



# ACCIDENT TECHNOLOGY INC. NEWS LETTER



**ACCIDENT TECHNOLOGY INC.**  
**FORENSIC CRASH RECONSTRUCTION**

UNDERSTANDING GOUGE MARKS – PAGE 3

IN THIS ISSUE

## Why Information About A Crash Is POWER!

by Joe Atherton (President) & Matt Dwyer (Vice President)

In this issue we will discuss various vehicle manufacturer recalls and the documentation of one particular type of evidence. Gouge Marks.

### RECALLS

Vehicle recall information is power. Knowing the history of the vehicles involved in a crash will provide insight into the pre-crash phase of the collision. As taught in our seminars, the pre-crash phase of the crash includes such things as weather conditions, vehicle conditions and operator conditions. We will include the newest recall information in follow issues of the newsletter.

### GOUGE MARKS

The topic of this quarters evidence recognition section is gouge marks. These are actual gouges in the surface of the roadway or berm caused by any number of actions. Gouge marks include the following:

- ✓ Undercarriage contact
- ✓ Wheel or rim contact
- ✓ Roll over contact

The proper recognition and documentation of surface gouges will tell us:

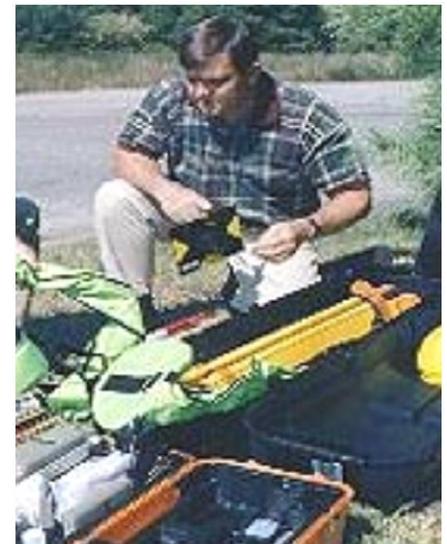
- ✓ The direction of vehicles
- ✓ The point of impact
- ✓ The post impact tangent of travel
- ✓ The final rest position

There are common mistakes made when trying to understand this evidence. The most common mistake is assuming the gouge mark is the actual location of impact. While this MAY be true, it is NOT ALWAYS true. It is very difficult to interpret point of impact location without examining the vehicles involved. In the following pages you will learn how to properly utilize gouge mark evidence.

If you are interviewing an Officer or Trooper concerning gouge mark evidence always ask the following:

- ✓ Did you measure the marks?
- ✓ Did you photograph the marks?
- ✓ Did you inspect the vehicles?
- ✓ Which vehicle caused which marks?
- ✓ What parts of the vehicle caused the marks?
- ✓ What was the nature of the mark?

With this information, you should gain a clear understanding of the dynamics.



### What's In A Name?

Joe explains a little about experts.



### Vehicle Recalls

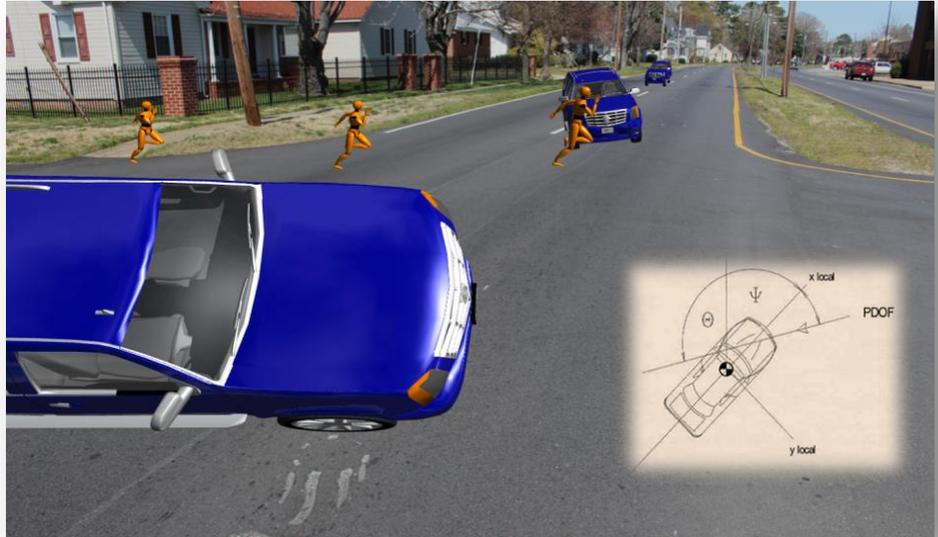
Wondering what the 2012 wrap up of vehicle recalls have told us. Well, it sure is interesting.

# What's in a Name?

Have you ever wondered what makes an accident reconstructionist an accident reconstructionist? There are NO governmental standards. Anyone can hang a sign and proclaim to be an expert in accident reconstruction. As a result, you must be careful....

In 1991, a professional organization was formed at the recommendation of the National Highway Transportation Safety Administration. (NHTSA) The organization was the Accreditation Commission for Traffic Accident Reconstruction (ACTAR) This organization maintains standards established by NHTSA to "certify" qualified individuals. The certification process is a worldwide peer review and testing procedure requiring continuing education.

If you are considering an expert, the ACTAR initials behind the name give you a starting point for a discussion of the experts qualifications. I have believed in this program since its beginning. I was a practicing accident reconstructionist before ACTAR existed, but as the recognition for the program grew, more of us joined and tested. I have been a certified ACTAR Accident Reconstructionist for almost 20 years now. Matthew completed the testing process for ACTAR last year and is also now a certified



Accident Reconstructionist. So... what's in a name? Anyone can say they work accidents, but only a tested and peer reviewed, certified accident reconstructionist can use the ACTAR Logo. Look for the ACTAR initials behind the name!

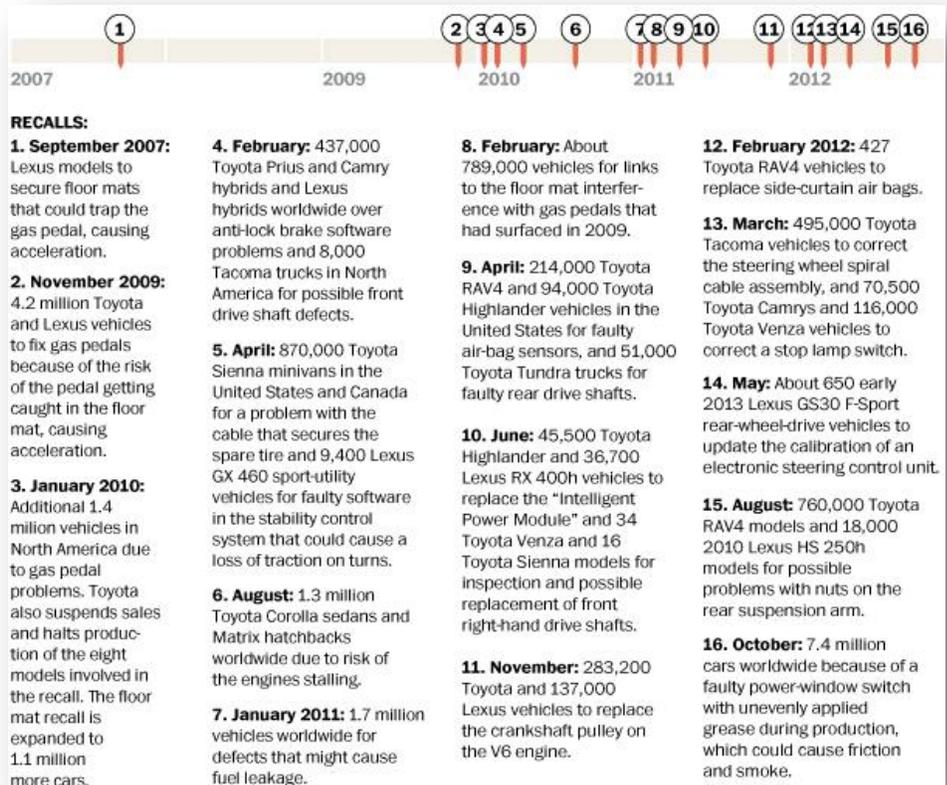
Joe Atherton, ACTAR



# Vehicle Recalls

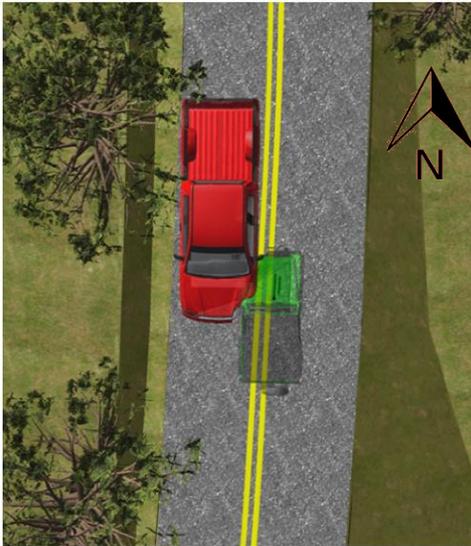
by Matt Dwyer

There have been over 390 million cars recalled since the enactment of the National Traffic and Motor Vehicle Safety Act in 1966. Auto companies average 200 safety related and compliance recalls every year. In 2012 Toyota automakers ranked number 1 with 5.3 million vehicles recalled due to numerous safety and compliance issues. Honda came in second with 3.4 million and GM, Ford, and Chrysler came in 3<sup>rd</sup> and 4<sup>th</sup> and 5<sup>th</sup> with 1.5 million, 1.4 million, and 1.3 million recalled vehicles. What is truly interesting to note is there were more vehicles recalled in 2012 than there were new vehicles sold industry wide. According to Carfax, at least 2.7 million vehicles were sold last year for which recalls were issued, but not taken care of. The question now becomes, was this accident a result of a disregard to determine if the car was not serviced?

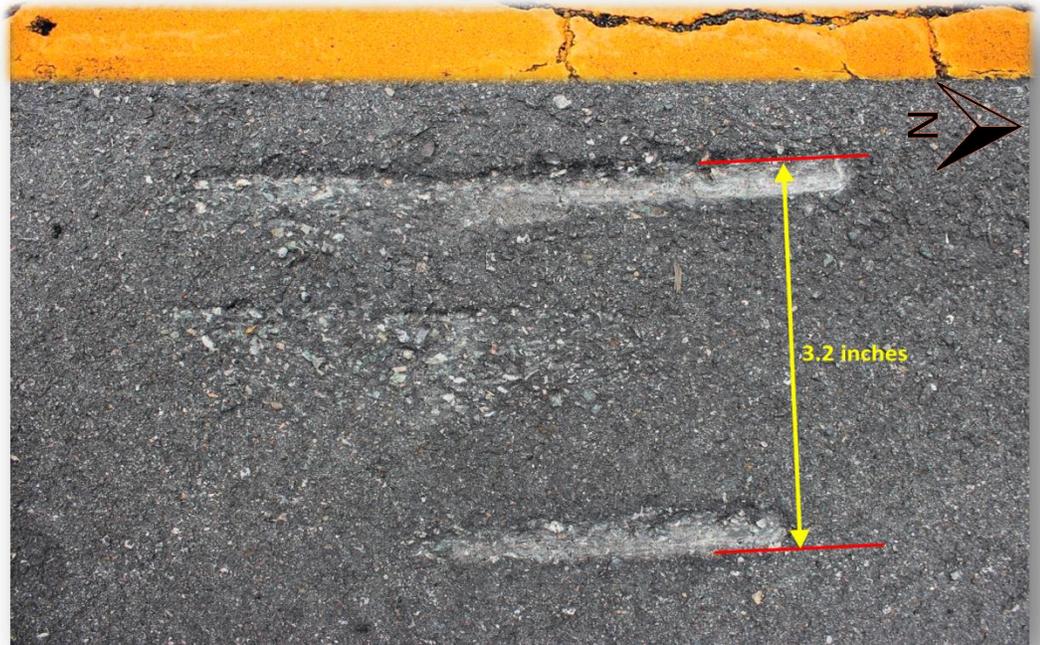
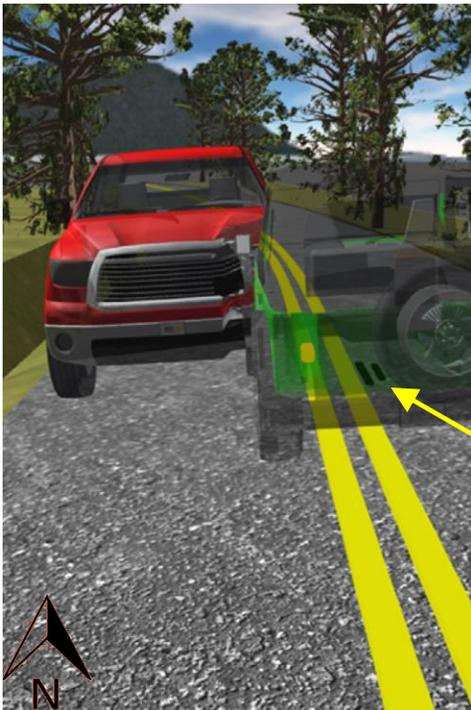


# Understanding Gouge Marks

2D VIEW OF ACCIDENT



3D VIEW OF ACCIDENT



*You have to know what part of the vehicle produced the gouge*

Gouge Marks can tell us a lot when it comes to vehicle accidents. They can tell us the point of impact, direction of travel, and sometimes lead us to the point of final rest. They will stay on the roadway indefinitely until the roadway gets repaved. So even if there is a crash that has happened years ago, if the roadway hasn't been repaved, that gouge mark will more than likely still be there. Properly collecting and documenting where exactly the gouge marks are and their nature will sometimes mean the difference in case. But just collecting the roadway evidence is only half the equation.

We need to know exactly what on the vehicle caused that gouge marks. Typically, when two vehicles come into heavy contact they will load their energy onto the other and force themselves downward. This will cause the undercarriage of the vehicles to strike the roadway. The undercarriage, which consists of bolts and metal ridges, will often show signs of contact (as seen in the picture below).

In this example, the driver of the green jeep said the red truck was across the center line because the gouge marks were in the green jeeps lane of travel. Upon reconstructing this accident we know where the gouge marks were and what on the vehicles caused the gouge marks. These gouge marks were caused by a piece of the green jeeps undercarriage that was 2.1 feet in from the left side body line (as seen in the figure below). When you match up that corroborating evidence, even though the gouge marks were in the opposing vehicles lane of travel, we know that the opposing vehicle (the green jeep) was across the centerline and triggered the accident.

Good documentation of evidence, corroborating evidence, and 2D / 3D models of the vehicles, paired with a to-scale drawing of the roadway helps lay the groundwork for arguing this case.

So remember, don't just take the evidence at face value, investigate and find what the connecting evidence means. Furthermore, though the evidence proves the green jeep was across the centerline, the question now becomes...could the red truck have been able to avoid this accident? This will be covered in the next newsletter.

FOR MORE INFORMATION

Visit our Website  
[www.accidenttech.com](http://www.accidenttech.com)

Or give us a Call  
 1-800-854-2524

