Agenda

- Update on Current AV Testing in Massachusetts
- Cybersecurity Presentation and Discussion
- Draft Guidance Presentation and Discussion
- Upcoming Legislative Meeting
- Public Comment
CURRENT AV TESTING
nuTonomy’s Seaport Testing Expansion

Phase C1: nuTonomy autonomous vehicle testing area

- Testing permitted on City roadways.
- MassPort roadways pending approval.
nuTonomy’s Fleet in Massachusetts

Our first AV arrives from Singapore
October 2016

Our second AV at GoBoston
2030
March 2017

Our third AV in the Seaport
May 2017
Other Organizations Applying to Test

- Optimus Ride approval pending receipt of MOU
- One additional organization has an Application and MOU pending approval
- At least two organizations have proposed draft plans for testing including the carriage of passengers
Devens

- Two closed-course test facilities:
  - Salerno Circle – “neighborhood roads”
  - Former Moore Army Airfield – high speed and multi vehicle testing
- 5 active license agreements in place
- Nominal daily charge for facility use
- Proposed multi-million dollar redevelopment of airfield for public safety driver training and AV testing
WPI’s 2nd Annual IEEE VTS Connected & Autonomous Vehicles Summer School

- Thursday, May 18, 2017 to Friday, May 19, 2017
- Worcester Polytechnic Institute’s Atwater Kent Laboratories
- Provide fundamental concepts that enable connected and autonomous vehicle technologies
- $40 for non-WPI Community Member
- Contact Alex Wyglinski: alexw@wpi.edu
- Register: www.wpi.edu/news/calendar/events/2nd-annual-ieee-vts-connected-autonomous-vehicles-conav
DRAFT GUIDANCE PRESENTATION AND DISCUSSION
Purpose

- Overview of current testing process (“Guidance”)
- Review of feedback received to date
- Questions for discussion
Overview of Testing Guidance

○ Introduction
  ● Goals for Autonomous Vehicles
  ● Levels of Autonomous Vehicles
  ● Executive Order 572
    ○ Testing Guidance

○ Permitting Process for Testing Highly Automated Vehicles
  ● Application for Approval to Test HAVs
  ● Memorandum of Understanding
Introduction

- Applies to SAE levels 3-5 vehicles
- Permits testing only, not deployment
- Goals include:
  - Improving travel safety for all road users
  - Promoting economic development
  - Improving mobility, affordability and accessibility
  - Reducing transportation emissions
  - Advancing research and innovation
  - Balancing competing roadway demands and infrastructure requirements
Executive Order 572: Testing Guidance

- MassDOT, with input from the AV Working Group and other technical experts as deemed appropriate, shall issue Guidance to allow for the safe testing of such technologies on designated state highways and on other public roadways in municipalities that desire to permit such testing.

- The Guidance shall include a process for companies to obtain approval from MassDOT to test highly automated vehicles on state highways or other public or publicly accessible state roadways in the Commonwealth.
Permitting Process for Testing Highly Automated Vehicles

- Follows framework of NHTSA’s Federal Automated Vehicles Guidelines and Executive Order 572

- Current testing application process requires:
  - A completed Application to Test Highly Automated Vehicles
  - A Memorandum of Understanding between the organization requesting to conduct testing, any municipality or entity whose public roads will be used, and MassDOT

- Approval, rejection, or request for more information within 30 business days
Application for Approval to Test HAVs

Basic Information
- Applicant Information
- Physical Presence in Massachusetts
- Organization Type
- Certification

Supplemental Information
- Experience with AVs
- Safety Assessment
- Initial Driving Plan
- Vehicles in Testing Program
- Drivers in Testing Program
- Summary of Training
- Insurance Requirement
Questions for Discussion

- Pros and cons of the draft regulation about enforcement?
- What should the role of municipalities be in the approval of testing of autonomous vehicles?
- The current Executive Order explicitly requires a driver in the seat. Should the Commonwealth consider a process for testing driverless AVs?
- The Guidance currently focuses on vehicle registration and operation. Should the Guidance include economic development goals or metrics?
- Should the Commonwealth consider a process for allowing the carriage of passenger in?
UPCOMING LEGISLATIVE MEETING
Legislative Meeting

- Thursday, July 13, 10 am – 12 pm
- Massachusetts State House Room 428
- Meeting with State legislators who have sponsored AV legislation to discuss:
  - Goals and purpose of respective AV bills
  - Views on opportunities and challenges posed by autonomous vehicle technologies
  - Recommendations for how the Commonwealth should position itself in this industry