

Deadly crash raises questions about Uber self-driving system

March 22 2018, by Tom Krisher And Jacques Billeaud



This image made from video Sunday, March 18, 2018, of a mounted camera provided by the Tempe Police Department shows an exterior view moments before an Uber SUV hit a woman in Tempe, Ariz. Video of a deadly self-driving vehicle crash in suburban Phoenix shows the pedestrian walking from a darkened area onto a street just moments before the crash. (Tempe Police Department via AP)

Video of a deadly self-driving vehicle crash in suburban Phoenix shows a pedestrian walking from a darkened area onto a street just moments before an Uber SUV strikes her.

The lights on the SUV didn't illuminate 49-year-old Elaine Herzberg on Sunday night until a second or two before impact, raising questions about whether the vehicle could have stopped in time.

The crash Sunday night in Tempe was the first death involving a full autonomous test vehicle. The Volvo was in self-driving mode with a human backup driver at the wheel when it struck Herzberg, police said.

The video shows the human backup driver in the SUV looking down until seconds before the crash. The driver looks up and appears startled during the last moment of the clip.

Tempe Police Chief Sylvia Moir has told the San Francisco Chronicle that the SUV likely wouldn't be found at fault. But two experts who viewed the video told The Associated Press that the SUV's laser and radar sensors should have spotted Herzberg and her bicycle in time to brake.

"The victim did not come out of nowhere. She's moving on a dark road, but it's an open road, so Lidar (laser) and radar should have detected and classified her" as a human, said Bryant Walker Smith, a University of South Carolina law professor who studies autonomous vehicles.

Smith said the video may not show the complete picture, but "this is strongly suggestive of multiple failures of Uber and its system, its automated system, and its safety driver."



This March 19, 2018 still image taken from video provided by ABC-15, shows investigators at the scene of a fatal accident involving a self driving Uber car on the street in Tempe, Ariz. Police in the city of Tempe said Monday, March 19, 2018, that the vehicle was in autonomous mode with an operator behind the wheel when the woman walking outside of a crosswalk was hit. (ABC-15.com via AP)

Sam Abuelsmaid, an analyst for Navigant Research who also follows autonomous vehicles, said laser and radar systems can see in the dark much better than humans or cameras and that Herzberg was well within the range.

"It absolutely should have been able to pick her up," he said. "From what I see in the video it sure looks like the car is at fault, not the pedestrian."

Smith said that from what he observed on the video, the Uber driver appears to be relying too much on the self-driving system by not looking up at the road.

"The safety driver is clearly relying on the fact that the car is driving itself. It's the old adage that if everyone is responsible no one is responsible," Smith said. "This is everything gone wrong that these systems, if responsibly implemented, are supposed to prevent."

The experts were unsure if the test vehicle was equipped with a video monitor that the backup driver may have been viewing.

Uber immediately suspended all road-testing of such autos in the Phoenix area, Pittsburgh, San Francisco and Toronto. The National Transportation Safety Board, which makes recommendations for preventing crashes, is investigating the crash.

An Uber spokeswoman, reached Wednesday night by email, did not answer specific questions about the video or the expert observations.



In this March 20, 2018, photo provided by the National Transportation Safety Board, investigators examine a driverless Uber SUV that fatally struck a woman in Tempe, Ariz. The fatality prompted Uber to suspend all road-testing of such autos in the Phoenix area, Pittsburgh, San Francisco and Toronto. (National Transportation Safety Board via AP)

"The [video](#) is disturbing and heartbreaking to watch, and our thoughts continue to be with Elaine's loved ones. Our cars remain grounded, and we're assisting local, state and federal authorities in any way we can," the company said in a statement.

Tempe police have identified the driver as 44-year-old Rafael Vasquez. Court records show someone with the same name and birthdate as Vasquez spent more than four years in prison for two felony convictions—for making false statements when obtaining unemployment benefits and attempted armed robbery—before starting work as an Uber driver.

Tempe police and the National Transportation Safety Board declined to say whether the Vasquez who was involved in the fatal crash is the same Vasquez who has two criminal convictions.

Attempts by the AP to contact Vasquez through phone numbers and social media on Wednesday afternoon weren't successful.

Local media have identified the driver as Rafaela Vasquez. Authorities would not explain the discrepancy.

The fatality has raised questions about whether Uber is doing enough to screen its [drivers](#).

Uber said Vasquez met the company's vetting requirements.



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The company bans drivers who are convicted of violent crimes or any felony within the past seven years—which Vasquez would have passed given that records show the offenses occurred in 1999 and 2000.

The company's website lists its pre-screening policies for drivers that spell out what drivers can and cannot have on their record to work for Uber.

Their driving history can't have any DUI or drug-related driving offenses within the past seven years, for instance. They also can't have more than three non-fatal accidents or moving violations within the past three

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