Production of Aftermarket Safety Devices
Bidder’s Conference

February 22, 2011

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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

### CY 2010

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<tr>
<th>Q1</th>
<th>Q2</th>
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<td><strong>Vehicle Builds &amp; Driver Clinics</strong></td>
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<td>LV Driver Clinics</td>
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<td><strong>Device Development and Qualification Lists</strong></td>
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<td>A/M Safety Device - LV</td>
<td>Safety Pilot DVI Criteria</td>
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<td>Device QPL</td>
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<td>Retrofit Safety Device - TV</td>
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<td>Controller interface defined</td>
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<td><strong>Evaluation &amp; Benefits</strong></td>
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<td>Independent Evaluation of Testing Activities</td>
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### CY 2013

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<td>World Congress</td>
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### Notes
- LV – Light Vehicle
- HV – Heavy Vehicle
- TV – Transit Vehicle
- HIA – “Here I Am”
- A/M - Aftermarket
- QPL – Qualified Product List
- RSE – Roadside Equipment
- V2V – Vehicle-to-Vehicle
- LV – Light Vehicle
- HV – Heavy Vehicle
- TV – Transit Vehicle
- HIA – “Here I Am”
- A/M - Aftermarket
- QPL – Qualified Product List
- RSE – Roadside Equipment
- V2V – Vehicle-to-Vehicle
- NHTSA Agency Decision (LV)
- NHTSA Agency Decision (HV)
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

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<tr>
<th>Task</th>
<th>Deliverable</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>1</td>
<td>Kick-Off Meeting</td>
<td>7 days after award</td>
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<tr>
<td>2</td>
<td>Project and Risk Management Plan</td>
<td>30 days after award</td>
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<tr>
<td>3</td>
<td>Quarterly Progress Reports</td>
<td>Quarterly, due 30 days after the Quarter being reported</td>
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<td>4</td>
<td>Technical Memorandum of recommended updates to the device specification</td>
<td>45 days after award</td>
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<tr>
<td>5</td>
<td>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</td>
<td>6 months after award</td>
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<tr>
<td>6</td>
<td>Device installation and operating instructions</td>
<td>6 months after award</td>
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<tr>
<td>7</td>
<td>Pricing and delivery schedule for the potential future bulk procurement(s).</td>
<td>6 months after award</td>
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<tr>
<td>8</td>
<td>Four (4) device units updated based on the results of the acceptance tests in Subtask 3b</td>
<td>8 months after award</td>
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<tr>
<td>9</td>
<td>Participate in ITS World Congress</td>
<td>October 2011</td>
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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 **register** 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