



Project Number

BDV32-977-06

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Florida Department of Transportation Research Surveying Florida MPO Readiness to Incorporate Innovative Technologies into Long Range Transportation Plans

August 2016

Current Situation

Once a futuristic dream, advances in computer, robotics, and communications technologies have made automated vehicles (AV) a practical reality, now in the news almost daily. Companies are testing AV, and the launch of a public pilot program is expected within months. Although a “driverless” technology could raise concerns, engineers cite the potential safety advantages of AV, as well as greater predictability, reduced congestion, and the opportunity to more fully serve transportation-disadvantaged persons, such as the disabled and elderly.

The Florida legislature recently required Florida’s metropolitan planning organizations (MPOs) to incorporate AV into their long-range transportation plans (LRTPs), which anticipate future needs and changes in transportation over the next 20 years. In preparing these plans, the MPOs must consider “infrastructure and technological improvements necessary to accommodate advances in vehicle technology, such as autonomous technology and other developments.”



This automated vehicle is prepared for pilot testing. Note the array of sensors and communications devices.

Research Objectives

In this project, researchers from the University of Florida Transportation Institute (UFTI) surveyed MPOs throughout Florida to gain an understanding of their progress and their needs in incorporating AV into their LRTPs.

Project Activities

The researchers reviewed existing LRTPs of Florida’s 27 MPOs and found 10 current plans that addressed AV. A compilation of the language regarding AV in these plans showed a range from a brief acknowledgment of the technology to longer descriptions that emphasize the advantages of AV and discuss the impact of AV on both transportation infrastructure and the environment.

With the review as background, the researchers surveyed all 27 Florida MPOs and received 23 responses (an 85% response rate). In a few questions, the researchers asked about perceptions and practices regarding AV and connected vehicles (CV, in which vehicles sense each other to control position, speed, etc.).

Most MPO respondents felt AV would have a positive impact on meeting long-term goals, especially attaining mobility and highway safety. There was less certainty about the impact of AV on reliability and capacity. Many respondents wanted more information about terms related to the technology, while others identified more general planning needs, such as AV/CV scenarios to plan for and timelines for the availability and adoption of AV/CV. Others desired more technical information, such as the impact of AV/CV on travel demand patterns.

The researchers made recommendations to help MPOs develop AV/CV goals in their LRTPs and which the Florida Department of Transportation (FDOT) can use to support MPOs in the process.

Project Benefits

With AV/CV technologies on the horizon, this project provides tools and promotes a conversation to help MPOs consider their planning needs to accommodate this new technology.

For more information, please see dot.state.fl.us/research-center