Driver-Assistive Truck Platooning Study & Pilot Project

Friday June 24, 2016
What is Truck Platooning?

• Radar-based collision mitigation and driver assistance

• V2V communication technology

• Enable close space operation (drafting) of two tractor-trailers (50’ – 100’ spacing)
What is Truck Platooning?

- When engaged the lead truck will take over acceleration and braking for both vehicles.
- The Following Vehicle driver will remain in control of steering.
- Cameras and monitors will allow the Following Vehicle driver to see what the Lead Vehicle driver sees.
Benefits of Truck Platooning:

• Improve highway safety

• Potential for roadway capacity improvements (with adequate market saturation)

• Decreases in fuel consumption and greenhouse-gas emissions (for both trucks)

• Possible reduction of stress on truckers by easing their workload at the wheel
Florida House Bill 7027 (2016) mandates:

“The Department of Transportation, in consultation with the Department of Highway Safety and Motor Vehicles, shall study the use and safe operation of driver-assistive truck platooning technology, as defined in s. 316.003, Florida Statutes, for the purpose of developing a pilot project to test vehicles that are equipped to operate using driver-assistive truck platooning technology.”
Driver-Assistive Truck Platooning Study and Pilot Project

F.S. 316.003 – Definitions

Driver-Assistive Truck Platooning Technology – “vehicle automation and safety technology that integrates sensor array, wireless vehicle-to-vehicle communications, active safety systems, and specialized software to link safety systems and synchronize acceleration and braking between two vehicles while leaving each vehicle’s steering control and systems command in the control of the vehicle’s driver in compliance with the National Highway Traffic Safety Administration rules regarding vehicle-to-vehicle communications.”
1) Upon conclusion of the study, [DOT] may conduct a pilot project to test the use and safe operation of vehicles equipped with driver-assistive truck platooning technology.

2) Notwithstanding Florida Statutes ss. 316.0895, following too closely, and ss. 316.303, television receivers, [DOT] may conduct the pilot project in such a manner and at such locations as determined by the DOT based on the study.
New Legislation Exemptions – Specific to Study/Pilot Project

Florida Statutes ss. 316.0895 – ‘following too closely’ – provides that trucks engaged in DATP are exempt from law

Florida Statutes ss. 316.303 – ‘television receivers’ – provides that trucks engaged in DATP are exempt from law
3) Before the start of the pilot project, manufacturers of driver-assistive truck platooning technology being tested in the pilot project must submit to the DHSMV an instrument of insurance, a surety bond, or proof of self-insurance acceptable to the department in the amount of $5 million.
Driver-Assistive Truck Platooning Technologies

Study Goals

- Identification of:
  - Infrastructure requirements and impacts
  - Licensing and permit requirements
  - Operating guidelines on FDOT facilities
  - Necessary parameters for the use and safe operation of this technology to operate on public roadways
Scope Development

- What should be studied?
  - What has already been studied?
- Why?
- What frequency?
- Where?
- How?
- When?
- Project partners/stakeholders?
- Timeline?
DATP Task Force Members

Chair – Assistant Secretary Tom Byron (ISD)
Co-chair – Ed Hutchinson (Statistics)
Chief of Staff – Mike Dew
Legislative Affairs – Shannan Schuessler

Engineering and Operations
Traffic Operations – Trey Tillander
ITS – Fred Heery, Raj Ponnaluri
Safety – Joe Santos
Commercial Vehicle – Jeff Frost
Design – Tim Lattner
Maintenance – Rudy Powell, Jeff Pouliotte
Structures – Robert Robertson
Construction – David Sadler
Turnpike Enterprise – Paul Satchfield

Intermodal Systems Development
Transportation Development Admin. – Jim Wood
Policy Planning – Carmen Monroy, Dana Reiding
Motor Carrier Operations – Ed Lee
Systems Planning – Huiwei Shen
Access Management - Gary Sokolow
Managed Lanes – Jennifer Fortunas
SIS – Chris Edmonston
Research Center – Darryll Dockstader

Other Agencies
DHSMV – Kevin Jacobs, Jennifer Langston
FHP – Lt. Colonel Troy Thompson
Florida Trucking Association – Tisha Keller
DATP Study and Pilot Project Timeline

May – Task Force Kick-Off Meeting – 1 of 3
• Initial Project Notification Meetings
• Develop Project Scope
• Literature Review
• Stakeholder Engagement (FDOT/DHSMV/FHP)

June
• Address Potential Issues
• Finalize Scope
• Stakeholder Engagement (Industry)

July
• DATP Study Begins
August – Task Force Update Meeting – 2 of 3 (date TBD)
• DATP Study Continues

September
• Complete First Draft of DATP Study
• Stakeholder Engagement (FDOT/DHSMV/FHP)

October
• Complete Draft DATP Study
DATP Study and Pilot Project Timeline

November – Task Force Approval Meeting – 3 of 3 (date TBD)
• Final Draft DATP study to FDOT Management
• Final Draft DATP study to DHSMV Management
• Final study presentation to stakeholders

December
• Submit Final Study to Senate President

January (2017)
• Await Response
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