

# THE ASSOCIATION



The Newsletter of the Indiana Association of Certified Accident Investigators  
www.iacai.com

## Plainfield PD Hosts Motorcycle Crash Investigation Seminar

The Plainfield Police Department recently hosted the latest seminar in the IACAI's training schedule, Motorcycle Crash Investigation.

Mike Snow, Indianapolis Police Dept., (Ret.), and former vice-president of the IACAI, served as instructor for the class. The seminar began with a classroom presentation on motorcycle identification and orientation. Snow explained that all investigators should have a thorough first hand knowledge of how motorcycles work in order to be good at investigating crashes involving them. Snow cited facts involving the death rates for motorcycle riders; from 1988 to 1998, the death rates for motorcycle riders dropped steadily - from 1998 to 2001,

those rates began increasing due to several factors, including gasoline prices and younger riders. Snow also presented facts related to ridership: the peak times for motorcycle crashes are between 6pm on Saturdays to 3am on Sundays and 75% of the riders are males, aged 16-34. In somewhat of a twist, riders aged 40-49 were most likely to be involved in a serious (fatal or incapacitating) injury. Running a close second were those aged 50 to 59. Snow also cited the 1979 Hurt Study (no pun intended) which addressed major issues tied to motorcycle crashes. Of the issues uncovered, the major problems included improper braking, failing to turn or take evasive action, or do-

ing noting to avoid a crash. As a side note, Snow cited a fact from the same study which indicated 82-88% of all riders studied didn't know how to properly stop... Snow also covered issues related to evidence found at the scene of the crash: the use of front brakes only; the use of both brakes; ABS braking, and wobble marks. Another issue, which led to the afternoon's practical session, included how a motorcycle behaves as it goes down. Most cafe' style bikes tend to lay on one side or another the entire slide, unless something intervenes. Surfaces should also be considered during scene investigation. A road with a significant amount of (Continued on Page 2)



Attendees of the IACAI's recent Motorcycle Crash Investigation seminar look over one of 3 motorcycles used as part of a live crash test held at the Adessa Auto Auction facility in Plainfield. The tests were done to help attendees get a practical 'feel' for how motorcycles behave following a crash.

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# More about: Motorcycle Crash Investigation



(Continued from page 1) crack sealer applied may be very slick in wet conditions. Gravel and sand also may become very slick to the motorcycle, as it acts like a lubricant at the tire contact patch. Gravel and sand are also very hazardous in any lean event. Other hazards pointed out include railroad/street car tracks and roadway metal; i.e., temporary metal plates and bridge grating. Additional hazardous things for the investigator to consider include: Wet painted lines - these lines are usually impregnated with small glass beads for reflectivity but become quite slick when wet. Spilled Anti-freeze is another consideration. This appears as a wet spot but is very slick. Snow also addressed the issue of rider ejection. Crash investigators considering departure angles for ejected riders should consider the shape and angle of the fuel tank as most riders tend to depart the motorcycle at the same angle as the shape of the fuel tank, usually along an angle of 10-25 degrees. The



A long combination of scratches and gouges points the way to the final rest of one of three motorcycles tested during the Motorcycle Crash Investigation seminar recently held in Plainfield.

passenger, however, will tend to leave the bike at the angle of the rider, which may be anywhere between 18-45 degrees. When determining speed estimates for motorcycles, consider the following information: The Hurt Study found that 53% of the sampled riders used the rear brake only. 2% used the

front brake only and only 12% used both brakes. When using rear brake only, the motorcycle may achieve 40% of a car's friction value. Compare this to an experienced rider who uses both brakes and generates a friction value of anywhere between 85% and 115%!  
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**Members, as well as the plain curious, visit [www.iacai.com](http://www.iacai.com) for the latest news and information**

## IACAI Vice President Steps Down

It is with a heavy heart that we must announce the departure of a valuable long-time member of the association, Vice President Larry Vanosdol. Larry, retired crash reconstructionist and deputy for the Shelby County Sheriff's Department, began his service as a member of the IACAI in January of 1996. He later was appointed Central Director and most re-

cently, Vice President following the retirement/departure of Mike Snow. Larry has been instrumental in handling several 'behind the scenes' functions of the IACAI. Larry has also served the Association as treasurer; handling the bills and processing the membership renewals. Larry's laid-back attitude and demeanor, his wisdom in the crash investigation

field will be certainly missed. Larry decided to leave his post in order to better serve his current job's ever-changing requirements. We, as members of the board of directors of the IACAI will certainly miss all that Larry's brought to the Association. We wish him the best of luck for the future.

**Good Luck Larry!**



On Behalf of the  
Board of Directors of  
the Indiana Association of Certified Accident Investigators,  
we would like to wish  
all members a safe  
and happy holiday  
season!



## New Research Finds Increase In Hand-held Device Use Among All Drivers

- USDOT Press Release

Last month, the US Department of Transportation sponsored a two-day summit on Distracted Driving in Washington D.C. Over 250 safety experts, industry representatives, elected officials, and members of the public were invited to attend in an effort to put an end to distracted driving in the US. DOT Secretary Ray LaHood said, "Every single time someone takes their eyes or their focus off the road, even for just a few seconds, they put their lives and the lives of others in danger." "Distracted driving is unsafe, irresponsible and in a split second, its consequences can be devastating."

Recent research findings by the National Highway Traf-

fic Safety Administration (NHTSA) found that nearly 6,000 people died in 2008 in crashes involving a distracted or inattentive driver, and more than a million people were injured. On any given day in 2008, more than 800,000 vehicles were driven by someone using a hand-held cell phone.

As part of the study, federal researchers observed drivers of all ages not only using cell phones, but a variety of other devices, such as iPods, video games, Blackberrys and GPS systems. The researchers noted that cell phones designed for talking and texting are more prevalent now and carries a more dangerous potential for accidents.

"We know that the worst offenders are the youngest, least experienced drivers," said Secretary LaHood. "Unfortunately though, the problem doesn't end there. Distracted driving occurs across all age groups and all modes of transportation, from cars to buses and trucks to trains. We must work together to find solutions that will prevent crashes caused by driver distraction."

Secretary LaHood also announced a new study the Federal Motor Carrier Safety Administration (FMCSA) which will study how cell phone distraction affects commercial truck and motor coach drivers, and the prevalence of cell phone distraction in conjunction with crashes.

## NUCPS Announces A New Edition Of The "Traffic Crash Reconstruction" Book

For those Crash Investigators and Reconstructionists who call Northwestern University's Center for Public Safety home, good news! Recently, NUCPS announced on their website that they will be releasing a 2nd Edition of the "Traffic Crash Reconstruction" book. The book, considered the '*bible*' of NUCPS alumni everywhere, is newly updated to include new color graphics, new tables and explanations on the concepts of speed from damage, data from the

most recent studies on fall down motorcycle drag factors (ironic, isn't it?), and the effects of electronic stability control (ESC) on speed from yaw marks. Additionally, a new section on vehicle roll-overs has been added as well as new chapters covering the rapidly expanding technology of Event Data Recorders (EDR). The computer application chapter has also been updated to reflect the more current technology now employed in the crash investigation field.

The Product & Sales Division of NU's Center for Public Safety is offering a pre-sale price of \$75 for a limited time only. After December 31, the price goes up to \$85. The book is scheduled for release in January, 2010. For more information and to place your name on the pre-order list, you can call NU PSD at 1-800-323-4011 or visit PSD at:

[http://nucps.northwestern.edu/cart/cart\\_item\\_detail.asp?id=302](http://nucps.northwestern.edu/cart/cart_item_detail.asp?id=302)

## From The President: The Display of License Plates

How many times have you come up behind a car and there was no license plate on the back? Well then you start looking for the plate only to find it in the rear window lying on the deck. You approach the car to see it lying there and the driver says to you, "It just fell down; I had it taped up."

You see a vehicle driving down the road with no plate on the back and the windows are tinted; you can see the outline of something taped to the back window but you can't read it. When you approach the vehicle, you still can't read the paper plate so you go to the driver and ask for the paperwork on the sale of the vehicle and he gives it to you. This, my friend, becomes frustrating to me and I'm sure it does you, too. Our Prosecutor's office sent out an update for the officers here in Johnson County and I'd like to share it with you. Maybe this will give you a little insight on the display of license plates on vehicles.

(The following is taken from

Issue #212, of the Police-Prosecutor's Update for Johnson County, dated July 2009.) In Issue 166 of the PPU, we discussed an Indiana Supreme Court case which held that placing a permanent license plate in a vehicle's rear window is an improper placement of the license plate and provides reasonable suspicion for a traffic stop. The court recently addressed the issue whether this law also applies to "interim" or temporary license plates. In this case, the defendant had a temporary paper plate of the type issued by a dealer to a purchaser in the rear window of his car. The court reasoned that IC 9-18-26-10, which governs interim license plates, does not alter or amend the required placement and display of license plates set forth in IC 9-18-2-26 and IC 9-19-6-4(e). Those statutes require that a license plate be displayed on the rear of the vehicle, securely fastened in a horizontal position, and also be illuminated at night by a separate white light

so as to be clearly legible from fifty feet. Placing a license plate on the inside of the rear window clearly does not satisfy the requirement that license plates be displayed on the rear of the vehicle. And, in the rear window, the license plate is not illuminated by a separate white light so that it is clearly legible from fifty feet. In conclusion, because neither the statutes nor the regulations differentiate the display and illumination of permanent and interim plates, a license plate - be it permanent or temporary - must be mounted and illuminated as provided by IC 9-18-2-26 and IC 9-19-6-4. That is, the interim plate, even paper or cardboard, must be mounted in the same fashion as the permanent plate. Any other method of display would give rise to reasonable suspicion for law enforcement officers to initiate a traffic stop to determine whether the display complies with all statutory requirements.



## More about: Motorcycle Crash Investigation

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The first part of the afternoon was spent at the Adessa Auto Auction facility in Plainfield, who graciously permitted us to use their facility to conduct some motorcycle slide tests. For these tests, we had a few donated motorcycles to choose from, including: A cafe' style, a standard +/-250cc style, and a

Metropolitan scooter. The bikes were loaded on the back of a towed trailer and dropped at a speed of 30mph. The behavior of the bikes following the drop was noted and distances measured. Roadway markings were noted and compared to the damaged areas as well. Following the tests, attendees returned to the Plainfield Police Department/City Court building

for another presentation on driver behavior.

Thanks to Mike Snow for the presentation and to Scott Poston for his assistance in the procurement of the bikes and testing facility. Special thanks to Zore's Wrecker service and Adessa Auto Auction for the use of the motorcycles and the facility, respectively.



## IACAI Skill Review

Whether you're an At-Scene, Technical or Reconstructionist, you can't do anything without first knowing the basics; so, In this edition of the IACAI Skill Review, we will be covering basic crash investigation. Good Luck!!

1. The purpose of evaluating vehicle damage is to determine the relationship of the vehicles \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ the collision.
2. This type of damage occurring in laminated (windshield) glass is characterized by parallel fractures.
  - A. Collision
  - B. Induced
  - C. Contact
  - D. Shear
3. Eccentric Force is force which is not towards the \_\_\_\_\_ of the vehicle.
4. \_\_\_\_\_ is made by projecting studs or nuts and sometimes by the drive shaft or some other part dragging on the road.
5. A \_\_\_\_\_ is a small, deep gouge; nearly always made during maximum engagement and usually marks the spot where the corresponding part of the vehicle was at the point of maximum engagement.
6. \_\_\_\_\_ clearly indicates direction of motion from the deep, sharp side to the shallow, ragged side.
7. Every roadway curve is designed with a \_\_\_\_\_ \_\_\_\_\_ being taken into consideration.
8. \_\_\_\_\_ occurs when the water depth exceeds tread depth.
9. The minimum number of photographs a crash investigator should take per vehicle is:
  - A. Two
  - B. Four
  - C. Six
  - D. Eight
10. When examining lamps as part of a crash investigation, the term " DC Index" applies to which part of the lamp being examined?
  - A. The bulb shape
  - B. The filament configuration
  - C. The bulb base
  - D. The manufacturer's code for the style of bulb produced

The answers to this issue of the IACAI Skill Review will be published in the February 2010 edition of the Association. (But, if you really can't wait, check out our website in the next couple weeks for the answers.)

## ***Seminar Announcement***

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

### **"Legal Update"**

Instructor: Deborah Reasoner  
Indiana Prosecuting Attorney's Council

Wednesday,  
December 2, 2009 0900-1500 hrs  
Greenwood Police Department Training Center  
736 Loews Blvd  
Greenwood, IN 46142

Cost: \$50 for IACAI members; \$75 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@comcast.net](mailto:donhar232@comcast.net)



Contact us at:

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

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