



TEXASVIEW 2021 - 2022

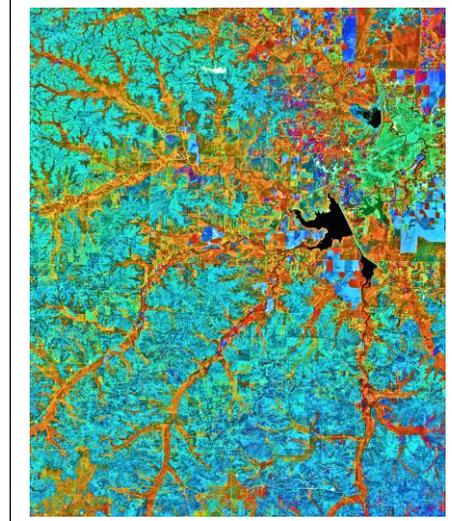
AmericaViewSM
Empowering Earth Observation Education
americaview.org

TEXASVIEW 2021 - 2022 ACTIVITIES

TexasView recognizes the impact on outreach and education through the **Earth as Art** exhibitions hosted by StateViews in recent years. TexasView has developed exhibition materials for **Texas as Art**, with the intent of displaying the exhibition in cooperation with TexasView partner institutions over the next several years. The exhibit is focused on 10 ecoregions of Texas defined by Texas' Department of Parks and Wildlife (TPWD), whose online resources support the exhibit.

The exhibit highlights the applications of satellite imagery across a broad range of challenges that affect Texas' ecoregions. Focusing on Texas State parks "brings the challenges home" and makes the exhibit relevant for diverse venues. New artwork is developed for each new host institution, in partnership with local stakeholders. Local artists have been invited to co-exhibit to provide ground-based perspectives.

Texas as Art has been disseminated through public and conference presentations (seven); exhibits at two partner institutions (Sul Ross State and Texas Tech Universities); four public exhibits; two conference exhibits; two workshops. Exhibit proposals have been accepted and scheduled for two partner institutions in GY23 (Midwestern State University and University of Texas at El Paso).



Texas as Art image of San Angelo city and State Park area. Drainages converge towards the Concho River; reservoirs support local agriculture and domestic needs in the Rolling Plains Ecoregion.



Change from agricultural land use (1974) to urban and suburban (2022) followed development of Joe Pool Reservoir near Dallas, TX.

Development of materials for and participation in training of educators continues. **"Watching over Texas from Space"** was offered at the Sibley Nature Center in June of 2022, to an audience of 11 teachers ranging from pre-K to High School. The workshop focused on "what can we see on satellite imagery" and "what can we do with satellite imagery". Table-top activities reinforced identification of landforms and land use. Handout activities introduced concepts of geographic grids and scale as participants identified surface features and measured distances.

Change detection was introduced during the second half of the workshop. Participants were introduced to online change resources including the U.S. Geological Survey's **Earthshots** website and the NASA Earth Observatory resource **World of Change**. Change pair matching games were introduced in tabletop, lecture, and virtual versions. Next, the Texas as Art virtual exhibit resource was introduced, including the scavenger hunt activities that are keyed to the artworks.

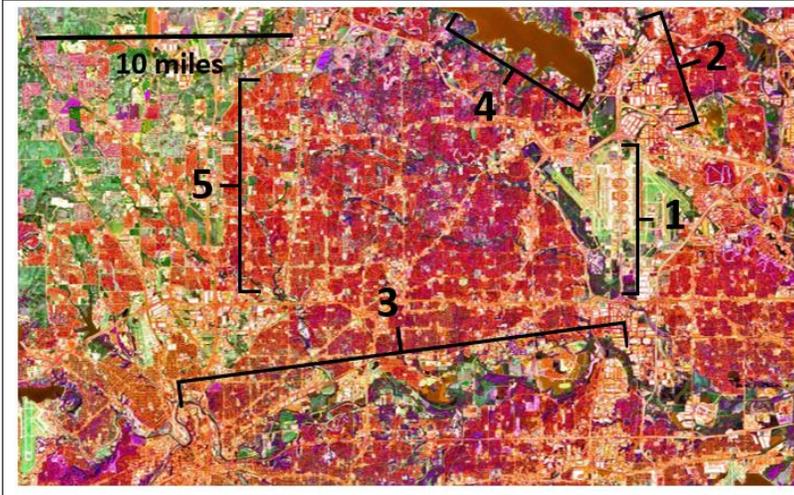
Finally, the teachers were given a drive with multiple resources, including three digital remote sensing books, all the materials from the workshop and from the earlier (GY20-21) "Our Changing Earth" online workshop, and the mini-grant funded new publication "Watching over Texas from Space", a new teacher's guide. This publication emphasizes correlations with Texas Essential Knowledge and Skills (TEKS) standards and the Next Generation Science Standards (NGSS) for Earth Science.

TexasView 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.

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BENEFITS TO TEXAS



WHAT CAN WE SEE ON SATELLITE IMAGERY?

In this view of the city of Fort Worth, Texas, you can see:

1. A large airport with multiple runways
2. Industrial warehouses
3. A meandering river running through populated area
4. A drinking water reservoir with muddy water
5. Residential neighborhoods

Materials in the newly published book *Watching over Texas from Space* has been growing over the past six years, as TexasView has expanded its outreach effort through teacher-training workshops. Lessons that provide imagery for teachers to use at multiple grade levels have been integrated with activities, games, and lectures, to enable teachers to easily find and use imagery in the classroom and in laboratory activities to address knowledge and skills defined within the Texas Essential Knowledge and Skills (TEKS) standards. The imagery used in the lessons is predominantly over the State of Texas, but the topics that are covered also fit very well with core ideas and skills defined in the Next Generation Science Standards (NGSS). This publication introduces a new approach to enable teachers to insert imagery into a lecture, an assignment, or an activity, by identifying targeted knowledge and skills where imagery can meet teachers' needs and then providing examples that are ready to use and easily accessible and replicable.

TEXASVIEW CONSORTIUM MEMBERSHIP

Established in 2002, the TexasView Remote Sensing Consortium consists of thirteen university partners distributed across the state. Members include universities large and small, public and private. TexasView members work closely with state, regional and local agencies to promote remote sensing at all levels.

TexasView is founded on the concept of free and public exchange among its members of data, information and knowledge concerning the Earth and its processes, as observed by remote sensing and GIS technologies, for education, research, and local government applications.



Midwestern State



The University of Texas at Austin



The University of North Texas



Sul Ross State University



Texas A&M



Texas Tech



University of Texas of the Permian Basin



Stephen F. Austin University



Texas A&M at Corpus Christi



The University of Texas at El Paso



Texas State University



The University of Texas at San Antonio



University of Houston

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