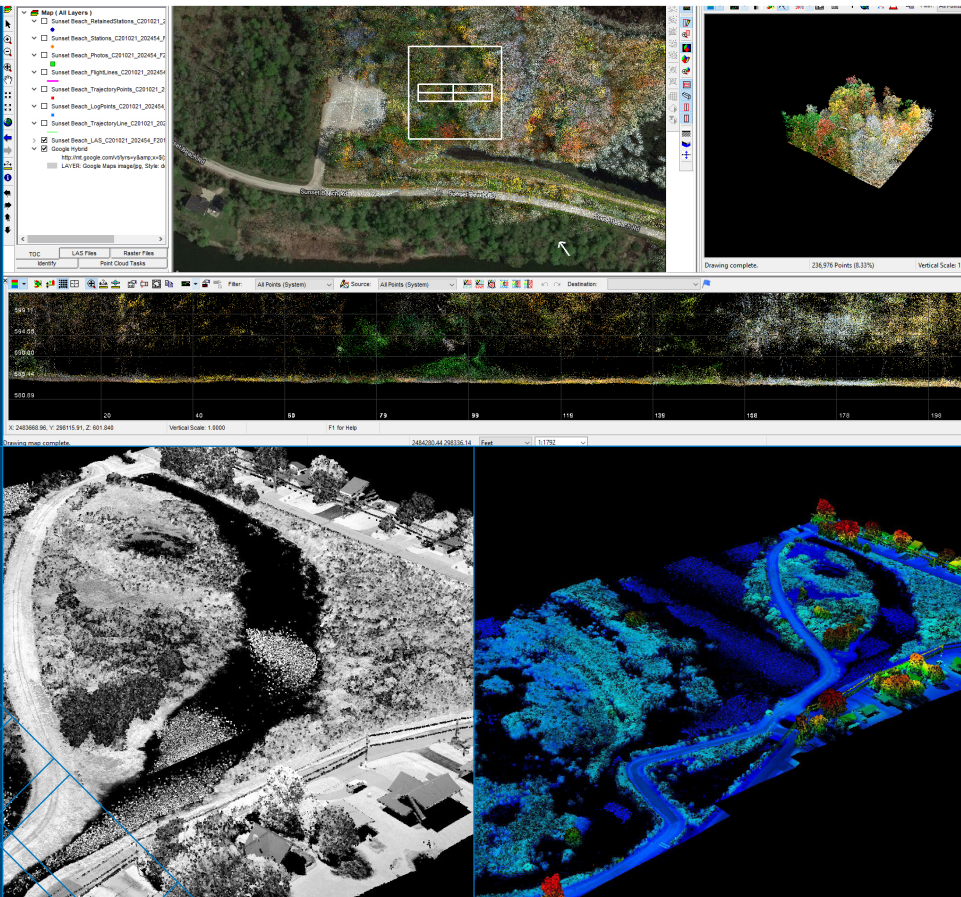
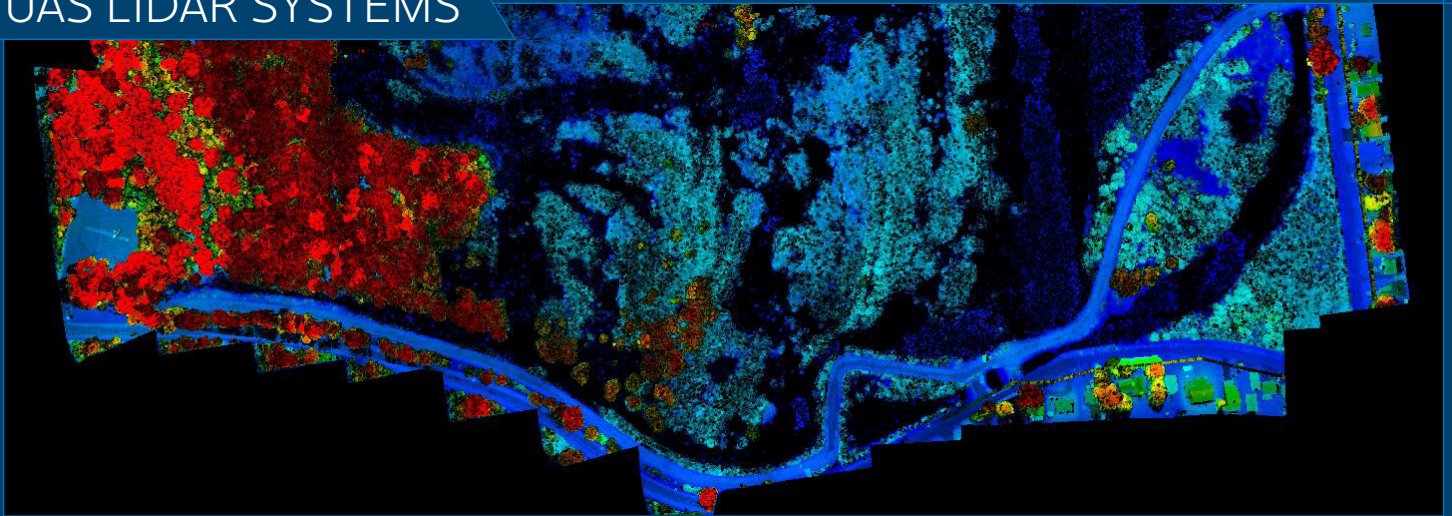




UAS LIDAR SYSTEMS



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Ayres is one of a small handful of firms in the Upper Midwest that owns and operates an unmanned aerial system with a RIEGL miniVUX-2 UAV lidar sensor, considered the gold standard for UAS laser scanners, delivering quality, precision, and consistency.

The Equipment

- BFD SE-8 airframe (made in U.S.A.)
- GeoCue TrueView 620 lidar system
- RIEGL miniVUX-2 UAV sensor
- Applanix APX-20 IMU
- 200 KHz PRR / up to 5 returns per pulse
- 2-5 cm or better precision & RMSE network accuracy
- Dual offset RGB cameras
- 25 to 35 minutes of flight time
- Potential for BVLOS operations

Primary Uses for Precise UAS Lidar Point Cloud Data

- Terrain models used in planning and design of transportation, municipal, and utility infrastructure
- Documentation of utility assets
- Vegetation management around utilities
- Projects up to hundreds of acres or 20 miles long

Key Advantages

- With accuracies comparable to manned aircraft flights, UAS delivers on projects bigger than a small traditional survey deployment and smaller than a large manned aircraft mobilization.
- Less constrained by weather than manned aircraft because of low-altitude acquisition, UAS lidar can operate even on cloudy days.
- UAS lidar can penetrate heavily forested areas to reach the ground and create an accurate terrain model quickly. Traditional survey may require cutting lines across such a challenging environment.
- It's a cost-effective, quick solution that can collect lidar for an area over 50 acres or along a 1.5-mile corridor in a single flight. The system can then be serviced in 10 minutes and put back up for another flight.
- It allows for pinpointed management of vegetation around utility corridors rather than expensive on-the-ground inspection of an entire corridor.
- Oblique RGB cameras allow us to colorize the point cloud so that assets are not only accurately located, but easily recognizable too.

Ready for the next step? Contact Ayres today.
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