



Remote Sensing Basics

Fundamentals of Remote Sensing



Participants will become familiar with satellite orbits, types, resolutions, sensors, and processing levels. In addition to a conceptual understanding of remote sensing, attendees will also be able to articulate its advantages and disadvantages. Participants will also have a basic understanding of NASA satellites, sensors, data, tools, portals, and applications to environmental monitoring and management.



NASA'S Earth Observing Fleet

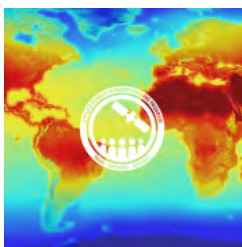


Get familiar with Earth observing satellites in NASA's fleet, sensors that collect data you can use in ARSET trainings, and their potential applications.



Climate Trainings

Introduction to NASA Resources for Climate Change Applications

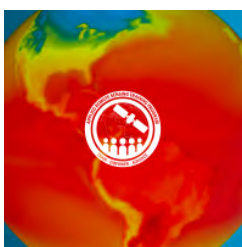


This two-part, introductory webinar series, co-produced by ARSET and the NASA Goddard Institute for Space Studies (GISS), will provide an overview of NASA resources for monitoring climate change and its impacts. The webinar will define the terminology and the role of Earth observations in climate change assessment, and then provide an overview of NASA climate models suitable for emissions policy, impacts, risk, and resilience applications.

Introductory - 2021



NASA Earth Observations for Energy Management



This training will offer participants an introduction to how NASA EOs can contribute to a greater understanding of energy management applications. The course will summarize priorities and challenges for energy management and how various NASA EOs can support decision-making. Attendees will gain familiarity with a broad set of relevant NASA datasets, tools, platforms, and resources, as well as hear about case studies and real-world applications related to climate resilience, energy efficiency, and renewable energy.

Introductory - 2021





Earth Observations Toolkit for Sustainable Cities and Human Settlements

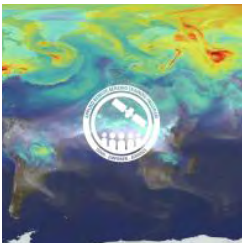


This three-part, introductory webinar series will provide an overview of the Earth Observations Toolkit for Sustainable Cities and Human Settlements, an online knowledge resource that shares ready-to-use Earth observation data sets and tools. These resources can be applied in policy areas that are important to resilient and sustainable cities. Such areas include sustainable urban planning, adequate housing, access to public transport, and access to public spaces.

Introductory - 2022



Atmospheric CO₂ and CH₄ Budgets to Support the Global Stocktake

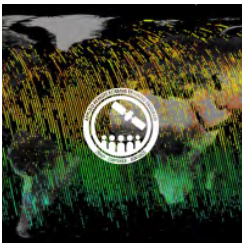


This three-part webinar series will introduce bottom-up and top-down methods for tracking emissions and removals of carbon dioxide (CO₂) and methane (CH₄) from the atmosphere. This training will explore how to combine this information to produce a more complete and transparent global stocktake, and support efforts to reduce net emissions and mitigate their impact on the climate.

Introductory - 2022



Measuring Atmospheric Carbon Dioxide from Space in Support of Climate Related Studies



This introductory, four-part webinar series will provide an overview of atmospheric carbon dioxide measurements from space with the OCO-2 and OCO-3 satellite missions. It includes a theoretical portion that will describe the instrument, how the measurement is made, and the characteristics, limitations, and validation of the measurement.

Introductory - 2022



Selecting Climate Change Projection Sets for Mitigation, Adaptation, and Risk Management Applications



This two-part training provides an overview of resources for choosing climate projection sets for mitigation, adaptation, and risk management applications. The training gives an overview of application areas, defines a list of distinguishing characteristics of climate projection sets, and then highlights the main benefits and drawbacks of different types of projection sets.

Introductory - 2022



Building Climate Risk Assessments from Local Vulnerability and Exposure



This ARSET Training describes climate risk assessment approaches that originate with stakeholder expertise in the fundamental climate vulnerability and exposure of their system. The training provides an assessment and engagement framework and utilizes examples from the NASA Climate Adaptation Science Investigators (CASI) Program that is preparing NASA facilities for future climate resilience.

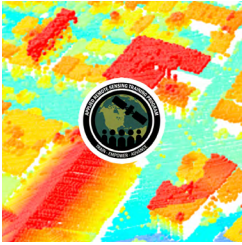
Introductory - 2023



Climate Trainings



Transforming Earth Observation (EO) Data into Building Infrastructure Data Sets for Disaster Risk Modeling



In this short course, we cover the basics of natural hazard risk modeling and exposure development with a focus on fusing data from multiple datasets expressly for the purposes of risk assessment. We also present examples applying the techniques to applications related to flood risk assessment, climate adaptation, and earthquake modeling.

Intermediate - 2023

