

SWOT APPLICATION WORKING GROUP REPORT (2018-2019)

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1. MISSION OF SWOT APPLICATION WORKING GROUP (SAWG)

1. To build, maintain, and grow a critical mass of early adopters and a community of scientists, stakeholder agencies and end users interested in SWOT's unique capability for driving societal applications.
2. Support and collaborate with SWOT Science Team and Project activities and be aware of application-critical information (science, engineering and data issues).
3. To maximize the real-world application of SWOT data for solving critical societal problems after SWOT's launch in 2021.

2. WHERE WAS SAWG AT LAST ST MEETING IN 2018?

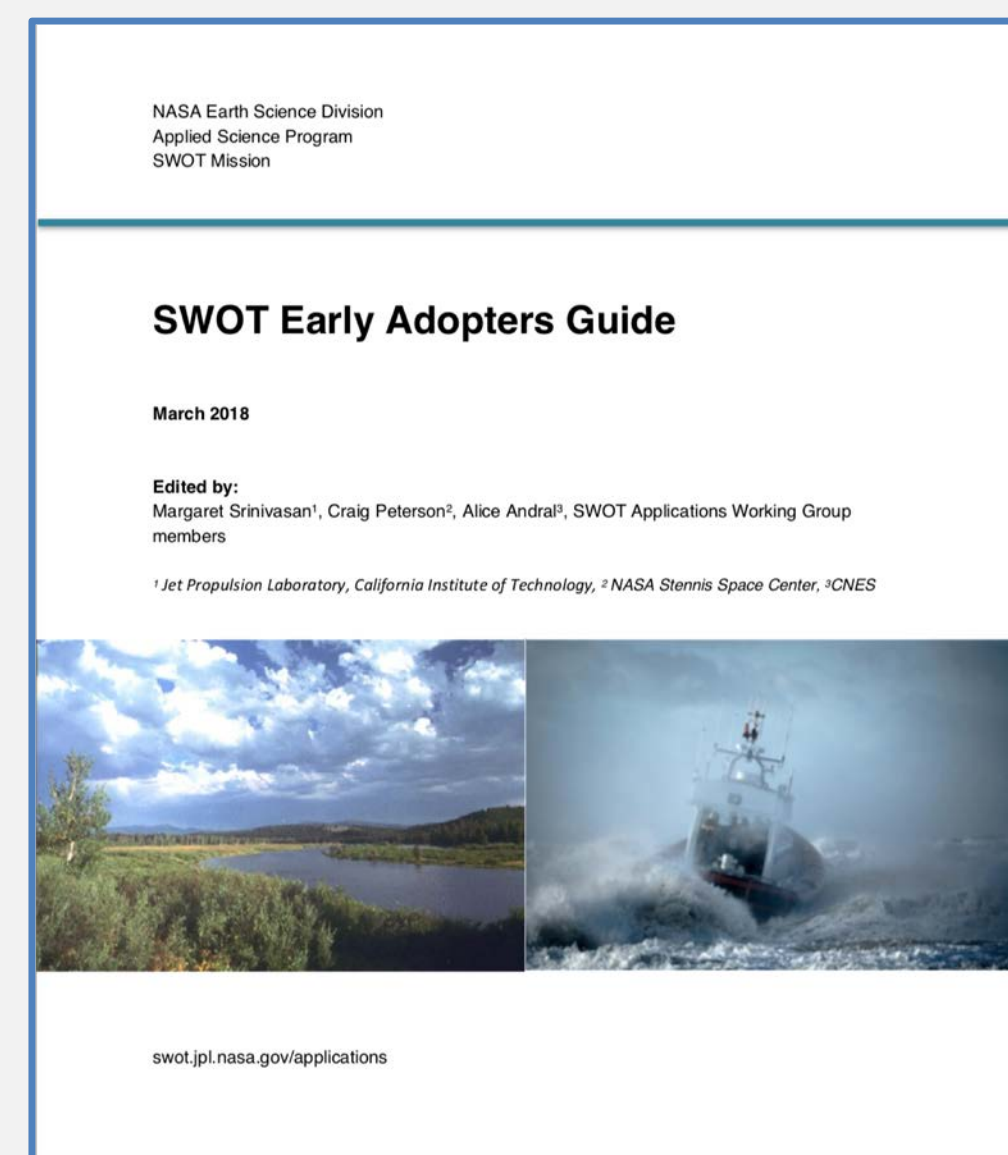
SWOT APPLICATION WORKSHOP -- 29-30 May 2018, Northeastern University, Boston, MA, USA

Key issue addressed: Training opportunity for SWOT Early Adopter candidates.

Publications; 2018 Workshop report posted on SWOT Applications web site; AWRA IMPACT journal article, Beighley, et al, Water Resources IMPACT, 21(2):30-31



2018 SWOT Early Adopter Workshop – Northeastern University, and via webinar for distance participants.



SWOT EARLY ADOPTERS PLAN

3. KEY ACTIVITIES OF SAWG FROM 2018-PRESENT

- Launched Early Adopter Program (Fall 2018)
- Identified proxy data sets for use by EAs, worked with PO.DAAC to make these available.
- Further developed application tutorials on SWOT mission
- Organized 2nd Early Adopter Workshop
- Theme for 2018-2019 **“Building Pathways to Societal Applications”**
- EA Support – Focus on supporting EA project work, data needs, training on data access, cloud computing.

More Information:

Beighley, E., M. Srinivasan, A. Andral. and F. Hossain (2019). “Preparing for the Surface Water and Ocean Topography (SWOT) Mission: Engaging the User Community,” American Water Resources Association, Water Resources IMPACT, 21(2):30-31.

Hossain, F., A. Andral, and M. Srinivasan (2017), **Putting satellite maps of surface water to practical use**, *Eos*, 98, <https://doi.org/10.1029/2017EO081157>. Published on 19 September 2017.

Hossain, F. et al. (41 authors), Engaging the User Community for Advancing Societal Applications of the Surface Water Ocean Topography (SWOT) mission Bulletin of American Meteorological Society, doi.org/10.1175/BAMS-D-17-0161.1 (In press) Meeting Report.

4. SWOT EARLY ADOPTER WORKSHOP – 20-21 May 2019

GOALS OF THE WORKSHOP:

- To provide selected Early Adopters an opportunity to share their SWOT-related application projects and progress.
- To facilitate peer-to-peer collaborative learning for selected Early Adopters.
- To provide hands-on training on cloud computing to train Early Adopters on cloud-computing platform to process, analyze and make decisions using massive amounts of satellite data in the cloud.
- To introduce Early Adopters to SWOT-like data on water elevations.
- To identify concerns, and needs of Early adopters for successful completion of their projects.
- To identify strategies for near future to maximize the societal relevance of SWOT mission and its data.



5. 2018 COHORT OF SWOT EARLY ADOPTERS

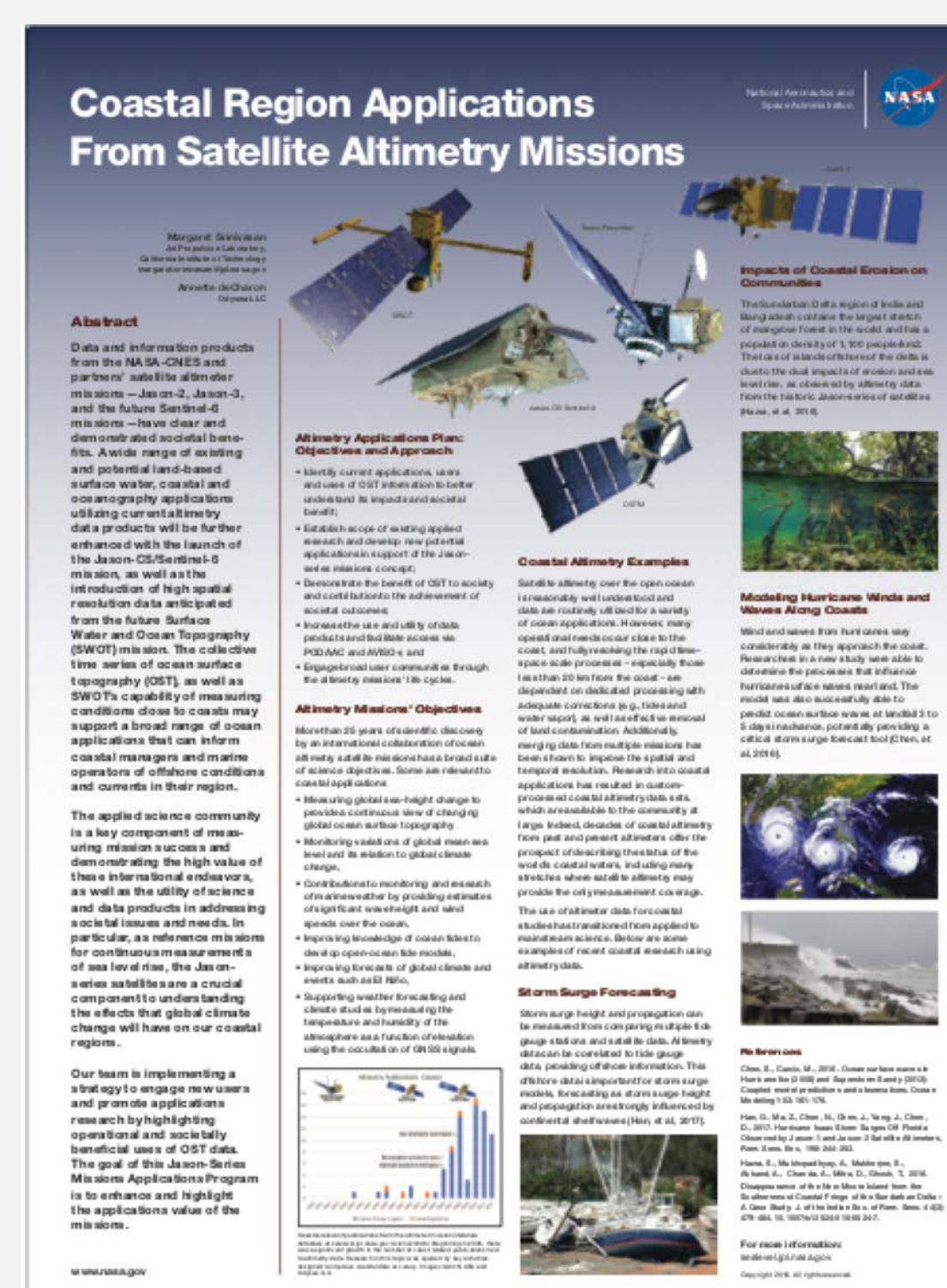
EARLY ADOPTER AGENCY	LOCATION/FOCUS
NASA SPoRT	USA/Land
Asian Disaster Preparedness Center	Thailand/Land
Indian Institute of Technology (Bombay)	India/Land
Collecte Localisation Satellites	France/Land
Compagnie Nationale du Rhône	France/Land
BRL Ingénierie	France/Land
University of Bonn	Germany/Ocean
Mercator-Ocean	France/Ocean
CUAHSI	USA/Land
FMGlobal	USA/Land/Ocean
Pakistan Council of Research in Water Resources	Pakistan/Land

Broad User community , 40+ people representing 11 agencies. Eleven official Early Adopters with submitted projects spanning 3 continents



Geographic distribution of Early Adopters - current and potential

6. COMMUNICATING OUR MESSAGE



Conferences & meetings:

- AGU, Dec 2018, The Use and Users of SWOT Mission Information Products
- 11th Coastal Altimetry Workshop, Jun 2018, Coastal region applications from satellite Altimetry missions
- OSTST, Sep 2018, SWOT Applications Overview
- EGU, Apr 2018, Addressing user needs for societal benefit from ocean altimetry missions
- CPASW, Jun 2019, Applications of satellite altimetry mission assets for understanding and addressing coastal risks

7. PLANS FOR 2019-2020

1. Expand Early Adopter members
2. Disseminate key outcomes of 2019 workshop in wide-audience forums (EOS, BAMS, ASCE)
3. Support EA project work, enhance EA experience with innovative training opportunities
4. Maintain engagement and continue communication with expanding user community.
5. Plan and prepare for the 2020 SWOT Early Adopter Workshop (Quantitative – Simulator-based)

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