

THE ASSOCIATION

Indiana Association of Certified Accident Investigators
www.iacai.com



The Association

August 2006

NHTSA: Consumers Must Be Informed About New Vehicles With "Black Boxes"

NHTSA Press Release

For the first time ever, automakers will be required to tell new car owners if their new vehicle is equipped with an Event Data Recorder (EDR) under a new rule recently issued by the National Highway Traffic Safety Administration. The new Federal rule will require automakers who have chosen to install EDRs to note in the owners manual that the safety monitoring equipment has been installed.

While automakers are not required to install EDRs or 'black boxes,' approximately 64 percent of the model year 2005 passenger vehicles came equipped with the device. This new rule will not

require automakers to install EDRs if they are not already doing so now.

The new rule, which is set to take effect with the 2011 model year, also includes new requirements designed to ensure that the data collected by EDRs can be used to improve highway safety. For example, the new rule requires EDRs to be more durable to protect data during a crash. The rule also requires automakers to collect the same type of crash data if they chose to install an EDR. The agency noted that having access to uniform crash information from EDRs, regardless of the vehicle's manufacturer, will help investigators recreate crash scenes

to determine the causes. The rule will support the development of new safety regulations based on accurate crash information that NHTSA collects from vehicle owners who agree to share information from their EDRs with the agency.

The new regulation will apply to all passenger vehicles and light trucks with a gross weight of 8,500 pounds or less. NHTSA will separately investigate EDR use in larger vehicles.

The new regulation will also require EDRs to obtain additional data such as vehicle roll angle, steering input, stability control, and safety belt status.

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Law Enforcement Community Mourns Loss Of Officers Killed In Charity Bike Ride

Two Indiana law enforcement officers were killed August 22 while on a charity bike ride to raise funds to benefit the Indiana Concerns of Police Survivors (COPS). The group of ten cyclists included current and retired officers. The chain reaction crash occurred on Indiana 63, approximately 50 miles north

of Terre Haute. The crash occurred after the support van, which had been marked with a banner which read "Caution: Cyclists Ahead," was spun into the group after being



struck from behind by a box truck. Killed were Lt. Gary Dudley, 52, of the Indiana State Police, and Gary Martin, 63, from the Lake County Sheriff's Dept. Indianapolis Police officer Spencer Moore and the driver of the support van, Rocky Bumpus, were injured.

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“Many of these vehicles are operated by drivers who have no air brake training...”

NTSB: Manual Adjustment of Automatic Slack Adjusters Dangerous

A NTSB Report (Reprinted)

Safety officials are warning hundreds of thousands of heavy truck operators, drivers, mechanics, and federal and state commercial vehicle inspectors about the dangers of manually adjusting automatic slack adjusters on vehicles equipped with air brakes. NTSB acting Chairman Mark Rosenker warned: “Manually adjusting automatic slack adjusters is dangerous. It should not be done, except during installation or in an emergency to move the vehicle to a repair facility,” he emphasized that manual adjustment of this brake component masks the real reason why the brakes are not maintaining adjustment, giving the driver a false sense of security about the effectiveness of the brakes, which will likely go out of adjustment again soon. It also causes abnormal wear to the internal adjusting mechanism for most automatic slack adjusters, which may lead to failure of this brake component.

The warning comes as a result of a NTSB investigation into a fatal runaway dump truck accident in Glen Rock, PA, that has shown the deadly consequences of improper maintenance of automatic slack adjusters for air brake systems. In the April 11, 2003 accident, a dump truck was traveling on a steep downgrade when the driver found he was unable to stop the truck. The truck struck four passenger cars, one of which struck three children who were on a nearby sidewalk. A driver and an 11 year old child from one of the passenger cars

were killed.

The NTSB investigation concluded that the mechanics who worked on the truck did not look for any underlying problems with the slack adjusters or other brake components. They mis-diagnosed the brake problems, probably because they were not properly trained on the function and care of automatic slack adjusters and how they relate to foundation brake systems. Consequently, they repeatedly manually adjusted the automatic slack adjusters, a dangerous practice. The NTSB has seen similar actions from a driver who worked on a truck involved in a similar accident investigated recently in El Cerrito, CA.

“The warnings in existing materials available to owners, drivers, mechanics, and inspectors of air-braked vehicles equipped with automatic slack adjusters have not been successful in communicating the inherent dangers of manually adjusting automatic slack adjusters to correct out-of-adjustment brakes,” the NTSB said.

Even organizations that specialize in truck maintenance and repair often give out wrong or inadequate information on automatic slack adjusters. During the probe into the Pennsylvania accident, investigators found that several private study guides of the ASE’s truck brake test contain incorrect information. NTSB said one study guide wrongly states, “Automatic slack adjusters may require periodic adjustment.” The NTSB is

concerned because many mechanics use the study guides as a source of general maintenance information as well as for the preparation. “It is imperative that these guides contain thorough and accurate information about automatic slack adjusters,” said Rosenker.

The NTSB said many truck operators, who do not consider themselves motor carriers and have little or no interaction with safety regulators or trucking organizations and associations, must be alert to the problem. These vehicles are used by a diverse cross section of operators, including fire departments, landscaping companies, school bus operators, general contractors, and even vacationers who have large recreational vehicles.

In addition, the NTSB investigation found that the lack of knowledge and skills in operating air-braked vehicles played a role in the accident. The 21 year old driver of the dump truck had been on the job for less than two weeks and had never driven an air-brake equipped vehicle before joining the company. he received no training on how to drive an air-brake equipped vehicle—an important failure because air brakes on trucks operate differently from hydraulic brakes on passenger cars. The rear brakes on the truck were out of adjustment and provided little or no braking force. The driver pumped the brakes, reducing the capability of the front brakes and

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Crash Data Retrieval Class Dates Set

The Kosciusko County Sheriff's Department will be hosting a Crash Data Retrieval Technician Course and CDR Analyst Course, October 9 thru 12, 2006, at the Kosciusko County Sheriff's Department, 221 West Main Street, Warsaw, IN.

The courses will be taught by the Collision Safety Institute and will run from 8:00am till 4:30pm each day.

The cost of the CDR Technician course is \$150; the CDR Analyst course is \$300. Cost for both courses will be \$450. To register, attendees must register on-line at www.collisionsafety.net

There is a minimum number of 20 students needed to hold the course, so we are urging any crash investigator or reconstructionist inter-

ested in obtaining this certification training to register early.

For any additional questions regarding this course, please go to: www.collisionsafety.net and click on 'courses' for a .pdf brochure on the course, as well as a description of training objectives for each course. We look forward to seeing you there!



CAD Zone with LTI Basic 40 Hour Course

The McClean County Sheriff's Office, Bloomington, IL, will be hosting a "CAD Zone with LTI Basic 40 Hour Course," Monday, October 23, through Friday, October 27, 2006 at the McClean County Sheriff's Department, 104 W. Front St., Bloomington, IL. (309) 888-5019. This course is geared towards accident and crime scene investigators who produce diagrams from

measurements obtained in the field by hand or total station.

Equipment covered in this course will include the Crash Zone diagramming software, as well as Laser Technology's Mapstar Angle Encoder and TDS Recon data collector with Pocket Zone software. This course will be hands-on, utilizing both classroom and field work.

Required equipment to attend the course includes the following: A laptop with Windows XP, 2000, or 98 SE, and a Pentium III or higher processor with a minimum of 32 MB of memory; a traffic vest or jacket.

Cost for the course is \$299. To register, contact Joe M a n g e s @ joe@crashconsulting.com

Up-Coming Training:

Northwestern University's Center for Public Safety recently posted the following training courses for those interested in Accident Investigation.

9/11-22/2006
Accident Investigation I
\$1150

9/25-10/5/2006
Accident Investigation II
\$

10/9-13/2006
Basic Physics & Mathematics Workshop
\$875

2007 ILEETA Conference & Expo

April 17-21, 2007 - Chicago, IL

Attend the 2007 ILEETA Conference for members only. Includes:

- Over 25 Instructor or Armorer Certification Courses
- Over 75 total course offerings
- Receive instruction from the top trainers in the world
- Great give aways, hospitality, social and professional interaction and more
- Compete in The ILEETA Cup (Competitive shoot) & The "Flatfoot Five" 5k run/walk
- Help raise money for NLEOMF by competing in the 2007 "World Cop Donut Eating Championship"
- Get you batteries recharged during this hi-energy event!

Register NOW!
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More About: **NTSB—Manual Adjustments Of Automatic Slack Adjusters Dangerous**

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Exacerbating the loss of braking capability in the out-of-adjustment rear brakes. Until recently, widespread use of antilock brake systems (ABS) brakes, drivers of hydraulically braked vehicles (passenger cars, SUVs, pickups and other light-duty trucks) were taught to pump their brakes in emergencies. But in an air-braked vehicle, pumping the brakes depletes the air pressure, thereby drastically reducing the brakes' capability.

The NTSB estimates there are in excess of 8 million vehicles on the road equipped with automatic slack adjusters as every large truck built since 1994 has been required to have them. Many of these vehi-

cles may be operated by drivers who have no air brake training and may not be able to operate their vehicles safely. "This situation needs to change, and change quickly," said the acting NTSB chairman.

The NTSB found that the probable cause of the accident was the lack of oversight by the vehicle's owner, which had resulted in an untrained driver improperly operating an overloaded airbrake-equipped vehicle with inadequately maintained brakes. Contributing to the accident was the misdiagnosis of the vehicle's underlying brake problems by mechanics involved in the vehicle's maintenance. Also contributing was a lack of readily available and accurate information about automatic slack adjusters

and inadequate warnings about safety problems caused by manually adjusting them.

The NTSB issued a series of safety recommendations to address training or regulations concerning air brake-equipped vehicles, to the Federal Motor Carrier Safety Administration, State governments, the Commercial Vehicle Safety Alliance, automatic slack adjuster manufacturers, manufacturers of vehicles equipped with air brakes, the National Institute for Automotive Service Excellence, and several publishers of study guides.

A full accident report may be found on the Board's web site, www.nts.gov, under Publications, Highway.

To make a donation to Indiana COPS, send to: Indiana COPS PO Box 556 Shelbyville, IN 46176

More About: **Law Enforcement Community Mourns**

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Investigators reconstructing the collision found no signs that the driver of the straight truck ever braked before striking the support van. The driver of the straight truck, Gary Adams, has cooperated with investigators looking into the crash. "The focus is going to be why he didn't maintain control of his vehicle—why he didn't make an evasive maneuver,

why he didn't brake," said Vermillion County Prosecutor Joe Watts.

Investigators have not determined how fast Adams was traveling when he collided with the support van along the highway where the posted speed is 60 mph. Investigators have found no skid marks along Indiana 63 before the spot where Adams' truck rear-ended the moving van, only post collision tire scuffs were noted.

The Law Enforcement community will certainly mourn the loss of these dedicated officers, who were donating their time and energy for a worthy cause at the time of their loss.

Our prayers go out to the families of Lt. Gary Dudley and Gary Martin.

IACAI Skill Review

This edition of the IACAI Skill Review deals with Photography.

1. When taking At Scene photographs, the investigator should always plan on taking two or more of the following:
 - A. Final positions of vehicles and bodies
 - B. Signs of the collision on the road
 - C. The view that the driver may have had at first contact
 - D. None of the above
 - E. All of the above

2. The minimum number of photographs that should be taken of a vehicle for reconstruction purposes is:
 - A. One
 - B. Two
 - C. Three
 - D. Four

3. True / False 'Story telling' photographs most often result from the investigator's imagination or the photographer's ingenuity, and therefore should not be included as part of the official crash investigation record.

4. True / False General views of the site of the collision, after the signs of a collision have disappeared, serve no useful purpose.

5. True / False Aerial photographs from planes or helicopters are impressive and always worth the cost, as they are good substitutes for a scale map.

6. The method of obtaining dimensions most useful at the scene of a collision when measurements are difficult or impossible to get is called:
 - A. The rectangle method
 - B. The perspective grid technique
 - C. Baseline coordinate method
 - D. This method does not exist



Last Issue's Answers to the IACAI Skill Review:

1. (C) Beads
2. (C) Manufacturer's specific tread depth
3. (B) P-metric system
4. (B) Section width
5. (B) Free Radius



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Contact us at:

P.O. Box 346
Greenwood, IN 46142
317-882-2901 (FAX)

Seminar Announcement

The Indiana Association of Certified Accident Investigators will be sponsoring a seminar on

“Momentum & Energy Refresher”

September 20, 2006 0900-1500 hrs

University of Notre Dame Security Police Dept.
Training Room, 3rd Floor, Hammes Mowbray Hall
University of Notre Dame,
South Bend, IN

(See attached Map for parking instructions)

Instructor: Michael A. Ditallo,
Dynamic Safety, LLC; NUCPS Staff Instructor

Special Instructions:

Those attending are requested to bring a scientific calculator.

All vehicles **MUST** park in parking lots **'D2'**;

All weapons **MUST** be covered (not exposed to students), or properly secured in your vehicle.

Cost: \$25 for IACAI members; \$50 for non-members

No advanced registration is required.

Registration begins at 08:30am

Please plan to attend!!

Questions regarding this seminar may be directed to IACAI
President Don Harris

email: donhar232@aol.com

The Association is published quarterly as a service to members of the Indiana Association of Certified Accident Investigators. Articles submitted are the responsibility of the author; the IACAI assumes no responsibility as to an article's content.