**AmericaView**℠
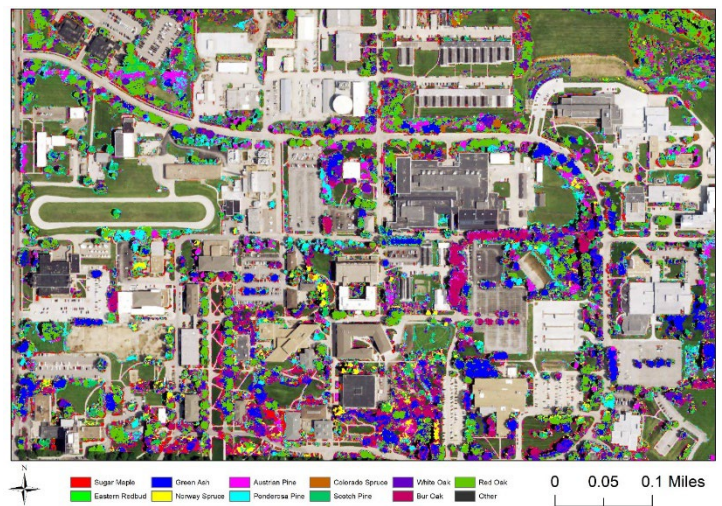*Empowering Earth Observation Education*
americaview.org

## NEBRASKAVIEW 2021 - 2022 ACTIVITIES

The NebraskaView program in partnership with the Nebraska Environmental Trust (NET) and three communities in Nebraska used publicly- available, USDA National Agricultural Imagery Program (NAIP) multispectral imagery to develop urban tree canopy maps for each community. NebraskaView also applied advanced image classification methods to airborne hyperspectral over the University of Nebraska-Lincoln's East Campus in a pilot study to demonstrate the capability of remote sensing to classify and map specific tree species in urban areas.
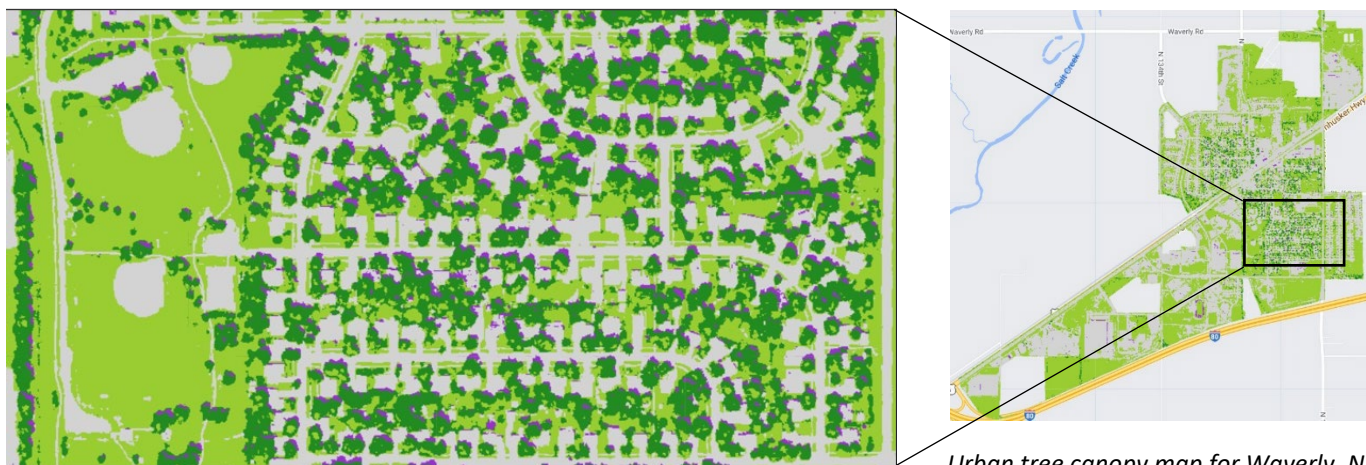
The goal of these NebraskaView activities is to develop practical remote sensing methods to map urban tree canopies, which currently does not exist for most communities in Nebraska and advance the use of remote sensing for urban forest management within the State.

*Results:*

- Urban forest canopy maps were completed over the cities of Lincoln, South Sioux City and Waverly.

- A pilot study for classifying and mapping specific tree species was completed using hyperspectral imagery for UNL's East Campus.

- Provided remote sensing training and research experience for an undergraduate honors student and hosted 72 freshmen in UNL's honors program to discuss ways remote sensing can be used in their various fields of study.



*Tree species map for UNL's East Campus classified from multi-date, hyperspectral airborne imagery.*



*Urban tree canopy map for Waverly, NE classified from USDA NAIP multispectral imagery.*

**AmericaView**℠
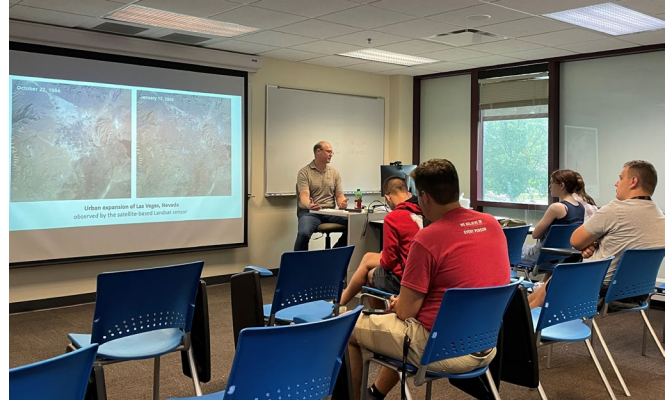*Empowering Earth Observation Education*
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**The mission of NebraskaView** is to ensure *that Nebraskans make full use of satellite and airborne imagery, aerial photography and other geospatial data products through technologies such as geographic information systems (GIS) and remote sensing*.

**Specific benefits of Nebraska View to the State include:**

- Support decision makers in evaluating and selecting the most appropriate remote sensing imagery and other spatial data for a specific application.
- Demonstrate the value of remotely sensed data and assist in developing applications.
- Provide remote sensing education and training to students, professionals and the general public.



*Demonstration of UAV and ground-based remote sensing systems used in agricultural and natural resource applications for UNL Honors program students.*



*Educational presentation on the types of satellite-based imagery and their applications for UNL Honors program students.*

## NEBRASKAVIEW CONSORTIUM MEMBERSHIP



**City of Lincoln, Nebraska Parks and Recreation**

**Nebraska Forest Service**

**The Nebraska Environmental Trust**

**University of Nebraska-Lincoln Community and Regional Forestry Program**

**City of Waverly, Nebraska**

**City of South Sioux City, Nebraska**

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

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