



OHIOVIEW REMOTE SENSING ACTIVITIES 2015 - 2016



OhioView Education and Outreach

Students And Teachers Exploring Local Landscapes to Interpret The Earth from Space (SATELLITES)

The SATELLITES workshop in summer 2015 became another success story for geospatial education. Twenty K-12 teachers were trained at the SATELLITES summer institute, which resulted in approximately 1200 K-12 students trained in turn. The SATELLITES spring conference was held on May 6, 2016 at the Penta Career Center in Perrysburg, Ohio. Students, whose teachers had attended the 2015 summer workshop, focused particularly at the middle and high school levels, presented their research.

The Program provides both K-12 teachers and their students with hands-on, inquiry-based science, and STEM education using geospatial technologies.



Engaging Virtual Worlds

OhioView previously formed a partnership with Discovery Lab to promote a mutual objective "to accelerate today's technology while growing tomorrow's technology leaders." Discovery Lab, was a student research program lead by Air Force Research Laboratory (AFRL) and hosted at Wright Brothers Institute that ended in December 2015. OHView's specific interest, then and continuing, has been an online 'virtual world' environment to facilitate education and training.

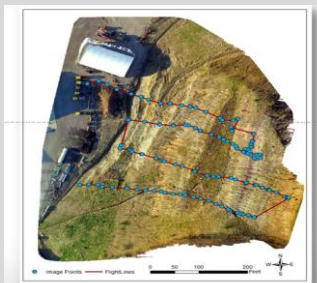
As elements of that initial AFRL research program have begun to move to the private sector, OhioView has initiated discussions with those groups to address the educational needs of Ohio by using geospatial technologies in a cutting-edge, virtual world platform.

OhioView Applied Research



Harmful Algae Monitoring

OhioView universities continued their effective collaboration with NASA through 2015 and 2016 on the critical issue of Harmful Algal Bloom (HABs) research. Algal toxins contaminate drinking water, causing serious health issues. Research focused on developing algorithms to detect toxic algal species. NASA and NOAA collected airborne hyperspectral data over Lake Erie, Ohio and along the Lake Erie shoreline. That data was used to support these research efforts.



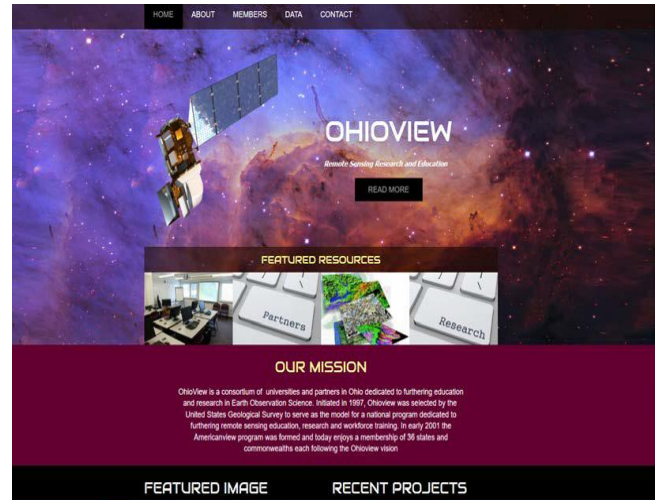
Environmental Applications of Unmanned Aerial Systems

Unmanned platforms have gained widespread interest within the planning and resource management community. OhioView work presented at the **2016 Ohio GIS Conference** in Columbus, Ohio examined UAV applications in site characterization and environmental assessment - all application areas where ultra-fine spatial resolution data is essential, but the large data volumes strain traditional image processing workflows.



BENEFITS TO OHIO

- Enhanced the assurance of public health and sustainable development programs through geospatial monitoring
- Introduced cutting-edge, virtual world platform approach to educational needs at all levels – through partnership with the Air Force Discovery Lab
- Supplied access to geospatial data - Landsat plus other imagery
- Increased K-12 teacher knowledge - in geospatial technologies and STEM
- Increased K-12 student engagement – hundreds of students were given the opportunity to use geospatial technologies and present their projects
- Increased university-level remote-sensing education and student research– products of OhioView's software pool
- Continued Workforce Development through workshops held at Ohio GIS Conference



Screen capture of the OhioView website
<http://www.ohioview.org/>

VIEW CONSORTIUM MEMBERSHIP

The OhioView consortium is comprised of 14 university partners who cover the far corners of the state. As of GY- 2015 membership in the consortium included:

- | | |
|-----------------------------------|-------------------------|
| • Bowling Green State University: | Dr. Anita Simic |
| • Central State University: | Dr. Xiaofang Wei |
| • Cleveland State University: | Dr. W.B. Clapham |
| • Kent State University: | Dr. Mandy Munro-Stasiuk |
| • Lakeland Community College: | Mr. Mark Guizlo |
| • Miami University: | Dr. Mary Henry |
| • Ohio State University: | Dr. Desheng Liu |
| • Ohio University: | Dr. James Lein |
| • University of Akron: | Dr. Linda Barrett |
| • University of Cincinnati: | Dr. Hongxing Liu |
| • University of Dayton: | Dr. Umesh Haritashya |
| • University of Toledo: | Dr. Kevin Czajkowski |
| • Wright State University: | Dr. Doyle Watts |
| • Youngstown State University: | Dr. Bradley Shellito |



Federal consortium members identified above do not receive funding from AmericaView.

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