Resolution 2014-03

Autonomous Vehicle Pilot Project Proposal

Approved at the 63rd Annual General Meeting, June 25th, 2014

Preamble:

The Ministry of Transportation of Ontario is considering a potential pilot framework to allow for the testing of autonomous vehicles on Ontario roads. An autonomous vehicle (AV) is a driverless or self-driving vehicle, capable of sensing its environment using artificial intelligence, sensors and global positioning system coordinates to drive itself without human input.

Advanced control systems interpret sensory information to identify appropriate navigation paths, as well as obstacles and relevant signage. A human may choose a destination, but is not required to perform any mechanical operation of the vehicle. Estimates vary, however some manufacturers predict that fully autonomous vehicles will be available to consumers between 2020 and 2025.

WHEREAS autonomous vehicles are currently being tested in some parts of the United States, Europe, Japan, and China. Three U.S. states (Nevada, Florida, and California) have passed laws permitting the testing of AVs and several U.S. states are considering legislation to regulate testing of AVs on public roads. This proposal is the first in Canada and will allow the ministry to proactively evaluate and determine how these vehicles can be safely integrated with other road users prior to them becoming widely available to the public, and

WHEREAS the Ontario Association of Chiefs of Police Traffic Committee's Special Vehicle Working Group supports this project as long as the proposed parameters are adhered to. The pilot will be for five years to ensure sufficient time to effectively evaluate the pilot.

The parameters are:

While in Autonomous Mode:

- Restricted use for testing purposes only;
- A driver must be present in the vehicle at all times and have a valid G class driver's licence;
- Driver must be trained to safely operate an autonomously equipped vehicle;
- 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; and

- May only be operated by those drivers approved by the ministry (i.e., employed by the manufacturers, software developers, etc.); and for testing purposes only.

Safety and Rules of the Road:

- Current Highway Traffic Act (HTA) rules of the road and penalties will apply to the driver/vehicle owner; and
- An AV must display signs at the front and rear to show that it is an AV; and
- The pilot will reflect a phased-in approach that initially limits driving exposure (e.g.; specific roads, posted speed limits, traffic volumes, etc.).

Registration and Insurance:

- Proof of third-party liability insurance, in an amount yet-to-be determined; and
- Must be registered and plated as a passenger vehicle for use in Ontario; and
- Only vehicles manufactured and equipped by recognized parties permitted; and
- Must submit an application to MTO for approval before vehicle permit and number plates for the AV are issued; and
- Extensive supporting documentation will have to be submitted with the application, including but not limited to:

    i. proof of ownership of the vehicle;
    ii. 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;
    iii. verification that the AV is not a homebuilt conversion;
    iv. agreement by the registrant to provide any driver with sufficient training in the operation of AVs;
    v. agreement by the registrant that the AV will be operated for testing purposes only;
    vi. 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 drive 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, and

WHERAS proponents of autonomous vehicles state that, once widely available and adopted, AVs could provide a number of benefits, including:

- Fewer traffic collisions (through improved collision avoidance); and
- Reduction in traffic congestion/increase in highway capacity; and
- Improved fuel efficiency; and
- Reduced vehicle emissions; and
- Convenience, time savings and lower stress for drivers and commuters; and
- Enhanced mobility; and
- Other benefits could be realized related to the economy, innovation, infrastructure, environment, land-use planning, etc.; and

THEREFORE BE IT RESOLVED that the Ontario Association of Chiefs of Police recognizes that this proposal will allow the ministry to proactively evaluate and determine how these vehicles can be safely integrated with other road users prior to them becoming widely available to the public, and:

BE IT FURTHER RESOLVED that the Ontario Association of Chiefs of Police supports this proposal.