Textalyzer Technology Study Report

INTRODUCTION AND BACKGROUND

Cell phone use, texting and other driver distractions continue to be a serious traffic safety concern in New York State and across the country. In 2001, New York became the first state in the nation to prohibit the use of hand-held cell phones while driving (section 1225-c of the NYS Vehicle and Traffic Law). In recognition of the additional dangers posed by the increasing use of cell phones to send and receive text messages, further legislation was enacted in 2009 prohibiting texting while driving (section 1225-d of the NYS Vehicle and Traffic Law). Section 1225-d also bans other uses of a portable electronic devices while driving, such as taking photos, accessing the web and playing games. While New York has been at the forefront of efforts to mitigate the dangers posed by distracted drivers, cell phone and other mobile device use has continued to expand at an explosive rate indicating that additional measures are needed to keep the state's roadways safe.

According to the Annual Wireless Industry Survey conducted by CTIA – The Wireless Association in 2016, 95 percent of the adults in the United States own a cell phone and 80 percent of the population owns a smart phone[1]. The CTIA survey also found that wireless consumers spent 2.751 trillion minutes talking on their phones and sent 1.939 trillion text messages in 2016. In addition, cell phones and other mobile devices are used for an increasing number of activities beyond talking and texting. The survey found that smart phone users spent an average of two hours and 32 minutes per day using apps or accessing the web in 2016, double the amount of time spent in the previous year.

The ever-expanding use of cell phones and other mobile devices while driving, especially for texting, endangers the safety of all motorists traveling on New York's roadways. More than half (52%) of the drivers surveyed at New York State Department of Motor Vehicles offices in 2017 said that they send or receive text messages while driving and 9% admitted that they text all or most of the time.[2] In addition, 25% of the drivers surveyed said that they use a hand-held device in violation of the law all or most of the time when they talk on a cell phone while driving.

Tickets issued for texting violations also reflect the increased volume of illegal cell phone activity on the state's roadways. Between 2012 and 2016, the number of tickets issued for texting (VTL 1225-d) increased more than three-fold, from 30,241 to 92,363.[3]

From 2012-2016, 14 people were killed in New York State and 2,959 were injured in crashes involving a cell phone.[4] In New York State, a crash involving texting is defined as a crash where a contributing factor of texting was reported on the crash report or a ticket was issued for a violation of VTL 1225-d (operating a motor vehicle while using a portable electronic device). A cell phone crash is defined as a crash where cell phone use (hand-held or hands-free) was reported as a contributing factor or a ticket was issued for a violation of VTL 1225-c (operating a motor vehicle while using a mobile telephone).

Based on the dramatic increases in the ownership and reported use of cell phones and other mobile devices and the numbers of tickets issued for texting violations, the involvement of illegal cell phone use in crashes appears to be underreported. Since law enforcement's ability to determine whether unlawful

cell phone use was a contributing factor in a crash in most cases depends on eyewitness accounts or a driver's admission to a violation, under reporting is likely the case.

TEXTALYZER TECHNOLOGY

One approach to trying to address the problems associated with illegal cell phone usage and texting while driving is a proposal to develop "textalyzer" technology. The concept behind a "textalyzer" is that an electronic scanning device that can assess if a cell phone or any portable electronic device was used in the moments leading up to a crash.

The technology is referenced in a bill, known as Evan's Law (S.2306/A.3955), which would allow for the screening of mobile devices at a crash scene at the request of law enforcement.

GOVERNOR'S CHARGE TO THE GTSC

In July 2017, Governor Andrew M. Cuomo requested the Governor's Traffic Safety Committee (GTSC) to study the new textalyzer technology and any issues associated with its implementation and use. He stated that, "While this technology could help us crack down on this dangerous activity, there are concerns about privacy and enforcement that we need to consider, so I am directing the Traffic Safety Committee to study new technology and thoroughly evaluate its implications to ensure we protect the safety and privacy of New Yorkers." The GTSC was further charged with preparing a report summarizing the findings from the study.

In response to this directive, the GTSC and its member agencies held three listening sessions to gather input on textalyzer technology or any similar technology that would field test whether cell phones and other personal electronic devices were used by drivers after a fatal, personal injury or property crash occurs. The general public, representatives from various associations and other interested parties were invited to speak at one of the scheduled listening sessions or to submit written comments directly to the GTSC at SafeNY@dmv.ny.gov.

The listening sessions were conducted as follows:

- Westchester County Police Academy, Valhalla, NY – 9/25/2017
- Morrelly Homeland Security Center, Bethpage, NY – 10/25/2017
- University of Rochester Bloch Alumni and Advancement Center, Rochester, NY – 11/9/2017

Terri Egan, Executive Deputy Commissioner of the New York State Department of Motor Vehicles and Acting Chair of the Governor's Traffic Safety Committee, and a panel of representatives from GTSC member agencies presided over each session. All three sessions were videotaped and recorded.
Each session began with an invitation for vendor presentations on existing textalyzer technology. Cellebrite, a New Jersey-based company that focuses on the area of digital intelligence, demonstrated a proof of concept of a textalyzer device at the Valhalla and Bethpage listening sessions and a video of that same demonstration was shown at the Rochester session. No other vendors attended any of the three listening sessions or provided product information directly to the GTSC.

The speakers who participated in the listening sessions or provided written testimony directly to the GTSC represented a broad spectrum of points of view and included:

- Victims and victim advocates
- Traffic safety advocates
- Law Enforcement
- Insurance industry
- Legal community
- Members of the NYS Legislature
- General public

Copies of all written statements received are available at:
http://safeny.ny.gov/textalyzerWrittenStatements.pdf

ISSUES ADDRESSED BY SPEAKERS AND IN WRITTEN TESTIMONY

The three listening sessions and the comments submitted directly to the GTSC, identified a number of issues related to the use of textalyzer technology. The key issues included: the technology itself; law enforcement's use of the technology; driver privacy; and constitutional/4th amendment issues and legal issues such as implied consent. The comments received relevant to each of these key issues are summarized below.

Since the Cellebrite textalyzer proof of concept is the only technology that was demonstrated, comments related to the technology are based on the device demonstrated by Cellebrite and the description in the proposed legislation regarding how the textalyzer technology will be used.

TECHNOLOGY

The proposed technology would allow law enforcement officers to scan a driver's cell phone at the scene of a motor vehicle crash to determine whether the driver was using a hand-held cell phone at the time or near the time the crash occurred.

Cellebrite's textalyzer proof of concept is an app loaded on a tablet which the police officer connects to the driver's cell phone using a cord. The app is designed to scan the activity log on the cell phone. The phone does not leave the driver's hand and must be unlocked for the textalyzer to work. The technology is designed to recognize touches and swipes and identify all activity involving the cell phone including texting, sending or receiving phone calls, checking Facebook, watching a YouTube video, as well as accessing any of the millions of web sites and apps that exist. Each activity is recorded on the cell phone's log and time-stamped. It takes approximately 90 seconds to download the log.

A number of speakers commented on the fact that currently only a proof of concept exists, raising uncertainty of how the technology would work in the field. Comments related to the current limitations of the technology and concerns regarding the cost and time to develop the final technology are summarized below.

- *Lack of Vendor Competition*: Cellebrite appears to be the sole source for this type of technology. Cellebrite's textalyzer proof of concept was developed for the purpose described in the proposed legislation, i.e., to provide law enforcement with a tool that can scan the activity log on the cell phone of drivers involved in crashes. Since Cellebrite is currently the only vendor, the lack of competition is likely to affect the cost of the product.

- *Unit Cost Difficult to Determine:* Cellebrite does not plan to move forward with the development of a final product until legislation is passed, guaranteeing that a market for the product will exist. Once a final version of the bill is drafted and passed into law, the vendor will know the capabilities and features that will be required to be in compliance with the law. The development and testing of the final product is estimated to take six months to a year once the design is complete. The cost per unit is difficult to estimate because the final cost of production and the volume of potential customers are unknown at this time. Since a wireless connection is not an option, the number of different cords a police officer would need to carry to accommodate the large variety of mobile phones that are currently available is another unknown cost that must be considered. Law enforcement representatives were concerned how their agencies would fund the devices and provide training to the officers.

- *No evidence that the product will be able to do what the manufacturer claims:* Because only a proof of concept exists, all the features and capabilities that are planned for the final product have not yet been developed; therefore, there is no evidence that the product will be able to do what the manufacturer claims. For example, Cellebrite says that the textalyzer will be able to differentiate between a call placed or received legally through Bluetooth (i.e., hands-free) and a call placed or received illegally using a hand-held device. Another example that was cited is that there is no way to confirm the accuracy of the information that appears in the log or ensure that the technology is not scanning or collecting data from the device. A third example relates to the limitations of the timestamp that appears in the log of the proof of concept. Only the time an activity was initiated is recorded; not the time the activity ended. Furthermore, the textalyzer proof of concept is not able to determine if the vehicle is stopped or in motion when the cell phone is in use.

- *Rapid Rate of Technology Development:* Because of the rapid rate at which new technology is being developed today, a major concern is how long it will be before the textalyzer technology becomes obsolete or is rendered ineffective by newer technology designed to block it.

LAW ENFORCEMENT

Several attendees of the listening sessions, including members of law enforcement, offered comments related to the difficulty of enforcing the texting and cell phone laws. A police officer can observe a violation but has no way to confirm the violation unless there is another witness or the motorist admits to the behavior. Drivers can put down and even hide the phone if stopped or involved in a crash.

Comments by Proponents of the Textalyzer

Law enforcement lacks the tools needed to investigate if distracted driving involving the illegal use of a cell phone was a possible contributing factor in a crash. Since police officers are rarely present to

observe cell phone use at the time a crash occurs and must rely on driver statements and eyewitness accounts at crash sites, incidences of distracted driving involving the illegal use of hand-held electronic devices go largely unreported.

At a crash scene, police officers may see signs of possible distracted driving (e.g., the driver ran off the road or the driver did not brake before the crash) but have no way to confirm or rule out that the driver was distracted because of texting or other illegal use of a cell phone. Examples of fatal crashes where illegal cell phone use was suspected but not charged because of the lack of evidence were presented. As a result, the extent to which texting and illegal cell phone use is involved in crashes is believed to be grossly underreported. Because there are no accurate statistics and violations are so difficult to enforce, there is no real deterrent to the illegal use of cell phones while driving. Education and public awareness campaigns alone are not sufficient to change behavior and must be combined with enforcement.

Proponents stated that the textalyzer is an evidence-gathering tool that will enable law enforcement to rule in or rule out texting or other illegal cell phone use as a contributing factor at crash scenes. Proponents of the textalyzer believe that giving law enforcement the tools necessary to determine if a driver was using a cell phone illegally at the time of a crash will be a deterrent. Furthermore, victims of crashes and their families deserve to know why the crash occurred and those who chose to use a cell phone in violation of the law should be held accountable for their actions.

Comments by Opponents of the Textalyzer

Those opposed to the use of the textalyzer technology in crash investigations say that the textalyzer is not necessary because law enforcement is already able to obtain evidence regarding cell phone use by subpoenaing records from cell phone service providers. However, the telephone records do not capture information related to the detection and reporting of any online activity, including emailing, social media activities and the use of apps.

Opponents of the use of textalyzer technology by law enforcement also argue that it will invite unnecessary bias and selective enforcement practices (i.e., racial profiling) or that the police will use it as an excuse to look around the vehicle for other violations, contraband or other signs of criminal activity. This was rebutted by a legal expert who said that police officer abuse and inaccurate reporting are separate issues according to the Court of Appeals.

Another issue raised was that the device could not determine if the driver or passenger was using the cell phone. In response to this, a legal expert said that this issue would be a problem that a defense attorney would need to address.

DRIVER PRIVACY

Since the concept of the textalyzer was first broached in the public forum, it has generated discussion revolving around a driver's privacy and what the expectations for privacy protection should be.

Comments by Proponents of the Textalyzer

The textalyzer proof of concept is designed to extract information only from the activity logs; proponents argue no sensitive information or content is accessed. According to one legal expert,

privacy should not be a concern; even if an officer inadvertently looked at some content, exclusionary rules would apply.

Another legal expert maintained that there is no legitimate expectation of privacy with the information that is provided by the logs; for example, privacy regarding a phone number that is called is not protected. Furthermore, the Vehicle & Traffic Law gives police officers the right to ask to see the driver's license and insurance information at a crash site; no court has ever said information from these documents is constitutionally protected.

Comments by Opponents of the Textalyzer

Representatives from the legal community offered several comments and opinions regarding the violations to a driver's right to privacy raised by the use of textalyzer technology. Since the technology has not been fully developed or tested, there is no way to ensure that the technology is not scanning or collecting data that is on cell phone or other electronic device – going beyond the access to the activity logs. Any proposed utilization of textalyzer technology should ensure that all personal privacies (e.g., list of contacts) are protected.

There are privacy as well as accuracy concerns even if the technology does limit access to just the activity logs. The log files themselves can include several types of information, including sensitive information about the phone owner's communication patterns, social life and personal affairs. A scan of operating system logs could yield inaccurate results because applications or programs functioning in the background may be detected. Some of the millions of software applications currently available for smart phones send and receive data autonomously or by a bot or in response to voice commands and could generate logs that include sensitive information. The information accessed by law enforcement would not necessarily be limited to entries that could be used to accurately determine whether the phone was in use at or near the time of a crash.

The fact that there is no set length of time cell phone activity can be searched like there is with alcohol (i.e., 2 hour rule) also raises privacy issues. Without a limit, law enforcement could track activity for any length of time leading up to the crash.

One opponent of the proposed technology commented that the 90 seconds that is necessary for the textalyzer search to be completed is too long for a search that is not based on probable cause.

CONSTITUTIONAL (4TH AMENDMENT)/LEGAL

The 4th Amendment of the U.S. Constitution and Article I, Section 12 of the New York State Constitution protect citizens against illegal search and seizure.

Comments by Proponents of the Textalyzer

Proponents of the proposed textalyzer refuted testimony that the use of a textalyzer to scan the activity logs on a cell phone constitutes an "illegal" search. The 4th Amendment does not guarantee protection against all searches, just those that are "unreasonable". Therefore, the use of the textalyzer is not a search that is constitutionally protected.

One legal expert made the argument that the use of the textalyzer to scan the activity logs on a driver's cell phone does not constitute a "search"; therefore, no search warrant is needed and no constitutional issue is involved. The textalyzer is not designed to access or capture content; it is a single purpose device that only accesses the activity log. The process is not intrusive because it only looks at a small period of time.

Another proponent made the point that there are many examples of technology (Facebook, Twitter, etc.) that invade one's privacy but people readily agree to the terms of use associated with the technology. Driving is a privilege; if people want to be able to drive why wouldn't they agree to the use of technology like the textalyzer?

Proponents support the conclusion that textalyzer technology and a non-evidential preliminary breath test (PBT) device serve a similar purpose; therefore, implied consent applies to cases involving texting and other illegal use of cell phones while driving. It was further stated that the implied consent law is not coercive and has been found to be legal by the Court of Appeals.

Proponents also argued that the United States Supreme Court reiterated the legality of implied consent laws in *Birchfield v. North Dakota* and confirmed that the states have the authority to limit driving privileges. They contend that implied consent laws that allow police officers to administer a breath test for alcohol in the field also allow police officers to test a cell phone for usage at the scene of a crash. Proponents acknowledge that probable cause is easier to establish in cases involving drivers impaired by alcohol because of the presence of physical cues such as the smell of alcohol or blurry eyes. The PBT device is used in those cases to detect the presence of alcohol in a person's blood, while there are no similar physical cues in cases involving cell phone use. However, proponents argue that the textalyzer will only be used at the scene of a crash and that the standard for evidence collection at crash scenes is different than the standard for roadside stops. In cases where a crash has occurred, every driver involved in the crash can be asked to take a preliminary breath test; that same standard should apply to the use of the textalyzer.

Comments by Opponents of the Textalyzer

Opponents strongly believe that the constitutional rights of everyone have to be protected in any utilization or field testing of textalyzer technology. Any search request by law enforcement must show probable cause prior to the arrest or charge; otherwise, the search violates the 4th Amendment. This position disagrees with the proponents' stance that the use of the textalyzer to scan the logs on a driver's cell phone is not a search and therefore no warrant is needed. Opponents argue that until it can be proven that the technology which is still in development is not capable of scanning or collecting content from a driver's phone, drivers should be protected from warrantless searches by law enforcement.

Opponents further argue that due process issues similar to those related to the use of a non-evidentiary PBT device must also be considered in the use of the textalyzer. A preliminary breath test is administered after some sign of impairment (e.g., the smell of alcohol or blurry eyes) is detected. The PBT device can be used to establish reasonable grounds but the evidence collected is not admissible at trial. Any proposed future utilization of textalyzer technology should account for a reasonable grounds requirement, so that more signs would need to be present than just the presence of a cell phone at a

crash site to justify the search of the cell phone. This contention is challenged by the proponents' argument regarding probable cause stated above.

Other arguments made in opposition to the textalyzer questioned the comparisons drawn between the textalyzer and the non-evidential breath test administered at the roadside. Under the proposed legislation, drivers who refuse the textalyzer will have their licenses revoked, making the penalty comparable to the penalty for a refusal of an evidential Chemical Test (breath, blood or urine) that occurs at the police station after an arrest has been made. It was stated that the proposed penalty for a textalyzer refusal is too strict and should be more analogous to the penalty imposed for a non-evidential PBT refusal at roadside which is treated as a traffic infraction with no license suspension.

Under implied consent, drivers are required to consent to a blood, breath or urine test after the police have established reasonable grounds to believe the driver has committed a violation of the DWI laws. Time is critical in these cases because the evidence dissipates quickly; the evidence will be lost if a warrant is not obtained in time. There are no time constraints to obtain evidence in distracted driving cases as there are in DWI cases. In addition, evidence can be obtained from other sources, i.e., through discovery in civil litigation or by obtaining a search warrant or from internet service providers.

Birchfield v. North Dakota was also cited by opponents of the textalyzer. In this case, the Supreme Court examined the reasonableness of the search in the context of the availability of other less invasive alternatives. The Supreme Court ruled that the Fourth Amendment permits warrantless breath tests incident to a drunk driving arrest but that a search warrant must be obtained before subjecting a driver arrested for drunk driving to a blood test or other invasive procedure. Textalyzer opponents suggested that since cell phone records can be obtained from another, less invasive, source (i.e., cell phone providers), a search warrant must be obtained before scanning a driver's phone with a textalyzer.

SUMMARY

As indicated previously, the information gathered for this study was obtained through three listening sessions conducted around the state and from written statements submitted directly to the GTSC. Support for the proposed textalyzer comes primarily from victims, victim advocates, law enforcement, traffic safety advocates, the insurance industry and the general public. Opposition to the proposed textalyzer comes primarily from the legal community represented by the New York Civil Liberties Union (NYCLU), the New York State Association of Criminal Defense Lawyers and the New York State Bar Association. Key comments from the two different perspectives (proponents and opponents) can be summarized as follows:

Proponents Perspective

- Distracted driving involving the illegal use of a cell phone or other electronic device while driving is a serious problem and one that will only continue to grow. One proponent talked about the addictive nature of cell phone use and that people of all ages are susceptible to this technology addiction. Cell phone use is like a "digital drug" and most people are not able to stop using a cell phone, even while driving. The only way to stop the behavior is to develop technology that will prevent its use while driving. Education and public awareness

campaigns are important but are not enough to change driver behavior. Enforcement and other more effective deterrents are needed.

- The textalyzer technology is an important advancement and has the potential to make a positive impact leading to reductions in crashes, fatalities and injuries. Currently, the ability of law enforcement to identify the involvement of cell phone usage in a crash is very limited. The use of textalyzer technology at the scene of a crash will enable law enforcement to rule texting or other illegal cell phone use in or out as a factor in the crash. This will benefit the victims and their families by providing much needed answers, and in cases where there is evidence of distracted driving, will make it possible to hold distracted drivers accountable for their behavior. Giving law enforcement the tool necessary to determine if a driver was using a cell phone illegally at the time of a crash will be a deterrent.

- The use of the textalyzer at crash scenes will also aid in the collection of more accurate data on the extent to which texting and other illegal cell phone use is a factor in crashes and provide a better gauge of the scope and seriousness of the overall issue. Public awareness that law enforcement will have the ability to determine whether a driver was texting or using a cell phone in violation of the law at the time of a crash will not only deter others but will stigmatize drivers who engage in the behavior.

- Opponents claim that the arguments from the legal community regarding privacy and constitutional issues are unfounded. The proposed legislation strikes the right balance between public safety and the right to privacy. Furthermore, privacy concerns are adequately addressed by the legislation because of the way the technology has been designed.

Opponents Perspective

- Most opponents of the bill agree that distracted driving involving texting and other illegal cell phone use is a serious public safety issue, but they do not think that the use of textalyzer technology is the right approach to address the problem and would be a violation of constitutional rights of privacy and due process. They also do not believe that it would be a deterrent to distracted driving.

The Governor's Traffic Safety Committee (GTSC) appreciates the input of all the participants of the listening sessions, who have offered excellent background and input on this subject, and suggests that any legislation establishing the use of textalyzer technology carefully assess and address the participants' comments and concerns.

REFERENCES

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