



## Response to the Stone Report. V1.1

By Paul Smith, Safe Speed, June 2004

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### 1) General and introduction

Professor Mervyn Stone was recently appointed by the Radio Four “Today Programme” to act as formal adjudicator in a debate about speed humps and speed cameras.

Safe Speed welcomes Mervyn Stone’s insight and analytical perspective. Such perspectives have become all too rare in modern UK road safety. Debate has been dominated by dogma, and the dogma has been ill founded.

Professor Mervyn Stone is clearly appreciative of Paul Smith’s work and the Stone report includes the following: *“Turning now to the written statement of Mr Smith, the reader should know that I have downloaded most of the files, acquired most of the papers to which he referred, and gone through them with as much care and attention as I could summon. In itself, an achievement of sorts - but paling into insignificance compared with that of Mr Smith himself. He has single-handedly taken on the road safety establishment. He has brought to the fore hitherto neglected questions with admirable forensic skill and logic. He is a gad fly par excellence whose bite must have already irritated many in the road safety world who prefer a quieter way of dealing with issues. His piece is a powerful polemic attacking the interpretation that others have placed on the body of evidence about the relationship between speed cameras and accidents.”*

## 2) Summary points of agreement

The Stone Report says:

*“The main aim of the tribunal, however, was to generate interest in two more Es those for the Evaluation of Evidence that is often either completely missing in public debate or treated with insufficient attention to important detail.”*

Safe Speed couldn't agree more. Choices and policy must be evidence driven, and the evidence must be good.

Official British data is not clear enough or accurate enough to support the case for speed cameras. Safe Speed warns that poor data is likely to result from false assumptions and flawed thinking at the highest level in UK road safety. If they got speed camera implementation wrong, what else have they got wrong?

The Stone Report says:

*“The “roll out” of safety cameras by separate Safety Partnerships was initiated by DoT. Its management was placed in the hands of the private sector company PA Consulting Group. This “cost recovery” program has failed except for the HMT requirement that it should be self-financing. There has been a failure to design the program so that it would provide the information needed to evaluate alternative ways of getting the benefits of speed camera enforcement. The emphasis on political acceptability has led the program down a cul de sac in which essential public trust has been lost. The mistakes already made should be openly recognised, and the program should be subjected to a root and branch rethink.”*

Safe Speed agrees: The management of the roll out of cameras via camera partnerships has been so bad that public confidence in the system has been destroyed.

The Stone Report says:

*“There is another evidential matter that bears heavily on some of the controversies in our debate. When they attend an accident, police have some discretion about whether or not to treat it as an accident involving personal injury (PIA) thereby initiating the time-consuming STATS19 recording procedure. Even greater discretion can be exercised as to whether the injury is classified as “slight” or “serious”. Fatality (death within 30 days) is less ambiguous except in very rare circumstances!”*

Safe Speed agrees. There is considerable reason to be concerned about the present quality of the national road casualty statistics. The serious injury statistics, in particular, are behaving very strangely indeed.

The Stone Report says:

*“Many of us appear to have lost confidence that our political masters can reliably sort out complex issues without resorting to some level of subterfuge and concealment destructive of trust.”*

Safe Speed agrees. One very serious problem with the speed camera system is that false and misleading claims have damaged public trust. Now that trust has gone, the only viable next step is that the cameras must go too.

The Stone Report, talking about a possible benefit from speed cameras at a speed camera site, says:

*“But no-one can say that these localised savings may not be outweighed by an irritation-induced increase on the 99% plus of the road network that is well away from any safety camera.”*

Safe Speed agrees that this is a critical truth. Road safety depends on psychological factors that may be damaged by the very existence of speed cameras.

### 3) Summary points of disagreement

It is insufficient to ascertain that there may be a potential safety benefit “at speed camera sites” without balancing this benefit against actual and potential disbenefits across the wider road network. In this way it is dangerous to conclude that “speed cameras work to save lives” without even rudimentary knowledge of their wider effects. Mervyn Stone admits the possibility of wider effects, but was not able to evaluate any of the described side effects in the time available. For this reason, Safe Speed concludes that the assertion: *“My reading of these two papers (not the others) is that safety cameras do have a real effect on accident numbers.”* is insufficient to justify installing cameras because the papers refer only to accidents “at camera sites”. Effects on the wider road network are not considered.

The Stone Report says: *“How, for example, should one weigh in the balance the death of a child in a road accident against the statistically determined fraction of the motorists' freedom of the road” that might be held responsible for that death?”* And he is right to ask the question. However in the case of speed cameras it is quite possible that the conflict does not arise because the “freedom” from camera enforcement may turn out to be fully compatible with improved road safety.

#### 4) Errors and misunderstandings

The Stone Report says:

*“His (Paul Smith’s) program requires that effort should rather be put into ensuring that the bulk of our driving community has driving skills on a level with those of an Advanced Motorist or a product of the Hendon Police Driving School perhaps high enough to earn a Licence to Speed”.*

This is incorrect. Paul Smith does advocate improvements to road safety based on four *related* methods, none of which involve such a wide raising of standards.

- Remedial training for those causing accidents or found driving carelessly. The objective here is really to avoid mistakes being repeated. Such individuals would pay for their own remedial training.
- The Government should introduce incentives to motivate voluntary advanced driver training for those that might be persuaded, but also to send a message to other drivers that they still have plenty more to learn. Advanced driver training would be based around new national standards and would be supported by an official advanced driving licence.
- The Government should measure and develop our national road safety culture. It is this safety culture that is primarily responsible for delivering the safest roads in the world, and it is nowhere near as good as it could be. Yet no efforts have ever been made specifically to measure or improve it.
- The Government must ensure that all road safety information is highly accurate and not liable to misinterpretation. For example at present Mr Smith believes that we have a serious problem because the messages given by current public policy (speed cameras) and current advertising is send very flawed messages to road users about the common causes of accidents.

The Stone report says (referring to “the fatality gap”):

*“Mr Smith argues that this must be a causal relationship (at least in part) because he can find arguments against all the other possible explanations he can think of.”*

But Mr Smith does not make this mistake. The following section from Safe Speed’s evidence document illustrates the point:

*But simple correlation does not imply causation. In order to work towards establishing that modern speed camera policy may have caused the loss of trend in the fatality rate, we need to consider and*

*perhaps eliminate other potential causes. We have done a lot of work in this area and most of the potential causes can be quickly eliminated with a high degree of confidence.*

*Then we need to investigate possible mechanisms whereby speed cameras policy could affect road safety for the worse. There are many. We maintain an 18 point list.*

*It is presently a matter of judgement rather than fact but I am now very certain that the loss of trend has been caused by speed cameras and the policies that support them. The evidence is sufficiently compelling to demand an immediate cessation of all speed camera operations pending a full scientific investigation.*

*This viewpoint is strongly supported by other observations throughout this document and on the Safe Speed web site. In particular it is worthy to note that we achieved the safest roads in the world without a high degree of emphasis on speed limit compliance and with the vast majority of motorists exceeding the speed limit frequently.*

Also see the appendix to this document.

## 5) Summary points of omission

Despite the “assumed stance” defined in the Stone report: *“The assumed stance is a very straightforward one. It is that the present growing multiplicity of highly visible speed cameras, whether fixed or mobile, may be more of an irritant than a serious contribution to road safety.”* Yet none of the cited irritant effects are mentioned or evaluated.

The argument structure is as follows:

- Does speed in itself cause accidents? Answer: No.
- Is there likely to be a speed accident relationship as described in the literature? Answer: No.
- Is the “fatality gap” evidence of a speed camera irritant effect? Answer: Possibly, but not proven.

These three questions in themselves do little to evaluate the evidence and analysis provided by Safe Speed.

In particular the following questions are not evaluated:

- Is there any evidence that strict speed limit compliance is important to UK road safety?
- What is the fundamental basis of road safety?
- What are the side effects of high levels of speed enforcement? How dangerous are they? Do they impinge on the fundamental basis of road safety?
- Is the sort of speed addressed by speed cameras the same sort of speed that contributes to excessive speed accidents?
- Is it sufficient to examine accidents when evaluating proposed changes to our road safety systems? Or do we also need to evaluate accident avoidance mechanisms?
- The Stone report says: *“In effect, the passing of speed cameras has become an exercise in “gaming” for those eager to exceed the speed limit - a sport that would be frustrated by deployment of hidden cameras at randomly changing locations in the whole road network.”* Safe Speed agrees that the “sport” would be frustrated – but what would the other effects be? Potential disbenefits include: too much speedo watching, elevated driver “paranoia”, and loss of trust with government or Police.

## **6) What proportion of the Safe Speed evidence has been considered in the Stone Report?**

The Safe Speed evidence was provided with the following section headings:

### ***1) Getting to the bottom of “Speed”***

The Stone Report makes no comment about the different sorts of “speed” described and explained.

### ***2) False and misleading data***

The Stone report agrees unequivocally that data is inadequate, that the scientific basis is flawed and that “regression to the mean” has not been considered when it should have been. Much is written about modern “bad science” and we are warned that this is a part of a wider trend.

### ***3) The truth about speed and accidents***

The Stone report poses the question: “Can a road accident be caused by speed alone?” It is an interesting question, but falls a very long way short of considering the points made or data presented in this section of the Safe Speed evidence.

### ***4) Speed camera effects***

The Stone report makes no comment on this section of the Safe Speed evidence, save to say: *“But no-one can say that these localised savings may not be outweighed by an irritation-induced increase on the 99% plus of the road network that is well away from any safety camera.”*

### ***5) Road safety results***

The Stone report admits that it is possible that there is a causal relationship between speed camera policy and “the fatality gap”. It is suggested that Safe Speed claims that correlation is sufficient to imply causation, while the Safe Speed evidence document states clearly the exact opposite.

### ***6) Conclusions***

There is no direct comment on any of the conclusions.

## **7) Conclusions and Thanks**

The Stone Report is a welcome addition to the national road safety debate, especially since it further highlights inadequacies in the data in present use.

The scale and complexity of the issue is a lesson to all involved. In the one day discussion it was sobering indeed to note that we had barely scratched the surface of the road safety debate.

In view of the complexity actually delivering improved road safety is going to require insight and the best possible information.

Official information is dominated by dogma, by oversimplified beliefs and by inadequate data. There is a great deal to be overcome on the road to improved safety.

Nothing in this document should be assumed to be critical of the parties involved. Everyone made very considerable efforts to dig down to the truth and in some cases this represents a great deal of digging!

Many thanks are due to all involved, especially:

- Roger Harrabin of the Radio 4 Today Programme for actually making it happen
- Professor Mervyn Stone for his great efforts with an enormously complex subject
- Robert Gifford of PACTS for putting up a well planned and conventional defence
- Daniel Clarke for sound recording and patience
- Other Radio 4 staff provided important background and support services

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## **Appendix : The Fatality Gap – might it be caused by speed cameras?**

### **Introduction:**

The difference between the earlier (pre 1993) trend in the British roads fatality rate and the current trend is termed the fatality gap.

<http://www.safespeed.org.uk/buckingham.pdf>

It is known that the road fatality rate is falling more slowly at the very time when the use of speed cameras is increasing.

<http://www.safespeed.org.uk/fatality.html>

Safe Speed *proposes* that speed cameras (and the policies that support them) are *CAUSING* the loss of former trend in the roads fatality rate.

### **Tests of likelihood:**

#### ***Is it correlated?***

It is very well correlated, both in terms of timing and in terms of magnitude.

<http://www.safespeed.org.uk/buckingham.pdf>

<http://www.safespeed.org.uk/fatality.html>

#### ***Is there another explanation?***

Many “obvious” potential explanations can be quickly eliminated.

<http://www.safespeed.org.uk/fatality.html>

<http://www.safespeed.org.uk/effects.html>

General ideas about population demographics and national habits are unlikely to account for the change in trend. We have at least 40 years of earlier history when apparently similar changes in demographics and national habits were very likely progressing but failed to alter the earlier trend to any significant degree.

#### ***Is there a cause in common instead?***

Very likely – the belief that “speed” is the cause of road danger affects “both sides” of the assertion. And indeed there is even a feedback situation – a belief in “speed kills” encourages cameras and those who operate the cameras assert that “speed kills”. Perhaps the whole road safety *cul de sac* has been caused by this runaway train effect!

But this cause in common is an inherent component of the policy that Safe Speed blames for the effect.

***Are there mechanisms to provide the linkage?***

Yes. There are mechanisms.

<http://www.safespeed.org.uk/dangers.html>

<http://www.safespeed.org.uk/effects.html>

<http://www.safespeed.org.uk/speedo.html>

***Is the mechanism plausible or provable?***

Yes. Many of the mechanisms are known and reported. Some are self evident, but many are under-researched.

***Are there similar or contra examples?***

The fatality rate has also stalled in Australia, and Australian road safety has also altered to rely on speed cameras.

The fatality rate in many other countries continues on its former trend. For example in France, Germany and Italy the fatality rate has not stalled, nor have these countries changed their road safety policy markedly. (France has embarked on the same path with changes taking place in the latter part of last year.)

In the Netherlands there are many speed cameras and the fatality rate trend has slowed by not actually stalled. A possible explanation for this “half way” effect is that speed camera fines in Holland do not normally contribute to licence suspension.

Weak evidence of these assertions is available at:

<http://www.safespeed.org.uk/international2.html>

More work is required. (And that first graph is shameful!)

***Was the loss of trend predicted?***

Yes. Paul Smith predicted that speed cameras would be bad for road safety as long ago as 1989 when speed camera were first widely discussed in the UK.

***Is there evidence against the causal connection?***

Yes. But it is weak and readily dismissed.

For example: Taylor et al 2000 (TRL421) proposes that reductions in average speed should lead to reductions in accidents, but the report is bunk.

For example: Claims that many accidents are contributed to by “normal motorists” exceeding a speed limit do not stand scrutiny.

For example: The assertions that “accidents are rooted in physics” and “the faster you go the harder you will crash” are not consistent with accident frequency or severity observations.

### ***Is there a “style and flavour” fit?***

Yes. Road safety is clearly rooted in psychology and delivered in practice by a safety culture. We should expect false messages to undermine the safety culture directly.

<http://www.safespeed.org.uk/international3.html>  
<http://www.safespeed.org.uk/roadsafety.html>

Accidents are almost exclusively rooted in psychological failures – and these failures are potentially vulnerable to:

- misleading safety messages
- speed camera and speedometer distractions
- alterations of safety priorities

We didn't earn ourselves the safest road in the world by luck. Clearly those making Policy had an understanding of what they were doing. Equally clearly the new approach to road safety ignores many of the factors that used to be considered important.

It is also notable that the degree of incompetence behind our road safety systems has increased massively in the last decade or so. Perhaps that's the real cause in common?

### ***Appendix Summary***

Safe Speed certainly does not “assume” that the fatality gap has been caused by speed cameras. But the fit of the jigsaw is so good that the explanation is very likely indeed.

The best way to test the hypothesis, given the developing level of confidence, is probably to cease all speed camera operations. Although this might be perceived as a risky strategy, there is precious little evidence to support the perception.