

October 31, 2012

Ignorance Abounds - Local News Media Quick To Report Dogma, Slow on Science

Local news media provide an interesting outlook on day-to-day events surrounding motor vehicle collisions and road safety. Opinions from loud voices seem to be getting the better part of attention in the news rather than hard fact based on informed investigation.

As an example, a news article in the Toronto Star newspaper today, October 31, 2012, discussed the heroic act of a driver, Caleb MacDonald, whose truck was struck head-on by a Chevrolet Cobalt. The Cobalt caught fire and MacDonald pulled its driver to safety. While the heroic effort is worth noting, it is glaring that nothing was mentioned in the article about the cause of the fire or whether that should be a reasonable expectation.

The Chevrolet Cobalt is a relatively new design, at least to the point that its manufacturer would have had many years of experience with Federal (U.S.) or Canadian Motor Vehicle Safety Standards (FMVSS or CMVSS). The testing of vehicles for fuel system rupture and ignition that would lead to fires has been conducted for decades. It is recognized as a dangerous consequence that vehicles should suddenly ignite after all the successful efforts of air bags, seat-belts and numerous other safety standards to protect vehicle occupants. It is for this reason that, when a vehicle catches fire, particularly in a relatively new vehicle, that consequence should be investigated, documented, and reported to Transport Canada or NHTSA. It is particularly so when a fire spreads as quickly as reported in the Toronto Star article, that the heroic driver had little time to think about what he should do. It was fortunate that the driver of the Cobalt was not pinned by the vehicle structure so that it was possible to remove him, but that is not often the case. In many instances it requires the specialized tools of a fire rescue crew to cut away the structure and this can take considerable time. So, in many instances, despite the heroics of ordinary citizens, drivers can be left to burn alive with no way of preventing that tragedy. So it is vitally important to pay attention to these occurrences. Unfortunately, whether the article author was ill-informed, or was simply instructed as to what he must mention in his report, the bottom line is that an opportunity was missed to inform the public and to make the fire a more prominent issue.

In another article of today, the Kitchener Record newspaper reported on the opinions of local politicians regarding why they felt that accidents were occurring in newly constructed roundabouts. The head line of the article read "Stupid drivers blamed for roundabout collisions". Again, a dogmatic opinion that, in our opinion, demonstrates the ignorance of those who express such beliefs. Good design takes into account the known fact that drivers will make mistakes.

This is not an isolated happening as we see a similar thread amongst many citizens whose similar opinions are published or broadcast to the wide public. It is common amongst police who, failing to accept that the causes of collisions are complex, use the catch-all of "driver error" for everything except what has obviously been placed before their eyes as indisputable evidence to the contrary.

Overall, the official news media need to be more conscious of the scientific world around them and must be informed about the issues that they write. They must not only report, but also educate.

Applications of Photogrammetry in Forensic Investigations - A Gathering of Truly Professional Investigators

We were honoured to listen in on a webinar yesterday entitled "Applications of Photogrammetry in Forensic Investigations", that was put together through the efforts of the new president of the International Association of Forensic and Security Metrology, Eugene Liscio. Mr. Liscio is the owner of a forensic animation firm located in Toronto (<http://ai2-3d.com/>) and has been involved in a number of recent presentations to international associations. The presenters were a fascinating group of scientists and investigators who apply state-of-the-art measurement technology to solve crimes and generally improve investigative methods. As digital media (DSLRs, video, etc) become more commonplace in our society, these scientists use technology to allow information to be retrieved from these sources to produce results that could only be dreamed of just a few years ago. As an example, flying drones are used to take massive numbers of photographs of any landscape and these photos are then integrated to produce a detailed, three-dimensional mapping of the area. Photogrammetry combined with laser scanners produce dense point clouds and detailed features of anything from a large site to something extremely small like fingerprints on a bullet casing.

While many of these applications are focused on crime detection, they have useful applications in the study of motor vehicle accidents. It is a short introduction to where the field of forensic science is headed.

October 29, 2012

Apple's iPhone Under Scrutiny of Testing by Gorski Consulting

We continue to report on recent, real-life, serious collisions that occur in our region. Many of these collisions involve a loss-of-control of a vehicle on a rural roadway. Often it is a scenario that involves a curve in that roadway.

At the same time we are continuing with research and testing that could help in detecting the events that might have occurred just prior to the loss of control of a vehicle. Specifically, we have been testing the functionality of the Apple iPhone and

specifically its accelerometer and gyros. This seemingly simple cell phone contains these very useful features that allow us to study the forces exerted by the road on a vehicle, particularly as it approaches and travels through a curve of a rural road. Our further testing is discussed in our most recent article ("Good And Bad Roads Detected With Apple iPhone's Accelerometer and Gyros") which has just be posted on the Articles page of our website. We encourage you to check it out.

October 26, 2012

A collision with a tree on Petrolia Line just west of Inwood Road in Lambton County, Ontario has claimed the life of a 47-year-old female driver. The collision reportedly occurred on October 25, 2012 at approximately 0545 hours. We examined the collision site about 10 hours after the occurrence and have prepared an article discussing our findings. Please check out the article in on the Articles page of this website.

October 25, 2012

Female Driver Is Latest Fatality of Tree Impact in Lambton County

Not unexpectedly, little has been mentioned of the latest fatality involving a 47-year-old female driver who sustained fatal injuries when her vehicle struck a tree on Petrolia Line, just west of Inwood Road in Lambton County earlier this morning. While it is understandable that the next-of-kin should be notified before the victim is identified, very little is revealed in these circumstances regarding how and why a tragedy like this would occur. The very basic facts have been revealed: The collision reportedly occurred "around" 0545 hours this morning, October 25, 2012 when "an eastbound Chevrolet car left the road and crashed into a tree on the north side of the road". The usual "...collision is under investigation..." phrase is inserted into the notification and the public moves on to the next matter that might catch their interest.

We examined this site earlier this afternoon and observed the collision evidence while it was still relatively fresh. The fact is that this collision occurred on a very straight and level roadway. Although the pavement was slightly aged, it had received proper treatment such that the road surface was in good condition. There was nothing about the signage or geometry that would suggest that there was any deficiency in this road. What is known from the physical evidence is that the vehicle suddenly veered onto the south gravel shoulder and produced tire marks in that shoulder that indicated that it entered into a rapid counter-clockwise rotation. It then crossed the roadway to the north roadside where it continued its rapid rotation on the lawn of a private residence.

The important point is that the tree that was struck was about 19 metres north of the roadway. This is a long distance away from the road. It would be difficult to foresee such an eventuality. It was just as unfortunate that during the vehicle's spin it happened to reach the tree at the point when it was essentially travelling sideways and therefore much of the vehicle's safety features such as air bags and seat belts were of less effect

because of the likely massive intrusion that would have occurred in the struck side of the vehicle. It was an unfortunate circumstance.

However, the more important issue is: What factors originally led to the vehicle's loss-of-control? This has not been mentioned, nor do we believe that it will ever be discussed. It is regrettable because it means that no one will ever learn anything from this tragedy and it is destined to be repeated again.

If time permits we may upload an article on the Articles webpage of this site in the next day or so, discussing the details of what we observed from our site examination.

October 21, 2012

We Chose To Believe Gardiner Expressway Report of 'Serious Hazard' Was Purposely Kept Secret

While the explanations are finely honed by expert word-ologists, we chose to believe that a report by IBI and Coffey Geotechnics, outlining 'serious hazards' relating to concrete failures in the elevated Gardiner Expressway in downtown Toronto was purposely withheld from Councillor Minnan-Wong, the mayor's office and from the public. Thanks to the Toronto Star newspaper's investigation, it was revealed that the damning report was completed on September 13, 2012 but its conclusions were not disclosed until the Star dug the matter out and reported the findings to the Councillor and the mayor's office.

Our decision to believe the cover-up is based on what we have previously observed in many instances where those responsible for roadway and bridge maintenance decide to cover-up dangers to the public for fear of being sued. This is a decrease in our system of operations in Ontario that needs to be addressed.

Concrete falling off of the structures of the elevated expressway onto the busy Lakeshore Boulevard below is a dilemma that has no quick fix since closing of the roadway will provide considerable inconvenience. Rather than informing public representatives City Staff stated that they were engaged in further discussions with the authors of the report to get additional "clarifications". This is where we believe the problem originates, since, in our opinion, it was the responsibility of City Staff to inform the public representatives ***immediately***, irrespective of whether they felt they did not understand certain portions of the report. It could easily have been reported to city representatives that further discussions were ongoing while still informing them that a serious hazard ***potentially*** existed. By not doing so City Staff made the decision for themselves what dangers the public would be exposed to and what liability the City of Toronto would put themselves to if someone was struck by the falling concrete.

The threat of civil litigation continually prevents our municipalities and those responsible for the maintenance of our roads to do their jobs properly. While those who are injured or killed should receive proper compensation there must be a better way of achieving this while still allowing safety problems to be revealed to the public and its representatives.

October 16, 2012

Another "Flying Debris" Fatal on the QEW at Hamilton, Ontario

It was just over a year ago that a fire extinguisher fell off a moving garbage truck on the QEW near Mississauga Road and entered through the windshield of a westbound Toyota RAV4 and killed its driver.

Yesterday evening, October 15, 2012, at approximately 1900 hours a passenger car travelling eastbound on the QEW was struck by a tire that fell off of westbound pick-up truck and once again the eastbound driver was killed.

A year ago news agencies also reported another fatal collision involving flying debris on the QEW:

"A 54-year-old man from near Orangeville was killed instantly on the QEW in 2009 when a piece of scrap metal, about the size of a licence plate but almost an inch thick, smashed through the windshield of his Oldsmobile and struck him on the head."

When large numbers of vehicles use a roadway it is possible for events to occur simply by chance. Now and then a series of events occur in close proximity to each other and we start to believe there is some kind of pattern or trend. Gamblers get caught up in this belief.

But the driving public should not be left to guessing at what is a trend or what is a series of chance events, particularly when there are deaths involved. There has to be a clear explanation of how many events on the QEW involve debris that has fallen on the highway, how often debris has been struck, or how often debris has caused a collision. If this is more than just pure luck and coincidence then something needs to be done to ensure that debris and cargo is secured when transported on such a busy freeway as the QEW. But simply reporting the occurrence and then moving on to the next news of the day helps no one.

October 15, 2012

Three Teenagers Killed Near Orangeville Ontario

Three out of four occupants of a Mazda passenger car are dead following a collision with a tree on 2nd Line north of Dufferin County Road 109. Dead are Melanie Olien, 14, Bradley Brooks, 17, and Brody Ferenczi, 17, all apparently from the Orangeville area. The collision occurred on Saturday, October 13, 2012 at approximately 1910 hours. Police indicated that the vehicle slid sideways into the tree. Police also reportedly indicated that they were waiting for data from the Mazda to determine "...speed and other factors that may have caused the crash..." (Toronto Star Newspaper).

"Waiting for data" from the Mazda would imply that police will be downloading the data from an event data recorder ("Black Box") of the vehicle. The event data from Mazdas has not been downloadable in the past but we are now approaching the time limit (2013) where all manufacturers will have to comply with NHTSA (Transport Canada?) rulings requiring such data to be accessible via a tool such as the Crash Data Retrieval (CDR) kit. So if the Mazda data is accessible then it would have to mean that the involved vehicle was a relatively new manufactured model. The other option is that police could go directly to the manufacturer to request the download but that could take months to accomplish.

An examination of 2nd Line via Google Maps indicates that this north/south road is lined with evergreen trees on its west side commencing from its T-intersection with Dufferin County Road 109. The road has a hard surface, likely tar and chip, that turns into a gravel surface a few hundred metres north of the intersection. There are also no gravel shoulders suggesting that the road would be rather narrow. It was also reported that it was raining at the time of the crash.

This combination of facts should cause investigators to do more than just estimate the speed of the vehicle. They should also be looking at how the vehicle might be affected by the road conditions. Since the vehicle was in a state of loss-of-control before the crash it should be determined why the loss of control occurred on this relatively straight road. If this was a tar and chip surface then there is more likely to be numerous depressions where water could come to rest on the road. There could be changing side-slopes of the surface. There could be differences in the surface composition of tar and aggregate. All these things could be documented through testing at the accident site.

This is a clear example where the procedures we have been testing recently at Gorski Consulting could benefit such an investigation. We have instrumented our vehicle with a variety of cameras, a steering wheel protractor and an iPhone accelerometer and we have been running tests at various sites around London, Ontario to evaluate our procedures. It is of particular interest that the latest forms of iPhone contain gyros that could enable documentation, not only the accelerations on the test vehicle, but also the change in direction of the vehicle in three dimensions (x,y,z) and the rate at which those changes occur over time. If such data collection proves reasonably reliable it could provide a very useful and cost-effective tool for studying the interaction between test vehicles and the roads on which they travel.

Unfortunatly, police have never conducted such studies in the past and it is doubtful that such procedures would be carried out for this present collision, regardless of the importance of such procedures.

October 14, 2012

Archived News Transferred Out Of Gorski Consulting "News" Page And Onto Separate "Archived News" Page

As visitors may be aware, the news page of Gorski Consulting was becoming too long in recent months and we recently tried to separate the older postings into a separate Archived News section on this page. This appeared to have problems as search engines were not reaching those old items. We therefore attempted to place those old news items in a separate "ARCHIVED NEWS" page. After several days of running this new page it appears that search engines will reach it properly and therefore we have decided to leave it as a permanent page. As this news page becomes longer we will be regularly shifting the older items to that Archived News page.

General Facts Regarding Reported Racing Charges Against Wellington County OPP Constable Seem Incorrect

Probationary Constable Ellision Catuira of the Wellington County OPP Detachment was reportedly charged under the "Racing" offense following a collision that reportedly occurred around 0100 hours on October 5th, 2012. The collision reportedly occurred as the Constable was responding to a call in Mount Forest and he "failed to negotiate a turn onto Industrial Drive and ran off the roadway and drove into a wooded area".

Industrial Drive terminates at a T-intersection with the main road of Highway 6 in Mount Forest. Given the description the Constable would have to be travelling on Highway 6 in order to attempt to "negotiate a turn" onto Industrial Drive. Given the built up area it would be reasonable that the speed limit would not be more than 60 km/h. The "Racing" charge as we are aware if it, is applied when a driver travels 50 km/h or more above the posted speed limit. Thus the Constable would have to be travelling about 110 km/h or more in order to activate the charge. It does not make sense that anyone would approach a 90 degree turn while travelling anywhere near that speed. Also, whether the turn was to the right or left, there is no "wooded" area nearby that the Constable's cruiser could have entered if such a turn was attempted. It can be noted that the Wellington County OPP detachment is only about 100 metres from this intersection so this is a further peculiarity. While most collisions are reported within a day of their occurrence there was no news of this crash until October 12th, or about a week after its occurrence.

So the reported facts do not appear to make much sense, while there are peculiarities about the incident that would make anyone reading the news wonder what actually occurred. These kinds of reports do not do well toward placing police in a good light. As

it is commonly said, not only should justice be done, but it should be seen to be done. Well, this also applies to police activities. Not only should their actions be of a higher standard, but they should be seen as being of a higher standard. That means that any communications of their actions to the public should be honest, straightforward and clear.

Median Cross-Over Fatality on Highway 403 West of Brantford

The female driver of a Toyota passenger care was killed when her westbound vehicle crossed the median of Highway 403 near Oak Park Road and slid, with her driver's side, into the front end of an eastbound Pontiac Vibe. The Toyota subsequently rolled over onto its roof. The collision reportedly occurred at approximately 1715 hours on October 13, 2012. The identity of the deceased has not been released until next of kin are notified.

UPDATE: OCTOBER 15, 2012; 1050 HOURS

The fatally-injured driver in this accident has been identified as Maureen Beamish, 59, of London, Ontario.

October 12, 2012

Counterfeit Air Bags - A Genuine Free Enterprise Nightmare

NHTSA has released a September 12, 2012 video showing how a counterfeit air bag exploded during one of their tests. The video has been used to demonstrate the danger that such bags pose to the general public. NHTSA reported that in 10 of their 11 tests counterfeit air bags "didn't inflate or failed to inflate properly". Such bags have been installed on a large number of vehicle models sold in North America in the last three years by repair shops that are independent of the manufacturers. NHTSA estimates there could be about 250,000 vehicles on the road which have access to the counterfeit bags. NHTSA report that they have had no reports of any deaths or injuries so far that can be related to the counterfeit bags.

Since the problem is not a manufacturer's defect vehicle owners will be asked to voluntarily bring their vehicles to a manufacturer's dealership where a comprehensive examination will take place for a cost of about \$100 to \$200. If air bags are found to be counterfeit then their replacement costs could be about \$700 to \$1000 per bag. Many new vehicles contain multiple air bags.

It would appear that much of the problem relates to the cost of replacement of air bags which results in enterprising individuals believing that quick money can be made by selling counterfeits. Police and customs officials will spend considerable time and expense controlling these enterprises.

It is not clear how NHTSA and the manufacturers expect consumers will respond to their requests that a potentially expensive examination of their vehicles needs to be carried out at the consumer`s expense.

October 11, 2012

Farm Vehicles Have A Way Of Creating Their Own Road-Weather Conditions

You never know when events can change unexpectedly. Imagine you are travelling along a highway and see a farm vehicle approaching from the other direction as shown in the photo below.



You're minding your own business when you see a farm vehicle approaching from the opposite direction

As the farm vehicle gets closer you observe that it appears to be riding partially on the gravel shoulder, as shown in the photo below.



The approaching farm vehicle is riding partly on the gravel shoulder.

You then realize that you really can't see anything behind it, as shown in the photo below.



Dust forms like a cloud behind the farm vehicle.

And you can't tell what's ahead of you. But drivers following behind the farm vehicle are also blinded. This is a good time to be alert for impatient drivers who decide to pass even though they cannot see - and you will be the recipient of that misjudgment.



Blinded and impatient drivers could enter into your lane.

Loss-of Control on Highway 401 Exit Ramp - A Lucky Result

While collisions are almost always tragic, there are exceptions where the mild results can be termed "lucky" due to the potential of more serious consequences that were averted. Such is the topic of our latest article regarding a loss-of-control event that occurred on the exit ramp of Highway 401 at Wellington Road in London, Ontario. Visit our Articles page and click on the link to read the full article.

Article Completed & Posted Regarding Fatal Collision on Road 88 in Zorra Township, Oxford County

We have just posted our completed article regarding the fatal collision involving Leonard Bader of October 8th, 2012 on Zorra Township Road 88, in Oxford County. You read that article by visiting the Articles webpage and clicking on the associated link.

October 10, 2012

Article on Fatal Collision of October 8th, 2012 Involving Leonard Bader Has Been Uploaded on Articles Page

We have just posted a partially complete article on the Articles webpage dealing with the evidence found at the site of the fatal collision on Road 88 in Zorra Township involving the death of Leonard Bader. The article will be completed shortly and will be re-posted at that time.

Continued Research at Seven S-Curves on Adelaide

In our continued series of articles discussing testing on seven S-curves on Adelaide Street, north of London, Ontario, Canada, we have now uploaded the fourth article, Part 4, on our Articles webpage. This latest article discusses the results from 4 runs that were completed through the curves. We specifically focus on the differences between Curve 3 and Curve 4 because this is the transition between the well-designed curves and the less desirable characteristics in the remaining four curves. We also provide some data for steering wheel inputs obtained from videotaping a large protractor that was attached to the steering hub of the test vehicle.

October 9, 2012

Two-Vehicle Fatal Collision In Zorra Township South of Brooksdale, Ontario

Yesterday evening, Monday, October 8th, 2012, at approximately 2030 hours it was reported that a westbound vehicle went out of control and struck and eastbound vehicle on Road 88, just east of Oxford County Road 6. This site is located just south of Brooksdale, which is approximately halfway between the cities of Stratford and Woodstock in South-Western Ontario, Canada.

The photo below is looking westward along Road 88, taken from approximately 300 metres east of the area of impact. The westbound vehicle travelled onto the right (north) gravel shoulder a short distance beyond the bridge shown in this view. Then it crossed the road and its left side wheels travelled on the south gravel shoulder. It then re-entered the road while travelling sideways, leading with its left side, and was struck by an eastbound vehicle.



View, looking west along Road 88 from approximately 300 metres east of the area of impact. The point of impact was located approximately 225 metres west of the west end of the bridge seen in this photo.

If you look closely at the above photo you might be able to see a person standing on the south shoulder in the far background. That person is then shown again in the next photo shown below. This gives you a perspective of the distance involved.

The photo below shows the tire mark on the north gravel shoulder where the vehicle first left the road.



View, looking west, along Road 88. The finger is pointing to a tire mark on the right (north) shoulder where the vehicle initially left the road surface.

The photo below shows the tire mark on the south shoulder where the vehicle entered and then exited, returning to the road surface where the impact occurred.



View, looking west along Road 88. The orange cones show the path of a tire mark on the south shoulder where the westbound vehicle entered and then returned to the road where the impact occurred.

The photo below shows the view on Road 88 looking east from just west of the area of impact. No information is available at this time regarding the identity of the persons involved in this crash. If time permits we hope to upload an article on the Articles webpage shortly, outlining the details of our findings examining the site.



View, looking east along Road 88, from just west of the area of impact. the curve and pre-crash tire marks on the shoulders are located in the background.

UPDATE: October 10, 2012; 1440 Hours

Although the London CTV News television program identified the driver involved in this collision on their nightly news on October 9th, neither the Stratford nor Woodstock newspapers provided any articles on the incident.

The only newspaper article identifying the driver was written by Ron Thomson of the Ingersoll Sentinel-Review. That article reported that Leonard Bader, 45, of Ingersoll was the deceased driver of the westbound SUV that travelled onto the shoulders of the road and then slid sideways into the path of an eastbound mini van. We are preparing an article on our examination of the site and this will be posted on the Articles webpage shortly.

October 5, 2012

City of Guelph & Wellington County Found 100% at Fault For Icy Road in \$2,000,000.00 Civil Claim

In June, 2012 the judgment of Justice Mossip in the civil case of Mark v. Corporation (City of Guelph), was released with the effect that the two defendants, the City of Guelph and the County of Wellington were found 100% at fault for the icy road conditions that led to a February 5th, 2003 collision on Gordon Street just south of Guelph. Some facts reported at trial were likely in error while in other instances those facts surrounding the defendants' operations were damaging to their defence. We provide our own insight into the judgment in our article found on the Articles webpage of this website.

October 3, 2012

Honda Civic Driver Dies in Tree Impact in Fullarton, Ontario - A Review of the Physical Evidence at the Site

Jody Williams, 41, was driving a Honda Civic westbound on Perth County Road 20, just east of Fullarton Ontario on Friday, September 28, 2012, when her vehicle rounded a curve, the vehicle went out-of-control, and collided with a tree. The pre-impact travel of her vehicle onto a gravel shoulder has resulted in our evaluation whether this was one of the factors that influenced the crash. You can read our article discussing this issue in the Articles webpage of this website.



View of struck tree in Fullarton Ontario where a Honda Civic Driver sustained fatal injuries