

ROAD SAFETY COMMITTEE

Inquiry into vehicle safety

Melbourne — 31 March 2008

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Witnesses

Mr S. Strickland, managing director, and
Mr G. Snart, national technical manager, Honda Australia MPE Pty Ltd.

The CHAIR — All evidence taken at this hearing is protected by parliamentary privilege as provided by the Constitution Act 1975 and is further subject to the provisions of the Parliamentary Committees Act 2003. Having said that, any comments you make outside the hearing may not be afforded such privilege. We are recording the evidence, as you can see, and will provide a proof version of the Hansard transcript at the earliest opportunity so that you can correct it as appropriate. If we could have your full details, please.

Mr STRICKLAND — Before Greg starts, I want to thank you for the opportunity to present this morning on behalf of Honda. Ray has covered a lot of ground, but when Alex contacted us I thought that perhaps Honda explaining some of the technology and giving you the opportunity to talk to us about technology might be useful. The idea today is to explain the types of technology Honda has developed and fitted to its motorcycles that are safety related. As I said before, motorcycles differ greatly from cars in design, size, weight, engine denomination and technology. Currently Honda sells over 60 different models or types of motorcycles in Australia, ranging from 50 cc kids' bikes and scooters right up to the six-cylinder, 1800 cc Gold Wing.

A lot of our motorcycles are designed for off-road use. Greg can talk about that, but when you talk about ABS the last thing you need on a dirt bike is anti-lock braking, which would probably — not probably, definitely — cause more accidents and grief than what it covers. Today we are going to show you some technology and the complexity of the various systems. I think this is important, because often lay people will say to us, 'Why can't that technology be fitted across the whole motorcycle range?'. That is something we need to explain and probably answer questions on. Away you go, Greg.

Mr SNART — Thank you very much. As Stuart just said, my name is Greg Snart; I am the national technical manager for Honda Australia. I have been in the technical engineering field all of my working life. I have been involved in the motorcycle industry for the last 25 years, including in positions on the vehicle standards advisory committee, being the technical committee that designs and builds the Australian design rules, basically. I have been an avid motorcyclist, as has Stuart, for probably a few more years than I care to admit, and have a very keen interest in engineering and the mechanical development of motorcycles, obviously. If in the presentation I tend to veer off and get a little above anyone's head, please feel free to pull me back. I have allowed a point at the end of the presentation for questions, but obviously if you have questions along the way please feel free to jump in. I also have a couple of film clips in here. One is on the effects of what we call dual combined braking, which I will show you in the presentation. I will have to break out of the presentation briefly for the film clip on the motorcycle airbag.

Overheads shown.

Mr SNART — The main safety technologies that I would like to concentrate on this morning, that have been introduced into the motorcycle industry probably over the last 10 years, include anti-lock brakes — ABS, if you prefer. I guess we all understand how ABS works. It is designed primarily to apply and release the brakes in an emergency or hard-braking situation, or when there is a loss of traction on the wheels. It is very similar to how it works in your car. What it is designed to do, other than to pull the motorcycle up safely, is to also allow the motorcycle rider to maintain some steering control. Once you lock the brakes on a vehicle you lose all control of it: it will go in the direction that it chooses to take. Traction control, or what everyone else is referring to these days as electronic stability control, is a system built into motorcycles, or built into vehicles, primarily to sense a differential in road speed between front and rear wheels. It reacts quickly through an electronic system by, in most cases, retarding the engine timing. That causes what you would normally call a flat spot — a reduction of power of the engine immediately — until such time as the differential in speed between the front and rear wheels comes back into unison. In most cases, such as in the case of a wet white line on the road, an oil patch or a patch of loose gravel, this reaction will be so quick the rider will not even realise what has happened until such as time as the control is returned to him.

The system I referred to just before is a system called dual combined braking. It is a system that Honda developed and employed on its motorcycles, and it is now in its fourth generation of modification and improvement. Dual combined braking is a system designed to work pretty much the same as the braking system on your car. Through a series of hydraulic lines and pressure control valves and a delay valve it will deliver braking to both wheels simultaneously, regardless of which pedal or lever the rider applies. We will go into it a little bit further. I would like to concentrate on the four items in red there. I think everyone understands what ABS and traction control is about. I would like to concentrate on these four, because these are systems basically designed by Honda and integrated into their models, with the interest of rider safety in mind.

The Honda electronic steering damper is a new system that Honda has built into some models. It is a mechanical electric device that is basically designed to slow steering reaction. Under some circumstances on a motorcycle, when you get changes in weight and power delivery — I guess to put it in perspective on a motorcycle, unlike a car, you are trying to deliver in some cases 130 hp through a 50 millimetre wide patch of the rear tyre.

Obviously there is a certain amount of flexing and movement in the swing arm; that has to be transferred somewhere. If you lift the weight off the front wheel, it will transfer up the frame to the steering. The steering damper was designed to slow that and to stop the tendency of the motorcycle to shake its head, also in the case of you hitting some sort of obstacle. Again, we will look at the system and the components required later on.

The rider airbag is a first for motorcycles. Currently it is available only on the Honda Gold Wing. As I said, a bit further in I will show a small film clip to show you the system and how it reacts. And of course there is the fully integrated cruise control system, which is identical to the cruise control system in your car. Again, that works through the electronic components of the motorcycle to maintain the speed at whatever speed it is set at. We will look at that a bit further in.

Mr KOCH — Greg, in the overhead title you ask, ‘What safety technology is already available on Honda motorcycles?’. Is all that available as either optional or standard equipment in Australian sales?

Mr SNART — All with the exception of traction control. We introduced traction control on the ST1100 model in 1995 and ran it through until around 2000, basically because of, I guess, a lack of desire from the market. It was dropped in favour of other technologies.

Mr KOCH — Is it an expensive piece of technology?

Mr SNART — The traction control is something that again has to be built into the electronics on the motorcycle. Primarily it goes along with anti-lock brakes because it needs wheel sensors and speed sensors to react.

Mr TREZISE — Is the effectiveness of any of those technologies compromised if there is a pillion passenger?

Mr SNART — Probably not. The anti-lock brake system is controlled by the Australian design rule for braking, which incorporates brake testing with a pillion passenger, and traction control is entirely dependent on the reaction of the motorcycle, so I would say no.

Mr KOCH — The airbag would not look after the passenger too well, would it?

Mr SNART — Again, the airbag is designed to slow the trajectory of the rider. Obviously if the pillion passenger is moving forward with the rider, then the rider virtually becomes their airbag.

The CHAIR — In terms of applying the brake, is it still current that you have two brake controls — one for the rear and one for the front? Or is there one control which applies the brake to both wheels?

Mr SNART — No, motorcycles run split systems where the front and rear systems are separated, so you can apply one or the other. With the dual combined braking system models whichever system you apply you will get maximum brake force to that system, but you will get some proportion of brakes — —

The CHAIR — So it distributes it accordingly?

Mr SNART — Yes.

Mr STRICKLAND — I suppose a simple layperson’s way of explaining it is that a lot of people, particularly when they are starting to ride — not experienced motorcyclists — will go for the back brake more heavily than the front brake. Of course on a motorcycle the front brake is really where it is all at. But you have to be fairly judicious, in terms of if you are on a wet road and you grab a handful of front brake, you are probably going to bring the motorcycle down. The good thing with the dual combined braking is that if someone stamps on the rear brake the motor cycle actually squats because it apportions the front and rear. I think it is a very good system; I think it is a more economical system than for ABS?

Mr SNART — Yes.

Mr STRICKLAND — It is on quite a few — in fact, I think Honda has even got it on scooters, is putting it on scooters at the moment.

Mr SNART — They have developed a cable-operated dual combined braking system on some of the 50 cc scooters. We have a film clip on the dual combined braking system a little further in, where you can actually see the reaction of the motor cycle in different situations. We go into that in a little bit more detail. As I said, it is fully integrated into the motorcycle braking system. Of course, with the split systems on a motorcycle, motorcycle riding experience teaches you which system to apply in which proportion to give you maximum brake efficiency. That is something you learn over a period of time. Someone migrating from a small motorcycle to a large motorcycle does not always have that degree of experience. What the dual combined braking system does is to give them the opportunity to achieve optimum braking with minimal input from the rider. It uses an in-line pressure control valve similar to your car. As I said, obviously if you grab the front brake and get the same braking force to the rear it is going to throw off the stability of the motorcycle. Also if you put on a lot of rear brake force and get the same brake force to the front you can cause the steering to wash out. A pressure control valve controls the pressure from front to rear. We run an additional front brake master cylinder. A front brake master cylinder is actually mounted on the fork leg and it moves, so when the calliper starts to grab the disc the rotation of the disc will operate the front brake master cylinder. This is what delivers the brake pressure to the rear.

We run three piston callipers. A lot of motorcycles — I would say the majority — run two piston callipers. The idea of the three piston callipers is that the two outer pistons operate as a conventional brake system. The centre one is what will take the proportional braking from the other system. As I said, it allows even a relatively inexperienced rider to achieve optimum braking performance, and it applies braking to front and rear wheels regardless of which lever the rider applies. We can provide you with a film clip.

Mr STRICKLAND — Greg returned from China late last night so we did not have a chance to skip through this. You asked questions about China, and we are actually producing a scooter. We bring a scooter in from our Chinese factory into Australia. We have a conformance of production audit coming so Greg was over there.

Mr KOCH — Stuart, it amazes me why you produce so many various models. Is there a demand in the marketplace for 180 different models?

Mr STRICKLAND — Yes, there is, David. There is worldwide demand.

Mr KOCH — The Honda Motor Company cannot sensibly close that down to 150 and retain 99 per cent of their sales?

Mr STRICKLAND — Believe me, the Honda Motor Company would love to do that. In the 80s Honda actually had a guy heading up the motorcycle department who said, 'This is ridiculous. We will actually cut back some models and we will produce what we think the market wants', and the market share went rapidly downhill. There was egg all over their faces and —

Mr KOCH — You did not get it right? You picked the wrong ones.

Mr STRICKLAND — In Australia Honda has two companies; there is the car company and there is us, and we have motorcycles, power equipment and marine. We have motorcycles that are primarily a lifestyle product, and we have marine that is a lifestyle product. Believe me the consumers are the ones that really count. You ignore the consumer at your peril. The consumers drive that market.

The difficulty that we have as a full factory subsidiary bringing in motorcycles is that we would like to be operating with less models in Australia, but the problem is that it is a worldwide information market. They get on the Web, they see these products, they read all of the international motorcycle magazines, and the consumers demand the product. Even now we are experiencing some issues because there is almost parity between the Aussie dollar and the US dollar. It is difficult for people to import a parallel product that has to be road registered because of ADRs and a whole host of situations. We are having real trouble now with people bringing in dirt bike models that we have elected not to bring in — or jet skis; there are some of those flying in. The consumers really drive market demand, and they really insist —

Mr KOCH — I accept that.

Mr SNART — Sorry, just before we go off this slide, what the film clip shows actually, as Stuart said, is that if you are in a sweeping turn, for instance, and you apply one brake or the other, it will change the dynamics of the motorcycle. If you apply the rear brake it will tend to squat and lift the weight off the front wheel, which can introduce a head shake, and if you apply the front brake, the motorcycle will push forward and the weight transfer will lift the weight off the rear wheel, which can cause it to start to slow and spin and cause a loss of traction and a loss of control, which was what the film clip was to show, sorry.

The Honda electronic steering damper is the system that Honda has introduced on our two — I guess — race-orientated motorcycles, the CBR 600RR and the CBR 1000RR. The steering damper is integrated into the motorcycle frame. There are castings in the frame for the steering damper to be mounted into. It is also hooked into the electrical system. It does not require any input from the rider. As I said, it is more or less similar to a shock absorber fitted to the steering, so that it will slow the reaction of the steering from one side to the other. In the event of someone putting their foot on the rear brake and lifting the weight off the front wheel and causing the steering to start to shake, this will slow it down. It is speed responsive at low speeds. Where the rider needs a lot of input, the steering damper does not work. As the speed increases, the amount of assistance from it is increased with the speed. It also reduces the effects of negative steering feedback during acceleration, deceleration or if an obstacle is struck or something along those lines that can create a sudden loss of control.

Mr STRICKLAND — If you went into a pothole and you got a steering shake.

Mr SNART — The rider airbag — —

Mr TREZISE — Greg, just before you go on, excuse my ignorance here, but are there electronic steering dampers on other types of bikes or just on Hondas?

Mr SNART — It is my understanding that the electronic steering damper is only on those two Honda models at this stage. There are after-market alternatives available. They fit them to race motorcycles, but they are ridiculously expensive, and of course there has to be the provision for them to be fitted, which means attaching brackets or componentry to the frame and to the steering.

Mr STRICKLAND — Ian, the question you ask is a complex one. Each manufacturer is trying to put better equipment on their motorcycles, which then equates to the market reacting positively towards it. At this stage there is not a great degree of commonality between some of the technologies for manufacturers. Even in cars I think you will find that each manufacturer has a slightly different variation of stability control or anti-lock braking. My understanding is that the BMW system is probably a little different to the Honda system, for example, in ABS.

Mr SNART — The rider airbag, as I said, is a first and currently only available on the Honda Gold Wing, which is our top-of-the-line model. It is a large-capacity touring motorcycle. It is fully integrated into the motorcycle bodywork and electrical system, and basically it works exactly the same as your car. It has sensors that will sense reduction in vehicle speed, movement of impact sensors, and again it does not require any input from the rider. It has automatic sensors to ensure correct deployment so it does not go off in the event of you hitting a pothole or bumping into your garage wall at home.

The CHAIR — Is that available on Gold Wings in Australia?

Mr STRICKLAND — Just on the 08 model which we are introducing now. It is brand-new technology.

Mr SNART — We have a film clip of this one.

Film shown.

Mr SNART — If anyone doubted the severity of the test, I do not know if you noticed towards the end there the car actually shifts about 600 millimetres to the side as the motorcycle runs into it.

Mr KOCH — At what speed did the motorcycle run into it?

Mr SNART — That would have been a 60 -kilometre-per-hour test.

Mr KOCH — So, for the airbag to be really effective, a seatbelt would be of assistance, or where does our rider end up getting chucked over the car? Obviously the airbag does not consume him.

Mr SNART — No. What the airbag does is slow his initial move forward. A seatbelt unfortunately is going to keep him tied to the motorcycle so that, whatever the motorcycle does after that impact, he is stuck to it.

Mr STRICKLAND — Seatbelts will only work when you have a cocoon that will absorb energy. This is the whole thing we went through with the ATVs. The actual sales of ATVs did not actually dip; the ATVs were still going strong. What caused all the ruckus there was the fact that people were suggesting that it should have rollover protection. With rollover protection, if you belt it, you have got to stay with the unit, and you need a crush zone so when it goes over it crushes and does not impact the rider or the driver.

Mr LEANE — Over what period of time do those four steps take place?

Mr SNART — In the blink of an eye; the same as in your car. The airbag will go off before you even realise it, which is just as well, because it is a fairly volatile reaction when it does go off. If you speak to anyone who has been in an accident where an airbag has gone off, they do not even realise it until afterwards when they get their glasses out of the back seat.

Mr STRICKLAND — Been there and done that. I airbag-tested the first new Accord, fitted with one. A bloke ran a red light and nailed me at 80 k. It took the engine and everything straight out of the car. I was able to get up and walk away from it, but the first I knew about it was the bang. Then there was smoke in the car. I thought it was on fire, but it was just the airbag that went off. It knocked my specs off into the back seat, but it worked well.

The CHAIR — So the airbag is only available on the Gold Wing?

Mr STRICKLAND — The Gold Wing, yes it is Honda's first step.

The CHAIR — Are there any trials for any other range of bikes that Honda makes?

Mr SNART — The problem you have got with the airbag — that film clip does not show it — is the amount of componentry that is needed for the system to operate properly. Of course you have got to have somewhere for the airbag to deploy. Your average motorcycle has a fuel tank directly in front of the rider. With the Gold Wing, the fuel tank is actually set down into the frame and the top cover is exactly that; it is a cosmetic cover so it can be integrated. But to put it into your average motorcycle, probably not.

The other thing I was going to cover — we could just go on to the next one, if you can bear with me for a couple of slides — is the cruise control system. I talked about it before. It is a fully integrated motorcycle fuel control system. It is exactly the same as your car. It works through the electronic control unit for your fuel injection system to control the speed of the vehicle. It cannot be set under 48 kilometres an hour, so you cannot accidentally engage it in slow-moving city traffic.

Even if you have a preset speed in there, you can hit the button as much as you like, but under 48 kilometres per hour it will not engage. It will not engage above 160 kilometres an hour, so it actually reduces the amount of speed that a rider can maintain for a long period using the system. The system has got safety switches fitted to both brake levers and the clutch lever to turn the system off if any of them are applied. It also has a speed sensor that will turn the system off if the speed decreases beyond any set parameter, whether you touch the brake or not.

If, for some reason, you run into water that slows the speed of the motorcycle down, it could create a dangerous situation, the cruise control shuts off. If you run it off the road into loose dirt and the wheels sink in and slow the speed of the motorcycle, the system shuts off.

Mr STRICKLAND — You might explain the reason why you put that in, because some people do not think that is a safety-related initiative.

Mr SNART — Obviously a lot of people do not see cruise control as a safety-related thing; they see it as a convenience thing. It is the same as in a car. If you are on a road on a long road where the speed zones are changing, you are constantly looking down at the speedo. You are constantly concentrating on maintaining the speed, particularly these days with the amount of speed cameras and things around. With a cruise control system it takes that out of your mind, so you can concentrate on the road conditions, and it reduces rider fatigue over a long period. Having ridden a motorcycle with this fitted from here to Alice Springs and from here to Brisbane, I know it does have a significant effect on rider fatigue.

The CHAIR — What do you think of intelligent speed adaptation? That technology is just around the corner, basically, where the speed of the motorbike is actually controlled by satellite in certain speed zones.

Mr STRICKLAND — Personally I probably do not have the skill to be able to answer that question very thoroughly, but as a rider I know that if you know what you are doing on a motorcycle, the manoeuvrability is unsurpassed. You have huge manoeuvrability, and sometimes, particularly on the motorcycles with 400 cc-plus capacity, that manoeuvrability can get you out of a difficult situation. In particular, if a car driver cuts across in front of you or does something, you have got the manoeuvrability to be able to move around. If the power is lacking, it could cause more accidents, so I think it is a debatable thing.

I would just make the point that Honda started off as a motorcycle company and then the cars developed, and we are now, I think, quite a strong corporate entity in the car industry around the world and we are still the world's largest motorcycle manufacturer. With technologies that flow between the cars and the motorcycles, I think Honda has a desire to put on a motorcycle whatever technology it can to make it safer, and we are certainly working on doing that. It makes sense that if Honda can put safety technology on a motorcycle and the consumers will accept it, it will certainly do it, because it will give it market advantage. We are trying as hard as we can, but with traction control, for example, the market really did not want it. It was seen to be useless, so that was why it was discontinued. But once again, that is the world market. The strongest markets, of course, are Europe and America.

Mr SNART — I guess the one other point to make with that is to imagine yourself in a situation of overtaking two road trains on the Stuart Highway and suddenly changing speed zones and losing your engine power. You would lose control over the motorcycle and you would have to try to get back onto the right side of the road. In situations like that the rider needs the ability to control his own speed. I guess the whole point of these things is the question: can these systems be integrated into all motorcycles? Basically the answer is no. The market would not allow for the extra cost involved in ABS traction control and things like that on smaller motorcycles. Dual combined braking, although it is a non-electronic system, is still a fairly complicated system and expensive to manufacture, so again the market would not sustain the added cost — the increase — on a small-capacity motorcycle. Cruise control, of course, needs an electronic fuel injection system to operate properly without the need for large componentry like vacuum canisters to hold the throttle on and things like that, so the design of smaller motorcycles just does not allow for it.

As we said before, with things like a rider airbag you need somewhere for the bag to deploy, and on most sports-type motorcycles and smaller learner-type motorcycles there just is not that system available. If you noticed in the film clip, the riding position on a Gold Wing is very similar to the driving position in your car — you are sitting upright and very square on — so the rider trajectory or the dynamics of the rider in the event of an accident are very similar to a car. On a sports motorcycle you tend to be very crouched on the motorcycle, and the trajectory that the rider will take in the event of an accident is a fair bit harder to control. As I said, I guess basically the answer to that is no.

Mr STRICKLAND — I will just make the final point about Honda, too, that we are Australia's largest rider training organisation. We have two rider training facilities in Melbourne, we have one in Sydney, and we are just about to establish one in Brisbane, and we also train all the Australia Post delivery officers around Australia, so we are training over 20 000 people a year. In terms of motorcycle safety there is no doubt in our mind that having the expertise in rider training to train people correctly is a huge issue when it comes to the safety of people when they are riding.

Mr WELLER — So what does Honda do to make the rider better sighted? When they are driver trained, do they, as part of the training, say what colour you should wear?

Mr STRICKLAND — We actually spend a lot of time on road craft. We spend time on explaining rider gear as part of road craft, because road craft is about hazard perception. We now have a rider training simulator that we have got in our rider training centres, which we utilise, and that is particularly good for training novice people on hazards — all of a sudden they are faced on a simulator with buses and trucks and taxis and loose roads and those sorts of situations.

We are about to put those simulators also into our larger dealerships and have Honda safety advisers in each of the dealerships as well. Because, quite frankly, the safety of the rider is really important to us, because if the rider has a crash or experiences an unsafe situation, then they say it is not for them and we lose the rider and we lose the

market. So it is in our interest to make sure that people are confident when they are out on the road. That is why we really always had a corporate focus on riding training.

Mr WELLER — So are you doing anything to the bikes to make them easier to see?

Mr STRICKLAND — Easier to see? Yes, a lot of the bikes are very lairy colours at the moment, because that is the market demand. But, once again, the black motorcycle is still very popular with the consumers. They still love black motorcycles.

Mr KOCH — Can you put anything reflective on them, Stuart?

Mr STRICKLAND — Yes, there are reflective — but in the end, the best way to make a rider visible is on the rider on the motorcycle itself; if you got some bright gear on. Of course, with a lot of the current clothing that you buy at night-time, it has got reflective strips on it, and that is a great asset too. Because if a motorcycle is travelling at night-time and at the back it has just got a tail light, and it is a fairly small tail light — if the rider has got a white helmet on or reflective tapes on the suit, it stands out really strongly.

Mr KOCH — Not much reflection on the helmets; lots on the clothing.

Mr STRICKLAND — Yes, the clothing, because now a couple of suits I have got have a band right across the shoulders. It really stands out like a beacon when you in a car light.

The CHAIR — Is Honda undertaking any developments in terms of the technology to warn other road vehicles, especially cars and heavy vehicles, of a motorcycle being in a driver's blind spot — ITS?

Mr STRICKLAND — No, not that I am aware of. Greg, are you aware of any?

Mr SNART — No, the only thing that we do is that I guess is different to some manufacturers is — despite the fact that the automatic headlights-on rule was repealed — that we continue to have hard-wired headlights on all of our models, so that helps to alert the driver to a motorcycle being in their rear view.

Mr STRICKLAND — That is where rider training still comes into it. Right at the moment, as a rider I can tell you one of the worst things that ever happened in Australia is the mobile phone. In the past if someone's head started to move, you would think they are going to turn. It is just one of the skills you learn in terms of road craft. But nowadays with the mobile phone glued, sometimes they just go.

The mobile phone being used in the ear of a rider — I have had a couple of close calls with trucks over the last six months. Both guys in both cases were on the mobile phone glued to the ear not watching what they are doing. Mobile phones are just an absolute nightmare when it comes to motorcycles. They are terrible. I drove in this morning, but the lady in front of me all along the Eastern Freeway was driving with no hands while she was doing her hair.

A lot of the difficulties that motorcyclists face are because of absolute incompetence in terms of car drivers. As a motorcyclist and a driver you are very aware of what is going on; I travel to Asian countries quite regularly, and the motorcycle populations in those countries are huge, and they just integrate into the overall traffic flow. Here we have super-aggressive car drivers who are stupid.

I look like a Christmas tree when I ride whatever I am riding. I have a red suit that I bought in America. It has fantastic protection. You can put it over conventional business attire, but I reckon you have got to be seen, because there are a lot of people in cars who just do not — if you are a motorcyclist or pedestrian or you are on a bicycle in Australia — it is a different society to be in. I think it is because of the long distances we travel.

If you on a motorcycle you have got to accept responsibility to be seen and to be doing the right thing. I am not suggesting that car drivers are to blame; I can just tell you that car drivers are terrible. The way people drive cars in this country is just criminal. If you run over someone in a car and you do something horrendous, you get a slap on the wrist, you might get thrown in jail for a couple of years, you are still given back your licence. If you go and rob a bank, they want to lock you up forever. The judicial system really needs a look at. I tell you what, a lot of people have had severe motorcycle accidents when they have been hit by cars, and the car guys have gotten off. I just make the final point that it is really disappointing in terms of the way that people handle their cars in this country.

Mr KOCH — Driver behaviour.

Mr STRICKLAND — Driver behaviour. A slap on the wrist for doing that. People who do stupid things in cars or motorcycles — quite frankly, if you are doing something pretty stupid, your licence should be gone forever. The .05 thing is pretty stupid too, because .05 is virtually governments giving someone the mandate to drink and then to drive. That is pretty stupid, too.

Politicians tend to be very much influenced by the vote. The crisis that we face in this country with youth drinking spins into the road safety area — with drugs and with alcohol. I am sorry I got off my bike there. I ride a lot, and you notice these things. It drives you nuts. The motorcycle is a very enjoyable thing to use; it is a very effective way of getting around, particularly in congested traffic. A lot of countries use motorcycles for commuting, and it works very well.

Here we are in Australia; we are faced with high petrol prices. Your average family with a couple of cars — these people are looking at the price of fuel — what is happening? Fuel is going to be \$2 a litre; what do a lot of people do? A small scooter is a good way of moving around. We need to keep people safe. Thanks for the opportunity to present this morning. I hope what we presented was useful. If you need to talk to us again about any technologies, please do so — or rider training for that matter, because we see a lot of people going through our rider training centres.

The CHAIR — Thank you.

Witnesses withdrew.