Institute of Traffic Accident Investigators – Written evidence (FRS0023)

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I write on behalf of The Institute of Traffic Accident Investigators (ITAI) to submit evidence to the Select Committee of the House of Lords with respect to Forensic Science. My submission will concentrate on the forensic science discipline of road traffic accident investigation and reconstruction. This is often referred to as ‘collision’ investigation; hence, for the purposes of this submission, the terms ‘accident’ and ‘collision’ should be regarded as interchangeable.

The paragraphs that follow are numbered to coincide, so far as is possible, with the questions enumerated in the ‘Call for Evidence.’

1.1. The science of Forensic Accident Investigation and Reconstruction contributes to the delivery of justice in the UK. It provides a sound basis to aid understanding of the circumstances of road traffic accidents, particularly when serious or fatal injuries have been caused, and have resulted in the charging of serious criminal offences or in the resolution of torts.

2.1 Strengths
• Supplies a scientifically based identification and analysis of the forensic evidence.
• Acts as an impartial check on the weight that should be given to Evidence of Fact.
• Assists the Court in determining important issues, such as approach paths, speeds, lines of sight, human factors, etc.
• Often identifies deficiencies in the road infrastructure, such as poor signage and road surface.
• Occasionally supplies statistics indicating defects in the manufacture of motor vehicles, causing similar accidents.

2.2 Weaknesses
• Insufficient peer review.
  o Not all accident investigators are members of ITAI.
  o This Institute can have confidence only in Members or Associate Members of ITAI who maintain continuing professional development records (CPD.) Such CPD achievements are discoverable publicly on the Institute’s web site.
• Lack of understanding of an accident investigator’s role in the legal profession.
  o Occasional failure to appreciate that the experts work for the Court and not for the party.
• Legal Aid failing to pay adequate fees and subsistence thereby prejudicing the Defence as no longer can many experts afford to take on Legal Aid work.
• Practitioners giving evidence when they are not experienced and qualified.
• Failure of many police forces to support peer group review and accreditation of their accident investigators, by funding their membership to the Institute.

3.1 The investigation and reconstruction of road traffic accidents is founded on Newtonian physics coupled with a sound understanding of both vehicle and highway engineering.

3.2 After qualifying in this diverse and complex discipline, an accident investigator is expected to continue his or her CPD to keep pace with current knowledge.

3.3 A wealth of information concerning the correct application of scientific and engineering principles, techniques and methodology is published by numerous authorities including the technical journal of this Institute, ‘Impact.’ Cutting edge research is likewise so reported. Papers contained within ‘Impact’ are referred to frequently by accident investigators during their investigations worldwide.

3.4 This Institute provides training courses, conferences and crash test & research days to assist in providing the scientific knowledge necessary to any professional accident investigator.

4.1 The Criminal Justice System can be equipped with robust, accurate and transparent forensic science by utilising the services of practitioners who are knowledgeable, qualified, experienced and who can provide evidence of current CPD. All Members and Associate Members of this Institute are certified to have achieved these attributes having undergone assessment and peer review of their casework. As such, the Criminal Justice System and the public can have confidence in the abilities of Experts who are members of this Institute.

4.2 The Institute is open to and encourages communication from accident investigators (the scientists), lawyers and the judiciary with enquiries as to whether an individual practitioner is a member with current CPD. To a large extent, where a member has so consented, this information is discoverable on the Institute’s website.

4.3 When the Institute is notified, by any person, of concerns about a practitioner then the matter is investigated and dealt with under the Institute’s discipline code.

5.1 The level of understanding amongst lawyers and judges with respect to accident investigation is variable and appears to depend upon an individual’s prior experience of serious road traffic cases.

5.2 A main problem source is the Crown Prosecution Service (CPS) who appear not to understand the requirement to supply working copies of the original raw data.

5.3 This Institute is committed to education and facilitates the provision of lectures to various external bodies regularly. There is no reason why this input should not be part of any training or meeting of lawyers and judges.
5.4 A key skill of an accident investigator is to give honest and impartial evidence before a jury in Court, in a manner that is understandable to the layperson thereby keeping them interested. The use of teaching aids and computer simulations is encouraged in this endeavour.

6.1 Training in the science of accident investigation is provided to prospective practitioners by:

- AITS and de Montfort University (with which ITAI has an advisory role)
  - Academic qualification of accident investigators to UCPD, Cert HE and degree levels. This leads mainly into positions in the police service and thereafter movement of retired police officers into the private sector.
- Academic Institutes – University Degrees and Higher qualifications in Mechanical Engineering, Physics, etc – the path taken by most private practitioners, who have not been members of constabularies.

6.2 This training is suitable and adequate for practitioners whilst lawyers and the judiciary require only an overview of the principles. ITAI offer to assist, as is set out in 5.3 above.

7.1 The current market for forensic services is inhibited by Legal Aid failing to pay adequate fees and subsistence thereby prejudicing the Defence as no longer can many experts afford to take on Legal Aid work.

8.1 The accreditation of practitioners by ITAI is working successfully. This Institute provides an assessment that includes a peer review of accident investigators’ casework before awarding higher grades of membership. This, coupled with current publicly discoverable CPD, justifies confidence in the individual.

8.2 It appears to ITAI that further and often expensive accreditation processes are conducted by those without necessary qualification and experience in the specific discipline of accident investigation.

8.3 The expense in both time and money to achieve accreditation alternate to that provided by ITAI places a great burden on police forces and, therefore, the public purse. So great is the burden to private individual practitioners and small businesses that it will serve to discourage participation thereby depriving defendants of the opportunity to test the prosecution evidence. This, in turn, will deprive the Courts of the balance and validation intended by our adversarial system; justice will not be served.

9.1 The Forensic Science Regulator should support and encourage professional bodies for individual scientific disciplines to accredit and regulate their memberships. Regulatory powers for this purpose would be unnecessary, without justifiable reason.

9.2 Standards and regulations are extremely important, however, accident investigation is not an exact science, as can be said of the analysis of blood, DNA or firearms etc. Understanding the tolerances that must be
applied to the analysis of road accidents is paramount in the setting of standards and regulations.

9.3 A proficient accident investigator will be able to:
- collect, record and understand forensic evidence;
- know how to obtain, process and draw conclusions from the alternatives and variable of the evidence available – in this respect, there is often more than one approach, and, without suitable knowledge, the wrong method can and often is used;
- write lucid and accurate reports, that can be understood by the layperson as well as by the opposing expert, lawyers and judges; and
- give impartial and accurate evidence in Court.

9.5 The only UK body capable of assessing the standards and regulation of the diverse and complex science of accident investigation is ITAI. Members and Associate Members of this Institute have undergone a grading assessment process. This requires evidence of qualification, experience and competency. An integral part of the process is a peer review of their case work.

9.6 The Institute has a Code of Professional Practice and Conduct for Road Traffic Accident Investigators. It has a disciplinary code and panel to consider complaints about experts within the field.

9.7 The ethos of this body (which is a charity and, therefore, has no financial interest in its assessment of Experts and Disciplinary decisions), is the improvement in the quality of accident investigation evidence given in all Courts and Arbitrations worldwide.

10.1 No comment.

11.1 No comment.

12.1 There are always opportunities for further research into accident investigation, and the Institute has procedures for carrying out test work and developing forensic science techniques. The aim of this work is to improve knowledge amongst its members as well as to improve vehicle and highway design, thereby contributing to road traffic safety.

12.2 Problematic to this goal is that too much information is being withheld by motor manufacturers. For instance: NCAP crush data should be declared as this would have a direct effect upon road safety and road traffic accident investigation. In the absence of this information, the UK accident investigator must rely upon data based either on generic models or the NHTSA database from the USA.

12.3 There should be open disclosure of all research data that might be of interest or use to accident investigators in an environment where there is no commercial conflict.

13.1 ITAI, with its European and American partners, review gaps in research constantly. Questions with respect to accident investigation research should be addressed to ITAI.
14.1 This Institute promotes a culture of innovation in the science that it represents. Support and encouragement of professional bodies for individual scientific disciplines would benefit the community at large.

15.1 There are skill gaps in the accident investigation industry. In particular, the police service has difficulty in appointing and retaining accident investigators. To overcome the difficulty, a workplace apprenticeship trailblazer group has been convened. The group comprises representatives from the police service, training establishments and profession bodies. ITAI is one of the bodies represented. It is essential that those who are qualified and knowledgeable in a particular field are responsible for the standards set for training.

16.1 No comment.

17.1 There needs to be agreement about how best to collect digital information. For example, there is no method of analysing digital images that does not rely upon external software which is not Home Office approved. Common sense says that external software that has been checked by experts such as ITAI and its members, should be adopted by the Home Office independent of their strenuous procedures for type approval.

17.2 If the digital analysis is going to mean that the original data uncorrupted is going to be sent to the Defence Team, rather than corrupted by reformatting to 25 frames per second for instance, this will be a major improvement in the present situation.

17.3 Equally, there should never be a situation in the future where colour photocopies or .pdf documents showing images of the accident scene are sent to the Defence team; that information should be available to all experts in its original form, i.e. jpg images and point clouds in ASCI format, preferably E57.

17.4 UK legislation, like that in the USA, with respect to disclosure of and accessibility to on-board vehicular data, in a consistent and standardised format, would greatly aid accuracy and depth to the accident investigation science.

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