

#### Evaluating the Potential Safety Impact of Advanced Crash Avoidance

#### **Technologies**

#### GM-NHTSA Research Exchange March 28, 2006

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# **ACAT Program**

- Determine the potential safety impact of selected new and emerging technologies
- This information may be used to inform consumers about:
  - What advanced safety features vehicles have that help them avoid a crash, reduce their severity when it occurs and protect the occupant?
  - In what situations do these systems work?
  - How effective are they in meeting the objectives?
- Role of NHTSA in facilitating deployment
  - Ensuring that there are suitable specifications for safety technologies
  - Developing test procedures to discriminate full system performance
  - Estimating safety benefits
  - Using consumer information for facilitating deployment
  - Addressing human/machine interface issues

## Background

- European Commission Intelligent Car Initiative
- Industry/supplier meetings over the last 2 years
- Public statements by NHTSA Regarding Advanced Technologies
- Program plan
- Request for information & expression of interest - July 2005

# **Emerging Technologies**

- Electronic Stability
  Control
- Adaptive Cruise Control
- Night Vision Systems
- Curve Speed Warning
- Lane Departure Warning
- Alcohol Monitoring
- Brake Assist Systems
- Pre-crash sensing



## **ACAT Program**

- Cooperative Agreements
- Allow for Multiple Awards If Funding Permits
- Seek 50/50 Cost Share
- Allows the Applicant to Specify the Countermeasures
- Include Crash Mitigation Technologies
- Limit to Light Vehicles
- Protect Applicant's Proprietary Data and Information <u>BUT</u> the Resulting Methodologies, Test Procedures, and Test Data Must Be Available for Public Release

## ACAT PROGRAM PLAN

- Task 1 Safety Impact Methodology
- Task 2 Safety Area to be Addressed and Advanced Technology
- Task 3 Develop Objective Tests for Predicting Safety Benefits
- Task 4 Conduct Objective Tests
- Task 5 Develop Safety Benefits Utilizing the Safety Impact Methodology