

# Reducing 'blue light' collisions through driver assessment

The number of people killed or injured in police collisions has risen by 60 percent according to a recent report by the Independent Police Complaints Commission (IPCC). In 2003-2004 there were 2015 casualties, compared with 1259 the previous year, and collisions are the single largest cause of police related death.

IPCC chairman Nick Hardwick said recently that, 'training and risk assessment are the keys to reducing deaths and serious injuries involving police drivers' and, indeed, driver risk assessments are absolute law and clearly laid out in the Health and Safety at Work Regulations 1999.

A highly effective and proven way of reducing collisions involving emergency vehicles is to risk assess the driver. This approach is gaining momentum amongst companies that operate large fleets of vehicles, and dramatic improvements in both the number of collisions and their cost have been widely reported.

Driver risk assessments for emergency services personnel who drive under blue light conditions must be routinely conducted to identify drivers in need of focused driver training, primarily because of a duty of care towards employees and secondly, because the general public expect the highest standards of driving from employees entrusted with an emergency vehicle. It is wholly unacceptable for members of the public to suffer injury or death in a collision involving an emergency vehicle and everything must be done, and be seen to be done, to minimise the risk.

## Driver risk index

There are currently several driver risk assessments available, but none have an academic research base, nor are they specifically developed to take into account the risks that emergency services personnel face.

Research over the last five years by Dr Lisa Dorn and her team of psychologists at Cranfield University has led to the development of driver risk assessments specifically designed for police drivers and emergency appliance drivers. Currently under development is a driver risk assessment for the ambulance service.

The Driver Risk Index (DRI) is a psychometric driver risk assessment that incorporates several scales to measure both behavioural factors and situational factors that are known to increase risk of collision involvement.

Psychometrics is the science of measuring human qualities reliably and validly, based on proven psychological principles. Driver responses to questions posed within the DRI reveal their attitudes and behaviours towards driving risk. This results in a score which provides feedback about their level of risk compared with that of the population.

The way in which a driver scores on the characteristics within the DRI determines his or her

level of risk of being involved in a collision. Once a driver has completed the assessment, which takes approximately 30 minutes, an individualised report is generated identifying not only which drivers are most at risk of being involved in a collision, but also, and most importantly, why drivers are at a high risk and identifying the specific behaviours that contribute to that risk.



## Core behavioural factors

Some of the core behavioural factors that apply to all emergency service drivers include: thrill seeking, aggression, enjoyment of driving, hazard monitoring and fatigue resistance. Emotional and behavioural reactions to driving can reduce the driver's ability to select an appropriate coping strategy to meet the demands of the driving situation, and this in itself can lead to increased risk of being involved in a collision. The core driver coping strategies include: emotion focused coping, confrontative coping, task focus coping, avoidance and reappraisal coping.

The DRI scales are predictive of driver behaviour, driver error and collision involvement. Aggression and thrill seeking is associated with risk taking and is consistently higher amongst drivers involved in accidents and those with driving convictions. Accident involved drivers also display lower levels of hazard monitoring, high levels of which are related to anticipation of hazards whilst driving.

Drivers high in confrontative coping use intimidating tactics towards other drivers and show minimal speed reduction in response to hazards. Low scores on enjoyment of driving are associated with driver error while fatigue resistance measures propensity to experience



Dr Lisa Dorn, Cranfield University

driver fatigue after an extended period of driving, and is associated with slower reactions whilst driving.

The DRI scales are, therefore, predictive of risky driving behaviours and maladaptive coping strategies, based on many years of research conducted on thousands of drivers.

An added benefit of the DRI is the online Management Information System (MIS) which enables the manager to easily manage and monitor the entire driving risk management process, incorporating assessment, monitoring, review, compliance and audit trail. This ensures that your service has fulfilled its health and safety duty of care to its employees.

## Driver training

The emergency services are performing a vital function in protecting and maintaining the structure and standards of society. Attending to the physical and psychological well being of emergency service drivers should be of paramount importance for practitioners, managers and policy makers.

However, any risk assessment is only as good as the training that is put in place to mitigate the risks identified. Personality based emotional responses during emergency driving can interfere with driving skill when emotions are running high – especially if the driver believes they can successfully handle risk given their advanced training in blue light driving.

Cranfield's research suggests that a skills based approach may lead to over confidence and inappropriate use of skills amongst some emergency service drivers and may not adequately address aspects of driver behaviour that contribute to risk. Blue light training should ideally encourage awareness of the limitations of the driver.

Training in the use of more effective coping strategies is also important as inefficient training can not only go beyond failing to manage the stress of driving for work, but actually exacerbate the problem.

Cranfield University also offers a two day Continuing Professional Development course designed to train trainers to deal with the driver behaviour issues highlighted by the DRI and human factors in driving.

For more information visit the website ([www.drivermetrics.co.uk](http://www.drivermetrics.co.uk)).