

Connected Vehicles in a Changing World:



**Improving Safety and Mobility
on our Nation's Roadways**

▶ **Paul R. Brubaker**
Administrator

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Innovation for a Nation on the Move



U.S. Department of Transportation
Research and Innovative Technology Administration

Crashes on U.S. Roads – A Stark Reality

2006 National Crash Statistics *		
Crash Type	# Crashes	# Victims
Fatal	1,784,000	42,642
Injured		2,575,000
Property Damage Only	4,189,000	
Total	5,973,000	2,617,642
Cost of Crashes	\$230.6 Billion	



Our Safety Challenge: Reduce Crash Rate By 90%

- We are challenging stakeholders in industry to work with the U.S. DOT to reduce the traffic accident rate by **90%** by **2030**.
- **VII, Vehicle-to-Vehicle, and emerging tech, such as nano-sensors, are fundamental to achieving this goal.**
- Connected Vehicles give drivers “situational awareness”:
 - Avoid/mitigate collisions & departures
 - Improve mobility
- Connectivity has significantly redefined how we live and do business, and can have a similar impact on the quality of our driving experience.

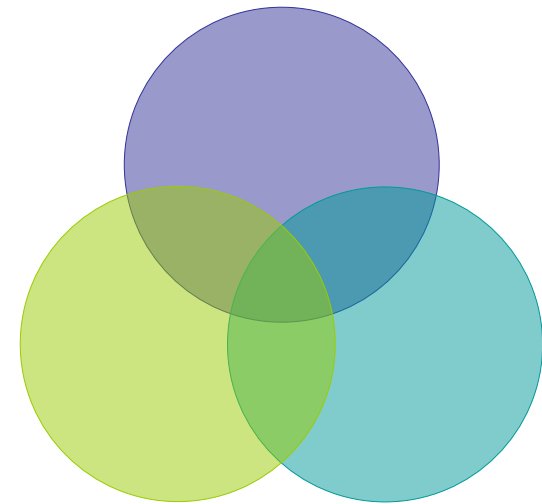


The U.S. DOT VII Program

- RITA coordinates the U.S. DOT's VII program and is committed to working with industry to accelerate safety and mobility enabling VII technologies onto the market:
 - ▶ The first phase, **SafeTrip-21**, was launched in San Francisco in June, allowing drivers to use a variety wireless devices to enable VII and V2V connectivity
 - ▶ **Phase 2** take the insights and data from SafeTrip-21/Michigan Proof of Concept test bed to determine best way to integrate VII/V2V on a national scale using the 'open-platform' concept.
 - ▶ **Phase 3** will look at future technologies and trends and shape DOT activities to best leverage emerging tech.

Commercializing VII & V2V

- DOT is committed to the Michigan POC Test Bed in Novi:
 - Working w/ private-public stakeholders to complete POC test in 9/08.
 - Establish future test beds for public-private RD&T.
- Working to define a new “open-platform” concept:
 - Interoperability
 - Flexibility
 - DSRC + WiFi/WiMAX + 3G + IPv6
 - Mobile Ad Hoc / Peer-to-Peer Networking
- Stable framework of open standards that support interoperability and private sector innovation:
 - **Engagement and investment is key.**
- Seeking to “re-brand” VII to be meaningful, visible, aligned with future of program.



Connected Vehicles are the New Frontier for Roadway Safety and Mobility

- Connectivity has dramatically changed our lives during the past decade.
- 1998 vs. Today: **accelerated connectivity**
- Bottom line:
 - Why not our driving experience?
 - Capability exists to make our lives on the road safer and more convenient.
 - Connectivity redefined our lives/commerce, in 20 years we will say the same of automobiles.
 - **Properly focused – we can achieve our goal.**