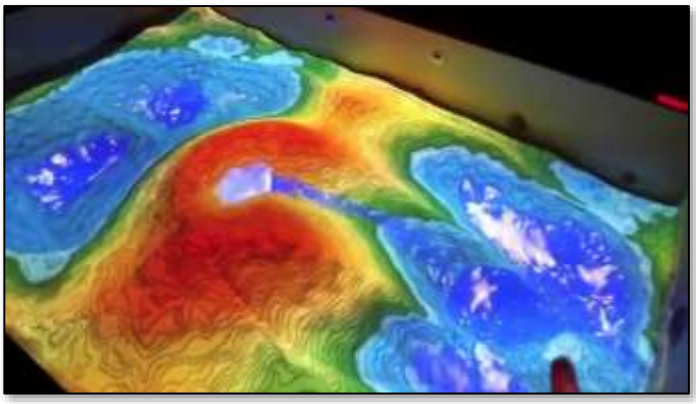
AlaskaView Remote Sensing Activities 2015 - 2016

Fairbanks Children's Museum Augmented Reality Sandbox



The Augmented Reality Sandbox illustrates the concepts of a topographical map in three dimensional space.

The Fairbanks Children's Museum opened in Fairbanks, Alaska, in January 2015, filling a gap for early childhood learning and play opportunities in the area. AlaskaView provided and supported an Augmented Reality Sandbox for deployment at the museum to showcase geography, remote sensing, and STEM concepts in an early childhood learning environment.

The Augmented Reality Sandbox uses open source software, a computer, and a Microsoft Kinect to represent a topographical map in three-dimensional space. The sandbox simulates rainfall and water on the landscape. When altering the landscape, by moving the sand, the system draws a new topographic map and displaces the water as it would on an actual landscape.

The deployment of the sandbox was met with great enthusiasm and was a success in engaging young children and adults in an interactive STEM activity. This activity enabled young children, their parents, and grandparents to play together in a collaborative learning environment, which is a core mission of the Fairbanks Children's Museum. This activity will continue to deliver geography, remote sensing, and STEM concepts in the Fairbanks community throughout the next year.

Alaska Geospatial Data Resources: ½-Day Course

AlaskaView conducted two separate ½-day courses regarding geospatial data resources in Alaska, including where to find them and how to use them. High school, undergraduate, and graduate students, and professionals were educated on specific data sets available through the Geographic Information Network of Alaska and Landsat and historical aerial photography available through the USGS EarthExplorer website.

The first course was directed towards Alaska native high school students involved with the University of Alaska's Upward Bound program. This is a program that aims to improve the graduation rates of high school students and increase the number of graduates who enter colleges and universities.

The second course was a partnership between AlaskaView and Alaska EPSCoR during EPSCoR's Data to Decisions workshop, held in Fairbanks. The audience for this course was undergraduate and graduate students, and professionals.

Both courses were well received and state agencies have requested they be held again to fill the need for geospatial training courses in Alaska.

Alaska native high school students through the Upward Bound program at the University of Alaska Fairbanks involved in one of the ½-day geospatial data resources courses given in 2015. Upward Bound is a program designed to encourage first-generation, college bound individuals from underrepresented groups to attend college.

AlaskaView 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.

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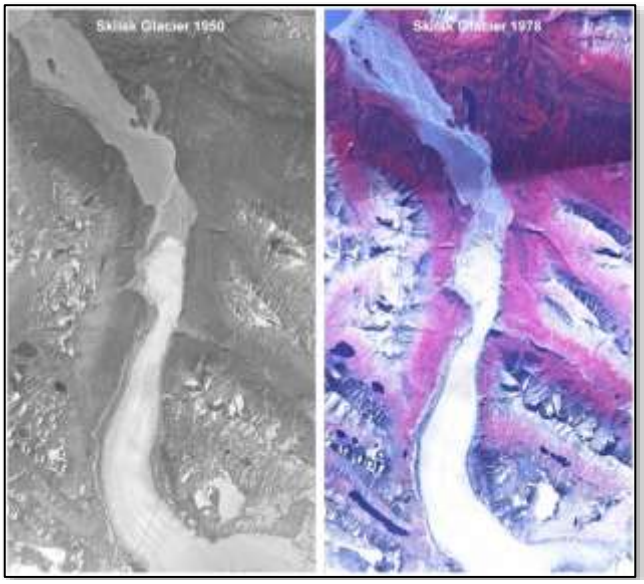
BENEFITS TO ALASKA

As a result of the activities and support of AlaskaView, communities across the State of Alaska have benefited through:

- Creating STEM learning activities within the not-for-profit Fairbanks Children's Museum.
- Filling the need for geospatial training courses for students and professionals.
- Establishing partnerships across the state to promote USGS products for Alaska-specific research.



Historical aerial photos used for change detection on Alaska's glaciers that were available and downloaded through the USGS EarthExplorer website, showcased during the ½-day courses.

ALASKAVIEW CONSORTIUM MEMBERSHIP

Association of Alaska Native Regional Corporation: http://ancsaregional.com/

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

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