

Rebecca L. Dodge

Associate Professor, Emeritus
Kimbell School of Geosciences
Midwestern State University

rebecca.dodge@msutexas.edu
404.784.8615

AREAS OF SPECIALIZATION

Remote Sensing; vegetation/land cover mapping; regional resource exploration; geospatial curriculum development; professional and academic training; consortium development; project management

EDUCATION

Ph.D. Geology, Colorado School of Mines, Golden, Colorado, 1982

M.S. Geology, Colorado School of Mines, Golden, Colorado, 1978

B.S., Geology, University of Texas at Arlington, Arlington Texas, 1975

PROFESSIONAL EXPERIENCE & APPOINTMENTS

Present – Emeritus Associate Professor, retired

2008 to 2018 – Associate Professor

Midwestern State University, Wichita Falls, Texas

1999 to 2008 – Associate Professor

University of West Georgia, Carrollton, Georgia

1996 to 1998 – Research Specialist, Training Coordinator

Pan American Center for Earth and Environmental Studies, University of Texas at El Paso

RESEARCH AND PROJECT TOPICS

- Development and evaluation of standards-based Earth Science education training for K-16 educators
- Development of internship programs for undergraduate geoscience/geography majors
- Effect of landcover change on soil loss and impact on surface water resources, Georgia

MANAGEMENT EXPERIENCE

- **Chairman, AmericaView Board of Directors, 1995 – 1997**
- **Executive Director, TexasView Consortium, (501c3 educational non-profit), 20012 – 2018**
- **Executive Director, AmericaView Consortium, (501c3 educational non-profit), 2006 – 2008**
- **Executive Director, GeorgiaView Consortium (501c3 educational non-profit), 2002 - 2008**
- **Executive Director, The Geosat Committee, 1999 – 2003.**
- **Chairman, The Geosat Committee, Inc. Board of Directors (501c3 education and research non-profit), 1995 – 1997**

PRESENTATIONS

- **“Reaching New Audiences through Data-rich Art and Geoscience Collaborations”.** The Geological Society of America annual meeting, 2024.
- **“Parks as Art: Imaging Park Landscapes for STEAM Education Outreach”.** The annual European Geoparks Conference, 2024.

- **“Parks as Art: Science Engagement Through Park-Based Art Exhibits”.** The National Council for Geographic Education annual conference, 2024.
- **“Engaging High School Students with Geoscience Careers through Geospatial Applications for Community Problems.”** South Dakota Geospatial Conference 2023.
- **“Curriculum Insertion Points: Integrating Imagery into 4 – 12 Classrooms”** Pecora Conference, 2022.
- **STEAM Education Gets a Boost from Landsat-based Artwork.** ASPRS Annual Conference, 2022.
- **“Bridging the Gap Between Art and Science with Earth as Art Exhibits.”** ASPRS Annual Conference, 2021.
- **“Texas as Art: Imaging State Lands for STEAM Education Outreach.”** South Dakota Geospatial Conference 2021.
- **“Hazards Courses: The Impact of Landsat’s Free Imagery Archives.”** Pecora 21/ISRSE 38, Baltimore, Maryland, October 2019.
- **“Integrating Imagery and Maps into K-12 Classrooms: Curriculum Insertion Points.”** AmericaView Technical meeting, 2016.
- **“Exploration Applications of Satellite Imagery”** at University of North Texas, April, 2016.
- **“Watching over Texas from Space”** at the annual meeting of the American Society of Photogrammetry and Remote Sensing, Fort Worth, Texas, April 2016.
- **“Connecting Earth Observation Day to the Local Landscape: the TexasView Experience.”** AmericaView Technical meeting. 2011.
- **“Earth Observations from Space: History and Applications: Astronaut Photography Establishes the Feasibility of Earth Observations”.** Honors Program guest lecture, Midwestern State University. October 2009.
- **“Teaching Introductory Image Processing through Project-based Environmental Change Detection.”** ASPRS Annual Conf. 2008. Portland, Oregon. (abstract). May 2008.
- **“Using Earth System Science to Enhance Standards-based Science Education for Early Childhood Education Majors.”** Geological Society of America annual meeting. Philadelphia, Pennsylvania. (abstract). 2006.
- **“A Project-Based Approach to Teaching Introductory Image Processing: Environmental Change Detection.”** Geol. Society of America annual meeting. Philadelphia, Pennsylvania. (abstract). 2006.
- **“New Perspectives on Earth System Science Education: Astronaut Photography Resources.”** Earth System Science Education for the 21st Century annual meeting, 2005. Fairbanks, Alaska.
- **“Monitoring our Environment from the Local to the Global Scale – Internet Resources”** at Satellites in our Everyday World Conference for K-12 educators. Sponsored by NOAA, NASA, and University of North Carolina-Raleigh, 2003.
- **“How Children Make Meaning of Science Investigations.”** With Genell Harris* and Jean Reeves. NSTA Convention, Baltimore, Maryland, November 2000.

PUBLICATIONS

- **“Training the Next Generation of Remote Sensing Scientists through Undergraduate Research Opportunities.”** With Ramesh Sivanpillai, Jarlath O’Nei-Dunne, and Yang Wang. Proceedings of the 20th Pecora Conference, Sioux Falls, South Dakota, 2017.

- **“Meeting Environmental Challenges with Remote Sensing Imagery.”** With Russell G. Congalton. American Geosciences Institute. 82 pp. 2013
- **“GeorgiaView Internship Program 2004 - 2008: Geospatial Workforce Development and Statewide Outreach.”** With Marguerite Madden. Proceedings of the Pecora Conference, Denver, Colorado. 2008.
- **“AmericaView: A National Remote Sensing Consortium.”** With Rick Landenberger. Proceedings of the Pecora Conference, Denver, Colorado, 2008.
- **“Distilling Findings across Preparing Tomorrow’s Teachers to Use Technology (PT3) and Related Projects: A Call for a National Research Agenda.”** With Roblyer, M., Knezek, G. Proceedings of the National AERA Conference, April 2003, Chicago, IL.
- **“Preparing Tomorrow’s Teachers to Use Technology: The Technology Exposition Experience.”** Society for Information Technology in Education Annual Conference Proceedings, 2003. .
- **“Remote Sensing Analysis of the Sierra Blanca (Faskin Ranch) Low-Level Radioactive Waste Disposal Site, Hudspeth County, Texas”** With LeMone, D., Xie, X., Langford, R., and Keller, G. Proceedings Waste Management Conference 2002.
- **“How Children Make Meaning of Science Investigations.”** With Harris, G., and Reeves, J. Proceedings of the National Science Teachers of America Convention, Baltimore, Maryland, 2002.
- **“Remote Sensing Tools for GIS-Based Coastal Risk Mapping.”** With Bush, D., and Congalton, J. Proceedings of the Sixth International Conference on Remote Sensing for Marine and Coastal Environments, Charleston, SC, 2000.

SYNERGISTIC WORK, AWARDS, and ASSOCIATIONS

- Presented **“Watching over Texas from Space”** to 4 – 8-grade Girls’ workshop “Making Art While Mapping the Earth”. 2023.
- Presented **“Texas as Art: Which is Which?”** Monthly meeting of the American Association of Petroleum Geologists Women’s Network (virtual), 2022.
- Presented **“Texas as Art”** to the Society for Sedimentary Geology. Permian Basin Section, 2021.
- Presented **“Texas as Art”** to the Society for The University of Texas at Austin Center for Space Research Working Group monthly meeting, 2021.
- Presented **“Integrating Satellite Imagery, Animations, and Videos into Your Curriculum: Developing a Portfolio of Resources and Topical Units”** in a virtual workshop for the Region 9 Educational Service Center, 2020.
- Presented **Earth’s Landscape Features: Identification and Change Analysis** at teacher training workshops at Region 18 and Region 15 Educational Service Centers, 2019.
- Presented **“Watching over Texas from Space”** workshop at Region 9 Educational Service Center Regional Math and Science Conference, 2018.
- Presented **“Addressing Change in Earth’s Systems: Satellite Imagery Animations as Resources”** at the Region 9 Educational Service Center Math and Science Conference, 2017.
- Presented 1-day teacher-training workshop **“Energy from Earth’s Systems”** at Texas’ Regional Education Service Centers 17, 2017.

- Presented 1-day teacher-training workshop **“Earth’s Landscape Features: Identification and Change Analysis using Imagery”** at Texas’ Regional Education Service Centers 9, 10, 11, 13, and 17, 2015, 2016.
- Presented 1-day teacher-training workshop **“Understanding Earthquakes in the Earth System”** at Texas’ Regional Education Service Centers 9, 10, 2015.
- Presented **“Using Satellite Imagery: Easy Access to Learning Resources”**, teacher training workshop at Region 9 Educational Service Center Regional Math and Science Conference, 2014.
- Presented **“Energy Literacy”**, teacher training workshops at Region 9 and Region 10 Educational Service Centers, 2013 and 2014.
- Development of the online course **“Earth and Space Science”**, a course designed for High-School-level science teachers tasked with offering Earth Science courses. In cooperation with the American Geosciences Institute, offered online.

ART EXHIBITS “Texas as Art”

- Sibley Nature Center, Midland. Texas. March – June 2021
- West Texas Geological Society Fall Symposium, Midland. Texas. September 2021. (3 days)
- Sul Ross State University, Museum of the Big Bend, Alpine, Texas. January – March 2022
- Arts Council of Midland juried art show, April 2022. (2nd place prize awarded)
- Texas Tech University Public Art Gallery, Lubbock, Texas. September – March 2023
- Midland Shared Spaces Gallery. September – November 2023
- U.T. El Paso Centennial Museum, El Paso, Texas. September 2023 – January 2024
- Arts Council of Midland juried art show. January – February 2023
- The FaFa Gallery, Midland, Texas. July – November 2024
- Midwestern State University Juanita Harvey Art Gallery, Wichita Falls, Texas. June 2024
- El Paso Community College Transmountain Campus Art Museum. September – December 2024
- Arts Council of Midland juried art show. February – May 2025 (honorable mention awarded)
- Midland Arts Association juried art show. March – May 2025 (honorable mention awarded)