July 25, 2019

The Honorable Joseph Simons
Chairman
Federal Trade Commission
600 Pennsylvania Avenue, NW
Washington, DC 20580

Renewed Request for Investigation of Deceptive and Unfair Practices in Advertising and Marketing of the “Autopilot” Feature Offered in Tesla Motor Vehicles

Dear Chairman Simons:

Over a year ago, following several high profile deaths, injuries, and crashes, the Center for Auto Safety (Center) and Consumer Watchdog (CW) asked the Federal Trade Commission (FTC or Commission) to investigate the false and deceptive marketing and advertising perpetrated by Tesla in connection with their “Autopilot” feature.1 Now, three Americans are dead—one more since our last request for an investigation—and at least one more has been injured as a result of Tesla, and its CEO Elon Musk,2 continuing to mislead consumers into believing that the Autopilot feature makes the vehicles “self-driving.”

Pursuant to the Commission’s Rules, 16 C.F.R §§ 2.1 and 2.2, the Center and CW again respectfully and urgently request that the FTC initiate an investigation of the dangerously misleading and deceptive practices and representations of Tesla Motors, Inc.3 regarding the safety and capabilities of its Autopilot feature. These representations continue to violate section 5 of the FTC Act (Section 5)4 because they are likely to deceive even diligent consumers, who would act reasonably in believing them. These consumers are therefore likely to use Autopilot

3 Tesla Motors, Inc. is headquartered at 2500 Deer Creek Road, Palo Alto, CA 94304.
differently than they would if Tesla were more honest and transparent regarding the capabilities of their product.

After studying the first of these fatal accidents, the National Transportation Safety Board (NTSB) determined that over-reliance on and a lack of understanding of the Autopilot feature can lead to death. There can no longer be any question that these deceptive practices have made it reasonable for Tesla owners to believe that a Tesla with Autopilot is an autonomous vehicle capable of self-driving. To be clear, it is not.

Consumers in the market for a new Tesla see the company proclaiming, “Full Self-Driving Hardware on All Cars.” They are directed to videos of Tesla vehicles driving themselves through busy public roads, with no human operation whatsoever. They see press releases alleging that Autopilot reduces the likelihood of an accident by 40%.5 They also hear statements like: “the probability of an accident with Autopilot is just less,” from Mr. Musk.6 Other consumers have heard him relate Autopilot in a Tesla to autopilot systems in an aircraft. These deceptive statements mislead and deceive consumers into believing that Autopilot, and thus Tesla vehicles, possess capabilities the manufacturer knows that it does not.

Tesla manufactures and sells electric vehicles in the United States. Currently, Tesla offers three vehicle models: (1) Model S; (2) Model X; and (3) Model 3.7 All of these vehicles are equipped with the Autopilot feature.8 Unlike what the name of this feature suggests, Autopilot is only capable of SAE Level 2 automation.9 As the CEO of Tesla himself has recognized, Tesla consumers often perceive Autopilot to be safer than it actually is, and have been killed or injured while using the feature.10 Continued high profile incidents, as well as various user accounts, show that Tesla is misleading consumers about the safety performance and autonomous capabilities of its Autopilot feature.

The Center, founded in 1970, is an independent, non-profit consumer advocacy organization dedicated to improving vehicle safety, quality, and fuel economy not only for our members, but all drivers, passengers, and pedestrians across the country.

Consumer Watchdog is a nonprofit organization dedicated to providing an effective voice for taxpayers and consumers in an era when special interests dominate public discourse, government and politics.

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5 An Update on Last Week’s Accident, TESLA (March 30, 2018), https://www.tesla.com/blog/update-last-week%E2%80%99s-accident
7 See https://www.tesla.com/.
8 See https://www.tesla.com/autopilot.
9 Automated Vehicles for Safety, NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety (last accessed June 20, 2019) (SAE Level 2 automation involves an advanced driver assistance system that can control both steering and accelerating/braking under certain circumstances. A human driver must monitor the driving environment at all times and perform the other driving tasks.).
**Tesla’s Deceptive Practices**

Tesla continues to be the only automaker to describe its Level 2 vehicles as “self-driving,” and the name of its driver assistance suite of features, Autopilot, connotes full autonomy. Elon Musk, Tesla’s CEO, frequently misleads and deceives consumers about Autopilot’s safety and capabilities. Also, technical aspects of Autopilot, such as allowing for prolonged periods without touching the steering wheel with no way of determining whether drivers are in fact monitoring their driving environment—a required task for drivers of SAE Level 2 vehicles—deceive and mislead consumers into believing Autopilot makes the car self-driving. These formal and informal representations, combined with the technical features of Tesla vehicles, lead reasonable consumers to believe that Autopilot is more than mere driver assistance.

Visitors to the Autopilot page on Tesla’s website are confronted with a variety of exaggerated and misleading claims about Autopilot’s capabilities. Visitors to the site first see a message in large type proclaiming Autopilot as the “Future of Driving,” with a message below that in smaller type noting that “All new Tesla cars come standard with advanced hardware capable of providing Autopilot features today, and full self-driving capabilities in the future—through software updates designed to improve functionality over time.”\(^{11}\) After presenting links to order a Model S, Model 3, or Model X, ostensibly with “full self-driving capabilities,” there is a video of a Tesla vehicle driving itself through a suburb; the video begins with the typed words “THE PERSON IN THE DRIVER’S SEAT IS ONLY THERE FOR LEGAL REASONS. HE IS NOT DOING ANYTHING. THE CAR IS DRIVING ITSELF.”\(^{12}\) When scrolling further down the page, a visitor sees the headline “Full Self-Driving Capability” in large type.\(^{13}\) It is only in smaller type below this headline and in small type at other places on the Autopilot page that Tesla notes that its cars do not have “Full Self-Driving Capability” and that “[c]urrent Autopilot features require active driver supervision and do not make the vehicle autonomous.”\(^{14}\)

Moreover, Tesla has expressly claimed that Autopilot is safer than human drivers. After a man tragically died in March 2018 when his Model X, while operating in Autopilot mode, collided with a crash attenuator. Tesla released a statement claiming that “Autopilot was found by the U.S. government to reduce crash rates by as much as 40%.”\(^{15}\) That same statement went on to say “The consequences of the public not using Autopilot, because of an inaccurate belief that it is less safe, would be extremely severe. . . . We expect the safety level of autonomous cars to be 10 times safer than non-autonomous cars.”\(^{16}\)

However, the findings that Tesla cited were not the result of a statistically significant study. The National Highway Traffic Safety Administration (NHTSA), the agency that provided the data, contradicted Tesla on May 2, 2018, stating it did not assess the safety or effectiveness of

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2. Id.
3. Id.
4. Id.
5. Id.
6. Id.
7. Id.
Autopilot in its 2017 report. While the data does show that Tesla vehicles equipped with Autopilot are less likely to crash than vehicles without Autopilot, the information does not lead to the conclusion on whether the use of Autopilot results in fewer crashes. Further, NHTSA made no such public announcement. Tesla has used this dubious statistic to promote Autopilot’s safety. This is merely correlation, not causation, and Tesla must be aware of this fact. Still, Tesla continues to claim that a vehicle operating in Autopilot is safer than a vehicle operated by a human—a claim based on wishing, not knowing. Further, by making claims about the safety level of “autonomous cars,” Tesla blatantly lies to consumers by referring to its vehicles as “autonomous.” Notably, after another fatal accident involving Autopilot on March 1, 2019, Tesla issued no such official statements on its website as it had before yet has not withdrawn its previous inaccurate statements made after the March 2018 fatal Model X crash.

Elon Musk also makes statements referring to Autopilot as safer than it actually is. In an interview with CBS in April 2018, after Musk was asked what the purpose of Autopilot is if drivers still have to touch the steering wheel, he responded “because the probability of an accident with Autopilot is just less.” On May 14, 2018, after a woman in Utah plowed her Model S into a firetruck at 60 miles per hour while using Autopilot, Musk took to Twitter to say “What’s actually amazing about this accident is that a Model S hit a firetruck at 60mph and the driver only broke an ankle. An impact at that speed usually results in severe injury or death.” Thus, Musk conflates Autopilot’s safety, or lack thereof, with the Model S’s ability to withstand a crash. On January 9, 2019, Musk claimed on Twitter that a “Tesla *with* Autopilot engaged is twice as safe” as that those operate in standard driving mode, yet another unsubstantiated claim. Over 27 million people follow Musk on Twitter, placing him in the top 100 most followed users of the platform.

Musk has himself continued to contribute significantly to consumer misunderstanding of Autopilot’s capabilities through his public misuse of Autopilot. In December 2018, Musk appeared on the CBS news program 60 Minutes for an interview with broadcast journalist Lesley Stahl. During the interview, Musk occupied the driver’s seat in a Tesla Model 3 with Stahl in the passenger seat. After activating the Autopilot system, Musk relaxed in his seat, took his hands off the steering wheel, and placed his hands on his stomach. Musk describes his actions as

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19 Elon Musk (@elonmusk), Twitter (May 14, 2018, 1:57 PM), https://twitter.com/elonmusk/status/99613249772410882
20 Elon Musk (@elonmusk), Twitter (Jan. 9, 2019, 10:40 PM), https://twitter.com/elonmusk/status/1083252225449840642
“Not doing anything. No hands. No feet.”\textsuperscript{25} When Stahl asks him if he feels safe, Musk’s response is simply “Yeah.”\textsuperscript{26} Musk’s actions are misleading, dangerous, and contrary to Tesla’s guidelines for use of the Autopilot system. The Tesla owner’s manual for the Model 3 notes that “[y]ou must keep your hands on the steering wheel at all times.”\textsuperscript{27}

Later, in January 2019, Musk made inaccurate and misleading comments during Tesla’s fourth-quarter earnings call, saying that “[Tesla] already [has] full self-driving capability on highways . . . so from highway on-ramp to highway exit, including passing cars and going from one highway interchange to another, full self-driving capability is there.”\textsuperscript{28} These statements again failed to accurately describe Autopilot’s capabilities, leading a business analyst to call them “reckless” and “putting [Musk’s] customers at risk.”\textsuperscript{29} Musk continues to be either unwilling or unable to accurately describe the capabilities and requirements for operation of the Autopilot system safely, further endangering drivers and the public.

As recently as June 27, 2019, Musk re-tweeted another Twitter user who shared a video of a person test-driving a Tesla in Autopilot mode without using their hands on the steering wheel.\textsuperscript{30} The user retweeted by Musk stated that the Tesla in the video was “driving itself.”\textsuperscript{31} Musk’s promotion of this inaccurate statement and dangerous and misleading video fits his pattern of making exaggerated statements about the safety and capability of Autopilot.

The name “Autopilot” is deceptive and misleading in and of itself. When Americans hear the word “autopilot,” they reasonably envision the system on airplanes that safely flies hundreds of millions of passengers through our skies. Elon Musk even analogized Tesla’s Autopilot to the autopilot systems in airplanes in a 2014 interview.\textsuperscript{32} Unfortunately, in the vehicle context, the passengers are also the drivers, or, to carry out the analogy, the “pilots.” Unlike the varied and often lax requirements for a driver’s license, pilots of airplanes with autopilot systems must possess extensive training and experience before they are permitted to operate such systems with live passengers.\textsuperscript{33} The Federal Aviation Administration (FAA) sets such rigorous standards for the pilots of aircraft with autopilot systems because the risk of failure is so great. More than just setting the standards for the pilots, the FAA has strict and robust requirements for the technical

\begin{footnotes}
\item[25] Id.
\item[26] Id.
\item[29] Id.
\item[30] Jesse Ridgway (@McJuggerNuggets), Twitter (June 27, 2019, 12:35 PM), \url{https://twitter.com/McJuggerNuggets/status/1144328368378302464} (retweeted by Elon Musk on June 27, 2019).
\item[31] Id.
\item[32] \textit{Elon Musk on Tesla’s Auto Pilot and Legal Liability}, BLOOMBERG (Oct. 10, 2014), \url{https://youtu.be/60-b09XsyqU}
\item[33] \textit{Become a Pilot}, FED. AVIATION ADMIN., \url{https://www.faa.gov/pilots/become/} (last accessed May 22, 2018).
\end{footnotes}
aspects of aircraft autopilot systems. There are no such requirements for Tesla’s Autopilot. Thus, Tesla misleads and deceives consumers by referring to its suite of driver assistance technology as “Autopilot” because that technology and its users are not subject to the extensive requirements that aircraft autopilot systems are, and such a system is what reasonably comes to mind when the term “autopilot” is used.

Use of the name Autopilot continues to create confusion among consumers. A recent study by the Insurance Institute for Highway Safety (IIHS) examined consumer understanding of SAE Level 2 driving automation systems. IIHS surveyed over 2,000 drivers regarding behaviors they believed were safe while a Level 2 system was operating. IIHS concluded that “[t]he name ‘Autopilot’ was associated with the highest likelihood that drivers believed a behavior was safe while in operation, for every behavior measured, compared with other system names.” Notably, 48 percent of respondents believed that it was safe to take one’s hands off the steering wheel when using Autopilot, compared to a maximum of 33 percent for any other Level 2 system mentioned.

Moreover, the technical features of Tesla vehicles cause consumers to erroneously believe that Autopilot is more than just Level 2 autonomy. The NTSB investigated the fatal crash in Williston, Florida in 2016 where a Model S operating in Autopilot collided with a tractor-trailer and found that, of the 37.5 minutes Autopilot was activated, the driver only had his hands on the wheel for approximately 30 seconds. Additionally, there is no way for Tesla vehicles to determine whether a driver is in fact monitoring the driving environment. Though Tesla considered additional sensors to track the eyes and face of drivers to know whether they were looking at the road or elsewhere, the company chose not to install such features. Thus, Autopilot only warns drivers to touch the steering wheel after it detects that the steering wheel has not been touched for a certain amount of time, and there is ample evidence consumers are able to deceive the detection system. While these technical aspects are not representations, they are evidence that reasonable people have been led to believe Autopilot is self-driving or autonomous technology.

Misuse of Tesla’s Autopilot system continues to lead to fatal crashes. The most recent crash involving Autopilot that resulted in a driver death occurred in Delray Beach, Florida on March 1,
In this incident, the driver’s Tesla Model 3 was driving on U.S. Route 441 when a semitrailer pulled out into the road from a driveway, blocking the Model 3’s path. The Tesla struck the semitrailer, shearing the roof off the car and killing the driver. Preliminary data from the vehicle showed that the Autopilot system had been engaged about 10 seconds before the fatal crash, and that the driver’s hands were not detected on the steering wheel for about eight seconds before the crash. The Tesla was traveling at about 68 miles per hour when it struck the semitrailer, and neither the Autopilot system nor the driver made any evasive actions to avoid the crash. As with previous incidents, if the driver of this Tesla had understood that the Autopilot system required constant attention to the driving environment, he might still be alive today.

Consumers of Tesla vehicles have already been killed or injured because they misunderstood the safety and capabilities of Autopilot. There is an abundance of Tesla consumers who brag about their vehicles’ “self-driving” abilities. News and other media outlets describe Autopilot as “self-driving.” These realities prove that Tesla, with assistance from Elon Musk, has successfully deceived consumers into believing that Autopilot is safer and more capable than it actually is.

Unfortunately, there is no way to know exactly what the three drivers were doing in the moments preceding the collisions in the deadly Autopilot accidents in May 2016, March 2018, and March 2019. The man who died in March 2016, Joshua Brown, was known to frequently post videos of himself driving handsfree in his Model S. Witnesses of the crash claim that Mr. Brown may have been watching a movie on a portable DVD player at the time of the collision. Tellingly, the NTSB found that Mr. Brown’s “pattern of use of the Autopilot system indicated an over-reliance on the automation and a lack of understanding of the system limitations.”

The NTSB is still investigating the deadly California crash involving a Model X colliding with a crash attenuator while in Autopilot. Tesla claims that the driver had at least five seconds, or approximately 500 feet, of unobstructed view before the fatal collision occurred. Had the driver understood that he was required to constantly monitor his driving environment, and done so, he might still be alive today.

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42 *Id* at 1.
43 *Id* at 2.
44 *Id* at 2.
48 *An Update on Last Week’s Accident*, TESLA (March 30, 2018), [https://www.tesla.com/blog/update-last-week%E2%80%99s-accident](https://www.tesla.com/blog/update-last-week%E2%80%99s-accident)
On the popular video-sharing website YouTube, Tesla consumers fondly refer to their vehicles as “self-driving.” 49 Some Tesla consumers are so confident in Autopilot that they have uploaded videos of themselves using drugs behind the wheel, 50 sitting in the backseat, 51 engaging in sex acts, 52 or eating and drinking with both hands 53 all while Autopilot is engaged. Multiple drivers have recently been spotted by others on the road sleeping while their Tesla operated with Autopilot. 54 Combined, these videos have millions of views. These consumers are clearly misinformed about the true nature of Autopilot’s capabilities.

Tesla’s deceptive marketing and advertising techniques regarding Autopilot have fooled not only average consumers, but sophisticated news and media outlets as well. When reporting on the Williston, Florida accident, the New York Times ran an article titled “Joshua Brown, Who Died in Self-Driving Accident, Tested Limits of His Tesla.” 55 On October 20, 2016, NPR ran the headline “Tesla Has Begun Making All Its New Cars Self-Driving.” 56 Adweek ran the headline “Elon Musk Defends Tesla Following Latest Self-Driving Accident” on May 15, 2018. 57 USA Today titled an article “After a Tesla crash, more doubts drivers can be trusted with self-driving tech such as AutoPilot” on May 18, 2018. 58 If Tesla is able to fool entities with substantial access to information resources, such as the New York Times and NPR, into thinking Autopilot is a self-driving feature, one can begin to see how consumers are even more susceptible to perceiving Autopilot as equivalent to self-driving capability.

50 lilduval, https://www.instagram.com/p/BbXXWEtlZs1/
51 Jason Torchinsky, This Video of a YouTuber’s Tesla Driving on Autopilot With No One in the Driver’s Seat Is Deeply Stupid, JALOPNIK (June 4, 2019, 5:20 P.M.), https://jalopnik.com/this-video-of-a-youtubers-tesla-driving-on-autopilot-wi-1835238759
53 The Golden Drive, Idiot EATS BURGER with TESLA AUTO PILOT in CANYONS (Angeles Crest Highway) https://www.youtube.com/watch?v=0JlLUpsVgj4
Though it is not required that Tesla know that its representations are deceptive, it is worth mentioning that in this instance it would appear that the company is well aware. Elon Musk has recognized that consumers do not understand the safety and capabilities of Autopilot. In a call with analysts on May 2, 2018, Musk discussed recent accidents involving Autopilot and said “the issue is…more one of complacency, like we get used to it.”\(^{59}\) Thus, while Musk may not have explicitly said that Tesla is deceiving its customers, he realizes that Tesla customers do not have sufficiently clear information, which creates an act of omission on Tesla’s part.

Additionally, reports and statements issued by NHTSA expressly cite consumers’ lack of understanding of Autopilot as a safety risk. After completing a study on partially autonomous vehicles in 2015, NHTSA found that “When engaged in a non-driving task, some participants exhibited a primary task reversal and chose to prioritize the completion of the non-driving task over the operation of the partially automated vehicle. This phenomenon (overreliance on vehicle automation) has the potential to counteract many of the safety benefits of automated vehicle technologies.”\(^{60}\) In 2017, after completing its investigation of Joshua Brown’s death, NHTSA spokesman Bryan Thomas said “We are concerned about drivers operating these vehicles having a good understanding of the capabilities and limitations of the systems. . . . It’s not enough to put it in an owners’ manual and hope that drivers will read it and follow it.”\(^{61}\) Tesla and Elon Musk are certainly aware of these concerns, yet they continue to choose make representations that deceive and mislead consumers.

Tesla consumers are especially susceptible to these deceptive representations because Tesla has successfully lobbied states to allow for direct-to-consumer sales. Thus, when a consumer is shopping for a new Tesla there is no “middle-man” (automotive dealerships) to provide a different perspective on Autopilot’s safety and capabilities. Consumers only talk to Tesla employees who receive their information, instruction on how to market that information, and repercussion for offering different information, directly from Tesla. While a direct-to-consumer model can be beneficial to consumers, as the FTC has recognized, Tesla is abusing this model by positioning itself as the sole source of information on its Autopilot feature.


Levels of Autonomous Vehicle Automation and Advertising

NHTSA has provided nonbinding guidance on autonomous vehicles (AVs) on three occasions—in September 2016,62 September 2017,63 and October 2018.64 This guidance continues to indicate that the U.S. Department of Transportation intends to use SAE International’s Levels of Automation to define the autonomous capabilities of motor vehicles.65 Only vehicles with Level 1 or 2 autonomous capabilities are currently available for sale in the United States. Such vehicles have at most “partial automation,” which means that “the driver must remain engaged with the driving task and monitor the environment at all times.”66 Level 3 vehicles are described as those in which the “Driver is a necessity, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice” (emphasis added).67 Thus, if an automaker markets or advertises its vehicles as being capable of Level 3 automation or higher, when in fact those vehicles are only capable of Level 2 automation, the automaker is deceiving consumers, regardless of whether the SAE Levels of Automation are explicitly mentioned.

Several automotive manufacturers sell Level 2 vehicles for use by U.S. consumers. Most of these manufacturers market their vehicles as having “driver assistance” or “active safety” features.68 Notably, these manufacturers do not make any claims about their vehicles being “self-driving” or “fully autonomous” or even “autonomous.” Generally, these vehicles can maintain their position in lanes at highway speeds, accelerating or decelerating in response to surrounding traffic (adaptive cruise control), automatically braking to avoid collisions under certain circumstances, passing other vehicles when requested by the driver, and assisting the driver with parking.

Conclusion

Tesla’s representations of its Autopilot feature continue to violate Section 5 of the FTC Act because they are materially deceptive as they are likely to mislead consumers into reasonably believing that their vehicles have self-driving or autonomous capabilities.69 Thus, those consumers behave as if Autopilot is more than a driver assistance feature that requires them to

65 Id at vi.
66 NAT’L HIGHWAY TRAFFIC SAFETY ADMIN., supra note 2, at 4.
67 Id. at 4.
69 The Center for Auto Safety believes Tesla’s acts are also violative of some state unfair and deceptive acts and practices statutory protections and will be contacting a variety of state Attorneys General to request state action be taken in addition to a possible federal investigation.
constantly monitor the driving environment and be ready to take control of the vehicle without notice. Both Tesla’s and Elon Musk’s public statements regarding Autopilot mislead and deceive consumers.

Sadly, at least three of Tesla’s consumers have now died in the United States, and at least one has been injured, and in each instance Autopilot was likely a contributing factor. In the sole crash that the NTSB has been able to fully analyze, the board attributed a lack of understanding of Autopilot’s capabilities to the death of one of these consumers. The FTC’s failure to pursue this issue continues to endanger consumers as well as other drivers and pedestrians exposed to Tesla vehicles with Autopilot systems that are misused. The FTC must act and investigate Tesla’s unfair and deceptive practices so that consumers have accurate information, understand the limitations of Autopilot, and conduct themselves appropriately and safely. The Center for Auto Safety and Consumer Watchdog urge the FTC to begin a timely investigation to prevent further tragedies.

Sincerely,

Jason Levine
Executive Director
Center for Auto Safety

Adam Scow
Senior Advocate
Consumer Watchdog

cc: Commissioner Noah Phillips
Commissioner Rohit Chopra
Commissioner Rebecca Slaughter
Commissioner Christine Wilson
April Tabor, FTC Secretary
Andrew Smith, Director, FTC Bureau of Consumer Protection