

The OhioView Project

Affordable, Integrated Access and Delivery of U.S. Government Satellite and Geospatial Data to the American Public

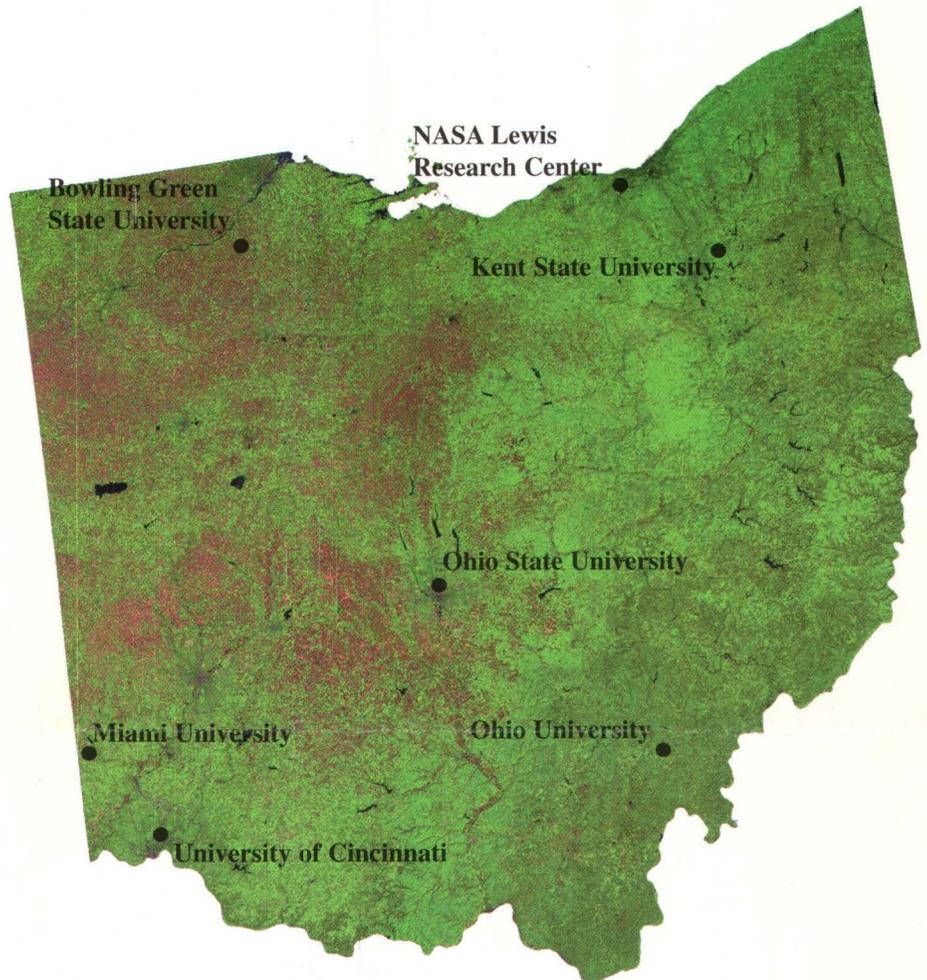
The U.S. Geological Survey (USGS) is a leader in collecting and archiving geospatial data and information about the Earth and in distributing this information to educational institutes; local, State, and Federal agencies; private industry; and the public. The idea of providing easy, reliable access to geospatial data is the driving principle behind the USGS's efforts to develop an integrated information access and delivery capability.

The OhioView Consortium is a group of universities, colleges, K-12 schools, libraries, and local and State government agencies in the State of Ohio working with the USGS and NASA to provide affordable, integrated access to and delivery of U.S. Government satellite and geospatial data. The OhioView Project is a pilot project that combines the USGS activities in providing an integrated information access and delivery capability with the activities of the OhioView Consortium.

Goals

The OhioView Project was created to achieve the following goals:

- Create a prototype of a national public access system for geospatial data from the U.S. Government.
- Promote the use of satellite and geospatial data in education.
- Facilitate the use of satellite data to monitor a wide variety of environmental issues, such as flood risk, crop health, urban sprawl, and loss of wetlands.
- Facilitate cooperation between education, and State and local governments in remote sensing and digital mapping through data and cost sharing.
- Facilitate research and development in



The OhioView Project is a prototype network of USGS, NASA, and university sites that will provide near real-time, routine satellite coverage of the State of Ohio and eventually the entire United States. These data will be made available through high-speed networks for agriculture, forestry, geology, urban planning, education, hydrology, and disaster management applications.

the applications of satellite data.

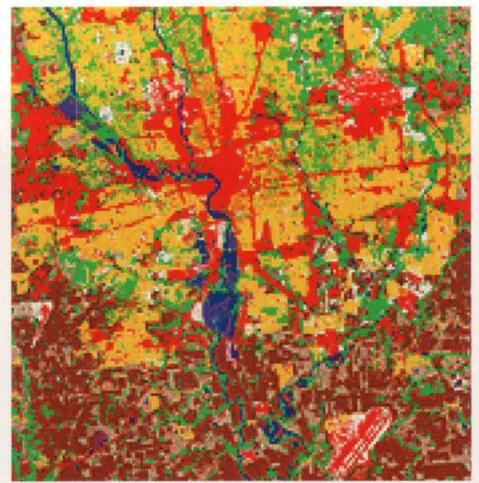
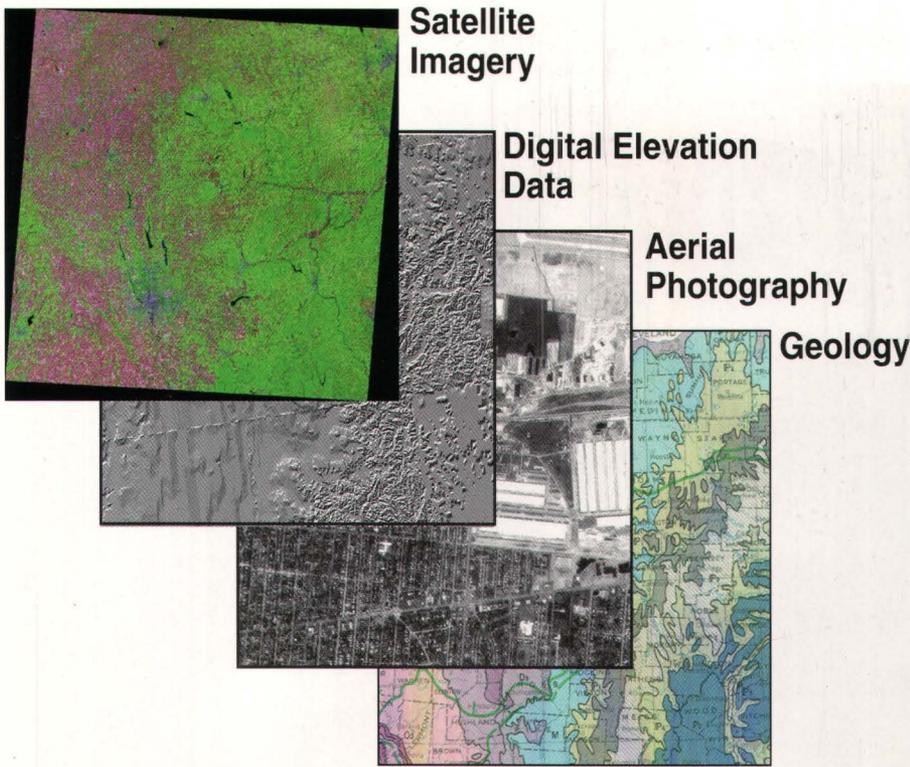
- Establish "virtual" centers for satellite and geospatial data synthesis and dissemination.
- Establish a high-speed network to provide satellite data to the public, educators, scientists, and community leaders in Ohio and the Nation.
- Leverage existing State and Federal resources.

Applications

Applications of satellite data include:

- Agriculture: Crop forecasting, productivity monitoring, crop damage assessments.

- Cartography: Topographic mapping, terrain simulations, map updating.
- Forestry: Stand density, disease and fire damage assessment.
- Geology: Oil and gas exploration, structural mapping, hazards analysis, tectonic studies.
- Urban Planning: Land use mapping, impervious surface modeling, siting studies.
- Water and Environment: Wetlands and habitat mapping, pollution monitoring, resource assessment, hydrologic and coastal studies.



Land cover map (top) of Columbus, Ohio, generated from Landsat Thematic Mapper data (bottom) acquired on August 2, 1992. In the land cover map, blue is water, red is commercial/industrial, yellow is residential, brown is agricultural, and green is forest.

Examples of geospatial data that will be available through the OhioView Project.

Method

NASA Earth Science Enterprise satellite data of land observations will be down-linked from satellites or transferred from other NASA facilities to the USGS EROS Data Center's ground receiving station in Sioux Falls, South Dakota. The satellite and related USGS geospatial data will be transferred over high-speed NASA networks to the NASA Lewis Research Center in Cleveland, Ohio, where it will be distributed to the OhioView Consortium.

While the basic satellite data will be available over the network for researchers and land management professionals, high-speed computers at EROS and NASA

Lewis will process the data into images that can be viewed by the public over common Internet browsers. A more sophisticated image server will be available after the launch of the Landsat-7 spacecraft in 1999.

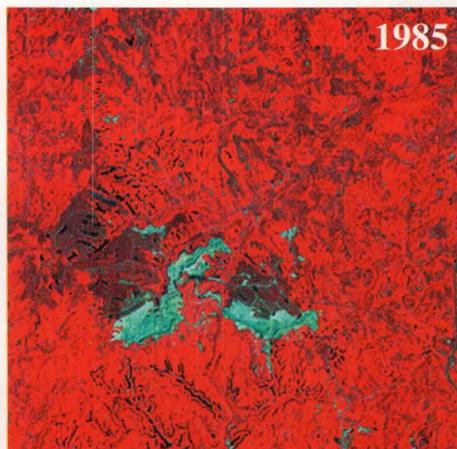
OhioView and similar consortia will be able to access the following types of information:

- Satellite data.
- Topographic maps.
- Digital elevation data.
- Aerial photography.
- Water, soil, geologic, and land cover/land use data.

For More Information

For further information on the OhioView Project activities please visit the project Web site at:

<URL: <http://www.ohioview.org>>



Example of the use of Landsat data to monitor mining and reclamation activity and land use change in Ohio. The images show a surface mine in southeast Ohio. Over time the mine moves south as it follows the coal bed. The mined land is being reclaimed to grassland.