

Introduction to Remote Sensing for Coastal and Ocean Applications

Wednesdays, July 6 – 27, 2016

1:00-2:00 p.m. EDT (UTC-4)

In this introductory webinar, participants will be provided with an overview of remote sensing for coastal and ocean applications. This will include a background in aquatic remote sensing, data access and tools for processing and analyzing imagery, and examples and live demonstrations of applied science tools that have been developed for NASA and partner organizations. This course will review data products from MODIS, VIIRS, HICO, and other sensors commonly used for ocean applications.

Session One: Overview of Satellite Remote Sensing of Aquatic Environments

July 6

- Overview of themes in coastal and ocean applied science
- How remote sensing is used for coastal and ocean applied science
- Fundamentals of remote sensing (spatial, temporal, spectral resolution)
- Advantages and limitations of remote sensing in aquatic environments

Session Two: Platforms and Sensors for Ocean Observations, Data Access, and Processing Tools

July 13

- Satellites and sensors for coastal and ocean applications
- Satellite data processing levels
- NASA satellite data access tools
- NASA satellite data processing tools

Session Three: Animal Movement

July 20

- Overview of animal movement and migration
- Overview of coupled model and remote sensing tools for tracking animal movement
- Examples of remote sensing tools for understanding animal movement
- Challenges to tracking animal movement in a moving environment
- Live Demonstration: Roffer's Ocean Fishing Forecasting Service

Session Four: Coral Reefs

July 27

- Overview of coral biology
- Corals in a changing climate
- Overview of coupled model and remote sensing tools for understanding coral reef health

- Examples of remote sensing tools for understanding coral reef systems
- Live Demonstration: NOAA Coral Reef Watch