Ministry of Defence

Defence Road Safety Strategy

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Front cover image: a Viking (BvS10) Armoured Personnel Vehicle during Exercise Clockwork BV Course Bardufoss, Norway.

Our commitment to eliminating road safety fatalities

Defence is inherently a profession with a unique set of risks. Yet every year, more of our armed forces personnel are killed on the road than on operational deployments. In 2021 alone, 9 members of our armed forces were killed in road traffic collisions. It is neither inevitable, nor acceptable for any of our armed forces, civilians, or contractors to lose their lives or to be seriously injured in these avoidable events.

Despite seeing improvements in road safety in the last three decades, the figures for Defence remain unacceptably high.

Each one of these avoidable deaths affects a much larger group of people and leaves a family, struggling to come to terms with the devastating and lasting impact on their lives.

From Defence's point of view, our people are our most important asset. Each loss weakens our operational capability and reminds us of the imperative of doing our utmost to protect our people from avoidable risk.

Our new Vision for Health, Safety and Environmental Protection in Defence has set our ambition to eliminate fatalities whilst enhancing capability, minimise injuries through learning and establish a world leading safety culture. To achieve this, the elimination of road deaths and serious injuries, and ensuring the Defence estate is free from vehicle related accidents, are amongst the highest priorities for leaders across the department.

We are already seeing greater focus at unit and Command level, but we recognise that Defence as a whole can, and must, do more. The Road Safety Strategy is the first pan-Defence approach to keeping our people and other road users safe and represents our long-term commitment to ending the toll of armed forces deaths from road traffic collisions.

Baroness Goldie DL
Minister of State

Why do we need a Defence Road Safety Strategy?

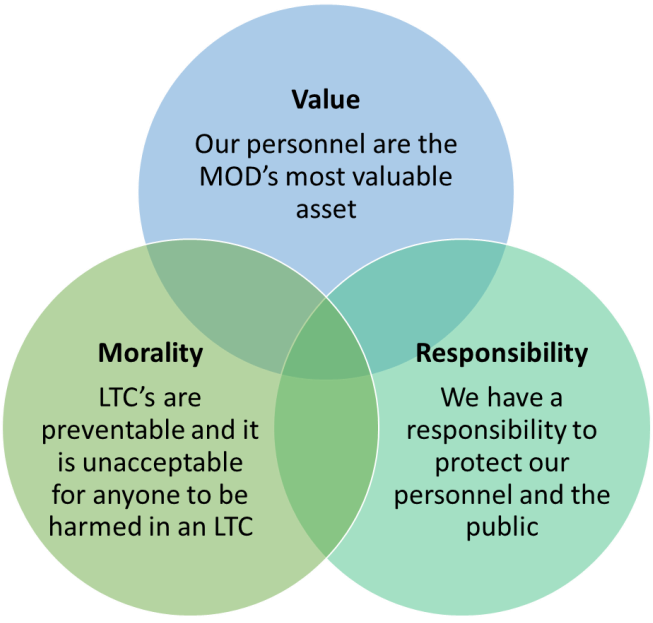
In 2022, over 3,800 land traffic collisions (LTCs) were reported to the Movements & Transport Safety Regulator (MTSR), resulting in one on duty death and 44 injuries. A further nine armed forces personnel were killed in off duty incidents during 2021[1].

Whether on or off-duty, LTCs remain a leading cause of fatalities and injuries across the Ministry of Defence (MOD). Whilst deaths from LTCs have decreased over the last 35 years, they consistently remain in the top three causes of armed forces fatalities. These tragedies disproportionately affect our younger personnel.

In the 2018/2019 Annual Assurance Report, the Defence Safety Authority (DSA) recommended that the newly created Defence Safety and Environment Committee (DSEC) develop a road safety strategy.

Reducing land transport related trauma is not just a legal duty-of-care and an operational imperative, but also a moral obligation to reduce trauma and loss, to protect our people, equipment, and the public.

In recent years, LTC-related fatalities have accounted for around 1 in 5 deaths of armed forces personnel. When adjusted for age and gender, it is estimated that armed forces personnel are at a 50% increased risk of dying from a land traffic collision compared to the general population in Great Britain. The latest figures demonstrate a stagnation in UK regular armed forces fatalities. These figures do not include injuries, or members of the public harmed in collisions with armed forces vehicles. Sporadic campaigns have sought to address LTC risks, but it is clear that a more strategic approach is required.



[1] These figures do not include on-duty LTC-related fatalities amongst the civilian Defence population (civil servants and contractors), off-duty civilian deaths from LTCs, or non-fatal collisions where armed forces personnel/MOD employees were driving their own vehicle.

What is international best practice?

The traditional approach to road safety is to focus on the human, most typically the driver. The culture is to identify blame and likely some aberrant behaviour in order to explain the cause of a crash. Such a perspective leads to a focus on the user as the problem that needs to be fixed. However, best practice from safety critical industries highlights that this is flawed. Humans are individual and humans are limited. It is therefore flawed to rely on humans to interpret risk-related rules and advice, and to implement it successfully 100% of the time. All drivers make errors, most go unpunished, but some lead to greater consequences.

International best practice in road safety, supported by the United Nations, World Health Organisation, European Union, Department for Transport, National Highways and Transport Scotland, promotes adoption of the Safe System approach as the framework for any road safety strategy.

The Safe System views human life and health as paramount to all else and should be the first and foremost consideration. It acknowledges that people are fragile and will at times make mistakes that can lead to crashes. Most mistakes are not conscious decisions, they are unintentional errors that are an inherent part of being human. These errors are the human equivalent of a margin of error for technology. Yet unlike machines each person is unique, making true human errors difficult to predict and impossible to fully eliminate.

With that understanding, the ultimate goal of the Safe System is to prevent any road user being subject to impacts with energy sufficient to cause fatal or serious injury when inevitable human errors of judgement result in crashes.

Underpinning the Safe System approach are four principles:

1. Humans are fallible and make mistakes that lead to crashes
2. Humans are vulnerable: the human body has a limited ability to withstand crash forces before injury occurs
3. A shared responsibility for safety exists between those who use the roads and those who design, build and manage roads and vehicles:
    a. For road users, it is to act with care and follow the rules
    b. For engineers, designers and road mangers, it is to prevent crashes that result in death or serious injury
4. Multiple layers of protection should be introduced, hence providing a back-up should one element fail

The Safe System approach starts from a different moral and ethical position than traditional approaches in road safety. It is a holistic, long-term vision that deaths and injuries are preventable, not inevitable nor acceptable. As such, the Safe System is associated with a long-term vision where no one is killed or seriously injured on the road, supported by interim manageable targets.

What is Defence's road safety vision?

Our vision for HS&EP is to establish a world leading safety culture across Defence, eliminating fatalities whilst enhancing capability, and where the value of safety and environmental protection is recognised by everyone.

In doing so, we aim to:

- Eliminate fatalities whilst enhancing capability
- Minimise injury through learning
- Protect the environment from harm

The Defence Road Safety Strategy is designed to deliver Defence's HS&EP Vision in the specific context of road safety.

A soldier unstrapping a load from a logistics vehicle, prior to setting up the testing pods in Liverpool

What are our strategic objectives?

For many years, collisions on the road network have been a persistent risk to armed forces personnel and, today, deaths due to LTCs remain unacceptably high.

The creation of this Road Safety Strategy represents a new pan-Defence approach to road safety. It will set the overarching vision and structure to enable improvements in road safety, whilst recognising the autonomy of Defence organisations.

Defence road safety strategic objectives

- To enhance operational capability through a continued reduction in fatalities and serious injuries from land traffic collisions involving Defence vehicles and/or personnel, and to minimise minor injuries
- To achieve continued improvement to road safety incident and near-miss reporting
- To create a culture where the importance of safe behaviour by road users is recognised by all in Defence
- To reduce the financial cost to Defence of land traffic collisions

To achieve its strategic objectives, Defence is setting the following enabling objectives:

- To improve data collection of road user behaviour, collision risk factors and to adopt an evidence-led approach
- To establish a structure of governance to prioritise safety and oversee delivery of the Road Safety Strategy
- To collaborate across MOD, government and national and international stakeholders to achieve common goals

What does the strategy cover?

The strategy covers all Defence vehicle and road use activities, both on and off-site, all staff including Defence contractors and sub-contractors. This includes:

- All military personnel, service families, MOD civil servants and contractors
- On and off duty
- On and off the Defence Estate
- Operating in the UK and overseas

Although Defence's legal duty of care and ability to regulate off duty driving is limited, the holistic nature of the Safe System means we must, and will, take every opportunity through our on-duty actions to influence the off duty behaviours of our people. Many of the skills our people learn as part of their roles within Defence can be applied in wider life – safer driving is no different. The strategy aspires to create safe drivers on and off duty, now and in the future.

Service families and contractors play a key role in Defence and are a common occurrence on many Defence sites. As part of our duty to ensure a safe working and living environment for those on our estate, our actions will seek to influence the safe behaviours of all users.

A Husky protected support vehicle, being loaded onto an Oshkosh, Medium Tactical Vehicle Replacement (MTVR) truck

What are the benefits of a road safety strategy?

The development of this strategy brings the benefit of a sustained, planned and focused approach to prevent avoidable harm to our personnel. The strategy is only a guide that sets a common aim, describes the approach and sets actions. A strategy requires on-going monitoring and evaluation and governance, and will be continually updated.

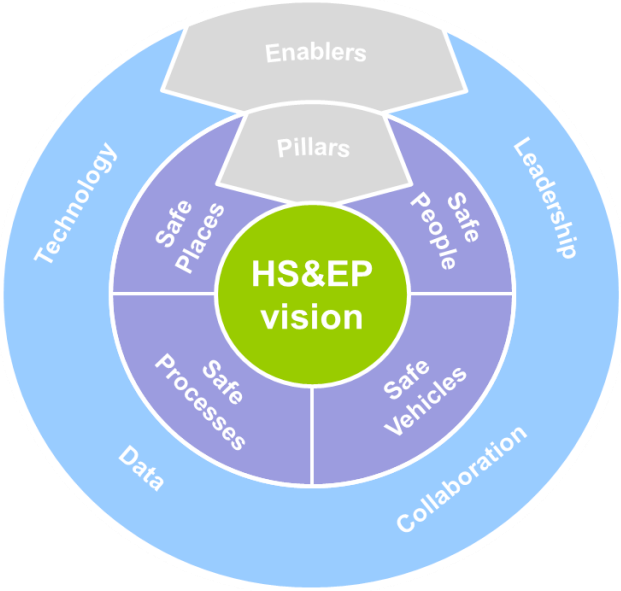
The long-term benefits of a successful road safety strategy are:

- Reduced deaths and serious injuries to Defence personnel and the public
- Reduced minor injuries
- Improved health and wellbeing
- Healthier communities
- Synergies with the road decarbonisation agenda
- Cost savings from reduced loss of personnel, time off-duty (injured), damage to equipment and reduced collateral damage to public highways and people

How will the vision be achieved?

Safe Systems Approach

The strategy starts with our vision at the centre. To achieve this and in line with international best practice, the strategy is built on the Safe System framework. Clearly, the MOD is not a land transport agency and does not control all parts of the land transport network. As such, the strategy is focused on areas it can control, while working closely across government and with national and international stakeholders to achieve mutual goals.



There are four key Safe System pillars that underpin the strategy:

Safe people: As a fundamental, users in a Safe System are required to comply with rules governing land transport. We want all MOD personnel to go beyond this, to be active parts of achieving our vision. To be engaged with protecting themselves, their colleagues, their loved ones and the public. The MOD should represent the pinnacle of training and education, fostering a culture whereby LTCs are unacceptable and actively prevented. We need to understand more about our personnel and their risk on the road to ensure interventions are evidence-led.

Safe vehicles: We want our personnel to be protected by the vehicle they operate. The MOD operates a wide variety of vehicles across a wide variety of terrains. However, vehicle standards should always be designed to protect our personnel. The international New Car Assessment Programmes (NCAPs) test the safety performance of new cars across the world. Euro NCAP is the most relevant to the UK market, where the majority of MOD's cars are operated. Schemes such as this can be used to ensure the MOD seeks to use the safest vehicles and vehicle technologies wherever possible.

Vehicles operating on public roads are certified against legal standards for use in the UK by the Vehicle Certification Agency, which is the designated UK vehicle type approval authority. There is no equivalent list of accepted standards or certification system for off road use of civilian vehicles or of military platforms.

Safe processes: As an organisation, the MOD can manage risks within its control, and set the framework and culture for managing risks beyond its control, through collaboration or individual behaviours. Developing safe processes means clearly embedding the moral and practical culture necessary to reach our vision. Leadership dedicated to the eradication of deaths and serious injuries from LTCs, and governance to ensure the actions taken are appropriate and effective. The policy for Defence Movements and Transport policy is currently set out in JSP 800 Vol 5, Road Transport Policy. Additionally, the management of vehicle and pedestrian traffic is set out in Chapter 3 of JSP 375. Future policy will strengthen these existing documents.

The Safe System approach promotes proactively tackling the risk factors (and exposure to them) that lead to serious road casualties and deaths. To achieve our vision there must be a detailed understanding of what factors and failings lead to road casualties involving Defence personnel and vehicles.

Safe places: Processes, infrastructure, vehicles and people combine to create safe places. We want the MOD estate to be as safe as reasonable practicable. Nevertheless, Defence activity can occur in remote and difficult terrain which can hamper the delivery of medical intervention should an incident occur.

On public roads, whether on or off-duty, our personnel have a duty to protect the public from harm. The MOD has no direct influence over infrastructure across the national road network, but it might influence its employees' decisions, behaviour and choices of route (as driver, pedestrian or

bicyclist) so that safer roads or off-road options are selected.

These pillars are not mutually exclusive, and it will be common for interventions to work across more than one pillar. For example, creating safe places (for example the training estate) requires safe processes combined with education and training for personnel, potentially in addition to the use of safe vehicles.

A soldier from 2 Rifles mortar platoon rides a Grizzly 450 Quad Bike (followed by a Man SV Truck) on Exercise Askari Storm, Kenya.

In order to influence these pillars and achieve our vision, we will rely on four key enablers:

Leadership: Organisations that are serious about protecting their people must do more than reacting after an incident has occurred, or relying on awareness-based safety efforts only. Organisations which embed safety at the centre of their operations recognise the need for the continual identification of exposure to risks. They act on this information to put in place a range of systems and controls to eliminate or reduce the exposure to these identified risks. This proactive approach is far more effective and demonstrates a higher degree of care for staff; it is also Safe System aligned.

Defence must therefore balance the inherent risks posed by the nature of its operations with a safety culture and systems that avoid unnecessary exposure to risk, while empowering personnel to support the system by upholding the principles of the strategy and safety culture.

Indicators of a positive safety culture include:

- A shift from a ‘blame culture’ to a willingness to proactively report safety concerns, near-misses and incidents resulting in damage and injuries
- Systematic assessment of potential risks introduced by any new activities/ equipment and management of these identified factors
- High quality assessment of reported incident records and incident investigation, and timely implementation of corrective actions
- Empowered teams who challenge unsafe behaviours
- Effective communication – safety policies which are easily accessible and written in plain English

Collaboration: Whilst not a land transport agency, Defence recognises the key role it plays in the safe use and management of the road network. The sharing of data, insight and collaboration between government departments, road safety groups and national and international partners to develop and implement best practice is a fundamental element to achieve our vision.

Data: The strategy recognises the importance of data for monitoring and evaluation to derive the evidence necessary to guide targeted interventions and improve the efficiency and efficacy of our actions.

Technology: Defence needs to be ready to embrace new trends, such as connectivity and automation, which will, in the future, create new road safety opportunities by reducing the role of human error. However, as we remain in the transition phase, new risks will emerge; these include vehicles with a wide range of different automated/connected capability, which will have to operate in mixed traffic conditions alongside 'traditional' vehicles and vulnerable road users, such as motorcyclists, cyclists and pedestrians.

With the rise in technology for vehicles, motorcyclists, cyclists and pedestrians, there is an ever-growing risk of over-confidence in, and over-reliance on, technology. This could lead to road users adopting more risky behaviours, believing the technology will accommodate them and adapt appropriately. Furthermore, technology is still largely unfamiliar and may lead to increased distraction and/or improper use which, in turn, increases collision risk. Hence, new and emerging technologies must be researched and evaluated to evidence the risks and opportunities for road safety.

Plan – Do – Check – Act

In line with the Health, Safety and Environmental Protection Functional Strategy, the four-stage 'Plan-Do-Check-Act' approach will be used to implement and to continually improve road safety across Defence. The graphic below provides an overview of how the Plan, Do, Check, Act process will be used to identify risks, implement solutions, monitor effectiveness and refine solutions based on evidence.

The four stages of the approach are as follows:

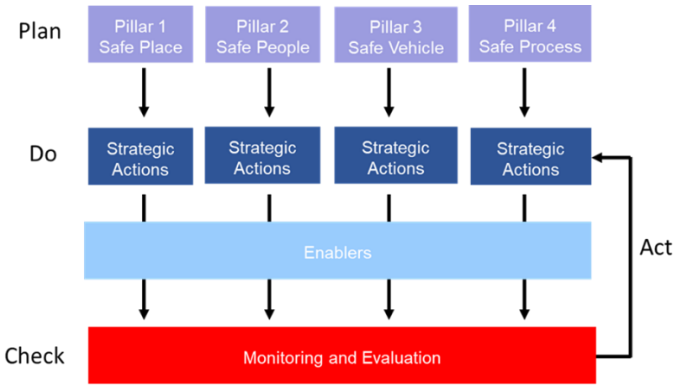
Plan: identify problems and opportunities

Do: implement potential solutions

Check: assess the results

Act: implement improved solutions

The enablers have been identified as key areas where action is needed to ensure Defence has the ability, expertise and culture to effect change within the road safety environment. The enablers are not exclusive to individual Safe System pillars or actions and the capability that their successful implementation will offer, will provide the foundations to Defence's continuous improvement of road safety through the Plan – Do – Check – Act structure.



An overview of the Plan, Do, Check, Act data-driven approach to strategy monitoring and evaluation.

How will the strategy be delivered?

Strategic actions

The strategy identifies four Safe Systems pillars and four enablers that are required to deliver the HS&EP vision for road safety. Each pillar and enabler is supported by a strategic action that must be implemented to support the establishment of a Safe Systems approach in Defence.

The actions are:

Leadership: We will adapt the Health Safety and Environmental Protection Functional Delivery Group to incorporate road safety as the senior Defence road safety board and appoint Road Safety Champions to deliver the Road Safety Strategy across the Defence organisations.

Technology: We will commission a Road Safety Futures Review to explore the risks and opportunities from new technology for Defence road safety.

Data: We will establish a new Road Safety Analysis Group to provide analytical, statistical and behavioural support, including coordination of road safety incidents.

Collaboration: We will work closely with the Department for Transport on the government's new Road Safety Framework, including membership of the cross-government Road Safety Board and development of a Road Accident Investigation Branch.

Safe Place: We will fully implement the recommendations from the DSA review of Defence driver training site authorisation.

Safe People: We will commission a behavioural insights study to better understand driver behaviours with a view to better tailoring safety campaigns and wider interventions.

Safe Process: We will review and update Defence transport and safety policies to set out the mandatory requirements and standards across Defence. We will develop supporting guidance and best practice for off duty use of the road network.

Safe Vehicles: We will fully support the DSA's review of the safety benefits of establishing a common set of standards and a bespoke military vehicle certification scheme and implement its recommendations.

Timeline to implement the actions

To meet our vision and change the philosophy and culture around LTCs will take time and a phased approach is proposed. This focuses on the things we can do right now (quick wins), the things we can start preparing for in the medium term, and the things that will build on these gains and move us towards meeting our vision.

Our strategy will be evidence-led, and that requires the collection and collation of data sources that can be used to inform, monitor and evaluate to ensure the most effective and efficient use of resources.

How will the strategy be managed?

An improved focus on road safety will be primarily managed through a combination of existing governance structures.

Governance of road safety will be incorporated into the existing Health, Safety and Environmental Protection Functional Delivery Group, chaired by Director Health, Safety and Environmental Protection. This will be the senior pan-Defence road safety board and the primary cross-Defence board to review and discuss road safety performance and risk.

Road safety matters relating specifically to Joint Service Publication (JSP) 800 (Defence Movement and Transport Policy) will be managed through the Defence Logistics Steering Group, chaired by Director of Joint Support (UK Strategic Command).

The terms of reference of road safety within the Functional Delivery Group will include:

- Share understanding, evaluation and learning as well as challenging thinking on policy initiatives
- Review and challenge Defence's performance on road and land transport safety, seeking out opportunities to benchmark performance
- Review, analyse and distil information and evidence which supports delivery of the strategic actions

- Share information and best practice between members
- Monitor progress against the strategic actions
- Discuss the development of strategies and monitor progress against actions to improve the land safety culture in the Department
- Align respective relevant organisational activity in accordance with direction provided by the Functional Delivery Group
- Highlight key issues and risks and propose mitigating actions

The Functional Delivery Group on road safety will be supported with data and behavioural insight from the Road Safety Analysis Group. The Road Safety Analysis Group will be part of Defence Statistics and will support road safety governance and decision making by:

- Coordinating and managing the data that is needed to track injuries and deaths, including the circumstances of the incidents
- Exploiting all the data held across Defence and external partners such as the Department for Transport and civilian police databases
- Working with Defence organisations to understand the true cost of deaths, injuries, and incidents, not just from a compensation perspective, but also the cost to replace that individual and/or equipment
- Investigating attitudes to road safety and improving Defence's understanding of driver behaviour
- Tracking the impact of policy changes and initiatives to establish success and identify opportunities for improvement

Ensuring decisions are evidence based, utilising crash data and behavioural insights.

Road safety champions

In the past, when it comes to road safety, it has often been believed that one size fits all. Given the diversity of our organisation, the roles we fulfil and the experiences of our people, it is evident that a more nuanced approach is required.

Whilst the strategy sets out the overarching ambition and seeks to establish the foundations in which to achieve this, it recognises the autonomy of the Commands and Enabling Organisations. Through a delegated model, Road Safety Champions will be empowered to build their own governance structures and develop individual strategies, tailored to their specific needs.