U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON ENERGY AND COMMERCE

February 12, 2018

TO: Members, Subcommittee on Digital Commerce and Consumer Protection

FROM: Committee Majority Staff

RE: Hearing entitled "Oversight of the National Highway Traffic Safety Administration."

I. INTRODUCTION

The Subcommittee on Digital Commerce and Consumer Protection will hold a hearing on Wednesday, February 14, 2018, at 10:00 a.m. in 2123 Rayburn House Office Building. The hearing is entitled "Oversight of the National Highway Traffic Safety Administration."

II. WITNESS

- Heidi King, Deputy Administrator, National Highway Traffic Safety Administration

III. BACKGROUND

The National Highway Traffic Safety Administration (NHTSA) was established by Congress in 1970, through the Highway Safety Act, as the successor to the National Highway Safety Bureau to carry out safety programs under the National Traffic and Motor Vehicle Safety Act of 1966 and the Highway Safety Act of 1966.[1] NHTSA's mission is to reduce deaths, injuries, and economic losses resulting from motor vehicle crashes.[2] The oversight hearing will examine a number of issues before NHTSA, including, but not limited to, the following:

- Advanced automotive technology, including highly automated vehicles;
- Recalls and safety initiatives, including the Takata airbag recall and NHTSA's Drugged Driving Initiative; and
- FAST Act implementation.

A. Advanced Automotive Technology

Highly Automated Vehicles

Technology is rapidly changing motor vehicles and offering new opportunities to significantly improve safety. This is particularly important given the recent rise in traffic fatalities. In 2016, there was a 5.6 percent increase in traffic fatalities with 37,461 lives lost on U.S.

[1] https://www.transportation.gov/transition/understanding-national-highway-traffic-safety-administration-nhtsa
[2] *Id.*

roadways.[3] Notably, the preceding two-year rise represents the largest increase in traffic fatalities in more than 50 years.[4] NHTSA attributes 94 percent of all traffic-related crashes to human error,[5] therefore, automating the driving process has the potential greatly reduce the number of traffic accidents and, as a result, save thousands of lives.

In September 2016, NHTSA released the first ever federal guidance for automated vehicles. The Federal Automated Vehicle Policy focused on guidance for automated vehicles and NHTSA's regulatory tools as applied to the new, emerging technology. One year later, NHSTA released updated federal guidance for Automated Driving Systems (ADS): A Vision for Safety 2.0.[6] According to U.S. Secretary of Transportation Elaine L. Chao, "[t]he new Guidance supports further development of this important new technology, which has the potential to change the way we travel and how we deliver goods and services" and that "[t]he safe deployment of automated vehicle technologies means we can look forward to a future with fewer traffic fatalities and increased mobility for all Americans."[7]

Consistent throughout both federal policies, NHTSA reaffirms it is responsible for "regulating the safety design and performance aspects of motor vehicles and motor vehicle equipment" while, as is the case for traditional motor vehicles, "States continue to be responsible for regulating the human driver and vehicle operations."[8] On January 10, 2018, Secretary Chao discussed the Department's progress in advancing the release of Federal Automated Vehicle Policy (FAVP) 3.0, also known as A Vision for Safety 3.0.[9] According to Secretary Chao, FAVP 3.0 will emphasize a unified, intermodal approach to automated driving systems policy. Additionally, the Department published several automated vehicle notices for public comment on potential barriers to innovation.[10]

Given the significant safety benefits self-driving technology offers, the Subcommittee examined the issue during several hearings, and multiple bipartisan legislative proposals were combined in H.R. 3388, the SELF DRIVE Act. The SELF DRIVE Act was reported out of the Energy and Commerce Committee on a 54-0 vote and the House of Representatives unanimously passed it on September 6, 2017.[11]

Automatic Emergency Braking Systems

Automatic Emergency Braking (AEB) is an automotive technology system that detects an impending forward crash with another vehicle in time to avoid or mitigate the crash.[12] If the

[3] https://www.nhtsa.gov/press-releases/usdot-releases-2016-fatal-traffic-crash-data
[4] https://www.usnews.com/news/news/articles/2017-02-15/2016-traffic-deaths-jump-to-highest-level-in-nearly-a-decade
[5] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812115
[6] https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/13069a-ads2.0_090617_v9a_tag.pdf
[7] https://www.nhtsa.gov/press-releases/us-dot-releases-new-automated-driving-systems-guidance
[8] *Id*.
[9] https://www.transportation.gov/briefing-room/dot0518
[10] https://www.transportation.gov/briefing-room/dot0518
[11] https://energycommerce.house.gov/selfdrive/
[12] https://www.safercar.gov/Vehicle-Shoppers/Safety-Technology/aeb%E2%80%931

driver's response is not sufficient to avoid the crash, the AEB system "may automatically apply the brakes to assist in preventing or reducing the severity of the crash."[13] To help detect imminent crashes, the AEB system uses sensors, cameras, or lasers. On December 21, 2017, NHTSA and the Insurance Institute for Highway Safety (IIHS) jointly announced that four of 20 automakers reported that AEB is standard on more than half of their 2017 model year vehicles.[14] According to the IIHS, by 2025, the commitment made by the 20 automakers to include AEB systems will likely "prevent 28,000 crashes and 12,000 injuries."[15]

New Car Assessment Program

NHTSA introduced the New Car Assessment Program (NCAP) to evaluate the safety performance of passenger cars.[16] NCAP "provides comparative information on the safety of new vehicles to assist consumers with vehicle purchasing decisions and encourage motor vehicle manufacturers to make vehicle safety improvements."[17] In December 2015, NHTSA published a request for comment seeking input on the agency's plans to update the NCAP.[18] NHTSA plans to conduct new tests that address routinely fatal crash scenarios, incorporate the use of more human-like test dummies, enhance pedestrian crashworthiness testing, revise current rollover standards, and add safety ratings for crash avoidance technologies, a requirement of the FAST Act.[19] To date, NHTSA has not issued a final determination on the NCAP update.

B. Recalls and Safety Initiatives

Takata Recall Update

As of January 5, 2018, NHTSA estimates that approximately 37 million vehicles are currently under recall for approximately 50 million defective Takata airbags.[20] Takata airbags can explode when the airbag deploys, which may cause serious injury or, in some instances, death.[21] In June 2015, the Subcommittee held its second hearing to examine NHTSA's investigation into the Takata airbag ruptures.[22] At the time, there were six confirmed deaths, hundreds of injuries and recalls affecting 11 automakers.[23] To date, there are at least 21 reported fatalities[24] and the recall affects 19 automakers.[25]

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[13] *Id*.
[14] https://www.nhtsa.gov/press-releases/nhtsa-iihs-announcement-aeb
[15] *Id*.
[16] http://www.nhtsa.gov/CARS/PROBLEMS/studies/1999-01-0064/1999-01-0064.html
[17] https://www.gpo.gov/fdsys/pkg/FR-2015-12-16/pdf/2015-31323.pdf
[18] *Id*. at 2.
[19] *Id*.
[20] https://www.nhtsa.gov/recall-spotlight/takata-air-bags
[21] *Id*.
[22] https://energycommerce.house.gov/hearings/update-takata-airbag-ruptures-and-recalls/
[23] http://docs.house.gov/meetings/IF/IF17/20150602/103546/HHRG-114-IF17-20150602-SD002.pdf
[24] https://www.boston.com/cars/car-news/2018/01/11/people-killed-takata-air-bags
[25] https://www.nhtsa.gov/press-releases/nhtsa-releases-more-data-takata-air-bag-repairs

Orbital ATK, on behalf of the Independent Testing Coalition (ITC), conducted an investigation to determine the cause of the Takata airbag ruptures.[26] Through its investigation and laboratory testing, Orbital ATK determined that Takata airbags are adversely affected by the following three factors: (1) the presence of pressed phase-stabilized ammonium nitrate (PSAN) propellant without moisture-absorbing desiccant; (2) long-term exposure to repeated high-temperature cycling in the presence of moisture; and (3) an inflator assembly that does not adequately prevent moisture intrusion under conditions of high humidity.[27] In response, Takata announced that Orbital ATK's results were consistent with its own testing.[28]

On February 27, 2017, Takata Corporation pleaded guilty to wire fraud.[29] The guilty plea and sentencing were related to the company's conduct in relation to the sales of its defective airbag inflators.[30] Takata Corporation received a total criminal penalty of $1 billion, including $975 million in restitution, a $25 million fine, and three years' probation.[31] Of the restitution funds, $125 million will be for individuals who have been or will become physically injured as a result of Takata's defective airbags.[32] Additionally, Takata is required to implement "rigorous internal controls, retain an independent compliance monitor for a term of [three] years, and cooperate fully with [the Department of Transportation's (DOT) Office of Inspector General's (DOT-OIG)] ongoing investigation."[33] Takata filed for Chapter 11 bankruptcy in June 2017, but remains "committed" to pay the $125 million restitution funds to the U.S. government.[34]

Despite the progress made on the recall and criminal action against Takata Corporation, NHTSA has announced that more airbags will be recalled by December 2019."[35] The following is a timeline of major NHTSA events with respect to the Takata recall:[36]

- **May 2015:** DOT announced a national recall of Takata Air Bags
- **December 2016:** NHTSA issued an Amended Coordinated Remedy Order
- **July 2017:** Takata filed a defect notice recalling inflators that contain "desiccant"
- **January 2018:** Takata files its 3rd (of 5) defect notice
- **December 31, 2018:** Takata's 4th (of 5) scheduled defect notice is due
- **December 31, 2019:** Takata's 5th (of 5) scheduled defect notice is due
- **September 30, 2020:** Last deadline for non-desiccated PSAN inflator recalls to launch

NHTSA suggests consumers visit SaferCar.gov to find out if their vehicle is under recall. Additionally, consumers can sign up for alerts to be notified if their vehicle is affected by a future

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[26] https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/orbital_atk_research_summary.pdf
[27] *Id*. at 5.
[28] https://apnews.com/5e77d270c5ff447f8f283923a1a75220/ap-source-scientists-find-cause-air-bag-explosions
[29] https://www.oig.dot.gov/library-item/35545
[30] *Id*.
[31] *Id*.
[32] *Id*.
[33] *Id*.
[34] https://www.nytimes.com/2017/06/26/business/takata-japan-bankruptcy.html
[35] https://www.oig.dot.gov/library-item/35545
[36] https://www.nhtsa.gov/recall-spotlight/takata-air-bags

recall.[37] As NHTSA has made clear, "Safe Cars Save Lives" and, for that reason, it is critical for consumers to check their vehicle for a recall and stay informed.

Drugged Driving Initiative

On January 25, 2018, NHTSA announced it is launching a new initiative to "combat drugged driving, a growing problem on U.S. roads."[38] With the national opioid epidemic, NHTSA "is making the drugged-driving problem a top priority to ensure U.S. roads, communities and families are safe from impaired drivers."[39] The number of American drivers killed in car crashes in which drugs were detected has now surpassed those killed in crashes where only alcohol was found according to a report by the Governors Highway Safety Association and the Foundation for Advancing Responsibility.[40] According to the report, 43 percent of fatal crashes in 2015 involved drugs, compared to approximately 37 percent who tested positive for alcohol.[41]

This growing concern has led to NHTSA's Drugged Driving Initiative and according to Deputy Administrator Heidi King, "[n]obody can solve drugged driving alone, but by sharing best practices we can begin to save lives today."[42] To kick off the initiative, NHTSA is hosting a summit on March 15, 2018, where key stakeholders – including safety partners, state and local elected officials, data and policy experts, law enforcement and criminal justice professionals, toxicologists and drug recognition experts – will join DOT in setting a course of action to take measurable steps to address the nation's drugged-driving problem.[43]

Safety Data Initiative

On January 8, 2018, DOT announced it is "launching a multi-modal initiative, including two pilot programs to modernize its data analysis and integrate its traditional datasets with new 'big data' sources to gain insights into transportation safety."[44] One pilot project will integrate data on known crashes and highway design "with anonymous data from GPS-enabled devices that provides prevailing speeds at 5-minute intervals across the entire National Highway System."[45] The initiative is designed to allow DOT to analyze speed differentials and their interaction with roadway characteristics to influence the likelihood of crashes.[46] The second pilot will integrate traffic crash data with data from the crowd-sourced app Waze. The goal being to examine the "feasibility of using…crowd-sourcing applications to provide a reliable, timely indicator of reportable traffic crashes, and estimate crash risk based on Waze-reported hazards."[47]

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[37] https://www-odi.nhtsa.dot.gov/nhtsa/subscriptions
[38] https://www.nhtsa.gov/press-releases/nhtsa-launches-drugged-driving-initiative-and-announces-march-15-summit
[39] *Id.*
[40] https://www.nbcnews.com/news/us-news/drugged-driving-rise-passes-alcohol-alone-fatal-crashes-study-finds-n751681
[41] *Id.*
[42] https://www.nhtsa.gov/press-releases/nhtsa-launches-drugged-driving-initiative-and-announces-march-15-summit
[43] *Id.*
[44] https://www.transportation.gov/briefing-room/dot0318
[45] *Id.*
[46] *Id.*
[47] *Id.*

Cybersecurity

As technology increasingly becomes a part of motor vehicles and motor vehicle safety, automotive cybersecurity becomes a paramount issue. In September 2016, NHTSA issued an enforcement guidance bulletin regarding safety-related defects and automated safety technologies that included a discussion of electrical, electronic, mechanical, or software failures all within the agency's jurisdiction.[48] NHTSA's approach to vehicle cybersecurity includes the following goals:

- Expand and share information to better establish comprehensive reach plans and tools;
- Support the industry in implementing industry-based best practices;
- Foster the development of new system solutions for cybersecurity; and
- Determine the feasibility of developing performance evaluation methods.[49]

The Automotive Information Sharing and Analysis Center (Auto-ISAC) was formed in 2015 by automakers "to establish a global information sharing community to address vehicle cybersecurity risks."[50] Currently, Auto-ISAC members account for more than 99 percent of light-duty vehicles in North America, with more than 30 global OEM and supplier members.[51]

On September 12, 2016, the Energy and Commerce Committee sent a letter to NHTSA "due in part to safety and security concerns with the On-Board Diagnostic (OBD-II) ports within vehicles."[52] The Committee requested that NHTSA convene an industry-wide effort to develop a plan of action for addressing concerns associated with the OBD-II ports.[53] On October 14, 2016, NHTSA sent a response letter explaining its ongoing efforts to address concerns highlighted by the Committe.[54]

C. Implementation Updates

Corporate Average Fuel Economy

On July 18, 2016, NHTSA, the Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) completed the first step in the Midterm Evaluation process for Corporate Average Fuel Economy (CAFE) and greenhouse gas emissions standards for model years 2022-2025 by issuing a Draft Technical Assessment Report (TAR).[55] On January 12, 2017, just days before President Obama left office, the EPA issued a final determination to maintain the standards set for model years 2022-2025. On March 15, 2017, EPA Administrator Scott Pruitt and

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[48] https://www.nhtsa.gov/technology-innovation/vehicle-cybersecurity#nhtsa-action
[49] *Id.*
[50] https://www.automotiveisac.com/faq.php
[51] *Id.*
[52] https://energycommerce.house.gov/news/press-release/committee-leaders-request-nhtsa-convene-industry-wide-effort-develop-plan/
[53] *Id.*
[54] https://archives-energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/documents/114/letters/20161014NHTSA.pdf
[55] https://www.nhtsa.gov/corporate-average-fuel-economy/light-duty-cafe-midterm-evaluation

DOT Secretary Chao jointly announced that the EPA will reconsider the final determination, in conjunction with NHTSA, by April 1, 2018, per the Midterm Evaluation process schedule.[56] On December 12, 2017, the Subcommittee held a hearing on the CAFE program to hear from industry stakeholders about the inconsistencies in federal and state regulations.[57]

Fixing America's Surface Transportation Act

The Fixing America's Surface Transportation (FAST) Act included a title on motor vehicle safety with several provisions to improve NHTSA's internal processes and aid NHTSA's efforts to increase vehicle safety.[58] The FAST Act mandated the DOT Office of Inspector General to audit NHTSA's Office of Defects Investigation because of congressional concerns with NHTSA's handling of the Takata airbag recall.[59] On February 8, 2017, DOT-OIG announced that it planned to begin the audit that month.[60]

The FAST Act increased funds to NHTSA to support its vehicle safety programs, established requirements for NHTSA to increase the availability of safety recall information to consumers, and included a requirement to submit an annual agenda to Congress detailing the agency's projected activities for the upcoming year.[61] The title also contained measures requiring automakers to provide more information about defective components or parts involved in a safety recall; to increase its notification and outreach practices to improve recall completion rates; to update remedy and repair obligations among automakers for cars under recall; and to require automakers to certify the accuracy of documents submitted to NHTSA by a senior official of the company.[62]

Vehicle-to-Vehicle Communication

Vehicle-to-vehicle communication enables vehicles to wirelessly exchange information about their speed, location, and direction.[63] Vehicles equipped with this technology can "use the messages from surrounding vehicles to determine potential crash threats" and, with that information, "employ visual, tactile, and audible alerts" intended to "allow drivers…to take action to avoid crashes."[64] In November 2017, in response to reports the rulemaking had been suspended, NHTSA stated that it has "not made any final decision on the proposed rulemaking concerning a V2V mandate."[65] Currently, NHTSA is reviewing and considering the more than 460 comments

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[56] https://www.epa.gov/regulations-emissions-vehicles-and-engines/midterm-evaluation-light-duty-vehicle-greenhouse-gas
[57] https://energycommerce.house.gov/hearings/update-corporate-average-fuel-economy-program-cafe-greenhouse-gas-emissions-standards-motor-vehicles/
[58] https://www.gpo.gov/fdsys/pkg/BILLS-114hr22enr/pdf/BILLS-114hr22enr.pdf
[59] https://www.oig.dot.gov/sites/default/files/NHTSA%20ODI%20Recall%20Process%20Audit%20Announcement%20Letter%5E2-8-17.pdf
[60] *Id.*
[61] *Id.*
[62] *Id.*
[63] https://www.nhtsa.gov/technology-innovation/vehicle-vehicle-communication
[64] *Id.*
[65] https://www.nhtsa.gov/press-releases/v2v-statement

submitted on the proposed rule and stated that it "remains on DOT's significant rulemaking report."[66]

DOT-OIG Recommendations

In June 2015, DOT-OIG issued an Audit Report examining NHTSA's internal processes and procedures for identifying and investigating potential vehicle safety issues.[67] DOT-OIG found that NHTSA's data collection and analysis processes were inadequate and undermined the agency's ability to effectively identify and investigate vehicle safety concerns.[68] Following the Audit Report, DOT-OIG proposed seventeen recommendations targeted towards improving those processes at NHTSA. As of August 22, 2017, NHTSA had completed and implemented all internal processes updates to comply with DOT-OIG's Audit.[69]

IV. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Melissa Froelich or Bijan Koohmaraie of the Committee Staff at (202) 225-2927.

[66] *Id.*
[67] https://www.oig.dot.gov/library-item/32523
[68] *Id.*
[69] https://www.oig.dot.gov/library-item/32523 (as indicated by "closed" under each recommendation).