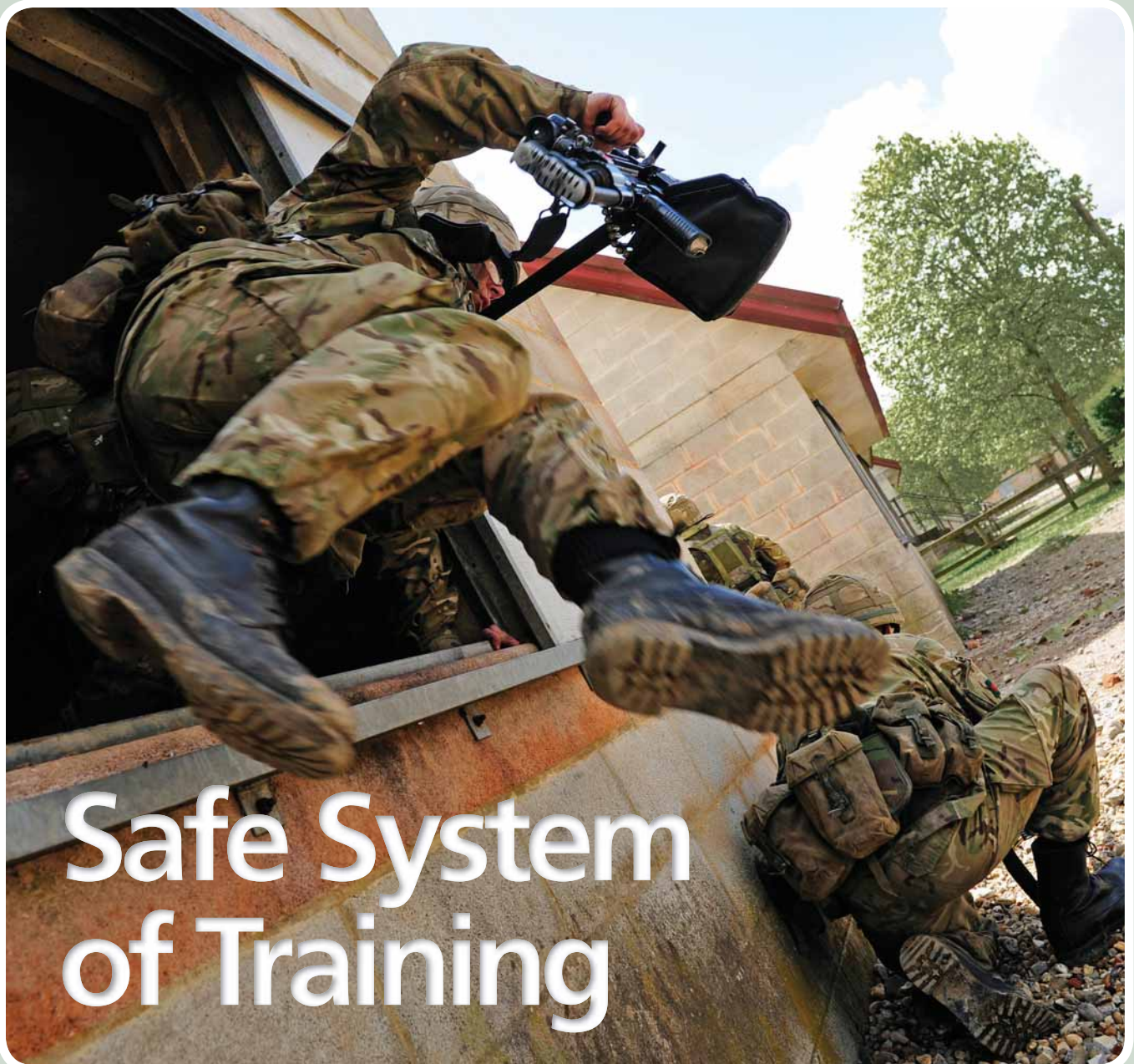


# Army Safety

48 | Winter 2013-14

& Environment Matters



## Safe System of Training

**ceso** **a**

CHIEF ENVIRONMENT & SAFETY OFFICER (ARMY)

<https://www.armynet.mod.uk/armysafety>  
<http://www.youtube.com/britisharmysafety>



**Dangerous Goods  
Non Compliance**

Page 7



**'Competence'  
What's That Then?**

Page 8



**Cold Injury**

Page 13

# Editorial



I would like to take this opportunity to thank the previous editor (Morton Burdick) for his dedication and management of this magazine over a number of years. As you know he has moved to pastures new, albeit not very far from me as I write, to the post of Chief RSIT(A). This is the first magazine without his unique stamp on so I hope that I can do it justice. I expect this to be my only excursion into the editorial role so I beg your indulgence on this occasion.

The Army never stands still and we at CESO(A) likewise. A number of changes and initiatives for the management of safety are underway. Some of you will be aware of the seminar held recently at Woodland Grange where these initiatives were discussed. It remains now for Col Johnny Schute to implement his directive on the way that safety will travel over the next 18-24 months. One of those directives will consider how best we can communicate the safety message across the board to all levels of the Army and its civilian workforce using more up to date social media outlets. The recruitment of Darren Elkins as the SO2 Comms will inevitably allow the changes to take place.



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“Worth a second thought?”

**Safety is everyone's business – if you identify a risk it is your DUTY to do something about it.** ”

Army Safety & Environment Matters is the quarterly publication of Chief Environment & Safety Officer (Army), CESO(A) – <https://www.armynet.mod.uk/armysafety>  
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# News in Brief

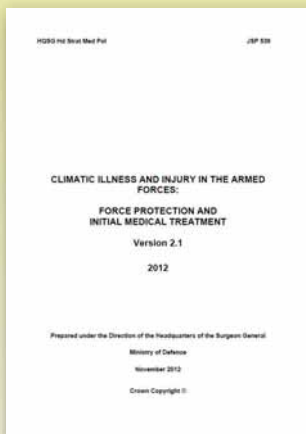
## AINC

The Accident and Incident Notification Cell (AINC) has gone through a complete change of staff in the last 12 months and this period sees the departure of Tara Fullerton from AINC. Tara has served for over 7 years and was one of the founder members of the current AINC database. We thank her for her valuable contribution and wish her well in her new post in Larkhill.

However, the AINC continues to recruit and we are pleased to announce the arrival of Angie Pidgeon, Paula Thomas, Mark Hall and Louise Collis and the return of Nicola Kerr as we get back to full staffing. It is hoped that this will allow the backlog of incidents to be entered on to the database quickly as we move towards the release of the next generation AINC (INS).

## Climatic Injuries

Following a large spate of heat related injuries over the summer, a review of all the relevant publications was conducted. It concluded that differing information was given in LFSO 3214 from that contained in JSP 539. As a result LFSO 3214 has been withdrawn and JSP 539 should be the only source document referred to in cases of both hot and cold injuries and their prevention.



See page 13 of this magazine issue for seasonal advice on management of cold injuries.

## BFG SHEF Manual

HQ BFG has now published a QR code so that those with a smart phone can access the BFG SHEF manual internet version more easily. Useful when on exercise, etc.



## Radiation

The responsibility for radiation issues within CESO(A) has moved from the post of SO2 Rad/Comms and will now be overseen by Mr William Barker-Wyatt – SO1 EP.

## LFSO 3216

The latest version of LFSO 3216 was published in Jun 13. It contains many changes from the previous version published in 2008. All practitioners are encouraged to read and disseminate the information contained within it. As with any publication it is out of date as soon as it goes live (!) so keep an eye out for further issues. LFSO 3216 can be found at the following site: [http://defenceintranet.diiif.r.mil.uk/libraries/corporate/Ministry%20of%20Defence/20121121.1/LFSO\\_3216.pdf](http://defenceintranet.diiif.r.mil.uk/libraries/corporate/Ministry%20of%20Defence/20121121.1/LFSO_3216.pdf)

## DIN Correction

In the last edition of Army Safety (Issue 47), one minor correction is needed on page 4 on the article 'Change to Corporate Eyewear Scheme CES'. The DIN referenced was superseded by DIN 2012DIN06-026

## Army Briefing Notes

ABN 93/13 Delivery of Physical Training Related Activities to non MOD Organisations.

Key Points:

- PT activities delivered to non-MOD organisations are classed as Non-Core Business and require commercial insurance to be in place prior to the activity commencing. All this type of activity is classified as repayment activity under either Civil Engagement activity or Income Generation activity.
- Army TLB units who wish to undertake PT related activities involving non-MOD organisations should approach the Wider Markets Team:

DE&S Commercial  
Tel Mil: 94391 7306  
Tel Civ: 01264 381306  
Email: DES-Comrcl-CC-ArmyHQ-WM (MULTIUSER)

## Sustainable Development

CESO(A) chaired the first Army Sustainable Development Working Group (ASDWG) on 5 Sep 13. Unlike previous SD committees there was strong representation across the 3\* Pillars as well as the Commands. The primary role of the ASDWG is to develop the SD content of the Army Plan and to support COS LF in his role as the Army SD Champion who attends the Sustainable MOD Steering Group. The Army Plan is used to set the overall SD commitment, direction and in-year targets.

## Incident Notification System

The Incident Notification System (INS) is the overall descriptor for the replacement for AINC. It has been built with the introduction of Duty Holding in mind and was a joint collaboration with Fleet. The Fleet version will be called Navy Lessons Identified Management System (NLIMS) whilst the Army will retain the title of AINC.

It is hoped that at some point the RAF will also adopt the system, thereby giving an overall single reporting system for the Front Line Commands.

The Fleet version went live in May 13 with the AINC version going live in Dec 13. Previous articles in this magazine have alluded to the introduction of INS, with the last issue including the guide to completing the electronic Form 510.

In addition to speeding up the process of entering accident/incident data into the database through electronic upload, the INS has been developed to provide a greater degree of trend analysis, focusing around causal factors. Form 510 initiators will see little difference in the threshold for reporting but we at CESO(A) will be asking for the detail in the reports to be far more comprehensive. Feedback on INS reporting gained by Fleet since May has shown that certain areas are not well completed. These areas include:

How, What, and Why areas are extremely thin. This should provide the reviewer with sufficient information to allow for accident trend analysis to be conducted. The information needs to be accurate and concise whilst providing sufficient detail to explain what was being done and why it went wrong. Take time to include as much information about the incident as possible. The equipment being operated at the time should also be included in the equipment section at the bottom of the form.

Where a specific part of the body is affected (e.g. arm, leg) then indicate which side of the body was affected. As further information becomes available it should be passed to AINC via email. Once the report is submitted, the initiator or commander / line manager needs to consider the requirement for a Learning Account to be submitted.

## Comments?

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# Safe System of Training

Everyone in the Command Structure **MUST** have a full understanding of the Safe System of Training (SST) – what the elements of the SST are, what they mean and how they interact.

## Vital Support Function

Most accidents can be attributed to a breakdown in, or failure to ensure all elements of the SST are in place. If something does go wrong and an accident occurs, then the investigators (in particular, LAIT) will use these elements to examine if and where the failure occurred.

The SST is designed to protect all levels of personnel including:

- Military personnel** undergoing training and those conducting it.
- Controlled personnel** including civilian staff and contractors employed in support of training.
- The general public**, including those unaware of the military training activity and even the trespasser, who deliberately disregards warnings.

The SST consists of four separate elements where the hazards have been reviewed, the risks assessed and controls put in place to reduce the risks to the ALARP condition (as low as reasonably practicable), within the constraints imposed by the training imperative.

### The four key elements of the Safe System of Training

- **Safe persons**
- **Safe equipment**
- **Safe practice**
- **Safe place**

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**Safe working practices and a safe environment are key Force Protection measures that need to be implemented to maintain fighting power**



## Safe Persons

'Competent persons' are persons who have received appropriate information, instruction training and supervision in order to carry out a specific task. A competent person within the SST is deemed competent by virtue of qualifications, currency, experience and maturity. Only a competent person can be directed to carry out a task and the task must be within their competence. **Persons under training cannot be deemed competent.**

It is essential that commanders also ensure instructors delivering training are competent to do so and given an appropriate level of supervision to ensure the delivery of training is safe and complies in full with the SST.

## Currency

Incidents have occurred when an individual is deemed competent by virtue of a qualification gained through military courses, but the individual has not had an opportunity to put that qualification into use for some considerable time. In this case, the currency of that qualification is out of date and additional supervision should be given in the first instance. An example would be a Range Conducting Officer who, although qualified, has not run a range for some considerable time. Any commander directing training to take place must ensure that the currency as well as qualification, experience and maturity is appropriate for the task.

## Safe Equipment

Equipment, including explosives and ammunition, is brought into service following an examination of the safety and environmental risks that the operation of the equipment may bring. These are identified in the Safety Case, the resultant risks assessed, and controls introduced and agreed with the user to ensure the risk is reduced to ALARP.

The imposition of these controls, together with the appropriate documentation defining the safe operation and maintenance of the equipment under Service conditions, is often referred to as the 'safe operating envelope'.

Commanders must ensure only competent persons use the equipment, unless under training. Commanders must ensure all persons, including those under training, are correctly resourced and operate and maintain the equipment as laid down in the Army Equipment Support Publication (AESP) which contains the instructions resulting from the Safety Case. Complete training and maintenance records must also be kept.

Where there is a formal operational requirement or resultant training imperative to use the equipment outside the controls laid down in the Safety Case, an application for dispensation must be made to the relevant Duty Holder.

## Safe Practice

Practices are conducted in accordance with drills and instructions laid down by the Service authorities. Drills and procedures, taking into account the training imperative, are identified in the equipment Safety Case and developed in accordance with the Systems Approach to Training (SAT).

Safe practice includes following correct procedures, effective training and supervision, the provision of warnings and the use of Personal Protective Equipment (PPE). It is essential that all training is closely supervised by a competent person to ensure that procedures are strictly adhered to.

## Safe Place

A safe place is one in which the controls, necessary to enable authorised training to be conducted safely, have been identified by a site specific risk assessment and directed through appropriate Standing Orders such as Range Standing Orders.

**Confirmation that the Safe System of Training is applicable**

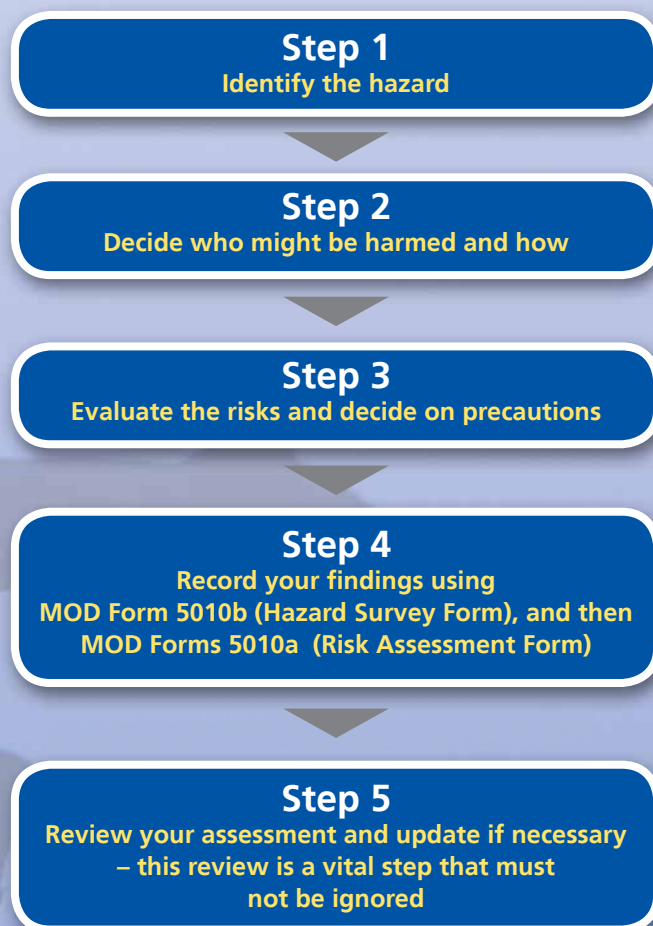
**It is not within a commander's delegated authority to deviate from Service Instructions, accepted codes of practice (ACOPS), policy, regulations or directives without a formal dispensation.**

## Risk Assessment to Deliver a Safe System of Training

The first step therefore, when carrying out a risk assessment in training, is to establish whether or not all elements of the Safe System of Training (SST) are in place. If all elements of the SST are in place, the final part of the risk assessment is to identify any other hazards which may not have been accounted for within the SST, and these, together with any additional controls, should be recorded on the risk assessment. Where additional controls are required, commanders have an absolute duty to ensure that all those affected are fully rehearsed in the implementation of them.

The object of the risk assessment is not to remove all risks, as this may negate the value of the training. **However, the objective is to reduce the risk of unnecessary hazards** and control the level of risk in relation to those hazards that are fundamental to the training event.

Risk assessment for all military training should be undertaken following the 5 Step Process :



There have been a number of incidents where the initial risk assessment was correctly produced, however, commanders had taken the decision to add further elements into the training, or, the conditions within the safe place had changed (weather), without conducting a further review or initiating a new risk assessment. For further guidance see JSP375 Leaflet 11.

# Practical Risk Assessment Tips

Example Hazard Survey for Climbing Exercise, Using MOD Form 5010b

1	Hazard	RA Req	Priority <sup>1</sup>		
			1	2	3
1	Untrained leader giving poor info (Safe Persons)	N			
2	Driver error results in RTA (Safe Persons)	Y		X	
3	Frightened trainee stuck on cliff face (SafePersons)	Y			X
4	Interaction with public leads to accident or fall (Safe Persons)	N			
5	Lost trainee leads to accident (Safe Persons)	N			
6	Indiscipline or complacency during down time leads to fall or accident (Safe Persons)	Y		X	
7	Fatigue leads to accident or fall (Safe Persons)	Y		X	
8	Poor security leading to loss of personal possessions or Army equipment (Safe Persons)	Y			X
9	Climbing equipment failure (Safe Equipment)	Y	X		
10	Vehicle failure (Safe Equipment)	N			
11	Catering kit failure (Safe Equipment)	N			
12	Electrical equipment failure (Safe Equipment)	N			
13	Poor set up leads to poor anchor position (Safe Practice)	Y	X		
14	Inadequate belaying (Safe Practice)	Y		X	
15	Slips, trips, falls (Safe Practice)	Y			X
16	Manual handling (Safe Practice)	N			
17	Inclement Weather (Safe Place)	Y	X		
18	Rock / object falls (Safe Place)				
19	Animals – dogs, livestock, etc. (Safe Place)	N			
20	Forest fire / flood (Safe Place)	N			
21	Environmental health issues (Safe Place)	Y			X

**1a Step 1 – Identify the Hazards**

- Consider hazards arising from normal activities and potential hazards if things go wrong.
- Focus on the reasonably foreseeable (that is an event that can logically be predicted to occur and which could result in harm) – not remote possibilities.
- Note how the hazards have been categorised into the four key elements of the SST: safe persons, safe equipment, safe practice and safe place.
- By scoring each hazard's priority, it is possible to focus more easily on the bigger issues.
- Tasks/activities that pose trivial safety consequences should not be subject to risk assessment.

- 1b**
- Note how the hazards have been copied over from the survey form, in order of priority.

Based on the Hazard Survey, Example Risk Assessment Using MOD Form 5010a

Hazards (Include Hazard Survey Number where applicable)	Who is at Risk?	Control Measures (Specify Existing Control Measures)	Risk Rating (Likelihood X Consequence) (See Note 3)	Additional Controls (Each Control Measure is to be specific and managed)	Residual Risk Rating (See Note 4)	Management	
						Owner	Date
Priority 1 HS#9 Climbing equipment failure	All climbers	Equipment Log books maintained, inspected by climbing instructor, appropriate equipment used for situation/type of rock (gritstone), instructed on correct use of equipment.	2 x 3	Double check of equipment log books at start and finish of exercise. Instructor, climber, and 'Buddy' check of all equipment	1 x 3		
Priority 1 HS#13 Poor setup leads to poor anchor position	All climbers	System set up by qualified and experienced climbing instructor. System backed up.	1 x 3				
Priority 1 HS#14 Inadequate belaying	All climbers	Supervised, correct instructor ratio, practical training, belayer anchored to ground. Qualified instructor.	2 x 3				
Priority 1 HS#17 Inclement weather	All climbers	Adequate foul weather clothing. Check weather forecast. Consider escape routes if appropriate. Regular Briefings.	2 x 2	Check for changes in the forecast during the day	1 x 3		
Priority 1 HS#19 Rock / object falls	All climbers	Helmet available, route checked by climbing instructor, route initially climbed by climbing instructor, instructed on action for "Below" warning, sound rock used.	2 x 3	Helmet mandatory while climbing and in climb area	2 x 2		
Priority 2 HS#2 Driver error results in RTA	All	Use of trained drivers with associated checks and controls	1 x 3				
Priority 2 HS#6 Indiscipline or complacency during down time leads to fall or accident	All climbers	Supervision, holding area away from edge, background activity.	1 x 3				
Priority 2	Climbers	1. Sufficient instructor to student ratios	1 x 3				

**2 Step 2 – Decide who might be harmed and how**  
**Step 3 – Evaluate the risks and decide on precautions**

- 3a**
- The risk rating needs to be completed with reference to the 'Likelihood X Consequence' matrix, (see below).
- 3b**
- Decide on precautions (controls).
- 3c**
- Note the residual risk remaining with the additional controls.

	High	Common, regular or frequent occurrence.	3	3 Med	6 High	9 High
Medium		Occasional occurrence.	2	2 Low	4 Med	6 High
Low		Rare or improbable occurrence.	1	1 Low	2 Low	3 Med
<b>Risk Matrix Likelihood X Consequence</b>				1	2	3
				Minor injury or illness. Low	Serious injury or illness. Medium	Fatalities, major injury or illness. High

**Commanders that fully take on board the SST ethos are rewarded with well trained, disciplined and effective personnel. It's all about leadership and being risk aware, not risk averse.**

# Dangerous Goods Non Compliance

**Dangerous goods / hazardous materials are defined as items that require special handling, additional packaging and labelling in order to be transported.**

To meet with regulatory requirements governing the carriage of dangerous goods (DG) by any mode of transport, everybody involved in the preparation of and consigning DG must be suitably qualified and experienced. **Basically, you must be trained AND know what you're doing!** So, why is there a rise in the reported number of undeclared DG and other non compliances?

There isn't one simple answer, otherwise something would have been done about it; but, it does mean we all need to be even more vigilant and follow the rules. The first step is to find out who in your unit has been trained. We have had a number of reported incidents of poor management of DG, where on investigation, the unit has trained personnel but they weren't used for the task. The regulations are designed to protect people, environment and property from adverse affects of hazardous substances – the penalties for wilful non compliance don't bear thinking about.

**Some examples of indicators that should trigger suspicion are:**

- **Ambiguous descriptions** – "general freight", "rations", "aircraft spares", "tentage", "technical equipment", "medical supplies", "tools".
- **Illegible marking** – incomplete or scribbled UN numbers or shipping names.
- **Poor labelling** – danger labels not 'on point', peeling or missing, covered by other labels or tape.
- **Shabby packaging** – reused with original marks and labels still showing; signs of contamination, damaged or creased.
- **Smells and fumes** – contaminated goods, vehicles, containers, leaking equipment.
- **Incomplete documentation** – insufficient DG information, mandated fields left blank, illegible names or no signatures, dates, incorrect addresses, missing authorisations.
- **Erroneous instructions in writing** – where they are needed, can the driver understand them?
- **Incompatible goods** – mixed packaging, mixed loading, segregation requirements.



- **Limitations** – permissible quantities, excepted quantities, limited quantities, load threshold, transport categories, tunnel codes, critical index, net explosive mass.
- **Load securing** – chocking, bracing, lashing, straps, tie-downs.
- **Vehicles** – plating, placarding, appropriate certification.
- **Emergency equipment** – unserviceable PPE, out-of-date FE and tools missing.
- **Driver and crew** – licence, identification, proof of training.
- **Safety data sheet** – not on or different to HSI, poor copy, illegible.

We are all busy and have deadlines but YOU may be culpable if anything goes wrong. If any of the above apply or you're suspicious, stop the consignment, check it and if necessary, fix.

Don't forget to complete a non-compliance report (<http://www.transportsafety.dii.r.mil.uk/qa/incidentadd.asp>) and email the link or send a copy to the perpetrator – you're not dobbing anyone in, just educating them! Taking time to complete the reports is important, as statistics highlight necessity for changes to policy, training and commercial management.

Everybody is responsible for the safe carriage of dangerous goods to ensure that the goods are prepared and transported safely and in accordance with the relevant regulations.

Further information can be found in JSP800 Vol 4a The Dangerous Goods by Air Regulations ([http://www.transportsafety.dii.r.mil.uk/JSP%20Vol4a/1281\\_JSP800VOL4A-R.pdf](http://www.transportsafety.dii.r.mil.uk/JSP%20Vol4a/1281_JSP800VOL4A-R.pdf)), and Section 9.5 or JSP800 Vol 4b The Dangerous Goods By Road, Rail and Sea Regulations, Chapter 1.8.5 (<http://www.transportsafety.dii.r.mil.uk/DRAFT/JSP800V4b/JSP%20800%20Vol%204b%20Edn%202.pdf>).

# 'Competence' What's That Then?

**According to the Oxford Dictionary being competent is someone having the necessary ability, knowledge, or skill to do something successfully – being efficient and capable.**

**We all hear the word 'competent' being bandied about in the health and safety arena, but what does the HSE and MOD actually mean by it?**

## Context

Looking at the Management of Health and Safety at Work Regulations (MHSWR), this defines someone as competent where they have *'sufficient training and experience or knowledge, and other qualities to enable him properly to assist the employer in undertaking the measures he needs to take to comply'*... However, the MHSWR does not define what the 'other qualities' are...

If we look at other Regulations, e.g. Provision and Use of Workplace Equipment (PUWER) it includes knowledge, experience and ability in its definition of competence. In PUWER, training is not included in its definition. Reading further into the regulations, it states that training will vary, but in general it should be used to plug the gap between existing and required competence. Two people can attend the same training course and receive the same information, but can have different levels of competence at the end because of differences in aptitude. After all, a qualification is evidence of training, not of competence.

## Assessing Capabilities

So to go some way to determining if someone is competent to undertake a role, MOD Policy states a person's capabilities (before being entrusted with specific health and safety tasks) must be assessed, by considering the following factors:

- The competence requirements of the task.
- Level of existing skills.
- Level of existing knowledge.
- Currency and applicability of knowledge.
- Academic / professional qualifications.
- Level of experience.
- Personal attitude towards the task.
- Guidance, rules and procedures.

Therefore, managers appointing individuals need to consider the possibility that the above factors might be interrelated (e.g. the levels of knowledge and academic qualifications will affect the ability to comprehend guidance, rules and procedures) – past experience will have an effect on the level of skills available.

Certain tasks undertaken by people are required by legislation to have documented proof of the level of competence in carrying out the duties. This proof is normally achieved with the issue of a personal certificate by an approved trainer or training organisation (bearing in mind the comments above).

In addition it is MOD policy that individuals appointed in certain health and safety roles or tasks must undertake specific training, regardless of the existing capabilities of the individual. To develop the knowledge and skills of safety professionals, a framework of health and safety functional competencies exists. Used appropriately, MOD policy states it will improve the professional approach to this subject by individuals, and raise standards in the MOD.

However, reading all the documents on competence there seems to be one big thing missing... **Know Your Limits!**

**A qualification is evidence of training, not of competence.**



## Know Your Limits

Any safety professional that has attended a safety seminar and seen a motivational speaker will know this is the one factor that alters someone's life for ever. One of the most moving is that of Ken Woodward, who in November 1990 was working at a Coca Cola Schweppes factory in Kent, where at the time of his incident he was an acting Team Leader on a line handling returnable bottles. In listening to his description of that day you can just see the 'Swiss cheese model' lining up and opportunities missed...

- When changing product from one drink to another, the lines have to be cleaned and sterilised and a system called CIP was used to keep the drink production system clean. The normal chemical used was a proprietary (trademark) cleaner called "Solchlor" which is a mixture of Caustic Soda and Sodium Hypochlorite (bleach). They ran out of the pre-mix solution several weeks before, and instead opted to mix their own by ordering the chemicals separately...
- As the mixing machine was broken, the process was carried out in open containers...
- Despite a couple of unreported near-misses, this cheap shortcut had become the norm. On the day of Ken's accident he was asked at the end of his shift to carry out the CIP clean. He had never done this before, but was prepared to help his boss and make sure the day shift didn't have to do it. Although experienced staff were around, there was that feeling of anxiety to get home as the end of the shift drew closer. Ken tried to find the appropriate personal protective equipment (a chemical suit and eye goggles) but there was nothing available... (It was later discovered that the chemical suit was in such a poor condition it would have been unusable anyway).
- When the two chemicals were mixed together there was an instantaneous violent reaction that flew in to Ken's face – just 18 inches away from the explosion. The reaction was so extreme it hit the 70ft high factory ceiling.
- His life was saved by his colleagues who manhandled him into a nearby emergency shower and held him in while he struggled to get out.
- The last person Ken would ever see was his friend and manager. Ken was severely burned and eventually he lost his sight (his eyes had to be removed). He also lost his sense of smell and taste.
- Many of his colleagues were severely traumatised by what they had witnessed at their shift changeover time and needed counselling. Lee Birks (Ken's closest friend) blamed himself for not stopping Ken carrying out the procedure he knew little or nothing about. Although he saved Ken's life by holding him in the shower, he never truly came to terms with letting his friend down.



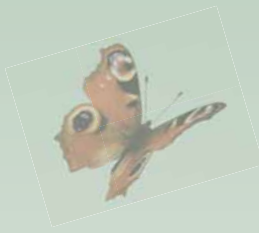
### The Swiss Cheese Model

The slices represent barriers against safety failures. The holes in each slice represent weaknesses and vary in size and position. The organisation's safety systems produces failures when a hole in each slice momentarily aligns, permitting an accident opportunity.

*(As proposed by the psychologist, James Reason).*

- The subsequent investigation revealed that there had been at least two previous near misses that were not investigated properly and merely put down to operator clumsiness.
- A lab test had been carried out on the CIP process used at the plant, the results of which were sent via internal mail and arrived 7 hours too late after Ken's accident. Had they been transmitted to the plant immediately, the accident would never have occurred. The chemical reaction was found to be down to stabilisers in the two chemicals that acted as catalysts in the resulting exothermic reaction.
- Apart from the devastation to Ken, the company was fined under COSHH regulations. Estimated lost production time, compensations and fines amounted to a total estimated financial loss of £2.6 million.

**... All because there was a lack of competence and someone did not say 'beyond my ability'.**



# EMSAS Success at South Cerney Station

**As demonstrated at 29 Regiment RLC / Duke of Gloucester Barracks, three years of teamwork and cooperation, supported by determined and persistent individuals (notably, Capt NA Williams), can get you a long way.**

**Starting with a blank sheet, the Station has successfully used the EMSAS framework and the CO's SHE&SD Action Plan to great effect, delivering improved sustainability and environmental performance.**

## Teamwork and Awareness

Getting core parties consistently involved has been key. Regular monthly site meetings are held with all agencies namely: Defence Infrastructure Organisation, Keldawater Services (Defence) Ltd, Debut Services (South West) Ltd, and OCS Horticultural. Elior UK Plc who manage the Officers and WO & Sgts Mess, also set up their own 'Green Teams'.

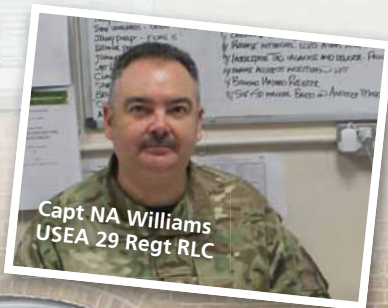
Improvement starts with changing expectations on performance and behaviour. This starts with the SHE&SD Induction package which is provided for all staff (military, civil servant or supporting contractor). There are also periodic general briefings by the USEA as well as topic specific training such as waste, pollution awareness and training for an immediate spillage response team.

## Focus on Utilities

Consumption of utilities is a focus for the site and is actively monitored by the QM and USEA on a monthly basis. They are helped by building custodians with detailed terms of reference and 64 trained energy wardens with clear daily closedown procedures.

Other changes include the fitting of meters to the top ten usage buildings, **replacement of over 2,000 light fittings** with more energy efficient T5 tubes, zone valves and time settings for transit accommodation blocks, installation of roof insulation, variable speed pump and inverters on the district heating system. **Figures for 2012 showed a 42% saving in gas and a 31% saving in electricity.**

Water consumption has been reduced with the lowering of the station's water pressure on site and the installation of Hippo water saving devices in toilet cisterns. Performance in 2012 showed **a saving in water consumption of around a third**, but will be affected by a leak in the district heating identified in early 2013.



Capt NA Williams  
USEA 29 Regt RLC



HQ 29 REG



WO2 (ROMS) Peter Murphy, Mr Rory Renton and Pte Adjer, creators, managers and builders of the Station Recycling Centre

## Focus on Waste

Persistence and dedication over three years by 3 QMs, Division and Elior UK Plc eventually resulted in a re-write of the waste contract to allow waste from site to be sent for recycling. At a practical level, the RQMS constructed a no-cost waste and recycling centre on site, trialled the TRaSH system and delivered briefings. **This led to a change in the recycling rate from less than 1% to over 53% in less than a year.**



The staff and children at the Duke of Gloucester Playgroup have been busy with their Beastie Project and growing vegetables and flowers in their garden.

## Focus on Environmental Protection

In addition to a review of pollution control equipment and the provision of spill kits, **emergency interceptor equipment, has been purchased** (due to risks to local aquifer and lakes), with training to follow.

The OCS Group UK Ltd, our **horticultural team has reduced pesticide and biocide usage** in order to reduce costs. This has also benefitted the grass and flowers. A mulching protocol was also initiated on site.



## Focus on Conservation

Work with the local Farming and Wildlife Advisory Group (FWAG) has involved a site wide station survey, a grassland survey and a plan of what we can do to create and restore the valuable and nationally diminishing habitat of lowland calcareous grassland.



SSgt Paul Staley and the FWAG and Families Conservation Team

## Future Plans

Further work with FWAG will involve the station in a local Water Framework Directive project, which seeks to improve river water quality across the UK. The feasibility of initiating a biomass project on site is also being considered as well as plans for wildlife information boards, activities for children, the identification of recreational walks and an enlarged mechanical transport fuel installation (MTFI) interceptor.

## Top Tips

- Total team effort is required, and achievable!
- Don't underestimate the planning and cooperation required – involve all parties.
- Don't underestimate what can be achieved once the team is inspired!



Lt Col VT Nanovo RLC Commanding Officer 29 Regt RLC and the South Cerney Station Environmental Team.

# OME in the Waste Stream

**The problems of ammunition, ordnance and explosives entering the waste stream don't go away – they just shift their focus.**

The story so far has run in parallel with, and emerged out of, the evolution and sophistication of waste management in the last twenty years. In essence the increased sorting and segregation of waste and recycle is making every legally and illegally discarded item visible throughout the disposal process.

It would be wrong to think that the problem is a reflection of a lack of discipline or slackening of standards in the modern Army. The bar is being raised and the derided 'throw away society' is being brought to account across the board. At some point we have all put stuff in our bins at home which actually should be taken to civic amenity sites for disposal as hazardous waste.

There have been anecdotes heard concerning small arms rounds from the Boer War period being found in the drains at Tidworth when Aspire took over management of the Garrison. At the other end of the country a certain CO reported that an 'extraordinary' amount of discarded ammo was recovered when the ornamental pond in front of the Officer's mess was drained and dredged!

The issue was originally most problematic on the training estate at Otterburn and there were incidents of flares being found and igniting in waste collected by contractors.



It was soon clear that this was happening across all of the training estate and as a result, waste sorting stations had to be built on the five main training areas and manned by the training estate contractors.

This has cost a lot of money and has very significant ongoing running costs. Year on year the amount of waste being recovered is reducing which is good and shows that Units are taking the issue seriously. There have been several COs whose Units' waste management performance has been reported to the Brigade Commander because it was 'good' (and some because it was 'not good').

Nonetheless, undeclared ammunition which has found its way back to barracks now has many choices as to where it can go next and they include: the non-hazardous waste stream; the hazardous waste stream, scrap metal skips, small battery recycling bins and of course an Amnesty box. (Note that plastic explosives and detonators have been recovered as well as the usual live ammunition and flares).

Amnesty box returns, as required by LFSO 1307, are showing a mixed picture but are clearly being used to return undeclared ammo and bring it back on to Unit ammunition accounts.

One horror story regarding OME getting into the non-hazardous waste stream unfolded a few years ago when a flare discarded into a bin caught fire when it was compressed in the waste lorry. The lorry then tipped the load out onto the middle of the parade ground and an eager soldier rushed to put out the fire with a water based extinguisher hurriedly grabbed from his accommodation block. The water caused an oil fireball and the dustman received severe burns to his face and ended up in hospital for three days. The waste management company concerned made an immediate requirement that the Army pay for an extra dustman on the round to check bins before tipping.

Another unit had to send a team of soldiers over a weekend to a landfill site to search for OME after some had been found in the tipped waste. Waste management companies are closely scrutinised by the Environment Agency and they are not prepared to have their records blemished by the Army. They will set their costs according to the risks they perceive we bring to their operation and reputation.

**The effects of OME in waste are dangerous, costly and send an unprofessional message to the public about the Army.** However, Units' waste management performance is improving slowly in line with the requirements set by EMSAS and the Duty of Care attention that TRaSH brings to the issue. Standards are improving and this will only continue to get better in line with the rest of society.

# Cold Injury

This summer was hot and there were far too many serious casualties and even fatalities related to heat injury, despite the informative article in the last issue of this magazine.

This article seeks to consider the forthcoming winter and the tools available to consider cold related injuries, which present their own set of dangers.

## JSP 539

Commanders have a duty to assess the risks of cold exposure that may result from military activities and must ensure that these risks are minimised as far as is reasonably practicable. Therefore we highlight again, JSP 539 Climatic Illness and Injury in the Armed Forces:

<http://defenceintranet.diif.r.mil.uk/Reference/DINsJSPs/Pages/JSP539ClimaticInjuriesintheArmedForcesPreventionandTreatment.aspx>

## Risk Assessment Aide Memoire

The Commander's Cold Injury Risk Assessment Aide Memoire (Annex 3B to JSP 539) is an easily understood checklist that prompts the Commander with 10 risk factors to include as part of their risk assessment.

JSP 539		Chapter 3		
ANNEX 3B - COLD INJURY (CI) RISK ASSESSMENT AIDE MEMOIRE		ANNEX B		
Ser	Risk Factor	Question	Results	Remarks
(a)	(b)	(c)	(d)	(e)
1	Activity	Is shelter available for static periods?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Risk of CI is increased when static, particularly if this follows a period of arduous activity. Immersion/ wet clothing greatly increases risk of CI.
		Can long static periods be avoided?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Can immersion be avoided?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Are there plans to allow changing into dry clothes after immersion?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
2	Duration of activity	Can rest periods be incorporated (in shelter)?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Exhaustion increases CI risk.
3	Environmental conditions - see <a href="#">JSP 539 Annex 3A</a>	Has accurate weather forecast been obtained?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Risk of CI increases when SAT is below minus 5°C. Windy / wet conditions greatly increase risk.
		Has wind chill factor been taken into account?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Can training be carried out in warmer / more sheltered conditions?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Are DS and training staff adequately trained and competent?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
4	Supervision	Is the medical support plan adequate?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Trainers and DS provide a vital means of preventing CI / early detection of CI.
		Have all troops received a presentation on CI or watched the training video?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Have Commander's and Individual guides been issued?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
6	Water Intake	Is there adequate safe water available throughout the intended activity?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Dehydration can occur rapidly in cold conditions.
7	Food intake	Have increased calorific needs been considered?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Energy requirements increase in cold conditions.
8	Alcohol	Has alcohol been avoided for 48 hours prior to activity?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Alcohol increases susceptibility to CI.
9	Dress & Equipment	Is correct clothing/sleeping system issued?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Correct clothing and equipment will reduce CI risk.
		Do all troops have spare dry clothes?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Can the activity be postponed until personnel have rested?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
10	Predisposing Factors	Have personnel been provided with food and water prior to undertaking the activity?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Lack of: sleep; food; fluids; poor fitness; and illness all predispose to CI. Those with previous CI are at greater risk.
		Have unfit/ill people been excluded from the activity?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Have previous CIs been declared to, and investigated by, medical staff?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
			Yes <input type="checkbox"/> No <input type="checkbox"/>	



In completing Form 5010b (Hazard Survey Form) remember that heat and cold factors are already provided as a prompt. The Commanders' Aide Memoire will help to consider risk levels and controls when subsequently using Form 5010a (Risk Assessment Form).

## Don't Forget Wind Chill

The Met office states that the 'equivalent chill temperature' (feels like temperature) is different to the actual air temperature shown on a weather forecast. Feels like temperature measures the expected air temperature, relative humidity and the strength of the wind at 5 feet (human height), as well as considering how heat is lost from the human body during cold and windy days.

		Equivalent chill temperature (°C)										
		SAT (°C)	4	-1	-7	-12	-18	-23	-29	-34	-40	-46
Measured wind speed (mph)	0	4	-1	-7	-12	-18	-23	-29	-34	-40	-46	
	5	2	-4	-12	-15	-21	-26	-32	-37	-43	-48	
	10	-1	-9	-15	-23	-29	-37	-43	-51	-57	-62	
	15	-4	-12	-21	-29	-34	-43	-51	-57	-65	-73	
	20	-7	-15	-23	-32	-37	-46	-54	-62	-71	-79	
	25	-9	-18	-26	-34	-43	-51	-59	-68	-76	-84	
	30	-12	-18	-29	-34	-46	-54	-62	-71	-79	-87	
	35	-12	-21	-29	-37	-46	-54	-62	-73	-82	-90	
	40	-12	-21	-29	-37	-48	-57	-65	-73	-82	-90	
		Less Danger			Increasing Danger. Flesh may freeze within one minute				Great Danger. Flesh may freeze within 30 seconds			

The above graphic from JSP 539 shows equivalent chill temperatures when combining standard air temperature (SAT) and wind speed. Evidently, with temperatures even as high as 4 °C, the equivalent feels like temperature can be around -8 °C with just a 'fresh breeze' (defined as 18 to 24mph). Changes in altitude also have a significant effect on environmental temperature. Temperature falls by approximately 1°C for every 150 metres of increased altitude.

All in all, these factors represent a significant danger that unprotected flesh can freeze extremely quickly. This must be taken into account when planning for activities.

There are a number of training videos available from the British Defence Film Library: <http://www.bdfil.dii.r.mil.uk>, including 'C5196/10 – Climatic Injuries', which covers both cold injury and heat illness.

# A Safety Culture in Action

Article contributed by Maj John Rendall, DM Kineton

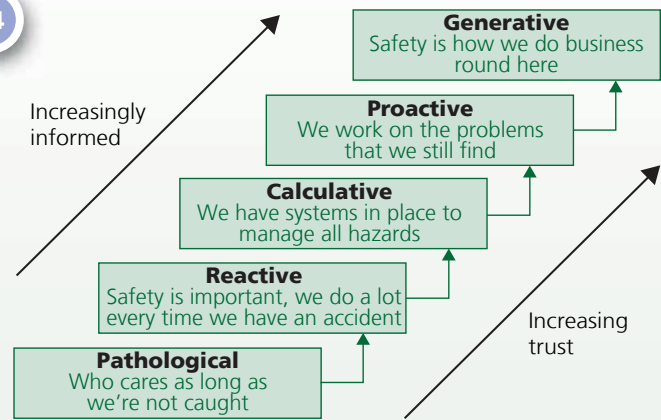
**Defence Munitions (DM) Kineton is Europe's largest ammunition storage facility and is responsible for receiving, storing, maintaining and issuing several hundred ammunition natures.**

Operations over the past decade has seen the tempo increase and the combined military and civilian workforce has been challenged to ensure that those on the front line have the right ammunition, at the right time and in the right condition. This led to a focus on meeting targets with safety occasionally compromised.

The characteristics of explosives means that even a minor incident can rapidly escalate. Safety must come first and be at the forefront of depot operations. To guarantee the safety of the site, personnel at all levels must embrace health and safety as a core part of what we do. MOD Explosives Regulations state that the risks attached to all operations must be as low as reasonably practicable (ALARP).

An independent audit in January 2012 assessed that the Site had a 'calculative' safety culture<sup>1</sup>. To address this, an Integrated Safety Cell (ISC) was formed combining explosive compliance with safety, health and environment (SHE) to create a focal point for all safety matters.

Although a safety management system existed it did not include consultation. Safety was imposed on the workforce, rather than them being an integral part of it.



Based upon 'The evolutionary model of Safety Culture', Professor Patrick Hudson, 2001:  
<http://www.skybrary.aero/bookshelf/books/2417.pdf>

Communication was poor for safety matters. To capture 'bottom up' safety concerns, monthly meetings are held to allow depot staff to highlight and discuss issues directly with the ISC. In support of this, an anonymous system for reporting Near Misses or other safety related issues was established through 'Don't Walk By' boxes. Distributed site wide, these allow individuals to report anything they deem relevant to the ISC, these are collated and feedback is published weekly.

To ensure that all personnel start with a firm understanding of the site, its hazards and their place within the workforce, the ISC delivers a detailed site induction for new starters. Further education in SHE is provided through monthly safety newsletters, site specific safety posters and safety information cards.

Safety 'rooms', conducted weekly by management and the ISC, identify and report safety issues that may otherwise go unnoticed. Any feedback is then briefed at each departments' weekly tool box talk, an important chance for management to witness the real issues facing our people.

To drive home the importance of management commitment to SHE, the Head of Establishment conducts quarterly safety briefings, visiting each department to deliver a short brief followed by an open forum on safety matters.

A safety culture does not blossom overnight; it takes time to realign a deep rooted, results focused attitude.

The new system is already delivering tangible results – increased near miss reporting and fewer issues identified on safety roams. This has contributed to the site being reassessed as having a proactive safety culture and is moving closer to the highest level, 'generative'. The Defence Munitions ethos of 'safety first' is beginning to be embraced to the benefit, and safety, of all.

<sup>1</sup> An organisation with a 'calculative' safety culture will have well developed procedures and engineering controls designed to manage safety. Safety will be managed on a risk-by-risk basis and incidents will be investigated to identify root causes, at least to a basic level.

Typically, it will be felt that the organisation has systems in place to manage hazards however, employees may perceive that safety involves a lot of paper work. There will be a growing trust in management to a stage where they feel they may be listened to. Information relating to safety will be gathered from a variety of measures and it will become more and more reliable. However, there may be some reservations about the measures used.

# Vehicle Fires

During the period Jan 10 to Mar 13 a total of **78 vehicle fires** have been investigated by the Serious Equipment Failure Investigation Teams (SEFIT).



It is estimated that electrical system faults are responsible for 40% of non-deliberate car fires in the UK. The likelihood of electrical fires occurring in military vehicles is far higher than in civilian vehicles because of the complexity of electrical equipment fitted as part of many Complete Equipment Schedules (CES). The cause of electrical fires is therefore not restricted to problems with the electrical system of the vehicle itself.

The immediate causes of vehicle electrical fires are usually loose electrical connections, worn, broken or brittle cables and unauthorised modifications.

The root and underlying causes are often:

- Operators failing to conduct adequate before and after use checks.
- Operators failing to identify or report electrical faults.
- Crews stowing equipment on top of electrical equipment or connectors inside vehicles.
- Maintainers failing to identify electrical faults or take appropriate remedial repair action.
- Poor routing of vehicle electrical cables when installing or replacing electrical equipment.

The risks posed by vehicle electrical fires are high and the effects can have devastating results. They can easily result in death and serious injury as well as the write-off of equipment. A recent electrical fire occurred in the engine compartment of a fuel tanker whilst re-fuelling an Apache attack helicopter. The most likely cause of the fire was a electrical connector that had worked loose over an undetermined period of time. The fire was extinguished using a dry powder extinguisher and the prompt actions of the vehicle crew prevented the complete loss of the vehicle. Had the contents of the tanker ignited, it could have had catastrophic effects.

In order to reduce the likelihood of vehicle electrical fires all operators must carry out before and after use checks on their vehicle, including electrical equipment, connectors and cables. All defects should be reported immediately so that prompt and appropriate repair action can be taken. All soldiers should be aware of the hazards resulting from faulty or damaged electrical installations in vehicles and ensure that all remedial repairs are completed to the required standard.

All operators and maintainers must refer to vehicle and equipment maintenance publications to ensure that electrical components and systems are fitted correctly, and to ensure that they comply with relevant warnings and cautions.



# Bike Safety

Article contributed by  
WO2 Chris Maginnis

**“There’s no stranger feeling than checking your mirrors and constantly seeing a Police motorcycle hot on your tail”.**

HQ Support Command situated in Aldershot, hosted a Military Bike-Safe day on Wednesday 8 May 13, for serving Army personnel. The day was coordinated by WO1(SSM) Steve Cocking HQ Support Command’s Master Driver, and PC Tom Maxwell, Force Coordinator for Surrey Police Force Bike-Safe.

Seven serving soldiers based widely across the South East from Brighton, Canterbury, Farnborough and Folkestone and ranging in rank from Corporal to Warrant Officer attended the event.

The day started none too promisingly weather wise, being grey, overcast and drizzling, but following the compulsory start of coffee and biscuits we all settled in for the classroom session and safety briefings. These consisted of some teeth clenching CGI videos and open discussion based around the techniques to be adopted during the day of observation. These included positioning, cornering, overtaking and hazard awareness. Throughout the presentations the sun could be clearly be seen through the blinds drying the roads and turning into a nice day, much appreciated by all. Following another top up of refreshments and additional toilet visits it was out on to the roads in our allocated pairs. As I was appointed as the odd man number 7, found myself with PC Tom Maxwell as my personal instructor.

All four groups departed using similar routes. Heading off towards our first two hour ‘observed rides’ we found ourselves in and around the notorious “Pirbright bends”.



A collection of flower memorials all along the roadside where other motorists hadn’t given the bends the utmost respect they deserve, invited further teeth-clenching moments.

Regular stops for roadside debriefings caused passers by some distraction, as it looked like motorcyclists were being pulled over repeatedly, but then again, ‘there’s no stranger feeling than checking your mirrors and constantly seeing a Police motorcycle hot on your tail’. PC Maxwell took the lead on each new route allowing me to observe how the roads could be ridden, and how using distance observation greatly improves road position selection. Following each debrief we would about turn, and ride the route in the other direction taking in to account any points raised for improvement or practise.

Throughout the first rides I noticed how little Tom used his brakes whilst cornering but relied more on lower gear selections to control his bike. Trying the same technique completely contradicts the way I had been taught, but massively improved the way my riding felt and all the time increasing my confidence. After two hours in and out of the bends, mastering the theories and practices of Positions 1, 2 and 3 it was time to head for St Omer Barracks, Aldershot for some well deserved and much anticipated lunch.

Following lunch and a quick briefing we were back on the bikes for the second two hour observed rides –

this time on the faster roads between Aldershot & Winchester. Similar format to the first rides earlier in the day just faster and longer. After another debrief it was back to Aldershot for the final classroom session, another quick break and even time for a photo opportunity with eleven bikes on parade.

In the classroom session the group conducted a number of collision case studies, went through the individual and group debriefs from the day followed by the mandatory refreshments and collection of a handful of Bike-safe goodies, which included the Motorcycle Roadcraft and the Police Rider’s Handbook.

The completion of a great day, handshakes all round, and a massive thanks to all the staff that supported the day from Surrey Police Bike-Safe team. The course members then mounted their bikes for the return journeys to our various home locations. It was a shame that the weather turned to poor visibility to spoil the last leg of the day, but back home, bike in the garage, 275 mile round trip, and I’m feeling it’s a job well done.

For other serving members of the forces that wish to complete the Bike-Safe training it is suggested that they contact their Master Driver or MTO who will be aware of other events setup with other Police forces around the country.

# DSEAR Update

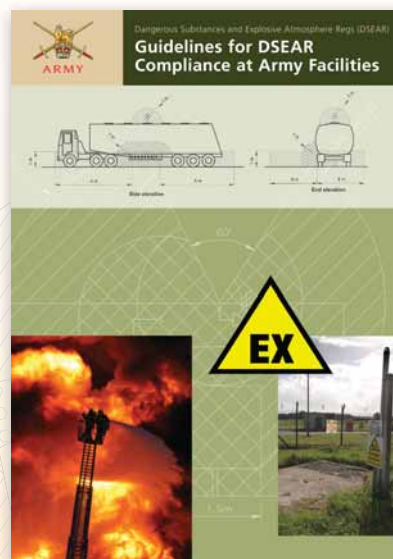
**If you have anything dangerous or explosive on site you may have been aware of recent activity concerning DSEAR.**

DSEAR is the Dangerous Substances and Explosive Atmosphere Regulations and while there has been a robust health and safety system in place and a lack of incidents related to dangerous substances, the introduction of these regulations required some specific additional measures to be taken.

Given the size of the Army estate and the range of facilities under its control, from a few high profile, high risk sites to a large number of lower risk sites, this proved a particular challenge.

The Army approach has been developed by CESO(A) and its supporting consultants, AMEC. It is based on the premise that the most important aspect of mitigating any risks is understanding them. To that end a training programme was developed and delivered during Spring and Summer 2013. As well as being delivered to all Army and JHC SHE staff, other TLBs (Navy, JFC and DE&S) have also been trained and the current cohort of AMEC DSEAR training certificate carrying staff stands at well over 200. As well as developing the training package, a risk assessment methodology was produced which:

- Is compatible with existing MOD Forms.
- Ensures the whole site is screened to reveal unknown risks and collate all information into an Explosion Protection Document (EPD).



From DSEAR returns provided by Regional Brigade SO2 SHE Focal points we now know that there are just in excess of 1,000 facilities on the Regular and Reserve Estate which carry a DSEAR risk. These range from CoSHH lockers to aviation bulk fuel installations. Of these, over 60% have been risk assessed and this includes all the facilities with a higher level of risk.

Such is the profile of this departmental legislative non-compliance that our figures are being reported to PUS.

**It is imperative that site SHE staff maintain their momentum and complete all risk assessments before the end of December 2013.**

In Q4 of this financial year (January to March 2014) AMEC will be carrying out an assurance review of DSEAR implementation via visits to RF Brigades and a selection of sites.

For the future it is intended to continue running DSEAR courses on an annual basis to cover changes in SHE staff and USEA personnel.



# Policy Update

## Recent legislation changes, MOD H&S policy updates and some salutary HSE reminders.

### Health and Safety (First Aid) Regulations 1981

As of 1 Oct 13 these Regulations have been amended, removing the requirement for HSE to approve first aid training and qualifications. The change is part of HSE's work to reduce the burden on businesses and put common sense back into health and safety, whilst maintaining standards. The changes relating to first aid apply to businesses of all sizes and from all sectors. Removing the HSE approval process will give businesses greater flexibility to choose their own training providers and first aid training that is right for their workplace, based on their needs assessment and their individual business needs. (Hence the review of Leaflet 27).

### Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) 1995

The main changes made to the Regulations are:

- The classification of 'major injuries' to workers replaced with a shorter list of 'specified injuries'.
- The existing schedule detailing 47 types of industrial disease replaced with eight categories of reportable work-related illness.
- Fewer types of 'dangerous occurrence' require reporting.

There are no significant changes to the reporting requirements for:

- Fatal accidents.
- Accidents to non workers (members of the public).
- Accidents resulting in a worker being unable to perform their normal range of duties for more than 7 days.

How an incident at work is reported and the criteria that determine whether an incident should be investigated remain the same. Therefore, as AINC is the Nominated Responsible

Person for reporting incidents to HSE under RIDDOR there are NO changes to the requirement to report. Following discussion in the CESO community and with DSEA-CPA any changes in reporting will not occur before Apr 14 where the TLB will start to capture 'specified injuries' alongside major injuries, and also adapt our minimum data to include the 8 types of occupational diseases as described in the Regulations. DSEA-CPA will ensure Annex C 'minimum data' contained in JSP 375, Vol 2, Leaflet 14 is amended to reflect these changes for 1 Apr 14. Again, there is no impact/change to Units in regards to incident reporting to AINC.

### Successful Health and Safety Management (HSG65)

HSE's guidance on managing for health and safety has moved from using the POPMAR (Policy, Organising, Planning, Measuring performance, Auditing and Review) model to a 'Plan, Do, Check, Act' approach. The move towards Plan, Do, Check, Act achieves a better balance between the systems and behavioural aspects of management. It also treats health and safety management as an integral part of good management generally, rather than as a stand-alone system. A new edition of this popular guide will be published to reflect this change.

### JSP 375 Leaflet Update

The following leaflets are currently under review:

- Leaflet 12 – Portable and Transportable Electrical Equipment.
- Leaflet 13 – PPE (incorporating Leaflets 42 and 49).
- Leaflet 27 – First Aid (plan to incorporate elements of Leaflet 31).
- Leaflet 30 – Pressure Vessels and Systems.

- Leaflet 31 – Blood Borne Viruses (Planning to withdraw Leaflet in favour of a new SG JSP on the subject).
- Leaflet 38 – Control of vibration (expand to cover shock/impact in more detail).
- Leaflet 52 – Musculoskeletal disorders (currently WRULDS).

The following leaflets have recently been published:

- Leaflet 50 – Management of smoking in the workplace (this includes information on the use of E-Cigs).
- Leaflet 56 – Dangerous Substances and Explosive Atmosphere Regulations (DSEAR).



### Recent HSE investigations that reveal basic H&S mistakes across Industry – are we so different?

**Poorly maintained or misused ladders** – HSE states almost a fifth of reportable falls from height in the workplace are from ladders. Whether poorly maintained, incorrectly used or simply not fit for purpose, it's an issue HSE inspectors come across frequently. If a ladder is the right tool for the job, employers need to ensure it is in a safe condition to use. A ladder is not right for every job. After assessing the risk, it may be that other equipment is more suitable. Ladders are best suited to low risk and short duration work – nobody expects scaffolding for domestic window cleaning!

**Inadequate safety guards on machines** – There are around a dozen deaths and 40,000 injuries each year due to incidents where workers have been using machines, and most of these are easily prevented. HSE inspectors often witness the aftermath of horrific incidents due to poorly maintained or missing guarding on machinery with dangerous moving parts. Workers in machine shops, engineering works and factories can be put at risk by employers failing to maintain safety

devices designed to protect staff on machinery or allowing its removal. British employers would save around 250,000 work days each year if they could just keep people safe on machinery. Even for survivors, the injuries can be life-changing.

### Badly organised workplace transport

Vehicle related incidents in the workplace continue to be a major cause of concern, accounting for about 50 deaths and over 1,500 serious injuries a year. Avoiding these injuries is pretty much common sense. For example, following simple rules such as keeping vehicles and people apart around factory spaces and loading areas cuts the risk considerably, as does ensuring loads are properly secured when being moved. People operating vehicles in workplaces without proper training or qualifications can have tragic consequences, but it is another fault HSE inspectors regularly find.

### Exposure to deadly asbestos fibres

Though not used in new construction anymore, asbestos is still present in more than 500,000 public buildings. It is a known and deadly threat that still claims in the region of 4,500 lives each year (over half of all occupational cancer deaths) of people who were exposed around 35 to 40 years ago. Despite the risk being well known, inspectors still find workers cutting, drilling, sawing and breaking up materials that contain this hidden killer. If inhaled, these airborne fibres can lead to fatal illnesses. HSE prosecutes a number of employers and contractors each year for not taking adequate precautions when removing asbestos. There are stringent rules on asbestos removal for good reason, including restricting who can do the work. Some jobs must only be carried out by licensed, specialist firms.

### Exposure to toxic paint vapours

Exposure to isocyanates, which is a component of some paints, can cause long-term and sometimes life-threatening illness. That's why motor-vehicle repair workshops and garages should have strict controls in place. Spray mist containing isocyanate can cause asthma or aggravate existing conditions even with very low exposure and contact with the skin with isocyanate hardeners can cause dermatitis. Vehicle paint sprayers are about 80 times more likely to develop



occupational asthma than the rest of the UK working population. Currently there are about 40 to 50 new cases of asthma each year due to isocyanates, mainly in the motor vehicle repair industry and most have to leave the industry. The solution is pretty straightforward – good extraction and suitable masks to help prevent the mist being inhaled.

**Creating clouds of silica dust** – It might not sound like a common risk, but it is estimated that there are currently around 800 lung cancer deaths per year due to long-term exposure to silica dust at work. Inhaling silica dust can also cause silicosis, which is an irreversible lung disease that can take years to develop and can end in a painful death. It's caused by fine particles of silica which damage and inflame the lungs and leads to the formation of scar tissue (fibrosis). Controlling the dust, which is produced when cutting, blasting or drilling granite, sandstone, slate, brick or concrete, is straightforward using exhaust ventilated tools or ones that have their own water supply. Despite this, inspectors still see the same breaches of law again and again.

**Damage caused by vibrating power tools** – Specialist work often comes with its own unique risks and resulting health conditions. Hand-arm vibration syndrome (HAVS) and vibration related carpal tunnel syndrome are usually caused by using hand-held power tools and hand fed and guided machinery. HAVS can cause significant ill health, including painful disorders of the blood vessels, nerves and hands and finger joints. In severe cases, HAVS can lead to loss of hand movement and sufferers can experience severe pain if they get cold, making everyday tasks such as gardening or washing the car very difficult. Numbness and the inability to manipulate small objects can make getting dressed difficult too. Approximately two million workers are believed to be exposed to the effects of vibration, one million at a level which may harm them. By law, employers must assess and identify measures to eliminate or reduce risks from exposure so that employees' health is not damaged.

## Quick Check Phone List

To convert the following Mil numbers to Civ, dial 01264 38 and then add the last 4 digits. For Extensions beginning with a 7, the outside line number is 01264 381 + the last 3 digits.

<b>CESO(A)</b>	
CESO(A) – Col Johnny Schute	9 4391 2655
SO1 Trg – Lt Col Richard Thorpe	9 4391 7006
SO1 H&S – Amanda Tyler	9 4391 2197
SO1 EP – William Barker-Wyatt	9 4391 2094
SO2 Sustainable Development – Helen Sheridan	9 4391 1434
SO1 Audit – Lt Col (Retd) Ian Tennent	9 4391 2096
SO1 Safety Performance – Ian Groom	9 4391 2218
SO2 Lessons – Peter Brayford	9 4391 2095
SO2 IM / Communications – Darren Elkins	9 4391 2066
SO3 iHub – Christina Stacey	9 4391 2064
CESO FAX	9 4391 2217

<b>RSIT(A)</b>	
Ch RSIT(A) – Lt Col (Retd) Morton Burdick	9 4391 7252
RSIT FAX	9 4391 2217

<b>AINC</b>	
<b>AINC DUTY NUMBER</b>	<b>9 4391 2055</b>
OIC AINC – Maj (Retd) Trevor Johnson	9 4391 2212
SO3 AINC – Vacant	9 4391 2214
AINC FAX	9 4391 2059

<b>LAIT</b>	
<b>LAIT 24hr DUTY NUMBER</b>	<b>9 4391 2206</b>
Ch LAIT – Col (Retd) Billy Bowles	9 4391 2208
SO1(A) – Lt Col (Retd) Roger Fellowes	9 4391 2045
SO1(B) – Lt Col (Retd) Ranald Blue	9 4391 2044
SO1(C) – Lt Col (Retd) Ian Burton	9 4391 3080
SO3 (P) – Capt Russ Reid	9 4391 2194
WO1 (MD) – WO1 Tony Birchnall	9 4391 2202
WO1 (SIB) – WO1 Andy Howell	9 4391 2204
SO3 (SASC) – Maj Kevin Liddell	9 4391 2195
SO3 CM – Bev Short	9 4391 2950
Clerk – Alan Draycott	9 4391 2205
LAIT FAX	9 4391 2210

# Getting Energised about Energy Efficiency and Power Management

**Did You Know?**

- Land Forces consumes over £150 Million worth of energy annually!
- The UK is now importing over 40% of its energy from abroad!

**Energy has always been vitally important to the effective operation of the Army.**

Now with energy prices on the rise and the demands on the Army budget growing, it is unsustainable for the Army to go on using as much energy as it currently consumes. In response, MOD has set up a high-level Energy Programme Board responsible for the efficient energy use by all equipment platforms and across the estate.

In the New Year CESO(A) is running an 'Energy Saving Month', in which a number of Garrisons will take part in a focused effort to save energy, reduce bills and identify practical energy saving ideas.



As part of preparations for this, an energy awareness and power management 'train the trainer' course has recently been delivered to key SD personnel, for the onward delivery of a half day training course to all personnel.

This course is intended to show the importance of energy management to the Army and advise on behaviours that will enable staff to save energy and manage power usage in a range of different working environments and accommodation.

Key topics include:

- Understanding the basics of energy, power and heat.
- The UK energy system.
- The importance of energy efficiency for the Army and MOD.
- Site energy management.
- Energy saving advice / myths.
- A basic interpretation of energy use trends.

The full energy awareness presentation, detailed speaker notes and supporting materials can be found on the Army Intranet at: <http://defenceintranet.diif.r.mil.uk/ORGANISATIONS/ ORGS/ARMY/ORGANISATIONS/ ORGS/CLF/ORGANISATIONS/ ORGS/ COSLF/ORGANISATIONS/ ORGS/CESOA/Pages/CESO.aspx>



**Rant or Rave?**

Keep in touch. Tell us if there are any specific Army safety topics that you feel would be helpful...

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