ZF North America, Inc.
12001 Tech Center Drive, Livonia, MI 48150

Docket Management Facility
US Department of Transportation
1200 New Jersey Avenue SE
West Building, Ground Floor, Room W-112-140
Washington, DC 20590-0001

Department Executive
From Dr. Martin Fischer
Phone +1 734-855-2480
Email m.fischer@zf.com
Date January 21, 2020

Attention: The Honorable James C. Owens
Acting Administrator
National Highway Traffic Safety Administration

RE: Docket No NHTSA-2019-0102

Dear Administrator Owens;

ZF North America (ZF) appreciates the opportunity to respond to NHTSA's Request for Comments (RFC) regarding proposed test procedures related to Advanced Driver Assistance Systems (ADAS) technologies. As a leading producer of these systems and their components, ZF supports the development of these procedures.

ZF North America is headquartered in Livonia, Michigan, and is a primary developer and producer of active, passive, and integrated safety systems, serving all major vehicle manufacturers. We proudly design and produce many of these technologies and products here in the United States.

ZF is fully committed to Vision Zero – a mobility future with zero accidents and zero emissions. ADAS technologies are a critical part of reducing accidents with human drivers in the near-term and will serve as building blocks for accident-free fully automated driving in the future. As such, we support NHTSA's steps to implement test procedures to assess the safety and efficacy of these technologies.

The comments below include key considerations regarding the proposed ADAS test procedures.

Highlights of ZF's Comments:

- For many ADAS technologies, test procedures have already been developed and implemented, particularly in the EU and by industry associations such as the Society of Automotive Engineers. It is suggested that general alignment with existing tests would reduce manufacturer burdens and expedite implementation of test procedures.
- Efforts should be taken to make the test procedures as realistic as possible by taking steps to emulate typical driver behaviors, using realistic test mannequins, and other design changes.
- Test procedures should be designed so that they are easily repeatable, accounting for real-world testing limitations such as the inability to repeatedly test from a cold start.
- More detail is needed to enable manufacturers to design ADAS features that can account for test scenarios – for example, the deceleration rate of mannequins used to assess pedestrian automatic emergency braking should be disclosed in the test procedures.

ZF North America, Inc.
12001 Tech Center Drive
Livonia, MI 48150
USA

www.zf.com

- Test procedures should monitor and provide credit for sensor detection capabilities even if the vehicle does not take active measures in response – in some cases, this may in fact be the desired outcome.
- Efforts should be made to harmonize testing conditions among various ADAS test procedures, where possible.

ZF's full comments are provided on the following pages.

Again, ZF appreciates this opportunity to share our perspective with NHTSA. We stand ready to provide further clarification and insights regarding these test procedures, as needed.

Best regards,

Dr. Martin Fischer
President
ZF North America, Inc.

.

ZF North America, Inc.
12001 Tech Center Drive
Livonia, MI 48150
USA

www.zf.com