NEW YORK CITY TAXI AND LIMOUSINE COMMISSION

RESOLUTION APPROVING A PILOT PROGRAM TO EVALUATE VEHICLE SAFETY TECHNOLOGY: BLACK BOX, ANTI-SPEEDING AND DRIVER ALERT TECHNOLOGIES

June 19, 2014

The New York City Taxi and Limousine Commission (the "Commission" or "TLC") hereby approves by resolution ("Resolution") a Pilot Program, pursuant to section 52-27(a) of the Commission's rules, to test and evaluate Vehicle Safety Technology or Vehicle Safety Technologies: black boxes, anti-speeding technologies, driver alert systems, and related analytic software, which can be used to promote safe driving in TLC-regulated vehicles.

Every year, more than 250 New Yorkers lose their lives and over 4,000 are seriously injured in traffic crashes. Not one of these incidents is acceptable.

To put an end to traffic-related deaths and serious injuries, the City of New York has launched the "Vision Zero" program, an interdepartmental initiative to rethink practices, incentives, and traffic-as-usual. The TLC has a major role to play in realizing Vision Zero's goal nyc.gov/visionzero. TLC vehicles and drivers, covering over 2 billion miles per year, represent a highly visible component of the City's traffic and in many ways set the tone for driving in the City.

TLC has worked in conjunction with the New York Police Department ("NYPD"), the Department of Transportation ("DOT"), other City agencies and members of the for-hire industries to develop ideas that acknowledge the importance of TLC-regulated fleets in New York City and that seek to leverage their positions to create positive change. Commission staff identified in-vehicle technologies, like black boxes, speed governors, and driver alert systems, as promising tools to help TLC licensees drive more safely, and released two requests for information ("RFI") to learn more about the efficacy of these technologies.

Based on the information contained in responses to the two RFIs, meetings with industry stakeholders, public hearings and town hall meetings, and from review of outside studies demonstrating how these types of technologies have improved road safety in other settings, the Commission has determined that a pilot program would be valuable to more fully evaluate the costs and benefits of using Vehicle Safety Technologies in the unique environment that TLC-regulated industries operate. Interest in this type of pilot program extends to the City Council, which proposed a bill calling for this Pilot Program.

Through feedback and data collected over the course of this pilot, the Commission, the for-hire industries, and the public will be able to identify whether these devices positively impact the safety of drivers, passengers, and other road-users, and whether there are drawbacks to these

technologies that would need to be taken into account should they go into use beyond this Pilot Program. Therefore, the Commission will authorize Vehicle Safety Technology Providers ("Participants") to equip TLC-regulated vehicles with approved Vehicle Safety Technologies that meet the operational and security standards as set forth by the Commission and are in compliance with laws, rules and regulations in this jurisdiction to operate for a limited duration on a pilot basis. The purpose of the Pilot Program is solely to assist the Commission in learning about the feasibility and effectiveness of Vehicle Safety Technologies, and participation in the Pilot Program does not signal authorization to operate Vehicle Safety Technologies beyond the guidelines of the Pilot Program.

Black boxes record the speed, location, braking, acceleration, and lateral movement of a vehicle over time, using information either from the vehicle's onboard computer, GPS, cameras, or a combination of all three. The devices can be programmed to record just before and after an event, such as a collision or at ignition, or on a continuous basis, and can then store that information locally or transmit it wirelessly to central servers. Speed governors can either cap a vehicle's speed at a pre-set level, or dynamically based on the vehicle's location and the speed limit of the street on which it is travelling. Driver alert systems read indicators in the car's computer system, from street-facing sensors, GPS, or other sources to warn the driver of impending danger, such as pedestrians in the vehicle's path, or excessive speed. In addition, much of the data collected by these devices are pulled into software platforms that analyze and predict risky driver behavior over time. These types of technologies have been used by commercial fleets to decrease the number of collisions and driver "events" that have been shown to be "risky," thus could be useful to the Commission in meeting its goal to promote safer driving in TLC-regulated industries.

Other potential benefits of these systems include reduced fuel costs and insurance premiums, reduced time for settling claims, vehicle mechanical problem diagnostics, the ability to detect atrisk drivers and risky situations, notification of drivers in distress (e.g., a crash occurred), and the ability to make suggestions to improve driving habits.

As set forth more fully below, TLC Licensees including Medallion Owners; vehicle owners of yellow taxis, Street Hail Liveries, liveries, black cars, limousines, paratransit vehicles and commuter vans, collectively "Vehicle Owners"; SHL permit holders; and bases that have an interest in a Participating Vehicle ("Bases"), who choose to use a Participant's Vehicle Safety Technology during the term of the Pilot Program will be exempted from certain Commission rules. Moreover, data obtained during the Pilot Program will not be used for TLC enforcement purposes, nor will the Commission review information, images, or audio from passengers, except in circumstances where it is required by law or where this information is important to the analysis of circumstances surrounding serious crashes.

Pursuant to section 52-28(a) of the Commission's rules, approval of this Resolution is subject to the following:

1. Commencement and Duration:

The Pilot Program will commence on the date on which the first Participant approved pursuant to this Pilot Program puts Vehicle Safety Technology into service and will continue for twelve consecutive months thereafter.

2. Pre-Qualification Conditions

- a. Each Participant in the Pilot Program must enter into a binding Memorandum of Understanding ("MOU") with the Chair on behalf of the Commission, which is approved as to form by the New York City Law Department, which obligates the Participant to adhere to all requirements of this Resolution and sets forth additional specifications for each requirement. This Resolution contains a summary of the major MOU terms but does not include each and every term. The MOU must not conflict with any provision of this Resolution.
- b. Each Participant shall ensure that each participating TLC Licensee has signed an agreement with the Participant to have installed in the TLC Licensee's Participating Vehicles Vehicle Safety Technology equipment for the duration of that TLC Licensee's participation in the Pilot Program. These agreements must be consistent with this Resolution. The costs of installation and de-installation shall be borne by either a TLC Licensee, the Vehicle Safety Technology pilot Participant, or a third party, and their agreement shall set forth the person or entity that bears each of the costs of participation, except that no costs shall be borne by TLC licensed drivers who are not TLC licensed Vehicle or Medallion Owners.
- c. If a participating Medallion Owner or SHL permit holder is not the owner or lessee of a Participating Vehicle, the Medallion Owner or SHL permit holder shall ensure that the owner or lessee of the Participating Vehicle agrees in writing to comply with the terms of this Resolution.
- 3. Means of Public Notice
 - a. Notice of opportunity to participate in the Pilot Program will be published in the City Record and on the Commission's website.
- 4. Proposal
 - a. The Commission will begin accepting proposals for participation in the Pilot Program immediately after a template MOU setting forth the specific terms of participation is published on the TLC website.
 - b. The Commission will accept proposals throughout the Pilot Program, with authorization to participate in the Pilot Program ending when either the Pilot Program is terminated in whole, or as to a particular Participant, or when the term of the Pilot Program has expired.
 - c. Each candidate applying must also:

- i. Submit a statement of the purpose or value of the proposed Vehicle Safety Technology, including information regarding the use of the Vehicle Safety Technology in other jurisdictions or industries;
- ii. Submit a description of its proposed Vehicle Safety Technology system(s), including any engineering, quality, and/or manufacturing industry standards to which the technology adheres, anticipated costs for Drivers and/or Medallion Owners, Vehicle Owners and /or SHL permit holders, and user guides on how to activate and use the equipment.
- iii. Submit a detailed Security Policy that describes the specific information security risks associated with the candidate's specific offering, mitigations the candidate has developed to address those risks, and industry best practices governing the Vehicle Safety Technology system that the Participant proposes to pilot with TLC's Licensees. The security policy must explain what is done to ensure that collected data cannot be tampered with or accessed by unauthorized users at any point.
- iv. Submit a detailed Privacy Policy that describes the specific privacy risks associated with a candidate's specific offering, mitigations the candidate has developed to address those risks, and industry best practices governing the Vehicle Safety Technology system that the Participant proposes to pilot with TLC's Licensees, taking into consideration the privacy of passengers and Drivers. The goal of the Pilot is to determine the efficacy of the Vehicle Safety Technology on driving of TLC regulated vehicles, not to receive passenger data or information identifying or capturing passenger conversations or images. However, the value of the Pilot can be enhanced in instances such as a serious crash, when video or audio feed that shows both drivers and passengers is available for review. In this respect, proposals which collect passenger data should address how the Participant will minimize privacy concerns and state how Participants will safeguard passenger data. To mitigate privacy risks, installation of an In Vehicle Camera System ("IVCS") pursuant to this Pilot, with or without audio, must also be accompanied by the installation of stickers warning passengers of images and audio as provided in Section 7(d) of this Resolution.
- v. Submit an estimate of any cost including vehicle-related cost and revenue impact of the proposed Vehicle Safety Technology system on affected License groups such as drivers and vehicle owners, on the Commission and the City including, but not limited to information such as fuel costs, insurance premiums or the equivalent, average wait-time for insurance settlements, and maintenance and operation costs for the Vehicle Safety Technology.
- vi. Submit a description of the different ways in which the proposed Vehicle Safety Technology system could depart from otherwise applicable requirements, including TLC Rules;

- vii. Submit a description of any effect the Participant's proposed Vehicle Safety Technology system would have on the safety of operations of those participating in the Pilot, either as a Participant or a participating TLC Licensee;
- viii. Enter into a binding MOU with the Chair on behalf of the Commission which is approved as to form by the New York City Law Department.
- ix. Submit to testing and evaluation and/or demonstration of the Vehicle Safety Technology to TLC staff.
- 5. Selection
 - a. Selection of Participants will be made by the Chair.
 - b. Criteria for selection will include adherence to technical, security, data reporting, and privacy requirements as described in this Resolution, demonstrated capacity to deliver the proposed service, demonstrated interest from TLC Licensee partners, demonstrated nexus between the Participant's proposed Vehicle Safety Technology system and the goals of the Vision Zero initiative, and ability to meet the requirements set forth in this Resolution and the MOU. The Chair reserves the right to reject proposals which do not adhere to the criteria set forth in Section 4 and in this section including, but not limited to, proposals which, in the judgment of the Chair, do not sufficiently protect passenger privacy.
 - c. The Chair may ask any candidate to supplement a proposal as necessary to complete the evaluation of proposals and selection of Participants.
 - d. The number of Participants in the Pilot Program is not limited.
 - e. The number of TLC licensees with which a Participant may contract to install Vehicle Safety Technologies in vehicles is not limited.
- 6. Integration of Vehicle Safety Technology into Vehicles
 - a. The installation and operation of a Vehicle Safety Technology must not impede the operability of existing in-vehicle equipment in any TLC-licensed vehicle.
 - b. In addition to the initial security and safety evaluation performed by the Commission prior to implementation of the Program, Participants must ensure that during implementation of the Program, their Vehicle Safety Technology can be inspected and accessed by the Commission, and shall cooperate with the Commission regarding any demonstration and testing of the Vehicle Safety Technology by TLC staff.
- 7. Privacy and Security
 - a. Participants must review their respective Privacy Policies and analyze and provide passenger information to the TLC only if the passenger information is incidental to

the recording of a serious crash, in accordance with Section 4(c)(iv) of this Resolution.

- b. Participants must ensure that data cannot be tampered with or accessed by unauthorized parties at any point.
- c. Participants must have received written consent from Medallion Owners, participating Vehicle Owners, or SHL permit holders and participating Commission licensed drivers ("Drivers") and Bases, where applicable, before collecting or analyzing data as part of the Pilot Program, and proof of consent must be in a form approved by the Commission and produced upon request from the Commission. The TLC will provide a sample Driver's consent Agreement as an exhibit to the MOU. Such consent Agreement will include terms acknowledging that Participants may collect data from the Vehicle Safety Technology at all times and may provide TLC with ongoing data. A Driver willing to participate in this Pilot will be able affirmatively to opt in to participation and the TLC will not use the data for enforcement purposes during the Pilot period.
- d. Participants using cameras as part of their Vehicle Safety Technology must provide a notice in a form approved by the TLC and visible to passengers on the inside and outside of the vehicle of the presence of the camera and, where applicable, its capability to record audio.
- 8. Termination
 - a. If the Chair determines a Participant has violated or not complied with any provision of this Resolution or the MOU it may immediately terminate approval to participate in the Pilot Program.
 - b. The Chair can cancel the Pilot Program for any reason, including if it receives corroborated evidence that a Vehicle Safety Technology authorized for use in the Pilot Program creates a security, safety, privacy, or other unacceptable risk to Medallion or Vehicle Owners, SHL permit holders, Bases, passengers or Drivers.
- 9. Damages
 - a. Participants shall be responsible to pay Drivers, other participating TLC licensees, Passengers and the TLC, restitution, damages, and/or liquidated damages, as applicable, for any harm caused by use of the Participant's Vehicle Safety Technology during the duration of the Pilot Program, as specified in the MOU.
- 10. Insurance/Indemnification
 - a. Each Participant must provide the Commission with proof of primary insurance as required by the MOU, including but not limited to Commercial General Liability Insurance; Professional Liability Insurance and Commercial Crime Insurance.

- b. Each Participant is responsible for the conduct of its employees, contractors, and agents, and must familiarize each with relevant regulatory rules and regulations.
- c. Participant must defend, indemnify and hold harmless the City of New York, its officers and employees from all claims arising from participation in the Pilot Program.

11. Data

- a. Participants will be required to provide machine-readable data necessary for the Commission's evaluation of the pilot program. This may include events of speeding, changes in gravitational forces, hard braking, hard acceleration, in-vehicle alerts, timestamps, geographic location information, and vehicle/driver identifiers.
- b. Due to the variety of safety technologies eligible to participate in this Pilot Program, specific data points and required formatting may vary between safety technologies and will be enumerated in detail in the MOU.
- c. Participants must transmit data to the Commission weekly, with the first transmission of data occurring no more than six weeks after the first vehicle equipped with the technology goes into service. Initial transmission of data must contain records for no less than the first two weeks of operation. Thereafter weekly data transmissions to the Commission must include data records from each subsequent week of service, with a maximum allowable lag of four weeks between the date of the records and the transmission date.
- d. Participants must maintain all of the above required data for at least three years after the date on which the Participant commences providing Vehicle Safety Technology pursuant to the Pilot Program.

12. Reporting and Evaluation

- a. Participants must submit a report to the Commission every other month summarizing data that may include speed and speeding events, braking and hardbraking events, acceleration and hard-acceleration, collision events, any algorithmic scoring, and a summary of all complaints related to the pilot program received from drivers, owners and passengers. Such reporting must be in a format approved by the Commission, as further enumerated in the MOU.
- b. The Commission requests that participants, including pilot Participants, Medallion Owners, Vehicle Owners SHL permit holders, and/or Bases report their vehiclerelated costs before and after the program so that the Commission can understand the financial costs and benefits associated with the use of Vehicle Safety Devices. In addition, the Commission requests other information such as insurance premiums or the equivalent, average wait-time for insurance settlements, and maintenance and

operation costs for the Vehicle Safety Technology that would add to its understanding of the costs and benefits of the technology.

- c. Participants must submit an initial list prior to putting their Vehicle Safety Technologies into service and subsequent lists each month of TLC Licensees using Vehicle Safety Technology permitted through this Pilot Program, including Participating Vehicle Owners, Medallion Owners, SHL permit holders, Drivers, Bases, and garages.
- d. No later than two months after a Participant ceases to operate under the Pilot Program, it must submit to the Chair a program summary report including the data set forth in the MOU.
- e. TLC staff shall prepare and transmit to TLC Commissioners a four-month report, an eight-month report, and a one-year final report on the results of the pilot program. Such reports shall include data about the use of Vehicle Safety Technologies and shall evaluate:
 - i. whether and to what extent approved Vehicle Safety Technology appear to affect collision rates;
 - ii. where possible, whether and to what extent approved Vehicle Safety Technology affects driving behavior, such as speeding, aggressive driving, hard braking, and erratic driving;
 - iii. challenges associated with implementing Vehicle Safety Technologies;
 - iv. where possible, whether and to what extent the use of Vehicle Safety Technology affects the expenses of TLC Licensees, including Drivers, participating Vehicle Owners, Medallion Owners, SHL permit holders, Bases, and fleets; and,
 - v. to the extent possible, participating TLC Licensee Driver, fleet/Base, and passenger experiences with Vehicle Safety Technology.
- f. The final report, including data for the period up to and including the ending date of the Pilot Program, will include findings based on the entirety of the Pilot and a recommendation as to whether or not to continue the program or undertake rule-making for next steps for staff or Commission action. The final report will be provided to the Commission within 4 months of the conclusion of the Pilot Program. If the recommendation is to undertake rule-making, the Commission will initiate rule-making within 12 months following submission to the Commission of the final report.

13. Exemption

- a. Participating TLC Licensees who install an IVCS pursuant to the Pilot Program are exempt from sections 67-12, 59A-32, 59B-33. 59C-01—Requirements for Hack-up for In-Vehicle Camera System ("IVCS"), Technical Specifications—of the Commission's rules, provided that the Vehicle Safety Technology is approved under the requirements set forth in the MOU and can provide similar recording functions.
- b. Where digital driver-facing screens have been installed as part of a Vehicle Safety Technology, owners and drivers will be exempt from sections 54-14(e), 55-14(g), 56-14(i), and/or 57-14(b)—Use of Electronic Communication Device—of the Commission's rules provided that any interaction with the screen while the vehicle is in motion occurs using either voice or one-touch pre-programmed buttons or keys.

14. Compliance

- a. Participants and the Vehicle Safety Technology equipment installed for this pilot must comply with all applicable state and federal and local laws, including but not limited to Occupational Safety and Health Administration (OSHA) standards and requirements and, unless otherwise provided herein, TLC rules, all laws regarding workers compensation, disability benefits and tax withholding, and must pay all fees and fines owed to state, federal or local government jurisdictions when they are due. Section 13 Exemption, above, provides the only exemption pertaining to this compliance section.
- b. Participant must not file with the Commission any statements that he or she knows or reasonably should know to be false, misleading, deceptive or materially incomplete.
- c. Participant must not accept, request, give or offer gifts or gratuities to or from a licensee for the purpose of violating any of the requirements of the Pilot Program or applicable provisions of state, federal and local law, and must report to the TLC and the New York City Department of Investigations request or offers for the same.
- d. Participant must not commit fraud, misrepresentation and larceny, willful acts of omission and commission; and must not act against the best interests of the public, including but not limited to acts of threats, harassment, abuse, use or threat of physical force, or failure to cooperate with law enforcement or the Commission.
- e. Participant must notify the TLC in writing of any suspension or revocation of any license granted to the Participant by any local, state or federal agency.
- f. Participant must inform the TLC if it is required to make disclosures under State or federal law regarding security breaches, including the New York State Information Security Breach and Notification Act (General Business Law section 899-aa).

g. Participant must notify the TLC before making any material modifications to its TLC-authorized Vehicle Safety Technology and cannot use the modified technology in the Pilot Program until such modification has been approved by the TLC.