Safety Pilot – The World's Most Extensive Real World Deployment of Connected Vehicle Safety
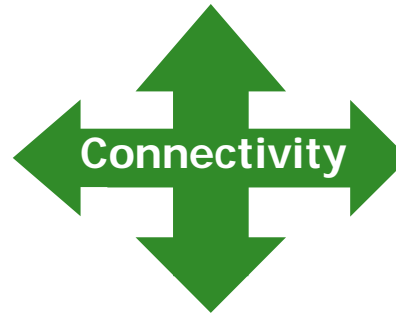
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Multimodal and Connected Environment

Drivers/Operators

Vehicles and Fleets

Infrastructure

Connectivity

Wireless Devices

Leveraging the Wireless Capability

➢ Increased Safety (DSRC)
➢ Improved Mobility
➢ Environmental Sustainability
➢ Enabling capability for other types of services

Moving from Crash Worthiness to Crash Prevention

- **Greater situational awareness**
  - Your vehicle can "see" nearby vehicles and knows roadway conditions you can't see
  - Full 360 degree awareness
- **Reduce or even eliminate crashes thru:**
  - Driver Advisories
  - Driver Warnings
  - Vehicle Control

Connected vehicles have the potential to address over 80% of vehicle crash scenarios involving unimpaired drivers

Historical Background

- 2004 – DSRC technology development and standards definition underway
- 2005 – Vehicle Infrastructure Integration (VII) proof of concept development begins
- 2006 – Vehicle-to-vehicle (V2V) safety applications development begins w/CAMP
- 2008 – Defined a V2V research roadmap towards a major decision point in 2013
- March 2009 – V2V workshop; first introduction of a decision milestone by US DOT on V2V for safety
- Early 2010 – Push by US DOT for a real world demonstration of V2V capability to support the anticipated 2013 decision milestone
- 2010 – Developed the Safety Pilot Concept
- November 2010 – NHTSA Vehicle Safety Priority Plan 2010-2013 published
- Late 2010-2011 – Initiated Safety Pilot development activities with light vehicle OEMs and device makers
- August 2011 – Conducted 1st of 6 driver clinics around the U.S.; Awarded Test Conductor contract to host Safety Pilot model deployment in Ann Arbor, Michigan
- *August 2012 – Model deployment begins*
- *Late 2013 – Decision point for light vehicles*
- *2014 – Decision point for heavy vehicles*

Why Do We Need Safety Pilot?

- Show the safety technology and applications work prior to heading into a major decision point

- Obtain real world data to shore up benefits assessment and establish greater confidence in a decision recommendation → Fact based decision making

- Better understand real world operational elements prior to a nationwide implementation

What We Expect to Accomplish

- Obtain enough quality empirical data to give us confidence in our 2013 and 2014 decisions

- Establish public awareness, understanding, and acceptance of this breakthrough safety technology

- Understand options for accelerating benefits through aftermarket capability

- Identify additional research gaps that need to be addressed prior to a nationwide implementation

Safety Pilot Sites

- **Driver clinics**
  - Assess user acceptance
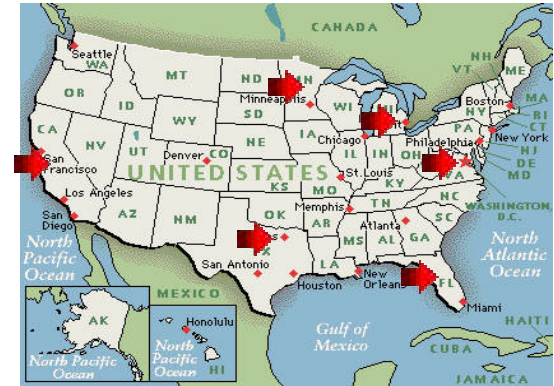
Six Driver Clinic Sites

- **Large-scale model deployment**
  - Obtain empirical safety data for estimating safety benefits

One Model Deployment Site

Making Connected Vehicles a Reality

- Moving the technical research into real world implementations

- Defining the benefits and cost data

- Defining the necessary policy framework to support nationwide deployment