gov/5476/>



Training Learning Objectives

By the end of this training, participants will be able to:

- Describe the basic capabilities and limitations of satellite data for assessing aerosol and trace gas air pollutants.
- Identify satellite sensors and data products most applicable for detecting the presence and amount of key aerosol and trace gas pollutants over the US.
- Access relevant data products for trace gas and aerosol pollutants using NASA Worldview and NOAA AerosolWatch.
- Interpret visualizations of satellite data for trace gas and aerosol pollutants.
- Locate additional resources and training materials for assessing aerosol and trace gas air pollutants.



Prerequisites

- [Fundamentals of Remote Sensing](#)



Training Outline

- 1:00 Welcome
- 1:10 Review of Fundamentals of Remote Sensing
- 1:25 Key Remotely Sensed Parameters for Aerosol and Trace Gas Monitoring
- 2:00 The Tropospheric Emissions: Monitoring of Pollution (TEMPO) Mission
- 2:25 Using NASA Worldview for satellite data visualization
- **2:55 Break**
- 3:10 Using NOAA Aerosol Watch for satellite data visualization
- 3:40 Explore the tools on your own
- 4:30 Report-back & Discussion
- 4:45 Additional NASA resources and tools
- 4:55 Wrap-Up



Meet the Trainers

Carl Malings

Assistant Research Scientist
Morgan State University
& NASA GSFC



Aaron Naeger

TEMPO Mission
Applications Lead
NASA MSFC



Caterina Mogno

Assistant Research Scientist
University of Maryland, Baltimore
County & NASA GSFC

