

Tesla fatal crash is setback to autonomous cars

July 1 2016, by Rob Lever



Tesla charging stations for electric cars are pictured in Wittenburg, northeastern Germany, on May 18, 2016

It could be a wakeup call for the self-driving car movement.

The Tesla Model S cruising on "Autopilot" failed to pick up a crossing tractor-trailer against a bright sky, sending the driver to his death without any effort to hit the brakes.

The first known fatality from autonomous driving technology, it was a nightmare scenario for an industry promoting a way to improve road safety and reduce traffic fatalities that come mostly from human error.

Researchers say the tragedy does not change the long-term outlook for autonomous vehicles or their potential benefits, but could dampen enthusiasm for this technology.

"Clearly this is a horrible thing, but in the big picture it doesn't affect the technology," said Richard Wallace, head of transportation systems analysis at the Center for Automotive Research in Ann Arbor, Michigan.

"But it may affect public perception of the technology, and obviously people have to buy these vehicles."

More than 30,000 Americans die annually in traffic incidents caused by human error, according to government data.

"But if these deaths are caused by non-human drivers there will be people who find that unpalatable," Wallace said



This file photo taken on September 16, 2015 shows the Model S of US electric cars manufacturer Tesla Motors during a press day of the 66th IAA auto show in Frankfurt am Main, western Germany

Mary Cummings, who heads the Humans and Autonomy Laboratory at Duke University, said the Tesla crash shows the industry is moving too fast to deploy self-driving vehicles.

"My concern is that this was an avoidable accident," Cummings told AFP. "My concern is that this will set the industry back."

Weighing risks

Cummings, who warned against premature deployment of the technology at a Senate hearing earlier this year, said she believes self-driving cars will be beneficial in the long term but that they should not

be on the road before they are ready.

"There will be unknowns, where it will be a complete surprise to the engineering community, and I can live with that," she said. "But I don't think we should take risks that we don't need to take."

Cummings said Tesla was aware of the "blind spot" in Autopilot and should have known that drivers will often ignore warnings about remaining vigilant when using the semi-autonomous system.

Tesla announced the fatality on Thursday and noted that US safety officials had opened a probe.

In a statement, Tesla said the fatality was "a tragic loss" and was the first such incident with its Autopilot system activated.



This photo taken on January 8, 2016 shows a BMW i3 electric car as it drives

autonomously into a simulated garage to park over an inductive charging station for solar energy at a BMW i Energy Storage System collected during the day

Tesla said the Autopilot system, introduced last year, is not a fully autonomous system and that drivers are cautioned that they need to be at the wheel and in control.

The system allows the vehicle to automatically change lanes, manage speed and brake to avoid a collision. The system may be overridden by the driver.

Tesla said that in the fatal crash in Florida, the "high ride height" of the trailer combined with its positioning were "extremely rare circumstances" and that the driver would have been protected in most other collisions.

Fear of machines

The news came as Germany's BMW announced that it is joining US computer chip giant Intel and the Israeli technology firm Mobileye to develop self-driving cars, aiming for fully automated production cars by 2021.

Most other major automakers are also looking at autonomous cars. South Korea's Kia has pledged to produce a self-driving car by 2020 and General Motors plans to test the technology with ridesharing giant Lyft.

Google has driven its [autonomous cars](#) some 1.5 million miles (2.4 million kilometers) with only some minor dust-ups.

A Rand Corp. study meanwhile said it would require some 275 million

miles of testing to ensure reliability of self-driving technology, and even then "it may not be possible to establish with certainty the safety of autonomous vehicles."



This picture taken on June 30, 2016 shows the Google's self driving car project on the Google stand at the Viva technology event in Paris

Raj Rajkumar, co-director of the Autonomous Driving Research Lab created by General Motors and Carnegie-Mellon University, said the fatality may help consumers understand that technology is not infallible.

"The one positive side of the tragedy is that people who use technologies like this will pay attention to the road," Rajkumar said.

He said the benefits of the [technology](#) are not in doubt, but that it may take some 10 years to deploy a fully autonomous car.

What remains unclear is whether the Tesla incident will cause further mistrust of autonomous driving.

A survey earlier this year by the AAA auto club showed 75 percent of US drivers would be afraid to ride in an autonomous vehicle.

The Tesla fatality "will have a short-term impact with consumers—they may not be as willing to trust a system like this," said Ron Montoya, consumer advice editor at the auto research firm Edmunds.com.

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