



Preparing for Launch

SWOT Applications is Preparing for Launch!

SWOT is scheduled to launch from California's Vandenberg Space Force Base in November 2022. Along with the SWOT Project Offices, who are extremely busy preparing the spacecraft and systems for launch, the SWOT Applications Working Group and Applications Leads are busy with our own pre-launch activities. We continue to support the SWOT Early Adopters (EA) in their preparations for ingesting SWOT data into their operational and applied science systems when they becomes available in the year after launch. We are also continuing our training activities with the 3rd SWOT Applications Hackathon successfully completed in May, will participate in the SWOT Science Team Meeting in June, and will hold a SWOT Applications Workshop in early September 2022. Keep an eye out for a SWOT Applications video being developed at JPL, and a story on the NASA Climate web site! Our key Applications partners include our CNES colleagues, NASA's Physical Oceanography Distributed Active Archive (PO.DAAC), the University of Washington, and all of the EA organizations.

SWOT Early Adopter Highlights



WELCOME to our newest SWOT Early Adopters! ICUBE-SERTIT (Strasbourg, France); Megellium (Toulouse, France), and FUNCEME (Ceará, Brazil).

Below, we share the work, below, of three more SWOT Early Adopters who have built literacy and user preparedness for SWOT data: India Institute of Technology, Bombay (IITB); Asia Disaster Preparedness Center (ADPC); Pakistan Council of Research in Water Resources (PCRWR). We expect these agencies will yield highly-visible success stories on SWOT applications by addressing critical societal needs at local, regional or global scales.

Our SWOT Early Adopters will be able to demonstrate the return on public investment of the SWOT Mission by demonstrating the value of SWOT data and information.

SWOT Applications at a Glance

7 Application Workshops

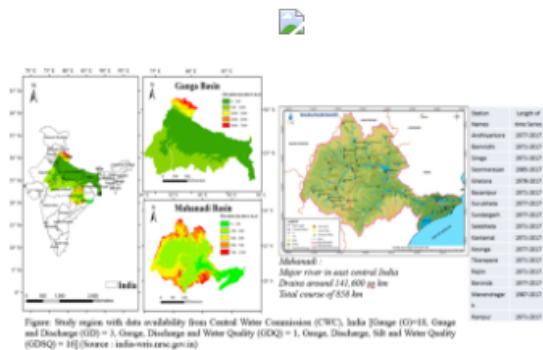
3 Virtual Hackathons

24 SWOT Early Adopters

17 Articles & peer-reviewed papers on SWOT Applications

- Online Education & Training
- 100+ citizen science LAKES GAUGED by Early Adopters for SWOT cal/val
- Field Data sharing with SWOT Science Team for product development

SWOT Early Adopter Highlights



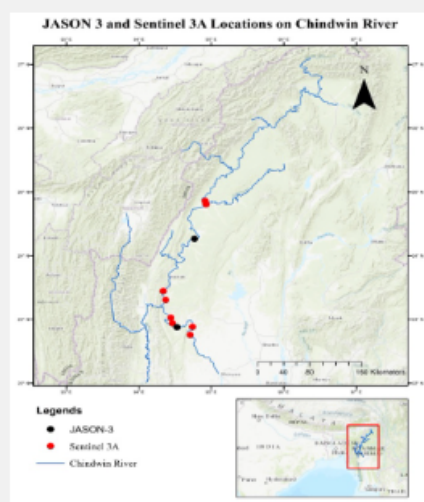
India Institute of Technology - Bombay (IITB)

Title:
Examining the potential of SWOT mission in Hydrometeorology over India

Leads:
J. Indu; Subimal Ghosh; Subhankar Karmakar

High frequency estimates of discharge and storage are needed in river-reservoir systems of Mahanadi and Ganga rivers to reduce and adapt to flood risks for stakeholders located in urban centers.

[Read More >](#)



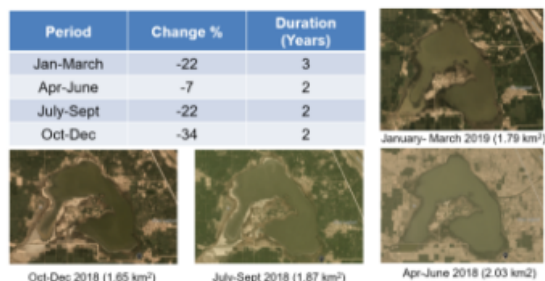
Asia Disaster Preparedness Center (ADPC)

Title:
Plugin SWOT to Enhance Water Resource Management in Lower Mekong

Leads:
Susantha Jayasinghe (Technical Specialist); Chinaporn Meechaiya (Hydrologist)

Rivers in Southeast Asia such as the Chindwin River in Myanmar, Tonle Sap River in Cambodia, the transboundary Mekong River and other major rivers in Lower Mekong countries, are prone to flooding. For flood preparedness and disaster response planning, stakeholders require accurate prediction, modeling or monitoring of inundation extent during flood events.

[Read More >](#)



Pakistan Council of Research in Water Resources (PCRWR)

Title:
SWOT applications for determining water surface area change to manage highly regulated transboundary rivers and appearing wetlands within the country

Leads:
Faizan UI Hasan (Secretary PCRWR)

In the semi-arid regions of Sindh in Pakistan, wetlands are rapidly appearing and expanding due to water logging and unplanned urbanization. These 'artificial' wetlands require constant monitoring of their evolution for adapting land use planning and devising mitigation solutions. In addition, Pakistan has several transboundary rivers that carry flood waters from across the international border into its reservoirs (such as Mangla reservoir on Jhelum river). Provinces of Pakistan also require an impartial source of water availability to agree on allocation of the Indus surface water resources.

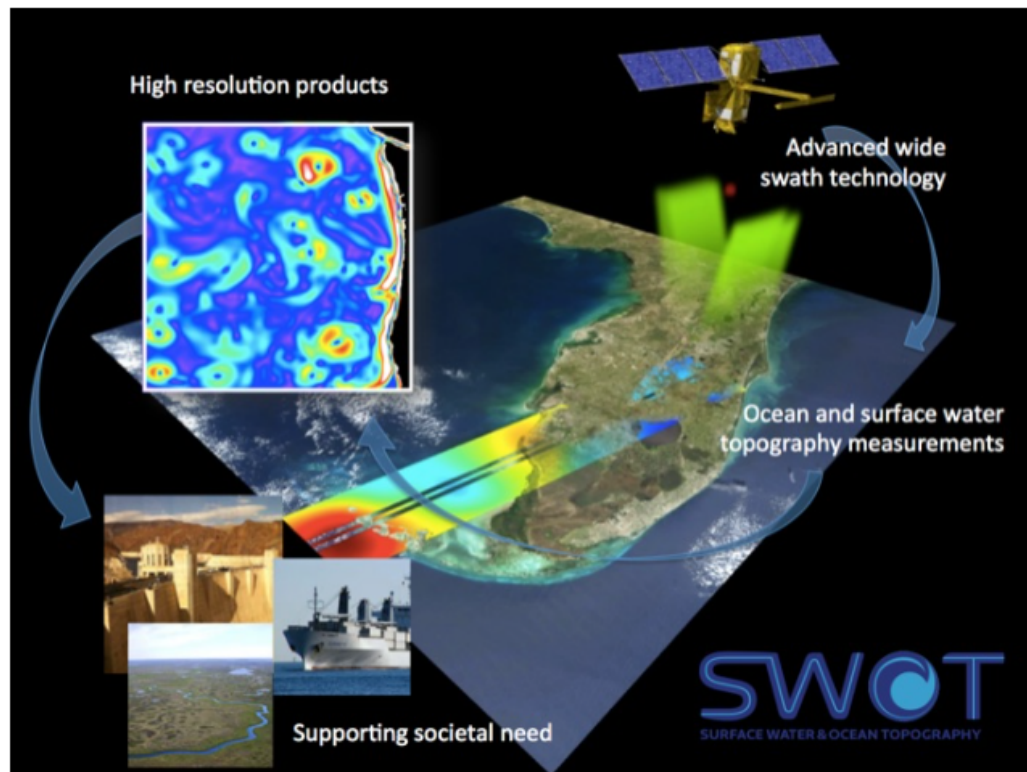
[Read More >](#)

Upcoming Meetings:

SWOT EA Quarterly Telecon, July 20, 2022

2022 SWOT Applications Workshop, September 5-7, 2022, Paris & Online

SWOT Media Galleries



Visit links below for more information:

- swot.jpl.nasa.gov/applications
- www.aviso.altimetry.fr/en/applications.html
- depts.washington.edu/saswe/swot

SWOT Applications After Launch

We are all looking to the November 2022 launch of SWOT with great anticipation! SWOT is a pathfinding mission to monitor the precious resource of Earth's surface water on a global scale – something that has not been possible before. The SWOT project team continues to prepare the spacecraft, instruments, and science data systems to provide reliable science data products in flight. Post-launch, the project team will be calibrating and validating the measurement system and ground processing algorithms with the novel in-flight SWOT measurements. Science data products are anticipated to be available by late 2023.

Applications activities highlights;

- Since 2012, the SWOT Applications program has expanded awareness of SWOT's societal value and generated anticipation for SWOT data among potential users.
- SWOT Applications program pioneered infrastructure for 24/7 community-driven online education/training for building technical literacy on SWOT.
- Many SWOT Early Adopters are funding application-critical science; providing cal/val infrastructure for lake data product, and adding value to Science Team activities.
- SWOT Early Adopter Program continues to grow -- spanning the Americas, Europe, Asia, & Africa—and represents the private, public and research sectors.