
Aspects of road safety in Australia

The following opinions are based on my 37 years of licensed driving, a background in vehicle servicing and preparation, and an interest in all things motoring.

During this time, I have had one insurance claim for vehicle damage, and that was due to animal strike.

I have had close family and friends involved in vehicle crashes, with critical injuries and death resulting. As a result, I advocate driver training and licensing changes, and vehicle roadworthiness and maintenance requirements as focus points.

Over the years, there has been a single minded drive to enforce speed limitations. In my 37 years, this is still the major focus by governments, and still the single most discussed driving issue. Arguments for both sides have not changed. And for reasons discussed here, never will. There is so much more that can be done if there is a will, it appears, however, that our leaders and safety advisers are unable, or unwilling, to forego revenues and advise options that will change behaviours.

Thank You.

A. THE SOCIAL AND ECONOMIC COST OF ROAD-RELATED INJURY AND DEATH;

Not qualified to comment.

b. THE IMPORTANCE OF DESIGN STANDARDS ON IMPORTED VEHICLES, AS AUSTRALIAN VEHICLE MANUFACTURING WINDS DOWN;

With the redundancy of local manufacture, and the modest car market in Australia, we should adopt a single design standard already in place.

The European market is relatively large, and uses vehicle designs that relate to their road systems. In general, our road systems are comparable.

Although a right hand drive market, new economies of scale for RHD markets will allow for models and technologies currently unavailable, to become cost competitive in this market.

Due to the relatively higher sustained speeds in Europe, their vehicle designs are enhanced for occupant protection, and their standard of design reflects this.

All vehicles destined for Australian consumption should meet the EU standard, and this standard should supersede the current Australian standards.

This allows all manufactures to meet a well proven and cost competitive standard, and not have to incur single element design and engineering for a small market. It also allows for faster filter down of technologies into the national vehicle fleet, providing enhanced safety and economies.

c. THE IMPACT OF NEW TECHNOLOGIES AND ADVANCEMENTS IN UNDERSTANDING OF VEHICLE DESIGN AND ROAD SAFETY;

It has always been incumbent on vehicle manufactures to meet design standards as a minimum. Virtually all major manufactures briefs, is to exceed the set standards.

The development and evolution of technologies in place, and under development now, supports this.

Where location specific requirements are observed, this can be identified to the relevant design standard organisation for input into design standard revisions.

Where advancements in technology enhance vehicle safety or economy, and are able to be incorporated at little cost to the consumer, manufactures will be able to incorporate the enhancements without further local development cost, and so delay bringing these enhancements to the Australian market.

Where non vehicle technologies become mainstream (phones, computing devices, GPS etc...) that may impact on driver actions, these technologies should not be referred only to legislation for punitive regulation (fines under the traffic act), but also collaborative effort with the design standard and manufacturers for assisted incorporation into vehicle systems.

d. THE DIFFERENT CONSIDERATIONS AFFECTING ROAD SAFETY IN URBAN, REGIONAL AND RURAL AREAS;

Urban:

- Close incorporation of local government and urban developers to “design in” separation of traffic in new suburbs, and/or street scape/shopping precinct redevelopments.
- Pedestrian pathways should be separated from road ways by means of a grassed or suitable verge of not less than 2m.
- Bike lanes should not be incorporated into road networks with a 60kph or over prevailing limit.
- Buildings located close to off cambered corners, including round-a-bouts, should be protected by solid barriers, however, road and urban design should consider road camber and road height relative to structures along the road network to ensure vehicle “run off” is contained within the road system. (i.e. separation by means of catch areas that will slow vehicles before impact, and / or road camber that assists vehicles negotiate road structures.)
- Council must be instructed to maintain line of site for vehicles on road ways. i.e. vegetation overhangs must be trimmed to ensure vehicles entering/leaving roadways, are not vision impaired.
- Road design should consider human factor observations where the 85 percentile driver will drive at a speed commensurate with the prevailing road design and conditions. i.e if a dual carriage way is available that has clear view and open surroundings, 85% of drivers would travel at xxxkph. If it is deemed the area requires some limit below the 85%, then road design should be such that the 85% of drivers will conform without resort to punitive actions.
- Road side ‘furniture’ should be limited., and have a defined minimum distance from the road shoulder to offer adequate vehicle recovery time.
- School “zones” should be designed out of the road system. Pick up/drop off points for private vehicles and buses, should be relocated to within the school grounds. Pedestrian and cycle access should be by over / underpass accesses. These should be designed into new developments, and proposed for existing locations.
- ALL variable limits including but not limited to a school zone, must be electronically activated and clearly visible as being in use.



Regional:

- As per all things urban for regional towns.
- Regional roads appear to have less funding available for building or maintenance, and this provides regional users to be exposed to higher risk than the urban counterparts. Regional councils must be funded appropriately to maintain proper infrastructure to reduce risk.
- Regional road surfaces and repairs tend to be 'coarse chip'. This surfacing breaks down easily and provides high risk environment due to windscreen damage, regardless of the prevailing speed restrictions. The road making of this style of road also leaves loose material for long periods that causes vehicle damage and poses risk to users.

Although this road surface is reflective of budget allocations, the follow on costs and exposure to risk for users outweighs apparent savings.

- With the large number of 'open' limit roads, road side 'furniture' in the form of 'white post' pose a safety risk for users. These posts should be (and some are) now replaced by a vehicle friendly design that allows the post to fold over, without impaling the vehicle. Other roadside 'obstacles', read trees, should be cleared from the road side. This pic illustrates poor road design, with trees and signage on the outside of a curve directly in the run off for vehicles.

Obviously, signage should be on a straight stretch not in a curve, as the information can distract.



Remote:



- Remote roads offer a number of variations, from dirt tracks to open and flat, well surfaced highways. Interestingly all can be driven at the prevailing state speed limit. However, driver discretion is accepted for speeds below the limit on dirt roads and tracks.
- Fatigue is a major factor in crash statistics for remote locations. Arguably, a large percentage of fatigue related crashes are caused by the 'low' open road limit applicable on major roads in the area.
- Road trains frequent these areas, and can and do travel at the 100k limit imposed. However, the maximum speed for all vehicles not otherwise restricted, is 110kph nationally with the exception of the Northern Territory.

To overtake a 50m road train within the applicable limits, requires a clear vision length of 2.5km and a "travel on wrong side of the road" distance of 1.5km. This translates into approx. 45 secs.

The laws states that to exceed the speed limit, even when overtaking, is an infringement. However, the risk to complete an overtaking operation is the shortest exposure time, is of less risk than maintaining the applicable limit on the wrong side of the road for distances and time listed.

The NT has a prevailing 130kph limit...this reduces the overtaking time as above by 2/3rd. The rate of fatigue related crashes is also lower than other remote locations.

Remote open limits should be raised to 130kph for light vehicles. This is in line with the current and previous NT remote road limits.

- A large percentage of remote crashes are alcohol and / or seatbelt related. A large number of vehicles are also unroadworthy. Although 'suitable' for 'offroad' / bush track use, they should be restricted to that use only.
- Remote licensing lacks the infrastructure and competency demonstrations required in other regions. This should require a new category of license with applicable identification plates on vehicles, and driver restrictions accordingly. (eg an "R" plate for restricted / remote license).
- Where livestock is pastured near or along any road way, especially regional and remote locations, the lease owner of the land and livestock must be held liable to maintain fencing and livestock separation from roadways.

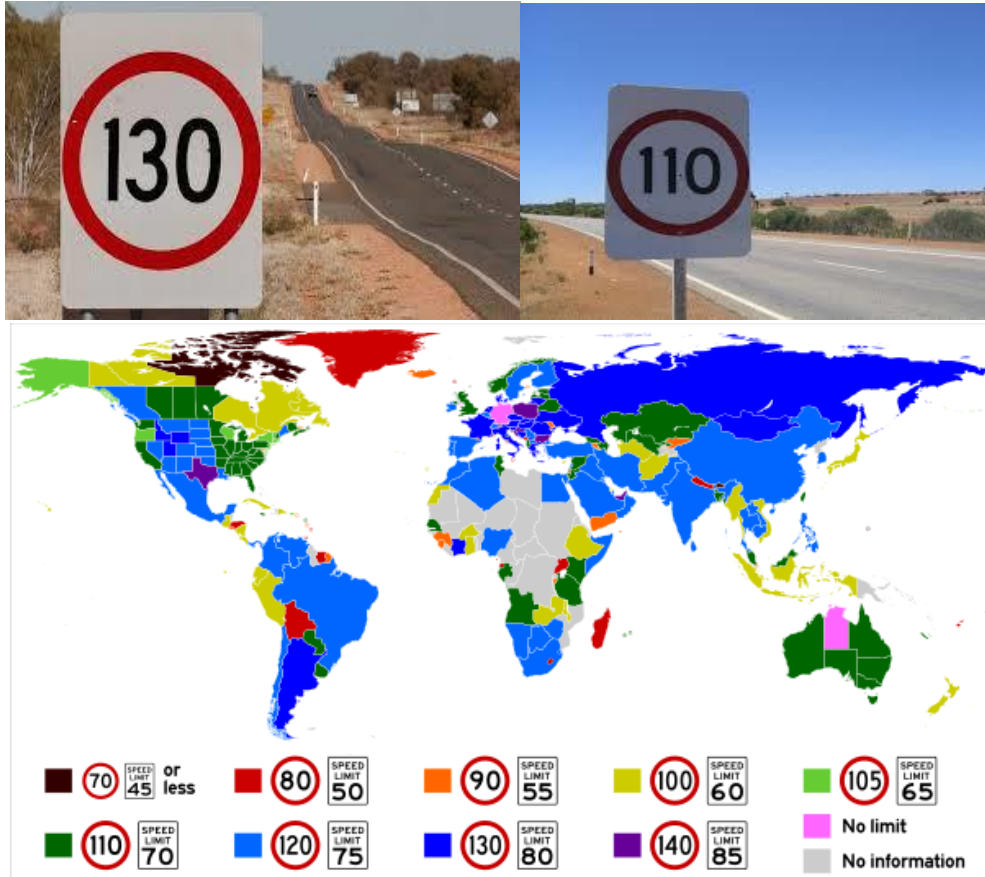
Where injury is sustained due to roaming livestock, the lease owner remains liable for all injuries and damages.

No longer is a sign..."cattle next 500k" acceptable.



e. OTHER ASSOCIATED MATTERS.

- Open road speed limits should be reviewed. The review should centre on the 85 percentile rule for limit setting, and not look at, or limit to, a single and universal number. The ability of a licensed driver to determine the proper speed for the prevailing conditions should be recognised, as should the association of inappropriate limit adherence with excess fatigue. Also, inclusive, is national vehicle fleet age and prevailing availability of technologies. This will recognise safety system enhancements when setting proper and appropriate limits.



- Government budgets should not include projected income figures for traffic offences from any electronic devices.
- Any and all revenue from electronic detection should be provided to the relevant states' health care system with no prejudice to the commonwealth funding. This should ensure provision of emergency beds and staff for all accident and emergency types regardless of cause.
- All states and territories should develop, or adopt, a universal roadworthiness requirement for all vehicles. This requirement should be aligned with a registration renewal or within a 2 month period before or after re-registration. As most current vehicles have a 12 month servicing schedule, the cost could be incorporated into the annual servicing requirement. It should not be a limitation at the transfer of registration only.
- All states and territories must provide "no-fault" accident insurance.
- All license holders must be re-tested for competency at regular intervals. Re-testing should include advanced driver techniques.
- All learner driver licensing should include advanced training in emergency recovery/braking techniques.

- Learner driver licensing requirements should be enhanced to include initial tuition on closed roads, under advanced driver tuition provider supervision, until meeting satisfactory standards (not minimum standards). Only then should supervision be available to other fully licensed persons, and even then, the supervision time should be restricted unless the supervisor has also been deemed competent under the prevailing advanced driver curriculum.
- With acknowledgement of various cultural requirements and social and locale restrictions, ALL road users should be exposed to the same licensing requirements. This will offer all users enhancements to their skills...remote drivers will have exposure to urban driving factors, and urban drivers will have exposure to non-paved road conditions and associated factors.
- All drivers should be trained in towing techniques as part of the licensing requirement as outlined above.
- A new licensing category should be developed for drivers of light vehicle who need or wish to tow floats or vans/boats etc over a prescribed weight (e.g > 2tonne??).
- ALL vehicles, regardless of age, should be required to have an automatic "lights on" function. This will reduce the likelihood of vehicles not being "seen" during dusk / dawn or low visibility weather conditions.
- The restriction on the use of 'fog' lamps should be repealed. It is confusing and, in WA at least, is functionally in conflict with other lighting laws. (...can only be used in weather extremes with poor visibility...but cannot be used in conjunction with main (low) beam????
- Road works speed limits in place for worker protection, should only be valid for the work period.
- All new mobile communications devices...phones...must be sold with a compatible blue-tooth device for in vehicle installation. Blue tooth detection should defeat the text send and receive function of the device.

Summary

Road safety and the “Towards Zero” campaign is not, and cannot, be a single focus campaign.

The current strategy being employed that targets:

1. “Speed” (definition required)
2. Fatigue.(definition required)
3. Drink/ drug driving
4. Technology use (phones).

has, however, brought about a single focus on what a camera can capture, and of the primary targets listed, only ½ of those targets can be captured.

Within all industries, there is a solid and defined focus on training and competency. There is no single industry or service group that does not require proper and intense training for their operations, and further, requires competency reassessments at regular intervals. Yet, in the world of automotive regulation, there is no requirement at all for any re-assessment on a ‘licensed’ light vehicle driver.

Even the most laissez-faire government controls would identify the yawning gap between expected delivery and outcome.

If government and safety experts are true to their agenda of ‘towards zero’, they must challenge their current focus.

The statistics have plateaued. There is very limited return in real terms (lives saved) from the current reliance on ‘speed’ detection by electronic means, if indeed it ever existed.

When governments list the likely revenue from detection devices into their budgetary outcomes, and then sub contract to private enterprise, (who’s only KPI is the number of infringements issued) the delivery of those budget numbers, the realist/cynic/public could only ever conclude that the focus is geared directly toward revenue and not at all toward realising safe outcomes for users.

Some focus must be put on pedestrian and bike users. With separation of users (an engineered solution) required. High mass vehicles at speed maintain high energy forces, and the momentum is not rapidly dissipated by braking forces. It is not helpful to decree the motorist must travel at a speed to stop, when pedestrian and bike traffic is unpredictable and not regulated or accountable.

Road design and construct, must be appropriately funded. The cost of poor surfacing and design is not only an impost directly on the user, but also transfer to consumers of goods and services required to travel on the system.

Building of ‘high’ speed multi-lane road systems are only ever as good as the feeder roads at each end. Arguably, councils and states, and federal funding allocations are often out of sync leading to poor outcomes for the users, and high costs to the communities. Additionally, poor road systems lead to traffic flow issues that compound the accident opportunities.

Vehicle manufacturers are very protective of their public image, and guard their business name and reputation strongly. However, all products are built to a market point, and low end products must be able to meet basic safety parameters.

Fortunately, major world markets share a basic determination for vehicle occupancy protections. This ensures major vehicle manufactures supply to market products that meet or exceed injury mitigation, crash avoidance technologies and occupancy protection.

The danger is new to market manufactures, notably from China and India, who are starting to export their product, but are not yet applying good engineering practises to their products. The focus is to provide a cheap product to entice entry level purchasers. Often the 1st car buyer, or a purchase for “shopping” duties, is credited with not requiring high end design and engineering. This market tend to have little interest in vehicle operation and buy as a ‘grudge’ purchase rather than a want.

It’s this market segment that is at high risk.

There is little knowledge of the product, no desire for the product, and little care of the product. This eventuates in vehicle degradation, which adds to lower driver care or ability in skill application.

Unfortunately, this market set are generally forced into outer suburbs, or areas with poor or no public transport options.

In regional and remote locations, purchasers tend to step into the used market to purchase on a budget and can be also left with substandard protection through aged design and redundant or failing technology.

These failures can be mitigated by the requirement for annual roadworthy checks and servicing.