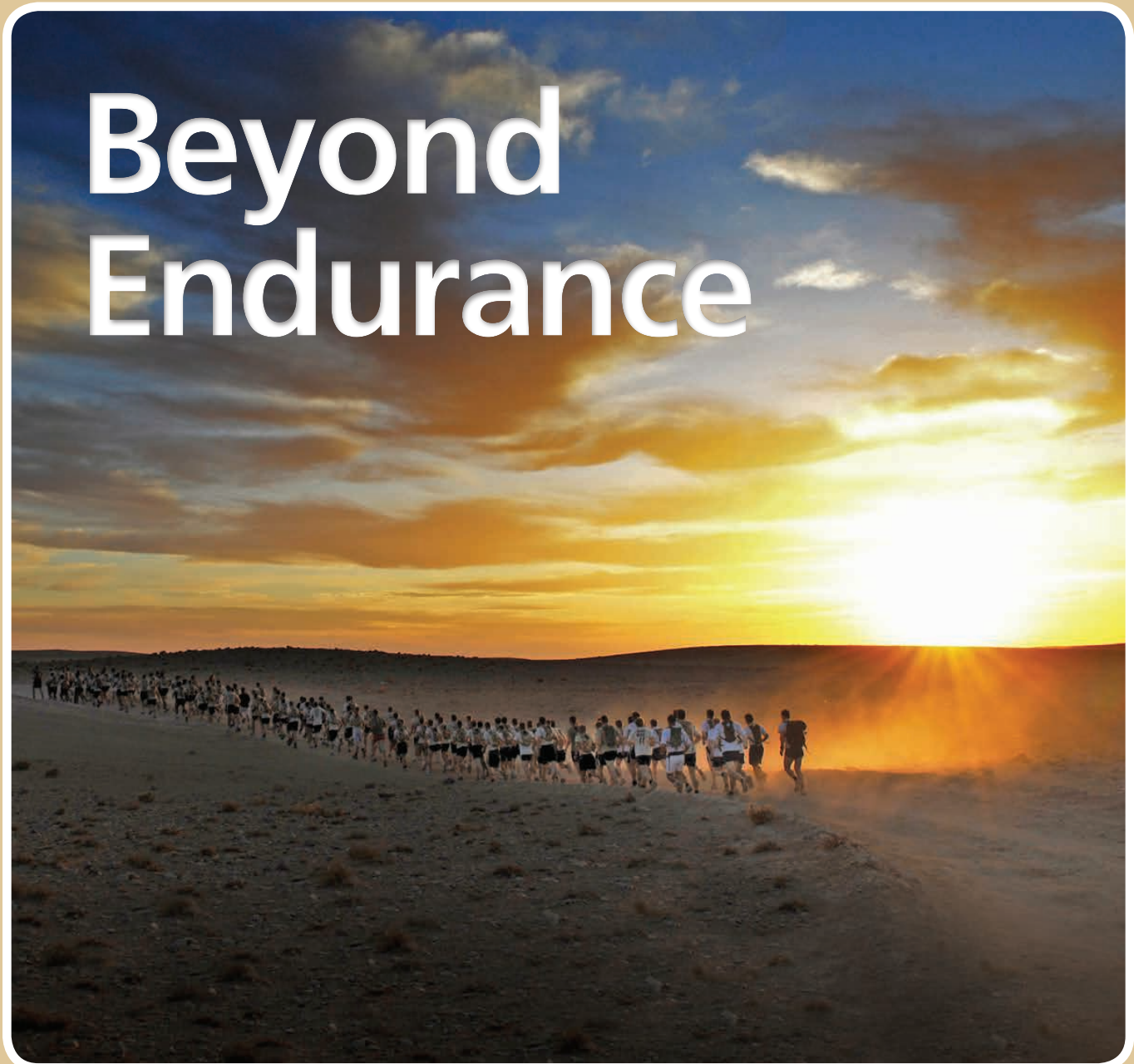


Army Safety

55 | Summer 2017 & Environment Matters

Beyond Endurance



ceso **a**

CHIEF ENVIRONMENT & SAFETY OFFICER (ARMY)

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CESO-Army



British Army Safety



Vehicle Loading and Restraint

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Editorial



Welcome to Issue 55. The past six months have been yet another extremely busy period for CESO(A), primarily due to a Duty Holding review, the rewrite of Defence Safety Policy Structure and the completion and release of the new video

about our training areas called 'Without a Trace', which is a guide to how areas should be left after training.

I would like to thank all those who have contributed to this issue of the magazine. We've some interesting topics and some superb accompanying images, including these highlights:

'Beyond Endurance' – focusing on best practice in the management of the Annual Fitness Test (AFT).

'Driving Endurance in BATUS' – the control and management of drivers' hours in the combined arms manoeuvre environment.

'Cycling Top Tips' – whether cycling for sport, leisure or commuting – this article provides some surprising statistics and some vital advice.

'Without a Trace' – background and information on the new video, which focuses on the need for good environmental protection practices before, during and after exercise.

In this issue we also bid farewell to SO1 Safety Management (Ian Groom) and hello to CESO(A)'s newly appointed SO1 Safety Management (Martyn Cox) – see news in brief opposite.

Finally, if you would like specific topics to be covered in the future then please ring, e-mail or write to me with your requests and any views you have – and we will do our best to respond.

Sharon Foster – Editor

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“ Worth a second thought?
**Hindsight is a wonderful thing,
 but foresight is better,
 especially when it comes to
 saving life, or some pain.** ”
 William Blake

News in Brief

Farewell

This issue of the magazine sees CESO(A) saying a fond farewell to a long term and very popular member of staff. **Ian Groom leaves us to become SO1 Force Protection in Comd Fd Army after 10 years' service in CESO(A).**

Ian joined CESO(A) in 2007 as the SO2 H&S, before taking on the very busy role of SO1 Safety Management – along with many other responsibilities. His experience and knowledge of all matters, Military and Safety assisted him to quickly become a valued and key member of staff.



He was one of the driving forces behind the establishment of AINC and the main contributor to the current Incident Notification System which has been adopted by the RN and is under consideration by RAF.

Ian will be sorely missed by all in CESO(A) and we wish him all the very best in his new post.

New Safety Management CESO(A)

Hello, my name is Martyn Cox and I am very pleased to be appointed as CESO(A) SO1 Safety Management. I look forward to the challenge of helping the Army become a safer place to work with a learning culture that still offers a rewarding and exciting career.

I completed a full career in the Army with the REME serving most of my time with 3 Commando Brigade and the Parachute Brigade, with a few other units thrown in.

When I went out into civilian life initially I was an Engineering Manager and then a Production Manager.

Due to circumstances I ended up taking a job in Andover within Reliability Maintenance Group as a Reliability Engineer where I worked until Nov 16. That post was taken as part of the ACR, and so I have now been lucky enough to have the chance to take on this job.

Incident / Accident Management Procedures on Detachment

Question: If a soldier from Unit A attends a weekend exercise with Unit B and suffers an injury for which he is trying to make a claim – which Unit is responsible for ensuring the case is investigated, recorded, reported and closed off in such situations?

Answer: It must be Unit B in such a scenario as they are the Unit who conducted the exercise and who ultimately had to provide the Duty of Care to all soldiers under command including those on detachment. This delineation of responsibilities should be included in Exercise Admin Instructions.

SHEF Changes in Germany

With effect from 15 March 2017 the following post became obsolete (BFG-HQ-SHEF-SO1).

The single point of contact for all BFG HS and EP matters is now Mark Richmond (BFG_HQ_SHEF_SO2).

Addendum

The last magazine (Issue 54) contained an article regarding Defence Vehicle Accidents (pages 8 and 9).

Readers should note that the article refers to the need to undertake Defence General Service Driver Conversion Instructor (DGSDCI) training prior to driving cross country.



Whilst the General Service Modules 1+2 above delivers the basics for General Service vehicles such as Land Rover, it does not provide the necessary knowledge for driving Armoured Fighting Vehicles such as Warrior, or Armoured Vehicles (Wheeled) such as Jackal / Coyote, RWMIK, MRW Gp, Foxhound, Husky or Panther. Training for these armoured vehicles must be delivered through completion of an Armour Centre (Armccen) Driver and maintenance course – either at the Armccen or as Distributed Training (DT).

All DT Training must be delivered by a current qualified Driving Maintenance Instructor (DMI).

JSP 539 Update

'JSP 539 – Prevention of Climatic Injuries in the Armed Forces: Medical Policy' has been substantially reviewed and re-titled 'JSP 539 – Heat Illness and Cold Injury: Prevention and Management'.

This version 3.0 of the JSP was published in May 2017 and is now split into two sections:

- Part 1: Directive.
- Part 2: Guidance.

The JSP is accessible via: <http://defenceintranet.diif.r.mil.uk/Reference/DINsJSPs/Pages/JSP539ClimaticInjuriesintheArmedForcesPreventionandTreatment.aspx>.

Accolade for Wimbish SHE&SD Advisor

Capt Tony Dale resides as the SHE&SD Advisor at Carver Barracks based in Wimbish, Essex, providing advice and guidance to 101 and 33 Engineer Regiments EOD, the 29 EOD & Search Group Support Unit (GSU along with local cadet units).

Tony was named in the Queen's New Year's honours list as becoming a Member of the British Empire (MBE).

On the 17 Feb 17, accompanied by his wife and two daughters, he accepted his award in Buckingham Palace from HRH Prince Charles. The award was given for his work to both the military and civilian communities.

Capt Dale said that he was very humbled to receive such an award and wanted to thank those he has worked with, both military and civilian, for being part of this amazing journey.



Feedback

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Article contributed by Lt Col (MAA) Mark Lewis RAPTC, SO1 Training Assurance

Beyond Endurance

As part of MATT2 Fitness, the Annual Fitness Test (AFT) is the Army's vocational physical fitness test.

The AFT consists of an 8 mile march completed in 2 hours for Regular and Reserve Infantry personnel or 6 miles completed in 1 hour 30 mins for other Reserve personnel. The load carried is determined by an individual's Career Employment Group.

AFT is conducted in combat clothing and boots carrying personal weapon (SA80 or LSW). The test must be completed before soldiers leave phase 2 training and for those at MATT's levels 1 and 2 annually until a Service person reaches their 50th birthday, at which point, unless they are deploying on operations, they are exempt.

If individuals fail to pass the AFT they are retested. If they fail for a second time they will receive appropriate physical conditioning training before a subsequent re-test. If they continue to fail they may be subject to administrative action and ultimately discharged from the Army.

The vast majority pass the AFT without difficulty, however, individual risk



factors exist that may contribute to someone being withdrawn from the test and sometimes evacuated to medical care.

One of the major concerns during the AFT is the risk to those individuals who become incapacitated as a result of a rise in core body temperature – heat illness. Since the AFT is an important test, individuals often push themselves to their limit and some may even attempt the test when they know they are at risk of failing. 'Soldiering on' through a minor illness is potentially extremely dangerous. This also applies to personnel who are pushed too hard where environmental conditions are assessed as presenting a risk of heat illness. Commanders should be careful not to allow cultural

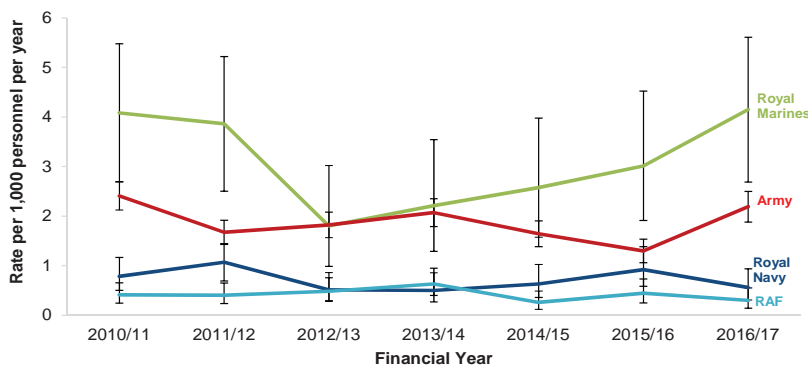
attitudes of 'soldiering on' to prevail where this may put individuals at increased risk. Casualties range from mild cases requiring rest and fluid replacement through to individuals requiring intensive care in hospital, in some instances deaths do occur. Exertional heat illness is frequently diagnosed in temperate climates outside of summer months and many cases are preventable through increased awareness of the risks and appropriate planning.

When heat illness does occur the severity of cases can be reduced if appropriate first aid measures and evacuation to medical care are carried out effectively.

Whilst not all AFT related, there were 247 UK Regular Armed Forces personnel identified as having a heat illness in 2016. Understandably, rates were higher than average for Army personnel (see graph, left).

Heat Illness Rates by Service

UK Regular Armed Forces personnel with a heat illness in SUMMER periods, by service and financial year (rates)



Sources: DMICP, NOTICAS, OPEPAR, Field Hospital, Aeromed, DPTS, JPA, CHASP, IRIS, AINC, AIRS, DINC, DIO, JFC, HOCS, NSINC, AHU

Policy

Despite a multitude of direction, guidance and advice on the conduct of AFTs, which is being followed by the majority, some view it as prescriptive and over-protective. However, in August 2016 the Deputy Chief of the General Staff clearly stated to the Chain of Command that it is not. Rather, it is sound leadership and management.

OIC AFT briefing the PTI



Aside from the obvious moral responsibility to look after our people, there are clear capability, reputational, legal and financial imperatives to do so. The risks associated with AFTs must be properly understood and managed.

Physical Training Instructors (PTI) are well trained in planning and running AFTs but their presence does not reduce the need for others to fulfil their responsibilities. As such, an Officer in Charge (OIC) is now required for all AFTs. That individual is to have sufficient military experience and judgement to be responsible for the safety of individuals during the activity, typically a Captain / SNCO; the PTI cannot be the OIC.

Full details are in MATT2 Fitness:
http://defenceintranet.diif.r.mil.uk/libraries/0/Docs3/20170110.1/20170515_ABN_MATT2_%20VERSION_9%20RELEASE_MAY2017_ATB-O.doc

Other important documents:

- An Individual's Guide to Climatic Injury: http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/Army/Organisations/Orgs/clf/Organisations/Orgs/sc/Image%20Library/Documents/ADR006442_Climatic_Injury_leaflet_screen.pdf
- Commander's Guide to Climatic Injury: http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/Army/Organisations/Orgs/clf/Organisations/Orgs/sc/Image%20Library/Documents/ADR006441_Comds_Climatic_injury_A5_screen.pdf
- JSP 539 (V3.0 May 17) – Heat Illness and Cold Injury: Prevention and Management: <http://defenceintranet.diif.r.mil.uk/Reference/DINsJSPs/Pages/JSP539ClimaticInjuriesintheArmedForcesPreventionandTreatment.aspx>

Planning Individual Risk Factors

The physical condition of AFT participants is key to a successful outcome. The following risk factors must be considered when planning and conducting the test. There will also be others identified through an appropriate Risk Assessment:

- Lack of physical fitness.
- Lack of prerequisite training.
- Being overweight or obese.
- Un-acclimatised to the environmental conditions.
- Evidence of previous heat illness.
- Lack of sleep.
- Alcohol intake within the past 48 hours.
- Dehydration.
- Poor nutritional status.
- Concurrent mild illness, e.g. diarrhoea, common cold, fever.
- Vaccination within the past 48 hours.
- Smoking (not ex-smokers).
- Prescribed and over-the-counter medication, e.g. antihistamines and non-steroidal anti-inflammatory drugs.
- Illicit drug use.
- Air travel within the past 24 hours.
- Poorly fitting equipment and inappropriate distribution of the weight carried.

General Considerations

Sequencing / Timing

The optimum time of day, week, etc. to conduct an AFT is dependent on the prevailing weather conditions.

If the test must be taken during the warmest months of the year, avoid the most humid part of the day, remembering that exertional heat illness is frequently diagnosed in temperate climates outside of summer months. Ensure that WBGT meter readings are taken and JSP 539 guidelines followed, including the new JSP 539 Annex E (to Part 2). Also ensure that there is adequate time to digest meals – this may involve booking early / late meals to facilitate the activity.

Avoid planning the AFT if:

- You do not know the physical fitness status of those undertaking the test.
- Personnel are not properly prepared, i.e. after long courses or leave periods.
- There is conflict with other arduous physical activity, such as when on exercise.

Route selection

The terrain should not be too difficult to negotiate and should offer good underfoot conditions. The route must be accessible to a safety vehicle which must be capable of driving on and off paved or gravel surfaces as required by the off road section of the AFT route.

Hydration

Fluids (i.e. water) and nutrition must be consumed prior to the march; you would not try to run your car without fuel would you? Mandatory re-hydration stops must take place during the test.

Regular water stops are essential



Emergency Action Plan

Guided by the risk assessment process, emergency planning is a fundamental requirement. Considerations must be given to emergency services' vehicle access and may require pre-planned rendezvous (RV) points. The OIC AFT must halt the test if the safety vehicle is required to evacuate an injured person to an agreed RV point for hand-over to the emergency services. If the casualty is a suspected heat injury (based on the supporting medic's diagnosis) the AFT is to be terminated and all personnel moved into a shaded area where a full assessment of all participants is to be conducted and potential heat casualties treated immediately. The OIC of the AFT is to call immediately for a replacement safety vehicle or await the return of the original safety vehicle, in order that all personnel can be returned to barracks under safe and controlled supervision.

AFT safety vehicle in position



PTI confirming communications network



Communications

It's vital to have appropriate communications between conducting staff (OIC, PTI, medics and the safety vehicle driver). Equally, there must be a reliable means of contacting the emergency services. The systems used will be determined by the reception available throughout the route but these must be checked to ensure coverage is available.

An MOD approved WBGT



Wet Bulb Globe Temperature (WBGT) Index

Environmental factors influence the effectiveness of the body's cooling systems. The primary method of heat loss is through the evaporation of sweat. The efficiency of this is determined by the temperature, humidity and wind speed. These factors can be integrated into an index of environmental temperature. The index most suitable for military use is the WBGT Index. It must be remembered that the WBGT only forms part of the overall risk assessment and it must not be used in isolation. Consider the following:

- Is the WBGT user trained to use it?
- Has the WBGT been calibrated, is it still in date? (annual calibration is required).
- Is the reading taken at the epicentre of where the training is taking place?
- During the course of the AFT is the WBGT index likely to exceed the permitted training limits, if so, adjust the start time or don't start at all.

Risk Assessment (RA)

When drafting the RA, remember that it is broken down into five sections:

1. **Identify the hazards.**
2. **Identify who might be harmed and how.**
3. **Evaluate the risk and identify suitable and sufficient control measures.**
4. **Record your findings and implement them.**
5. **Review your assessment and update if necessary.**

Remember, it is a legal requirement to retain all the RAs for 3 years.

Commanders should foster a culture where it is normal for heat illness risk control measures to be applied to the AFT (which may include postponement, termination or amending the route).

Whilst preparing to take the AFT, ask yourself:

- Is there a RA for the activity?
- Is there a RA for the training area?
- Does the RA accurately reflect the route (has the route changed)?
- Has the RA been produced and signed off by a competent person?
- Are all RAs reviewed annually or periodically to reflect the risk.

Remember the following points:

- **Safe Person** – Is the activity being conducted by a competent person, i.e. qualification, experience, currency and maturity. Are the participants suitably prepared?
- **Safe Equipment** – Is the equipment used safe, fit for purpose, serviceable and maintained, e.g. WBGT and communications devices.
- **Safe Practice** – Is the activity conducted in accordance with current policy? Are the correct procedures followed? Is training supervised by a competent person? Are all risk / controls measures communicated to all participants?
- **Safe Place** – Is the area used safe to conduct the activity? Have all hazards been considered? Is there a history of previous injuries, particularly during inclement weather when the surface area can become slippery, etc.? Also consider the climatic conditions.

For more information follow the direction in JSP 375, Part 2, Vol 1, Ch 40. Also, CESO(A) has produced a useful guide called Managing a Safe System of Training:

http://cui1-uk.diif.r.mil.uk/r/89/CESO/hs/25_Publications/Safe_System_of_Training_Booklet_May_2016.pdf



Heat Illness

Heat illness is a spectrum of illness which includes heat exhaustion and heat stroke. In practice it is difficult to distinguish between the conditions and they may coexist. 'JSP 539 – Heat Illness and Cold Injury: Prevention and Management, Version 3.0' was published in May 2017 and is the main source of guidance and detail for management.

It's a Real Issue

Heat illness affects considerable numbers of personnel each year – and not just in hot climates. Mild heat illness and dehydration can significantly impact upon performance. Severe cases require hospital treatment and can lead to fatalities, e.g. the very regrettable death of three Army reservists in the Brecon Beacons in July 2013.

It's Preventable

The best solution is to prevent it. It is the Commander's responsibility to identify the risk of heat illness, consider contributing factors and take necessary steps to reduce or minimise the risk of an occurrence. The Commander's Heat Illness Risk Assessment Checklist in JSP 539, Part 2, Sec 1, Annex A provides a useful guide of factors to be considered. The main themes are:

- **Maximum work rate.** What is the maximum work rate of the planned activity?
- **Duration of activity.** What is the planned duration of the activity?
- **Individual risk factors.** (See Table 1, reproduced right).
- **Casualty response.**
- **Preparatory education.**
- **Environmental conditions.**
Has an accurate weather forecast been obtained?
- **Establish WBGT Index upper limit for the Service personnel undertaking the activity.**
Does the WBGT Index exceed the upper limit?
- **Dress for activity.**
- **Water intake.** See JSP 539 Table 2 – Recommended Water Intake for WBGT vs Activity Level.
- **Acclimatisation.** See JSP 539 Table 3 – Recommended Acclimatisation Procedure on Arrival in Theatre.

Determine if the risk of heat casualties can be justified by the objectives of the training. Consider rescheduling the activity, modifying the tasks or if necessary, cancelling activities if conditions warrant it.

It Could Affect You

There is a wide variation in human tolerance to heat. In some cases of heat illness it is possible to identify factors that have caused particular individuals to become heat casualties. **Table 1 – Individual Risk Factors** (below) details the currently recognised individual risk factors.

Lifestyle	Health	Work Constraints
Individual volition.	Previous heat illness.	Inexperienced personnel.
Being overweight or obese.	Mild illness, e.g. diarrhoea, common cold, fever.	Air travel within the past 24 hours.
Lack of physical fitness.	Vaccination within the past 48 hours.	Poor nutrition (missed meals within the past 24 hours).
Smoking (not ex-smokers).	Current sunburn.	Lack of sleep.
Alcohol intake within the past 48 hours.	Prescribed and over-the-counter medication, e.g. antihistamines and painkillers.	Un-acclimatised personnel (this includes all UK and Northern Europe-based personnel).
Illicit drugs, e.g. ecstasy.		
Use of supplements.	Dehydration.	

Before you undertake activity, think:

- What are my activities, duration and work rate?
- What environment am I working in?
- What is my clothing and equipment load?
- What water is available?
- What medical cover do we have?

Remember: Dark urine = dehydrated and at risk.

Immediate First Aid

- **Stop the activity.**
- **Start first aid treatment.**
- **Cool the casualty, remove clothing, sponge with water and place in shade.**
- **Give water if conscious.**
- **Seek medical aid and, where appropriate, evacuate.**
- **Look for similar symptoms in others.**

Article contributed by David Challes, DepHed, DIAB

Lessons Learned

Recent Defence Accident Investigation Branch (Defence AIB) reports.

In order to increase the opportunities to prevent future incidents / accidents by learning from previous experience, Defence AIB (part of DSA) will be routinely sharing Service Inquiries (SI) Reports, Non-Statutory Inquiry (NSI), Safety Investigation Reports (SIR) and Deployment Reports (DR)¹. The first batch, covering those published between 1 Dec 16 and 31 Mar 17, is shown below.

Land Rover Fire

In Nov 16, a Land Rover sustained fire damage whilst operating on Salisbury Plain Training Area. The cause of the fire was determined as being most likely due to an increased resistance within the indicator, horn and main beam control lever assembly. The deployment report can be found at: http://defenceintranet.diif.r.mil.uk/libraries/2/Docs7/20170109.1/20170127-DefenceAIB_16_088_DR_LANDROVER_FIRE-OS.pdf



Puma XW229 Crash

On 11 Oct 15, a Royal Air Force Puma HC Mk2 Helicopter, tail number XW229, struck the tether of a Persistent Threat Detection System (PTDS) aerostat and crashed onto a road junction within the confines of the NATO Headquarters in Kabul, Afghanistan. The accident resulted in 5 fatalities and a military bystander sustained major injuries. A Service Inquiry was convened and the Panel concluded that damage caused to the Tail Rotor Drive Shaft by the PTDS tether strike was the Causal Factor in the accident. A full copy of the Service Inquiry Report can be found at: <https://www.gov.uk/government/publications/service-inquiry-into-an-accident-involving-a-puma-hc-mk-2-xw229-in-kabul-afghanistan-on-11-october-2015>
The Aircraft Accident Summary can be found at: <http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/HOCS/Organisations/Orgs/DSEA/Pages/AircraftAccidentSummaries2015.aspx>



MAN Support Vehicle (Recovery) Crane Rope Failure

In Jul 16, a MAN SV(R) crane rope failed suddenly whilst being operated in Catterick.

The Defence AIB investigated the occurrence and determined that the incorrect configuration of the toggle switches within the measurement control device had prevented the crane overload protection from operating. The safety investigation report can be found at: http://defenceintranet.diif.r.mil.uk/libraries/2/Docs7/20170109.1/20170127-DEFENCE_AIB-16_021_SIR-Crane_Rope_Failure-FINAL-OS.pdf



HET Roller Brake Testing Damage

In Jan 17, a Heavy Equipment Transporter (HET) was damaged whilst undergoing a Roller Brake Testing (RBT). The Defence AIB established that the RBT system needed to be set up differently for the HET to prevent damage. The deployment report can be found at: http://defenceintranet.diif.r.mil.uk/libraries/2/Docs7/20170302.1/20170302-DAIB_17_03_RBT_Damage_DR_final-OS.pdf



Watchkeeper WK006 Crash

On 2 Nov 15, a Watchkeeper Mk1 Unmanned Aircraft, registered as WK006 and operated by the Army, crashed on final approach to Runway 17 West at MOD Boscombe Down. A Service Inquiry Panel concluded that flawed software logic and cloud, combined with the use of the laser altimeter, were the causal factors in the accident. A full copy of the Service Inquiry Report can be found at: <https://www.gov.uk/government/publications/service-inquiry-into-the-watchkeeper-wk006-unmanned-air-vehicle-uav-accident-at-boscombe-down-aerodrome-on-2-november-2015>
The Aircraft Accident Summary can be found at: <http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/HOCS/Organisations/Orgs/DSEA/Pages/AircraftAccidentSummaries2015.aspx>



¹ A Defence AIB Deployment Report is issued following deployment of investigators to an accident or incident but when no formal investigation was conducted. It summarises what the investigators found and reports this back to the stakeholders.

Article contributed by WO2 Andrew Corke, BATUS Master Driver

Driving Endurance in Canada

The control and management of drivers' hours in the combined arms manoeuvre environment.

BATUS exercises deliver an unparalleled training opportunity for Battle Groups (Armoured & Combat Service Support) to operate within a combined arms environment and achieve Collective Training Competency (CTC) Level 4 in the arduous and challenging terrain of the Canadian Prairie. The planning of these exercises is extensive and systematic in their approach with the application of drivers' hours being a major consideration.

Ex PRAIRIE STORM is a fully immersive training environment supported by simulation and civilian role players to generate world leading combined arms manoeuvre training. The 2017 exercises will be 31 days long for the armoured Battle Groups (BGs). The first half of the deployment focuses on dry manoeuvre training and a progressive live firing package that culminates in a 72 hour live fire battle exercise. The exercise then transitions to force on force where the battle groups operate for 9 days against a near peer enemy within a formation construct. This trains the VANGUARD armoured infantry brigade for readiness the following year in accordance with the Army Readiness Order.

BGs deploying to BATUS, having already completed CTC Level 1 as a pre-requisite prior to deployment, should be competent in the control and management of drivers' hours. It is the responsibility of all drivers and commanders operating or in control of military vehicles to ensure that drivers' hours are in compliance with policy and any certificate of dispensation in place. It is recommended that this is briefed at all levels prior to deployment.

Whilst Scheme B¹, (Normal Operating Standards – NOS) should be the default scheme to adopt, there will be times when Scheme C, (Enhanced Operating Standards – EOS) will be required. What is apparent is that driving (limited to 12hrs) is not the constraint on exercising units and BGs, but the duty period² (limited to 17hrs) is the constricting factor. Additionally, the Working Time Regulations must be adhered to.

The control of drivers' hours during Ex PRAIRIE STORM is the responsibility of the ex BGs through their chain of command; however BATUS, through the use of the Range Safety Control provides a level of assurance whilst BGs are training. Exercises are, by design, challenging and test BGs to the limit whilst operating under EOS. When its apparent BGs will not complete specific serials⁴ and are going to exceed drivers' hours, BATUS can, through the use of subject matter experts⁵ and pre-planned control measures⁶, mitigate any infractions or Risk to Life activities that may occur.

The key factors contributing to driver fatigue include: loss of sleep, time of day, extended and irregular working hours, work pressures, individual physical differences, as well as the vehicle itself.

Continued...

¹ JSP 800 Vol 5 Pt 1 (V5.0 – Nov 14), DCoP No 1: Drivers' Hours.

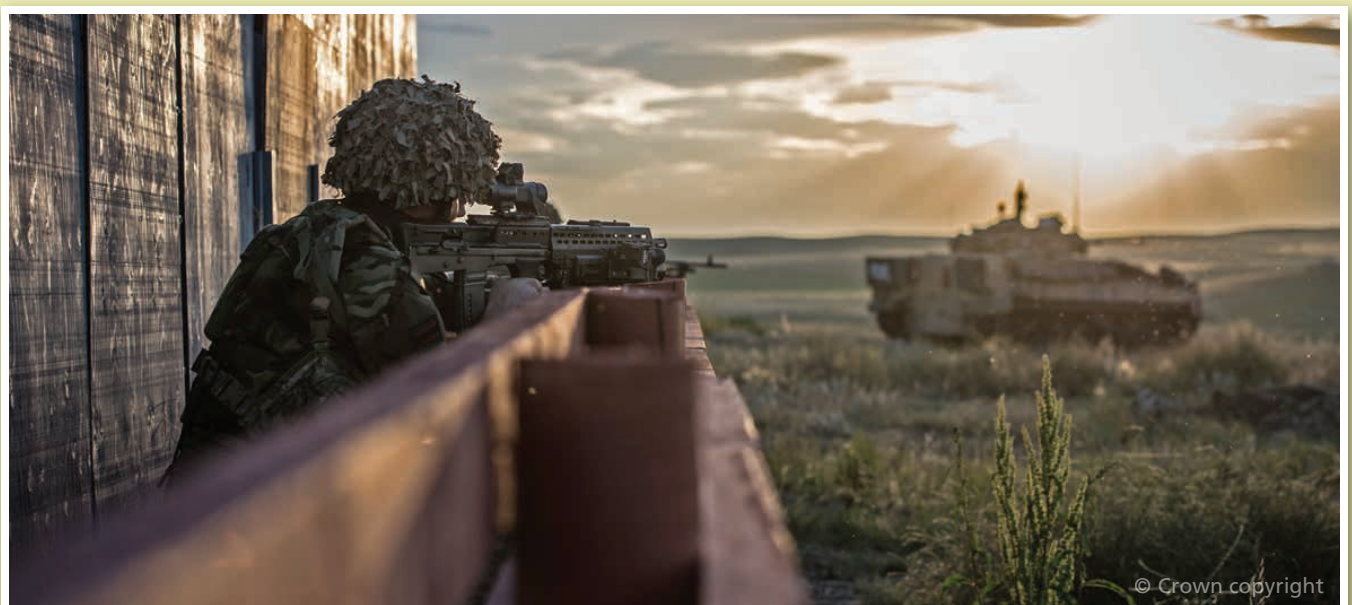
² Duty time is a combination of driving time, other work and breaks.

³ 2015DIN01-144: Guidance on the Working Time regulations – Service Personnel.

⁴ Due to a manifestation of well-documented shortcomings in combined arms manoeuvre capability, it took the BG 5 hours longer than anticipated to complete 2 obstacle crossings and begin the subsequent BG attack. As a consequence, the limit of drivers' hours under EOS was reached just as the Echelon Company was about to be committed; the point therefore at which the mission had to be halted.

⁵ BATUS Master Driver.

⁶ Predetermined vehicle rehabilitation (non-driving) days inserted over the exercise period.



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Drivers and commanders that can recognise and understand some of the physical signs of sleep loss will be better placed to prevent any potential incidents/accidents.

Physical signs of sleep loss include⁷:

- Yawning
- Difficulty in focusing
- Slumped posture
- Increase in blinking
- Blood-shot eyes
- Slurred speech
- Pale skin tone
- Drooping eyelids
- Clumsiness



There are large individual differences in tolerance to sleep loss. As sleep loss increases, the symptoms will become more pronounced and will persist. There is an increase in hunger disproportionate to the time spent awake. The effects of sleep loss cannot be prevented simply by providing a high-energy diet or energy drinks.

⁷ JSP 800 Vol 5 Pt 1 (V5.0 – Nov 14), Guidance Document Number 2, Reducing B Vehicle Driver Fatigue – A Commander's & Manager's Guide.



If you see it – act on it! How you can help

Commanders at all levels have the responsibility for ensuring that drivers' hours are adhered to in accordance with JSP 800 Vol 5 Pt 1 (V5.0 – Nov 14), DCoP No 1: Drivers' Hours.

You have a duty of care to your soldier's safety, and if negligence causes death or serious injury, you could be held to account. The importance of an individual's hours must be briefed at all levels of the Chain of Command and not seen as an impediment.

Loading, Unloading and Restraint of Military Vehicles



Mrs Alison Hopkins, SO2 Tpt Sp, provides up to date advice for a longstanding concern.

The MOD received two Crown Censures for vehicle crushing related incidents in March 2007.

In May 2003, Corporal R was crushed between two 18 tonne Armoured Personnel Carriers that were being unloaded from a civilian low-loader at Teesport in anticipation of his regiment's deployment on Operations. Cpl R was marshalling the off-loading of the first vehicle when the second vehicle rolled down the ramp, trapping and fatally injuring him.

In May 2004, Lance Bombardier W was drying himself by a Multi Launch Rocket System (MLRS) at Albemarle Barracks, Newcastle; he asked a friend to rev the engine and when doing so, the vehicle jumped forward and crushed Lance Bombardier W against a fork-lift truck two metres in front of the MLRS vehicle.

The Health and Safety Executive (HSE) investigated both incidents and concluded that the circumstances would, in normal circumstances, lead to a criminal prosecution. However, due to the Army's Crown Immunity, it cannot be prosecuted by the HSE. Instead, a Crown Censure takes place and, once served, becomes a public record of the findings (see article on page 16).

In addition to these two crush incidents, in May 2003 a civilian low-loader was carrying three CVR(T)s when the trailer was hit from behind by a car, causing the low-loader to cross over the central reservation and the three CVR(T)s to break free from the trailer bed, killing five civilians. The Inquest resulted in a 'Narrative Verdict' being issued to the now defunct haulier, which allowed the coroner to factually set out what might have caused the deaths, as well as defects which may have been contributory factors.

There have been a small number of vehicle crushing incidents since these major incidents, one of which was fatal. Additionally, there have been a number of incidents where military vehicles have slipped off the side of low-loaders during loading or unloading at both military and contractor locations. Whilst no-one was injured, these incidents have to be reported.

At the time of the incident where the CVR(T)s broke free, there were no formal Tie Down Schemes for military vehicles. However, at the Crown Censure hearing, a MOD spokesman stated "The MOD takes health and safety extremely seriously and is reviewing its controls in place for the mitigation of risks in workplace transport movements." The initial result of the review was the release of DCI Gen 345/04 – the first set of Tie Down Schemes for MOD vehicles and basic instructions which were in common use. This eventually ended up in JSP 71 which in turn was superseded by JSP 800 Vol 7 – Load Safety Regulations and Tie Down Schemes, which remains extant.



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In addition to in-house training of military personnel and civil servants, familiarisation days were provided for contractors that moved MOD vehicles ahead of contract commencement. This was to review, practice and discuss loading, unloading and restraint of vehicles on civilian low-loaders with those military personnel and civil servants who worked with / managed the vehicles on a regular basis.

So why is the loading, unloading and restraint of military vehicles being raised again when we have formal policy and training in place?

Well, as the Army HQ's desk lead for transporting, I recently attended the loading of tracked vehicles at the end of an exercise and witnessed many bad practices. This made me realise that the above incidents are 'ancient history' for young soldiers and officers who may not be aware of, or understand why the incidents occurred, or what the MOD has achieved in delivering related policy to minimise the risk of incidents and keep all involved in transporting military vehicles safe. Although not related, the issues highlighted at my visit supports Defence Safety Authority (DSA) inspections which do articulate non-compliance and / or bad practices across the Army.

While JSP 800 Vol 7 provides Load Safety Regulations, related policy is also contained in JSP 800 Vol 3 Defence Code of Practice (DCOP) 1 – Movement of Materiel by Road and where applicable, JSP 375 Policy Leaflet 34 – 4C System – Visiting Workers and Contractors. DCOP 1 provides details of roles and responsibilities and Method Statements for the activities. All publications must be read in parallel; all involved need to be aware that the JSP 800 suite of publications are transferring to the Defence Logistics Framework (DLF) in the near future.

The Army HQ's Transport Team will be engaging with Master Drivers and Movement staff to reinforce the requirement to adhere to loading, unloading and restraint policy and to support the chain of command (C2) with Refresher sessions for units and formations. If units and formations do not receive the assistance that is required, they should go through their Transport chain of command to seek support.



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In Case of Emergency

There's a chance that some of you reading this could be involved in an early response stage of an accident or emergency...

Let's say you're in your unit. You might hear an unusual loud bang, an over-revved engine, a shouted warning or even a scream of pain. It has got your attention, now what do you do?

The correct cause of action will depend on the circumstances. If you are clearly dealing with a potential terrorist-based firearm or weapon attacks, where the perpetrator(s) may still be at large, see below...



Firearms / Weapons Attacks

The National Police Chief's Council has issued anti-terrorist guidance for dealing with firearms and weapons attacks.

A four-minute film and leaflet advises that if you are caught up in an incident to 'run, hide and tell' – guidance which can be applied to many places and situations:

IN THE RARE EVENT OF a firearms or weapons attack

RUN HIDE TELL

RUN to a place of safety. This is a far better option than to surrender or negotiate. If there's nowhere to go, then...

HIDE. It's better to hide than to confront. Remember to turn your phone to silent and turn off vibrate. Barricade yourself in if you can. Then finally and only when it is safe to do so...

TELL the police by calling 999.



- Watch the video: https://www.youtube.com/watch?v=QUCW_mk35Xc
- Download the leaflet: http://www.npcc.police.uk/StaySafeAssets/NPCC_CT_A5%202pp.pdf
- Also, the Royal Centre for Defence Medicine is a partner in Citizen Aid: <http://citizenaid.org/> which has developed a phone app aimed at advising on immediate actions following a stabbing, bomb incident or mass shooting. Download for free from Google Play, Apple App Store or Windows Phone Store.

For other emergency situations, see the following practical advice...

- 1 Take a deep breath and compose yourself – you can handle it.
- 2 Try to look at the situation as a whole and deal with any immediate dangers without putting yourself at risk.
 - Is there anything present that can harm you?
 - What is the most serious problem and what do you need to do first? The most obvious problem is not always the most serious.
 - Protect yourself and others from fire, explosions or further hazards. Switch off any electrical equipment or running engines.
 - Do not attempt firefighting if you are not trained to do so.
- 3 Shout for help.
- 4 Be prepared to evacuate the area and raise alarms.
- 5 Delegate suitably qualified first aiders to attend to any injured – focusing on those clearly at most risk. The key guiding principles and purpose of first aid is the '3 Ps':
 - Preserve life.
 - Prevent further injury.
 - Promote recovery.

- 6 If in your unit lines, report the situation to your Duty Officer.
- 7 If on a training area, stop training and report incident to Range Control (see flow diagram below).
- 8 Decide on which emergency services are required and call 999 (or 112 – see box).
- 9 As the situation stabilises think about preserving the scene:
 - Onlookers must be kept out of the area for their own safety, and also so that any subsequent investigations are not compromised.
 - Take plenty of photos of the site – keep secure and private and then forward to an investigator.
 - Make personal notes or sketches, but don't rush to judgement – document what's in front of you, not what might have happened.
 - Get the names and contact details of any witnesses who can make statements about what they saw happen.
- 10 Hopefully, by now you will be able to hand the scene over to a more competent or more senior person. If not, initiate reporting procedures (see flow diagram below).

Emergency 112 Contact from a Mobile Phone

When abroad (European Union and several other countries) or in the UK working in a remote location, 112 can be dialled free of charge from any telephone or mobile phone to contact the emergency services (Ambulances, Fire & Rescue Service and the Police).

Even if you don't know exactly where you are, using 112 on your mobile phone will allow the system to pinpoint your precise location within about the first 30 seconds of your call to the telecom operator. The operator automatically transmits the location information to the emergency centre so they can get help to you as quickly as possible.

The GSM* mobile phone standard designates 112 as an emergency number, so it will work on GSM phones in North America where GSM systems redirect emergency calls to 911, or Australia where emergency calls are redirected to 000 (although location information may not be automatically transmitted). 112 can be dialled on most GSM phones even if the phone is locked.

* Global System for Mobiles.



Driving in Denial?

Our military and civilian vehicles have become increasingly sophisticated and have more and more creature comforts that can cause distractions.

At the same time, other activities are increasingly commonplace in the car, such as eating and drinking, grooming, setting sat navs, changing music and, of course, mobile phone use – all of which divert attention away from the road and can cause devastating impacts. Are you driving in denial?

Dangerous Excuses

Some common excuses made and why they are wrong, dangerous or illegal:

Excuse	Facts
I had to do it now	If it is really important, find somewhere safe, pull over and stop. For the sake of a brief couple of minutes this is far safer, less risky and also the legal way. Alternatively, wait until you reach your destination.
I do it all the time, I'm an expert	That may be so, but not while you are driving. You cannot be fully focused on the road if you are distracted – you are not paying attention to the road, reaction times are delayed. Using a handheld mobile phone is illegal and other activities, even if not specified in law can still lead to legal actions if there is dangerous driving involved. Use of mobile phones by drivers of military vehicles is not permitted, even if hands-free.
I was at traffic lights	If the engine is on, it is illegal to use a hand-held mobile phone, which includes being stopped at traffic lights or in queueing traffic. Situations change rapidly and you must be aware of what is going on around you at all times.
There was no one around	No one expects the unexpected! There may be pedestrians, cyclists or even wildlife, such as deer, out there which demand your full concentration at all times. It can be even worse at night when visibility is reduced and tiredness can mean you are not at your most alert.
It'll only take a second	At 50mph you travel a distance of 100 metres in five seconds. So looking at your phone even for a short period means your eyes are off the road for a considerable distance. Plan ahead and take a minute before you set off to ensure your phone is off (put it in the glove box), sat nav and music set up and ready to go, etc.

Hard Fact

In January 2014 Capt D of the Royal Logistics Corp mounted a kerb whilst driving near Watton in Norfolk and killed a 32 year old pedestrian.

Capt D, who had previously received a Queen's commendation for bomb disposal duties in Afghanistan, had used her iPhone extensively (surfing the internet) in the minutes leading up to the crash.

Despite an exemplary service record, she was jailed for 9 months having admitted causing death by dangerous driving and was banned from driving for two years.

UK Law

Offence	Penalties
Using a Mobile Phone Using a hand-held mobile phone while driving has been illegal since 2003 – it's not new! Hands-free phones are still permissible (<i>but distracting and certainly not permitted in military vehicles by MOD</i>).	The penalties increased in March 2017: <ul style="list-style-type: none"> • Automatic fixed penalty notice. • Six penalty points on licence and fine of £200. • If it goes to court: potential for disqualification and max fine of £1,000 • New drivers (within two years of passing) will lose their licence if they get six or more points.
Dangerous Driving This is the most serious motoring offence that can be committed without causing death or injury, when driving falls below the expected level of a careful and competent driver. It can include (amongst others) driving under the influence, excessive speed, showing off, and disregard for other road users.	<ul style="list-style-type: none"> • If you are convicted, the possibility of two years in prison. • 12 month driving ban. • <i>Implications for and potential end of your military career.</i>

Distracting Statistics

A 2016 survey by Brake (the road safety charity) and Direct Line¹ revealed the following shocking statistics:

- 55% of 25-34 year olds admitted they had sent or read a text message on their mobile, while driving.
- 42% revealed they send or read messages at least once a week while driving.
- 20% of young drivers (18-24) confirmed they regularly text and/or instant message when they are behind the wheel.
- 49% aged 25-34 admitted they sometimes go online or use apps (other than sat nav) while driving. Almost a third of drivers in that age group said they do that several times a week at least.
- 95% of all road accidents can be blamed in part on human error².

In 2015 in the UK:

- 1,469 crashes resulted in one or more deaths.
- 5 fatalities and 61 were seriously injured per day on average³.
- Of these, Police recorded 400 incidences of 'failure to look' and 101 incidences of in-vehicle distractions, distractions outside, and phone use⁴.
- 22 people were killed and 99 seriously injured, where drivers were using a mobile phone.
- Reaction times are two times slower if you text and drive than if you drink drive⁵.

The Army's Position

Precise requirements are set out in leaflets and guidance documents contained within JSP 800 – Volume 5, Part 2 – Road Transport. This includes:

Mobile Phones

- Hand-held mobile phones or hands-free mobile phones must not be operated whilst driving.
- It is an offence to cause or permit the use of a hand-held mobile phone when driving and this can result in the driver being prosecuted.
- Drivers shall be discouraged from answering a call while driving and, in addition, Unit Standing Orders are to detail the action to be taken by a caller should it become apparent that a person is driving when a telephone call is made.

Sat Navs

- Use of this equipment is permitted in MOD vehicles, provided that:
 1. The user has read the instruction for the specific model and understands how to use the system safely.
 2. The equipment is positioned so that it does not obscure the driver's vision.
 3. The equipment is programmed for the journey whilst the vehicle is parked at rest and must not be tampered with or adjusted by the driver whilst the vehicle is in motion.

Personal Audio (Earphones / Headphones)

- MOD personnel engaged in driving, operating or commanding vehicles or working in the vicinity of vehicles (transport workplace) are forbidden from wearing personal audio 'in ear' or 'headphones' equipment.
- This policy does not refer to crew communications headsets, anti-noise reduction headphones or personal protection ear defenders. Motorcyclists may use authorised communication systems, where applicable.

Smoking

- Drivers and passengers are not permitted to smoke in MOD vehicles.
- Whilst JSP 800 does not refer to vaping, personnel should assume that vaping is not permitted in MOD vehicles either.

In Summary

It is all too easy to allow yourself to be distracted from your main responsibilities as a safe driver. You need to properly focus on the job in hand and abide with the law and MOD rules.

UK law is getting serious with increased fixed penalties and fines for use of mobile phones whilst driving. The implications of having six points on your licence plus the impact of this on your personal car insurance costs must not be underestimated.

Above all, remember that when you are in charge of a motor vehicle, you are in charge of a lethal weapon that can kill both you and other completely innocent people in just one unguarded moment. Don't be complacent – put those potential distractions away and keep your eyes on the road!

¹ http://www.brake.org.uk/assets/docs/dl_reports/DLreport-ariskybusiness-sec2-Smartphones-Jul16.pdf

² The Ultimate Guide to Driving Safety & Avoiding Distractions, Exchange and Mart 2017

³ Reported road casualties in Great Britain, main results: 2015 infographic, GOV <https://www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2015>

⁴ Reported road casualties Great Britain: annual report 2015, Department for transport, 2016, RAS50001

⁵ Don't poke me I'm driving: a simulator study on smartphone use, IAM 2012

Article contributed by Martin Baillie, MOD Lead



HSE Investigations Overview

What does the Health & Safety Executive (HSE) do?

The HSE is a national statutory regulator for health and safety whose mission is to prevent death, injury and ill-health in Great Britain's workplaces. Its authority, responsibilities and powers of enforcement derive from the Health and Safety at Work Act (HSWA) 1974.

The HSWA applies to MOD as it does other employers, but there are some restrictions that are particularly relevant to MOD. The Act is only applicable to Great Britain so generally the HSE will only investigate incidents that occur in Great Britain.

MOD is a Crown employer and so has Crown immunity. Therefore, HSE cannot prosecute MOD for health and safety breaches as it would other employers, nor can it use the HSWA to issue Improvement or Prohibition Notices. However, the HSE can issue Crown Notices and can Censure MOD in lieu of prosecution.

When does the HSE Investigate?

The HSE do not investigate every incident and follows incident selection criteria. In MOD's case most of the incidents HSE investigate are the most serious ones – often involving a fatality while on duty (at work). When these occur an inspector from the local HSE office will be asked to investigate.



In the event of a fatality, HSE's investigation will follow the procedure set out in the Work Related Death Protocol. The civilian police will usually have the initial lead for an investigation (known as primacy) if manslaughter is suspected. Once that is ruled out the Police will hand over primacy to the HSE. The HSE investigates to establish if there have been any breaches of health and safety legislation and to identify what went wrong, so that lessons can be learned to help prevent a recurrence.

At the same time there could be internal investigations by the Defence Accident Investigation Branch and almost certainly a Service Inquiry.

What powers do HSE Inspectors have?

To help inspectors carry out investigations they have a number of powers including the right of entry, the right to take statements, photographs, and samples, the right to take evidence into possession, and perhaps most importantly the right to require co-operation and assistance. Anyone trying to hinder an investigation is potentially committing an offence.

In the event of an incident requiring investigation the inspector would contact the Commanding Officer to arrange interviews with witnesses and the investigation would progress from there.

Do individuals have Crown Immunity?

No. HSE can investigate and if necessary prosecute individuals for health and safety offences, but this is not the normal course of events as our primary focus is to determine whether there have been organizational or systemic failures. For instance, following the Brecon Beacons incident (where three reservists died during a selection exercise), the HSE issued Crown notices and censured the MOD but no individual was prosecuted. Since 2001 there has been only one prosecution of an individual within MOD for health and safety offences.

Does the HSE expect MOD to eliminate risk in training?

The Health and Safety at Work Act 1974 only requires employers, including MOD, to do what is reasonably practicable.

In determining if MOD has done what is reasonably practicable, the HSE does take into account the operational context in which Defence activities are conducted – that is to say, HSE recognises the importance of realistic training and its part in ensuring that the Armed Forces are competent and confident to conduct military operations in hostile environments.

It is not for the HSE to determine the content and nature of that training and it recognises that there will still be a risk of injury, even when delivering properly planned and managed training. However, the HSE does expect those risks to be identified and properly managed. In the Brecon Beacons incident in 2013, HSE's investigation found serious failings in the management of those risks.

Are there similarities between the Brecon Beacons and other investigations carried out by the HSE?

The HSE investigates around 25% of training fatalities (those that occur in GB) and an analysis of recent investigations suggests the following common failings:

- Inadequate assessment / identification of risk.
- Lack of competence of personnel, often due to inexperience.
- Inadequate information and / or instruction.
- Inadequate supervision often due to inexperience.
- Inadequate monitoring, often of inexperienced individuals.
- Inadequate / wrong equipment.
- Poor communication.

These repeated common features suggest that there is a more a fundamental problem in that the organisation appears not to learn the lessons from an incident and so the same failings tend to be repeated.

Some of the most serious incidents investigated by HSE have followed improvisation during training, usually with the best of intentions, but without adequate understanding of the risk or re-assessment of the risks.

Following the Brecon Beacons incident there was a Defence Subcommittee inquiry 'Beyond Endurance – Military Exercises and the Duty of Care'. The recommendations from this included:

- The organisers of training are to be specifically identified and accountable for its delivery.
- The use of aide-memoires, which translate policy to core and relevant information, enable good practice and their widespread use would mean no training supervisor could ever claim ignorance on the basis of too much information. These aide memoires must reflect the most up-to-date policy.
- Education in, and delivery of, risk assessment and means to identify what measures have been taken to address shortfalls in their application must occur.
- To ensure that instructors are proactive in identifying those at risk and to instil a culture within the Armed Forces where individuals are encouraged to self-report injuries or illnesses.

What could be better?

MOD carries out many inherently hazardous activities and has many policies and procedures that, for the most part, appear to be well implemented and ensure that these activities are carried out safely and without incident. The policies and procedures have been proven to be effective over time; if people in control wish to deviate from them they should have a comprehensive appreciation of the potential consequences which the HSE believes currently is not the always the case.

When incidents do occur MOD should take the lessons learned and apply them across the organisation – not just that part of the organisation where the incident occurred.



Cycling Top Tips

Whether cycling to keep fit, recreation or commuting to work, interest in cycling is on a steady upward trend – as are serious injuries.

Context

Drawing on several sources including the British Social Attitudes Survey, Cycling UK has some interesting statistics¹:

- Around 80% of cyclists hold a driving licence.
- 42% of people aged five+ (c. 25 million people) own a bicycle.
- Two million adults cycle nearly every day.
- Males (of all ages) cycle nearly three times as often as females and ride around four times as many miles.
- 40-49 year-olds cycle the most miles!

The health benefits of cycling are clear and outweigh the risk of fatal injury, which has remained broadly constant in the UK over the last few years with around 100 cyclists killed per year. In fact, the risk of being killed whilst cycling is about the same as the risk for walking – mile per mile. However, the number incurring serious injuries whilst cycling has been going up since 2004, so there's no room for complacency from cyclists or from other road users².



The Royal Society for the Prevention of Accidents (RoSPA) quotes the following statistics for cycling accidents³:

- Around 75% of fatal or serious cyclist accidents occur in urban areas.
- 75% happen at, or near, a road junction.
- Around 75% of cyclists killed have major head injuries.

One of the most dangerous places for serious injuries is at road junctions in urban areas, with the following reasons being common:

- Motorists turning across the path of cyclist, e.g. a lorry turning left into the cyclist.
- Motorists emerging into the path of a cyclist.
- Cyclists riding into the path of a motorist, e.g. dropping off a pavement onto the road.
- Cyclists turning right from a major road and from a minor road.

With the above in mind, here is a set of common-sense considerations.

Road Rules and Road Sense

Every cyclist has a duty to know and understand the law when it comes to cycling on public roads. Follow these basics for your own safety.

- 1 Signal your intentions clearly to other road users.** Not only does signalling let motorists predict your next move, it gives cyclists a reputation of courtesy.
- 2 Choose a conspicuous lane position.** Understand that many motorists overlook cyclists, especially those riding inconspicuously near the road edge. Many motorists are irritated by the presence of cyclists and seek to make their journeys harder. Use of a cycle mirror will inform of when a motorist is approaching from behind. A well-timed look back, nod or even slow / stop arm signal can be very helpful in communicating to the motorist.



¹ As reported via <http://www.cyclinguk.org/resources/cycling-uk-cycling-statistics>,

² <http://www.cyclinguk.org/news/20160930-2015-road-safety-picture-cyclists-new-figures>,

³ <http://www.rospa.com/road-safety/advice/pedal-cyclists/facts-figures/>,

All links accessed 13 March 2017.

- 3 Stop for stop signs and obey traffic signals.**
- 4 Know that most of the risk is in front of you, especially from traffic turning and crossing in front of you.** As you approach any intersection, junction or place where turns may be made, regardless of your intended direction, choose a conspicuous and predictable lane position with plenty of buffer space around you. The savvy cyclist adjusts for the proper position at least 30 metres prior to the intersection, if he or she is not already positioned there prior to that. If a lorry is indicating left, passing on the inside can be dangerous. Hang back at the junction to reduce the risk of a collision.

- 5 Watch for vehicles on your right that are turning left.** Turning motorists often check only for traffic where vehicular traffic is expected – sometimes overlooking pedestrians or cyclists positioned elsewhere. Sometimes they overlook even properly positioned cyclists (just like motorcyclists or even cars are sometimes overlooked), which is why the extra buffer space is important. Look for evidence that you've been noticed.

- 6 Lighting.** Lights (and reflectors) are required on a pedal cycle between sunset and sunrise. The Highway Code states: "At night your cycle MUST have white front and red rear lights lit. It MUST also be fitted with a red rear reflector (and amber pedal reflectors, if manufactured after 1/10/85). White front reflectors and spoke reflectors will also help you to be seen. Flashing lights are permitted but it is recommended that cyclists who are riding in areas without street lighting use a steady front lamp".

For further advice on lighting regulations, refer to: <http://www.cyclinguk.org/cyclists-library/regulations/lighting-regulations>



- 7 Take extra caution when cycling in wet conditions.** This is especially true if it hasn't rained for some time: oil and grease in the tarmac is free to float on the surface. Therefore do not lean into curves and be wary of slick road markings and drain covers. In icy conditions extreme caution is required.
- 8 Ride in the direction of the traffic.** Riding against traffic on the wrong side of the road is illegal and increases a cyclist's risk dramatically!
- 9 Don't wear earphones / headphones.** It's important that you have the best possible awareness of what other road users are doing.

Check Your Equipment

- 10 Wear a helmet.** Rule 59 of the Highway Code states that cyclists should wear a cycle helmet which conforms to current regulations, is the correct size and securely fastened.
- 11 Before you set out, it is good practice to ensure your bike is roadworthy** and safe to use. You should be looking at the following:
- Tyres – are they road safe and inflated adequately?
 - Brakes – do they work? If there is any doubt and you're not sure on how to adjust / fix them, contact your local bike shop.
 - Chain – is it free of debris, and able to turn with no problems? If the chain is rusty you run the risk of it snapping or locking up your gear system. Treat it or get it replaced.



Dress Appropriately

- 12 Wear bright over clothing.** Riding your bike wearing MTP patterned uniform only is not the smartest approach, purely because of the nature/design of the clothing. A reflective vest with or without flashing lights should be part of your policy when cycling, especially during evening hours or in low lit areas. You can also add reflector lights or reflective tape to your backpack if you're carrying one.
- 13 Wear sensible footwear.** Riding a bike in heels or flip flops is never a good idea. Ensure laces are tied correctly with no dangling ends that could become caught in the bike chain.
- 14 Use trouser elastics or ties.** Ties / cycle clips will hold back long trousers that could flap and get caught in the chain.
- 15 Wear eye protection.** During the summer there is a much higher risk of dirt, dust and bugs getting in to your eyes whilst cycling. Roads and tracks are much drier and the rise in temperature will bring out the insects.

For a detailed read on the British Highway Code cycling laws please visit: <https://www.gov.uk/guidance/the-highway-code/rules-for-cyclists-59-to-82>

Avoiding Watery Ends

All planned adventurous training and sports involving water-based activities should be properly risk assessed and managed to prevent harm to those taking part... but what about unplanned water encounters, including those that occur whilst enjoying recreational time off?

The Big Picture

There are some startling facts about drownings:

- Every year in the UK, around 400 people die as a result of an accident in or around water – around half of which being around Britain's 11,000 miles of coastline.
- The UK Maritime and Coastguard Agency responds to more than 20,000 incidents per year and the RNLI attends many thousands more too, e.g. some 8,000 lifeboat launches and 18,000 people assisted by lifeguards in 2015.
- Worldwide, an estimated 372,000 people drown each year – more than half of them being children.

Most water related deaths are a result of simple mistakes, such as trips or falls into water and underestimating the effects of swimming in cold open water. Yet many are also a consequence of deliberate dangerous activities such as 'tombstoning' from height into water. Thousands survive drowning events too but are left with severe, life-changing injuries.



Know the Risks

The RNLI highlights the following common water risk factors and how to minimise them:

Whatever you're doing

- Be aware of the dangers.
- Know your limits and don't take risks.
- Go with others and look out for each other.
- Make sure your phone is charged so you can call for help if you come across anyone who needs it.

At the beach and in the water

Where to be:

- In the summer head to a lifeguarded beach, between the red and yellow flags.

Before going into the water:

- Do the conditions exceed your ability? Swimming in the sea is very different to swimming in a pool (tidal currents are unpredictable).

When you enter:

- Take a moment to acclimatise to the water temperature.

While you're in:

- Make sure you have someone watching from the beach to provide shore cover. Make sure they have a way to call for help / phone reception.

Near open water

Where to be:

- Keep away from the edge. Stick to designated paths. Beware of uneven, unstable or slippery ground.

What to look for:

- Read safety signs. Always seek local advice on the tides to make sure you don't get cut off.

Reduce the risk:

- Avoid walking alone or at night. Always make sure you have a way to call for help (and note that alcohol and open water can be a recipe for disaster).



On the water

Keep buoyant:

- Fatigue can kick in quickly. Wear a suitable personal flotation device – it could save your life.

Be seen:

- Carry a means of calling for help in case you do end up in trouble.

Have shore cover:

- If you are alone on the water, tell someone ashore your plans and what time you expect to be back.

If you find yourself in the water unexpectedly

Around half the people who die at the coast slip, trip or fall into the water and never intend to get wet.

Take a minute:

- The initial shock of being in cold water can cause you to gasp and panic. Effects of cold water shock pass in less than a minute so don't try to swim straight away.

Relax and float:

- Float on your back while you catch your breath. Try to get hold of something that will help you float.

Keep calm:

- Once you're calm, call for help. Swim for safety if you are able.

If you see someone in trouble

Call for help: Call 999/112. Ask for the coastguard.

Throw them a line:

- Have something that floats or that they can hold on to? Throw it to them.

Stay safe:

- Do not enter the water yourself. Too many people drown trying to save others (and pets).

During stormy weather

Check the forecasts:

- Keep a keen eye on the forecasts and tides and always seek local advice in advance.

Check your surroundings:

- Storms can change the landscape of some beaches, changing or damaging access points, or even creating new areas for rip currents.

Beware of large waves:

- Even from the shore, large breaking waves can sweep you off your feet and drag you out to sea.

Personal Flotation Devices

In the event that you are involved in non-MOD sponsored water activity, guidance on the selection of PFDs / lifejackets should be taken from the National Governing Body of the activity in which you are involved, or the RNLI (see below).

Watery Toolkit

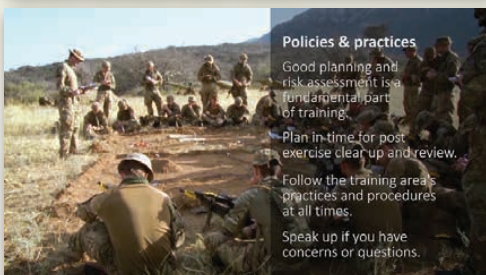
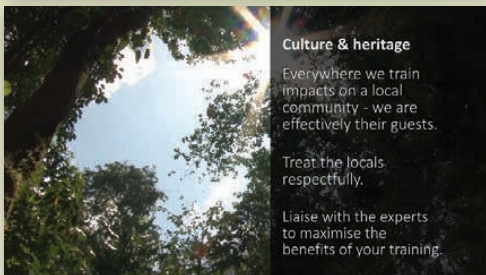
- The **RNLI's** website includes a great section with simple water advice for a range of activities including angling, bodyboarding, coastal walking, kayaking / canoeing, kitesurfing, scuba diving, surfing, stand-up paddle boarding, yacht sailing and motorboating. See: <https://rnli.org/safety/choose-your-activity>
- Page 18 of Army Safety & Environment Matters Issue 49: <https://goo.gl/dnEaGS> provides an article entitled '**Float My Boat – Safety Afloat**', covering Army Maritime and Watermanship activities.
- The Met Office lists **UK tidal times** for various locations: <http://www.metoffice.gov.uk/public/weather/tide-times/>
- Tide Forecast provides **tidal times worldwide**: <https://www.tide-forecast.com/countries>
- Drowning Prevention Week is the national campaign from the **Royal Life Saving Society UK** which will run between 16 – 26 June 2017. See: <http://www.rlss.org.uk/water-safety/drowning-prevention-week/>
- The Royal Society for the Prevention of Accidents (**ROSPA**) provides advice and information about water safety: <http://www.rosipa.com/leisure-safety/water/advice/>



Without a Trace

Safeguarding the Defence Training Estate

CESO(A) has sponsored a new video to be used in briefs before exercises on the Defence Training Estate (DTE). It is mainly focussed on the need for good environmental protection practices before, during and after exercise.



The video is structured around the four themes shown above

Background

Although the DVD 'Plain Sense' covered environmental protection during an exercise, it only concentrated on the Salisbury Plain Training Area (SPTA) and some of the footage within Plain Sense was judged to be fairly old. Therefore it was decided that a new video was required to cover the DTE, wherever it was located.

The DTE is within some ecologically and culturally important areas worldwide. It is important that users respect the area where they are training and the local wildlife and people. If we don't take the necessary care, training activities could be restricted and even stopped on valued parts of the DTE, this could adversely affect operational capability. CESO(A) also took the opportunity to reinforce the importance of safe training within the video.

Concept

The new video is aimed at military users of the DTE of all ranks. It highlights the correct procedures and good practises to be used during the life of an exercise to ensure that the environment is not permanently damaged by the MOD's presence – in essence we leave it 'Without a Trace'.

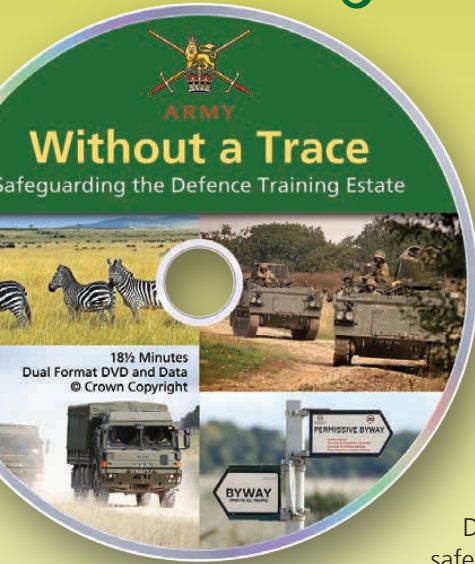
Working directly to CESO(A), Amec Foster Wheeler and its sub-contractor Jump (GB) Ltd, were tasked with production of the video. This team had previously produced 'Don't Gamble with Ammo', 'A Bullet With Your Name On It' and 'Equipment Care in the Land Environment' successfully for the Army.

Development of the video's outline began in the autumn of 2015 and involved a team made up of CESO(A), DIO, Amec Foster Wheeler and Jump. With inputs from various stakeholders, the outline matured into the final version, which was ready for production in June 2016.

Filming and Footage

The British Defence Film Library (BDFL) and Land Warfare Centre (LWC) were approached for existing footage that could be used, particularly concerning overseas training; both establishments provided some valuable material.

A location and 'actors' were required for filming the parts of the video that focussed on procedures and best practice. The 1st Battalion Royal Regiment of Fusiliers (1RRF), who had starred in previous CESO(A) films, were approached and kindly agreed to be involved. Several MOD training, conservation and safety subject matter experts also agreed to be interviewed on camera. 1RRF and DIO advised on several filming locations close to Tidworth Garrison.



Without a Trace

Safeguarding the Defence Training Estate

18½ Minutes
Dual Format DVD and Data
© Crown Copyright

Filming commenced in September 2016.

1RRF supplied officers, soldiers, children and even pet dogs for the shoot.

The regiment also supplied the required military equipment and made sure all involved were fed!

DIO deployed an SPTA safety marshal to advise on the accuracy of the footage being shot. The weather was kind to

the production team and after several days they had collected the raw footage required.

Editing and Review

The rest of the autumn was spent editing the footage. In November two members of CESO(A) travelled to Jump's studio to view a first cut of the video. The result was impressive, however, several amendments were identified. Further viewings and refinements were made, with help from the various stakeholders, until eventually a final version was ready for release.

Thanks

CESO(A) would like to thank the following organisations who contributed to the production of Without a Trace:

- 1st Battalion Royal Regiment of Fusiliers (1RRF).
- DIO Service Delivery Training.
- DIO Safety Environment and Engineering Environment and Planning Support.
- Landmarc.
- Amec Foster Wheeler.
- Jump (GB) Ltd.
- Land Warfare Centre.
- British Defence Film Library.

How to View

Other than during preparation for an exercise on the DTE, Without a Trace can be viewed on:

- YouTube – <https://youtu.be/tf9helaRcBA>
- CESO(A) Defence Intranet Site
- Army Knowledge eXchange
- ArmyNet

If you would like a hard copy of the DVD please contact the Editor.

Workplace Supervisor (Radioactive Materials) Course

There have recently been some significant changes to the training offered for Workplace Supervisors (Radioactive Materials) (WPS(RAM)) with the new training approach comprising of two stages, an e-learning course and a workshop.

All individuals nominated as WPS(RAM) **MUST** complete the e-learning and in some cases this will meet the training requirements for the role. However, most appointments will require additional training which will take the form of a half-day WPS(RAM) workshop delivered at units around the country by Dstl. Details are as follows:

1. **E-learning:** The WPS (RAM) e-learning course can be completed independently at your convenience and is hosted on the Defence Learning Environment, accessed via the Defence Gateway. All WPS(RAM) **MUST** complete this course. The e-learning course can be identified using the information below:
 - Course title – Workplace Supervisor (WPS) (Radioactive Materials)
 - Course code – WPS (RAM) v1.5.
2. **WPS(RAM) Workshop:** This workshop is for those who have already completed the WPS (RAM) e-learning course and have identified that they require further training after considering the guidance below.

If you need to organise a workshop for your unit please contact: Email: DSTLRPTraining@dstl.gov.uk Phone: 01980 957179.

On completion of the WPS(RAM) e-learning foundation course and in consultation with your unit's Radiation Safety Officer (RSO), if you answer yes to any of the following questions for your role as a WPS(RAM), an additional qualification will be required, necessitating attendance at a WPS(RAM) workshop.

- Is any of the following monitoring required?
 - Personal dosimetry.
 - Workplace (smears on workbenches, storage areas etc).
 - Leak testing of equipment.
- Will you be an WPS(RAM) responsible for any of the following?
 - Museum / historic collections including gate guardians, etc.
 - Repair / maintenance of equipment containing radioactive material.
 - Receipt and dispatch of equipment containing radioactive material.
- Does your work area have items which require a Fixed Condition /Notification from the relevant Environment Agency?
- Will you be packaging equipment containing radioactive material in preparation for transport / consigning?
- Are significant holdings of radioactive materials held in your unit? Consult your Radiation Protection Advisor (RPA) for advice.

If an individual answers no to all the questions and this individual still wishes to attend a workshop, this should still be permitted with prior agreement from their RSO.

As with any queries relating to radiation protection issues, if you have any concerns or are unsure of the training requirement for your unit please consult your Dstl RPA on 9380 68142 or 01980 956090.

Contacts and Further Information

To convert the following Mil numbers to Civ, dial 01264 88 and then add the last 4 digits.

CESO(A)	
CESO(A) – Col Andrew Lambert	9 4393 7051
DCESO(A) – Lt Col Richard Thorpe	9 4393 6791
SO1 H&S – Vacant	9 4393 7060
SO1 Safety Management – Martyn Cox	9 4393 7058
SO2 Lessons – Vacant	9 4393 6794
SO1 Audit – Lt Col (Retd) Ian Tennent	9 4393 7627
SO2 EP&SD – Simon Morriss	9 4393 7624
SO2 Comms – Sharon Foster	9 4393 7037
SO3 ISO – Keven Mundy	9 4393 7059
CESO FAX (Mil)	9 4393 7607

AINC	
AINC Contact Point	9 6770 3661
OIC AINC – Vacant	9 4393 7634
Contact through SO1 Safety Management	9 4393 7058
AINC FAX (Mil)	9 4393 6889

Defence AIB	
Defence AIB (Land) 24hr Duty Number	030 6798 6587
DAIB Hd – Gp Capt Andy Bastable	01252 533530
DAIB DepHd – Col (Retd) David Challes	01264 382432
DAIB LAND Snr Ops – Lt Col (Retd) Ranald Blue	030 679 86590
DAIB LAND Ops1 – Lt Col (Retd) Roger Fellowes	030 679 86588
DAIB LAND Ops2 – Maj (Retd) Andy Neary	030 679 86589
DAIB LAND Ops3 – Capt Ian Milton	030 679 86591
DAIB LAND Ops4 – Capt Christopher Oakes	030 679 86592
DAIB LAND Ops5 – WO1 Jay Kinge	030 679 86594
DAIB LAND SIB – WO1 John Horne	030 679 86593
DAIB LAND Snr Eng – Maj Allan Tribe	030 679 82529
DAIB LAND Eng1 – WO1(ASM) Andrew Wrend	030 679 82533
DAIB FAX (Mil)	9 4391 7551



Army Safety



CESO-Army



Army Knowledge eXchange



British Army Safety

This and previous issues are available on Defence Intranet and can also be downloaded via the links below:

<p>Issue 54 Winter 16–17</p>  <p>https://goo.gl/kBx3wP</p>	<p>Issue 53 Summer 16</p>  <p>https://goo.gl/w6BN1F</p>	<p>Issue 52 Winter 15–16</p>  <p>https://goo.gl/xa8vpZ</p>	<p>Issue 51 Summer 15</p>  <p>https://goo.gl/OcmGt8</p>	<p>Issue 50 Winter 14–15</p>  <p>https://goo.gl/fxQNWJ</p>	<p>Issue 49 Summer 14</p>  <p>https://goo.gl/dnEaGS</p>
<p>Issue 48 Winter 13–14</p>  <p>https://goo.gl/3554V5</p>	<p>Issue 47 Summer 13</p>  <p>https://goo.gl/MQBjH7</p>	<p>Issue 46 Winter 12–13</p>  <p>https://goo.gl/e9Ogk8</p>	<p>Issue 45 Summer 12</p>  <p>https://goo.gl/CRtbqX</p>	<p>Issue 44 Spring 12</p>  <p>https://goo.gl/0ycE33</p>	<p>Issue 43 Winter 11–12</p>  <p>https://goo.gl/ZfsDQO</p>

<https://www.armynet.mod.uk/armysafety>