



MINISTRY OF TRANSPORTATION • ROAD USER SAFETY DIVISION

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# **On-Road Testing of Autonomous Vehicles in Ontario: Proposed Pilot Regulation**

## **Update to AAMVA Working Group**

**Date: February 19, 2014**

# Timelines MTO Are Considering

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## Showcase Opportunities

- May 25-28, 2014 - Canadian Council of Motor Transport Administrators (CCMTA) Annual Meeting
- July 27-28, 2014 – American Association of Motor Vehicle Administrators (AAMVA) Annual Region I Conference

## Required

- Consultations
  - Regulatory Registry
    - Posted for 45 days from Dec 17 to Feb 24, 2014
    - 15 submissions to date (14 supportive)
  - Stakeholder Consultation
- Regulatory Approvals

# Jurisdictions

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- Canada:

- ▣ CCMTA and Transport Canada do not have any current regulatory plans concerning autonomous vehicles, but are following the developments in other jurisdictions.

- USA:

- ▣ Three U.S. states (Nevada, Florida and California) have passed laws permitting the testing of AVs;
- ▣ Several other U.S. states are considering legislation to regulate testing of AVs on public roads;
- ▣ In May 2013 NHTSA released their preliminary statement of policy on AVs.

- International:

- ▣ Currently being tested in some areas of Europe, Japan and China.

# Pilot Project Framework\* For Consideration

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- Define autonomous vehicle (AV).
- A driver must be present in the vehicle at all times and have a valid G class driver's licence.
- Driver must remain seated in the driver's seat at all times monitoring the safe operation of the AV, and be capable of taking over immediate manual control.
- All the usual HTA rules of the road and penalties will apply to the operation of the AV and the subsequent responsibilities of the driver/vehicle owner.
- Penalties in HTA s. 228(8) will also apply to violations of pilot regulation (fine of \$250 to \$2,500).
- Must be registered and plated as a passenger vehicle.
- Manufacturer recognized/registered with Transport Canada and party responsible for equipping vehicle with autonomous technology is similarly established and recognized within the industry.
- An AV must display signs to show that it is an AV.
- Phased-in approach.
- Prohibit from being used for an MTO road test.

# Pilot Project Framework\* For Consideration

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- May only be operated by those approved by the ministry (i.e., employed by the manufacturers, software developers, etc.).
- Must submit an application to MTO for approval before vehicle permit and number plates for the AV are issued.
- Extensive supporting documentation will have to be submitted with the application. Supporting documentation would include:
  - (i) proof of ownership of the vehicle;
  - (ii) proof of insurance;
  - (iii) certification by the owner that the AV meets all of the usual provincial and federal safety standards that are applicable to motor vehicles, and that the autonomous technology does not diminish any of the required safety features;
  - (iv) verification that the AV is not a homebuilt conversion by a hobbyist;
  - (v) the owner's proposed criteria for evaluating the pilot and method to collect, retain and report-back data about the use of the AV to inform MTO's evaluation;
  - (vi) agreement by the registrant to provide any driver with sufficient training in the operation of AVs;
  - (vii) agreement by the registrant that the AV will be operated for testing purposes only;
  - (viii) certification by the owner the AV has desirable safety features, including, but limited to:
    - (i) a mechanism to quickly disengage the autonomous technology, so that the driver can take over manually at any time;
    - (ii) an indicator that shows when the vehicle is in its autonomous mode;
    - (iii) a system to alert the driver if the autonomous technology fails, or unexpectedly turns off;
    - (iv) a mechanism to capture and store any data about the prior operation of the vehicle from at least 30 seconds before any collision.

# Focused Discussion – Regulatory

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Interested in Jurisdictional Insights/Lessons Learned with respect to:

- Phased-In Approach?
  - Province-wide?
  - Restricted to: Provincial/Municipal roads? Posted speed limit? Traffic volumes?
- Recognized Parties - How to ensure?
- Insurance – Additional insurance requirements?
- Signage – Vehicle registrant responsible for identifying vehicle as autonomous (e.g.; HTA requirement for Right Hand Drive vehicles)
- Evaluation – what data should be collected by MTO for evaluation?
- Other? (e.g.; advance notice of testing?)