TRANSPORTATION RESEARCH BOARD
2020 ANNUAL MEETING

STATE OF ITS

Intelligent Transportation Systems Joint Program Office

U.S. Department of Transportation
The ITS JPO’s role is to coordinate the U.S. DOT’s ITS research and deployment portfolio.
MOVING FORWARD – A NEW ITS JPO STRATEGIC PLAN

VISION

- Accelerate the use of ITS to transform the way society moves.

MISSION

- The ITS JPO leads collaborative and innovative research, development, and implementation of intelligent transportation systems technologies to improve safety and mobility for all.
The ITS JPO advances the next wave of transformations through six research areas and four technology transfer programs, which work to accelerate deployment.
GOAL:
ITS research will advance the safe, interoperable, and efficient integration of automation technologies into the transportation system.

ACTIVITY HIGHLIGHTS:
• CARMA software version released; four light vehicle completed and began testing
• Published results of Naturalistic Driving Study of 120 drivers using on-the-market L2 light vehicles
GOAL:
ITS research will develop mechanisms for jurisdictions to have ubiquitous, consistent, trusted access to ITS data to support accelerated integration of automation, artificial intelligence applications, and transportation service data with other essential public services.

ACTIVITY HIGHLIGHTS:
- Work Zone Data Exchange Demonstration Grants
- Open Data and Code Access

www.its.dot.gov/data
www.its.dot.gov/code
transportation.gov/av/data/wzdx
GOAL:
ITS will be cyber-resilient. The vulnerabilities that ITS deployments create in the transportation system will be continually and systematically assessed at all levels to mitigate risks associated with malfunction or malfeasance to an acceptable level and establish and use resiliency plans.

ACTIVITY HIGHLIGHTS:
- Development of Cybersecurity and ITS – Best Practices Guide
- Development of Secure Credential Management System (SCMS)
- Development of SCMS Governance and Ownership Model Deployment Options
GOAL:
ITS research will create new technology and deployment configurations that eliminate “transportation deserts” and create access to effective “complete trips” for consumers.

ACTIVITY HIGHLIGHTS:
• Development of Program Vision, Mission, and Guiding Principles
• Development of 5 Complete Trip Deployment Scenarios
GOAL:
ITS JPO will coordinate and conduct investigations and exploratory research into emerging technologies across government, academia, and the private sector.

ACTIVITY HIGHLIGHTS:
• Development of a test plan and test procedures for measuring the ability for DSRC and unlicensed devices to share the spectrum
• Development of a test plan and test procedures for testing LTE-CV2X devices
GOAL:
ITS research will facilitate the transfer of knowledge and technologies into regular practice and help bring the next generation of ITS into interoperable deployment.

ACTIVITY HIGHLIGHTS:
• Tampa CV Pilot transitioned from Design to Operations
• Delivered ARC-IT version 8.3
• Provided training for over 700 students in FY 2019
• Conducted CV/AV Deployment Survey and 2019 Rural Transit ITS Deployment Survey
With over 37,000 deaths on our nation’s roads every year, it is critical that efforts to free up additional spectrum do not come at the expense of life-saving technologies.

As a Nation, we have set a goal of moving to a traffic system without crashes. Today, we are able to make significant advancements in safety and mobility, improve system transportation system operations using existing cooperative technologies, and reduce taxpayer burden…why would we walk away from the opportunity to save so many lives?
<table>
<thead>
<tr>
<th>Channel</th>
<th>Description</th>
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<tbody>
<tr>
<td>CH 175</td>
<td>V2V/V2I BSMs, SCMS, Red Light Viol, WAVE</td>
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<tr>
<td>CH 176</td>
<td>SCMS, Curve Speed, RSA, BSMs</td>
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<tr>
<td>CH 178</td>
<td>Red Light Viol, Public Safety, Signal Preemption</td>
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<tr>
<td>CH 180</td>
<td>SCMS, Curve Speed, V2 Pedestrian</td>
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<td>CH 182</td>
<td>V2 Pedestrian, Signal Request, Probe</td>
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SAFETY BAND IN USE

5.850 GHz

- 5850-5855 MHz reserve 5 MHz
- CH 172 Service 10 MHz
- CH 174 Service 10 MHz
- CH 176 Service 10 MHz
- CH 178 Service 10 MHz
- CH 180 Service 10 MHz
- CH 182 Service 10 MHz
- CH 184 Service 10 MHz

5.925 GHz

- CH 183

WAVE RSA BSMS SPaT/MAP Platooning AVs Probe

Curve Speed V2 Pedestrian Red Light Viol V2 Pedestrian

Public Safety Signal Preemption Signal Request

Personal Safety OTA Updates
The future of transportation safety and collision avoidance is connectivity.
QUESTIONS