



# Monitoring and Modeling Floods using Earth Observations

Wednesdays, September 14 & 21, 2022

10:00-12:00 or 14:00-16:00 EDT (UTC-4)

Recent studies have shown that globally, riverine and coastal floods are increasing in intensity and duration. In addition, the number of people living in flood-prone areas has increased substantially during the last two decades. Therefore, monitoring and predicting floods in support of early warning, response, and relief operations have become major foci for disaster management activities worldwide. Remote sensing observations from optical and Synthetic Aperture Radar (SAR) sensors are routinely used for detecting and mapping flooding.

ARSET has offered several trainings on flood monitoring based on optical and SAR observations in the past. This two-part training will focus on recent developments and updates in flood monitoring tools and flood modeling techniques. Specifically, an overview of the Hydrological Modeling and Analysis Platform (HyMAP), a routing model used with NASA's Land Information System (LIS), and examples of flood modeling cases will be presented in this training.

## Part 1: Overview of Flood Monitoring Tools based on Remote Sensing Observations

- Flood monitoring examples using remote sensing observations
- Overview of the Hydrologic Remote Sensing Analysis for Floods (or HYDRAFloods)
- Q&A

## Part 2: Overview of Flood Modeling

- Overview and flood case demonstration using LIS-HyMAP
- Q&A



ARSET empowers the global community through remote sensing training.

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