

RHODE ISLANDVIEW REMOTE SENSING ACTIVITIES 2015 - 2016



FOSTERING ACCESS TO RHODE ISLAND REMOTE SENSING WEB SERVICES

Significant change is underway in how people take advantage of remotely sensed data for Rhode Island. Fewer remote sensing datasets - such as aerial photographs and detailed elevation surfaces - are being directly downloaded by users of specialized mapping, analytical, and design software. Instead, users are increasingly accessing these data through online web services. For Rhode Island, these web services are primarily hosted and maintained by the University of Rhode Island (URI) Environmental Data Center with support from Rhode IslandView and the URI Renewable Resources Extension Act Program. Remote sensing web services open up remote sensing data to much larger audiences largely because they allow direct streaming of remote sensing data to web-based applications such as municipal mapping websites (e.g. Town of South Kingstown, http://gis.southkingstownri.com/webgis) and sea level rise and storm surge modeling utilities (e.g. STORMTOOLS, http://www.beachsamp.org/stormtools). These web services offer a significant time and cost savings for their users because they eliminate the need to store and manage gigabytes of data on the user's computer. Rhode IslandView fosters the development and maintenance of these web services and supports new educational resources that help people take greater advantage of them for a broad range of uses.

In partnership with the University of Rhode Island (URI) College of the Environment and Life Sciences, URI Coastal Institute, and the URI Environmental Data Center, Rhode IslandView conducted a public workshop on August 19, 2016 on the *Introduction to Aerial and Satellite Images of Rhode Island*. The workshop featured three themes: 1) an overview of a number of remote sensing data web services featuring Rhode Island that



Oakland Beach, Warwick, Rhode Island. Web application comparing aerial photographs from 1939, 1997, 2008, and 2014. This easy-to-use app utilizes online web services supported by Rhode IslandVIew. http://www.edc.uri.edu/atlas



Detailed elevation model of Point Judith, RI. It is derived from a 2011 statewide lidar data collection project coordinated by the USGS, and is featured in STORMTOOLS.

are hosted by the URI Environmental Data Center and the USGS; 2) an introduction to how to use these web services using Esri ArcGIS Online and ArcGIS for Desktop; and 3) a preview of a new Rhode IslandView project that is updating the remote sensing web services currently available via the Rhode Island Geographic Information System consortium.

The regional audience represented a broad cross-section of federal, state, and municipal government, educators, researchers, public utilities, and private industry. Discussion during the workshop led to useful feedback that is guiding the development of future web services, and web applications that leverage these services, made possible with support from Rhode IslandView.

AMERIC VIEW

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BENEFITS TO RHODE ISLAND

Rhode IslandView seeks to bring together the state's remote sensing community to build rapport and knowledge sharing. This community not only represents those who are interested in remotely sensing data of Rhode Island, but also Rhode Island-based remote sensing practitioners who work with data beyond the state. Rhode IslandView's 2015-2016 activities resulted in:

- Increased awareness of currently available remote sensing web services by educators, private industry, and the general public.
- Technical guidance for remote sensing web service users.
- Policy development for small unmanned aerial system (sUAS) at the University of Rhode Island.
- Improvement of the remote sensing web services hosted by the URI Environmental Data Center, leading to more responsive services that can support a larger overall user base.
- Shaping future remote sensing web services, in partnership with the Rhode Island Geographic Information System (RIGIS) consortium.



Aerial photographs routinely collected with small unmanned aerial systems (sUAS) could be a useful management tool for small acreage farms, such as this farm located in Richmond, Rhode Island.

RHODE ISLAND VIEW CONSORTIUM MEMBERSHIP

University of Rhode Island

Department of Natural Resources Science http://web.uri.edu/nrs

Graduate School of Oceanography http://www.gso.uri.edu

Brown University

Department of Earth, Environmental, and Planetary Sciences http://bit.ly/BrownEEP

Lead Institution, NASA Rhode Island Space Grant Consortium http://bit.ly/RISpaceGrant

State of Rhode Island

Division of Planning http://www.planning.ri.gov

Department of Environmental Management http://www.dem.ri.gov









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