Autonomous Freight

The freight industry is a significant contributor to Miami-Dade's economy, with local trips to and from MIA and PortMiami operating almost 365 days per year. FDOT has initiated an Autonomous Freight Pilot Program in Miami-Dade County

called "AV/CV/ITS Freight Applications" that is attempting to demonstrate that automated vehicle (AV) technologies can offer increased safety and efficiency for freight operations between MIA and the warehouse district in Doral. AV technologies will be tested on repetitive freight routes in hopes to increase travel time reliability for localized fleet vehicles. Efforts are currently underway to coordinate with public partners, engage private stakeholders, identify repetitive delivery routes, and understand existing system operations.

MPO

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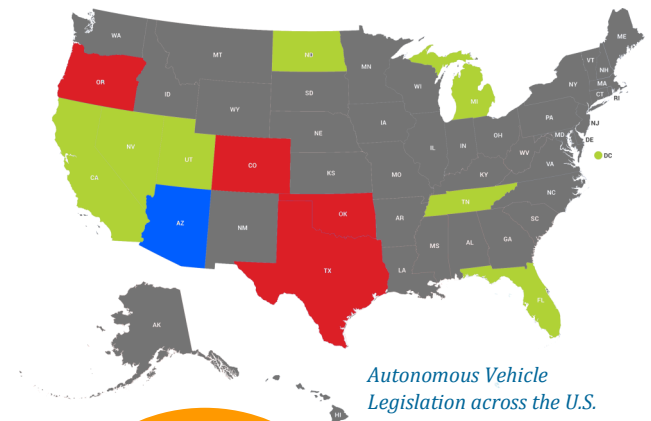

EMBRACING
NEW TECHNOLOGY
AUTONOMOUS
VEHICLES

MPO

Levels of Automation

The National Highway and Transportation Safety Administration has identified 5 levels of automation.

Level 0 is no automation. The driver is in full control of all the features in the vehicle.

Level 1 is function specific automation which consist of two or more features that work separately to assist the driver. Examples include such features as anti-lock brakes and electronic stability control.

Level 2 is combined function automation which involves two or more features working together to assist the driver in avoiding unsafe situations. An example of this includes vehicle proximity warning sensors and automatic braking.

Level 3 is limited self-driving automation which allows the driver to give full control under certain conditions. An example of this includes an auto-pilot feature that allows the vehicle to drive itself in mixed traffic but would restore control to the driver in unusual or emergency situations.

Level 4 is full self-driving automation also referred to as a "driver-less car". The driver provides destination information or travel route and the vehicle handles all driving while monitoring weather and traffic conditions.

Autonomous Vehicles

We are on the verge of a new phase in transportation mobility. Automation technology is being introduced in passenger vehicles with features such as adaptive cruise control and self-parking.

Major automotive and technology companies have produced autonomous vehicle prototypes. Legislation is beginning to catch up and address new technology in order to make these vehicles a reality. In the future, cars and trucks with an auto-pilot feature will be available for purchase.

The Miami-Dade Metropolitan Planning Organization is ready to plan for this new technology with upgraded roadways, transit systems, and freight facilities that will move our community into the future.

Legislation

Starting in 2011, many states began to devise legislation to govern over automated vehicles (AV) on public roadways.

Nevada, Florida, California, Washington D.C., Michigan, North Dakota, Utah, and Tennessee have enacted AV legislation.

Arizona has an Executive Order to provide support for AV pilot programs and testing on public roads. While Texas, Oklahoma, Colorado, and Oregon have either failed to pass or postponed such legislation.

Autonomous Vehicle Legislation across the U.S.