Can high-altitude balloons help predict wildfires?

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Credit: Deep Rajwar from Pexels

Schmid College of Science and Technology Associate Professor Joshua Fisher is a co-investigator on a groundbreaking three-year project, which, led by the stratospheric and remote sensing company Urban Sky,

aims to predict and manage wildfires.

The team will be using rapidly deployable, navigable stratospheric balloons equipped with sensors that can measure and send thermal hotspot data in near-real-time. Fisher's role on the team involves interpreting the data collected by the balloons for firefighters on the ground.

"This is going to be very game-changing and cutting edge when it comes to wildfire management," Fisher said about the project, which officially launches this summer.

"There's no denying that wildfires are increasing in intensity and are affecting everybody, even downwind of the fire. It's not only getting worse, but we currently have only limited solutions to this growing problem. That's why our federal and state agencies are investing in this extremely necessary research and solutions."

The project, part of NASA's FireSense Technology Program, seeks to develop new Earth system observation capabilities to address the increasing threat of wildfires driven by climate change.

As wildfire season intensifies across the Western U.S., Fisher is available to provide expert insights into why certain regions are more susceptible to wildfires and to discuss his ongoing work in wildfire prediction and mitigation.

His research continues to explore the impacts of wildfires, plant water stress, and evapotranspiration, leveraging his background as a former NASA scientist at the Jet Propulsion Laboratory (JPL) in Southern California.

Provided by Chapman University

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