



SOUTH DAKOTAVIEW 2020 - 2021



SOUTH DAKOTAVIEW 2020 - 2021 ACTIVITIES

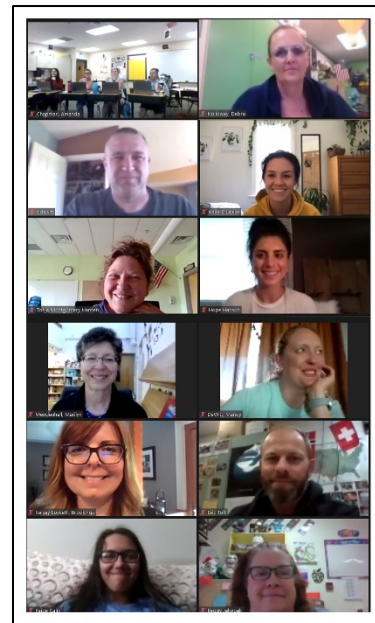
South DakotaView (SDView) is focused on remote sensing education and outreach to students, educators, and current workforce personnel across South Dakota. SDView activities during this past year include:

- **K-12 Teachers Workshop**

This past year's SDView High Impact Activity was a workshop titled *South Dakota as Art*. SDView partnered with numerous schools from around the state to provide instruction on creating artwork using Landsat imagery. The one-day online workshop was conducted via Zoom to 15 teachers on May 25th, 2021. The workshop covered South Dakota Department of Education Standards for the sciences and arts and how they apply to STEAM education. This activity supported the curricula, workshops, technology transfer and outreach portions of NLRSEORA Objective 4. The primary goal of the workshop was to provide teachers with methods to introduce remote sensing into the K-12 classroom.

Selected topics covered by the *South Dakota as Art* workshop included:

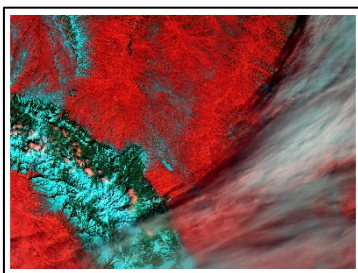
- Background on Landsat and the USGS *Earth as Art* program.
- Technical background: Platform types, resolution, Landsat band combinations, EMS, imagery and landscape descriptions.
- Open-source software: MultiSpec, GIMP, Google Earth, and 7Zip.
- Primary data acquisition USGS websites: Earth Explorer and GloVis.



Group picture via Zoom of the South Dakota K-12 teachers attending the *South Dakota as Art* workshop.



Conference presentation of *SD as Art*.



By Melissa Sagmoe, Camelot Int.
School *SD as Art* Workshop.

- **South Dakota Statewide GeoSpatial Conference (Online)**
 - June 16-17, 2021.
 - Presented a talk on the *SD as Art* workshop and showed images that were created by the K-12 teachers.
 - Served on the conference committee.
 - Open to the public (177 registered attendees and 3 vendors).
- **ASPRS Annual Conference (Online)**
 - March 29 - April 2, 2021.
 - Panel member: *America View Empowering Remote Sensing Education*.
 - Presented a talk on education outreach experiences and workshop activities to promote remote sensing and geospatial technologies.
- **52nd Annual South Dakota State Geography Virtual Convention**
 - March 5-6, 2020.
 - Students presented *SD as Art* projects.
 - Open to the public (>70 virtual visitors).
- **Two \$1000 mini-grants**
 - Competitively awarded to graduate students for projects involving geospatial technologies.

South DakotaView 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. AmericaView is funded by USGS grant agreement G18AP00077.



AmericaView Website:

www.AmericaView.org

Christopher McGinty, Executive Director:

chris.mcginty@americaview.org

Lisa Wirth, Program Manager:

lisa.wirth@americaview.org

Brent Yantis, Board Chair:

rodney.yantis@louisiana.edu

BENEFITS TO SOUTH DAKOTA

- **K-12 Teacher Workshop** - The one-day online *South Dakota as Art* workshop provided teachers with a basic description of remote sensing, platforms, and types of imagery. Tutorials with hands-on applications were used for MultiSpec and other software. Goals: promote STEAM education, provide SD teachers with methods to use remote sensing in classrooms, access imagery from USGS EROS Center, research and display the diverse beauty of the state.
- **Conferences / Conventions** - SDView and consortium partners hosted statewide geospatial conference. The biennial conference provides a venue for the state's geospatial community to present, learn, and connect with others in the state and for students to present their research and projects.
- **Minigrants** – Provided support for student research on topics such as:
 - Precision AG which is of special importance to the ag industry in SD.
 - Monitoring Health of the Black Hills forests from satellite imagery which is essential for SD forest ecosystems.



Mini-grant support for Precision AG study.



Mini-grant support for graduate student research of Limber Pine in the Black Hills.

SOUTH DAKOTAVIEW CONSORTIUM MEMBERSHIP



South Dakota Department of
Agriculture & Natural Resources

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

South DakotaView Principal Investigator:

Dr. Bruce Millett

South Dakota State University

605-688-4833

Bruce.Millett@sdstate.edu



<http://www.sdview.org>