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Your Safety & Health Leader for 90 Years

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The Traffic Safety Record

Volume 5, Issue 2

June 30, 2006

32nd International Forum on Traffic Records & Highway Safety Systems

July 30 - August 3, 2006

JW Marriott Desert Springs - Palm Desert, California

We hope that you will be joining us for this year's Forum in California.

Each year, the Forum is brought to you by the Forum Partners:

National Safety Council

ATSIP

United States Department of Transportation Agencies:

Bureau of Transportation Statistics

Federal Highway Administration

Federal Motor Carrier Safety Administration

National Highway Traffic Safety Administration

As of today's date, we have:

5 General Sessions

60 Educations Sessions

– which includes several Training and Native American Sessions

3 Forum Bronze Sponsors

25 Exhibitors with 28 Booths

Our Forum Bronze Sponsors:

CARFAX

EDS (Electronic Data Systems

Pd' Programming

Our Exhibitors:

Accident Support Services International

ATSIP

Bency & Associates

Cambridge Systematics, Inc.

Our Exhibitors Continued:

CARE Research & Development Laboratory
Crossroads Software, Inc.
Data Nexus, Inc.
EDS (Electronic Data Systems)
Federal Highway Administration
Federal Motor Carrier Safety Administration
GeoDecisions
ITIS Corporation
ITRONIX
JAMAR Technologies, Inc.
Laser Technology, Inc.
Microsoft
National Highway Traffic Safety Administration
National Model
National Safety Council
Pd' Programming
TES Information Technology Ltd.
The CAD ZONE
Trancite Logic Systems
TSASS
VS Visual Statement Inc.

This year's Program Chair is Joan Vecchi of the Colorado Motor Vehicle Department. Each year, the Program Chair is given the task of outlining the direction of the Program. This outline is used to issue the Call for Presentations and schedule special sessions that address current issues.

The complete Forum Program Schedule is available on the ATSIP website. Simply click on 2006 Forum and then select The Program.

There is also information on the ATSIP website's 2006 Forum Pages on Our Location – hotel, airport, ground transportation, Things to Do in Palm Desert and Travel Discounts – airfare and car rentals.

For the first time ever, we have completely sold out our room block and are unable to secure more rooms from the Forum Hotel. Alternate Area Hotels have been listed on the ATSIP home page to assist those that were unable to secure a reservation at the JW Marriott Palm Desert.

If you are unable to join us this year, we hope you will be with us in St. Louis for 2007 and Orlando for 2008.

Please see the next page for the Tentative Forum Schedule.

	Sunday July 30	Monday - July 31	Tuesday - August 1	Wednesday August 2	Thursday August 3
7 AM					
8 AM		REGISTRATION	REGISTRATION	REGISTRATION	REGISTRATION
9 AM		Continental Breakfast Exhibit Area	Continental Breakfast Exhibit Area	Continental Breakfast Exhibit Area	Continental Breakfast Pavilion
10 AM		Opening General Session with Keynote Speaker	Federal Update	ATSIP General Meeting	SESSIONS
11 AM		Refreshments Exhibit Area	Refreshments Exhibit Area	Refreshments Exhibit Area	Refreshments in Hall
12 PM	REGISTRATION	SESSIONS	SESSIONS	SESSIONS	SESSIONS
1 PM	SESSIONS	Luncheon & Keynote Speaker	Awards Luncheon	Lunch On Your Own	
2 PM	SESSIONS	SESSIONS	SESSIONS	SESSIONS	
3 PM	SESSIONS	Refreshments Exhibit Area	Refreshments Exhibit Area	Refreshments Exhibit Area	
4 PM	SESSIONS	SESSIONS	SESSIONS	SESSIONS	
5 PM					

6:30 PM to 8:00 PM
Welcome Reception
in Exhibit Area

Large Truck Crash Causation Study

Ralph Craft, Ph.D.

Federal Motor Carrier Safety Administration (FMCSA), US DOT

The FMCSA and National Highway Traffic Safety Administration (NHTSA) conducted a nationwide study of factors that increase the risk of truck crashes. A representative sample of large truck fatal and injury crashes was investigated during 2001 to 2003 at 24 sites in 17 States. Data were collected on up to 1,000 elements in each of the 963 sample crashes which involved 1,123 large trucks.

Major characteristics of the crashes were:

- 23 percent involved at least one fatality,
- 25 percent were single vehicle crashes, 51 percent two-vehicle crashes, and
- 62 percent involved truck tractors pulling a single semi-trailer.

Two-person teams of a trained researcher and State truck inspector collected the data. Data was collected at crash scenes through driver, passenger, and witness interviews, crash diagrams, and a Level 1 inspection of each truck and its driver. Researchers collected additional interview data by telephone with motor carriers and relatives or co-workers of drivers who died or were incapacitated and could not be interviewed. Researchers also reviewed reports from police, hospitals, and coroners.

During the study period, NHTSA estimated there were 141,000 large trucks involved in fatal and injury crashes. Each of the 963 LTCCS study cases was assigned a sampling weight that allowed for national estimates of total truck crashes for these 141,000 trucks. Coding of events surrounding each crash began with three elements:

- Critical Event – action or event putting the vehicle(s) on a course that made the collision unavoidable, given reasonable driving skills and vehicle handling.
- Critical Reason – immediate reason for the critical event; the failure leading to the critical event. The critical reason describes why the critical event occurred.
- Associated Factors – any of approximately 1,000 conditions or circumstances present at the time of the crash was coded.

In all crashes the critical reason was assigned to the truck in 55% of the weighted cases. In these crashes 83% of the critical events fell into three categories: over lane/off road – 32%, loss of control – 29%, and other motor vehicle in travel lane – 22%.

Of the truck assigned critical reasons, 87% were driver reasons, 10% vehicle, and 3% roadway or weather. The LTCCS codes four types of driver errors (examples noted):

- Non-Performance – sleeping, medically disabled, physically impaired;
- Recognition – inattention, distracted, failure adequately observe the situation;
- Decision – driving too fast for conditions, misjudged other vehicle speed, followed too closely, false assumptions about other driver's actions; and
- Performance – panic, overcompensated, exercised poor directional control

For the truck drivers assigned the critical reason three-fourths involved recognition or decision errors – inattention, distraction, driving too fast, following too close, etc.

Table 1 lists the 10 most frequently coded factors for all trucks in all crashes. This does not mean these factors were important in leading to the crashes. Relative risk analysis is necessary to examine the association between these factors and critical reasons for crashes. The numbers are estimates of all trucks involved in all fatal and injury crashes in the USA during the study period. Percentages add to more than 100, since multiple factors may be coded of any driver/vehicle/environmental condition.

Category	Factor	Number	Percent
Driver	Legal drug use	52,000	37%
	Traveling too fast for conditions	33,000	23%
	Unfamiliar with roadway	31,000	22%
	Inadequate surveillance	20,000	14%
	Fatigue	18,000	13%
	Illegal maneuver	13,000	9%
	Inattention	12,000	9%
Vehicle	Brake deficiency	37,000	26%
Environment	Traffic flow interruption	40,000	28%
	Required to stop before crash (traffic light, etc.)	28,000	20%

In crashes between large trucks and passenger vehicles (cars, pickup trucks, vans, and SUVs), passenger vehicles were assigned the critical reason in 56 percent of the cases, and trucks in 44 percent of the crashes. Drivers of each type of vehicle were coded with the critical reason in about 90 percent of the crashes.

Table 2 gives the associated factors in two-vehicle crashes.

		Large Trucks		Passenger Vehicles	
Category	Factor	Number	Percent	Number	Percent
Driver	Legal drug use	26,000	39%	25,000	38%
	Unfamiliar with roadway	13,000	19%	6,000	10%
	Inadequate surveillance	11,000	16%	9,000	14%
	Too fast for conditions	10,000	15%	7,000	11%
	Illegal maneuver	8,000	12%	9,000	13%
	Inattention	6,000	9%	6,000	9%
	Fatigue	5,000	7%	10,000	15%
Vehicle	Brake Deficiency	16,000	25%	1,000	2%
Environment	Traffic flow interruption	16,000	24%	16,000	25%
	Stop required prior to crash	14,000	21%	16,000	25%

Research on the data collected will be sponsored by FMCSA, and the database will be made available to the public.

SAVE THE DATES!

**33rd International Forum on Traffic Records
& Highway Safety Systems
July 22 - 26, 2007
Millennium Hotel
St. Louis, Missouri**

Get ready for some Major League Baseball! The New Busch Stadium will be open for it's second season and it is only a 5 minute walk away. The schedule should be released in January 2007.

We will also be very close to a number of attractions - like the Gateway Arch (1 block) and Laclede's Landing (3 blocks).

**34th International Forum on Traffic Records
& Highway Safety Systems
July 27 - 31, 2008
Rosen Shingle Creek
Orlando, Florida**

Rosen Shingle Creek is currently under construction - opening in Fall 2006. This Resort property will have plenty of activity for those that choose to stay away from the crowds. It will provide complimentary transportation to several of Orlando's attractions - SeaWorld, Universal Orlando and Wet'n Wild water park.

If you are interested in submitting articles for the September Newsletter, please contact Nicole Pappas at pappasn@nsc.org.