
The Study of the use of radar detectors in Western Australia

The banning of Radar Detectors is, and should be a thing of the past. Views that radar detectors are a licence or even an aid to a speeding motorist, that radar detectors allow a user to speed with impunity and that detector users are a road safety risk due to their speeding, are disproved myths, once held by ill informed people.

International Experience

In the USA, laws banning the use of radar detectors have been repealed right across the country bar one remaining state. (Virginia now allow RD with SWS). Furthermore the Federal Government has actually allocated US\$2.1 million to the expansion of Safety Warning Systems (“SWS”) across the USA. Safety Warning Systems use radar detectors as a driver warning system and actually contribute to saving lives.

In the UK, the law banning the use of radar detectors was repealed in 1998. The use of SWS (utilising Radar Detectors as Driver Warning Systems) is also being proposed as a road safety initiative. There have been suggestions that a duty be placed on each radar detector sold to fund the purchase of Safety Warning System emitters.

In New Zealand, the use of radar detectors and SWS have been saving lives for the past few years. The SWS is used by Road Maintenance crews to alert drivers up to 1 km away emitting messages such as “Highway Work Crews Ahead”. Fire Brigade vehicles also utilise the SWS to warn motorists up to 1 km away of an “emergency vehicle in transit”. In Australia a SWS emitter is licensed for use under ACA Class Licence 2000.

Radar Detectors and Road Statistics

Worldwide, there has been a failure to show any evidence that the banning of radar detectors has reduced road accidents and fatalities. In Australia, the Transport Safety Bureau who compiles the Road Statistics also concludes that there is no evidence to substantiate that the banning of radar detectors has improved road statistics. In fact evidence over the past few years has shown that the state where radar detectors are legal has shown the greatest reduction of road fatalities (refer Road Fatalities Australia 2001 Statistical Summary).

In the US there have been hundreds of petitions lodged by uninformed petitioners across all states to ban radar detectors. Parties supporting a detector ban claim that detectors threaten public safety and facilitate speeding motorists. The examination of these claims by neutral fact finders chosen by the government, has completely rejected these claims. In all these cases there has been no substantive evidence to show that banning radar detectors reduces the speed of drivers or reduces the number of road fatalities.

Reference to three independent studies on the use of radar detectors (Yankelovich Clancy Shulman Report 1987 in the USA, MORI Report 2001 in the UK, and ADRA Survey 2000 in Australia) have all shown that radar detector users are safer drivers, having fewer accidents per kilometre travelled, and being much more aware of their speed limit than non-users.

The ADRA, Mori Report and Yankelovich study all support the conclusion of independent fact finders - radar detector users have fewer accidents per kilometre travelled, are more aware of posted speed limits and in fact have slowed down the driving for users of radar detectors.

To understand why these surveys have produced similar findings and why neutral fact finders have found similar results, we must look at the actual operation of a radar detector and the effect it has on the user.

Tests on the Operation of Radar Detectors in Western Australia

ADRA has undertaken testing of the operation of the most popular models of radar detectors in use in Western Australia. A number of users of the two top of the market radar detector models in Western Australia were asked to log the number of alerts received before the actual detection of a Police Speed camera or laser gun over a six week period. The users drove in both country and metropolitan areas.

- Radar detectors give an audible alert when they detect a radar frequency emission. In Western Australia radar detectors are set to detect the presence of K band, Ka band and laser emissions. These are the radar frequencies used by police radar and laser speed monitoring devices.
- Radar detectors not only detect emissions from speed cameras but also from any radar-emitting device. Such devices are usually found at most petrol stations, shopping centre doors, banks, office buildings, factory showrooms etc. These devices will set off an audible alert on a radar detector (the most expensive radar detectors reputedly give fewer alerts).
- A radar detector cannot discern between a speed camera and any other radar-emitting device. The presence of other radar detectors will set off an audible alert. Mobile phones used near a radar detector can set off an audible alert. All these alerts are the same as that for a speed camera or gun.
- When driving, it is very difficult to determine the actual source of a radar emission.
- Results of the testing showed one user registered **288 alerts** over a six week period on K Band and Ka Band without coming across a single speed camera. (Perth Metropolitan and Peel District)
- The average number of alerts between speed camera detection for the other users was **42 alerts**. This means the radar detector user receives an alert an average of 42 times before actually detecting a speed camera.

The Effect of Using a Radar Detector on Driver Behaviour

With each radar alert, the radar detector user would usually check their speed in case the alert happens to be a speed camera. This is one of the reasons why radar detector users find that they are much more aware of the speed limit, that they actually slow down after buying a radar detector and they reportedly have fewer accidents. **Radar detector users are much more likely to be driving within the speed limit in blackspots with speed cameras.**

The flow on effect of this is that cars behind the radar detector user are forced to follow the speed limit of the car in front.

What about the driver's actions between alerts? Radar detectors do not generally provide any warning of "instant on" speed cameras or laser speed cameras. An instant-on speed camera will obtain a speed-reading at the same instant that the radar detector detects the speed camera emissions. A detector will in fact only give an alert if the detector is actually hit by an "instant on camera" or laser gun. These guns are generally aimed at the bonnet or number plate of a vehicle and in many cases a speed reading is taken without activating a detector alert.

On the open road a Multanova radar emission is reduced to about 40 metres because of the lack of objects to reflect the beam. A speeding motorist with a radar detector would incur a speeding infringement. The use of laser and instant-on radar cameras is more prevalent on the open road and in country areas.

Instant on and laser speed cameras have also been used more frequently in built-up metropolitan areas and a wide advertising campaign on road side billboards and bus shelters has also been effective in advising the drivers of the presence of instant-on and laser cameras.



Police Operating Laser Gun in Perth CBD

There is a wide range of cheap radar detectors on the market that produce a higher number of alerts from other radar emitting devices. These detectors will generally only provide an audible alert within 20 metres of a Multanova speed camera. A speeding motorist would incur an infringement at that distance.

With this evidence one would be led to ask why someone would buy a radar detector? Drivers buy radar detectors because they reduce their chance of incurring a speeding infringement. In doing this, radar detectors make that driver more aware of the speed limits, more aware of the possible presence of speed cameras and usually a safer, more alert driver.

Increased Public Awareness of Police Speed Cameras

There are a variety of speed radars used in Western Australia. These include the Multanova Speed Camera, LTI-20 20 Laser Camera and the KR 10SP Mobile Radar K band speed camera. Nearly all Police Vehicles in WA carry a speed radar.

It is a common belief among law enforcement agencies both in Australia and overseas that the visibility and constant reminder of speed cameras is much more effective than a hidden campaign of speed detection. Most road safety programs include this proposition in their campaigns. The WA Road Safety campaign has spent thousands of dollars on advertising, advising drivers that a speed camera may check their speed. The advertising is positioned to remind drivers that speed cameras are around.

Police websites around Australia advertise the location of both fixed and mobile speed cameras. Police provide most radio and TV stations with the locations of speed cameras for the next day. Drivers are constantly updated over the airwaves of the location and often exact location of speed cameras. The presence and use of speed cameras is sign posted in all states. Multanova speed cameras are now placed in more visible locations in Western Australia and usually in designated black spot areas to make sure drivers comply with the safe speed limit in that area.

It is believed that reminders that a speed camera is being used is much more effective than just the issuing of a speeding fine. Most police agencies in Australia now publicise the whereabouts of their speed cameras. The NSW Police Department and RTA have provided the exact location of their speed cameras to the UBD for the 2003 edition in both digital version and hardcopy.

Modern GPS systems in cars can utilise the digital version of the 2003 UBD to warn them when they are approaching speed camera locations, all with the aid of the RTA and the Police Dept. Other states are likely to follow suit. "The more people that who know where they are, the more people will modify their behavior and slow down." - NSW RTA Spokesperson.

Police reporting of camera locations, radio station traffic reports, cars flashing their lights and the more visible locations of speed cameras all do the same thing. Because the radar detector user chooses to pay for a device that provides the same warning, they are more likely to pay attention to the numerous audible alerts given on any stretch of road.

The number of visible police vehicles on the road, the use of laser and instant on speed cameras are also a constant reminder that if they speed, they will get caught. Speed signs and warning signs slip by generally unnoticed by the regular driver. A screeching alarm warning of another radar alert prompts detector users to check their speed.

If we agree with the proposition of law enforcement agencies that the more people are reminded about the prevalence of speed cameras, the better the result, one can see why most informed legislators are repealing laws banning radar detectors.

Independent reports and studies have attested to the fact that radar detector users are in fact safer drivers. With this evidence and the hundreds of studies by independent bodies, published surveys and the active promotion of the speed camera locations by all police authorities, it is clear to see why radar detector bans are being lifted around the world.

Safety Warning Systems in Western Australia

The Safety Warning System is currently being tested in WA. The SWS will warn drivers of “Emergency Vehicle in Transit” and “Stationary Emergency Vehicle Ahead”. Any Driver Warning System or radar detector up to 1 kilometre away will receive this warning. This warning could save a life, particularly for an emergency vehicle positioned over a rise or around a blind corner. It should also lead to quicker access to an emergency at the reduced risk to the driving public by warning drivers up to 1 km away of an approaching emergency vehicle. The results of the testing will be submitted in early 2003.

This would not only protect the driver and passengers of a vehicle fitted with a Driver Warning System or a radar detector, but also the drivers and passengers of the vehicles traveling behind as they are forced to travel at the speed of the vehicle in front. The life of an emergency worker could also be saved.

Like the USA and New Zealand, we hope to see the use of these life saving devices extended to all emergency vehicles and to road maintenance workers in Western Australia. Given the failure of other road safety initiatives in Victoria, New South Wales and Queensland, the use of the SWS should be considered in these states.

Further applications of the system include railway crossings, road trains, other hazardous vehicles, road hazards and accidents. With widespread use, it would only be a matter of time before vehicles come equipped with an inbuilt Driver Warning System.



“Highway Work Crews Ahead”

Speed Cameras, Radar Detectors and Driver Safety

There does not appear to be any evidence from any agency in the world that banning radar detectors saves lives or reduces speeding. From the evidence that is available, it raises suspicions of a revenue generating motive behind any government moves to ban radar detectors, particularly where funds raised from speeding infringements are not substantially injected back into road safety projects.

Recently, British Columbia in Canada dismantled their speed camera campaign. Speed cameras were seen by many as just a revenue raising exercise. Money spent on speed cameras will be diverted to other more effective programs.

Cases in Victoria have found that some speed cameras have been operating with a 10% error. There is a test case currently before the courts challenging the validity of the speed camera data (Dr Wolf Garwoli speed camera expert. Melb Victoria). ADRA is currently waiting for supportive documentation.

In Western Australia, the banning of radar detectors would clearly be to the detriment of road safety overall. A ban on the use of radar detectors would eliminate the ability to utilise the safety benefits of the Safety Warning System for all road users and emergency vehicles with the Safety Warning System. A ban on the use of radar detectors in WA would limit the rights of the 30,000 to 40,000 radar detector users, without achieving greater road safety.

Previous moves to ban the use of Radar Detectors in Western Australia were vehemently opposed by the driving public, the media and by some informed politicians. Thousands signed petitions and subsequently the rights of the users were not removed. There is still no evidence that a ban on radar detectors would reduce speeding or reduce road accidents. An already skeptical public would clearly see it as a revenue raising exercise.

I am confident that armed with the facts, the WA Road Safety Council will not recommend a ban on the use of radar detectors in Western Australia and thereby allowing the expansion of use of the SWS in saving the lives of West Australians.

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