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May 12, 2016

House of Representatives
Committee on Energy & Commerce
Subcommittee on Commerce, Manufacturing, and Trade
2125 Rayburn House Office Building
Washington, D.C. 20515-6115

ATTN: Giulia Giannangeli

Re: Additional Questions for the Record, April 14, 2016 hearing entitled "NHTSA Oversight"

Please find attached the responses to the questions for the Motor & Equipment Manufacturers Association (MEMA) from The Honorable Michael C. Burgess, M.D.

1. **How are suppliers working with the auto companies to ensure cybersecurity of their components during the development process and after those components are integrated into the vehicle?**

A vehicle is a complex system of some 8,000 parts that is expected to perform safely in a wide variety of environments, under various levels of stress and for tens of thousands of miles. Vehicle components and systems are highly integrated and must work in unison under various performance conditions. The process to develop and manufacture products and bring them to market is equally complex and meticulously aligned. Suppliers dedicate significant resources towards research and development of their products and then follow a complex system of checking, testing, and validation in the production of their products.

Vehicle suppliers are dedicated to vehicle safety in the design and manufacture of cutting edge, innovative components and systems and work closely with vehicle manufacturers to provide these products for new vehicles.

Cybersecurity is extremely critical to vehicle safety – particularly in the development of Advanced Driver Assistance Safety (ADAS) Systems and Automated Vehicle (AV) Systems. MEMA and our members share the concerns from various industry stakeholders and government officials about cybersecurity vulnerabilities. It has been suggested in other forums that policymakers look at a functional safety – an approach utilized in the vehicle industry – which addresses processes to identify and assess hazards, to develop solutions to mitigate or eliminate hazards, and then to verify and validate the solutions.

MEMA and our members share the concerns about cybersecurity vulnerabilities in software that could connect to a vehicle's critical safety systems. From a practical standpoint, vehicle manufacturers (OEMs) have the most comprehensive understanding of how suppliers' products

are integrated into and interact with the vehicles' frameworks, mapping and security features. Therefore, OEMs are in the best position to address how a certain vulnerability would interact with the vehicle.

Under the Auto ISAC, participating suppliers have the ability to collaborate and share information with automakers about emerging cyber threats to motor vehicles, effective responses to cyber-attacks, and measures designed to prevent future cyber-attacks.

Finally, it is critical that the 5.9GHz band of the spectrum, currently reserved for vehicle communications, not be made available to other industry sectors unless and until it can be determined that spectrum "sharing" can be realized without creating additional cyber vulnerabilities.

2. How should NHTSA ensure that NCAP is adaptable and malleable to accommodate future technologies and potential upgrades?

a. Do you think NHTSA is conducting enough stakeholder collaboration, such as public workshops, that provide opportunities to address all the complexities of an upgrade to the NCAP?

Due to the scale, scope and technical complexity of the NCAP upgrades,[1] MEMA strongly recommended in our comments to NHTSA that the agency offer additional opportunities for public input beyond the February 16, 2016 deadline to comment. As an example, MEMA asked NHTSA to schedule a series of technical workshops (or similar public forum) to provide a transparent venue in which stakeholders can interact with NHTSA staff in a collaborative, productive way.

Several of the crash avoidance and mitigation technologies and the test procedures related to them in the proposed NCAP are already familiar to the suppliers that manufacture components and systems in the various categories. Even still, there are a number of details and technical considerations, particularly for those tests that are new or are not finished. Thus, having a workshop series would be an excellent way for the agency to address these in a public and transparent way so that all parties can have more common understanding.

Collaboration between the government, vehicle manufacturers (OEMs), suppliers, safety advocates and other stakeholders is key to the success of such a significant evolution in the Program. Since NCAP is a voluntary program and not a rulemaking, engaging in an open dialogue with all interested stakeholders beyond the conclusion of the comment period should not be an issue for the agency.

Furthermore, at the January 29, 2016 public hearing, NHTSA staff indicated that there will be some additional documents placed in the docket in the future, for which they will seek comments. To date, there have been no other supplemental agency publications to the docket seeking comments since the closing of the public comment period on February 16, 2016.

[1] 80 Fed. Reg. at 78522, Dec. 16, 2015

b. How does the U.S. NCAP compare to testing procedures performed internationally? What are the benefits of harmonizing the test procedures or test equipment with our international counterparts?

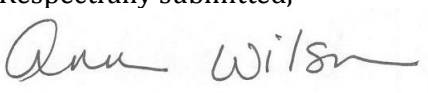
The NCAP programs between the U.S. and Europe are similar, but EuroNCAP testing program is more extensive in comparison to the today's U.S. NCAP – particularly in recent years. (see Attached). Also, whereas U.S. NCAP is managed solely by NHTSA, EuroNCAP is managed by multiple entities including several European governments as well as motoring and consumer organizations.

The NCAP, while a voluntary program, will have a significant impact on how OEMs and suppliers design future vehicles and plan for emerging technologies that will significantly enhance vehicle safety and performance. Broadly speaking, harmonization is essential to the global vehicle industry.

MEMA has long urged the agency to harmonize test protocols for various regulations and standards, where appropriate. MEMA asked NHTSA to look to various test protocols, particularly from the European NCAP (EuroNCAP), that could be appropriately utilized in their upgraded NCAP.

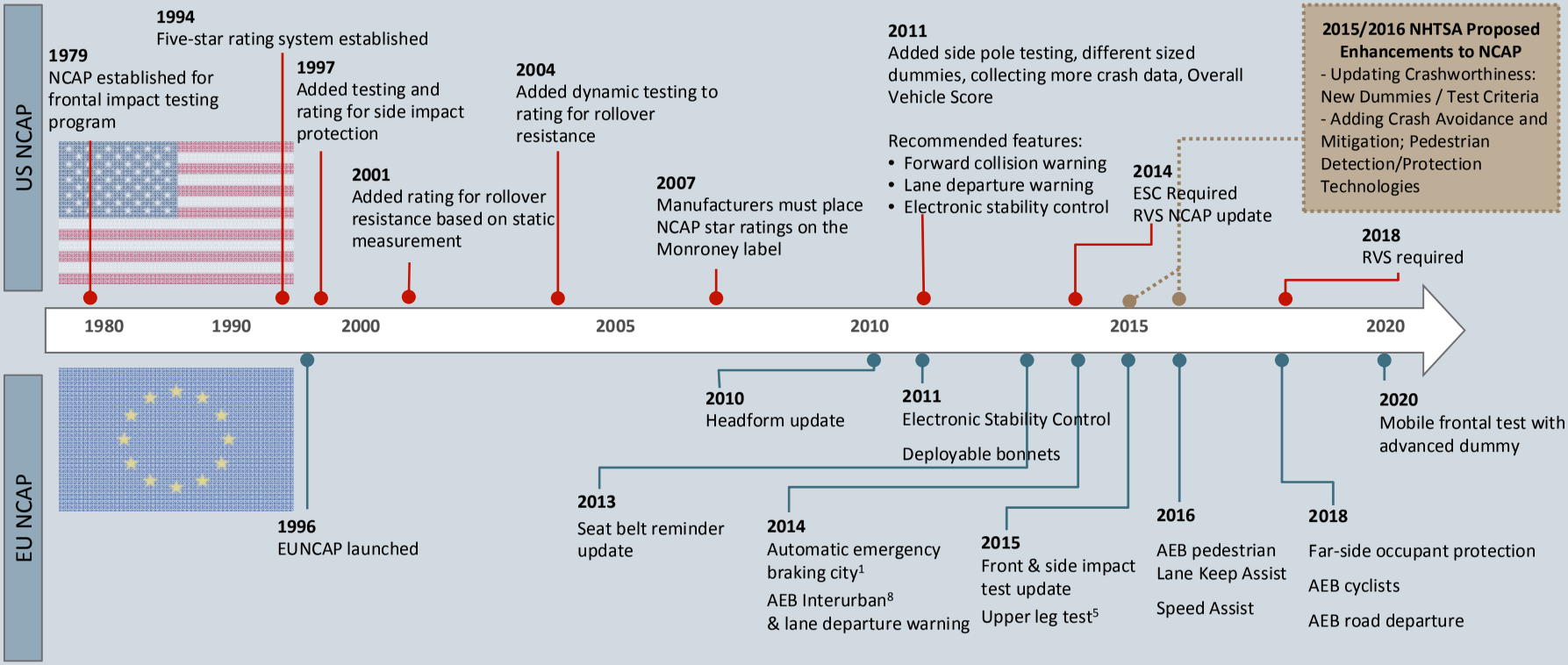
Harmonization of test protocols and test equipment with other global regional NCAP programs, like EuroNCAP, is critical because it reduces or eliminates unnecessary burdens and duplicative resources and costs not only for industry, but also for governments and third-party testing labs. Standardizing these procedures and equipment gives all stakeholders a common, consistent objective that allows for improved certainty that benefits future product research, development and planning. Moreover, when these processes can be streamlined, it further enhances industry innovation and speeds technology advancement.

Respectfully submitted,



Ann Wilson
Senior Vice President
Government Affairs

US and European NCAPs



1. Automated Emergency Braking at low speeds. 2. Child restraint systems. 3. Child dummies with advanced biomechanical and anthropometric characteristics. 4. Pedestrian Legform Impactor. 5. Pedestrian test to assess impact on upper leg and pelvis at 40km/h. 6 Vulnerable Road User or pedestrians with disabilities or reduced mobility and orientation. 7. SAS = Speed Assistance Systems (i.e. Intelligent Speed Assist), SBR = Seat Belt Reminder. 8. Automated Emergency Braking at mid/high speeds. Source: Expert interviews, European NCAP website, press articles