

An Eye in the Sky Watching for Change

<http://naturechange.org/2017/09/15/an-eye-in-the-sky-watching-for-change/>

Summary:

Little Traverse Conservancy (LTC) holds over 350 conservation easements in Northwest Lower Michigan. In most cases, the land owner has donated development rights to protect and preserve the natural resources and conservation values of these properties – forever. Adding up to over 25,000 acres, that’s a lot of land and shoreline to protect and monitor for change every year!

This year, LTC’s Charles Dawley is trying out a new approach to monitoring these properties using a drone. The drone is helping LTC see an entire property from above in high resolution, while keeping a detailed and repeatable record. As shown in this video, Dawley sends a drone up more than 300 feet into the sky with sophisticated software using GPS to guide its flight while snapping high resolution images at a prescribed frequency. The result is a set of digital images with 75% overlap – all properly set in coordinate space. Better yet, each of these pictures is detailed enough to see a quarter on the ground.

Topics Covered

Resource Preservation; Conservation; Geography; Geometry

Next Generation Science Standards

- **K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.***
- **4-ESS2-2. Analyze and interpret data from maps to describe patterns of Earth’s features.**
- **4-ESS3-2. Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.***