

Written evidence submitted by the Ministry of Defence

The House of Commons Defence Committee held an oral evidence session on 29 November 2016 to follow up on the report from the Sub-Committee's inquiry 'Beyond Endurance? Military Exercises and the Duty of Care'. This memorandum is designed to answer the questions raised by the Committee which were not answered in that evidence session.

1. The Committee welcome the Department's commitment to continue publication of the "ad hoc statistical bulletin on Training and Exercise deaths in the UK Armed Forces". How will the Department take this forward and how regularly will the bulletin be published? (Q1)¹

The Defence Statistics organisation will continue to publish this bulletin every six months via the gov.uk website.

2. Please provide more information on the work on the quality of risk assessments and the outcomes of the Defence Safety Committee (DSC) discussion of this matter on 8 December 2016. (Q24)

At its meeting on 8 December 2016 the DSC was presented with a Defence Safety Authority (DSA) paper on safety risk management and discussed how the concerns regarding the quality of risk assessments might be taken forward. The DSC was unanimous in its view that resolving poor safety risk management in military exercises and training must be a priority to address. Furthermore, the DSC agreed that the DSA should lead on work to identify the causes of poor safety risk management and the actions necessary to address them. Each of the Front Line Commands (FLCs) agreed to support the DSA by assigning a representative to the task. Finally, Director General (DG) DSA directed that this work should be completed and reported to the DSC no later than the end February 2017.

3. Please provide a copy of the "briefing of best practice" on heat injury and details of how this work will be taken forward across the Armed Forces and an update on the measures introduced, and how they are tracked, to prevent heat and cold injuries. (Q26 and Q60)

Joint Service Publication (JSP) 539 (Climatic Illness and Injury in the Armed Forces) has been revised since the HCDC's report. The new version of the JSP, issued in May 2016, is available on the gov.uk website at the following link:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/521886/20160505_JSP_539_PART_1_V2.5_MAY_16_FINAL_SO2_PREV_MED.pdf

The JSP now states that individuals are to receive education and training on climatic illness and injury during single Service annual mandatory training. In addition the JSP provides updated information on:

- Cold Injury First Aid;
- Reporting and Recording;
- Direction for Commanders;
- Meteorological Office Planning Forecasts as a source of information; and
- Wet Bulb Globe Temperature Index Limits.

¹ The numbers in brackets correspond to paragraph numbers from the transcript of the oral evidence session on 29 November 2016.

Other documents available to military personnel with regards to climatic illness include:

- An Individual's Guide to Climatic Injury;
- A Commander's Guide to Climatic Injury; and,
- Commanders' Physical Development Aide Memoire.

All of these documents use JSP 539 as the authoritative source document. These are made available internally on the Defence Intranet and copies can be provided to the Committee if required.

DG DSA issued two separate Safety Advice notices on this subject in May 2016 (heat injury/illness) and November 2016 (cold injury/illness). These have been sent to the Committee along with this memorandum. This advice was sent to all Chief Environment and Safety Officers in FLCs (as well as other organisations) instructing them to ensure that Duty Holders and Commanding Officers (COs) familiarise themselves with the policy detailed in JSP 539 whilst reiterating the importance of spreading awareness of the policy and guidance. The Safety Advice notices also emphasised the requirement to report all cases where individuals develop temporary or permanent incapacitation due to climatic illness/injury and highlighted a list of documents and reference sites which provide additional information on the subject.

JSP 539 is continually updated in response to best practice and other emerging evidence. A new edition is planned for Spring 2017.

As part of the Surgeon General's Thermal Burden Project, the Institute of Naval Medicine will be undertaking a piece of research to examine Commanders' understanding of JSP 539 in order to help inform policy development and how to put policy into practice. The Heat Illness and Cold Injury Working Groups sit every six months as part of the governance structure of Defence People Health and Wellbeing. A standing agenda item for each Working Group is a report on incidence from Defence Statistics (Health).

4. Please provide information on the differences between Regulars and Reserves in selection events and hazardous training, and preparation for both, in respect of specialist military units. (Q35-36)

As the Committee will be aware, the DSA is conducting a statutory Service Inquiry into the Specialist Military Units' (SMU) July 2013 tragedy on the Brecon Beacons during and after which three Reservist soldiers died. As part of its Terms of Reference (TORs), DSA is to examine the risk to Reserves in respect of hazardous military training. DSA is due to report on its findings in Spring 17, at which point Director SMU will offer advice to the relevant Reservists' Chain of Command (CoC), which now stands, except for selection, entirely within the Army. In the meantime, Reservist selection continues to be conducted under the governance measures of continuous improvement instigated by Director SMU and his training staff across the organisation.

While HQ SMUs would not wish to prejudice the statutory Service Inquiry into the 2013 Brecon tragedy, we would be prepared for the initiating organisation, the Defence Safety Authority, to share, on publication, conclusions and evidence relevant to the HCDC inquiry.

5. Please provide further details of the on-going internal reviews. (Q43)

Please see our response to Question 4 (Q35-36) above.

6. Please provide an update on the Department's work to explore the feasibility of collating and communicating data on Administrative Action taken in respect of failings in the supervision of training, exercises and selection events. (Q48)

The HCDC recommended that information on Administrative Action should be routinely communicated to the DSA and the collated information included in the DSA's Annual Report. In our response we explained that we felt that if the DSA were required to track and report Administrative Action taken by the CoC it would detract from the DSA's primary focus on safety. We also explained that records of Minor Administrative Action are kept by the MOD, however, as such action is dealt with at a local unit level by COs the information is not recorded centrally. Current regulations require that records of Minor Administrative Action are to be retained by the unit and in the individual's service documents for at least 2 years or 'until the posting of the subject, whichever is the earlier' (this is laid down in JSP 833 'Minor Administrative Action'). To identify those cases where Minor Administrative Action has been taken in respect of failings in supervision of training, exercises and selection activities would require a manual search of all individual personnel records. Therefore the resources required to collate and communicate such data centrally do not make this a feasible option and responsibility for tracking and reporting Administrative Action should remain with the single Services.

7. The Minister stated that "it was a mistake by the Treasury" that led to a shortfall of £438,193,000 in the Government's Estimate for the Armed Forces Pension and Compensation Scheme. The Committee wish to receive a detailed explanation from the Treasury on how this error occurred and why it was not spotted until November 2016. (Q49-50)

The HCDC has confirmed that they will direct this question to Her Majesty's Treasury.

8. Will the DSA's performance against its measures of effectiveness and the outcomes of the independent external audit of the Authority be made public? (Q51)

The DSA has established a specific working group to identify and develop metrics for measuring DSA effectiveness. The group will define metrics for three broad areas: DSA's internal performance (for example, on finance and manpower); regulatory performance (for example, audit completion); and the performance of the regulated community (for example the number of extant enforcement measures). The selection of appropriate measures of effectiveness will be informed by an understanding of all stakeholders' needs and interests. Specifically, where the analysis concludes that measures of effectiveness are required to address public needs and interests (for example to give assurance that the DSA is an effective and independent safety regulator), it is the intention that this information would be made public.

The Health and Safety Executive (HSE) has accepted DG DSA's invitation to lead the first external audit of the DSA in Financial Year 2017/18. This audit will look not only at the high-level governance, organisation and responsibilities of the DSA but, in addition, will draw upon separate independent reviews, by specialists, of each of the DSA's six Safety Regulators as well as the Defence Accident Investigation Branch. It is the intention that the outcome of the audit will be made public.

9. Please provide further information on the "interventions" to be conducted with the HSE. Will the outcomes of these "interventions" be made public? (Q51)

DG DSA has agreed with Director Regulation at the HSE that a number of "interventions" should be carried out by the HSE at MOD training establishments; these are intended to focus on live firing and arduous training exercises. The aim of these interventions is to provide independent assurance from an external body that these activities are being managed safely by the MOD. The interventions are planned to take place at:

- Army Training Centre Pirbright;
- Infantry Training Centre Catterick;
- Her Majesty's Ship Raleigh;
- Commando Training Centre Royal Marines; and,
- Royal Air Force Halton.

The HSE aims to complete the programme of interventions by the end of Quarter Two 2017 and the key findings will be made public.

10. Please provide the Committee with the outcomes of the Defence Internal Audit review of Army Training. (Q54)

The fieldwork phase of the audit is in its final stages, with a draft schedule of findings produced in December 2016. The report is due to be finalised in January 2017 and the findings will be shared with the Committee.

11. Please provide further information on Reserve training in respect of (i) the 50 Calibre Machine Gun (in particular the availability of ammunition) and (ii) Landrovers. (Q56 / 57)

i) 50 Calibre Machine Gun

The Army has investigated the availability of 50 calibre ammunition to support Heavy Machine Gun training for the Reserves and can confirm that there are no restrictions currently in place. Additionally, the five Combat Reserves units who use the Heavy Machine Gun have confirmed that they are experiencing no issues with the availability of 50 calibre ammunition to support their training. The Committee may wish to note that the mandatory annual training requirement for the Heavy Machine Gun is identical for Regular and Reserve personnel, with a total of five and a half hours training time required to complete the three mandated firing practices.

The RAF Force Protection (FP) Reserve Squadrons are scaled for the 50 calibre machine gun, with training conducted alongside Regular counterparts, who are also scaled, as part of any mobilisation or pre-deployment training package. This is in accordance with the relevant weapons policy. The RAF FP Force does not currently suffer any issues with ammunition availability.

ii) Landrovers

Assuming that the Reservist already holds a driving licence, the only further training required to drive a normal Landrover is the General Service Module 1 course. This training teaches the soldier the basic procedures that apply within a military Motor Transport section and how to drive a 4x4 vehicle on and off the road. The course specifies a minimum amount of mileage to be driven, both on and off road and by day and night, or until competence has been demonstrated to the satisfaction of the instructor.

Whilst the Defence School of Transport normally allocate five days for training Regulars, they do so both for programming purposes and because they are generally training novice drivers. For Reservists, training on the Landrover is usually delivered as Distributed Training, conducted within the local unit. Whilst a novice Reservist driver is likely to require the full five days of training, many members of the Reserve are already experienced drivers, capable of achieving the required standard over a couple of drill nights and a weekend. If a Reservist does not have a driving licence already, then Licence Acquisition can add to the total training time. Typically this will involve an amount of self-teaching (Category B theory) which can be done at home, then up to ten days instruction to attain test standard.

12. Please provide the Committee with a copy of DSA01.1 that replaced JSP 815, together with a description of the major changes between the two documents. (Q59)

A copy of DSA01.1 is available on the gov.uk website at the following link:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/548060/DSA01_Defence_Policy_for_Health_Safety_and_Environmental_Protection-20160804.pdf

The major changes between DSA01.1 and JSP 815 are as follows:

- a. DSA01.1 provides a much clearer description of where roles, responsibilities and accountabilities for safety reside within Defence. There is a particular emphasis on the responsibility of those who conduct Defence activities to properly manage safety risk and comply with both statutory requirements and Defence Regulations;
- b. DSA01.1 uses simpler language to describe, and where necessary amplify, the requirements set out in the Secretary of State's policy statement for health, safety and environmental protection in Defence; and
- c. DSA01.1 includes improved 'sign-posting' to more detailed policy requirements for: the Duty Holding Construct; assessing the impact of change on safety standards; complying with statutory requirements and Defence regulations; regulatory processes and procedures; and safety definitions.

13. Please provide the Committee with a copy of the illustrative guide to the Duty Holder Concept (DHC). (Q60)

The illustrative guide remains under development but is expected to be complete by early March 2017. It will use examples generated in consultation with the FLCs and will reflect the revised policy for Duty Holding in Defence as endorsed by the DSC on 8 December 2016. A copy of the illustrative guide will be made available to the Committee once it is complete.

a. What was the outcome of the DSC meeting in June 2016 to review the comprehensive roll out of the DHC? (Q71)

The DSC endorsed the revised Duty Holder framework at its meeting on 8 December 2016.

b. What progress has been made in ensuring consistency in the use of the DHC in circumstances where Operating Duty Holders and Delivery Duty Holders may not be aligned?

MOD's revised and clarified policy for Duty Holding will ensure that its application will be focussed and proportional. This should ensure that there is clarity concerning the division of responsibilities and accountabilities between Duty Holders and the normal CoC. This is intended to simplify and eliminate the potential confusion which could exist where there are multiple Duty Holders acting in support of operational commanders; this will be reinforced by the illustrative guide. The six DSA Safety Regulators will provide additional 3rd party assurance that Risks to Life are being managed correctly and in accordance with the revised Duty Holding policy.

14. Please provide an update on the Department's work to identify how best to track safety-related Coroner recommendations from receipt through to completion. (Q61)

The Defence Inquests Unit (DIU) is the single point of contact in MOD for Coroners and this will remain the case. The DIU already tracks all those recommendations made by Coroners in Regulation 28 reports that are relevant to Defence and will continue to do so. Where appropriate, the DSA works closely with the DIU to inform their tracking of recommendations and engagement with the Coroner.

15. Please provide an update on the Defence Internal Audit (DIA) review of the Casualty and Compassionate process from point of incident to post inquiry. When will the Committee receive a copy of the findings? (Q62)

The DIA team has reported back to the Service Personnel Support area with their observations. The Services Welfare Steering Group has been briefed on the outcome of the Audit and has advised that action be taken in the following key areas in priority order:

- Strategic management of the policy from a single Service perspective (rationalisation of notifying authorities).
- An updated definition of Next of Kin and Emergency Contact to meet the requirements of the modern Service family.
- An exercise programme for 2017 and 2018 to validate current processes.

The Government will provide the Committee with a copy of the report but the Committee should be aware that the report provides advice rather than direction.

The Committee may wish to note that other issues are being progressed but are not yet due to report. These are:

- The Joint Casualty and Compassionate Centre is currently seeking to establish a Memorandum of Understanding with the Police authorities.
- Family Information Packs.

The JSP 751 (Casualty and Compassionate) is also currently nearing completion of a formal review. When complete, a consolidation process will start to make the document more user- friendly.

16. What work is still required on the report of the non-statutory inquiry into the treatment of families following a fatality and who is undertaking this work? (Q64)

The Non-Statutory Inquiry undertaken by the Army has been completed and signed off by the convening authority, General Officer Commanding 1 UK Division. The report will be reviewed by the Reviewing Officer in January before being finalised. Once the report is finalised, it will be shared with the relevant families before a redacted version is released to the public. All of the families associated with the tragic deaths in the Brecon Beacons in 2013 have provided evidence directly to this inquiry.

17 January 2017



**Defence
Safety
Authority**

Reference:
DSA/Exec/DG/Comms/Armed Forces

3 May 16

ANNUAL SAFETY ADVICE – HEAT ILLNESS AWARENESS AND PREVENTION

1. Last year I wrote to you to highlight the importance of spreading awareness of the policy and guidance that exists to promote awareness and aid the prevention of heat illness and cold injury across the Armed Forces and Cadet Forces organisations. As we now move from spring to summer 2016, I again write to reinforce my previous message and to remind all Armed Forces and Cadet Force personnel of the sources of information available in order to assist in the prevention and treatment of cases of heat illness, thereby reducing the risks associated with these preventable conditions occurring. Although this note focusses primarily on the prevention of heat illness, the information contained within it is also relevant to the prevention of cold related injuries.
2. Every year there are significant impacts on health and sometimes deaths as a result of heat (and cold) injuries. These are nearly all preventable, provided the risk factors are assessed properly and appropriately managed. This prevention requires greater awareness of the risk by commanders at all levels, training in assessment of the risk and putting in place the right control measures. In addition, the impact of heat illness and cold injury may be reduced if appropriate first aid measures and evacuation to medical care are carried out effectively and promptly.
3. There are many associated risks with physical / military and cadet training in differing climatic conditions and the subsequent dangers relating to heat illness and injury. The single source of authority on this subject is JSP 539: Climatic Illness and Injury in the Armed Forces: Force Protection and Initial Medical Treatment. A new edition has just been published that provides updated information on:
 - Direction for Commanders
 - Meteorological Office Planning Forecasts as a source of information
 - Wet Bulb Globe Temperature Index Limits
 - Cold Injury First Aid
 - Reporting and Recording
4. Other current documents available with regards to climatic illness include; An Individual's Guide to Climatic Injury, A Commander's Guide to Climatic Injury and Commanders' Physical Development Aide Memoire. All of these documents use JSP 539 as the authoritative source document and are available on the Defence Intranet via the embedded links. Other reference sites

may also be of use, including the Directorate of Army Training - Physical Development² web page as an example.

5. The following information is listed to remind all units of additional measures that can be implemented when planning activity including high intensity physical exertion, any activity during high environmental heat loads or when wearing occlusive clothing such as CBRN or body armour:
 - a. Ensure a thorough Risk Assessment (RA) is completed for the activity as detailed in JSP 375 – Management of Health and Safety in Defence; Part 2 Volume 1; Chapter 40 Military Training for Land Systems (Jan 16) utilising MOD Form 5015. Direction and guidance on how to do this is provided in JSP 539 Chapter 1 paragraphs 21, 27-31 and Table 2.
 - b. Once the RA is completed and the residual risk is acceptable having taking into account all existing control measures, the RA should then be signed and dated by the officer in charge of the exercise or activity. If however the residual risk is not acceptable, then further control measures should be identified, if the risks are then acceptable then the officer in charge of the exercise or activity is to sign and date the RA. Where the residual risk remains even after further control measures have been identified, then the activity must not continue unless approved by the appropriate Duty Holder³.
 - c. Where it is assessed there may be an elevated risk of heat illness, commanders are to ensure that Wet Bulb Globe Temperature (WBGT) monitors are readily available wherever possible and used correctly in order to inform the proactive and dynamic application of risk management procedures. **WBGT readings alone should not be used as the only indicator of risk or as a go/no-go.** They should be used as a tool to inform a commander's own risk assessment. WBGT readings may rise quickly which could lead to a given activity continuing when it is no longer safe to do so. Therefore consideration should be given to checking WBGT periodically throughout an activity.
 - d. The requirement to hydrate prior to, during and after activities is crucial and should be managed by commanders at all levels (additional water should be made available). Clear guidance on hydration can be found in JSP 539 Chapter 1 paragraphs 39-43 and Table 3. Attention is drawn to the colour of urine and the education of this subject to personnel.
 - e. Where suspected cases of heat illness occurs the Immediate Treatment Algorithm JSP 539 Chapter 1 Fig 1 should be followed.
 - f. Assess the necessity, if any, for the wearing of PPE (i.e. helmets, CBRN assemblies etc), as this can exacerbate the onset and severity of heat injuries.
 - g. Ensure that the WBGT Index limits listed in JSP 539 Chapter 1 Table 1 are adhered to.
 - h. Where units rely on a third party (Med Centre, Garrison Gymnasium, etc) to collect and distribute WBGT readings then units are to take ownership for obtaining these WBGT readings prior to the activity taking place. Be aware that the risk remains with the unit conducting the activity.

²<http://defenceintranet.diif.r.mil.uk/Organisations/Orgs/Army/Organisations/Orgs/cfdt/Organisations/Orgs/DTrga/phydev/Pages/PhysicalTraining.aspx>

³ ie the Individual who is personally responsible and accountable (normally of OF4-5 rank as the Delivery Duty Holder) for the Risk-to-Life associated with the planned activity.

i. Ensure WBGT monitors have been calibrated as detailed in JSP 539 Chapter 1 paragraphs 48-58 and operated by personnel qualified to provide the necessary advice to the Chain of Command during the risk assessment process.

j. Units that do not hold WBGT monitors must seek the guidance listed in JSP 539 Chapter 1 paragraph 50 in order to procure the monitor through Service sources.

6. CESO's are to ensure that Duty Holders and Commanding Officers familiarise themselves with the policy detailed in JSP 539. In particular Duty Holders and COs **must** report all cases where individuals develop temporary or permanent incapacitation (i.e. are unable to continue with their duties/training because of climatic illness/injury with or without the involvement of Defence Medical Services or other medical assets). Chapter 5 of JSP539 details the process for reporting.

7. For those unable to access the Defence Intranet, alternative internet sources of the documents are at the links below:

a. A Commander's Guide To Climatic Injury.

b. An Individual's Guide To Climatic Injury.

c. JSP 539: Climatic Illness and Injury in the Armed Forces: Force Protection and Initial Medical Treatment.



Defence Safety Authority

Reference:
DSA/Exec/DG/Comms/Armed Forces

24 Nov 16

SAFETY ADVICE – COLD INJURY AWARENESS AND PREVENTION

1. In May 16 I wrote to you to reinforce the importance of promoting awareness of the policy and guidance that exists to promote awareness of heat illness. Although incidents involving heat illness have not disappeared entirely, I acknowledge and appreciate the significant improvements in awareness and prevention that have been made. We must always concentrate on the totality of climatic injuries but, with the temperatures now reducing, I feel it is timely to re-focus attention more towards cold injury recognition and response.

2. As stated in JSP 539, cold environments represent a serious hazard to the unprepared. Each year significant numbers of Service personnel are medically discharged as a result of cold injury and some extreme cases have resulted in death. Commanders have a duty to ensure the risks associated with cold exposure are as low as reasonably practicable. Prevention requires greater awareness of the risk by commanders at all levels, training in assessment of the risk and putting in place the right control measures. In addition, the impact of cold injury may be reduced if appropriate first aid measures and evacuation to medical care are carried out effectively and promptly.

3. The single source of authority on this subject is JSP 539: Climatic Illness and Injury in the Armed Forces: Force Protection and Initial Medical Treatment. Chapter 3 applies to cold injury providing direction for Commanders and describes the factors which can affect personnel and the risks associated with working in cold environments. The following links also provide current information on the subject:

- a. An Individual's Guide to Climatic Injury;
- b. A Commander's Guide to Climatic Injury

Both of these documents use JSP 539 as the authoritative source document and are available on the Defence Intranet via the embedded links.

4. There is some read across from recent heat illness recommendations and lessons learnt therefore I highlight the following as worthy of note;

- a. Risk assessments are the key to prevention as they ensure that Commanders are aware of the environmental conditions and therefore risks they are exposing their people to

thus ensuring that Duty of Care is adequately considered. Risk assessments must be carried out correctly and dynamically reviewed during the activity in order to assess whether the risk of cold casualties is justified by the objectives of the activity; reviewing and, where necessary, adjusting the duration of activities where prolonged exposure to cold wet weather is likely to increase the risk of Non Freezing Cold Injury. JSP 539 Part 1 Ch 3 para 13 refers.

b. Personnel are to be adequately briefed and prepared ensuring weather specific protective clothing is provided used. The individual's guide linked at 3.b. describes the different injuries, risks, symptoms and immediate actions that all personnel must be familiar with. Extra care is needed during outdoor training when the Still Air Temperature (SAT) is less than minus 5°C although non-freezing cold injuries have been reported at much higher temperatures. The effect wind chill has on the SAT must be taken into account and is explained in Ch 3 paras 14-18.

c. Ensure that the activity is properly supervised and the following is considered:

- i. First aid/ medical cover is appropriate.
- ii. Clear and efficient means of evacuation is agreed, including access to personnel during the activity.
- iii. Communications are sufficient.

6. CESO's and Safety Centres are to disseminate this letter to Duty Holders and Commanding Officers emphasising the requirement to report all cases where individuals develop temporary or permanent incapacitation due to climatic illness/injury. Chapter 5 of JSP 539 details the process for reporting.

7. For those unable to access the Defence Intranet, alternative internet sources of the documents are at the links below:

- a. JSP 539: Climatic Illness and Injury in the Armed Forces: Force Protection and Initial Medical Treatment.
- b. A Commander's Guide To Climatic Injury.
- c. An Individual's Guide To Climatic Injury.