



**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted List of Transportation Safety Improvements**

*“... a program to increase the public’s awareness of, and support for, action to adopt safety steps that can help prevent accidents and save lives.”*

*February 18, 2010*

# Safety Recommendations

Issued Since 1967

**TOTAL = 13,166**

**Pipeline 1243 9.44%**



**Marine 2345  
17.81%**



**Intermodal 234 1.78%**

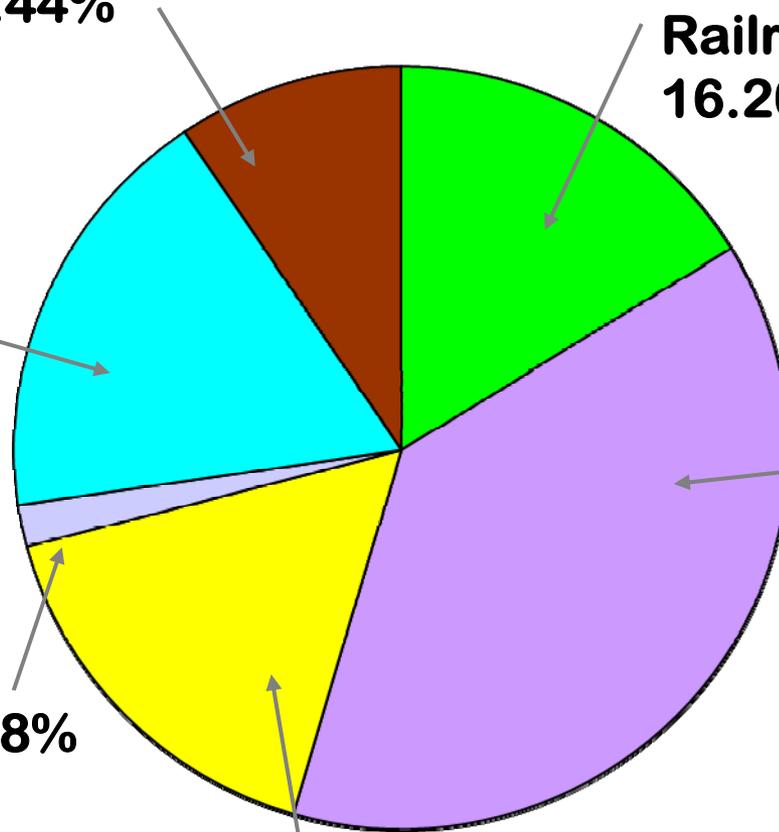
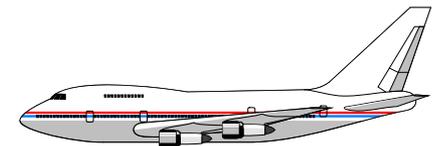


**Highway 2187 16.61%**

**Railroad 2133  
16.20%**



**Aviation 5024  
38.16%**



February 2010

# 1,136 Open Recommendations

- Aviation: 583
- Highway: 316
- Railroad: 143
- Marine: 48
- Pipeline: 27
- Intermodal: 19



**Issue areas selected for intensive follow-up and heightened awareness because they:**

- Will impact and enhance safety of the nation's transportation system
- Have a high level of public visibility and interest
- Will benefit from special form of encouragement



# NTSB MOST WANTED

## Transportation Safety Improvements

### NTSB MOST WANTED LIST

#### **AVIATION: The Federal Aviation Administration should:**

##### **Improve Safety of Emergency Medical Services Flights**

- Conduct all flights with medical personnel on board in accordance with commuter aircraft regulations.
- Develop and implement flight risk evaluation programs.
- Require formalized dispatch and flight-following procedures including up-to-date weather information.
- Install terrain awareness and warning systems on aircraft.

##### **Improve Runway Safety**

- Give immediate warnings of probable collisions/incursions directly to cockpit flight crews.
- Require specific air traffic control clearance for each runway crossing.
- Install cockpit moving map displays or automatic systems to alert pilots of attempted takeoffs from taxiways or wrong runways.
- Require landing distance assessment with an adequate safety margin.

##### **Reduce Dangers to Aircraft Flying in Icing Conditions**

- Use current research on freezing rain and large water droplets to revise the way aircraft are designed and approved for flight in icing conditions.
- Apply revised icing requirements to currently certificated aircraft.
- Require that airplanes with pneumatic deice boots activate boots as soon as the airplane enters icing conditions.

##### **Improve Crew Resource Management**

- Require commuter and on-demand air taxi flight crews to receive crew resource management training.

##### **Require Image Recorders**

- Install crash-protected image recorders in cockpits to give investigators more information to solve complex accidents.

##### **Reduce Accidents and Incidents Caused by Human Fatigue**

- Set working hour limits for flight crews, aviation mechanics and air traffic controllers based on fatigue research, circadian rhythms, and sleep and rest requirements.\*
- Develop a fatigue awareness and countermeasures program for air traffic controllers.\*\*

#### **MARINE: The U.S. Coast Guard should:**

##### **Reduce Accidents and Incidents Caused by Human Fatigue**

- Set working hour limits for mariners based on fatigue research, circadian rhythms, and sleep and rest requirements.

### NTSB ACTION/TIMELINESS CLASSIFICATION

- Unacceptable response
- Acceptable response, progressing slowly
- Acceptable response, progressing in a timely manner

### Actions needed by Federal Agencies

#### **HIGHWAY: The Federal Motor Carrier Safety Administration should:**

##### **Restrict Use of Cellular Telephones**

- Prohibit cellular telephone use by commercial drivers of school buses and motorcoaches, except in emergencies.

##### **Require On-board Electronic Recorders**

- Require all interstate commercial vehicle carriers to use electronic on-board recorders to collect data on both driver hours of operation and accident conditions.

##### **Improve Safety of Motor Carrier Operations**

- Prevent motor carriers from operating if they put vehicles with mechanical problems on the road or unqualified drivers behind the wheel.

##### **Prevent Medically Unqualified Drivers from Operating Commercial Vehicles**

- Establish a comprehensive medical oversight program for interstate commercial drivers.
- Ensure that medical examiners are qualified.
- Track all medical certificate applications.
- Enhance oversight and enforcement of invalid certificates
- Provide mechanisms for reporting medical conditions.

#### **The National Highway Traffic Safety Administration should:**

##### **Prevent Collisions by Using Enhanced Vehicle Safety Technology**

- Require adaptive cruise control and collision warning system standards for all new passenger and commercial vehicles.

##### **Enhance Protection of Motorcoach Passengers**

- Redesign motorcoach window emergency exits so they can be easily opened.
- Issue standards for stronger bus roofs; require them in new motorcoaches.
- Devise new standards to protect motorcoach passengers from being thrown out of their seats or ejected when a bus sustains an impact or rolls over.

##### **Enhance Protection of School Bus Passengers**

- Devise new standards to protect school bus passengers from being thrown out of their seats or ejected when a bus sustains an impact or rolls over.

#### **PIPELINE: The Pipeline and Hazardous Materials Safety Administration should:**

##### **Reduce Accidents and Incidents Caused by Human Fatigue**

- Set working hour limits for pipeline controllers based on fatigue research, circadian rhythms, and sleep and rest requirements.

\* This recommendation requires action by both the FAA and the National Air Traffic Controllers Association.

\*\* This recommendation also issued to National Air Traffic Controllers Association.

## **Office of Safety Recommendations & Advocacy**

**Darrin Broadwater**

**Mike Brown**

**Barbara Grider**

**Nathan Hoyt**

**Paula Sind-Prunier**

**Jeff Marcus**

**Julie Perrot**

**Danielle Roeber**

**Pat Sullivan**

**Terry Weaver**



## Today's Presenters

**Jim Southworth**  
**Mike Karr**  
**Roger Cox**  
**Jeff Guzzetti**  
**Bob Dodd**  
**Sandy Rowlett**  
**Dan Bower**  
**Jim Cash**  
**Malcolm Brenner**

**Jennifer Morrison**  
**Peter Kotowski**  
**Mitch Garber**  
**Kris Poland**  
**Shane Lack**  
**Dennis Collins**  
**Jana Price**



# Action / Timeliness Criteria

-  **Red:** Unacceptable response
-  **Yellow:** Acceptable response – progressing slowly
-  **Green:** Acceptable response – progressing in a timely manner





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted List of Transportation Safety Improvements**

*“... a program to increase the public’s awareness of, and support for, action to adopt safety steps that can help prevent accidents and save lives.”*



**NTSB** National Transportation Safety Board

---

# **Federal Most Wanted Transportation Safety Improvements**

## **Improve Transit Railcar Design**

# NTSB MOST WANTED

Transportation Safety Improvements



# NTSB MOST WANTED

Transportation Safety Improvements



# NTSB **MOST WANTED**

Transportation Safety Improvements



Ap photo by Pablo Martinez Monsivais of accident

## Objectives

- Provide adequate means for safe and rapid emergency responder entry and passenger evacuation
- Prevent the telescoping of transit railcars in collisions
- Remove equipment that cannot be modified to meet the new standards



## **Safety Improvements Wanted**

- Provide adequate means for safe and rapid emergency responder entry and passenger evacuation. **R-06-5**
- Prevent the telescoping of transit railcars in collisions and remove equipment that cannot be modified to meet the new standards. **R-06-6**



“49 USC §5334(b)(1)

Except for purposes of national defense or in the event of a national or regional emergency, the Secretary may not regulate the operation, routes, or schedules of a public transportation system for which a grant is made under this chapter, nor may the Secretary regulate the rates, fares, tolls, rentals, or other charges prescribed by any provider of public transportation.”



## Public Transportation Safety Program Act of 2009

Establish and enforce minimum federal safety standards for rail transit systems that receive federal transit assistance – effectively breaking through the 1965 prohibition. Form a Transit Rail Advisory Committee on Safety (TRACS) that will help guide the Department's rail transit safety regulations.



## Public Transportation Safety Program Act of 2009 (con't.)

Allow states to receive federal transit assistance to staff and train state oversight personnel to enforce new federal regulations. State programs would have to be well-staffed and adequately empowered by state governments to fully enforce federal regulations in order to be eligible for federal funds.



## Public Transportation Safety Program Act of 2009 (con't.)

Require the state agencies conducting oversight to be fully financially independent from the transit systems they oversee. The FTA would enforce all federal regulations where states choose not to participate in the program or where the state program is found to lack the necessary enforcement tools.



- *Standard for Structural Requirements for Heavy Rail Transit Vehicles*
  - Issued January 2009 by American Society of Mechanical Engineers
- *Standard for Rail Transit Vehicle Emergency Egress/Access and Light Rail Vehicle Crashworthiness*
  - Not yet completed



# Improve Transit Railcar Design

## Proposed Safety Board Action

- Add issue area to Most Wanted List
- Give yellow designation: Acceptable response  
– progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Safety Management Systems  
(SMS) for Domestic Vessels**

## **Objective**

- Improve domestic vessel safety practices and minimize risk by requiring domestic vessel operators to develop, implement and maintain a systematic and documented SMS.



## **Safety Management Systems**

- Provide for safe practices in ship operation and a safe working environment
- Establish safeguards against all identified risks
- Improve the safety management skills of shoreside and shipboard personnel



## **Key SMS Processes**

- Written instructions and procedures for shore side and shipboard personnel
- A system for shore side and shipboard personnel to comply with those instructions and procedures
- Management review of procedures that may include external audits.



## Importance

- NTSB has long supported adoption of SMS on board ships, both domestic and foreign, and SMS subsystems such as preventive maintenance programs (PMP).
- NTSB stressed concerns in numerous investigation reports issued since the 1970s.



# Safety Improvements Wanted

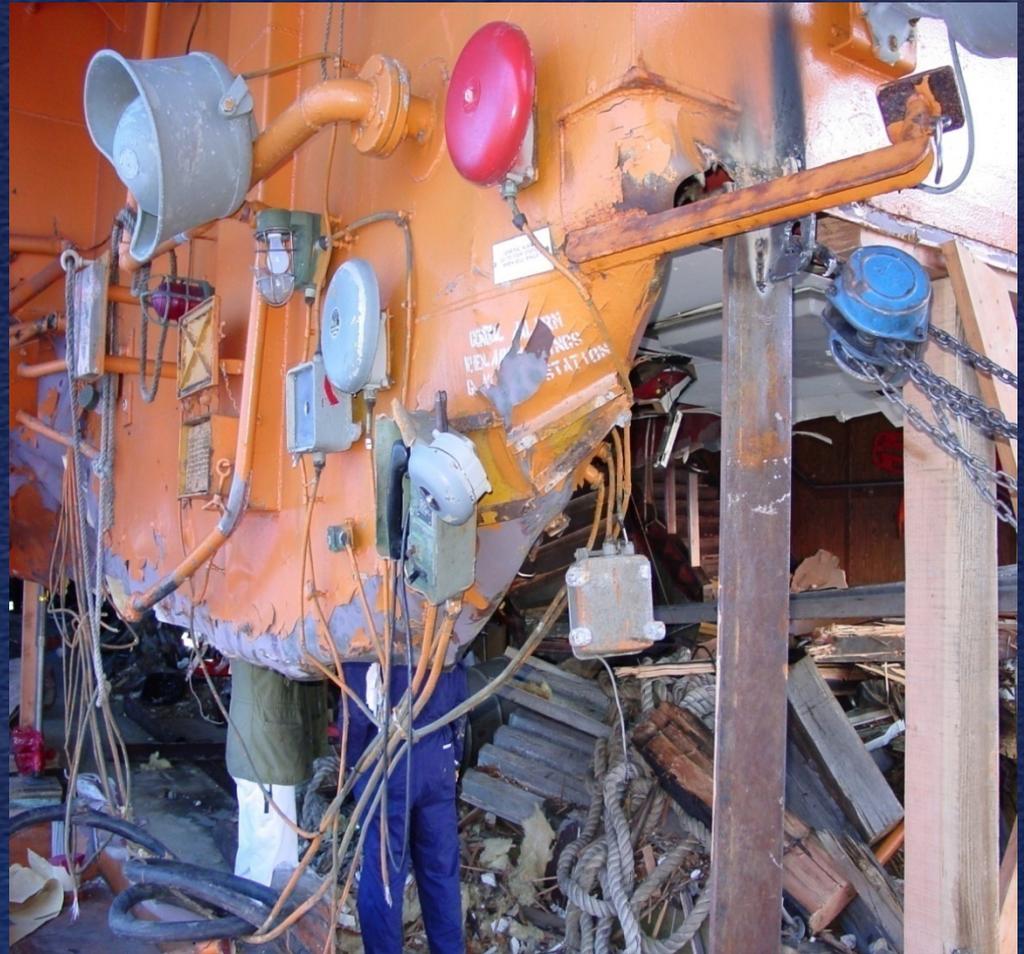
- Require preventive maintenance program on all domestic passenger vessels for systems affecting safe operation.

**M-02-5**



# Safety Improvements Wanted

- Seek legislative authority, that requires U.S. ferry operators to implement SMS. **M-05-6**



# Safety Improvements Wanted

- Finalize the new towing vessel regulations and require the establishment of SMS appropriate for towing vessels. **M-07-6**



# Status of SMS Recommendations

## Coast Guard Actions:

- **M-02-5: OAA**, Coast Guard will consult with Passenger Vessel Association.
- **M-05-6: OUA**, In 2007, Coast Guard submitted a legislative change proposal to amend 46 USC 3202(a) to require SMS on U.S. ferries w/more than 399 passengers.
- **M-07-6: OAA**, USCG drafting 46 CFR Subchapter M, which is to include SMS regulations. The Coast Guard will consider SMS regulations proposed by the Towing Safety Advisory Committee.



## **SMS for Domestic Vessels**

### **Proposed NTSB Action:**

- Add issue area to Most Wanted List
- Add recommendations: M-02-5, M-05-6, and M-07-6
- Assign yellow designation: Acceptable response, but progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Reduce Marine Accidents  
Caused by Human Fatigue**

## **Marine**

- **M-99-1**
- Work-hour limitations date to early 1900s
- International Maritime Organization regulations
- 2004 Coast Guard and Maritime Transportation Act
- Crew Endurance Management System (CEMS)



## **Marine Fatigue**

### **Proposed Safety Board Action**

- Keep issue area on Most Wanted List
- Keep red timeliness designation:  
Unacceptable Response

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

# **Federal Most Wanted Transportation Safety Improvements**

## **Improve Oversight of Pilot Proficiency**

## **Safety Improvements Wanted**

Require all part 121 and 135 air carriers to obtain any notices of disapprovals for flight checks for certificates and ratings for all pilot applicants and evaluate this information before making a hiring decision. **A-05-1**

Status: **Open – Unacceptable Response**



## **FAA Actions**

- **November 2007** – Amended AC-120-68C  
“Pilot Records Improvement Act of 1996”
  - Letter of consent could be used to authorize release of records of disapprovals



## **FAA Actions Remaining**

Determine how many operators are obtaining disapproval information for their pilot applicants



## **Safety Improvements Wanted**

Require all part 121 air carrier operators to establish training programs for flight crewmembers who have demonstrated performance deficiencies or experienced failures in the training environment that would require a review of their whole performance history at the company and administer additional oversight and training to ensure that performance deficiencies are addressed and corrected. **A-05-14**

Status: **Open – Acceptable Alternate Response**



## **FAA Actions**

- **October 2006** – SAFO issued “Remedial Training for Part 121 Pilots”
  - Recommended voluntary implementation
- **April 2009** – Notice to FAA inspectors on verification of remedial training programs



## **FAA Actions Remaining**

Provide data to determine industry adoption of programs for remedial training and enhanced oversight of pilots with performance deficiencies.



## **Proposed Safety Board Action**

### **Improve Oversight of Pilot Proficiency**

- Place issue area on Most Wanted List
- Set designation to red: Unacceptable Response

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Require Cockpit Image  
Recorders**

# Cockpit Image Recorder Policy Update

- Recent FAA Response
- FAA NPRM



# NTSB MOST WANTED

Transportation Safety Improvements

## Cockpit Image Recorder Policy



## **Recorder Activity**

- Helicopter image recorder activity
- Flight Safety Foundation program
- Development of Low Cost Recorder



# Require Cockpit Image Recorders

## Proposed Safety Board Action

- Retain red designation: Unacceptable response

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Improve Safety of Emergency  
Medical Services Flights**

# NTSB Special Investigation Report

- Adopted Jan. 25, 2006
- EMS provides an important service
- Pressures; challenging environment
- Four recommendations issued to the Federal Aviation Administration
- Additional actions taken by NTSB in 2009.



# NTSB MOST WANTED

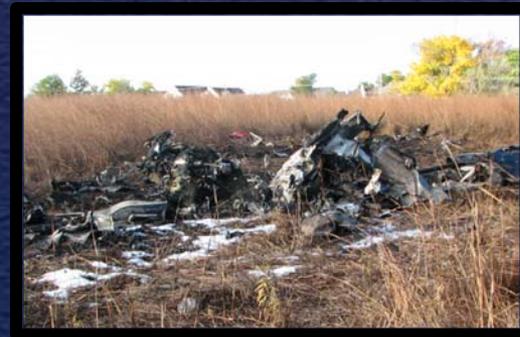
Transportation Safety Improvements

## CY 2008: 29 fatalities in HEMS Accidents



La Crosse, Wisconsin

Huntsville, Texas



Aurora, Illinois



S. Padre Island, Texas



District Heights, Maryland



Flagstaff, Arizona  
(Midair Collision)



# NTSB Public Hearing on HEMS Safety

February 3 – 6, 2009

- 41 expert witnesses
- Topics Covered:
  - *Business Models*
  - *Safety Equipment: TAWS, Flight Recorders, NVGs*
  - *Training*
  - *Flight Operations*
  - *FAA and Industry Oversight*
- **21 additional recommendations to:**  
FAA, Public Operations, CMS, and FICEMS



## Operations Without Patients Onboard

*Require operators to conduct all EMS flights with medical personnel on board in accordance with commercial flight regulations. **A-06-12***

### **FAA Actions:**

- Issued OpsSpec A021 in November 2008 for weather
- All HEMS operators in compliance
- No flight & duty time limitations
- Status: **Open – Unacceptable Response**



## Risk Evaluation

*Require EMS operators to develop and implement flight risk evaluation programs. **A-06-13***

### **FAA Actions:**

- Issued Notice N8000.301
- Incorporated Notice into FAA Order 8900.1
- FAA initiating rulemaking, but little progress
- Status: **Open-Unacceptable Response**



## **Flight Dispatch**

*Require formalized flight following and dispatch procedures including up-to-date weather. **A-06-14***

### **FAA Actions:**

- May 2008: Published AC 120-96
- Operational Control Centers
- Status: **Open-Acceptable**



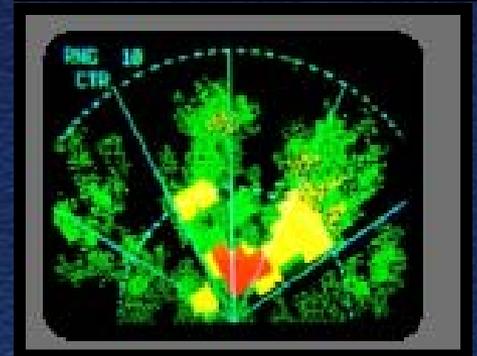
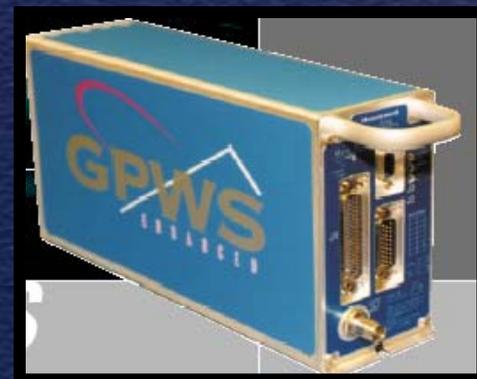
## Terrain Awareness Warning Systems

*Require EMS operators to install TAWS.*

**A-06-15**

### **FAA Actions:**

- March 2008 – Standards developed
- TSO released December 2008
- FAA initiated rulemaking process, but little progress has been made
- Status: **Open- Unacceptable Response**



# Improve Safety of Emergency Medical Services Flights

## Proposed Safety Board Action

- Maintain issue area on Most Wanted List
- Assign red classification: Unacceptable responses, progressing slowly

Timeliness Designation

**Red**





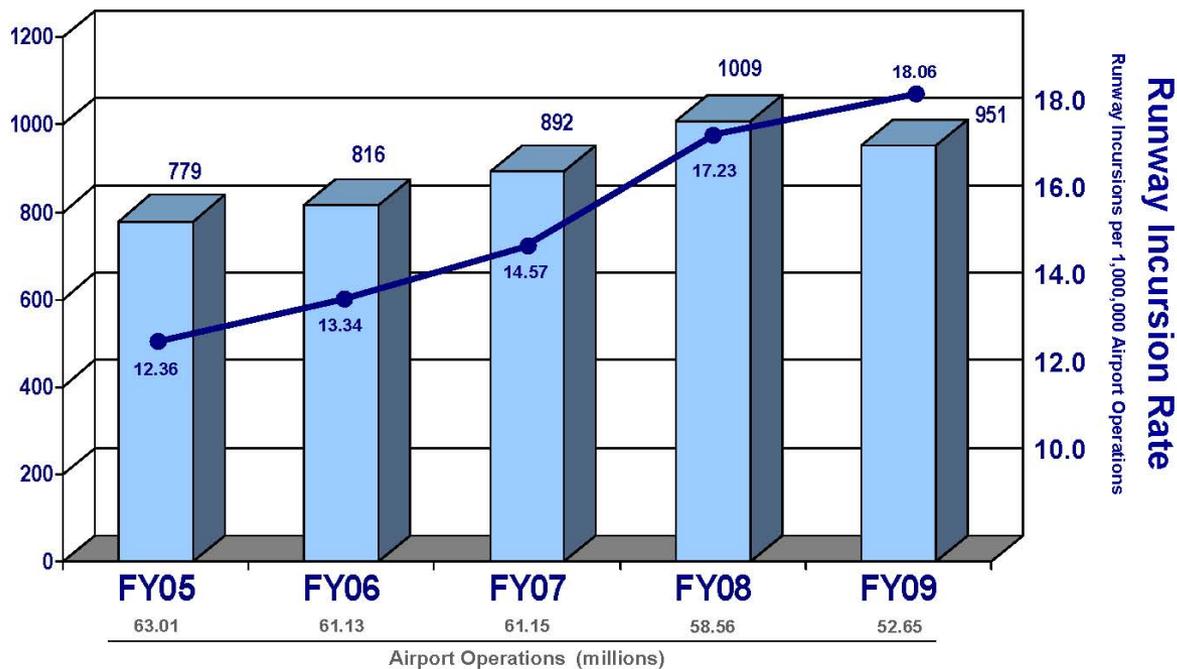
**NTSB** National Transportation Safety Board

---

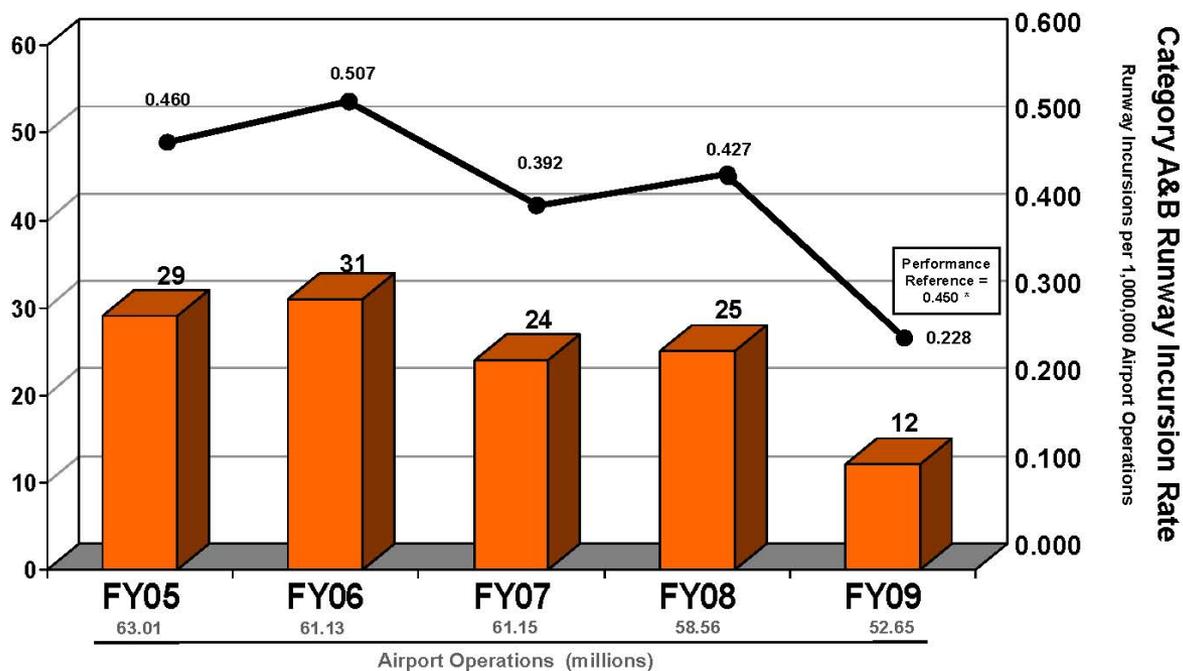
# **Federal Most Wanted Transportation Safety Improvements**

## **Improve Runway Safety**

## All Categories of Runway Incursions



## Category A&B Runway Incursions



## **Safety Improvements Wanted**

Require a ground movement safety system that will prevent incursions and provide a direct warning to flight crews. **A-00-66**

Status: **Open – Unacceptable Response**



# NTSB MOST WANTED

Transportation Safety Improvements

## Final Approach Runway Occupancy Signal



## Runway Status Lights



## Enhanced Airport Lighting Program



## **Safety Improvements Wanted**

- Require all runways crossings be authorized only by a specific clearance. **A-00-67**

Status: **Open – Acceptable Response**

- Require runway crossing clearances be issued only after a previous runway has been crossed. **A-00-68**

Status: **Open – Acceptable Response**



## **Safety Improvements Wanted**

Require that all 14 *Code of Federal Regulations* Part 91 K, 121, and 135 operators install on their aircraft cockpit moving map displays or an automatic system that alerts pilots when a takeoff is attempted on a taxiway or a runway other than the one intended. **A-07-45**

Status: **Open – Acceptable Response**



# NTSB **MOST WANTED**

Transportation Safety Improvements



American Airlines  
Kingston, Jamaica  
December 22, 2009



## **Safety Improvements Wanted**

Require landing distance assessment with an adequate safety margin for every landing.

**A-07-57**

Status: **Open – Unacceptable Response**



# Proposed Safety Board Action

## Improve Runway Safety

- Remove “Urgent” designation in Safety Recommendation A-07-57
- Keep issue area on Most Wanted List
- Change to yellow designation: acceptable response, progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Reduce Dangers to Aircraft  
Flying in Icing Conditions**

# Safety Improvements Wanted

- Revise icing certification criteria to include, freezing rain, freezing drizzle **A-96-54**
- Upgrade aircraft certification standards and deice boot operational procedures **A-96-56, A-07-14**
- Apply upgraded icing certification standards to in-service airplanes **A-07-16**



## **FAA - Recent Actions**

### *Activation of Ice Protection (Part 25)*

- Require ice protection system activation as soon as airplane enters icing conditions
- Final Rule issued August 2009



## **FAA - Recent Actions**

### *Activation of Ice Protection (Part 121)*

- Require means to ensure timely activation of airframe ice protection*
- FAA issued NPRM – December 2009
- Safety Board provided comments to FAA
- NPRM covers Part 121, excludes Part 91, 135



## **Recommendation A-96-54**

- Full range of icing conditions, including supercooled large droplets (SLD), are used in icing certification testing
- Including freezing rain, freezing drizzle, and freezing mist



## **Empire Airways flight 8284**

- January 27, 2009
- Lubbock, TX
- FedEx Feeder Flight
- Light freezing drizzle and mist



# NTSB **MOST WANTED**

Transportation Safety Improvements



## **Accident Sequence**

- Airframe icing was noted by flightcrew, and hearing testimony indicated it affected the Captain's go-around decision
- At this stage of the investigation, aircraft icing does not appear to have a large influence on the performance of the aircraft
- Performance calculations show a worsening situation during freezing drizzle icing encounter



## **Freezing drizzle / rain / SLD**

- Flightcrews are encountering icing conditions for which they are not certified
- FAA received a proposal from the ARAC for an expanded icing envelope to include SLD in 2005
- NPRM expected 1<sup>st</sup> quarter 2010



# Reduce Dangers to Aircraft Flying in Icing Conditions

## Proposed Safety Board Action

- Keep issue area on Most Wanted List
- Retain red classification: Unacceptable response

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

# **Federal Most Wanted Transportation Safety Improvements**

## **Improve Crew Resource Management**

## **Safety Improvements Wanted**

Require on-demand charter operators that conduct dual-pilot operations to establish and implement a FAA-approved crew resource management training program for their flight crews.

**A-03-52**



## **Crew Resource Management Training**

- Techniques for improved crew coordination, workload management, and error reduction



# Minnesota Accident

- Eveleth, MN  
- 8 fatal



# Continued Crew-Involved Accidents



- Montrose, CO
  - 3 fatal, 3 seriously injured
- Houston, TX
  - 3 fatal
- Teterboro, NJ
  - 4 seriously injured
- Lake Michigan, WI
  - 6 fatal

## **FAA Actions**

- **April 2004** – Aviation rulemaking committee reviewing Part 135 changes. NPRM anticipated in 2005-2008.
- **May 2009** – NPRM issued
  - CRM training for single and dual pilot operations
  - Specifies minimum course content
  - Exempts pilots with previous CRM training



## **FAA Actions Remaining**

- Complete rulemaking to establish requirement for Part 135 on-demand operators to implement CRM training in accordance with Part 121 standards



# Improve Crew Resource Management

## Proposed Safety Board Action

- Keep issue area on Most Wanted List
- Change designation to yellow:  
Acceptable response, progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Reduce Aviation Accidents  
Caused by Human Fatigue**

## **Aviation (Flight Crew)**

- **A-94-194, A-95-113, A-06-10**
- Flight/duty time limits set in 1938 and 1958
- Recent fatigue-related accidents and incidents
  - Pinnacle Airlines, Traverse City, MI
  - Shuttle America, Cleveland, OH
  - Go!, Hilo, HI
  - Colgan Air, Buffalo, NY
- 2009 - Aviation Rulemaking Committee formed



## **Aviation (Maintenance)**

- **A-97-71**
- FAA has conducted research on fatigue in maintenance, but no rulemaking proposed
- FAA stated it plans to address fatigue through education and training



## **Aviation (Air Traffic Controllers)**

- **A-07-30, A-07-32**
- FAA working group formed in 2007
- Fatigue Risk Management Office established in 2009
  - NASA controller fatigue study



# Fatigue Management Systems

- **A-08-44, A-08-45**
- Fatigue management systems typically include:
  - Scheduling practices that foster alertness
  - Sleep disorder screening and treatment
  - Attendance policies
  - Commuting policies
  - Education and training about fatigue



# Fatigue Management Systems

- 2008 FAA Fatigue Symposium
- Operations Specification for ultra long range flights
- SAFO directed to short haul operators
- Developing an Advisory Circular



# Aviation Fatigue

## Proposed Safety Board Action

- Keep issue area on Most Wanted List
- Keep red timeliness designation:  
Unacceptable Response
- Add two new recommendations

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

# **Federal Most Wanted Transportation Safety Improvements**

## **Enhance Protection For School Bus Passengers**

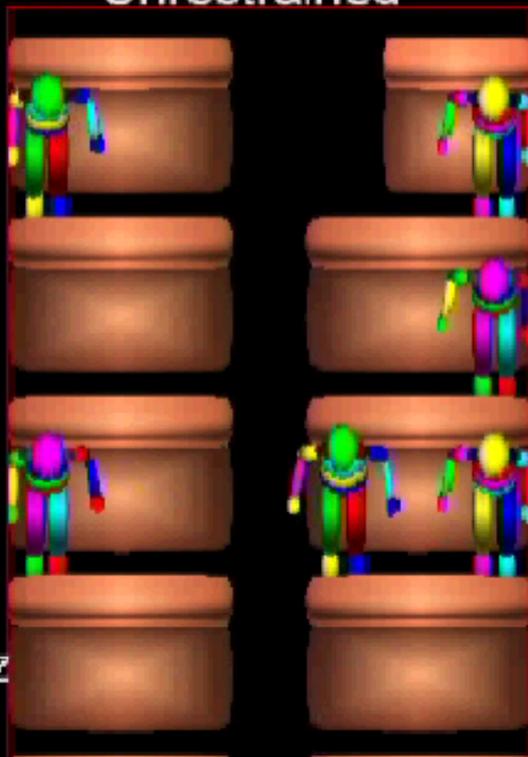
# NTSB MOST WANTED

Transportation Safety Improvements

## Monticello, MN Simulation

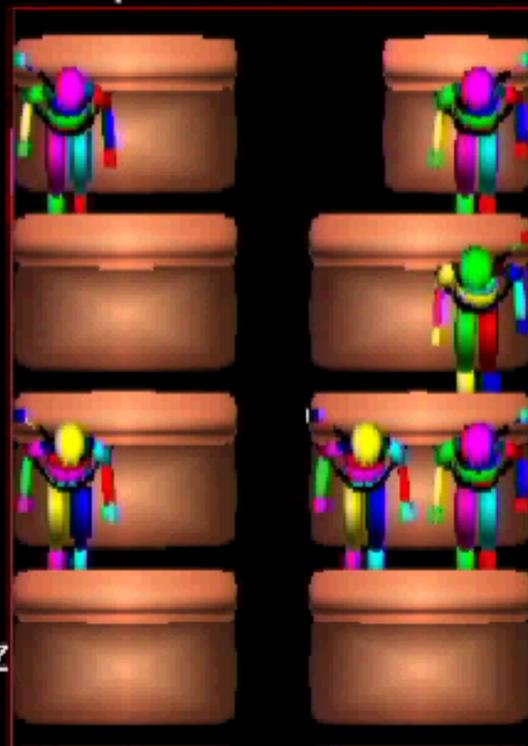
Time = 0.200000

Unrestrained



Time = 0.200000

Lap/Shoulder Belt



# Safety Improvements Wanted

- Develop performance standards for school bus occupant protection systems that account for frontal impact collisions, side impact collisions, rear impact collisions, and rollovers. **H-99-45**
- Once standards have been developed, require newly manufactured school buses to have an occupant crash protection system that meets the newly developed performance standards and retains passengers, including those in child safety restraint systems, within the seating compartment throughout the accident sequence for all accident scenarios. **H-99-46**



## **NHTSA Actions**

### **2007:**

- Public meeting for stakeholders to discuss seat belts on large school buses and NPRM
- Notice of Proposed Rulemaking (NPRM)



## **NHTSA Actions**

### **2008:** Final rule

- Lap/shoulder belts at all seating positions in small school buses
- Minimum seat back height raised 4” for all school buses
- Test procedures for seat belt anchorages incorporated into standard
- Self latching mechanism



# **Enhance Protection for School Bus Passengers**

## **Safety Board Action**

- Propose H-99-45 status: Closed – Acceptable Alternate Action
- Remove issue area from Most Wanted List





**NTSB** National Transportation Safety Board

---

# **Federal Most Wanted Transportation Safety Improvements**

## **Enhance Protection for Motorcoach Passengers**

# Safety Improvements Wanted

- Easy opening window and roof exits that stay open during evacuations **H-99-9**
- Develop Standards for an Occupant Protection System for all accident types **H-99-47**
- Roof strength requirements to provide maximum survival space **H-99-50**



## **NHTSA Actions**

### **2007:** NHTSA's Approach to Motorcoach Safety

- Full-scale frontal crash test

### **2008:** Additional Testing

- Roof strength tests (FMVSS 220 and ECE R.66)
- Sled tests

### **2009:** Additional Testing

- Roof strength test (ECE R.66)



# NHTSA Actions, continued

## U.S. Department of Transportation Motorcoach Safety Action Plan



# **Enhance Protection for Motorcoach Passengers**

## **Proposed Safety Board Action**

- Keep issue area on Most Wanted List
- Change to RED classification:  
Unacceptable response.

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Require Electronic On-board  
Data Recorders**

## **Safety Improvements Wanted**

- Require all interstate commercial vehicle carriers to use electronic on-board recorders that collect and maintain data concerning driver hours of service in a valid accurate and secure manner under all circumstances including accident conditions to enable carriers and their regulators to monitor and assess hours-of-service compliance. **H-07-41**



## **FMCSA Action**

- Issued NPRM January 18, 2007
  - New Performance Standards for EOBRs effective 2 years after Final Rule
  - Requirement only for Motor Carriers with
    - High Accident Rate
    - History of Hours of Service Violations
    - Affects about 930 of 700,000 Carriers (about 0.1%)



## **FMCSA Plan**

- Issue Proposed Rulemaking
  - Publication anticipated in March 2010
- Encourage voluntary installation of EOBRs by eliminating paperwork
- Random examination of driver records during compliance review
- Considering expansion of EOBR requirements to other carriers



# Require Electronic On-board Data Recorders

## Proposed Safety Board Action

- Issue area remain on Most Wanted List
- Retain red designation: Unacceptable response

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

# **Federal Most Wanted Transportation Safety Improvements**

## **Improve the Safety of Motor Carrier Operations**

## **Safety Improvements Wanted**

- Change the way safety fitness ratings are determined so adverse vehicle and driver performance alone are sufficient to result in an overall unsatisfactory rating for the carrier **H-99-6**



## **FMCSA Actions**

- Under Comprehensive Safety Analysis 2010, developing new performance-based operational model
- Operational Model Testing Phase I began February 2008
- Operational Model Testing Phase II began September 2008



## **FMCSA Actions**

- Compliance Reviews continue during Operational Model Testing of CSA 2010
- Safety Fitness Determination Regulations in place by late 2010; NPRM in April 2010
- FMCSA Motor Carrier Safety Advisory Committee



# **Improve the Safety of Motor Carrier Operations**

## **Proposed Safety Board Action**

- Keep issue area on Most Wanted List
- Change to red designation: Unacceptable response

Timeliness Designation

**Red**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Prevent Medically Unqualified  
Drivers from Operating  
Commercial Vehicles**

## **Safety Improvements Wanted**

Develop comprehensive medical oversight program that addresses:

- Examiner qualifications
- Adequacy of regulations
- Non-regulatory guidance
- Review process
- Tracking mechanisms
- Enforcement and Reporting

**H-01-17 through H-01-24**



## **FMCSA Actions Needed**

- Tracking mechanism **H-01-18**
- Review process **H-01-21**
- Reporting system **H-01-24**



## **FMCSA Actions**

- November 2008 – NPRM on National Registry of Certified Medical Examiners  
**H-01-17**
- December 2008 – Final rule requiring medical certification documentation  
**H-01-22 and -23**
- FMCSA Medical Officer



# **Prevent Medically Unqualified Drivers from Operating Commercial Vehicles**

## **Proposed Safety Board Action**

- Keep issue area on Most Wanted List
- H-01-17 to Open – Acceptable Response
- H-01-22 and -23 to Closed – Acceptable Action
- Change to yellow: Acceptable, progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Prevent Collisions by Using  
Enhanced Vehicle Safety  
Technology**

# Safety Improvements Wanted

- Complete rulemaking on adaptive cruise control and collision warning system performance standards for new commercial vehicles (**H-01-6**) and passenger vehicles (**H-01-8**) addressing obstacle detection, timing of alerts, and human factors guidelines, such as the mode and type of warning.

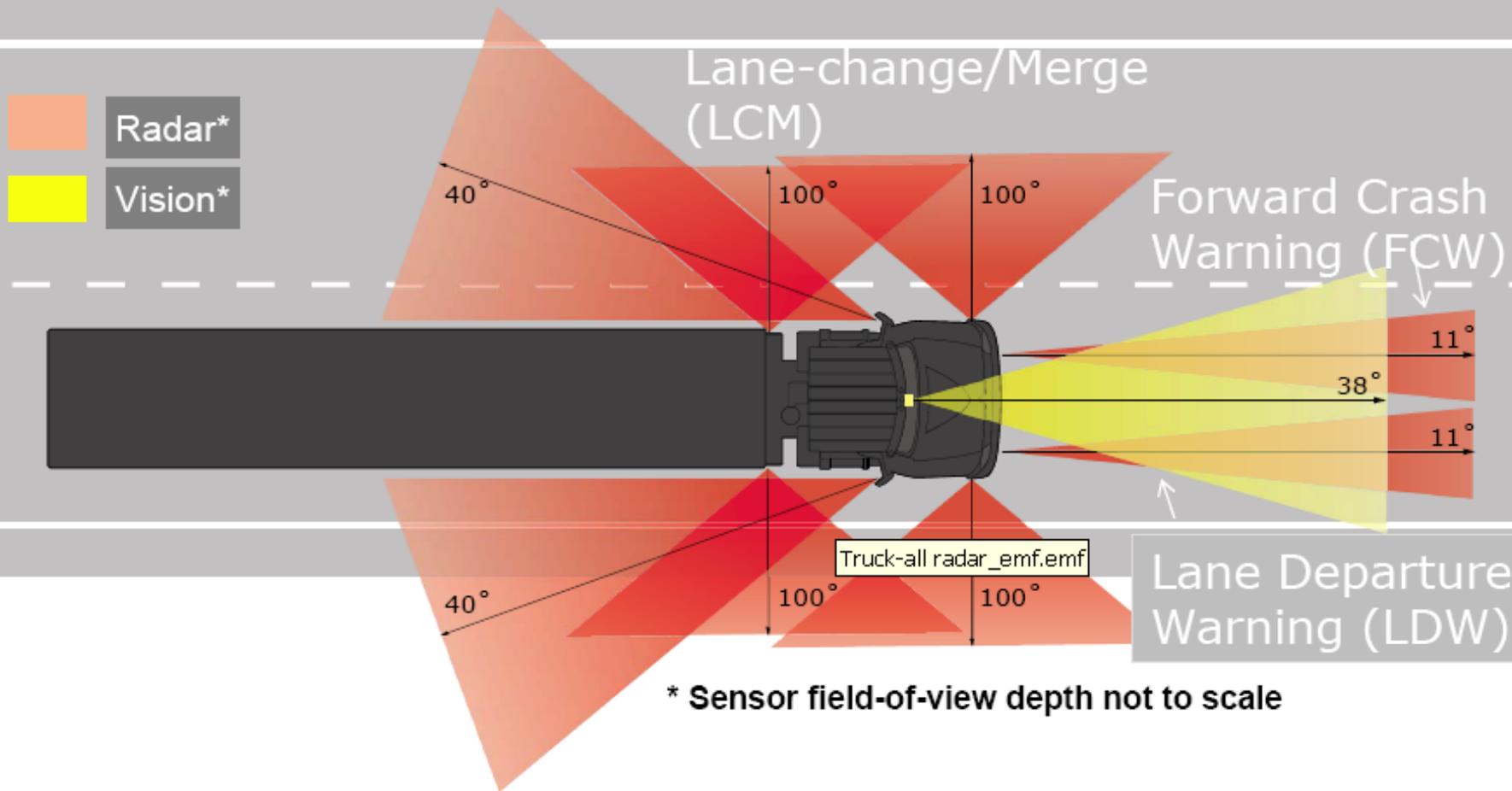


# Crash Avoidance Technology





# Integrated Safety System



## **NHTSA Actions**

**2005/2007:** Positive results from passenger car and commercial truck field testing

**2005-2008:** IVBSS research and prototype vehicle development

**2008-2009:** IVBSS field operational testing of passenger car and commercial truck prototypes

**July 2008:** NHTSA includes crash avoidance technologies in NCAP ratings



## **NHTSA Actions**

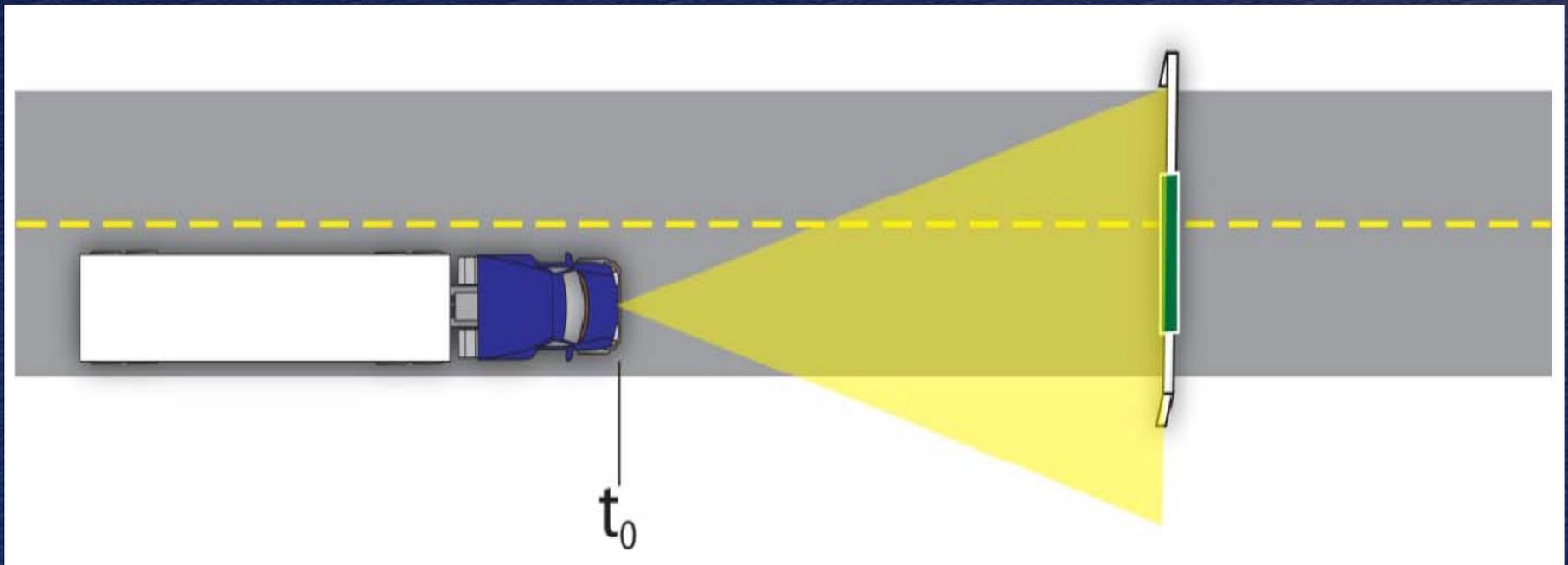
**2009/2010:** Additional IVBSS field operational testing of light vehicle and commercial truck prototypes

**2009/2010:** Monitor real-world benefits of CWS and ACC on truck fleets



# NTSB MOST WANTED

Transportation Safety Improvements



## **NHTSA Actions**

**2009/2010:** Crash imminent braking research

**2011:** Rulemaking decisions for both cars and trucks on collision imminent braking



# Prevent Collisions with Enhanced Vehicle Safety Technology

## Proposed Safety Board Action

- Keep issue area on Most Wanted List
- Keep yellow designation: Acceptable response, progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Prohibit the Use of Cellular  
Telephones**

# NTSB MOST WANTED

Transportation Safety Improvements

## 2000 Prevest Motorcoach



# Restricted Clearance Signs



## **NTSB Recommendation**

Publish regulations prohibiting cellular telephone use by commercial driver's license holders with a passenger-carrying or school bus endorsement, while driving under the authority of that endorsement, except in emergencies.

**H-06-27**



## **FMCSA Actions**

- Study of benefits of restricting use of cell phones for drivers of passenger CMV's
  - Virginia Tech Transportation Institute
    - Study completed end of CY 2009
- Distracted driver summit proposed rulemaking
  - Banning texting messaging
  - Restrict the use of cell phones by truck and interstate bus operators
  - Disqualifying school bus drivers convicted of texting while driving from CDL



## **FMCSA Actions**

- DOT Motorcoach Action Plan
  - Departmental review of motorcoach safety
  - Restrict the use of cell phones and PDAs by drivers of passenger-carrying CMVs, except in emergencies
- FMCSA NPRMs
  - “Text messaging” spring 2010
  - Second, broader NPRM to follow



# **Prohibit Cell Phone Use by Motorcoach Drivers**

## **Proposed Safety Board Action**

- Keep issue area on Most Wanted List
- Change to yellow designation: Acceptable response – progressing slowly

Timeliness Designation

**Yellow**





**NTSB** National Transportation Safety Board

---

## **Federal Most Wanted Transportation Safety Improvements**

**Reduce Pipeline Accidents  
Caused by Human Fatigue**

## Pipeline

- **P-99-12**
- 2005 Advisory Bulletin
- 2009 Final Rule addresses controller fatigue issues



## **PHMSA Rule**

- Requires pipeline operators to:
  - Establish shift schedules that provide off-duty time to achieve 8 hours of continuous sleep
  - Educate controllers and supervisors in fatigue mitigation strategies, and in recognizing the effects of fatigue
  - Set a maximum limit on hours-of-service



## **Pipeline Fatigue**

### **Proposed Safety Board Action**

- Classify issue “Closed—Acceptable Alternate Action”
- Remove issue area from Most Wanted List

