# Production of Aftermarket Safety Devices Bidder's Conference

**February 22, 2011** 

John Harding
US Department of Transportation
National Highway Traffic Safety Administration

## **Agenda**

- Program Objectives
- Safety Program Elements
- Safety Pilot
- Aftermarket Safety Device Solicitation
- Tasks
- Deliverables
- Sequence of Activities
- Evaluation Criteria

# Major Safety Program Objectives

- Move aggressively on vehicle to vehicle communications
  - Agency Decision by 2013
- Accelerate in-vehicle technology
  - "Here I Am" Devices
  - Aftermarket Safety Devices
    - Promotes market penetration that accelerates delivery of safety benefits
- Development of an interoperable and secure environment
  - Device development
  - Pre-Model Deployment
  - Model Deployment
- Monitor and evaluation of driver distraction issues
  - Driver Clinics
- Determine the policies necessary to establish and operate a vehicle communications environment

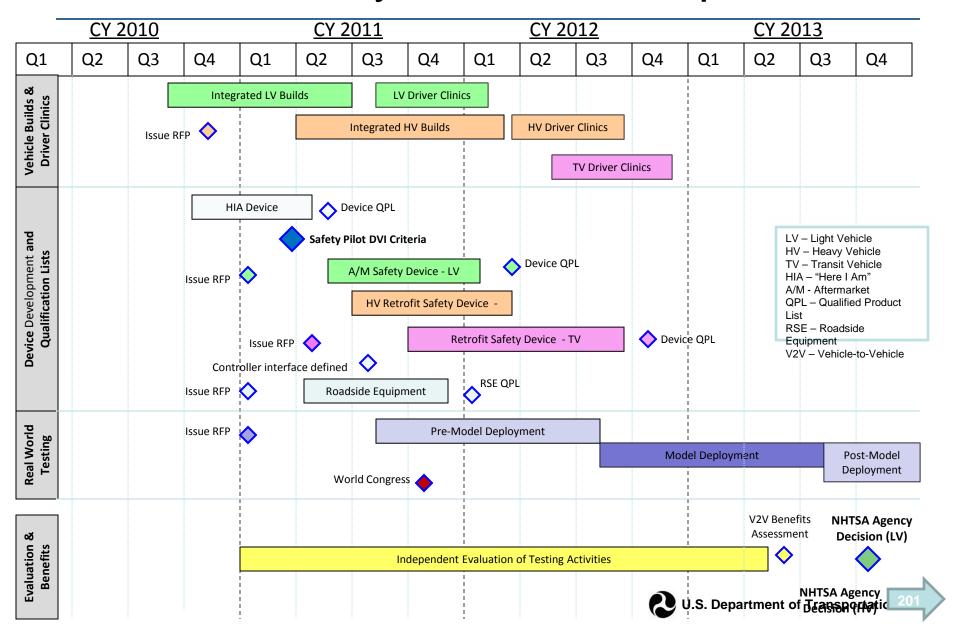
# Key Elements of the Safety Program

- DSRC for low latency safety needs
- OEM, aftermarket, and HIA device scenarios being considered for deployment
- All vehicle types being examined for value added applications
- Programs are structured towards achieving deployment
- Establishing national level interoperability →Open standards for communications and data
- Introduction of new systems/devices must consider driver distraction safety issues
- Ensure adequate levels of security
- Reasonably protect personal privacy
- Activities supportive of mobility and environmental applications

### **Safety Pilot**

- Establishes a real world model deployment site (vehicle communications environment)
  - Enables V2V and V2I communications
  - Communications facilitate safety applications
  - 5 Stages
    - Device development
    - Driver Clinics and communications performance tests
    - Pre-Model Deployment testing (interoperability)
    - Model Deployment
    - Post- Model Deployment evaluation

# ITS Safety Pilot Roadmap



## **Solicitation Objective**

- Obtain aftermarket safety devices (ASD)capable of being carried into a vehicle that generate a BSM using DSRC 5.9 GHz, and receive a BSM message to support operations and activation of device implemented safety applications
  - Mature ASD safety application
    - Forward Collision Warning
    - Emergency Electronic Brake Lights
    - Cooperative Intersection Collision Avoidance System Violation
    - Curve Speed Warning
- Provide recommendations for updating the spec
- Development of effective Driver-Vehicle Interfaces
  - NHTSA DVI criteria available March best practice for effectiveness & driver distraction
- Identify acceptable devices device and application testing
- Obtain pricing and delivery schedule estimates
- Establish Qualified Products List for Safety Pilot

#### **General Information**

- Period of Performance: 8 months
- Proposal price range: \$100,000 to \$500,000 of Federal share
- Multiple awards estimate 5
- 80/20 cost share calculated per total cost
  - Example
    - Total cost = \$250, 000
    - Federal share = \$200,000
    - Recipient share = \$50,000
- Anticipated award date May 31st, 2011

#### **Tasks**

- Task 1: Project Management
- Task 2: Provide Specification Recommendations
- Task 3: Develop, Test, and Deliver Devices with Documentation
- Task 4: Provide Pricing and Delivery Schedule
- Task 5: ITS World Congress
- USDOT Testing

### **Task 1: Project Management**

- Monthly teleconferences
- Project and Risk Management Plan
- Quarterly progress reports
  - Accomplishments
  - Planned activities
  - Problems or risks and recommended actions

# Task 2: Provide Specification Recommendations

- Recommendations for changes due no later than 45 days after award
  - Rationale for change
  - Tradeoffs between making the change and leaving the spec unchanged
  - Possible alternative approaches
- Accepted changes will be included in the spec update and reflected in the updated acceptance criteria to be published 60 days after award

# Task 3: Develop, Test, and Deliver Devices with Documentation

- Subtask 3a: Initial Delivery of Devices with Self-Certified Test Results
  - Delivery of 4 units 6 months after contract award
  - Self certified test results
  - Installation and operating instructions
  - All necessary hardware and cables to facilitate installation
- Subtask 3b: Device Documentation
  - Device manual includes diagnostics and troubleshooting – 6 months
- Subtask 3c: Delivery of Update Devices
  - In 8 months deliver 4 spec updated devices per 3b

#### Task 4: Provide Pricing and Delivery Schedule

- Pricing and delivery schedule due 6 months after award
- Pricing for lots of 50, 100, 150, 200, 250, 300, 400, 500 units
  - Pricing includes cost to update to new security and interoperability protocols
  - Assume deliveries are in equal quantities over a 3 month period
- Pricing for hourly cost of technical support
- For estimation purposes assume delivery period begins
   13 months after award

## Task 5: ITS World Congress Participation

- Recipients shall participate in the Safety Pilot Program Showcase – at ITS World Congress Oct. 16 – 20 2011, Orlando FL
- Recipients shall describe/illustrate proposed ASD
- Showcase space and access to showcase area will be covered by USDOT
- USDOT will cover Travel and Time
  - For two recipient personnel
- USDOT will not cover ITS WC registration

### **USDOT** Device Testing

#### Performance of Acceptance Testing

- Test ASD for compliance with the spec and functionality of safety application(s)
- Two rounds of testing
  - Initial device submission
    - USDOT provide test results
  - Update device submission (Final Round)
- Two categories of testing
  - Device Certification meet technical specifications
    - Device that fail will not be considered for Safety Application Testing
  - Safety Application Testing functional performance
    - Include DVI criteria adherence
- Acceptable devices will be placed on QPL

#### **Deliverables**

| Task | Deliverable  | Due Date  |
|------|--|---|
| 1    | Kick-Off Meeting   | 7 days after award                                      |
| 2    | Project and Risk Management Plan   | 30 days after award                                     |
| 3    | Quarterly Progress Reports   | Quarterly, due 30 days after the Quarter being reported |
| 4    | Technical Memorandum of recommended updates to the device specification  | 45 days after award                                     |
| 5    | Four (4) device units with self-certified test results in accordance with the updated acceptance criteria and all necessary hardware and cables to provide proper installation and operation | 6 months after award                                    |
| 6    | Device installation and operating instructions   | 6 months after award                                    |
| 7    | Pricing and delivery schedule for the potential future bulk procurement(s).  | 6 months after award                                    |
| 8    | Four (4) device units updated based on the results of the acceptance tests in Subtask 3b   | 8 months after award                                    |
| 9    | Participate in ITS World Congress  | October 2011  |

## **Sequence of Activities**

- 45 days after award Recipient submission of recommended updates to the application specification.
- 60 days after award Government will provide an updated application specification (first specification update) and acceptance criteria in response to industry inputs.
- 6 months after award Recipient delivery of four (4) device units with self-certified test results in accordance with the updated acceptance criteria, installation and operating instructions, and all necessary hardware and cables to provide for proper installation.
- 6 months after award Recipient submission of pricing and delivery schedule for potential future bulk procurement(s).
- 7 months after award Government will provide the results of their acceptance testing.
- 8 months after award Recipient submission of updated four (4) device units based on results of the initial acceptance tests
- 10 months after award Government will provide the results of their final round of acceptance testing based on the updated device and establish a QPL of acceptable devices.

#### **Evaluation Criteria**

#### Two Factors

- Technical Merit
  - Support for Program Objectives
    - Proposed ASD addresses goals and objectives of Safety Pilot Program
  - Technical, Management, and Staffing Approach
    - Application describes a sound and feasible device development approach
  - Experience
    - Application describes similar successful development activities and the relevant qualified staff
- Cost

#### Register NOW at www.Grants.gov

- Applications must be submitted online at www.Grants.gov.
- Applicants must <u>register</u> at Grants.gov in order to propose on this solicitation.
- Grants.gov registration takes 3 to 5 business days or more to complete. Register early!
- See instructions, guidance and tutorial at Grants.gov under "For Applicants - Get Registered"
- Registration requires applicants have or obtain a DUNS number, and complete Central Contractor Registration (CCR).

## **Applications / Award Type**

- Applications are due by March 15, 2011 at 4 pm Eastern
- Competition is full & open to all applicant types
- Estimated Award by May 31, 2011
- Award type
  - Cooperative Agreement
  - Fixed Price Federal Share with Milestone-based payments
  - Cost Share awardee must document and report cost share satisfied during performance

#### **Contact Information**

- Sarah Tarpgaard, Agreement Officer
- Federal Highway Administration
- Office of Acquisition Management
- Email Sarah.Tarpgaard@dot.gov
- Phone (202) 366-5750