

UNITED STATES DEPARTMENT OF TRANSPORTATION (U.S. DOT)

National Highway Traffic Safety Administration (NHTSA)

**Cooperative Agreement for
Advanced Crash Avoidance Technologies Program (ACAT 2)**

AGENCY: National Highway Traffic Safety Administration (NHTSA), U.S. Department of Transportation (DOT)

ACTION: Announcement of a Request for Applications for execution of the Advanced Crash Avoidance Technologies Program - 2nd series (ACAT) in cooperation with the National Highway Traffic Safety Administration (NHTSA).

SUMMARY: NHTSA is planning to launch a second round of ACAT projects to determine the safety impact of emerging technologies that are intended to help drivers avoid crashes, reduce their severity, and prevent injuries.

DATES: Applications must be submitted to the National Highway Traffic Safety Administration, Office of Acquisition Management , Attention: Wendell V. Crowder, 1200 New Jersey Avenue, S.E., Washington, D.C. 20590. All applications submitted must include a reference to NHTSA Cooperative Agreement Number DTNH22-08-R-00135,. Only complete packages received on or before 2:00 P.M. Eastern Standard Time on August 28, 2008, will be considered.

Applicants shall provide a complete mailing address where Federal Express mail can be delivered.

FOR FURTHER INFORMATION CONTACT: General administrative and programmatic questions may be directed to Wendell V. Crowder,, Office of Acquisition Management, by email at Wendell.crowder@dot.gov, or by phone at 202 366-5456,and Earnest Jenkins,, Office of Acquisition Management, by email at Earnest.jenkins@dot.gov, or by phone at 202 366-5456,. To allow for sufficient time to address questions appropriately, all questions must be received no later than **2:00 P.M. Eastern Daylight Time, August 1, 2008, via e-mail. Response to the questions will be posted on <http://www.grants.gov> by August,6 2008.**

I. BACKGROUND

The automotive industry has made significant progress in the development of advanced technologies intended to prevent crashes and their consequences. Advanced technologies that include sensing, computing, positioning, and communicating may have the ability to help drivers avoid imminent crashes, reduce unsafe behaviors that often increase crash risk, and reduce the severity of injuries in crashes that do occur. In 2006, NHTSA awarded a set of projects that addressed collision mitigation, lane departure warning and keeping, and back over collision

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avoidance. The objective of these projects is to understand the safety impact of the technologies on different types of crashes. NHTSA is planning to award one or more new ACAT projects that will focus on vehicle safety technologies not addressed in the original set of projects.

II. SCOPE

The scope of the ACAT program is limited to emerging and foreseeable advanced technologies rather than either those already in full production or just barely in the concept phase. The Grantees from the original ACAT projects have focused on technologies that address collision mitigation, lane departure warning and keeping, and back over collision avoidance.

The projects selected under this procurement must focus on technologies NOT addressed in the original ACAT projects described above.

By building on past experience, the Grantee should conduct a meaningful evaluation that will link estimates of safety benefits to the results of Objective Tests of the technology and its interaction with driver behavior (i.e. role of Human Factors). The level of effort is envisioned as eighteen months to two years. At a minimum, the Grantee must agree to fund at least 50% of the total amount of the cooperative agreement.

III. OBJECTIVE AND DISCUSSION

The objective of the ACAT 2 program is to evaluate the ability of advanced technology applications installed in a vehicle to solve specific motor vehicle safety problems. A secondary objective is to determine what is the public acceptance of the technologies and, if applicable, how that acceptance could be improved.

The Grantee shall propose a technical approach to execute the ACAT Program, and provide a detailed plan of work and methodology to meet the program's objectives within the time frame allocated for this program. The plan of work and methodology shall include a breakdown structure of all proposed core work areas and list all critical milestones and deliverables. The timeframe for this agreement is eighteen months to two years.

The Grantee shall achieve this objective by using the Safety Impacting Methodology (SIM) that will be supplied by NHTSA. Existing efforts and tools to predict safety impacts and benefits of countermeasures have been based on limited testing and/or simulations. Depending on the maturity of the countermeasure being considered, input data used to predict safety benefits have included real-world crash data; results of track, simulator, and on-road experiments; simulation and other modeling efforts; and field operational tests. However, for most of the emerging advanced technologies, very little real world crash data are available to provide a basis for a safety benefits analysis. Thus, the NHTSA SIM provides an approach to estimate the safety impact and benefits of emerging advanced technologies without such crash data. It is expected that the Grantee may need to modify or enhance the NHTSA SIM to be applicable to the technology of interest.

Objective Tests will provide input into the benefits estimates developed by the NHTSA SIM. Objective Tests must be realistic and simulate real-world operations of vehicles. The Objective Tests must be developed to ensure that the proposed safety problem countermeasure will meet full system performance specifications and that the results are directly linked to the safety needs being addressed. Objective Tests should be designed to produce quantifiable, reliable, and meaningful results. Depending on the technology of interest, Objective Tests may need to be performed on test tracks under controlled conditions, in driving simulators, or in instrumented vehicles driven on real roads.

In estimating the safety benefits, an analysis of the safety problem must identify events leading up to the crash, i.e., pre-crash scenarios, and crash characteristics relevant to the selected safety problem. The NHTSA SIM utilizes the events leading to the crash, the performance specifications of an advanced technology, and the results of Objective Tests to estimate safety benefits. The NHTSA SIM can address each of the “Crash Sequence” phases leading up to a crash (Figure 1). Considering these crash phases on a time line, where $t=0$ at the time of the crash, one could define the phases as:

- the non-conflict phase preceding other events, where unsafe behaviors occur that can affect injury severity and the likelihood of a conflict developing ,
- a conflict phase that may occur at several seconds before the crash,
- the imminent crash phase a second to two prior to the crash where it cannot be avoided,
- the crash phase, and
- the post-crash phase.

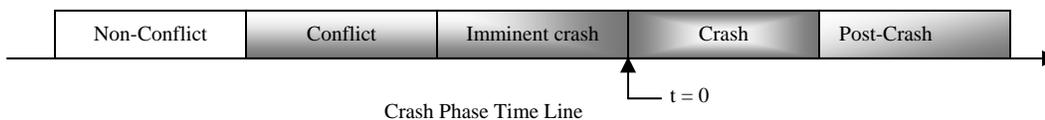


Figure 1 Crash Sequence

NHTSA has published several papers defining and quantifying these phases. For example, see Reference 1.

The Safety Impact for an advanced technology must consider the technology’s ability to intervene in any phase of the Crash Sequence in which it can operate to reduce crash risk and harm. It must also consider such issues as unsafe driver behaviors (e.g., driver distraction and speeding), driver response to system feedback (e.g., warnings and alerts), vehicle performance and dynamics, interaction with other vehicles, pre-crash maneuvers, crashworthiness, and post-crash issues. To address a particular safety problem area, a complete set of “Crash Sequences” should be developed.

Acceptability is also critical in estimating safety benefits, as a technology that does not achieve social acceptance will not be purchased and used, therefore reducing the number of people who benefit from the technology. The Grantee will include plans to assess acceptability, and if applicable ways to increase it. This data shall be included in the final benefits estimate.

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To be considered for award of a cooperative agreement, the Applicant must identify a high-priority safety problem and the advanced technology or technologies that can address it, and demonstrate how the NHTSA SIM can be utilized to estimate safety benefits based on the results of Objective Tests.

The priority safety problem should relate to a safety goal that the NHTSA has indicated as a high priority, such as preventing novice teen driver crashes and injuries, reducing rollovers, enhancing vehicle compatibility in collisions, reducing road departures, enhancing rear-end crash avoidance, or reducing impaired driving.

The new, emerging technologies under consideration for this work are those that may start to be deployed in the light vehicle fleet in the next several years. The technologies need to be at a stage of development that they can be implemented and tested in vehicles without the need for significant design and engineering costs. However, more evolved, widely deployed technologies such as electronic stability control (ESC) systems would not be considered appropriate for this effort.

At this time, the research effort is limited to light-duty vehicles.

The advanced technologies should focus on vehicular safety systems that reduce unsafe driver behaviors, assist drivers in avoiding crashes, enable automatic crash prevention, reduce crash and injury severity, and integrate technologies to enhance safety.

IV. PLAN OF WORK AND METHODOLOGY

The program management structure/plan shall be detailed. Applicants may receive at most one award (i.e. applicants may submit one proposal to address one safety area with related technology(s).

The Grantee shall deliver a preliminary Program Management Plan document addressing the above requirements. The Grantee shall deliver a presentation to NHTSA outlining the work plan at a “Kick-off Meeting”.

Task 1. Safety Impact Methodology (SIM)

The Grantee shall utilize and adapt the NHTSA SIM as necessary to link the performance of the selected technology (including its effect on driver performance and behavior) to the relevant Crash Sequences of the safety priority area. The NHTSA SIM provides a framework for the estimation of safety benefits, based on the results of Objective Tests of full vehicle systems. An example of an assessment process is given in Figure 2.

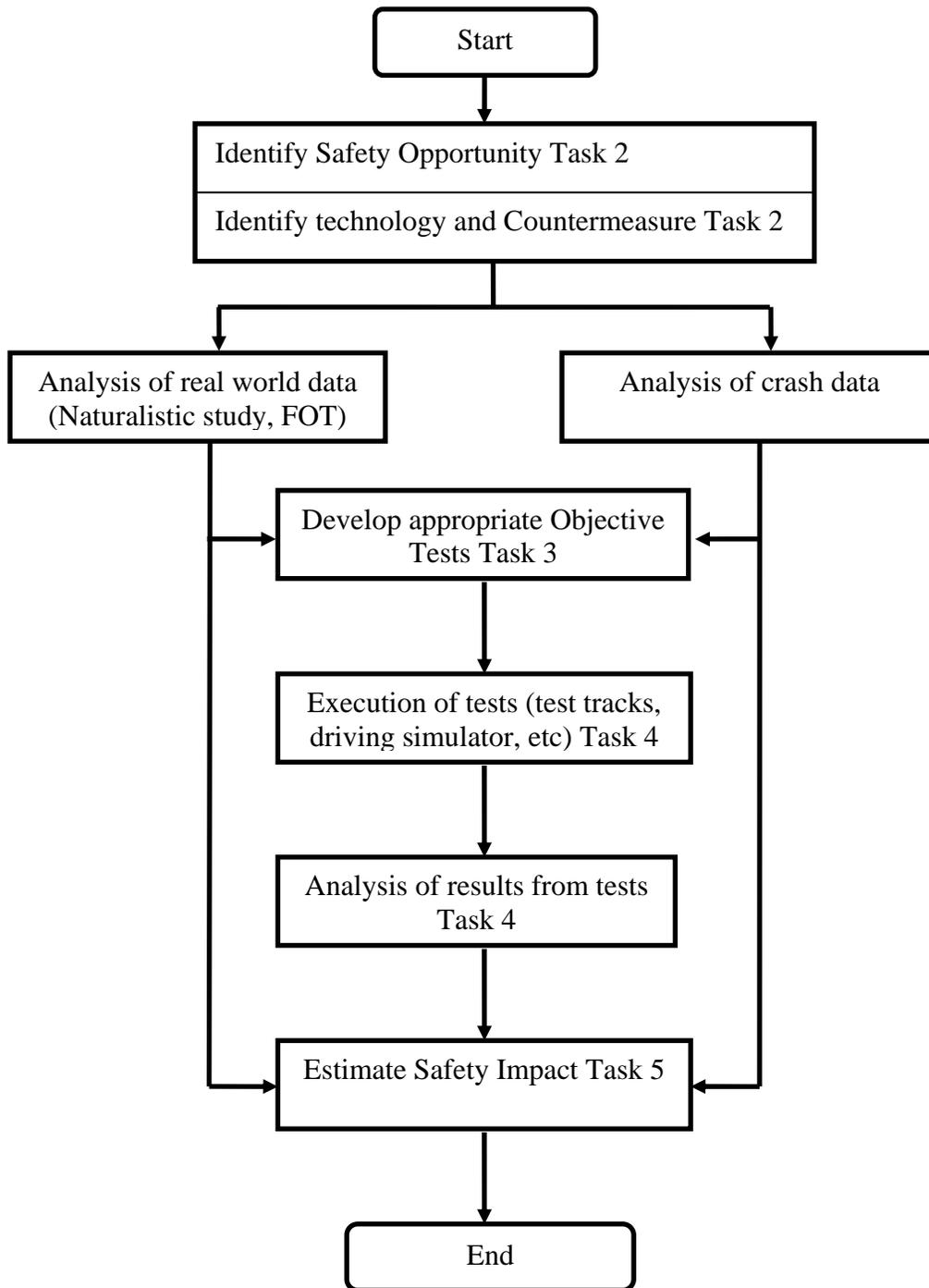


Figure 2. Example of assessment process

Specific Requirements

- a.)** Utilize SIM to incorporate all relevant information into credible estimates of safety impact. The required relevant information will be safety problem generic. In addition to understanding the crash sequence information, it may be necessary to estimate exposure or frequency information. Grantees should be familiar with the availability and use of NHTSA's crash databases including FARS, GES, and CDS in developing the descriptions of the crash sequence. For example, utilizing the GES it is possible to develop crash descriptions based on variables including the critical event (e.g., vehicle failure, excessive speed), the avoidance maneuver (e.g., no maneuver, braking, steering) and the first harmful event (e.g., rollover, motor vehicle in transport, fixed object).
- b.)** Incorporate and operationalize appropriate phases of the Crash Sequences which must be useable as a point of reference in assessing performance characteristics of selected advanced technologies. (See Task 2).
- c.)** Incorporate and operationalize the full system performance characteristics of the selected advanced technology or technologies. (See Task 2).
- d.)** Create and operationalize the linkage between the system performance of the selected advanced technology or technologies and how that performance will interrupt or mitigate the different phases of the Crash Sequence.
- e.)** Incorporate the General Estimate System (GES) standard set of descriptors into the set of Crash Sequences applicable to the selected safety problem. This set of Crash Sequences can serve as a point of reference in assessing performance of systems or technologies.
- f.)** Variations on the framework will be necessary to accommodate all aspects of safety impact; including crash prevention, injury mitigation, effects of distraction, etc.

The Grantee shall subsequently deliver an interim report describing how the SIM has been utilized to estimate safety benefits of the grantee's proposed technology.

Figure 2 provides a high level description of the SIM. The level of detail expected is similar to the approaches found in Reference 2.

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The Agency has done considerable work in advancing its knowledge base and methods in developing safety benefits, and it is expected that the Grantee will be knowledgeable of this work. See references 3-5 for examples of this work.

However, the references cited above were able to draw on the results of Field Operational Tests for their evaluations. For this effort, since the technology is still in an emerging state and since funding is limited, large scale Field Operational Tests will not be possible. This ACAT project will use Objective Tests (as described in this document) to supply estimates of “real-world” data to incorporate into the SIM.

Grantees may also refer to previous NHTSA crash avoidance studies and to other work. See the technical reports section on the NHTSA web site under the research, R&D, intelligent transportation section.

The NHTSA Crash Avoidance Research homepage

<http://www.nhtsa.gov/portal/site/nhtsa/menuitem.346aef7b3d1b54c5cb6aab30343c44cc/>

The Volpe National Transportation Systems Center list of publications

<http://www.volpe.dot.gov/library/pubs.html>

The USDOT ITS Program list of publications

<http://www.its.dot.gov/library.htm>

Task 2. Safety Area to be Addressed and Advanced Technology

As part of its proposal, the Grantee is expected to identify the priority safety problem area that they will address and the related advanced technology or technologies that are proposed as countermeasures.

The purpose of this task is to have the Grantee expand on the definition, characterizations, and details of pre-crash scenarios and to delineate in detail the characteristics and performance of the advanced technology or technologies.

The priority safety problem area identified shall be described in terms of information contained in NHTSA’s crash databases including the FARS and GES and any other databases that the Grantee and NHTSA agree are relevant. The description of the identified priority safety problem areas shall include statistical distributions of key features and other detailed information. NHTSA has developed a number of documents that discuss the motor vehicle safety problem (including References 6 and 7).

The Grantee shall identify (in quantitative terms using metrics such as “time-to-collision”) the complete set of relevant “Crash Sequences” (i.e., the non-conflict, conflict, imminent crash, crash, and/or post-crash phases) that encompass the driver behavior and vehicle performance. The “Crash Sequence” must also consider roadway and environmental characteristics such as dry or wet roadways, light condition, and horizontal or vertical curves.

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For the selected advanced technology or technologies that are proposed to address the priority safety area, the Grantee shall:

- a. Develop a top-level engineering description of full system performance.
- b. Create a “roadmap” between performance features and relevant “Crash Sequences” of the safety problem description.
- c. Describe how the technology will assist in improving safety for each of the relevant “Crash Sequences” of the problem description.

NOTE: The purpose of this project is to determine the safety benefit of a proposed technology-based countermeasure and *not* to develop the technology itself unless needed for integration into vehicles and collecting data needed for estimating safety benefits and impacts.

The Grantee shall deliver an interim report identifying the priority safety area and the full specification of the new or emerging technology for the countermeasure. Proprietary information will be protected as detailed in Section IX of this cooperative agreement. Objective and Acceptability Tests shall not be conducted until the Grantee and the Government have agreed on the specific priority safety area and technology to be addressed.

Task 3. Develop Objective Tests for Predicting Safety Benefits

The Grantee shall develop a description of Objective Tests that can be used to characterize the driver/vehicle/system performance of the proposed advanced technology and its ability to intervene in the Crash Sequences to prevent the safety problem from occurring.

The Grantee Shall:

- Identify, describe and develop Objective Tests and procedures that will evaluate the driver/vehicle/system performance of the selected technology for each “Crash Sequence” of the safety problem area.
- Account for effects of driver acceptance of the technology on level of deployment, which might impact overall safety benefits
- Account for any exposure to risk and predicted ability to prevent crashes.
- Ensure that the Objective Tests are performance-based, repeatable, and reproducible.
- Define the set of Crash Sequences and associated Objective Tests that appear to account for the highest number of crashes or injuries and that appear to be the most appropriate input for the SIM.
- Use the SIM to estimate safety benefits.

The following steps are suggested in determining the safety potential:

- 1) Establish “representative” values, or a range of values, for each parameter in the SIM. Input from crash data files plus physical reasoning, perhaps supplemented by models and simulation, can be used to select appropriate values.
- 2) Determine appropriate metrics and use them to measure system performance.

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The developed tests must have a “quantifiable” relationship to either the set of “Crash Sequences” or the level of crash prevention, severity reduction, and occupant protection potential of the selected advanced technology or technologies.

The Grantee(s) shall deliver an interim report specifying the preliminary Objective Tests and criteria. Examples of the Objective Tests that have been developed as part of other NHTSA projects are described in references 8 through 12.

Task 4. Conduct Objective and Acceptability Tests

In this task the performance of the selected advanced technologies shall be assessed using Objective Tests. The preliminary descriptions of the Objective Tests identified in the previous task will be finalized. The Objective Tests may be conducted on a test-track, in a driving simulator, in instrumented vehicles on actual roads, and/or as laboratory tests.

The Tests shall be conducted and shall provide data for assessment of the specific advanced technologies. See reference 13 for examples of Objective Test development.

- a.) For the set of Objective Tests associated with the Crash Sequences that accounted for the highest number and/or severity of crashes, the Grantee(s) shall develop detailed descriptions of how to carry out the Objective Tests.
- b.) The Objective Tests shall be conducted and the results analyzed as to how successful the tests were in evaluating the advanced technology’s performance under the relevant Crash Sequences. If determined appropriate by the COTR, the Objective Tests may be re-run.

The Grantee shall deliver an interim report detailing the development of the selected Tests and provide the results of the selected Objective Tests. Tests shall not be conducted until the Grantee and the Government agrees on the validity of the proposed Tests.

Task 5. Develop Safety Benefits Utilizing the Safety Impact Methodology (SIM)

Using the results of Task 4, the NHTSA SIM shall be utilized. The results of the Objective Tests should form the basis for the estimates of safety benefits.

The Grantee shall:

- a.) Run the SIM for the complete set of “Crash Sequences” using the results of the Objective Tests.
- b.) Develop safety impacts based on the results of the SIM.
- c.) Deliver an interim report describing the use of the SIM to predict safety benefits.

Task 6. Program Management

The goal of this task is to provide overall program oversight to ensure that the project achieves its objectives as stated in the work plan within the timeframe and resources allocated. Included in the scope of the program management activities are technical and administrative leadership over all work. This includes close coordination with the NHTSA COTR through frequent (biweekly) teleconferences and responding to NHTSA's technical comments and questions on all deliverables.

The Grantee shall:

- a) Deliver quarterly status and financial reports
- b) Conduct a Project kickoff briefing in Washington D.C.
- c) Deliver the Final Report summarizing all Tasks and providing conclusions and recommendations, and deliver the final outputs (safety benefits results) of the SIM.
- d) Respond to all of NHTSA's written comments on interim and final reports within 15 days of receipt.

V. REFERENCES

1. August Burgett, Gowri Shankar Srinivasan, Raja Ranganathan "A Methodology for Estimating Potential Safety Benefits for Pre-Production Driver Assistance Systems," NHTSA, Contract No.: DTNH22-05-D-07055, Washington, D.C., May 2008, DOT HS 810945.
2. Kikuchi, Kazunori, "Research On The Evaluation Method of Driver Behavior Using Driving Support Systems", 2005, 19th ESV Conference.
3. Automotive Collision Avoidance System Field Operational Test Report: Methodology and Results", [pdf] Performed by University of Michigan Transportation Research Institute (UMTRI) and General Motors Research and Development Center, Contract DTNH22-99-H-07019, Washington, DC, August 2005, DOT HS 809 900
4. Battelle "Evaluation of the Freightliner Intelligent Vehicle Initiative Field Operational Test" National Highway Traffic Safety Administration, Contract No: DTFH61-96-C-00077, Work Order 7718 Washington, DC, September 2003
http://www.itsdocs.fhwa.dot.gov//JPODOCS/REPTS_TE//13871.html
5. L.R. Bachman; G.R. Preziotti, NHTSA Representative: Arthur Carter, "Automotive Collision Notification (ACN) Field Operational Test (FOT) / Evaluation Report", National Highway Traffic Safety Administration, Contract No: DTFH61-95-C-00098, Washington, DC, February 2001, DOT HS 809 304
6. Basav Sen, Brittany N. Campbell, John D. Smith, Wassim G. Najm, "[Analysis of Light Vehicle Crashes and Pre-Crash Scenarios Based on the 2000 General Estimates System](#)", Performed by John A. Volpe National Transportation System Center, Cambridge, MA, Sponsored

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by National Highway Traffic Safety Administration, Washington D.C, November 2002, DOT HS 809 573

7. Brittany N. Campbell, John D. Smith, and Wassim G. Najm, "[Examination of Crash Contributing Factors Using National Crash Databases](#)", Performed by Research and Special Programs Administration, John A. Volpe National Transportation Systems Center and National Highway Traffic Safety Administration, Washington, DC, October 2003, DOT HS 809 664
8. R. Kiefer; D. Leblanc; M. Palmer; J. Salinger; R. Deering; M. Shulman, "[Development and Validation of Functional Definitions and Evaluation Procedures for Collision Warning/Avoidance System](#)", National Highway Traffic Safety Administration Technical Report, Contract No: DTNH22-95-H-07301, Washington, DC, August 1999, DOT HS 808 964
9. S. Talmadge, R. Chu, C. Eberhard, K. Jordan, P. Moffa, "[Development of Performance Specifications for Collisions Avoidance Systems for Lane Change Crashes](#)", Published by TRW Space and Defense, Redondo Beach, CA, Sponsored by NHTSA, Washington, D.C August 2000, Contract No: DTNH22-93-X097922, DOT HS 809 414
10. S.E. Lee, R.R. Knipling, M.C. DeHart, M.A. Perez, G.T. Holbrook, S.B. Brown, S.R. Stone and R.L. Olson, "[Vehicle-Based Countermeasures for Signal and Stop Sign Violation](#)", - [html] Virginia Tech Transportation Institute/DOT HS 809 716, March 2004
11. Lloyd Emery, National Highway Traffic Safety Administration "[Interim Report; Road Departure Crash Warning Subsystems](#)" Performed by UMTRI, Visteon Corp., AssistWare Tech. Inc., Washington, DC, September 5, 2003
12. National Highway Traffic Safety Administration "[Automotive Collision Avoidance System Field Operational Test Final Program Report](#)" Performed by General Motors Corporation and Delphi-Delco Electronic Systems, Contract No: DTNH22-99-H-07019, Washington, DC, May 2005, DOT HS 809 866
13. U.S. Dept of Transportation Public Meeting on the Integrated Vehicle-Based Safety Systems (IVBSS) initiative April 10-11, 2008. <http://www.itsa.org/ivbss.html>

VI. FUNDING

Subject to availability of funds, NHTSA intends to make one (1) or more Cooperative Agreement award(s) to support the goals of this project for a period of up to two (2) years. The resultant Cooperative Agreement(s) shall be no more than one million dollars (\$1,000,000) in total federal funding each.

a. Cost Sharing Requirement

The Grantee is required to contribute funds equal to at least fifty-percent (50%) of the total project's cost (total project cost = Government Funding + Grantee's Funding or Value of In-Kind Contribution.) A determination of the Grantee's compliance with this cost-sharing requirement will be made on a year to year basis.

b. Determination of Compliance with Cost-Sharing Requirements

Using the following procedures, the Government will determine the Grantee's compliance with this Cooperative Agreement's cost sharing requirements.

Note: As used in cooperative agreement, a "Cooperative Agreement Year" is defined as either: 1). (For the first Cooperative Agreement Year) The period of time beginning on the effective date of the Cooperative Agreement and extending twelve (12) months thereafter; or 2). (For other than the first Cooperative Agreement Year) The period of time beginning the day after the preceding Cooperative Agreement Year ends through twelve months thereafter.

Example: If the effective date of the Cooperative Agreement is June 5, 2008, then the first Cooperative Agreement Year begins on June 5, 2008 and continuing through June 4, 2009; the second Cooperative Agreement year would begin June 5, 2009 continuing through June 4, 2010.

- Upon receipt of the Grantee's last invoice covering a Cooperative Agreement Year, the Government will calculate the total government reimbursement provided to the Grantee for that Cooperative Agreement Year and add that amount to the Grantee's reported total actual or in-kind contribution for that Cooperative Agreement Year in order to arrive at total project cost for that Cooperative Agreement Year.
- If the Grantee's total actual or in-kind contribution is equal to or greater than 50% of the total project cost, then the Grantee will have been said to comply with this Cost-Sharing provision of this Cooperative Agreement.
- If the Grantee's total actual or in-kind contribution is less than 50% of the total project cost, then the Grantee will have been said not to have complied with this Cost-Sharing provision of this Cooperative Agreement.
- The Contract Officer will continually monitor the Grantee's expenditure ratio to ensure compliance. In the event the Grantee does not comply with this cost-sharing provision, then the Government will have the right to reduce the amount reimbursed to the Grantee by the amount by which the Grantee fell short of its cost-sharing obligation.

VII. PERIOD OF PERFORMANCE

The anticipated period of performance of a Cooperative Agreement awarded under this Announcement is up to two (2) years, commencing on the effective date stated in the Cooperative Agreement.

VIII. TERMINATION

The Government may terminate this agreement in whole or in part, upon providing written notification to the Grantee, if the Contracting Officer determines that a termination is in the Government's best interest or the Grantee defaults in performing the work and fails to cure the default within the time specified in writing by the Contracting Officer. The Grantee must deliver acceptable reports on work accomplished as part of any such termination.

The Parties shall negotiate in good faith an equitable adjustment for work performed toward the accomplishment of the Cooperative Agreement, at the time of termination, subject to satisfaction of the Grantee's cost-sharing requirements as of the time of termination, as more specifically set forth in paragraphs (1) and (2) below. Failure of the parties to agree on an equitable adjustment will be resolved pursuant to the Disputes provisions, as set forth in Article VIII, section i of this Cooperative Agreement.

Upon termination, the Grantee's cost-sharing requirement shall apply as follows:

(1) If the Government terminates this Agreement or any part thereof for convenience, the Grantee shall not be required to make up any shortfall in their cost-sharing requirement for that portion of the work that is terminated. In such case, the Government shall not be required to make adjustment for any amount by which the Grantee's cost contribution at the time of termination exceeds the cost sharing requirement for the work that is terminated and, in the case of a partial termination, any such excess shall not be applied to the Grantee's cost contribution for work that has not been terminated. The Grantee's obligation to satisfy cost-sharing requirements for any portion of the work that has not been terminated shall continue without change.

(2) If the Government terminates this Cooperative Agreement or any part thereof for default or if the Grantee terminates this Agreement or any part thereof, the Grantee shall be required to satisfy, in full, all cost-sharing requirements for all work that is terminated, calculated as of the time of termination. In such case, the Government shall be required to make adjustment for any amount by which the Grantee's cost contribution at the time of termination exceeds the cost-sharing requirement for the work that is terminated. (The Grantee understands that failure to

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meet the projected cost share contributions during performance of this Agreement may be grounds for termination for default.)

IX. ELIGIBILITY REQUIREMENTS

It is recommended *but not required* that the Applicant's team include at least one automotive original equipment manufacturer (OEM) and/or a first tier supplier.

The Applicant's proposal must identify a single high-priority safety problem and the advanced technology or technologies that can address this priority safety problem.

X. CONFLICT OF INTEREST

It is U.S. DOT policy to award Cooperative Agreements only to those Applicants whose objectivity is not impaired because of any related past, present, or planned interest, financial or otherwise, in organizations regulated by U.S. DOT, or in organizations whose interests may be substantially affected by Departmental activities and which is related to work specified in this Cooperative Agreement Announcement. Based on this policy, if, after award, the Grantee discovers a conflict of interest with respect to the Cooperative Agreement that could reasonably have been known prior to the award, an immediate and full disclosure shall be made in writing to the Contracting Officer. The disclosure shall include a full description of the conflict along with a description of the action the recipient has taken, or proposes to take, to avoid or mitigate such conflict.

(a) The Applicant shall provide a statement in its proposal which describes in a concise manner all past, present or planned organizational, financial, contractual or other interest(s) with an organization regulated by U.S. DOT, or with an organization whose interests may be affected substantially by Departmental activities, and which is related to the work under this Cooperative Agreement Announcement. The interest(s) described shall include those of the Applicant, its affiliates, proposed consultants, proposed subcontractors and key personnel of any of the above. Past interest shall be limited to within one year of the date of the Applicant's technical proposal. Key personnel shall include any person owning more than 20% interest in the Applicant, and the Applicant's corporate officers, its senior managers and any employee who is responsible for making a decision or taking an action under this Cooperative Agreement where the decision or action can have an economic or other impact on the interests of a regulated or affected organization.

(b) The Applicant shall describe in detail why it believes, in light of the interest(s) identified in (a) above, that performance of the proposed contract can be accomplished in an impartial and objective manner.

(c) In the absence of any relevant interest identified in (a) above, the Applicant shall submit

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in its proposal a statement certifying that to its best knowledge and belief no affiliation exists relevant to possible conflicts of interest. The Applicant must obtain the same information from potential subcontractors prior to award of a subcontract under the resultant Cooperative Agreement.

(d) The NHTSA Contracting Officer will review the statement submitted and may require additional relevant information from the Applicant. All such information, and any other relevant information known to U.S. DOT, will be used to determine whether an award to the Applicant may create a conflict of interest. If any such conflict of interest is found to exist, the NHTSA Contracting Officer may (1) disqualify the Applicant, or (2) determine that it is otherwise in the best interest of the agency to contract with the Applicant and include appropriate provisions to mitigate or avoid such conflict in the Cooperative Agreement awarded.

(e) The refusal to provide the disclosure or representation, or any additional information required, may result in disqualification of the Applicant for award. If nondisclosure or misrepresentation is discovered after award, the resulting Cooperative Agreement may be terminated. If after award, the Grantee discovers a conflict of interest with respect to the Cooperative Agreement awarded as a result of this Cooperative Agreement Announcement, which could not reasonably have been known prior to award, an immediate and full disclosure shall be made in writing to the NHTSA Contracting Officer. The disclosure shall include a full description of the conflict, a description of the action the Grantee has taken, or proposes to take, to avoid, or mitigate such conflict. The NHTSA Contracting Officer may, however, terminate the Cooperative Agreement for convenience if he or she deems that termination is in the best interest of the Government.

XI. REPORTING REQUIREMENTS AND DELIVERABLES/MILESTONES

An awarded Cooperative Agreement will include the following requirements:

a. Progress Reports

- Quarterly Progress Reports. Provide quarterly progress briefings/presentations and status (written) reports to the Government and/or entities specified by the Contracting Officer's Technical Representative (COTR), including submission of a briefing package in electronic format suitable for formal presentation at national meetings and posting on a web site. The briefing package shall include pictures, graphics, and figures suitable for inclusion in a U.S. DOT newsletter intended for a broad audience.
- Publishable Task Reports. Provide publishable Task reports (i.e. interim reports) and a publishable final report that discuss and document the results of the activities performed as part of the Cooperative Agreement.

b. Financial Status Report

The Financial Status Report shall consist of a Standard Form 269 or 269A in accordance with OMB Circular A-110, Subpart C, Section 52. The Financial Status Report shall also include a breakdown by cost accounting elements of funds spent during the quarter as well as funds spent to date separately for each project, and for all costs incurred under the Cooperative Agreement.

c. Report of Federal Cash Transactions

The report of Federal Cash Transactions shall consist of a Standard Form 272, and, when necessary, its continuation sheet, Standard Form 272A, in accordance with OMB Circular A-110, Subpart C, Section 52.

d. Other Products

- All data files necessary with thorough documentation (objective test conditions, variables measured, notation, formats, etc.) will be delivered to the COTR. The Grantee shall provide access to testing and results such that a thorough independent evaluation may be accomplished.

e. Requirements for Printed Material

- Printed materials must be provided to NHTSA in both printed form (original and one copy) and electronic form in CD-ROM format or other appropriate format acceptable to the COTR.
- All Program materials shall be submitted
 - Original application format
 - Section 508 compliant version
 - A PDF file for viewing with Adobe Acrobat
 - An HTML file

Documents requiring a signature (i.e. sf269a) should be signed and then converted to PDF for electronic transmittal or for submission on a CD-ROM.

Note: All contractors preparing publications for NHTSA must submit them in a format ready for posting on the World Wide Web. All documents must be Section 508 compliant and both Netscape (versions 4.0 or later) and Internet Explorer (versions 5.0 or later) compliant. All HTML documents must comply with the accessibility standards of 36 CFR §1194.22 that implement Section 508 of the Rehabilitation Act of 1973. All submissions shall include a completed Web-based Internet Information and Application Section 508 Checklist. These standards and guidelines are available for viewing in greater detail at the Access Board Web Site at: <http://www.access-board.gov/sec508/guide/1194.22.htm>.

f. Reporting Requirements – Performance Deliverables/Milestones and Schedule

The Grantee shall deliver the original copy for all reports identified below to the Contracting Officer and provide an additional photocopy for all reports identified below to the Contracting Officer's Technical Representative. As stated above, reports shall be provided in both paper and electronic form. Deliverables in electronic form (e.g. electronic data) shall be submitted to the Contracting Officer's Technical Representative on CD-ROM or other format acceptable to the COTR.

NOTE: Applicants may propose alternative Estimated Due Dates for the deliverables identified below, as well as, additional deliverables, as appropriate, for each listed Activity.

This schedule is based on a two year period of performance.

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Activity	Deliverable	Estimated Due Date
Task 6. Program Management	Kick-off Meeting Presentation and Program Management Plan	Within one month after the effective date of the Cooperative Agreement
Task 6. Program Management	Quarterly Financial Status Reports	Last day of the month following the quarter being reported
Task 6. Program Management	Quarterly Reports of Federal Cash Transactions	Last day of the month following the quarter being reported
Task 6. Program Management	Quarterly Progress Reports	15 th of the month following the quarter being reported
Task 6. Program Management	Status Briefings (in Washington, D.C.)	Every 6 months after the effective date of the Cooperative Agreement
Task 1. Safety Area to be Addressed and Advanced Technology	Interim report on the priority safety area and full specification of the new or emerging technology or technologies	Within 3 months after the effective date of the Cooperative Agreement
Task 2. SIM	Preliminary SIM Analysis	Within 6 months after the effective date of the Cooperative Agreement
Task 2. SIM	Interim report on the SIM and delivery of preliminary tool	Within 12 months after the effective date of the Cooperative Agreement
Task 3. Develop Objective Tests for Predicting Safety Benefits	Interim report specifying the preliminary Objective Tests and criteria	Within nine months after the effective date of the Cooperative Agreement
Task 4. Conduct Objective Tests	Interim report on the development of the selected Objective Tests and the results of the selected Objective Tests	Within fifteen months of the effective date of the Cooperative Agreement
Task 5. Develop Safety Benefits Utilizing the SIM	Interim report describing the changes made to the SIM and the use of the SIM to predict safety benefits.	Within one year and nine months of the effective date of the Cooperative Agreement
Task 5. Develop Safety Benefits Utilizing the SIM	Final Report and final version of SIM	Within two years of the effective date of the Cooperative Agreement

g. Rights in Data

Rights in Data will be determined in accordance with the NHTSA General Provisions for Assistance Agreements, dated July 1995 (*See Appendix One*).

h. Protection of Proprietary Information

Subject to the provisions of 5 U.S.C. § 552(b)(4) and 49 CFR Part 512, NHTSA shall keep confidential any Proprietary Information or Data disclosed by the Grantee to NHTSA in the performance of this Agreement. Any Proprietary Information or Data submitted to NHTSA by the Grantee for which confidentiality is requested must be clearly marked and submitted in accordance with regulation at 49 CFR Part 512.

i. Disputes

The parties to this agreement shall communicate with one another in good faith and in a timely and cooperative manner when raising issues under this Disputes provision. Any dispute, which for the purposes of this provision includes any disagreement or claim, between NHTSA and the Grantee concerning questions of fact or law arising from or in connection with this agreement and whether or not involving alleged breach of this agreement, may be raised only under this Disputes provision.

Whenever a dispute arises, the parties shall attempt to resolve the issues involved by discussion and mutual agreement as soon as practical. In no event shall a dispute that arose more than three months prior to the notification made under the following paragraph of this provision constitute the basis for relief under this article unless NHTSA waives this requirement.

Failing resolution by mutual agreement, the aggrieved party shall document the dispute by notifying the other party in writing of the relevant facts, identify unresolved issues and specify the clarification or remedy sought. Within five working days after providing written notice to the other party, the aggrieved party may, in writing, request a decision from the Contracting Officer. The other party shall submit a written position on the matters in dispute within thirty calendar days after being notified that a decision has been requested. The Contracting Officer shall conduct a review of the matters in dispute and may render a decision in writing within thirty calendar days of receipt of such written position. Any decision of the Contracting Officer is final and binding unless a party shall, within thirty calendar days, request further review as provided below.

The dispute shall be further reviewed, upon the Grantee's written request to NHTSA, Director, Office of Acquisition Management, or designee, made within thirty calendar days after the Contracting Officer's written decision or upon unavailability of a decision within the stated time frame under the preceding paragraph, the dispute shall be further reviewed. The NHTSA Director of the Office of Acquisition Management, or designee, shall conduct the review. Following the review, the NHTSA Director of the Office of Acquisition Management, or designee, will resolve the issues and notify the parties in writing. Such resolution is not subject to further administrative review and to the extent permitted by law, shall be final and binding. Nothing in this Agreement is intended to prevent the parties from pursuing disputes in a United States Federal Court of competent jurisdiction.

XII. APPLICATION PROCEDURES

NHTSA reserves the right to make an award without discussion, i.e., an award of a Cooperative Agreement without conducting any negotiations or discussions with any Applicant. As an alternative to making an award without discussion, NHTSA is also reserving the right to negotiate with competing Applicants, prior to making any award. Negotiations will be conducted only if NHTSA concludes that, after studying the initial applications, negotiations are in fact necessary or are in the Government's best interests

The Government reserves the right to request, at any time after the receipt of applications and before award, additional cost or price information necessary to perform an analysis. However, because an award may be made without negotiations and without any discussion, each Applicant shall document and support the proposed costs so thoroughly that no additional information is needed by NHTSA.

a. Each Applicant shall submit:

(a) One original hardcopy Office of Management and Budget (OMB) Standard Form 424 (Rev 9-2003, including 424A and 424B), Application for Federal Assistance, including 424A, Budget Information-Non-Construction Program and 424B, Assurances-Non-Construction Programs, with the required information provided and the certified assurances included. These forms are available at <http://www.whitehouse.gov/omb/grants/index.html>.

(b) Five (5) CD-ROM copies of the technical proposal. Technical Proposals shall not exceed 125 pages. Proposals submitted in excess of the page limit will not be considered. All pages shall reference NHTSA Cooperative Agreement . Appendices, which may be included, are not counted in the page limit (see below).

(c) Five (5) CD-ROM copies of the cost proposal. While the Form 424A deals with budget information, and Section B identifies Budget Categories, the available space does not permit a level of detail that is sufficient to provide for a meaningful evaluation of proposed costs. Therefore, supplemental information must be provided which presents a detailed breakout of the proposed costs (detailed labor, including labor category, level of effort and rate; direct materials, including itemized equipment, travel and transportation, including projected trips and number of people traveling; subcontracts/ subgrants with similar detail if known; and overhead). The Applicant's plan for fulfilling the mandatory 50% funding contribution must be detailed.

All estimated costs must be separated by each cooperative agreement year.

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b. All the material specified in this Article IX “Application Procedures” **must be submitted to the following address by no later than August 22, 2008 2:00 PM Eastern Time at the following address:**

U.S. DOT, NHTSA
Office of Acquisition Management NPO 320,
1200 New Jersey Avenue, S.E., W53-419 ,
Washington, D.C. 20590,
Attention: Wendell V. Crowder (202) 366-5456

Only complete packages received on or before the specified due date will be considered.

Applications must reference NHTSA Cooperative Agreement **DTNH22-08-R-00135**
FACSIMILE APPLICATIONS WILL NOT BE CONSIDERED.

NOTE: All applicants are warned that special security procedures exist which may delay delivery of material directly to the NHTSA Office of Acquisition Management in Room 5301 at 1200 New Jersey Avenue, S.E., Washington DC. In general, uniformed couriers must deliver material to the mail room of the Southeast Federal Center Building at 1200 New Jersey Avenue S.E., Washington, DC prior to delivery to NHTSA’s Office of Acquisition Management. Nevertheless, applications must be received in the Office of Acquisition Management, Room 5301 by the closing date and time, in order to be considered timely – not just delivered to the U.S. DOT Building mailroom, loading dock, or guard station. It is strongly recommended that each Applicant telephone the Contracting Specialist, Wendell V. Crowder at 202 366-5456 to verify receipt of the application in Room 5301.

c. Although the technical proposal, cost proposal, and required hardcopy original application forms may be shipped together in the same package, the technical proposal must be saved and identified on CD-ROM’s which are separate from the cost proposal CDs. No cost or pricing information shall appear in the technical proposals. Technical and Price Proposals may be submitted either in Microsoft Word or PDF format.

d. Technical Proposal Requirements and Organization.

(a.) Technical Proposal - Section One

The Applicant must submit a technical proposal and work plan that addresses the requirements of Article I. Technical Information and the following issues:

- (1) Definition of the crash problem areas to be addressed. A discussion of the target crash problem areas that the advanced technology would address, including a discussion of the size of the crash scenarios and their individual causalities.
- (2) Proposed Description of the Advanced Technology or Technologies. A discussion of the advanced technology or technologies proposed. Concept drawings may be used to convey a clear concept of the system. Care should be taken to describe the details related

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to the technology including, for example, sensors, algorithms, driver-vehicle interfaces, etc.

- (3) Potential Benefits When the Countermeasure is Deployed. A qualitative discussion describing the safety benefits that would be expected from the deployment of the technology.

In the context of the applicant technical proposal and work plan, the applicant shall provide a proposed program schedule that addresses the deliverable requirements listed in Article VIII, Section f.

(b.) Technical Proposal - Section Two:

Section Two of the Technical Proposal shall include the following information:

Staffing. The application shall include the names of the staff personnel proposed, and state the position each such person is proposed to occupy as related to this project. The Applicant shall provide the number of labor hours proposed for each person, for each labor category and for each individual task. In addition, a biographical summary (resume) for each proposed staff person shall also be included, except that no resume need be provided for clerical positions. Each biographical summary shall clearly identify and describe the individual's education and experience as it relates to the performance of this particular project.

Experience and Past Performance. Applicants shall identify in their proposal relevant project experience. In addition, each Applicant shall submit information regarding at least two (2) similar projects (contracts, subcontracts, grants, and/or cooperative agreements) which have been performed by the Applicant within the past three (3) years. The projects provided should provide evidence of managing and administering a multi-disciplinary research program that includes teaming arrangements and required coordination among different partners.

For each project listed, the Applicant must provide past performance references with its application. If the Applicant's work history encompasses fewer than two such projects, then the Applicant shall include, among its past performance references, projects performed by any of the Applicant's organizational components, lower tier entities, and/or individuals whom the Applicant is proposing to use as professional staff for this particular Cooperative Agreement.

Past performance information should include some information that indicates record of complying with the terms and conditions of the award, including the adherence to milestones and performance and delivery schedules and an indication that the program stayed within the required budget;

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The Applicant must provide the following information in their application:

- Name and address of the customer for whom the work was performed.
- The name, title, and the current telephone number of the point of contact within the customer's technical office, who can provide information on the Applicant's technical performance for the project cited.
- The name, title, and current telephone number of the point of contact within the customer's contracting/business office.
- The contract number or the project number of the project.
- The title of the project.
- The date of contract or project award.
- The period of performance.
- The type of contract, such as firm fixed price, cost reimbursement, etc.
- Total dollar value of project at time of award and at completion if cost reimbursable.
- Brief description of product or services.

Facilities and Equipment. Applicants must include a statement regarding availability of facilities and equipment necessary to accomplish the required work. If any or all of the required facilities are government-owned, a complete listing of those facilities is required, along with the name of the cognizant Government agency furnishing the facilities and the project and/or contract number(s).

Contractors. Sub-recipients, Sub-Contractor, Other Entities, Individual Consultants, etc.: If any sub-recipient, any sub-Contractor, any affiliate, any partner, any joint venture, any other entity other than the Applicant's own organization, or any individual consultant will be used in carrying out the work of this project, the following minimum information concerning each such entity or individual shall be included in the application:

- Name and address of the entity or individual consultant.
- Statement of work, for the portion of work to be conducted by the entity or individual consultant.
- Names and positions of personnel who will work for the entity on this project.
- A letter or other statement from each such entity and from each such individual consultant, indicating that the entity or individual consultant has been approached on the matter of participation in this project and is willing to participate on the terms indicated.

e. Cost Proposal Requirements:

The Cost Proposal shall include the following information:

1. Budget Information

- a. Each Applicant shall submit a completed Application for Federal Assistance, Standard Form (SF)-424 and Budget Information – Non-Construction Programs, SF-424A.
- b. Each Applicant shall clearly and thoroughly set forth its proposed costs by submitting a spreadsheet or spreadsheets, (along with any appropriate subsidiary schedules and attachments), in its application. Spreadsheets shall be submitted in either Excel or PDF formats. The Applicant’s cost proposal shall cover not only the costs proposed within the prime recipient’s organization, but also the costs proposed to be incurred by every lower-tier organization serving under the prime recipient. (e.g. sub-recipients, consultants, subcontractors, and non-leading partners). The cost proposal shall clearly identify and display the following information as applicable:
 - Direct labor by person/labor category, showing of the number of proposed hours for each particular person/labor category, and also showing the starting un-loaded hourly pay rate for each person/labor category and pay “escalations” that are being proposed.
 - Cost Sharing. Each Applicant shall clearly show how much of the budget is to be paid with Federal Funds, and how much will be funded through the applicant’s cost sharing plan. Applicants shall ensure that all proposed non-Federal contributions are allowable costs according to the cost principles in Office of Management and Budget (OMB) Circular A-102.
 - Indirect Cost percentage Rates and dollar amounts. This includes items such as overhead, fringe benefits, general and administrative (G&A) and/or facilities & administration (F&A). Applicants should provide support for each particular proposed indirect cost element (as a percentage) that is contained in their proposal including copies of any negotiated rate agreements.
 - Travel Costs. Provide a breakout of proposed travel costs by person-trip. For each such person-trip, show the point of origin, the outbound destination, purpose of the trip, estimated number of days, and the estimated travel costs for each trip, showing air fare, lodging and food and incidental per diem costs.
 - Other Direct Costs. Each Applicant’s application shall provide a breakout of Other Direct Costs. The term “Other Direct Costs” typically includes items such as the following, to the extent that the following items are not already included in some indirect cost pool such as overhead: (1) photocopying; (2) postage; (3) long distance telephone calls; (4) facsimile; (fax) transmissions; (5) overnight shipping (6) materials; (7) Equipment, including computer equipment or computer software. Other Direct Costs shall be included in each budget summary, for the prime and all proposed subcontracts.
 - Cost Itemization and Cost Support for Lower-Tier Entities. Applicants shall itemize and support the costs proposed for each sub-recipient, each consultant, each subcontractor, and each non-leading partner.
 - Fee. No fee may be proposed for the Applicant or any Applicant partner. However, fees may be proposed for vendors and/or subcontractors.

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c. Sub-recipients, Sub-Contractor, Other Entities, Individual Consultants, etc.: If any sub-recipient, any sub-Contractor, any affiliate, any partner, any joint venture, any other entity other than the Applicant's own organization, or any individual consultant will be used in carrying out the work of this project, full support for the costs and pricing proposed for each such entity or individual consultant shall be provided. The Applicant shall include for each such entity or individual consultant being proposed, the same kinds of cost and pricing support, and the same level of detail, as are required above for the support for the prime Applicant's own internal costs. For each proposed individual consultant, the person's proposed starting hourly pay rate should be supported by at least two recent invoices wherein that consultant has both: (1) billed a client at an hourly pay rate equal to or greater than the one being proposed as the starting rate under this Cooperative Agreement, and (2) been paid by the client, at the hourly pay rate billed in that invoice. If the proposed individual consultant's work history does not include two such invoices, please provide an explanation.

f. Facilities and Special Equipment

It is the policy of NHTSA not to provide general or special purpose equipment, facilities, or tooling of a capital nature except in unusual circumstances. NHTSA does not plan to provide such items to the Recipient of the Cooperative Agreement resulting from this RFA.

XIII. APPLICATION REVIEW PROCESS AND EVALUATION FACTORS

Each application package will be reviewed initially to confirm that the Applicant is an eligible candidate (as described under Article VI, Eligibility Requirements) and has included all of the items specified in the Application Procedure (Article IX) section of this Notice. The NHTSA Evaluation Committee will evaluate applications submitted by eligible candidates. It is anticipated that awards will be made in August 2008. Applications will be evaluated using the following criteria:

Factor	Weight
Factor 1. Technical Approach, Work Plan, and Program Management Scheduling	
Factor 2. Size of Safety Problem Addressed and Technology Proposed	
Factor 3. Qualifications Of Applicant's Personnel and Resources	
Factor 4. Corporate Experience and Past Performance	

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The proposed scoring system is based on a score of 1,000, which is the maximum score a proposal can accumulate by receiving an outstanding rating on each evaluation factor. The quality rating scheme and evaluation factor weights are:

Factor	Score	Weight	Maximum
1	0-10		
2	0-10		
3	0-10		
4	0-10		
Unsatisfactory	Grossly insufficient detail or inadequate approach, methods, organization, or capabilities. Serious deficiencies exist in significant areas; the proposal cannot be expected to meet the minimum requirements without major revisions. Or the proposal is so deficient that it is not capable of being evaluated.		
Below Average	Fails to meet the minimum requirements, but is of such a nature that it has correction potential without major revisions to the proposal.		
Average	Generally meets minimum Notice requirements; responded to all major aspects of the procurement; capable of achieving desired objectives of the procurement.		
Above Average	Extensive and detailed response to all requirements; potential for high quality performance results in one or more areas covered by the procurement.		
Outstanding	Comprehensive, in-depth response to all requirements; professionally superior approach. Consistently high quality performance results likely in all major areas covered by the procurement.		

**Factor 1. Technical Approach, Work Plan, and Program Management Scheduling.
Weight: (xx)**

The Applicant’s technical proposal shall demonstrate:

- (A) The ability to provide a clear, innovative, and realistic technical approach to achieve the Program objectives;
- (B) A thorough understanding of the Program goal and objectives;
- (C) A proposed work plan that adequately implements the technical approach;
- (D) Clarity and completeness in the description of the proposed technology or technologies

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- (E) Thoroughness in the discussion of safety benefits prediction methodologies and how this work will build on previous work in advancing the state of the art.
- (F) An articulated understanding of Objective Tests and how they can be used to obtain the required input data for a SIM.
- (G) The completeness and practicality of the proposed schedule to accomplish the Program objectives within the required time frame.
- (H) The ability to manage to completion the required progress reports, tasks, and deliverables under this effort.

Factor 2. Size of Safety Problem Addressed and Technology Proposed.

Weight: (xx)

The Applicant's description of the proposed safety problem and technology countermeasure shall demonstrate:

- (A) Clarity in the description of the safety problem to be addressed.
- (B) That a significant safety problem is being addressed and the potential benefit in saving of lives, injuries and property damage is high.
- (C) That the technology countermeasure proposed is innovative and not currently available in series production.

Factor 3. Qualifications of Applicant's Personnel and Resources. Weight: (xx)

The Applicant's description of the proposed team structure shall demonstrate:

- (A) The technical capabilities, knowledge, and expertise of the applicant and its various proposed partners to perform safety impact and benefits prediction analysis, modeling and simulation of the different phases of a crash, and objective test development.
- (B) That key project personnel have relevant education, capability, and availability as well as the knowledge and experience in automotive advanced safety technology, safety impact and benefits prediction research, human factors, and crash avoidance and crashworthiness areas.
- (C) That key project personnel have the skills to communicate clearly through reports, briefings, and technical presentations.
- (D) The adequacy of proposed task managers and overall staffing plan.
- (E) That the applicant's proposed facilities and equipment are adequate to successfully complete performance.

Factor 4. Corporate Experience and Past Performance. Weight: (xx)

The Applicant's proposal will be evaluated on:

- (A) Experience in managing and administering a multi-disciplinary research program, and directing and coordinating project tasks among numerous partners with adequate leadership, organization, technical and cost control;

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- (B) Its record of complying with the terms and conditions applicable to previous cooperative agreements and/or contracts, including the quality of services or deliverables provided and the adherence to milestones and performance and delivery schedules;
- (C) The degree to which the applicant efficiently achieved the purposes of previous cooperative agreements and/or contracts within the approved budget;

Cost Evaluation

The Applicant's prepared budget will be evaluated for fairness and reasonableness of costs to determine "Best Value".

XIV. TERMS AND CONDITIONS OF AWARD

Prior to award, each Applicant shall comply with the certification requirements of 49 CFR Part 20, U.S. Department of Transportation New Restrictions on Lobbying, and 49 CFR, part 29, U.S. DOT Government-wide Debarment and Suspension (Non-procurement) and Government-wide Requirement for Drug Free Work Place (Grants). Certification requirements are electronically available for download at:

<http://www.whitehouse.gov/omb/grants/index.html>.

In addition, prior to award each Applicant shall comply with the NHTSA General Provisions for Assistance Agreements, dated July 1995. (See Appendix A).

XV. FINANCIAL ADMINISTRATION

XVI. NHTSA's PROJECT OFFICER

XVII. GRANTEE's PROJECT OFFICER

XVIII. SPECIAL PROVISIONS

XIX. GENERAL PROVISIONS (Appendix A, "General Provisions for Assistance Agreements") – Included as a separate document

XX. ACRONYMS

ACAT – Advanced Crash Avoidance Technologies
ACN – Automated Collision Notification
CDS – Crashworthiness Data System
COTR – Contracting Officer Technical Representative
DOT – Department of Transportation
ESC – Electronic Stability Control
ESV – Enhanced Safety of Vehicles
FARS – Fatality Analysis Reporting System

FOT – Field Operational Test
GES – General Estimates System
NHTSA – National Highway Traffic Safety System
OAM – Office of Acquisition Management
OEM – Original Equipment Manufacturer
OMB – Office of Management and Budget
RFA – Request for Application
SIM – Safety Impact Methodology

XXI. GOVERNMENT FURNISHED INFORMATION

XXII. MODIFICATIONS

XXIII. TERMINATION