



# OREGONVIEW 2018 - 2019



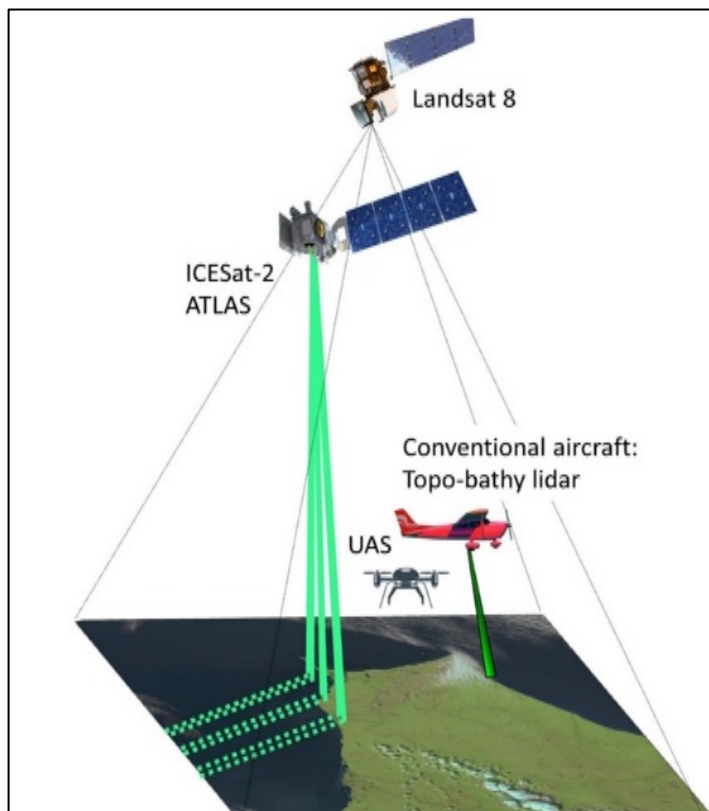
## OREGONVIEW HISTORY AND SUCCESSES

Established in 2015, OregonView is a member of the AmericaView Consortium, a nationwide partnership of remote sensing scientists who support applied remote sensing research, K-12 and higher STEM education, workforce development, and technology transfer. The mission of OregonView is to enhance the beneficial use of remotely sensed data and derived geospatial products in Oregon through:

1. Partnerships extending across the government, commercial and academic sectors
2. Remote sensing research
3. Education and outreach



*OregonView-supported graduate student, Selina Lambert, teaches K-12 students about remote sensing as part of Discovery Days 2019.*



*OregonView shallow-water bathymetric mapping using remotely sensed data from a range of platforms.*

OregonView's key accomplishments to date include:

- Leading several K-12 remote sensing workshops and demos
- Disseminating procedures and data products from research into inland water body surface temperature mapping from Landsat 8 thermal bands and *in situ* data
- Mapping shallow water bathymetry using Landsat 8 imagery and other remotely sensed data and distributing the data products via a webGIS
- Publishing peer reviewed journal papers on research led by OregonView-supported students
- Participating in state and regional geospatial events, including GIS in Action, the Northwest GIS Users Conference, and American Society for Photogrammetry and Remote Sensing (ASPRS) Columbia River Region (CRR) events

OregonView is a member of the AmericaView Consortium, a nationally coordinated network of academic, agency, non-profit, and industry partners and cooperators that share the vision of promoting and supporting the use of remote sensing data and technology within each state. AmericaView is funded by USGS grant agreement G18AP00077.



AmericaView Website:  
[www.AmericaView.org](http://www.AmericaView.org)  
 Christopher McGinty, Executive Director:  
[chris.mcginty@americaview.org](mailto:chris.mcginty@americaview.org)  
 Lisa Wirth, Program Manager:  
[lisa.wirth@americaview.org](mailto:lisa.wirth@americaview.org)  
 Brent Yantis, Board Chair:  
[rodney.yantis@louisiana.edu](mailto:rodney.yantis@louisiana.edu)

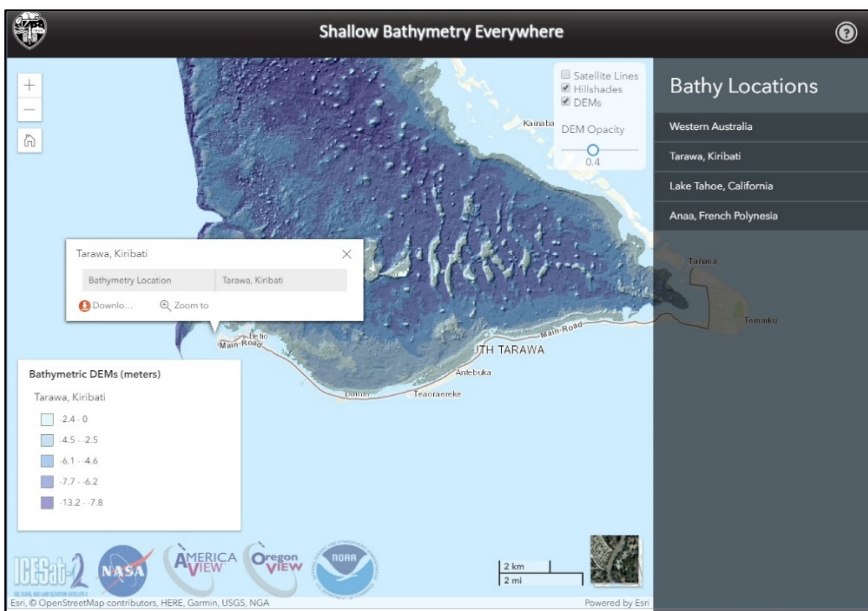
## OREGONVIEW 2018 - 2019 ACTIVITIES

Shallow, nearshore areas are notoriously difficult to map, which has created a global nearshore data void that hinders coastal planning, coral reef habitat mapping, and coastal resilience initiatives. OregonView researchers are working to fill this data void using Landsat 8 Operational Land Imager (OLI) data and NASA's Ice, Cloud and Land Elevation Satellite-2 (ICESat-2) Advanced Topographic Laser Altimeter System (ATLAS) to generate nearshore bathymetry (water depth maps) for coastal sites of interest to USGS, NOAA, and state and local organizations within Oregon.

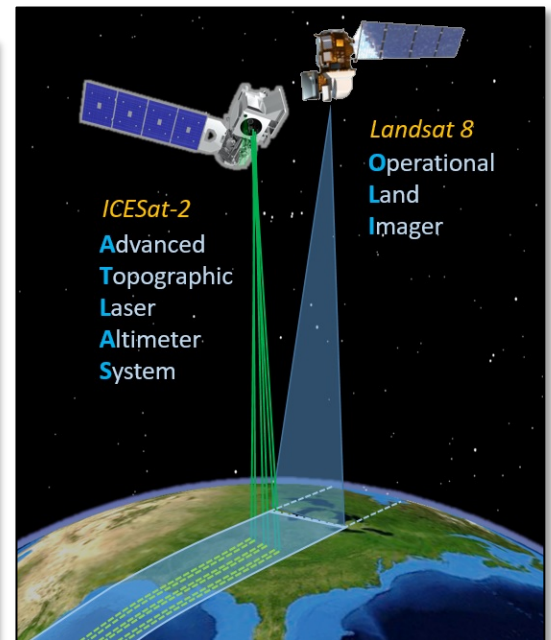
The bathymetric digital elevation models and other products from this project are currently being distributed through a webGIS: <http://shallowbathymetryeverywhere.com/>



Shallow water data gaps, such as shown here for a southern California project site, exist in coastal areas around the world, due to the challenges and costs of mapping high-energy nearshore environments.



Dissemination of shallow-water bathymetry derived from Landsat 8 and ICESat-2 data. The data products and webGIS were developed by an OregonView-supported student.



Shallow water mapping with Landsat 8 and NASA's ICESat-2 ATLAS

OregonView's 2018-2019 activities also including the following:

1. Led a webinar on a joint effort between OregonView and the GLOBE Observer (GO) project, introducing the new GLOBE Observer - Land Cover tool
2. Participated in national, state, and regional geospatial conferences and workshops
3. Organized an Earth Observation Day celebration at Oregon State University
4. Presented a remote sensing demo at Oregon State University's Family Science and Engineering Night, an ongoing pre-college education program directed at elementary and middle schools in Oregon's Willamette Valley

OregonView Principal Investigator:

Christopher Parrish

Oregon State University

541-737-5688

Christopher.Parrish@oregonstate.edu



<http://research.engr.oregonstate.edu/parrish/oregonview>