UNITED STATES DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

1200 New Jersey Avenue SE Washington, DC 20590

In re:)
First Amended Standing General Order 2021-01)
Incident Reporting for Automated Driving Systems (ADS) and Level 2 Advanced Driver Assistance Systems (ADAS))

TO: Each Manufacturer and Operator on the Attached Service List

This First Amended Standing General Order 2021-01 (General Order) is issued by the National Highway Traffic Safety Administration (NHTSA or the agency), an Operating Administration of the United States Department of Transportation, pursuant to 49 U.S.C. § 30166(g)(l)(A) and 49 C.F.R. § 510.7. This General Order takes effect on August 12, 2021, and, as of that date, supersedes NHTSA's June 29, 2021 Standing General Order 2021-01.

Under the National Traffic and Motor Vehicle Safety Act, as amended (the Safety Act), 49 U.S.C. Chapter 301, NHTSA is charged with authority "to reduce traffic accidents and deaths and injuries resulting from traffic accidents." 49 U.S.C. § 30101. To carry out this statutory mandate, NHTSA has broad information gathering authority, including authority to obtain information on vehicle crashes, potential defects related to motor vehicle safety, and compliance

¹ See 49 C.F.R. §§ 1.95, 501.8(d)(3) (delegations of authority).

² This General Order does not substantively amend the crash reporting requirements with respect to either the reporting criteria or the information required to be submitted by a reporting entity in the event of a reportable crash. NHTSA is issuing this amendment to transition the electronic crash reporting process from the interactive .pdf form and MAP portal mandated in Appendix A of the June 29, 2021 Standing General Order 2021-01 to the new website and web-based reporting form mandated in Appendix A of this General Order.

with legal requirements to timely identify and conduct recalls for safety defects. *See* 49 U.S.C. § 30166(e), (g); 49 C.F.R. Part 510; *see also id.* §§ 30118-30120.

NHTSA's statutory mandate includes the exercise of its authority to proactively ensure that motor vehicles and motor vehicle equipment, including those with novel technologies, perform in ways that "protect[] the public against unreasonable risk of accidents occurring because of the design, construction, or performance of a motor vehicle, and against unreasonable risk of death or injury in an accident." 49 U.S.C. § 30102(9).³ Both Automated Driving Systems (ADS) and Advanced Driver Assistance Systems (ADAS) are "motor vehicle equipment" subject to the requirements of the Safety Act. *See id.* § 30102(8). Given the rapid evolution of these technologies and testing of new technologies and features on publicly accessible roads, it is critical for NHTSA to exercise its robust oversight over potential safety defects in vehicles operating with ADS and Level 2 ADAS.⁴

The Safety Act is preventive, and the identification of safety defects does not and should not wait for injuries or deaths to occur. *See, e.g., United States v. Gen. Motors Corp.*, 565 F.2d 754, 759 (D.C. Cir. 1977) ("The purpose of the Safety Act . . . is not to protect individuals from the risks associated with defective vehicles only after serious injuries have already occurred; it is to prevent serious injuries stemming from established defects before they occur.")

Consistent with this mandate, NHTSA is requiring vehicle and equipment manufacturers and operators of ADS and Level 2 ADAS vehicles to report crashes to the agency.

³ This includes the nonoperational safety of a motor vehicle. 49 U.S.C. § 30102(9).

⁴ For a description of the Society of Automotive Engineers (SAE) levels of driving automation, see SAE J3016 Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles (April 2021); https://www.nhtsa.gov/technology-innovation/automated-vehicles-safety#topic-road-self-driving.

Automated Driving Systems (ADS)

Numerous manufacturers and operators are actively engaged in the development, testing, and limited deployment of vehicles with ADS, including through on-road operation of prototype vehicles or systems. There are two paths for vehicles with ADS to operate on publicly accessible roads under Federal law.⁵ First, manufacturers may equip ADS on vehicles that fully comply with the Federal Motor Vehicle Safety Standards (FMVSS) and are certified as compliant.⁶ Alternatively, manufacturers may utilize a statutory exception⁷ or exemption,⁸ as appropriate, to operate noncompliant vehicles with ADS. *See* 49 U.S.C. §§ 30112(b)(10), 30113-30114. Many vehicles equipped with ADS are being tested in manufacturer or operator-owned fleets in specific communities for a limited purpose such as taxi or delivery services.

ADS present new and unique risks to motor vehicle safety because they fundamentally alter the nature of motor vehicles and their operation. Potential safety issues with vehicles operated with ADS include the design and performance of sensors and other technology used to determine the vehicle's location and to identify, classify, and position other roadway users and objects. Likewise, potential safety issues may arise from decisions by software algorithms that

.

⁵ Vehicles, including those with ADS, must also operate in compliance with applicable State and local laws. ⁶ In doing so, a manufacturer or other regulated entity "may not knowingly make inoperative any part of a device or

⁶ In doing so, a manufacturer or other regulated entity "may not knowingly make inoperative any part of a device or element of design installed on or in a motor vehicle or motor vehicle equipment in compliance with an applicable motor vehicle safety standard." 49 U.S.C. § 30122(b).

⁷ A manufacturer that meets certain statutory criteria may introduce a noncompliant motor vehicle "in interstate commerce solely for purposes of testing or evaluation by a manufacturer that agrees not to sell or offer for sale the motor vehicle at the conclusion of the testing or evaluation." 49 U.S.C. § 30112(b)(10). Specifically, the manufacturer must have manufactured and distributed FMVSS-compliant vehicles in the United States prior to enactment of the Fixing America's Surface Transportation (FAST) Act (December 4, 2015), and must have complied with certain regulatory requirements. *Id.*

⁸ Several statutory exemptions are available, including temporary exemptions to "make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to the safety level of the standard," to "make the development or field evaluation of a low-emission motor vehicle easier and would not unreasonably lower the safety level of that vehicle," or where "compliance with the standard would prevent the manufacturer from selling a motor vehicle with an overall safety level at least equal to the overall safety level of nonexempt vehicles." 49 U.S.C. § 30113; 49 C.F.R. Part 555. Temporary exemptions are also available for, among other things, research and demonstrations. 49 U.S.C. § 30114; 49 C.F.R. Part 591.

analyze data inputs in real time to determine the appropriate vehicle response. Safety issues may also arise from the operational design domain⁹ for the ADS, and the continuing evolution and modification of these systems through software updates (including over-the-air updates).

Level 2 Advanced Driver Assistance Systems (ADAS)

Vehicles with Level 2 ADAS are widely available for consumers to purchase and are commonly in use on public roads. As with all vehicles, vehicles with Level 2 ADAS must comply with all applicable FMVSS and be certified as compliant, unless a statutory exception or exemption applies.

Vehicles operated using Level 2 ADAS present safety risks to occupants of those vehicles and other roadway users, in part due to the unconventional division of responsibility between the vehicle and its human driver. Misuse of an ADAS (including overreliance by a driver) may create a foreseeable risk and potential safety defect. *See, e.g., United States v. Gen. Motors Corp.*, 518 F.2d 420, 427 (D.C. Cir. 1975) (explaining that failures caused by foreseeable misuse of pickup trucks could support finding of a safety defect under the Safety Act). Other potential safety issues with vehicles operating using Level 2 ADAS include the design and performance of sensors, software algorithms, and other technology used to analyze and respond to the vehicle's environment; technology and strategies to ensure appropriate driver engagement; and the evolution of the system over time through software updates.

NHTSA's General Order

Through this action, NHTSA will evaluate whether specific manufacturers (including manufacturers of prototype vehicles and equipment) are meeting their statutory obligations to

⁹ Operational design domain refers to operating conditions under which a given ADS or ADS feature is designed to function. This includes, but is not limited to, environmental, geographical, and time-of-day restrictions, and/or the presence or absence of certain traffic or roadway characteristics.

ensure that their vehicles and equipment are free of defects that pose an unreasonable risk to motor vehicle safety, or are recalled if such a safety defect is identified. *See* 49 U.S.C. §§ 30112, 30118-30120.

NHTSA's oversight of potential safety defects in vehicles operating on publicly accessible roads using ADS or Level 2 ADAS requires that NHTSA have timely information on incidents involving those vehicles. In carrying out the Safety Act, NHTSA may "require, by general or special order, any person to file reports or answers to specific questions." *Id.* § 30166(g)(1)(A). As set forth below, NHTSA is requiring each vehicle and equipment manufacturer and operator of vehicles with ADS or Level 2 ADAS to report specified information about certain safety-related incidents involving vehicles (including prototype vehicles) operating on publicly accessible roads using ADS or Level 2 ADAS. Each manufacturer and operator will be served with this General Order, which triggers the entity's legal obligations to report crashes as required by the General Order.

Specifically, this General Order requires manufacturers and operators to report certain crashes involving these vehicles that occur while the ADS or Level 2 ADAS is engaged, or immediately after it is in use, and to provide sufficient information for NHTSA to identify crashes warranting further follow-up. Crashes that meet specified criteria must be reported within one calendar day after the manufacturer or operator learns of the crash, and other ADS crashes must be reported on a monthly basis. The reporting obligation in this General Order is specific to these crashes, which are a primary source of information regarding potential defects in ADS or Level 2 ADAS. NHTSA's oversight is not limited to the information collected through this General Order, and NHTSA will consider all information relevant to potential safety

defects, including information regarding non-crash incidents, and may open defect investigations as warranted.

DEFINITIONS

For purposes of this General Order, the following terms, whether used in the singular, plural, possessive, or non-possessive forms, capitalized or uncapitalized, have the following definitions.

- 1. "ADAS" means an Advanced Driver Assistance System.
- 2. "ADS" means an Automated Driving System.
- 3. "Advanced Driver Assistance System" means a Level 1 or Level 2 system.
- 4. "Automated Driving System" means a Level 3, Level 4, or a Level 5 system and includes hardware and software that are collectively capable of performing the entire dynamic driving task on a sustained basis, regardless of whether it is limited to a specific operational design domain and regardless of the presence of a safety operator. For purposes of this General Order, a prototype of a system that is intended to function as an Automated Driving System in its mature form is an Automated Driving System.
- 5. "Crash" means any physical impact between a vehicle and another road user (vehicle, pedestrian, cyclist, etc.) or property that results or allegedly results in any property damage, injury, or fatality. For clarity, a subject vehicle is involved in a crash if it physically impacts another road user or if it contributes or is alleged to contribute (by steering, braking, acceleration, or other operational performance) to another vehicle's physical impact with another road user or property involved in that crash.
- 6. **"Level 1"** means the same as and is coterminous with the definition of "Level or Category 1 Driver Assistance" in SAE J3016 Taxonomy and Definitions for Terms Related to

Driving Automation Systems for On-Road Motor Vehicles § 5.2 (April 2021). A Level 1 system is a driver support feature on the vehicle that can assist the human driver with either steering or braking/accelerating, but not both simultaneously. The human driver must remain fully and continuously engaged in the driving task.

- 7. "Level 2" means the same as and is coterminous with the definition of "Level or Category 2 Partial Driving Automation" in SAE J3016 Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles § 5.3 (April 2021). A Level 2 system is a driver support feature on the vehicle that can control both steering and braking/accelerating simultaneously under some circumstances. The human driver must remain fully and continuously engaged in the driving task.
- 8. "Level 3" means the same as and is coterminous with the definition of "Level or Category 3 Conditional Driving Automation" in SAE J3016 Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles § 5.4 (April 2021). A Level 3 system is an Automated Driving System (ADS) on the vehicle that can perform all aspects of the driving task under some circumstances. In those circumstances, the human driver must be ready to take back control at any time when the ADS requests the human driver to do so. In all other circumstances, the human driver performs the driving task.
- 9. "Level 4" means the same as and is coterminous with the definition of "Level or Category 4 High Driving Automation" in SAE J3016 Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles § 5.5 (April 2021). A Level 4 system is an Automated Driving System (ADS) on the vehicle that can perform all driving tasks and monitor the driving environment (essentially, do all the driving) in certain

circumstances without the need for a takeover-ready human driver. When operated solely within their limited domains, any human occupants are considered passengers and need not be involved in the driving task.

- 10. "Level 5" means the same as and is coterminous with the definition of "Level or Category 5 Full Driving Automation" in SAE J3016 Taxonomy and Definitions for Terms Related to Driving Automation Systems for On-Road Motor Vehicles § 5.6 (April 2021). A Level 5 system is an Automated Driving System (ADS) on the vehicle that can do all the driving in all circumstances. Any human occupants are just passengers and need never be involved in the driving task.
- 11. "Manufacturer" means a person developing, fabricating, manufacturing, assembling, or importing motor vehicles or motor vehicle equipment (including pre-production and prototype motor vehicles and equipment). A manufacturer may also be an operator.
- 12. "Motor Vehicle" means any pre-production, prototype, or production vehicle driven or drawn by mechanical power and being developed or manufactured primarily for use on public roads.
- 13. "Motor Vehicle Equipment" means and includes any pre-production, prototype, or production ADS or Level 2 ADAS, including software or any other component of such system, that is installed on a motor vehicle, or used to control or operate a motor vehicle.
- 14. "Notice" is defined more broadly than in 49 C.F.R. § 579.4 and means information you have received from any internal or external source and in any form (whether electronic, written, verbal, or otherwise) about an incident that occurred or is alleged to have occurred; including, but not limited to vehicle reports, test reports, crash reports, media reports,

consumer or customer reports, claims, demands, and lawsuits. A manufacturer or operator has notice of a crash or a specified reporting criterion (i.e., a resulting hospital-treated injury, fatality, vehicle tow-away, air bag deployment, or the involvement of a vulnerable road user) when it has notice of facts or alleged facts sufficient to meet the definition of a crash or a specified reporting criterion, regardless of whether the manufacturer has verified those facts.

- 15. **"Operator"** means the entity operating a motor vehicle equipped with ADS on a publicly accessible road. An operator may also be a manufacturer.
- 16. **"Person"** means and includes "corporations, companies, associations, firms, partnerships, societies, and joint stock companies, as well as individuals." 1 U.S.C. § 1.
- 17. **"Reporting Entity"** means any company identified on the attached Service List for this General Order.
- 18. "Subject Vehicle" means and includes: 1) for a motor vehicle manufacturer responding to this General Order, a motor vehicle manufactured, imported, or operated by the manufacturer and equipped with an ADS or Level 2 ADAS; 2) for a motor vehicle equipment manufacturer responding to this General Order, a motor vehicle equipped with an ADS or Level 2 ADAS with any motor vehicle equipment (including software) manufactured or imported by the motor vehicle equipment manufacturer; and 3) for an operator responding to this General Order, a motor vehicle equipped with an ADS being operated by the operator.
- 19. **"Vulnerable Road User"** means and includes any person who is not an occupant of a motor vehicle with more than three wheels. This definition includes, but is not limited to, pedestrians, persons traveling in wheelchairs, bicyclists, motorcyclists, and riders or occupants of other transport vehicles that are not motor vehicles, such as all-terrain vehicles and tractors.

20. "You" or "your" means each individual manufacturer or operator to whom this General Order is directed.

INSTRUCTIONS

The following instructions apply to each Reporting Entity:

- 1. This General Order requires you to submit reports to NHTSA on a prospective basis. It requires reports of incidents of which you receive notice ten (10) calendar days or more after first being served with Standing General Order 2021-01. This is a standing reporting obligation, which shall continue for three (3) years after June 29, 2021, the date Standing General Order 2021-01 was first issued.
- 2. You are required to respond to every request listed in this General Order, including each subpart. If you cannot substantively respond to any specific request or subpart, you must state the reason why you are unable to do so. Examples include, but are not limited to, situations where you do not possess the information requested at the time the report is due or where you are required to redact the information because it is protected from disclosure under law. If you do not possess the information necessary to fully complete a report required by this General Order by its due date, you must provide as much information as you have available at the time the report is due and subsequently update that information, as appropriate, consistent with the requirements of Request No. 3.
- 3. You must provide each report required by this General Order to NHTSA in an electronic format, pursuant to the instructions set forth in Appendix A, and with the information required and in the form set forth in Appendix C. Each updated Incident Report must independently provide all information required by the form set forth in Appendix C and must not

refer to or attempt to incorporate by reference any information included in a previously submitted Incident Report. You should immediately review the instructions set forth in Appendix A to determine whether you need to establish an account and have it authorized for the submission of reports under the terms of this General Order. You must also separately submit any report that you claim contains confidential business information (CBI) to NHTSA's Office of Chief Counsel pursuant to the instructions set forth in Appendix B.

- 4. NHTSA has determined that the information required by the Incident Report form set forth in Appendix C, with three exceptions, does not include any potential CBI exempt from public disclosure under either the Safety Act (49 U.S.C. § 30167(a)) or the Freedom of Information Act (5 U.S.C. § 552(b)(4)). But for these three exceptions described below, the nature of the crash-related information required by the Incident Report form is widely available to the public from law enforcement agencies and through motor vehicle crash databases maintained by NHTSA. NHTSA, therefore, will not keep this information confidential, intends to make it publicly available, and is providing no assurance to you to the contrary. *See Food Marketing Inst. v. Argus Leader Media*, 139 S. Ct. 2356, 2363 (2019).
- 5. There are three exceptions, for which NHTSA will permit you to claim, when appropriate and appropriately supported, that information submitted in an Incident Report constitutes CBI. These three exceptions are: (1) the version of the ADAS/ADS with which a vehicle is equipped; (2) whether the vehicle was within its operational design domain (ODD) at the time of the incident; and (3) the narrative. The instructions provided in Appendix B explain how you can make such a claim of confidentiality. Making a request for confidential treatment

¹⁰ See https://www.nhtsa.gov/data/crash-data-systems.

does not ensure that the information claimed to be confidential will be determined to be confidential. *See* 49 C.F.R. Part 512, Subparts D-E.

- 6. If the deadline for submission of any report required by this General Order (other than those reports required within one calendar day under Request No. 1) falls on a weekend or Federal holiday, the deadline is extended to the next business day that is not a Federal holiday. The deadline extension described in this paragraph does not apply to reports required within one calendar day under Request No. 1.
- 7. Any questions about the information or format required for the reports required by this General Order should be directed to Jeff Eyres, Office of Chief Counsel, via email at jeffrey.eyres@dot.gov or telephone at 202.913.4307 or, for technical questions, an email should be sent to sgo202101-info@dot.gov. The deadlines for filing reports required by this General Order are not tolled or otherwise held in abeyance by the submission of a question.
- 8. With respect to words and terms used in this General Order: the singular includes the plural; "and" as well as "or" shall be construed either disjunctively or conjunctively to bring within the scope of this General Order all information, incidents, and responses that might otherwise be construed to be outside its scope; "each" shall be construed to include "every" and "every" shall be construed to include "each"; "any" shall be construed to include "all" and "all" shall be construed to include "any"; and the use of a verb in any tense shall be construed as the use of the verb in a past or present tense whenever necessary to bring within the scope of the requests all information, incidents, and responses that might otherwise be construed to be outside its scope.

- 9. The reporting requirements established by this General Order, issued pursuant to 49 U.S.C. § 30166(g), are in addition to any reporting obligations applicable to you under the National Traffic and Motor Vehicle Safety Act, as amended (the Safety Act), 49 U.S.C. Chapter 301, and regulations thereunder, but not limited to, early warning reporting requirements, 49 C.F.R. Part 579, Subpart C.
- 10. Failure to respond timely, fully, or truthfully to this General Order may result in a referral to the United States Department of Justice for a civil action to compel responses and may also subject you to civil penalties, currently up to \$22,992 per violation per day, up to a maximum penalty of \$ 114,954,525 for a related series of violations. *See* 49 U.S.C. § 30165(a)(3); 49 C.F.R. § 578.6(a)(3).

REQUESTS

IT IS THEREFORE ORDERED THAT:

In accordance with the instructions set forth above, each Reporting Entity shall submit an Incident Report, with the information required and in the form prescribed by Appendix C, as follows:

- 1. For each incident that meets the following criteria, submit an Incident Report not later than one (1) calendar day after receipt of notice of such incident and an updated Incident Report on the tenth (10th) calendar day after receipt of notice of such incident:
 - A. a subject vehicle (whether equipped with ADS or Level 2 ADAS) is involved in a crash on a publicly accessible road in the United States (including any of its territories);

- B. the ADS or Level 2 ADAS on the subject vehicle was engaged at any time during the period from 30 seconds immediately prior to the commencement of the crash through the conclusion of the crash;
- C. the crash results in any individual being transported to a hospital for medical treatment, a fatality, a vehicle tow-away, or an air bag deployment or involves a vulnerable road user; and
- D. notice of the crash is received ten (10) calendar days or more after being first served with Standing General Order 2021-01.

The third criterion (Request No. 1.C.) is met when 1) the crash results in any person being transported to a hospital for medical treatment of an injury, or a fatality, regardless of whether the person injured or killed was an occupant of the subject vehicle; 2) the crash results in a tow-away or air bag deployment on any vehicle involved in the crash, regardless of whether the tow-away or air bag deployment involved the subject vehicle; or 3) a vulnerable road user is injured as a result of the crash, is struck by any vehicle involved in the crash, is an occupant of any vehicle that is damaged as a result of the crash, or is alleged to have caused or contributed to the crash by influencing any part of the driving task for any vehicle involved in the crash.

- 2. For each incident that meets the following criteria and is not reportable under Request No. 1, submit an Incident Report on the fifteenth (15th) calendar day of the month following the calendar month in which notice of the incident was received:
 - A. a subject vehicle equipped with ADS is involved in a crash on a publicly accessible road in the United States (including any of its territories);

B. the ADS on the subject vehicle was engaged at any time during the period

30 seconds immediately prior to the commencement of the crash through

the conclusion of the crash; and

C. notice of the crash is received ten (10) calendar days or more after first

being served with Standing General Order 2021-01.

3. For any incident previously reported under Request No. 1 or Request No. 2,

submit an updated Incident Report on the fifteenth (15th) calendar day of the month following

any calendar month in which notice of any material new or materially different information

about the incident is received.

4. In the absence of any new or updated Incident Reports due under Request No. 2

and Request No. 3, submit an Incident Report confirming the lack of any reportable information

on the fifteenth (15th) calendar day of each month, beginning the calendar month after you were

first served with the Standing General Order 2021-01.

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION, U.S. DEPARTMENT OF TRANSPORTATION

Dated: August 5, 2021	By:	
_	-	

Ann Carlson Chief Counsel

Attachments:

Service List

Appendix A—Incident Report Submission Instructions

Appendix B—Confidential Business Information (CBI) Instructions

Appendix C—Incident Report

UNITED STATES DEPARTMENT OF TRANSPORTATION NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

1200 New Jersey Avenue SE Washington, DC 20590

In re:)
Standing General Order 2021-01)
Incident Reporting for Automated Driving Systems (ADS) and Level 2 Advanced Driver Assistance Systems (ADAS)))))

SERVICE LIST

The following manufacturers and operators shall be served with and are then, upon service, subject to the requirements of this First Amended Standing General Order 2021-01:

Lajos Nemeth Chief Operating Officer Aimotive, Inc. 1907 Colony Street Mountain View, CA 94043

Jan Becker President and Chief Executive Officer Apex.ai, Inc. 979 Commercial Street Palo Alto, CA 94303

Katherine Ramundo Chief Legal Officer Aptiv 4427 Lytle St. # Mill 19B Pittsburgh, PA 15207 Feng-Ming Wan Chief Executive Officer Ambarella Corp. 3101 Jay Street Santa Clara, CA 95054

Katherine Adams General Counsel Apple One Apple Park Way Cupertino, CA 95014

Todd Fronckowiak Director of Safety Policy and Compliance Argo AI Three Crossings Riverfront West Building 2545 Railroad Street, Suite 400 Pittsburgh, PA 15222 Youngwoo Seo Chief Executive Officer Atlas Robotics, Inc. 2259 Delucchi Dr. Pleasanton, CA 94588

Nathaniel Beuse Vice President of Safety Aurora Operations, Inc. 280 N Bernardo Ave Mountain View, CA 94043

Jingao Wang Autonomous Vehicle Operations Baidu USA LLC 1195 Bordeaux Drive Sunnyvale, CA 94089

Michael Hawthorne President and Chief Executive Officer Bendix Commercial Motor Vehicle Systems 901 Cleveland Street Elyria, OH 44035

Adam McNeill Vice President of Engineering BMW of North America, LLC 300 Chestnut Ridge Road Woodcliff, NJ 07675

Mark Godwin President Box Bot 201 2nd Street Oakland, CA 94607 Brad Stertz Director, Audi Government Affairs Audi 601 Pennsylvania Avenue, NW, Suite 740 Washington, DC 20004

Jianxiong Xiao Chief Executive Officer AutoX Technologies Inc US Headquarters, 441 W Trimble Rd San Jose, CA 95131

Joe Moye Chief Executive Officer Beep 6900 Tavistock Lakes Blvd., Suite 400 Orlando, FL 32827

Stephen Worrall Director Bentley Americas 2003 Edmund Halley Dr., Ste 300 Reston, VA 20191-3498

Erik Dyhrkopp General Counsel Robert Bosch North America Corporation 1455 Pennsylvania Avenue, NW, Suite 755 Washington, DC 20004

George Hotz President comma.ai, Inc. 1441 State Street San Diego, CA 92101 Ibro Muharemovic
Director
Continental Automotive Systems, Inc.
1 Continental Dr.
Auburn Hills, MI 48326

Lior Tal Chief Executive Officer CYNGN Inc 1015 O'Brien Dr. Menlo Park, CA 94025

Qi Zhuang Chief Executive Officer Deeproute AI 46535 Fremont Blvd. Fremont, CA 94538

Seiji Maeda Chief Executive Officer Denso International America, Inc. 24777 Denso Drive Southfield, MI 48033

Chief Legal Officer EasyMile 3300 Walnut St. Suite 124 Denver, CO 80205

Johnny Morris
Head of Public Policy & Communications
Embark Trucks, Inc.
424 Townsend St.
San Francisco, CA 94107

Jeff Bleich Chief Legal Officer Cruise 1201 Bryant Street San Francisco, CA 94103

Sean Waters Vice President, Product Compliance Daimler Trucks North America, LLC 4555 N. Channel Ave. Portland, OR 97217

Tonit Calaway General Counsel and Secretary BorgWarner Inc. (Delphi) 3850 Hamlin Rd Auburn Hills, MI 48326

Boqing Shi Autonomous Driving Didi Research America LLC 450 National Ave. Mountain View, CA 94043

Chief Legal Officer Einride AB Nordic Innovation House 470 Ramona St. Palo Alto, CA 94301

David Wertheim General Counsel Ferrari North America, Inc. 250 Sylvan Avenue Englewood Cliffs, NJ 07632-2500 Nicholas Promponas Senior Vice President First Transit, Inc. 600 Vine Street, Suite 1400 Cincinnati, OH 45202

Gil Amid Chief Regulatory Affairs Officer Foretellix 1579 Kennewick Dr. Sunnyvale, CA 94087

Jackie Glassman General Counsel Ghost 900 Villa St. Mountain View, CA 94041

Vladislav Voroninski Chief Executive Officer Helm AI 3723 Haven Avenue, #125 Menlo Park, CA 94025

Brian Latouf Chief Safety Officer Hyundai Motor America 10550 Talbert Avenue Fountain Valley, CA 92708

Dr. Chen Tian Vice President, Head of R&D Center Inceptio Technology 47221 Fremont Blvd. Fremont, CA 94538 Desi Ujkhasevic Global Automotive Safety Office Director Ford Motor Company 330 Town Center, Ste. 500 Dearborn, MI 48126

Arjun Narang Co-Founder and Chief Technology Officer Gatik AI, Inc. 3530 W. Bayshore Rd. Palo Alto, CA 94303-4228

Regina Carto
Vice President, Global Product Safety &
Systems
General Motors LLC
300 Renaissance Center
Detroit, MI 48265

Catherine McEvilly General Counsel American Honda Motor Co. 1919 Torrance Blvd. Torrance, CA 90501-2746

Adham Ghazali Chief Executive Officer Imagry Inc. 2730 S. Hardy Dr., Ste 1 Tempe, AZ 85282

Allon Stabinsky Chief Deputy General Counsel Intel/Mobileye 2200 Mission College Blvd. Santa Clara, CA 95054-1549 Chief Legal Officer Isuzu Technical Center of America, Inc. 46401 Commerce Center Drive Plymouth, MI 48170 Chris Marchand VP, Government and Industry Relations, Americas Jaguar-Land Rover 100 Jaguar Land Rover Way Mahwah, NJ 07495

J.S. (Jurassic) Park VP, Regulatory Compliance Kia Motors America 111 Peters Canyon Road Irvine, CA 92606-1790 Jordan Coleman General Counsel Kodiak Robotics 1049 Terra Bella Ave. Mountain View, CA 94043

Rene Sueltzner Head of After Sales/Recalls Automobili Lamborghini America LLC 2200 Ferdinand Porsche Dr. Herndon, VA 20171 Michael Tree Executive Director LAVTA 1362 Rutan Court, Suite 100 Livermore, CA 94551

Yong Huang Manager Leonis Technologies North America LLC 48660 Kato Road Fremont, CA 94538 Bob de Kruyff Vice President of Regulatory Affairs Local Motors 7400 West Detroit Street, Suite 170 Chandler, AZ 85226

Çetin Meriçli, Ph.D. Chief Executive Officer Locomation 720 E Lacock St. Pittsburgh, PA 15212 Jonathan Butler General Counsel Lucid Motors USA Inc. 7373 Gateway Boulevard Newark, CA 94560

John Maddox Head of Autonomous Vehicle Safety Lyft 185 Berry Street, Ste. 5000 San Francisco, CA 94107 Gregory McLean Senior Legal Counsel Magna International of America, Inc. 750 Tower Drive, Mail Code 7000 Troy, MI 48098 Cheol Woo Kim Chief Executive Officer Mando America Corp. 4201 Northpark Dr. Opelika, AL 36801

Edwin Olson Chief Executive Officer May Mobility 650 Avis Drive, Suite 100 Ann Arbor, MI 48108

Tim Murnane Legal Director McLaren 1405 S. Beltline Road, Suite 100 Coppell, TX 75019

Katherine Knight General Counsel Mitsubishi Motors North America, Inc. 4031 Aspen Grove Dr., Suite 650 Franklin, TN 37067

Ted Navitskas
General Counsel
MV Transportation, Inc.
Corporate Headquarters
2711 N. Haskell Ave.; Suite 1500
Dallas, TX 75204

Jeremy Layman
Sales & Marketing Coordinator
NAVYA Inc.
1406 East Michigan Avenue
Saline, MI 48176

Kas Rigas Head of Communications Maserati North America, Inc. 1 Chrysler Drive Auburn Hills, MI 48326

Jennifer Morrison Manager, Vehicle Safety Compliance Mazda North American Operations 1025 Connecticut Ave., NW, Suite 910 Washington, DC 20036

Matthew Everitt General Counsel Mercedes-Benz North America One Mercedes-Benz Drive Sandy Springs, GA 30328

Peter Simshauser General Counsel Motional 100 Northern Avenue, 2nd Floor Boston, MA 02210

Curt A. Kramer General Counsel Navistar 2701 Navistar Drive Lisle, IL 60532

Selim Hammoud Director, Chief Safety Officer Nissan North America, Inc. One Nissan Way Franklin, TN 37067 Matthew Lipka Head of Policy Nuro 1300 Terra Bella Ave #200 Mountain View, CA 94043

Jenny Larios Berlin Chief Operating Officer Optimus Ride Inc. 88 Black Falcon Avenue, Suite 188 Boston, MA 02210

Hyunggi Cho Chief Executive Officer Phantom.ai, Inc. 197 Airport Blvd Burlingame, CA 94010

Lucy Clark Dougherty General Counsel Polaris Industries 2100 Highway 55 Medina, MN 55340

George Feygin General Counsel Porsche Cars North America, Inc. One Porsche Drive Atlanta, GA 30354

Qian Yu Chief Executive Officer Qcraft.ai 414 Saint Emilion Court Mountain View, CA 94042 Gary Hicok Senior Vice President, Automotive Hardware & System NVIDIA 2788 San Tomas Expressway Santa Clara, CA 95050

Mike Walton General Counsel PACCAR 777 106th Avenue N.E. Bellevue, WA 98004

David Liu Chief Executive Officer Plus AI 20401 Stevens Creek Boulevard Cupertino, CA 95014

Gordon Sung General Counsel Pony.ai 3501 Gateway Blvd. Freemont, CA 94538

Robbie Miller Chief Executive Officer Pronto AI 444 N. Capitol St. NW, Suite 801 Washington, DC 20001

Paul Guckian Vice President Engineering Qualcomm Technologies, Inc 5775 Morehouse Drive San Diego, CA 92121 Jason Stinson Chief Technology Officer Renovo Motors Inc. 1624 Dell Ave., Ste B Campbell, CA 95008

Sayed Ali Ahmed Chief Executive Officer Robomart 730 Arizona Avenue Santa Monica, CA 90401

Mark Chernoby Chief Technical Compliance Officer Stellantis 800 Chrysler Dr, CIMS-482-00-91 Auburn Hills, MI 48326

Nancy Tayui Managing Counsel Suzuki Motor USA, LLC 3251 E. Imperial Highway Brea, CA 92821

Lars Moravy
Vice President Vehicle Engineering
Tesla, Inc.
3550 Deer Creek Rd.
Palo Alto, CA 94304

Gary Ross Vice President Toyota Motor North America 6565 Headquarters Drive Plano, TX 75024 Aarjav Trivedi Chief Executive Officer Ridecell, Inc. 514 Bryant St. San Francisco, CA 94107

Alberto Lacaze President Robotic Research 555 Quince Orchard Rd., Suite 300 Gaithersburg, MD 20878

Sheila Gallucci-Davis General Counsel Subaru of America One Subaru Drive Camden, NJ 08103

Steve Debenham Vice President & General Counsel Telenav, Inc. 4655 Great America Parkway, Suite 300 Santa Clara, CA 95054

Michael Fleming Chief Executive Officer TORC Robotics, Inc. 405 Partnership Dr. SE Blacksburg, VA 24060

Derrick Breun Vice President Operations Transdev Services, Inc. 720 E. Butterfield Road, Suite 300 Lombard, IL 60148 Jim Mullen Chief Administrative and Legal Officer TuSimple 9191 Towne Centre Dr, Ste 600 San Diego, CA 92122

Eric Antoine Fredette General Counsel Valeo 150 Stephenson Highway Troy, MI 48083

Jimmy Pang
Engineering and Development Supervisor
Verizon
One Verizon Way
Basking Ridge, NJ 07920

Christopher Dauerer Vice President Quality - Americas Volvo Car USA, LLC 1800 Volvo Pl. Mahwah, NJ 07430

Kelly Freeman Senior Legal Counsel Wabco Vehicle Control Systems Wabco Holdings Inc. Americas 1220 Pacific Drive Auburn Hills, MI 48326

Zhong Hua
Senior Vice President of Engineering
WeRide Corp
2630 Orchard Pkwy,
San Jose, CA 95131

Daniel J. Laury Chief Executive Officer Udelv, Inc. 1826 Rollins Rd. Burlingame, CA 94010

Julie A. Manzari Innovation Strategist VEPC (Dominon Energy) 707 East Main Street, 20th Floor Richmond, VA 23103

Christopher Sandvig Director of Group Customer Protection Volkswagen Group of America, Inc. 2200 Ferdinand Porsche Dr. Herndon, VA 20171

Jonathan Miller Senior Vice President, Public Affairs Volvo Trucks 2900 K St., NW, South Building, Ste 410 Washington, DC 20007

Kevin Vosen General Counsel Waymo 25 Massachusetts Ave. NW, 9th Floor Washington, DC 20001

James Kuffner Chief Executive Officer Woven Planet North America, Inc. 4440 El Camino Real Los Altos, CA 94022 Xinzhou Wu Chief Executive Officer Xmotors.ai, Inc. 850 N. Shoreline Blvd. Mountain View, CA 94043

Dr. Martin Fischer
Passive & Active Safety Systems,
Electronics, and ADAS
ZF North America, Inc.
12001 Tech Center Drive
Livonia, MI 48150

John Mottola Vice President of Operations Perrone Robotics, Inc. 5625 The Square Crozet, VA 22932 Dmitry Polishchuk Chief Executive Officer Yandex Self Driving Group Inc. 10 State Street Newburyport, MA 01950

Christopher Nalevanko General Counsel Zoox 1149 Chess Drive Foster City, CA 94404

Dr. Anuja Sonalker Chief Executive Officer Steer Tech 10840 Guilford Rd. Annapolis Junction, MD 20701

Appendix A to Standing General Order 2021-01 Incident Report Submission Instructions

Each report required by this Standing General Order (General Order) must be provided to NHTSA in electronic format, via the NHTSA Incident Report – SGO 2021-01 Portal (the Portal). The Portal will be available beginning on August 12, 2021, the effective date of this General Order. These instructions explain how to establish a Portal account and how to submit a report required under this General Order via the Portal. Any report that contains confidential business information (CBI) must also separately be submitted to NHTSA's Office of Chief Counsel pursuant to the instructions set forth in Appendix B.

Establishing a Portal Account

If you do not have a Portal account, you must establish an account before you can file any report required by this General Order. You should establish a Portal account as soon as possible to ensure that you can timely file all required reports and to become familiar with the Portal and the procedure for filing a report.

If you have a preexisting Incident Report PDF upload account, you already are preregistered for submitting reports under this General Order, and you should already have received a Portal account invitation email to establish an account password. If you do not have a preexisting account or if you have not received a Portal account invitation email, you must contact the Help Desk at 202-366-3348 or by email at MC.Helpdesk@dot.gov to provide company and individual contact information so that NHTSA can set up a Portal account for filing reports under this General Order. You then will receive a Portal account invitation email to establish an account password and activate the account. Each separate user (including multiple users from the same reporting entity) must establish and activate a separate account.

Submitting a Report to NHTSA via the Portal

To submit a report to NHTSA under this General Order via the Portal, you must access the Portal at https://mcp.nhtsa.gov/acr/signin and follow the steps below. All data elements in the report form are required to be completed. Some data elements have restrictions based on entries made for other data elements.

- 1. Log in to your Portal account using your email address and password.
- 2. **To create a new report**, select the "Create a New Submission" button on the displayed dashboard page.
- 3. In the report form that is now shown, select the REPORT TYPE to display the fields that are needed for that selection. The options for REPORT TYPE are 1) "1-Day," 2) "Monthly," and 3) "Monthly –No Incidents."
- 4. If the REPORT TYPE is "1-Day," enter the required data in the fields that are shown. After entering data, select the "Save As Draft" button to save the report as a draft for later editing or submission, or select the "Submit" button to submit the report to NHTSA immediately. Select the "Cancel" button to return to the dashboard.
- 5. If the REPORT TYPE is "Monthly," enter the required data in the fields that are shown. After entering data, select the "Save As Draft" button to save the report as a draft for later editing or submission, or select the "Submit" button to submit the report to NHTSA immediately. Select the "Cancel" button to return to the dashboard.
- 6. If the REPORT TYPE is "Monthly No Incidents," select and enter the REPORT MONTH & YEAR. After entering the month and year, select the "Save As Draft" button to save the report for later editing or submission or select the "Submit" button to submit the report to NHTSA immediately. Select the "Cancel" button to return to the dashboard.

- 7. **To edit a report saved as a draft**, select its Report ID on the "Draft Incident Reports" table on the dashboard to perform edits or to submit the report to NHTSA. You can also delete a saved draft report by selecting the "Delete" button on the report page.
- 8. Following completion of any edits on a draft report, you can submit the report by selecting the "Submit" button. The report will now be shown on the "Submitted Incident Reports" table on the dashboard. If the report previously had been saved as a draft, it will no longer be found on the "Draft Incident Reports" table following submission.
- 9. **To view a report following submission**, select the Report ID of the report on the "Submitted Incident Reports" table on the dashboard. The submitted report can no longer be edited.
- 10. To create an updated report (10-day or monthly), select the report from the "Submitted Incident Reports" table and then select the "Create Updated Report" button at the bottom of the report form. A draft copy of the report will be created and can be edited and submitted as a new version of the original form. The "Create Updated Report" function is used for both 10-day updated reports and monthly updated reports. To see the submitted report from which an update report was created, look at the label immediately under the Report ID field. Only the latest version of a submitted report can be used to create an update and only one draft update version can exist for that report. An updated report must independently include all required information and must not attempt to incorporate information from prior reports by reference. If the updated report includes confidential business information, you must submit a new CBI request pursuant to the instructions set forth in Appendix B.
- 11. **To view a list of prior activity**, select the "Audit Trail" button from the dashboard or from the report pages.

- 12. **To print reports for a CBI submission**, select the report from the "Submitted Incident Reports" table, open the report, and select the Print button at the top to print confidential and public versions of the report. A pop-up window will be displayed giving you the option to print either a public version that does not show the confidential version of the CBI fields or a confidential version that contains unredacted CBI fields and includes a "CONFIDENTIAL BUSINESS INFORMATION" designation at the top of the page. All CBI submissions must be made pursuant to the instructions set forth in Appendix B.
- 13. To log out of your Portal account, use the Logout link near the top of the page.Technical Assistance

For technical assistance setting up a Portal account or submitting a report to NHTSA via the Portal, please contact the MC Help Desk at 202-366-3348 or by email at MC.Helpdesk@dot.gov. For technical assistance regarding the content required in a report, please send an email to sgo202101-info@dot.gov.

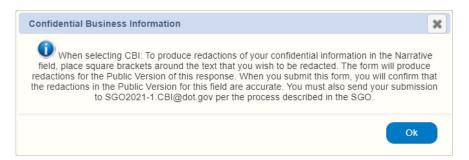
Appendix B to Standing General Order 2021-01 Confidential Business Information (CBI) Instructions

If you claim that information in an Incident Report you submit contains confidential business information (CBI), you must comply with 49 C.F.R. Part 512 and these instructions. These instructions provide information intended to help you comply with that regulation in the context of submitting required Incident Reports under this General Order. A current version of the regulation is available at http://www.ecfr.gov by selecting Title 49 "Transportation," selecting "Parts 500 – 599" and then selecting Part 512 "Confidential Business Information."

- 1. NHTSA has determined that only three of the fields on the Incident Report form (Appendix C) request information that potentially could be CBI. Those three fields are: (1) "ADAS/ADS VERSION"; (2) "WAS VEHICLE WITHIN ITS ODD AT THE TIME OF THE INCIDENT?"; and (3) "NARRATIVE." The form includes a box labeled "CBI" next to each of these three fields.
- 2. To claim that your response to any of these three fields constitutes CBI, you must first check the CBI box next to each field you are claiming constitutes CBI. You must separately check each CBI box to claim that the information submitted in that field constitutes CBI.
- 3. If any one of the CBI boxes is checked, the report will display the statement "CONFIDENTIAL BUSINESS INFORMATION" at the top of the report, consistent with the requirements of 49 C.F.R. § 512.6(c)(2). The following message also will appear as a reminder:



- 4. If you check the CBI box for "ADAS/ADS VERSION and/or "WAS VEHICLE WITHIN ITS ODD AT THE TIME OF THE INCIDENT," brackets will automatically be placed around the response for which the CBI box is checked to designate the information that is claimed to be confidential, consistent with the requirements of 49 C.F.R. § 512.6(c)(2). A read-only field showing the public versions of these fields will be displayed below the confidential version of the field. The public versions of these fields will state "[REDACTED CONFIDENTIAL BUSINESS INFORMATION]"
- 5. If you check the CBI box for "NARRATIVE," you must manually insert brackets in the text of your response around the specific information you are claiming is confidential. These brackets will not be inserted automatically because you must identify the specific information within the "NARRATIVE" response you are claiming is confidential, consistent with the requirements of 49 C.F.R. § 512.6(c)(2). When you check the CBI box for "NARRATIVE," the following message will appear as a reminder:



A read-only field showing the public version of the NARRATIVE field will be displayed below the confidential version of the field. Any part of the narrative you have designated as confidential by placing it within brackets will be replaced with "[REDACTED CONFIDENTIAL BUSINESS INFORMATION]" in the public version of the field. If you do

not insert brackets around the specific information you are claiming is confidential, you have not made a valid CBI claim for any information in your response to "NARRATIVE."

- 6. To make a valid CBI claim, you must also, in addition to following the procedures described in Paragraphs 2-5, separately submit a confidentiality request to NHTSA in support of your CBI claim. You must submit a separate confidentiality request for each Incident Report on which you are claiming CBI. You need to submit one confidentiality request for each Incident Report, regardless of how many of the three CBI boxes you checked. To submit a confidentiality request, you will need the Report ID that was generated and assigned to the report.
- 7. You must email your confidentiality request to NHTSA's Office of Chief Counsel at SGO2021-1.CBI@dot.gov. Your email must include in the subject line: the name of the Reporting Entity and the Report ID. To facilitate social distancing due to COVID-19, NHTSA is treating electronic submission as an acceptable method for submitting confidentiality requests to the agency under 49 C.F.R. Part 512. *See* https://www.nhtsa.gov/coronavirus/submission-confidential-business-information. Do not send a duplicate hardcopy of your confidentiality request to NHTSA.
 - 8. The confidentiality request you email to NHTSA must include the following:
 - a. A request letter that contains supporting information, pursuant to 49 C.F.R. § 512.8. See Food Marketing Institute v. Argus Leader Media, 139 S. Ct. 2356 (2019). The request letter must reference the unique filename assigned to the report.
 - b. A certificate, pursuant to 49 C.F.R. § 512.4(b) and 49 C.F.R. Part 512, Appendix A. The certificate must reference the Report ID assigned to the report.

- c. An unredacted, "confidential version" of the report for which you are requesting confidential treatment. The report you submitted electronically, with checked CBI boxes, brackets around the information claimed to be confidential, and the label "CONFIDENTIAL BUSINESS INFORMATION" at the top of the page meets the requirements of 49 C.F.R. § 512.6 for this purpose. To print a confidential version of the report for a CBI submission, select the report from the "Submitted Incident Reports" table, open the report, and select the Print button at the top. A pop-up window will be displayed giving you the option to print a confidential version that includes unredacted CBI fields and includes the designation "Confidential Business Information" at the top of the page.
- d. A redacted, "public version" of the report for which you are requesting confidential treatment. Pursuant to 49 C.F.R. § 512.5(a)(2), the redacted "public version" must include redactions of any information for which you are seeking confidential treatment (i.e., the only information that should be unredacted is information for which you are not seeking confidential treatment). To print a redacted, public version of the report for a CBI submission, select the report from the "Submitted Incident Reports" table, open the report, and select the Print button at the top. A pop-up window will be displayed giving you the option to print a public version that does not show the confidential version of the CBI fields.

Appendix C to Standing General Order 2021-01 Incident Report Form

The Incident Report Form is an interactive web form that can be accessed via the Portal (see instructions in Appendix A for accessing the Portal). A static image of the form is shown on the following page.

