



United States Department of Agriculture

Forest Service

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News Release

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Kaibab National Forest employee recognized for unifying partners in technology development and data sharing

WILLIAMS, Ariz., July 25, 2019 — A Kaibab National Forest employee was recently recognized for his efforts to bring together diverse stakeholders from across the state to support cooperative investments in technology and to promote data-sharing partnerships.

Mark Christiano, who serves as the forest's geographic information systems coordinator, was the recipient of the Regional Forester's Innovation in Technology Award for the Southwestern Region of the Forest Service. The award "honors exceptional creativity" and "recognizes exemplary contributions that advance and promote the transfer of knowledge and technology," according to the Forest Service's nomination guidelines.

Christiano was honored, in part, for his efforts to increase the availability of geographic data by serving as one of the lead organizers of Arizona's first-ever LiDAR symposium, which was held in August 2018. The event brought together more than 60 individuals representing federal, state and local government agencies, private industry, universities, research organizations and nonprofits, and it helped launch a movement to fund joint LiDAR acquisition projects to increase access to this important data.

LiDAR, which stands for Light Detection and Ranging, uses pulsed lasers to generate three-dimensional information about the Earth's surface. This highly accurate elevation data allows scientists and mapping professionals to examine both natural and man-made environments with precision and flexibility. Specialists can use the data to measure everything from trees and agricultural fields to buildings and transportation systems.

"I feel really honored to have received this award," said Christiano. "In many ways, I feel this was a group award. A lot of partners, both from the Forest Service and the greater statewide GIS community, have come together to support projects of mutual benefit and to collaboratively fund the collection of this critical data."



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The symposium originally grew out of Christiano's desire to best inform the planning and implementation of forest restoration work across northern Arizona through use of high-quality LiDAR data. While outreaching to partners, Christiano received a request from Jenna Leveille, deputy state cartographer for the [Arizona State Land Department](#), to broaden the geographic scope of the coalition and fill a statewide need for a [LiDAR work group](#) under the [Arizona Geographic Information Council](#).

"The overarching goal of the work group is to facilitate the acquisition of statewide LiDAR by 2023. In a short year, the group has come a long way. We are excited about the many partnerships our group has been instrumental in forming," said Leveille. "Mark has been essential to helping the work group meet its goals. Mark's expertise, leadership and enthusiasm have served as a catalyst for continued growth and progress."

Christiano continues to serve in a leadership role on the work group, which has achieved many successes since its inception in June 2018. Christiano, Leveille, and the rest of the team organized a second LiDAR symposium for partners in May 2019 and drafted a LiDAR acquisition plan for Arizona. Additionally, they developed an online LiDAR application, titled "Arizona LiDAR Coverage Explorers," that allows users to access the status of LiDAR in Arizona, see areas where people are interested in LiDAR data, and submit requests for new areas to be added.

"The LiDAR symposiums and work group have provided a platform for the exchange of information between the Forest Service and stakeholders in and around the state," said Ariel Leonard, forest planner on the Kaibab National Forest. "Mark's leadership and coordination facilitated multi-party LiDAR acquisitions, resulting in a wide range of efficiencies and cost savings. Using his unique combination of technical, communication, and facilitation skills, he has made this huge accomplishment look easy, which it is not."

Over time, the data that Christiano helped secure will aid public land managers in achieving landscape-scale forest restoration by allowing for accurate assessment of current conditions, evaluation and comparison of treatment outcomes, and monitoring of the success of various treatments at increased spatial scales.

Christiano was presented with his award by Southwestern Regional Forester Cal Joyner at a ceremony in Albuquerque last month.

To view a story map highlighting the importance of LiDAR in understanding and planning for natural hazards such as wildfires and flooding, visit <https://wim.usgs.gov/geonarrative/3depforhazards/>.

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Innovation in Technology Award

2018 Regional Forester's Awards

Mark Christiano

