Comment from Seth Chalmers, PE

Seth Chalmers Additional Comment (#2)I support developing and enacting additional performance regulations that are technology neutral, but set out what is needed. In the spirit of the ANPRM I have taken the liberty to us long acronyms in my comments. My input is as follows:

1.Mandatory Seat Belt Use Assist System (MSBUAS)- You have to wear your seat belt to drive over 15 mph. I have heard that something like this might eventually reduce the fatal crash rate in American by 25% as well as prevent serious injuries.

Congress tried to do this in the early 1970s. It failed for many reasons. It is time to revisit this. Just like scooter, bike, motorcycle helmet and rider protection laws. If safety is number one then arguments and advocacy for real safety measures like this need to be a standard. We are promoting alternative modes of travel and our safety requirements and regulations are not keeping pace. Additionally, there is lots of simple inexpensive technologies that can make all modes safer. Yet we are spending a lot of time an effort on automatic vehicle stuff?

The USDOT needs to be for mandatory seat belt, helmet laws, and similar not because we are trying to tell you what to do or take a way your liberty. We are for this because we care about you and all American and do not wish for you or anyone to be killed or injured in crashes. We love life and wish to protect it all the time! This is the core value.

2.Backing Assist Systems (BAS) - Require existing vehicles to be equipped with backing cameras, audible warning sensor systems or similar. Note that it is predicted that backing camera will reduce 80 to 100 fatal accidents every year. You can buy retro fit backing camera technology for a little over a $100. So why not enact a rule that requires all used cars, trucks and commercial vehicles sold in the US to be retro equipped with backing camera technology by the year 2022? Or something like that. Recently a mining company in Arizona has resisted placing such a system on their ore haulers. Even after they have had tragic accidents. Really! you all should look into coordinating some of these requirements with OSHA.

3.STOP light / Sign stop assist (SLSSA) - You cannot be a stupid driver and run a stop light or stop sign stop with this stop assist system. The system sees, senses or communicates with the red light, red arrow or stop sign and will over ride the drivers manual controls to make sure they STOP! Hence a traffic control device actually becomes a traffic control device. Stop at stop signs and stop on red lights.

4.No-More-Speeding-Assist-System (NMSAS) or Do-Not-Speed-Assist-System (DNSAS) This system requires that you cannot exceed a speed limit by more than 10 mph and will work with the adaptive cruise control system to do that. It can read signs and have GIS maps of speed limits to keep drivers from doing this.

It is the answer to the old adage speed kills and if so why do we not do something that really addresses this in a way that makes it more effective? Excessive speed is a big factor in crash severity and if you reduce speed differential (tighter "mean" speed) there is a formal Crash Modification (CMF) for it. So, if this is the case then this should be required. Require it and then test it!

System like this would also be programed to help with variable speed limits like what Washington DOT has on I-5 in Seattle. I believe many DOTs are looking into variable speed limits to help reduce stop and go traffic issues and put the required speed at a level that optimizes capacity and reduces grid lock

5.Lane Drop Merge Assist Systems (LDMAS) or Zipper Merge Assist System (ZMAS) This system will help drivers better utilize capacity and the merge more effectively and efficiently to reduce delay and crashes at freeway on ramps and at lane drops. This system would implement the Zipper merge strategy that Minnesota DOT has developed that works so well once folks get it.

Many state DOTs have implemented Zipper merges for temporary lane drops. However, system like this would be more for the permanent ones. It would require vehicle to gap out and then take turns at lane drops and on ramps.

6. Commuter Assist System (CAS) - The would be a overall system that would include many of the Advance Driver Assist Systems in to a configuration that is wrapped up to help folks commute to work effectively and efficiently. All drivers need to do is push the button. It will suggest route and then manage speed, gaps, merging, stop and go, etc. etc. this will especially be effective when variable speed limits are used and their is congestion.