

## 2<sup>nd</sup> MMTS Summit

May 10<sup>th</sup>, 2006

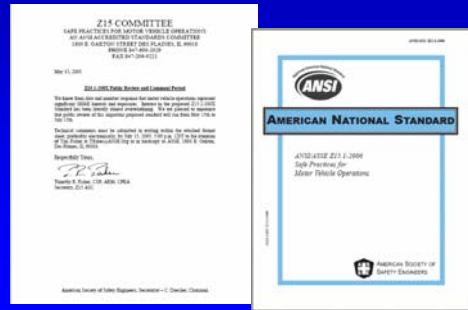
# ANSI/ASSE Z15 Fleet Safety Standard -

*Everything You Always Wanted to Know About Z15  
but Were Afraid to Ask*



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## American National Standard ANSI/ASSE Z15.1-2006 Safe Practices for Fleet Motor Vehicle Operations



## USA EMS

- ▶ EMS Systems - >15,000
- ▶ Personnel - ~1 million  
(~30% F/T professional & 70% volunteer)
- ▶ Vehicles - ~50,000  
(Type I, Type II, Type III, Freightliners, ?motorcycles)
- ▶ Transports - ~30 million patients  
(to Emergency Depts ~ 50%, < 1/3 emergent)
- ▶ Cost - ~\$5 Billion annually
- ▶ Safety Oversight - ? Disparate

## Scope of the Z15.1 Standard

- ▶ For the safe operation of motor vehicles owned or operated by organizations, including:
  - Definitions
  - Management Leadership Administration
  - Operational Environment
  - Driver Considerations
  - Vehicle Considerations
  - Incident Reporting and Analysis
- ▶ These practices are designed for use by those having the responsibility for the administration and operation of motor vehicles as a part of organizational operations.

## What Z15 encompasses

- ▶ Safety Program
- ▶ Safety Policy
- ▶ Responsibilities and Accountabilities
- ▶ Driver Recruitment, Selection and Assessment
- ▶ Organizational Safety Rules
- ▶ Orientation and Training
- ▶ Reporting Rates and Major Incidents to Executives
- ▶ Oversight

## Z15 Vehicle and Driver aspects

- ▶ Operational Environment
  - 4.1 Occupant Restraints.
  - 4.2 Impaired Driving.
  - 4.3 Distracted Driving.
  - 4.4 Aggressive Driving.
- ▶ Driver Qualifications
- ▶ Vehicle
- ▶ Vehicle Acquisition
  - E6.1 Safety Considerations
- ▶ Vehicle Inspection & Maintenance
- ▶ Incident Reporting & Analysis

## Z15 Incident Rates

- ▶ Incident rate based on number of vehicles operated:  
Incident rate =  $\frac{\text{Number of incidents} \times 100}{\text{Number of vehicles}}$
- ▶ Incident rate based on vehicle mileage:  
Incident rate =  $\frac{\text{Number of incidents} \times 1,000,000}{\text{Vehicle mileage}}$
- ▶ Injury incident rate based on vehicle mileage:
  - Injury incident rates, the most frequently used indicator of incident severity, are useful for tracking events that have the potential to affect financial or operational performance of the operating unit.
 Injury incident rate =  $\frac{\text{Number of incidents with injury} \times 1,000,000}{\text{Vehicle mileage}}$
- ▶ Incident rates based on service activity:
  - Motor vehicle operations that pose injury risks other than those associated with driving should also use the service activity as the basis of a safety performance rate. The number of deliveries, stops, or loads should be considered as appropriate indicators of performance.
 Incidents per 10,000 transports =  $\frac{\text{Number of incidents} \times 10,000}{\text{Number of transports}}$
- ▶ Vehicle injury rates based on work hours:  
Vehicle incidents per 200,000 hours =  $\frac{\text{Number of incidents} \times 200,000}{\text{Number of hours worked}}$

## Z15-2006 Some new challenges

- ▶ 1. Crash reporting to whom?
- ▶ 2. Crashworthiness to what standard?
- ▶ 3. Ergonomics based on what ergonomic requirements?
- ▶ 4. Driver selection/training and monitoring - based on what guidelines?

## Hidden costs

- ▶ What do ambulance crashes really cost ?
- ▶ Collisions are the largest liability cost and exceeds malpractice or negligence
- ▶ Besides the direct financial costs of replacing a damaged ambulance and equipment, there are additional hidden costs incurred:
  - ♦ investigating the ambulance collision
  - ♦ litigation /settlement/lawsuit
  - ♦ medical/disability costs of injured EMTs
  - ♦ hiring of new employees to replace injured personnel
  - ♦ retraining and psychological counseling of personnel involved and others
  - ♦ increased insurance rates

## If we know this – and its published....



## Why do we do this?



## This is happening out there NOW....

### Is a license enough for ambulance drivers?

#### Extent of EMT training questioned by widower

By DAVID DOIGE  
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Journal, Feb. 17, 2009  
 Milwaukee Journal Sentinel, The, Aug 1, 2009 by DAVID DOIGE

While sorting out his wife's death in the collision of her car and an ambulance Theune came across a single sentence he can't forget and wants to change.

"The ambulance shall be driven by an individual with a valid driver's license."

In a chapter of the Wisconsin Administrative Code, between the sections governing all-terrain vehicles and amusement rides, are the laws concerning ambulance service in the state. The part covering drivers reads Theune because he thinks the single sentence is too simple.

"I was shocked to learn that no specialized training or certification is required to drive an ambulance," Theune explained. "Only a valid driver's license is needed."

"It's no different than someone who delivers pizzas."

The prosecutor who reviewed the circumstances of the collision and recommended that the ambulance driver be held responsible for driving too fast for conditions and failure to obey traffic signals agrees with Theune.



#### Quotable

“It's no different than someone who delivers pizzas.”

- Gregg Theune, crash victim's husband, on training

# Gregg Theunes Appeal to his Senator, December 29, 2005

**Failures in EMS Response Procedures Contribute to Crashes**

**FAILURES**

1. Failure to PDP
2. Failure to Report Critical Incidents and Callouts
3. Failure to Recognize Technology
4. Emergency Vehicle Use During Traffic
5. Lights and Sirens Used for Non-Emergency
6. Failure to Train for the Incident

**REMEDIES**

1. PDP or Red Light
2. Report Critical Incidents and Callouts
3. Other Available Technology
4. Training for the Incident
5. Improve Dispatch Procedures
6. Failure to Train for the Incident

# 2006....

- ▶ 'Pizza delivery truck' approach has got to go
- ▶ As do the religious 'beliefs' about occupant protection
- ▶ Z15.1 – we must at least know what we are doing and have consistent and meaningful safety programs and practices

# Safety oversight of what and by .... whom

- ▶ Vehicle Safety
- ▶ Vehicle Design
- ▶ Safety Equipment Design
- ▶ Vehicle and Safety Equipment Testing and Standard development
- ▶ Safety policies

**EMS Update**  
February, 2006

**The Office of Emergency Medical Services**

The National Highway Traffic Safety Administration (NHTSA) is pleased to announce the creation of the Office of Emergency Medical Services (EMS). Recognizing the consistent and long-standing contribution of the EMS program and its increasing responsibilities created by Congressional actions, NHTSA is elevating the stature of the EMS Division to match its expanding role, effective February 6, 2006.

NHTSA, and its predecessor agency, have taken the lead in Federal support of national Emergency Medical Services systems development since 1966. NHTSA has always held that an EMS system, ready every day for every emergency, is the best preparation for response to all medical emergencies as well as catastrophic events. Numerous programs and products, including The EMS Agenda for the Future, the Next Generation 9-1-1 Initiative, the National EMS Education Agenda for the Future: A Systems Approach, the National Research Agenda and the National EMS System Performance Measures, have been developed and implemented.

# WINGS, WHEELS & ROTORS

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Air & Surface Transport Nurses Association

## A Simple Question

Nadine Levick, MD, MPH

We have all been most fortunate to have just seen the very positive side of the way in which our society works to protect its members. The recent NTSB inquiry into the safety of air EMS transport is just such an example.

But just step back for a moment, and ask a simple question, "Were those 54 lives lost over three years of any more value than the approximately 54 lives lost over a single year in ground EMS

(when many work both air and ground), is that enough of a reason for them to have such quality safety scrutiny and support? And how does it feel to know that of those ground EMS fatalities, two-thirds to three-quarters of those who died had nothing at all to do with the transport, but were only bystanders who just happened to be in the wrong place at the wrong time? Unlike air EMS, where those involved in the transport knowingly take on the

and we care for the lives of the sick and injured. We value your oversight to optimize the safety of the clearly dangerous work we do. I challenge all of you to think about this, and then to act in two ways to optimize the safety of your ground EMS practice, and to do whatever is the best and right action to have the NTSB address both ground and air EMS safety. It is after all the National Transportation Safety Board. We owe it to

# The National Transportation Safety Board (NTSB)

**About the NTSB**

## History and Mission

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating every civil aviation accident in the United States and significant accidents in the other modes of transportation -- railroad, highway, marine and pipeline -- and issuing safety recommendations aimed at preventing future accidents. The Safety Board determines the probable cause of:

- all U.S. civil aviation accidents and certain public-use aircraft accidents;
- selected highway accidents;
- railroad accidents involving passenger trains or any train accident that results in at least one fatality or major property damage;
- major marine accidents and any marine accident involving a public and a nonpublic vessel;
- pipeline accidents involving a fatality or substantial property damage;
- releases of hazardous materials in all forms of transportation; and
- selected transportation accidents that involve problems of a recurring nature.

The Board derives its authority from [Title 49 of the United States Code, Chapter 11](#). The rules of the Board are located in [Chapter VIII, Title 49 of the Code of Federal Regulations](#).

The NTSB is responsible for maintaining the government's database of civil aviation accidents and also conducts special studies of transportation safety issues of national significance. The NTSB provides investigators to serve as U.S. Accredited Representatives as



<http://www.objectivesafety.net>