



Application of Satellite Observations for Air Quality & Health Exposure

October 9 & 11, 2019

Partners: NASA ARSET, UAH, NASA MSFC

Wednesday, October 9

08:00 - 08:30 Registration

08:30 - 08:45 Introductions & Logistics

08:45 - 09:30 Introduction to Remote Sensing

09:30 - 10:00 Satellite Imagery, Formats, and Data Access

10:00 - 10:30 Exploring Satellite Imagery Using NASA Worldview and
Earth Observatory

10:30 - 10:45 Break

10:45 - 11:30 Remote Sensing of Aerosols & Applications

11:30 - 12:00 Time Series Analysis and Mapping of Aerosol Data

12:00 - 13:30 Lunch Break

13:30 - 14:00 Exploring Air Quality from Satellite Data Using NOAA's
e-IDEA and Aerosol Watch

14:00 - 14:30 The Relationship Between AOD and $PM_{2.5}$

14:30 - 15:00 EPA Air Now Data and Satellite-Based $PM_{2.5}$ Datasets

15:00 - 15:30 Trace Gas Air Quality Products from OMI and TROPOMI

15:30 - 15:45 Break

15:45 - 16:45 Introduction to TEMPO, Applications, and Synthetic Data
Access

16:45 - 17:30 Satellite and Health Data Analysis Using the Google Cloud
Platform

17:30 - 17:45 Review, Questions & Answers

17:45 Adjourn



ARSET empowers the global
community through remote
sensing training.

www.arset.gsfc.nasa.gov

Friday, October 11

- 08:00 - 08:30 Registration
- 08:30 - 08:45 Introductions & Logistics
- 08:45 - 09:30 Satellite Remote Sensing of Aerosols and High Resolution Data Download
- 09:30 - 10:00 Reading and Mapping Aerosol Data Using Panoply
- 10:00 - 10:30 TROPOMI Data Download & Display Using Panoply
- 10:30 - 10:45 Break
- 10:45 - 11:30 Estimating PM_{2.5} Using Satellite Aerosol Data
- 11:30 - 12:00 NASA Air Quality Forecasts
- 12:00 - 13:30 Lunch Break
- 13:30 - 14:30 Using Python Scripts to Read, Map, and Extract Aerosol Data
- 14:30 - 15:00 Using Python Scripts to Read and Map Synthetic TEMPO Data
- 15:00 - 15:30 Exploring Synthetic TEMPO Data Using Panoply & ArcGIS
- 15:30 - 15:45 Break
- 15:45 - 16:45 Using Synthetic TEMPO and Health Data for Analysis on the Google Cloud Platform
- 16:45 - 17:15 Aerosol Observations from GOES-R and VIIRS
- 17:15 - 17:45 Satellite Detection of Fires & Smoke Transport
- 17:45 - 18:00 Review, Questions & Answers
- 18:00 Adjourn

More information about the training, including access to training materials, is available on the ARSET website:

<https://arset.gsfc.nasa.gov/airquality/workshops/2019-TEMPO>

