Thursday, April 2, 2015

Hearing on Senate Bill 694

Distinguished Members of the Oregon Senate Judiciary Committee:

Please forgive my tardiness in responding to the committee on this matter. As you consider this bill today I would like to offer some additional information for your consideration.

I have authored two papers on the safety benefits of lane sharing that may or may not have been submitted to the committee for review. For these papers as well as for this statement I believe it is important for the committee to know that I am neither a proponent nor opponent with respect to lane sharing. I am a motorcycle rider safety expert. I provide expert witness testimony in the area of motorcycle rider operations, as well as do research into the various areas of motorcycle operation and motorcyclist safety. It is through this expertise that I recognized the rider safety aspects of lane sharing. Allow me to clarify this; I have been a motorcycle rider all of my adult life, including as a motorcycle police officer in Southern California. I have been a collision reconstruction expert for 30 years working as an expert in both law enforcement and the private sector. As part of maintaining my expertise as a collision reconstructionist I went back to college and received a Bachelor of Science degree in physics with a minor in mathematics. It was the combination of riding, my expertise in vehicle crash dynamics and working in the motorcycle rider safety field that allowed me to recognize that putting a motorcycle adjacent to cars in heavy traffic was safer than exposing a motorcyclist to a rear end collision. I started looking at different crash data fields and that led to the first two papers I wrote on lane sharing that were published. This in turn led to the recently released lane sharing research from the University California Berkeley that looked at lane sharing crashes and verified what I had recognized and authored in my lane sharing papers.

As a motorcycle rider safety expert I am continuously doing research regarding motorcycle rider safety, which includes continuing research on lane sharing. I think that one of the most important things I have discovered is that currently there is no information or data showing where lane sharing under the restrictions set in the Oregon legislation creates a roadway hazard for riders or other roadway users. Rather, what I have seen is people with a *belief* that lane sharing is supposed to be a dangerous maneuver. To date I have been unable to find any data or information, including in the international traffic safety community, that supports the belief that responsible lane sharing is hazardous. This may not be the best example in the world, but back in the 15th century people believed the world was flat and that if you sailed too far out in the

ocean you would simply fall of the end of the world. That belief was shown to be incorrect.

As the committee debates and decides on Senate Bill 694 there are a few more things for consideration. Because this is a new law for Oregon, there will publicity associated with it. This publicity translates into driver education about motorcycles now sharing lanes. Also, a recent study from the Federal Highway Administration shows that the freeway signs can modify driver behavior, <u>United States Department of Transportation, Federal Highway Administration, Traffic Safety Facts July 2014</u>, *Effectiveness of Safety and Public Service Announcements Messages on Dynamic Message Signs*, FHWA-HOP-14-015. This is a perfect driver education tool for Oregon drivers. Specifically, if lane sharing is allowed in heavy freeway traffic, advising drivers on the freeway in that traffic about sharing lanes with motorcycles with the message boards is a direct educational opportunity. Also, safety tips for riders are an important aspect. For example besides following the law, it is also important to know that lane sharing next to any large commercial vehicle is not a good risk management practice. I am confident that the people at Team Oregon can help develop solid rider safety guidelines for lane sharing.

Lastly, many states have adopted the Zero Roadway Fatalities Goal. I am not sure if the Oregon DOT, the Governor's Highway Safety Representative or the highway safety community have adopted this traffic safety message. However, if safety leaders are looking to reduce rider crashes and fatalities, this is a step in that direction.

Respectfully submitted, Steven M. Guderian Motorcycle Safety Consulting

attachments: Resume for Steven Guderian

MOTORCYCLE SAFETY CONSULTING

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## **Education**

*California State University San Bernardino* Graduated 12/00 Bachelor Science Degree in physics, minor degree in mathematics.

## **Specialized Training & Study**

September 2014 Southwestern Association of Technical Accident Investigator (SATAI) October 2013, International Motorcycle Safety Conference, Orlando Florida April 2012 Human Factors in Automobile Crashes

Over 2000 hours of specialized training in all types of collision reconstruction and traffic crash investigation issues. Trained and extensively study issues related to low speed collision biomechanics, as well as motorcycle fatality information and statistics. This includes the Hurt Report on motorcycles crashes in the United States, and the MAIDS Report on motorcycle crashes in Europe. Portions of my specialized training came from the following institutions;

Northwestern University Texas A&M University University of California at Riverside North Florida University, Institute of Police Technology and Management (IPTM) California Peace Officer Standards and Training (CA POST) certified training.

## **EMPLOYMENT**

April 2009 to present Motorcycle Safety Consulting

### Owner and Operator

Owner and a service provider in this expert motorcycle collision reconstruction and motorcycle rider safety consultancy. Court qualified Motorcycle Rider Safety Expert and Collision Reconstructionist, also does research into the human factors aspects of motorcycle riding. Clients have included major insurance companies, parts manufacturers and attorneys.

- Coauthored a book with Pat Hahn called "MAXIMUM CONTROL, How to Safely Ride Your Big Bike" that has been published by motor books international. This is the first book of its kind. It offers drills and skills practice taken from the unique perspective on vehicle control from law enforcement trained motorcycle riders.
- Sourced and coordinated a large pool of test subjects for an eye tracking motorcycle safety study. Subjects represented both sexes and a range of ages and experience levels. Worked in close collaboration with other collision reconstruction experts, physicists, mechanical engineers and human factors specialists. Uncovered significant weaknesses in typical driving habits. Papers published by Transportation Research Board (TRB) and other peer reviewed publications

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- Authored two papers on lane sharing as a motorcycle safety measure that were published in national publication, with a third paper awaiting publication
- Fact Sheet for FMVSS 218, Motorcycle Helmets

November 2009 to October 2014 San Francisco Municipal Transportation Agency

#### **Transportation Safety Specialist**

Principal SFMTA representative and investigator regarding collisions that involve pedestrians, bicyclists and motor vehicles including motorcycles) with city transport vehicles such as LRV's, Historic Transit Rail Cars, Cable Cars and all types of buses. Recruited to the position do to specialized expertise in rubber-tire based collision reconstruction, physics and human factors. Responsibilities include the investigation and/or reconstruction of collisions, derailments and injury events involving all vehicles types, as well as audits of the operational and maintenance procedures associated with these vehicles within the agency.

- Personally manage the busiest bus division for the city of San Francisco. Lead safety specialist for approximately 2500 rubber tire vehicles that are part of the San Francisco Municipal Transportation Agency fleet of vehicles.
- Analyze factors ranging from vehicle positions, video footage, damage, tire marks, fluids, brake damage, shoe scuffs and debris fields for an average of 30 crashes a month. Formulate estimates for collision reconstruction based on available data.
- Serve as the team's specialist in motorcycle traffic safety issues.
- The go-to person in regards to speed estimation, with extensive experience using video surveillance tools to calculate vehicle speeds.

#### January 2012 to May 2013

#### **California American Brotherhood Aimed Toward Education**

#### State Safety Officer and Elected Member to Board of Directors

Official representative to any activities for the California Motorcycle Safety Program (CMSP) and other safety related motorcycle rider safety activities. Also responsible for coordinating with both government agencies and private agencies to invent, develop and assist with any program or idea that might be beneficial to motorcycle rider safety. I also advise local safety officers and the Board of Directors on issues of safety, and write a month safety article for The Bailing Wire.

#### January 2006 to January 2011 Cycle Lloyds CMSP/MSF Rider Coach

I served as a certified rider coach for the California Motorcycle Safety Program/Motorcycle Safety Foundation. I taught the 15 hour Basic Riders course as well as the Advanced Rider course, which included the training sessions in the classroom and on the riding range providing riders the basic mechanics, operating procedures and traffic principles for safe motorcycle riding.

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#### October 2001 to November 2009 National Highway Traffic Safety Administration (US DOT) Highway Safety Specialist

Hired to bring a traffic safety and law enforcement background to this Federal safety organization. Managed traffic safety programs of motorcycle safety, occupant protection, police traffic services, speed and aggressive driving. Oversaw the \$50 Million Federal Click-It or Ticket program in the South West United States. Assigned to the NHTSA Region 9 Office which is responsible for the traffic safety programs in the states of Arizona, California, Hawaii, and the American Territories of American Samoa, Commonwealth of the Northern Mariana Islands and Guam. Oversaw all of the traffic safety related programs, evaluations, reviews and administrative tasks for the State of Arizona.

- Launched the Click-It or Ticket program as a pilot program in Nevada in 2002. Helped to increase a 72% seat belt use rate to 82%.
- Managed more grants of federal money than any other safety specialist in the National Highway Safety Administration Region 9 Office.
- Ensured that program expenditures were made in accordance with grand guidelines. Oversaw the distribution and use of grants money by state agencies.
- Led program evaluations and compliance reviews of DUI, pedestrian and motorcycle traffic safety programs.
- Served as a motorcycle safety expert within the Arizona, California, Hawaii, Nevada and the territories.
- Led rider trainings, share the road programs, motorcycle safety assessments and program evaluations. Served as a member of the California Motorcycle Safety Program, CMSP, advisory board. Worked closely with community traffic safety groups involved with motorcycle safety such as MADD, AAA Safety Foundation and different Motorcycle Rights Organizations (MROs).
- Identified, documented and prosecuted fraud and compliance issues with the NHTSA Cash Allowance Rebate System (CARS) program, also known as the Cash for Clunkers, as a Compliance and Fraud Investigator. Coordinated paperwork audits, vehicle tracking and program reviews at car dealerships and salvage yards in the Western United States.

#### September 1988 to October 2001

#### **Professional Collision Analysis**

#### **Business Owner/Collision Reconstruction Expert**

Founded and managed this collision reconstruction and collision investigation consultancy. Offered expertise to insurance companies, public entities and attorneys regarding all aspects of collision reconstruction and investigation. Testified as an expert in collision reconstruction and biomechanics in over 60 court cases across the nation and in federal court.

#### February 1979 to August 2000 Ontario Police Department Motor Officer/Collision Investigator

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Assigned to uniform patrol where for approximately 14 years of my career I worked in the traffic division as a motorcycle officer. My responsibilities were motorcycle traffic enforcement and the investigation and reconstruction of all major injury and fatal traffic collisions involving motorcycles and all other vehicles within the city. I also identified, investigated and prosecuted fraudulent collisions. My investigations and reconstructions resulted in my testimony as an expert in a number of murder and other serious criminal trials involving vehicles.

- Investigated/reconstructed hundreds of cases/collisions ranging from violent crimes to traffic tickets.
- Investigated various rail incidents that occurred within the city on any of three rail lines running through Ontario, CA; Union Pacific, Southern Pacific and Santa Fe Railroads. These incidents included grade crossing crashes, suicides and other train verse person events.

#### February 1977 to February 1979

**Whittier Police Department** 

#### Patrol Officer

Assigned to uniform patrol, responsible for general police work throughout the city.

## ADDITIONAL TOPICS

### **Teaching & Speaking**

Lecturing and instruction regarding all types of traffic safety matters to audiences and groups ranging from 30 people to over 650 people all over the nation.

Taught collision investigation and collision reconstruction at various police academy's and training institutions throughout Southern California.

Nov 2012, South Lake Tahoe, California, lectured at the California Association of Accident Reconstructionists, CAARs, on Motorcycle Rider Safety.

Nov 2012, Las Vegas, Nevada, lectured at the Nevada State Highway Safety convention on Motorcycle Rider Safety.

### **Books, Papers and Articles**

Author of a monthly motorcycle safety article for the MT. Diablo HOG Chapter Newsletter.

Author a monthly motorcycle safety piece for the Bailing Wire, the monthly newspaper for the California State ABATE (American Brotherhood Aimed Toward Education).

Co-authored the book MAXIMUM CONTROL, How to Safely Ride Your Big Bike, with Pat Hahn.

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Authored SPEED FROM SKID THE MOTION PICTURE a paper published in the SOARCE (the Society of Accident Reconstructionists) monthly newsletter.

Press releases and media interviews in different states across the nation.

### Research

One of five principle researchers in a first ever of its kind study of motorcycle rider perception, reaction and response patterns. Obtained approximately 300 gigabytes of data which used to author multiple papers in peer reviewed publications. Including *Glancing and Stopping Behavior of Motorcycle and Car Drivers at Intersections*, Transportation Research Record, Journal of the Transportation Research Board, No. 2265.

Author of two research papers published in a national magazine on Lane Sharing as a motorcycle crash countermeasure.

## **Professional Organizations**

Southwestern Association of Technical Accident Investigators (SATAI) International Network of Collision Reconstructionists (INCR)

### Personal

Happily married for over 38 years. Wife is a motorcyclist, son-in-law works for the Nevada Highway Patrol currently assigned as a motorcycle officer, previously assigned to the Northern Nevada MAIT team, two daughters work for the Nevada Department of Public Safety, one as a parole and probation officer, the other as a Nevada Highway Patrol dispatcher. Another son-in-law works for the Douglas County Nevada Sheriff's Office as a deputy sheriff. Third daughter is a junior high school science teacher, and the third son-in-law is an actor.