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Dr Tim Peppin
Chair, Wales Road Casualty Reduction
Partnership Steering Group

Formal Complaint about serious misrepresentation of speed camera benefits.

Dear Dr. Peppin,

I write to register a **formal complaint of serious misrepresentation of speed camera benefits** in GoSafe's annual reports for 2011/12, 2012/13 and possibly earlier ones I have not yet read. My views and my objections are based on many thousands of hours study of this subject over twelve years and a great deal of information and analysis on my web site www.fightbackwithfacts.com.

My complaint is essentially this - **it is simply not acceptable that your organisation misleads both the public (who pay for your activities) or Acpo or the Welsh Government (who decide how much public funding to provide) about the benefits supposedly provided by your speed camera activities.** Indeed, in my opinion, what is being done by GoSafe and many other Partnerships amounts to **misconduct in public office, breach of duty of care** and (when used to solicit and obtain funding) **obtaining money by false pretences.** For all of these reasons I am copying those complaint to the Welsh Government, the DfT, Acpo and others.

My purpose is to ensure that GoSafe withdraws and corrects the serious errors in its reports and publicity material - and to encourage you to see that the claims are much exaggerated, I refer you to the UK Statistics Authority's recent dismissal of similar claims by the Scottish Partnership, who are now engaged in re-assessing their analysis. You will find that report at

<http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-256--statistics-on-the-scottish-safety-camera-programme.pdf>

This started when another campaigner and later I complained vehemently to the Scottish Partnership that their figures for camera benefit were demonstrably false in that they allocated to cameras the whole of the observed reductions at camera sites **without allowing for long-term trend or regression to the mean** (see below) They fought stubbornly for months in an attempt to avoid admitting being wrong - I could copy you the whole of that protracted correspondence if you wish - even to the extent of the Chief Statistician for Scotland claiming in a reply that their claims had been approved by the UK Statistics Office as of "high quality". When forced to admit that they had not been, he, astonishingly, submitted them for approval despite by that time having admitted to us at least some serious discrepancies, The result was the above Report, written in more openly scathing terms (including a reference to the risk of bias in that the claims were written by those employed by the Partnership) than I would normally expect to see in any public document. Incidentally, my fellow campaigner and i, having been involved from the beginning, were invited to submit evidence and analysis, which we of course did.

The consistent pattern running through GoSafe Reports is essentially the same as in Scotland - **repeated statements of accident and casualty reductions at camera sites with no adjacent caveat that other factors such as trend and regression to the mean must have contributed significantly to those reductions.** (I accept that there are one or two such caveats, but not where it matters nor in a way that

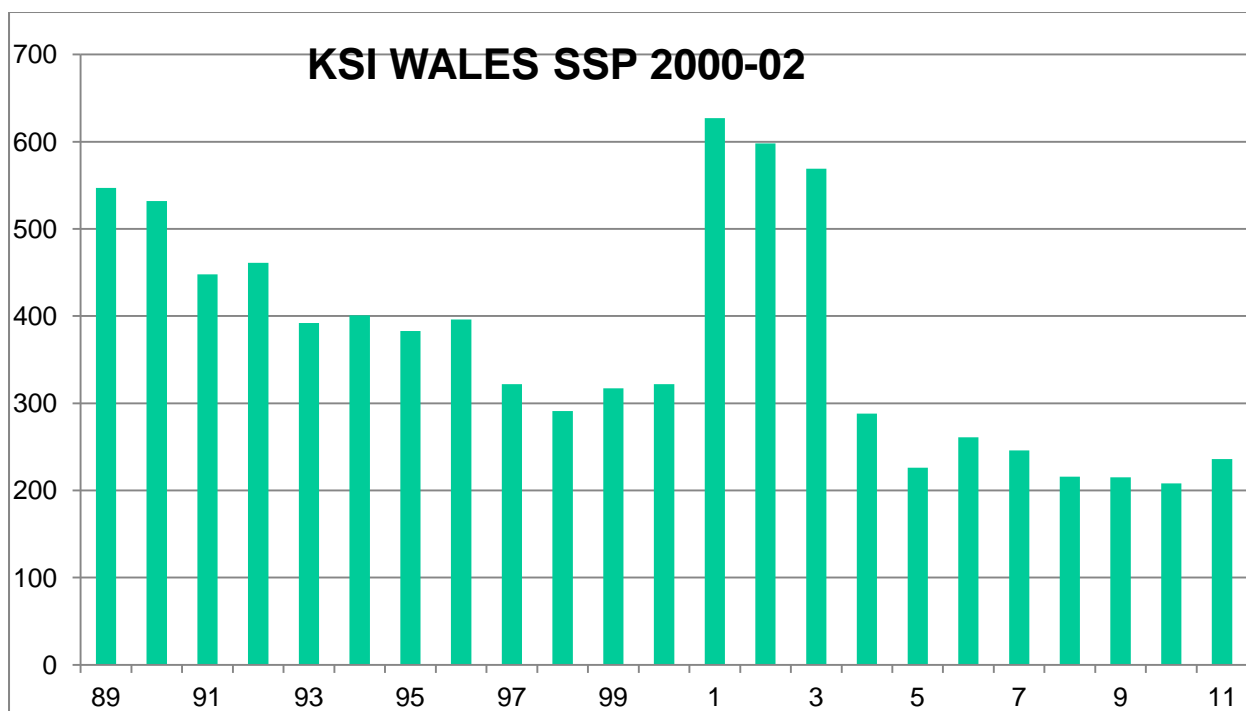
significantly changes the false message the Reports provide. Here is one example of many:

1/ "Performance to date across Wales at camera sites is encouraging: by the end of 2011, KSI casualties had been reduced by 50.77%* compared with the 1994-1998 annual average."

Comment Stats19 data shows a 42% reduction **across the whole of Wales over that period**, despite (as your figures confirm) 98% of road length having no cameras. As the UKSA observed, it is inconceivable that a similar reduction would not have happened at your sites due to trend alone had no cameras been present.

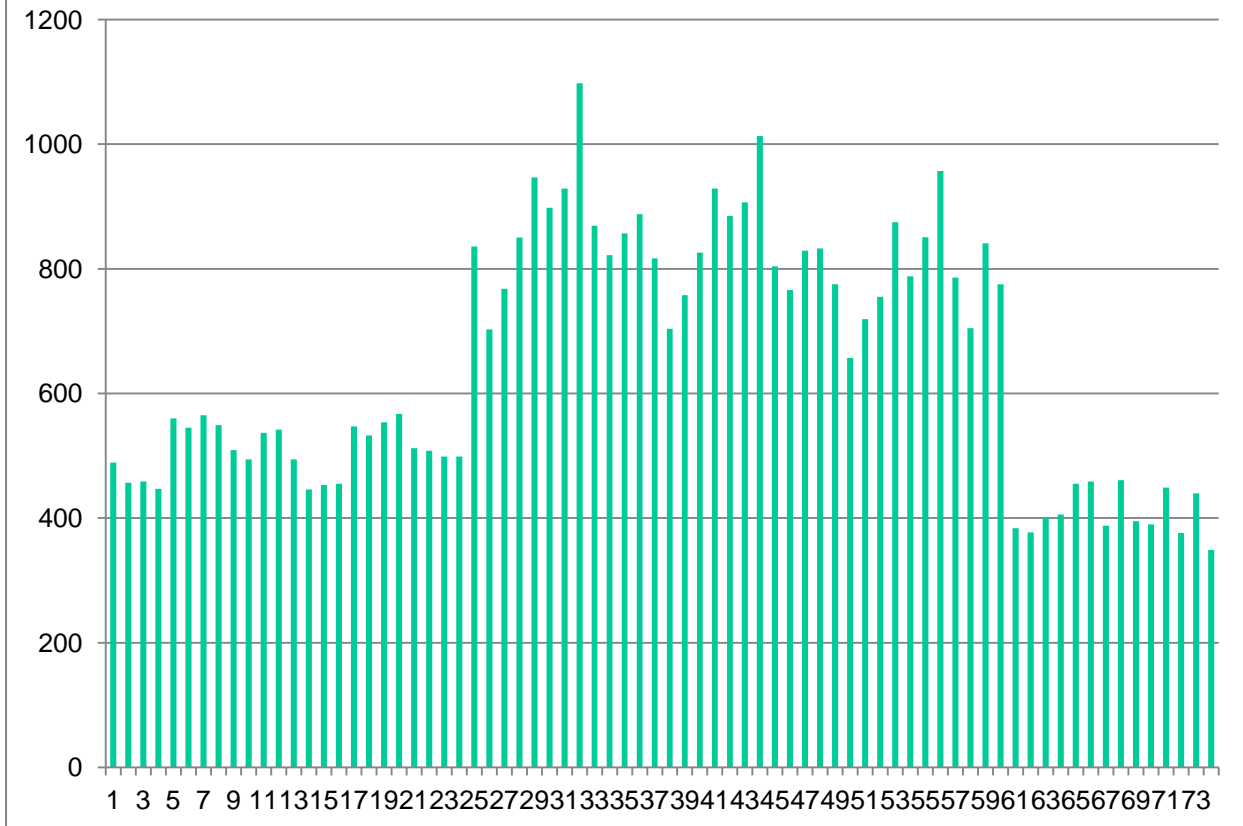
2/ "Camera sites show a greater reduction than on roads in Wales as a whole"

Comment. Well of course they do - and would have done even had no cameras been installed! This is due what statisticians refer to as "**regression to the mean**" or laymen as "**return to normal**". That is to say, if you go around Wales selecting for camera sites with recent histories of Fatal or Serious Collisions (FSC's) or Killed and Seriously Injured (KSI) casualties, there is bound to be (on average) **a fall in those numbers immediately afterwards**. This is not only widely recognised by statisticians in all sorts of activities including speed cameras, but **can be demonstrated using data for 6m accidents over 25 years in terms of when and where they happened:**



This is only one of **many thousands of similar graphs** I can draw for every police area across the country using that data. This particular one shows what would have happened at 260 one km sq locations (similar to camera sites) that would have qualified for cameras in the site selection period **2003-05** but (in the great majority) did not receive them. The **effect of trend** is plain to see, but even more marked over the shorter term is the **RTM effect** by which average KSI during the SSP of **481 KSI** (rather less than 2 KSI per site in 3 years) **falls immediately afterwards to 242 KSI**. **Only a small part of that (over an average of 2 years) is due to trend, most being due to RTM.**

WALES KSI SSP Months 25 to 60



Note - timings of all selection periods shifted to be months 25 to 60m then data aggregated for 13.909 qualifying examples from the early 1990s to the mid 2000's.

The above graph of **KSI by month** (again only one of thousands available) showing the same thing, confirms that (as statisticians know perfectly well) the moment selection for higher than normal KSI finishes, **RTM i.e. return to normal is virtually instantaneous.**

3/ Other similar false statements in your Reports include

"In contribution to the above targets, the following reductions were achieved at Safety Camera Sites across Wales when comparing data for 2011 with the average for 1994-98."

The issue here is the use of the word "**achieved**", as if cameras alone had brought about those reductions, which of course they did not.

4/ "Camera sites in 2011 showed a 69.64% reduction in the number of people killed or seriously injured"

Given that only 27% or so (variable) of SI accidents are ever reported to the authorities, showing the results to **4 significant figures** is arithmetically absurd and implies that whoever wrote it (and whoever approved it) do not know what they are doing. Also of course the implication that cameras brought about that reduction.

5/ "Motorists are continuing to break the law at camera sites and this demonstrates the continued need for educational messages to motorists."

That statement - aka "The medicine hasn't worked so double the dose" - could just as well have read:

"Motorists are continuing to break the law at camera sites and this demonstrates that they are not working".

6/ "For core fixed and mobile sites a comparison between the baseline figure and 2008-2010 casualty data across Wales shows a 71.49%* reduction in killed or seriously injured (KSI) casualties. The baseline figure equates to KSI casualties in a 3 year period before the site was introduced."

Again the bizarre 4 figure accuracy but more importantly again **stated as if cameras alone were responsible.**

7/ "There were 18 fewer casualties from collisions involving young drivers at camera sites, with a reduction from 319 in 2010 to 301 in 2011".

Abject nonsense again! That 5.6% fall in one year is no more than what happens routinely by random chance, yet the Report implies that it was due to cameras. In any case, as stated elsewhere, because awareness of cameras and hence changes of driver behaviour reach their maximum at any particular site within weeks or months, it is not possible for further reductions in later years to be provided by those cameras. Similarly, where other Partnerships - and quite possibly Wales though I do not yet know - claim camera credit for further falls up to 14 years after installation, they clearly do not know what they are doing.

8/ Below a table (which I cannot copy) on Page 17 purporting to show "Savings due to Reductions in Casualties in Wales" totalling some 45m your 2011/12 report states that:

***The savings are based on the reduction in 2011 in the number of casualties in Wales compared with the 1994/1998 average at current live camera sites**

This is palpable - and surely culpable - nonsense! The point here is that your Report claims to have saved the State 45m in 2011 alone, compared to average accident rates in 1994-98 despite

(a) a large proportion of the observed falls having happened between 1999 and the date of installation of each camera (I take it that you agree that whatever else they might achieve, cameras cannot reverse accidents that had already happened, as if in a simulator or computer game)

(b) A further significant proportion having happened since installation of the camera but due to long term trend alone (Whatever incremental effect on accident rates cameras might have **tapers off within weeks or months as driver awareness of cameras approaches a maximum**, probably above 90%, so that any continuing fall long after installation **must** be due to trend alone)

I have done an approximate evaluation of the real figure, though I cannot lay my hands on it at the moment. However allowing for trend and regression to the mean (as above) certainly **reduces the 45m to no more than 12m**, and probably much less. However even this ignores the fact that the DfT estimates of accident values **include large but wholly fictional sums for "lost output" which is not in fact lost** - an issue I am taking up with the DfT and if necessary higher authority, and that the true cash cost to the State of a fatal accident is nearer 20,000 than 2m) Adjusting for that can only reduce the benefits of your cameras to below your operating costs.

My request therefore, Dr. Peppin is that **you review these seriously misleading claims and issue corrections and clarification without delay.** If you need any further information or analysis I would be happy to provide it.

Yours faithfully,

Idris Francis

