Driver Acceptance Clinics
Light Vehicle Platform

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NHTSA
August 2nd, 2011

FHWA – CAMP Cooperative Agreement
DTFH61-01-X-00014 / WO No. 2
Light Vehicle Driver Acceptance Clinics (DAC) Project

Objectives:

- Obtain feedback on connected vehicle technology and safety applications from a representative sample of drivers
- Assess the performance and reliability of 5.9 GHz DSRC communications and GPS in diverse geographic locations and environmental conditions…and

- Promote V2V-based safety technology and potential safety benefits
The DAC project: two main components

**Driver Acceptance Clinics**
- 2 dry runs and 6 clinics
  - Naïve drivers in controlled environment
  - 108 subjects per clinic evenly divided across three age brackets

**System Performance Testing**
- DSRC performance and system reliability testing near each location
  - Trained drivers on public roads
  - Diverse geographic locations
  - Approximately 57,000 miles of test data
DAC Project Team

CAMP
Vehicle Safety Communications 3

Mercedes-Benz
GM
TOYOTA

Honda
Ford
NISSAN

VOLKSWAGEN

Intelligent Transportation Systems

DENSO North America

U.S. Department of Transportation
Federal Highway Administration

RITA
Research and Innovative Technology Administration
Volpe National Transportation Systems Center

AUTOMOTIVE EVENTS
DAC Vehicle Builds

- 24 total / 3 vehicles per OEM
  - 16 DAC vehicles
  - 8 OEM template vehicles

- OEM specific Driver Vehicle Interfaces (DVI) on all vehicles
DAC Applications…

- **EEBL**: Emergency Electronic Brake Lights
- **FCW**: Forward Collision Warning
- **BSW/LCW**: Blind Spot Warning/Lane Change Warning
- **LTA**: Left Turn Assist
- **IMA**: Intersection Movement Assist
- **DNPW**: Do Not Pass Warning

* DNPW application scenarios are challenging in terms of the V2V communication range required. Therefore, further analysis is required to determine if this application’s scenarios can be conducted safely and reliably for the DACs.
# V2V Safety Applications per OEM

<table>
<thead>
<tr>
<th>OEM/Applications</th>
<th>Ford</th>
<th>GM</th>
<th>Honda</th>
<th>Mercedes</th>
<th>Toyota</th>
<th>Hyundai-Kia</th>
<th>Nissan</th>
<th>VW-Audi</th>
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<tbody>
<tr>
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<td>FCW</td>
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- Common VSCA-developed safety applications for the five CAMP VSC2 members: Ford, GM, Honda, Mercedes Benz and Toyota
- OEM specific implementations of VSCA applications for Hyundai-Kia, Nissan and VW-Audi. Also includes one new application.
Driver Acceptance Clinics (DAC) Locations

1. Aug’11 - Michigan International Speedway (MIS) - Brooklyn, MI
2. Sep’11 – Brainerd International Raceway - Brainerd, MN
3. Oct’11 - Orlando FL - Richard Petty Driving Experience
4. Nov’11 - Smart Road VTTI – Blacksburg, VA for DAC and Washington DC for the demo (RFK or FedEx field)
5. Dec’11 – Dallas, TX – Texas Motor Speedway (Fort Worth)
6. Jan’12 – San Francisco - Alameda Naval Air Station
Application of DAC Results

Driver Acceptance Data
- Provides data on drivers’ initial impression of V2V safety applications
- Supplements the Safety Pilot Model Deployment driver acceptance data for seasoned drivers
- Required for 2013 NHTSA decision
- Does not feed into V2V Track 3 benefits estimation

System Performance Data
- Characterizes system availability in diverse geographic locations
- Feeds into Track 3 benefits simulation
Other Key Elements

**Connected Vehicle Technology Reviews**

- 2011 ITS World Congress Showcase V2V Technology Review (October 17\textsuperscript{th} - 20\textsuperscript{th})
- Provision for optional one day demo at each clinic location