



Accident investigation and reconstruction update

Number 6, (Second edition) 2008

This is an update of a Hot Topic first released in 2006

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1 Accident reconstruction in criminal cases: ethical considerations

Rast PH

Accident Investigation Quarterly 2008

Issue 50, pages 12-16

This article considers the legal aspects of crash investigations. Law enforcement agencies in the US immediately conduct a crash investigation if the collision resulted in a fatality or if alcohol was a factor. The investigation and gathering of evidence must be thorough to avoid ethical issues. The article includes case studies of legal actions where ethics have played a role in the crash investigation.

2 Development of a specialist investigation standard for heavy vehicle fatal collisions

Bugeja L, Symmons M, Brodie L, Osborne N, Ibrahim J

Proceedings of Australasian Road Safety Research, Policing and Education

Conference 2007, Melbourne, Australia

The Meeting Planners, Melbourne

10p

This paper outlines the development of a standard investigation procedure for heavy vehicle accidents. Approximately 33% of unintentional work related deaths are the result of heavy vehicle accidents. The Work Related Liaison Service (WRLS) in Victoria identified the need for consistent investigation of such accidents and worked with various experts in the field to create an appropriate standard.

3 The enhanced crash investigation study

Fildes B, Logan D, Hillard P, Schofield P

Transport Research Arena 2008

Ljubljana, Slovenia

Road and Transportation Research Association of Slovenia

Powerpoint presentation file

Online [accessed 13 November 2008]. [Click here](#) to view

This presentation outlines a project in Australia that assists in training road safety professionals using accident data. Detailed accident data was collected as well as site details, emergency services responses and other relevant factors in accidents. The case studies were presented to a panel of road safety professionals from various professions and organisations. Discussions of the case studies resulted in suggestions for countermeasures and interventions.

4 Evaluation of methods to limit the time taken to investigate crash sites

Walton JR, Barrett ML, Agent KR
Accident Investigation Quarterly 2008
Issue 46, pages 30-40

This article considers ways to reduce time spent investigating a crash scene in Kentucky. Many investigations require the vehicles to remain in their final positions while the investigation takes place. This can result in road closures or travel delays as well as extended periods when the investigation team are working on the road and are vulnerable to traffic. Current policies are considered and recommendations for best practice are made.

5 Fatal crash investigations

McDermott S
International Road Safety Conference 2007
Perth, Western Australia
Road Safety Council (WA)
6p

This paper summarises a crash investigation project in Western Australia. Nineteen fatal accidents were investigated for Main Roads WA. The paper details the various data that was collected and the crash tools that were used in the investigation.

6 The future of accident reconstruction

Lewis TD
Collision. The International Compendium for Crash Research. 2007
Volume 1, Number 1, pages 62-63

This article considers the use of Event Data Recorders (EDRs) in vehicles and the benefits of these to crash investigators. EDRs provide a less biased account of an accident than participant accounts. Disadvantages of this technology are also discussed.

7 Guidance for research teams: injury data collection for crash reconstruction studies

Green RN, Shkrum MJ, McClafferty KJ
17th Canadian Multidisciplinary Road Safety Conference 2007, Montreal, Quebec, Canada
Canadian Association of Road Safety Professionals (CARSP)
17p

This paper outlines the challenges crash investigation teams face when collecting injury data on crash participants. Various legislation and confidentiality requirements must be honoured and crash investigators need to establish excellent working relationships with the legal custodians of crash data.

- 8 In-depth crash investigation at the Centre for Automotive Safety Research**
Baldock MRJ, Woolley JE, Ponte G, Wundersitz LN, Lindsay VL
3rd International Conference ESAR 'Expert Symposium on accident research'
Hannover, Germany
Hannover Medical School
15p

This paper summarises the in-depth crash investigation program run by the Centre for Automotive Safety Research, University of Adelaide, Australia. The paper outlines the methodology for investigating the crash scene immediately after the incident as well as collecting additional data on crash participants and the site. The paper presents some findings from recent investigations, such as the relationship between travelling speed and crash risk.

- 9 Recommendations for establishing Pan European Transparent and Independent Road Accident Investigations**
Elliman RK, Jahi H, Persia L, Jansch M, Otte D, Giustiniani G, Usami D, Fagerlind H, Parkkari K, Rackliff LK, Morros AP, Vallet G
3rd International Conference ESAR 'Expert Symposium on accident research'
Hannover, Germany
Hannover Medical School
12p

This paper outlines the need for road accident investigations in Europe to operate according to a common methodology. One recommendation is for the development of a European Safety Oriented Road Accident Investigation Programme. The Programme sets out procedures for investigating accidents and addresses issues such as data protection and dissemination of data.

- 10 State DOT crash reconstruction practices**
Pigman JG, Agent KR
Transportation Research Board 2007
Report number 369
41p
Online [accessed 13 November 2008]. [Click here](#) to view

This report outlines the crash investigation practices conducted by State transport agencies in the US. State Departments often conduct crash investigations to assist in assessing roads and black spots or in response to a claim against the department. The report summarises the procedures used in different states and offers suggestions for knowledge transfer and education.

- 11 Use of photogrammetry as a tool for accident investigation and reconstruction - a review of the literature and state of the practice**
Arnold ED
Report number VTRC 07-R36
Virginia Transport Research Council, USA
32p
Online [accessed 14 November 2008]. [Click here](#) to view

This report reviews the validity of digital technology as a crash investigation tool. The investigation process can be time consuming and often results in road closures and other traffic disruptions. By recording images of the site, instead of manually surveying, crash sites can be cleared quicker and investigators can spend more time analysing the data.

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