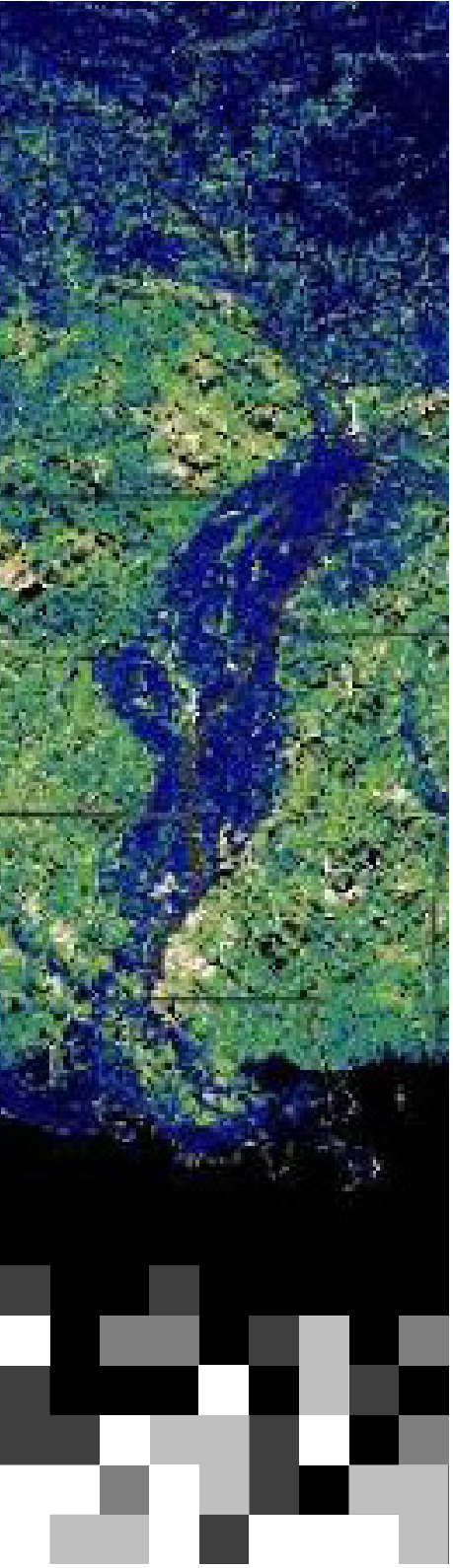

National Aeronautics and
Space Administration

Estimating Biomass and Change with GEDI and the OBIWAN API

May 21 & 28, 2026

11:00-12:00 (English) or 14:00-15:00 (Spanish) EDT (UTC-4)

This intermediate-level training introduces key concepts in carbon monitoring, including system requirements, decision-making needs, and the concept of additionality. Participants learn how the OBIWAN application builds on GEDI's model-based statistical framework and underlying data infrastructure to generate biomass change estimates, along with associated uncertainties, for user-defined areas and time periods. The training also covers validation approaches, including the use of Forest Service inventory data to assess the accuracy and precision of OBIWAN outputs.

Through hands-on activities, participants apply GEDI-based estimation methods, visualize footprint and gridded biomass products, and use the OBIWAN API to generate and analyze biomass change. Participants also explore how to compare carbon gains against business-as-usual scenarios, supporting practical, repeatable forest carbon monitoring and decision-making.

Part 1: Estimating Biomass using GEDI

ARSET Instructor: Erika Podest (JPL/Caltech)

Guest Instructor: Sean Healey (USFS/USDA)

- About ARSET
- Training Overview
- Part 1 Introduction
- Overview of Above-Ground Biomass
- Review of GEDI Data Structure
- Estimating Biomass Change
- Visualizing and Generating Biomass Products
- Part 1 Summary
- Q&A Session

Part 2: Estimating Biomass Change with GEDI and the OBIWAN API

ARSET Instructor: Erika Podest (JPL/Caltech)

Guest Instructor: Sean Healey (USFS/USDA)

- Part 1 Review
- Part 2 Introduction
- Section 1 – GEDI Mission Biomass Estimation: Theory and Products
- Section 2 – OBIWAN: Estimating Biomass Change with GEDI and Landsat Time Series
- Section 3 – Customizing OBIWAN through its API
- Part 2 Summary
- Q&A Session

ARSET empowers the global community through remote sensing training.

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