SOUTH DAKOTA VIEW 2019 - 2020

SOUTH DAKOTA VIEW 2019 - 2020 ACTIVITIES

South DakotaView is focused on remote sensing education and outreach to students, educators, and current workforce personnel across South Dakota. SDView activities during this past year include:

Processing drone imagery of Mitchell Technical Institute

- **K-12 Teacher Workshop**
  This past year's SDView High Impact Activity was a workshop titled "Drone for Educators." SDView partnered with numerous institutions around the state and nation to provide expertise in several different areas related to UAS instruction. This activity supported the curricula, workshops, technology transfer and outreach portions of NLRSEORA Objective 4. In addition, the workshop provided an experience for teachers to explore, introduce, and develop STEM training with drones in the classroom.
  Selected topics covered by the Drone for Educators Workshop included:
  - Introduction and UAS Applications, UAS Sensors, and Curriculum Options
  - The Academy of Model Aeronautics (AMA) Supporting Education through Model Aviation
  - Drone Platforms for Education, FAA Part 107 Preparation, and Drone Insurance

Drone used for precision agriculture applications at South Dakota State University

AmericaView displays at Black Hills Digital Mapping Conference

- **The BIG Event**
  - September 21, 2019 - Ramkota Conference Center, Sioux Falls, SD
  - Promote STEM training, UAS demo, and hands-on indoor flying
  - Open to the public (>1000 attendees)
- **Black Hills Digital Mapping Conference**
  - October 22-23, 2019
  - Earth as Art Exhibit and presentations by Brent Yantis (LAView)
  - Educational poster featuring Black Hills Landsat mosaic
- **Landsat and Sentinel mosaics of Black Hills for Black Hills National Forest**
- **51st Annual South Dakota State Geography Conference**
  - March 5-6, 2020
  - Brookings, SD
  - Student remote sensing poster presentations
  - Open to the public (>200 visitors)
- **ArcGIS Online student mapping project for Brookings School District**
- **Two $1000 mini-grants**
  - Competitively awarded to graduate students for projects involving geospatial technologies

Poster session at South Dakota State Geography Convention

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BENEFITS TO SOUTH DAKOTA

K-12 Teacher Workshop

The one-day online Drones for Educators Workshop provided an experience for teachers to explore, introduce, and develop STEM training with drones in the classroom. The workshop provided curriculum and software applications to successfully engage students in the classroom. It also included a hands-on activity using flight simulation software to develop flying skills and knowledge prior to actual UAS flights. The workshop's objective was to promote UAS technology so that teachers can then use this technology to advance learning in remote sensing and prepare students for careers in this growing field.

3D animation of Mitchell Technical Institute.

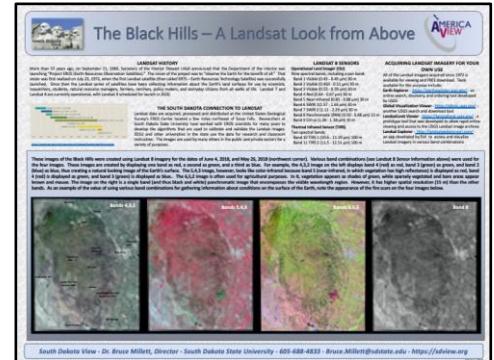### Black Hills Digital Mapping Association Annual Conference

At the invitation of the conference organizers, South DakotaView prepared an educational poster that was prominently displayed at the conference and distributed to participants in a smaller version. The poster presented information about Landsat's history, sensors, and connection to South Dakota (EROS) as well as links to various websites for acquiring the images. The poster featured a 2018 Landsat mosaic of the Black Hills in various band combinations.

Educational poster featuring Black Hills Landsat mosaic in various band combinations

51st Annual South Dakota State Geography Conference

Fifteen students presented remote sensing posters at the conference. Students applied remote sensing principles and methods to analyze data and solve problems in a variety of areas such as land use planning.

SOUTH DAKOTAVIEW CONSORTIUM MEMBERSHIP

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

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