

Speed cameras and the Geoffrey Luxford story

This is a summary of a longer paper submitted to Northamptonshire County Council by Dr Luxford in January 2009.

The paper illustrates:

- (1) The efforts made by the police to prevent Dr Luxford from defending himself against a prosecution for speeding.
- (2) That there is no basis for claiming that speeding is a significant cause of road accidents or that the cameras have saved lives. Instead the reverse appears to be the case.
- (3) That the operation of the mobile speed cameras is probably illegal and their accuracy questionable.

Dr Luxford is a retired chartered engineer with a 1st Class Honours degree in Engineering. In March 2005 he completed his PhD related to a NASA project that led to the development of speed measuring instrumentation using laser beams and other pulsed light facilities with similarities to those used in laser speed cameras.

The Luxford Story

In August 2005, Dr Luxford received a speeding ticket from the Northamptonshire police. However, he had seen the camera van and taken care to avoid speeding. Accordingly he asked for the video tape that would enable the matter to be checked.

The police refused to provide that until forced to do so by an appeal under the Data Protection Act to the Information Commissioner's Office. However, the police did not provide the tape until the day before the first court hearing. Worse still, it was clear that the tape had been altered so that it appeared that Dr Luxford had been driving at 200mph.

Only after Dr Luxford's MP had written to the Chief Constable did Dr Luxford succeed in obtaining an uncorrupted version. After analysing that, and after two additional court hearings, the case was (at last) dropped.

Dr Luxford then asked the police to explain why the video had been altered. The police refused to acknowledge the fact or to investigate the matter until forced to do so by an appeal to the Independent Police Complaints Commission. That investigation showed there

had been malpractice in the operation of the equipment processing the speed camera video, arising from inadequate training, supervision and auditing.

Further, Dr Luxford found from private discussions with a member of Northants police that the operating manuals were not always available and that calibration checks were seldom carried out, particularly where there was no recorded video evidence.

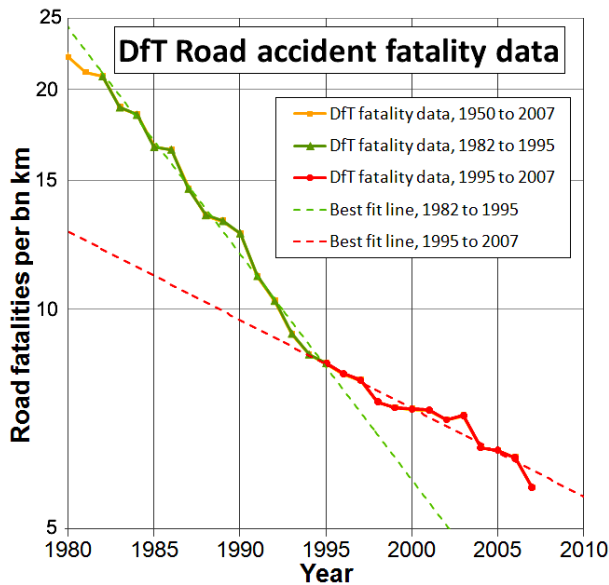
We comment, if the police are to go to such lengths to prevent evidence from being released that may clear a man of a minor offence that may nevertheless have serious consequences, how can any of us trust them in any greater matter?

The effect of the cameras

The Police and the Department of Transport, DfT, claim that e.g. 30% of accidents are due to speed. However, that claim is entirely spurious. Clearly the correct number is 100% since, if we were all stationary, there could be no accidents at all. Instead of that the important number is the proportion of accidents in which the speed limit has been broken and, with respect to those accidents, the extent to which speed was a significant contributory factor. Data from the DfT shows breaking the speed limit amounts to close to 2% of the recorded causes of road traffic accidents. On that basis it appears unlikely that the cameras could prevent more than a small proportion of the whole.

Nevertheless the DfT claims that the cameras save hundreds of lives per year. Unfortunately for that claim, and despite the cameras being supported by many thousands of speed humps and the endless traffic management schemes that create congestion all day where none need exist, the previous downward trend in accident rates has flattened off remarkably. The following figure, produced by Dr Luxford, from data in Transport Statistics Great Britain illustrates this (astonishing) fact.

Against that background it seems impossible to claim that speeding is a significant cause of road traffic accidents or that the cameras have saved lives. Instead, the effect of the cameras may be to undermine drivers' confidence and to distract them from the business of driving.



Note: camera campaign starts circa 1993.

Legality and accuracy

For the cameras to be operated legally the Home Office requires there to be an independent means of determining the vehicle speed to an accuracy of 10%. For fixed cameras that check is provided by reference to parallel equally spaced white lines across the traffic lane. However, with mobile cameras no such marks are available. Instead the Home Office claims that the camera operators are themselves capable assessing a vehicle's speed to within 10% of its true value at a distance of 500 metres.

In response to Freedom of Information enquiries, the Home Office confirmed that it had not carried out any tests to show whether that (remarkable) feat is possible. For that reason all the prosecutions based upon the operation of mobile cameras may be unsafe.

The country's foremost expert on laser speed cameras, Dr Michael Clark, has been involved in assessing the accuracy of the equipment. A particularly telling series of tests, carried out for the Daily Mail in 2005, measured a stationary car as travelling at 22mph, a cyclist as travelling at 66mph and a solid brick wall as travelling at 44mph. The Home Office claim that the tests were not representative as the circumstances were deliberately contrived to deceive the speed-gun, yet the tests represented no more than typical circumstances often found in practice.

In December 2006 a judge ordered unfettered tests on an LTI 20.20 speed camera. The results of these tests were subsequently reported by

Paul Lee, who worked with the expert witness Dr Michael Clark. They were given unfettered access to a UK approved Police Lastec LTI 20.20 speed camera mounted in an enforcement van. An approved police operator, PC Howard Fordham, was invited to set the equipment up. Trevor Hall, Secretary to ACPO's Road Policing Enforcement Technology Committee, was present to witness the tests.

One test measured the speed of a motorbike while being passed by a van. The system produced numerous speed reading errors, often displaying the speed of the van rather than that of the motorbike. The Police and ACPO were clearly surprised by the errors and immediately inspected the motorbike. They raised an objection about the perfectly legal reflector on the number plate and insisted that the tests should be repeated without the reflector (making it illegal)! The same errors occurred.

Other tests show that the mobile camera is extremely sensitive to movement and gives a false reading if the point upon which the camera is focussed changes during the 0.3 seconds required to take a reading.

Despite that, and a series of equally damning tests, The Northants police, along with other forces, repeatedly deny that there are any problems with LTI 20.20. A typical response by the Northants police, when questioned about the equipment was; "What I can say is that our mobile safety cameras are Home Office approved technology that are calibrated annually by the suppliers and that calibration is checked twice daily by the safety camera operators. They have never been found to be inaccurate by the courts in Northamptonshire".

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 We sense that the Luxford Case and the attitude of the police and the DfT to this issue is symptomatic of a wider malaise. Is it any wonder that the public hold the authorities in such low esteem if not contempt?

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Transport Watch

Phone 01604 847438, Fax 01604 455074

E-mail info@transport-Watch.uk.net

Web site www.transport-watch.co.uk

Dr Luxford is at geoff@luxford.demon.co.uk.