### MOTORCYCLE SAFETY IN NSW

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From: David Tynan [ Sent: Wednesday, 9 September 2015 1:51 PM To: StaySafe Cc: Subject: Submission to the inquiry on motorcycle safety

I have tried to open your web page for lodging a submission on-line and unfortunately it would not display. I hope you will accept the submission via this email.

The Survive The Ride Association of NSW (STRA NSW) is a volunteer group. We have been actively researching, supporting and promoting rider safety since 2007. We discuss rider safety with hundreds of riders each year and provide information to many more riders via our website <u>www.survivetheride.org</u>.

Our submission to the Staysafe Committee Inquiry into motorcycle safety is attached. We have addressed the terms of reference A, B, C & E.

Thank you for conducting this inquiry. We look forward to reviewing the outcomes.

David Tynan Secretary STRA NSW

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#### Submission to the StaySafe Committee September 9 2015

Author - David Tynan, Secretary and Treasurer On behalf of the President, Stephan Henderson, and Public Officer, Milan Letunica.

The terms of reference for the Committee are:

That the Committee inquire into and report on motorcycle safety in New South Wales with particular reference to:

- a) Trends of motorcycle usage, injury and fatality in NSW;
- b) Crash and injury risk factors including rider (and driver) behaviour, conspicuity and vehicle instability;
- c) The effectiveness of the current action plan to enhance motorcycle safety including communications and education campaigns, road environment improvements, regulation of safety equipment and gear;
- d) Strategies of other jurisdictions to improve motorcycle safety;
- e) Licensing and rider training; and
- f) Any other related matters.

#### A - Trends of motorcycle usage, injury and fatality in NSW;

STRA NSW provided a submission to the 2010 Inquiry into Vulnerable Road Users. Many of the issues, data and conclusions discussed in that submission are still valid. We acknowledge that other submissions to the Inquiry will describe the latest available crash data in some detail.

Our most recent analysis of crash data was conducted in January 2013 using the 2011 RMS Powered Two Wheelers (PTW) (motorcycles and scooters) crash statistics. The key results included:

In 2011 there were 483,662 current PTW rider licences. A total of 2,772 PTW riders were involved in crashes in 2011:

- The rider was at fault in 54% of all crashes (1,725 out of 2,756 crashes).
- The rider was at fault in 65% of crashes where we were injured and 80% of crashes where a rider was killed
- Nearly half (44%) of all PTW crashes were reported as single vehicle.
- In 40% of all PTW crashes (1,114 crashes) the rider simply lost control of their machine
- A total of 47 riders and 4 pillion passengers were killed.
- Another 2,420 riders and 101 pillion passengers were injured.
- Riders were at fault in crashes that injured 36 pedestrians and 7 pedal cycle riders.
- Riders were at fault in the death of 2 pedestrians.
- 76% of crashes (2,104) involving a PTW occurred in a residential or urban area with a speed limit up to 70 kph. In these crashes 56% of all crashes with other vehicles were the fault of the PTW rider
- In 80-110 kph speed zones 85% of PTW crashes were caused by the rider.

A brief review of more recent data in the Sydney metropolitan area suggests the above findings from 2011 remain valid in the 2013-2014 data.

RMS data shows 61 fatalities for PTW during the 12 months up to the end of July 2015. During the 10 years to 2014, there was an average of 62 PTW fatalities each year in NSW (low of 55 in 2008 and a high of 71in 2013). It is interesting to note in the 10 years to 2005 there was an average of 58 PTW fatalities each year. This demonstrates a very stable track record for PTW fatalities.

In addition, RMS data shows this stable crash record has been maintained over the past 10 years while the number of registered PTWs has risen from 111,575 in the 1<sup>st</sup> quarter of 2005 to 216,354 in the 1<sup>st</sup> quarter of 2015. Therefore, it is our contention that this result demonstrates a significant improvement in rider performance.

This significant improvement in rider performance is due to a combination of numerous factors. Advances in rider and driver education, Police enforcement, road maintenance, protective clothing and vehicle technology have all contributed to the gradual improvement in both driver and rider performance.

Using the statistics to describe the "relative risk" of one road user group compared to another and then label user groups as "vulnerable" is quite misleading in that:

- It is based on the "deficiency model" which accounts for only a very small number of instances where an error resulted in a crash, and,
- It assumes our potential for error (human nature) is defined by our road user classification, and,
- It implies that we do not manage those errors.

The stability of PTW fatality trends since 1996 despite massive changes in the number of PTW riders suggests that PTW riders are not the "vulnerable road users" or "high risk" road users described in government policy.

A UK report describes how crash statistics that create good headlines can mislead policy makers. Using historical crash records they estimate motorcycle riders are 300 times more likely to be killed in a crash than if they were in a bus or a coach. (*Plains, trains and automobiles, the reality of transport risk.* The Conversation, 1/8/2013, Roderick Smith Professor, Faculty of Engineering at the Imperial College London).

Coaches and buses produce 0.3 fatalities per billion passenger kilometres of travel, cars are nearly ten times more dangerous than this, walking and cycling 100 times and motorcycles more than 300 times.

... even for motorcycles, relatively the riskiest mode of transport, the absolute risk that of 98 fatalities per billion passenger kilometres travelled means that we need to go about 10,000,000 km on average to have a fatal accident.

Research by Blacktown City Council shows the likelihood of being killed in a crash for the average vehicle driver in western Sydney is 1 in every 32 million trips (Blacktown City Council Strategic Plan 2014-2020). Statistically speaking, this means that for each motor vehicle trip in western Sydney today there is a 0.000003% chance of someone being killed in a crash (driver, passenger, pedal cyclist, pedestrian or PTW).

Be that as it may, PTW riders do indeed sustain more fatalities in a crash simply because their vehicle is inherently less stable when one of the two wheels stops rotating. In addition, with less mechanical protection – no crumple zones, air bags, seat belts, etc. - the rider is far more likely to be seriously injured or killed.

Using Australian Bureau of Statistics (ABS), NSW Bureau of Transport and TfNSW data, we calculate that if every registered motorcycle completes 2 trips per week and every registered scooter completes 6 trips per week, at the current rate, there will be only 2-3 fatalities for every one million PTW trips in NSW.

While riders of the many types of PTWs may be 50, 100 or 300 times more likely to be killed in a road crash than a bus passenger, the "absolute risk" of being involved in a fatal PTW crash is still extraordinarily small and it overlooks the fact that the vast majority of riders are already very safe and take an active interest in their ongoing safety on the road.

#### Recommendation

The significant improvement in rider and driver performance needs to be publicly acknowledged. In addition, it is a well known principle in marketing that positive reinforcement for the desired behaviour is significantly more cost effective in generating further improvements than highlighting the rare undesired outcome.

## B - Crash and injury risk factors including rider (and driver) behaviour, conspicuity and vehicle instability

Riders know they take risks when they ride. They also know they take risks when they cross the road as a pedestrian and when they walk too fast down a flight of stairs. In many cases the same factors are the causes of the risks taken in each of these situations.

One primary difficulty that rider groups, government agencies and the PTW industry have in trying to achieve incremental improvements is that we do not know which crashes cause the serious injuries and which crashes cause only minor injuries. As a result we do not know which types of rare crash should have the highest priority.

Lack of access to this key data has been highlighted over the past 10 years by industry and rider groups and STRA NSW in national and state forums.

There are many human factors to consider that involve just the PTW rider. It should be noted that many of these factors are shared with drivers of passenger vehicles and are the result of a momentary loss of concentration and not a serious or long term deficiency. For example:

- The rider "freezes" instead of riding out of the situation such as wet weather, riding with a group, cornering and managing traffic.
- Lack of anticipation and awareness of upcoming hazards.
- Poor riding posture resulting in incorrect and unintentional steering, braking and/or throttle inputs.
- Inappropriate choice of speed, particularly on corners.
- Failure to abide by the road rules.

Human factors that involve other vehicle drivers (who are at fault in up to 70% of some PTW crash types) include:

- Driver distraction with electronic devices including mobile phones, navigation systems and sound systems.
- Loss of peripheral vision due to being conditioned to driving in traffic. Drivers are conscious of only the tail-lights of the car in front.
- Failure to abide by the road rules when changing lanes, etc.
- Failure to see the oncoming motorcycle when turning across traffic.
- Failure to judge the speed of the oncoming motorcycle.

Improvements in vehicle technology have assisted riders to overcome many of the above mistakes/failures and avoid a crash. Advances such as cruise control, traction control, ABS, heated seats, compliant suspension, high grip tyres, etc have created very comfortable and capable PTWs.

However, despite the advances in machinery the road conditions continue to have a significant influence on whether or not the PTW remains upright. Design and maintenance engineers would benefit from learning about the effect of road features that have a unique effect on the control of a PTW. Designing and maintaining roads to accommodate the reduced grip of a PTWs would improve the conditions for all vehicles particularly in residential areas and rural local roads.

#### Recommendation

Road authorities undertake specific projects that utilise the design and maintenance of existing roads to suit narrow tyred PTWs.

# Item C - The effectiveness of the current action plan to enhance motorcycle safety including communications and education campaigns, road environment improvements, regulation of safety equipment and gear

The current government and Transport for NSW should be congratulated on their efforts to overcome the strained relationships that existed between the RTA and PTW groups and riders at the time of the 2010 Staysafe Enquiry.

While several issues of significance still concern PTW riders that we talk to, the current motorcycle safety strategy is an example of the results that can be achieved with a more inclusive and collaborative approach from government policy makers.

#### Recommendation

Maintain and enhance the consultation between TfNSW policy makers and PTW riders through regular briefings, policy development workshops and collaborative projects.

#### Item E - Licensing and rider training;

A key factor in a PTW rider's capability is their level of confidence that their machine will do as instructed and respond in an emergency. The current Motorcycle Rider Training Scheme fulfils this requirement very well for many new and returning riders. However, there are still some gaps in providing the scheme to some rural areas.

Many riders with limited experience, particularly in rural areas, ask us for additional one-on-one and small group practical tuition to assist them to gain confidence on the road. We refer these riders to rider training companies and to riding groups that have demonstrated they provide both moral support and skill development aimed at the rider's capability. Unfortunately, many of the companies and groups do not operate in the rural areas or there services are limited to specific locations. As a result, country riders in particular need to pay additional travel and accommodation to attend the city based courses.

STRA NSW provides classroom based education in some of the decisions we make when riding. We regularly conduct free rider education workshops at motorcycle dealerships and local government venues around the state. We approach the concept of education and skill development as a "glass half full" exercise. That is, the crash statistics show we are already very good at overcoming our mistakes and avoiding a crash. We send a clear message that riders are already very good at managing the hazards they face on the road.

Our focus is on decision making and encouraging riders to reflect on both their strengths and weaknesses and seek training and education to improve their riding skills. Our messages are focused on helping riders enjoy the ride and make it home safely. Our messages include:

- Speed on the track and cruise on the road it is a lot cheaper and you keep your licence.
- Wear protective gear on for every ride even just to the corner shop.
- Maintain a good following distance eg, 3 second gap to help you see what is up ahead and give you space to respond.
- Scan anticipate and respond to hazards early. It doesn't hurt any less if the crash is not your fault

Our workshops go by the tile "Under the Radar". We include a detailed discussion about how the enforcement technology works and how it is increasingly likely to be caught speeding. Many riders state a desire to learn more from the Police themselves to ensure they have a better understanding of how the legislation is enforced.

Regular high visibility Police enforcement has been proven to be very effective in many areas of road rule compliance (and crime prevention). Road rule enforcement strategies and equipment have kept pace with the improvements in PTWs. As a result, the risk of a rider losing money for a simple mistake has grown significantly over the past 10 years.

Anecdotal reports from riders at popular riding routes and at popular events such as the annual Snowy Ride suggest that the mere presence of Police is sufficient to slow down the vast majority of riders in the area. Stories of riders being caught speeding on the day or the weekend tend to spread quickly via social media and reinforce the belief that the Police might be around the next corner.

RMS data shows that the absolute risk of losing money for a simple mistake on the roads is significant. For example:

- Approximately 20% of P plate drivers and riders have their licence suspended at any one time.
- Approximately 26% of all licence holders have demerits on their licence at any one time.
- Over 650,000 speeding infringements are issued each year.

Be that as it may, mobile speed camera data (RMS) shows that less than 1% of vehicles passing the cameras are caught over the speed limit. Of the vehicles that are caught in residential areas more than 75% are less than 10 km/h over the limit.

#### Recommendation

Extend the Learner and Provisional rider training scheme to include optional, short, on-road courses for riders who need additional support to learn additional skills and gain confidence in applying their skills.

Provide a positive influence on road rule compliance by providing Highway Patrol Police and mobile speed camera operators at various locations on popular riding routes and at motorcycle events with the expressed purpose of educating riders about how speed enforcement technology and intelligence systems work.

#### Conclusion

It must be accepted by policy makers that it is inevitable people will die on NSW roads. It is also inevitable the PTW riders will continue to be over represented in the fatality and injury statistics.

Police and the RMS already have a range of methods to discourage undesired behaviour. In order to continue with the improvements in PTW rider performance, government policy needs to focus on encouraging and reinforcing the desired behaviours which is already being demonstrated by the vast majority of PTW riders.