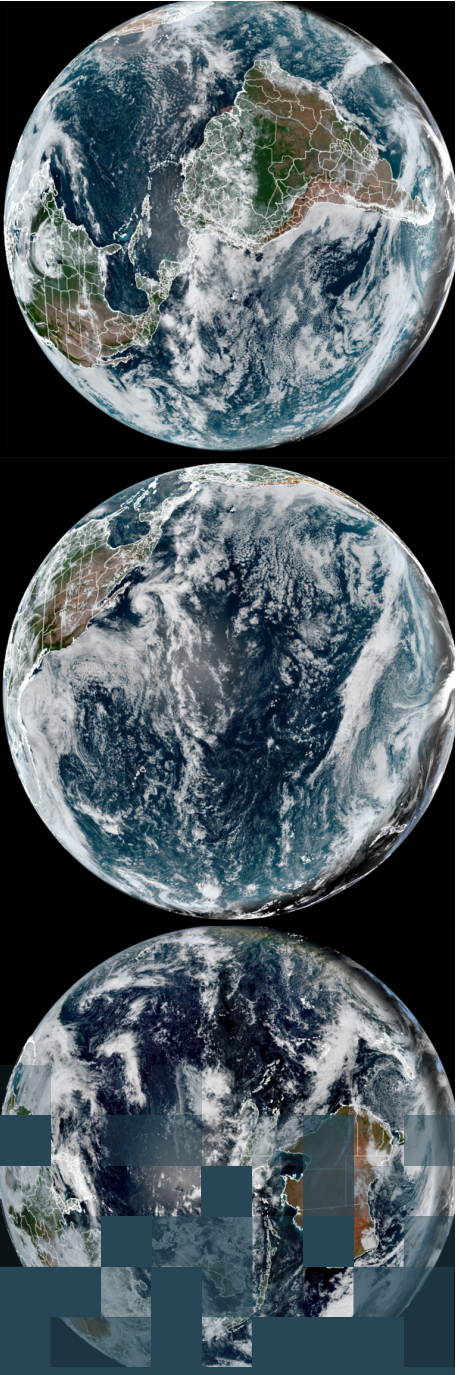

National Aeronautics and
Space Administration

Accessing and Analyzing Air Quality Data from Geostationary Satellites

October 11, 18, & 25, 2022

10:00-12:00 EDT (UTC-4)

This will be a three-part webinar series in partnership with the National Oceanic and Atmospheric Administration (NOAA) and the National Institute Of Environmental Research (NIER, South Korea) on air quality (AQ) data analysis from geostationary satellites. The webinar series will a) provide an overview of geostationary capabilities for monitoring air quality around the world; b) introduce geostationary aerosol datasets from GOES-East, GOES-West, Himawari 8, and the Geostationary Environment Monitoring Spectrometer (GEMS); and 3) present data access and python tools to read and analyze the datasets.

Part 1: Geostationary AQ Observations and AQ Products from Himawari

- Introduction to air quality observations from geostationary satellites
- Differences and similarities between LEO and GEO observations
- GOES & Himawari true color images and loops - Worldview Exercise
- Tour of P-Tree visualization tool for Himawari-8 data
- Future AQ GEO missions
- Introduction to the Tropospheric Emissions: Monitoring of Pollution (TEMPO) Mission

Part 2: AQ Products from GOES

- Introduction to NOAA's GEO aerosol products - algorithms & validation
- Dataset details (files, frequency, parameters), access from NOAA's GOES-R archive on AWS S3
- Python Jupyter notebooks to read, map, and extract aerosol datasets
- Tour of NOAA Aerosol Watch website

Part 3: AQ Products from GEMS

- Introduction to the GEMS mission
- GEMS AQ datasets - algorithms & validation
- GEMS AQ data access
- Python Jupyter notebooks exercise to read, map, and analyze GEMS data

ARSET empowers the global community through remote sensing training.

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