Examples of policy compliance

Example 1 - Pre-deployment training

Example of high intensity physical military training

<table>
<tr><th colspan="2">Heat Illness Risk Management During Op CABRIT MST CALFEX – Castlemartin Range Complex Aug 20</th></tr>
<tr><td>Exercise Director: CO 1 Blanks</td><td>2* Risk Holder: GOC 3 UK XX</td></tr>
<tr><td>OIC Activity: OC B Coy, 1 Blanks</td><td>Risk Assessment Signed Off By: CO 1 Blanks</td></tr>
<tr><td>Average Day WBGT: 25°</td><td>Average Night WBGT: 16°</td></tr>
<tr><td>Risk of Heat Illness: High</td><td></td></tr>
<tr><td>Situation: B Coy 1 Blanks have deployed to Castlemartin Range Complex to conduct a CALFEX as part of pre deployment training for a winter deployment on Op CABRIT. The final serial of the 5-day package is a Coy level attack on a farm complex requiring dismounted Infantry to live fire and manoeuvre for 1500 m of undulating terrain unsuitable for AFVs or Soft Skin Vehicles. Each soldier is carrying a mixed equipment load of approx. 22kg including BA/Helmet/Rifle/Ammunition/Water. Serial is predicted to last a max of 4 hrs with up to 25 mins of high intensity activity interspersed with 10 to 15 mins of medium intensity activity.

Risk Factors:

1. Unusually high daily temperature
2. Intensity and duration of activity – work rate
3. Clothing and Equipment/PPE/Equipment scales
4. Ex Day 5 fatigue levels
5. Knowledge & understanding of heat illness prevention
6. Ability to cool off and rehydrate during the serial</td><td>Mitigation:
1. Heat illness prevention brief delivered on day 1 of Ex and reinforced during Plt O Gp.
2. Activity duration not to exceed JSP 375 Work Rate tables.
3. Equipment scales have been reduced to the irreducible minimum.
4. Troops on enforced rest from 1800 hrs to 0100hrs.
5. H Hr is programmed for 0330 hrs when the predicted temp is 16° and not likely to rise above 20° until 0930 hrs.
6. BA/Helmet not worn until leave line of departure.
7. Safety staff empowered to halt activity if symptoms of Heat Illness are recognised in exercising troops.
8. All PPE to be removed and troops moved into shade on completion of serial.
9. Transport provided from final objective back to Coy lines.
10. Heat Illness risk to dynamically managed throughout the serial with participants directed by safety staff to drink water during lower intensity periods during serial.
11. HI Risk Assessment completed, and mitigation recorded in RASP and signed off by CO as the Ex Dir.</td></tr>
<tr><td>Policy: JSP 375/ACSO 3222/PAM 21</td><td>Actions On: Should a suspected heat casualty occur, immediate first aid is to be given and the range serial suspended for 15 mins to allow cooling and rehydration. Further checks on all remaining personnel are to be carried out; anyone showing symptoms of heat illness is to be removed from activity. Prior to restarting the range, a dynamic RA is to be conducted. The range may restart subject to the risk of further heat illness casualties being ALARP. Should OC B Coy feel the risk is too great, the range serial is to be curtailed to a decreased level of physical demand or if deemed necessary the serial is to cease immediately.</td></tr>
<tr><td colspan="2">Summary: During this high risk and demanding Ex serial the risk of Heat Illness has been recognised as a deciding factor on Coy performance. The same amount of importance has been placed on managing the heat illness risk as that aligned to the live fire and manoeuvre safe practices. The nature of the serial and its importance to the overall Unit MST has resulted in the overall risk having to be carefully managed from a number of perspectives to achieve ALARP whilst at the same time not reducing the training effect required of this important MST serial.</td></tr>
</table>

Example 2 - Annual fitness test (AFT)

Example of a planned fitness test in unseasonal temperatures

<table>
<tr><td colspan="2">Heat Illness Risk Management During AFT – Catterick Garrison Sep 20</td></tr>
<tr><td>Average WBGT: 19°</td><td>Average Night WBGT: 10°</td></tr>
<tr><td>Exercise Director: CO 2 Blanks Regt RLC</td><td>2* Risk Holder: GOC 1 UK XX</td></tr>
<tr><td>OIC Activity: 2iC B Sqn, 2 Blanks Regt RLC</td><td>Risk Assessment Signed Off By: OC B Sqn, 1 Blanks Regt RLC</td></tr>
<tr><td>Risk of Heat Illness: Medium</td><td></td></tr>
<tr><td>Situation: B Sqn, 2 Blanks Regt RLC are conducting an AFT at 09:00 on day 3 of a MATTS week prior to commencing MST for their deployment to OP TOSCA in Mar 21. All personnel are in date for their Soldier Conditioning Review (SCR) having returned form Summer leave on 10 Aug. The prevailing weather conditions have been unusually warm with the predicted WBGT anticipated to reach at least 19° by 1000 hrs.

1. Daily temperature on cusp of allowable limit
2. Intensity and duration of activity – work rate
3. Knowledge & understanding of heat illness prevention
4. Clothing/PPE/Equipment scales/Max weight limit
5. Individual fatigue levels
6. Ability to cool off and rehydrate during the serial
7. Requirement to complete the AFT prior to commencing MST</td><td>Mitigation:
1. AFT start moved to 07:00 to ensure that activity duration does not exceed JSP 375 Work Rate tables.
2. Heat illness prevention brief delivered as part of MATT 3 lecture on day 1 of MATTS week. Further reinforced during pre-test brief 15 mins before stepping off.
3. Day 2 of MATTS week does not include any physical activity to ensure personnel are rested prior to the test.
4. Breakfast to be provided for all participants in the form of a containerised meal 75 mins before the test commences.
5. Equipment scales have been reduced to the irreducible minimum for the test. All participants to be weighed in, only exact weight of 15 kg plus a maximum of 2 litres of water to be accepted – water resupply to be available at 4-mile point.
6. Personnel weighing in over or under to adjust load +/-. Water resupply to be provided at the 4-mile point
7. Heat Illness risk to dynamically managed throughout the serial with opportunities to drink fluids provided throughout the test.
8. In accordance with Army MATT2 policy, safety staff are directed to halt the activity if symptoms of Heat Illness are recognised in exercising troops.
9. HI Risk and mitigation recorded in AFT RA which is to be briefed and signed off by CO as the Ex Dir.</td></tr>
<tr><td>Policy: JSP 375/ACSO 3222/MATT 2 Policy</td><td>Actions On: Should a suspected heat casualty occur, immediate first aid is to be given and the test suspended. Further checks on the remaining personnel are to be carried out and anyone showing symptoms is to be removed from test. Prior to recommencing the test a dynamic RA is to be conducted. The test may not restart as Army MATT policy precludes this due to the time critical nature of the test (in this case the single Service policy for the AFT is more restrictive than the Defence policy).</td></tr>
<tr><td colspan="2">Summary: During this relatively demanding Annual Fitness Test, the prevailing weather conditions indicate an increased risk of heat illness during the test. A full and in-depth risk assessment has been completed and mitigations put in place. Whilst completion of the test is an important benchmark to be achieved prior to MST – it is not critical. Therefore, should the test be stopped prior to completion, record is to be made on the Unit Risk Register highlighting the number of Unit personnel non-compliant with the requirements to commence MST. Further opportunities to conduct the AFT are to be programmed by the Unit.</td></tr>
</table>

Example 3 - Live firing in hot environment

Example of balancing risk of heat illness with another Risk to Life (live firing)

<table>
<tr><td colspan="2">Heat Illness Risk Management During 1 RGR JNCO Cadre Range Package – Brunei Jun 21</td></tr>
<tr><td>Exercise Director: CO 3 Blanks</td><td>2* Risk Holder: GOC 3 UK XX</td></tr>
<tr><td>OIC Activity: OIC JNCO Cadre</td><td>Risk Assessment Signed Off By: CO 3 Blanks</td></tr>
<tr><td>Average Day WBGT: 28°</td><td>Average Night WBGT: 20°</td></tr>
<tr><td>Risk of Heat Illness: High</td><td>Humidity: High</td></tr>
<tr><td>Situation: 1 RGR are conducting a JNCO Cadre Fire Team live fire & manoeuvre range package in Brunei. It is day 20 of a very physically demanding 28-day course. All students are in date for their Soldier Conditioning Review and Role Fitness Test (Soldier). 1 RGR have been based in Brunei for 15 months and all personnel are classified as fully acclimatised. All students have a high level of individual fitness are robust and highly motivated. The standards achieved in all programme activities have been very high and there is strong competition for the 10 LCpl promotions available at the end of the course.

Average WBGT readings in Brunei are approximately 27° with a very high level of humidity which makes the dissipation of body heat very difficult. The activity is planned to take place under the tree canopy.

Specific Risk Factors:

1. Demanding nature of the range package to simulate the role of a Cbt Section 2IC
2. Environment - Heat & Humidity
3. Requirement to wear Body Armour and Helmet increases risk of HI to Severe
4. High individual motivation levels
5. Ability for individuals to cool and rehydrate during the serial
6. Requirement to balance HI Illness risk and ricochet risk on complex and demanding range serial</td><td>Mitigation:
1. Activity to be managed in line with the work rate tables in JSP 375 which are not to be exceeded under any circumstances.
2. WBGT readings taken in ex location (under tree canopy) rather than in-camp location in direct sunlight.
3. Heat illness prevention brief delivered as part of MATT 3 lecture on day 1 of the course.
4. Day 19 of the course was classroom based placing a minimal physical demand on the students to ensure they are fully rested prior to the range package.
5. Equipment scales have been reduced to the irreducible minimum for the activity.
6. Range package to be suspended from 1200 to 1500 hrs to avoid conducting activity during hottest part of the day. Enforced rest to take place during period of suspension.
7. Dispensation to conduct range package without BA and Helmet has been sought from the DDH as it is felt the likelihood of heat illness is greater that the risk of an accidental gunshot wound. Considering this the number of range safety staff has been doubled with movement bounds and arcs of fire very tightly controlled.
8. Heat Illness risk to dynamically managed throughout the serial with participants directed by safety staff to drink fluids throughout the activity.
9. Safety staff empowered to halt activity if symptoms of Heat Illness are recognised in exercising troops.
10. HI Risk Assessment to be completed and mitigations recorded in RASP which is to be briefed and signed off by CO as the Ex Dir and copied to the 1* DDH.</td></tr>
<tr><td>Policy: JSP 375/ACSO 3222/PAM 21</td><td>Actions On: Should a suspected heat casualty occur, immediate first aid is to be given and the test terminated. Further checks on the remaining personnel are to be carried out and anyone showing symptoms is to be treated accordingly. The test may not restart as Army MATT policy precludes this due to the time critical nature of the test (in this case the single Service policy for the AFT is more restrictive than the Defence policy).</td></tr>
<tr><td colspan="2">Summary: During this very demanding activity in a very hot and humid environment the risk of heat illness is High/Severe. A full and in-depth risk assessment has been completed and many routine mitigations put in place that would be seen in a warm/temperate environment. Whilst the risk of Heat Illness is ever-present, all personnel are fully acclimatised and used to operating in the conditions. That said the competitive nature of the students and high levels of motivation increase the risk that individuals will push too hard if their efforts are not managed strictly throughout the activity. The application for dispensation to not wear BA & Helmet is credible and highlights the need to balance multiple risks balanced against each other and additional mitigations put in place in the area where greater risk has been taken (more controlled activity/increased safety staff).</td></tr>
</table>

Example 4 - Overseas large-scale combined arms exercise

Example of the activity commander reacting to a heat illness casualty during a task

<table>
<tr><td colspan="2">Heat Illness Risk Management During EX SAIF SAREEA – OMAN Jun 21</td></tr>
<tr><td>Exercise Director: CO 3 Blanks</td><td>2* Risk Holder: GOC 3 UK XX</td></tr>
<tr><td>OIC Activity: OC LAD, 3 Blanks</td><td>Risk Assessment Signed Off By: CO 3 Blanks</td></tr>
<tr><td>Average Day WBGT: 35°</td><td>Average Night WBGT: 20°</td></tr>
<tr><td>Risk of Heat Illness: High</td><td></td></tr>
<tr><td>Situation: 3 Bn The Blanks are currently deployed on Ex SAIF SAREEA and have undergone acclimatisation in accordance with JSP 375 Chapter 41. The Battalion carried out a generic risk assessment for the exercise prior to deploying and identified that there was a risk of heat illness. Using the Commander's Guide to Heat Illness as a handrail, several controls were established including: hourly WBGT readings relayed across the Bn net. Over recent days the daily temperature has started to increase to above 35°. In addition, and due to the demanding nature of the Ex, the workload of the LAD fitters sections has steadily increased due to the need to repair Vehicles to maintain Combat Effectiveness across the BG. Whilst conducting checks on his soldiers conducting a power pack change the OC LAD discovered Cfn Smith was feeling thirsty and dizzy.</td><td>What Happened Next:
1. The OC LAD directed the power pack change to cease.
2. The crew were moved into a shaded area and directed to remove their combat jackets.
3. Additional water was provided, and the crew were supervised whilst they drank.
4. In conjunction with the Tiffy a revised work rest schedule was devised in line with the direction in JSP375.
5. A veh sheet was erected over the engine compartment to remove the effect of direct sunlight whilst the crew are working.
6. The crew were also reminded of how to recognise the symptoms of heat illness and how best to mitigate the effects of heat and enable the body to cool down efficiently.
7. OC LAD reported the incident as a near miss and advised the BG Comd that a revised work/rest schedule must be put in place and the likely effect on the Bn equipment availability.</td></tr>
<tr><td>Policy: JSP 375/ACSO 3222</td><td></td></tr>
<tr><td colspan="2">Summary: During this very demanding activity in a hot and humid environment the risk of heat illness is High/Severe. A full and in-depth risk assessment was completed, and routine mitigations put in place to reduce the risk to ALARP). Clearly in this incident, individual risk factors such as increased workload, lack of rest had placed an increased demand on the REME section. Fortunately, recognition of the symptoms of heat illness and good leadership resulted in the incident being a near miss instead of a full-on heat casualty which would have likely affected others on the crew. Additional mitigations and the reporting of the incident up the CoC allowed the BG Comd to implement additional control measures which prevented a catastrophic impact on the BG CE.</td></tr>
</table>

Example 5 – State ceremonial & public duties (SCPD) event

Example of when the activity cannot be paused in the event of a suspected heat casualty

Heat Illness Risk Management Queen's Birthday Parade – Horse Guards Parade Ground Jun 20	
Average Daily Low Temp: 11°	**Average Daily High Temp: 20°**
Risk of Heat Illness: Low/Med	

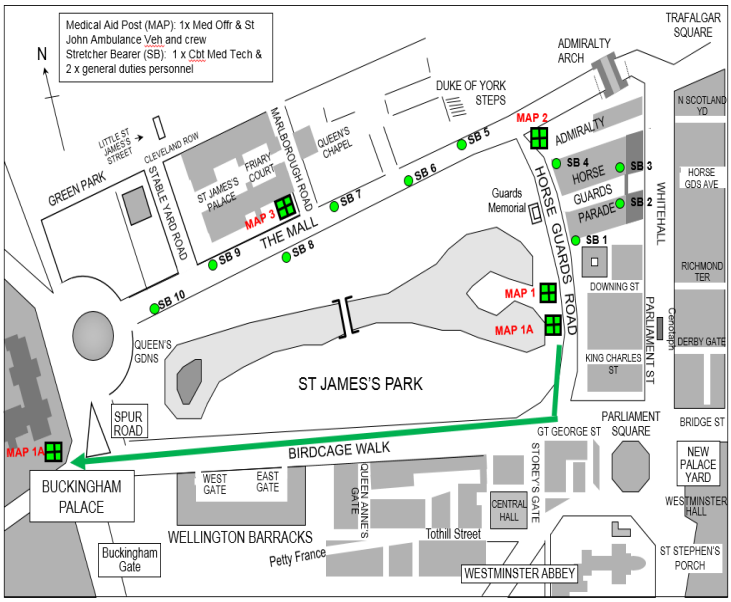
A sub-unit (company) of Foot Guards have been serving within London District on Public Duties for the last twelve months. The company will participate on the Queen's Birthday Parade, the Trooping of the Colour, as detailed by HQ Household Division. This is an annual national event, where the format and traditions have remained unchanged for many years. A generic risk assessment is carried out prior to each event, but the risk of heat illness remains as does the strict adherence to timings and protocol. On the day of the event, there is no opportunity to cancel, pause or amend the format regardless of the conditions. As such, the controlling headquarters increases the medical cover response to ensure medical assistance, if needed, can act immediately.

To further mitigate against the risk of heat illness, preparation of those participating on parade is essential. Major Jonathan Smith-Brown is the Officer Commanding and is responsible for implementing these control measures including ensuring that an individual's ceremonial uniform fits correctly and is not too tight or uncomfortable as this reduces the physical and mental stress on an individual. Increased water (2 litres per day for the week prior to the ceremonial event) and salt intake (1-2 teaspoons of salt per day as tolerated for the week prior) is also encouraged amongst the company. Rehearsals have proved to have a positive effect with regards to acclimatising the company to the mental, physical and environmental demands of the event. Maj Jonathan Smith-Brown's company will participate in a series of rehearsals that are realistic, use the same ground, at the same time of day, in the same format, duration and uniform, the final two rehearsals being conducted in front of 7,500 members of the public. The event is choreographed to create maximum movement for all individuals involved, reducing periods of long inactivity which in turn reduces the risk of fainting. The consumption of alcohol is strongly discouraged forty-eight hours before any of these rehearsals and the actual event.

Preparation continues up until the start of the event. A light early breakfast is encouraged, and the company remains cool for as long as possible before changing into ceremonial uniform. Once the event begins the well-resourced medical plan is in place, having rehearsed previously. Casualties are quickly identified and CASEVAC'd from the event by stretcher to a nearby Medical Aid Post where they are assessed by a Medical Officer. Dependent on the Medical Officer's assessment the casualty is either held and treated at the Medical Aid Post or moved to a local hospital for further assessment and treatment. All casualty incidents are reported to the event operations room in order to record, report, track and account for personnel.

Post event, lessons learnt are captured, to identify any issues, analyse why those issues happened, to improve or mitigate those issues from re-occurring. Follow up report and returns are actioned to ensure that the CoC are notified.

Medical Support Laydown:



Mitigation:

1. Early planning briefs are held to inform participating elements on the format, requirement, medical support and recommendations for the event.
2. Ceremonial uniform inspected to ensure correct fitting.
3. Recommended increased salt intake (1-2 teaspoons of salt per day as tolerated for the week prior to the ceremonial event).
4. Increase water intake (2 litres per day for the week prior to the ceremonial event).
5. Skin cooling (staying cool for as long as possible on the morning of the event – change into Ceremonial uniform at late as possible).
6. Heat acclimatisation- rehearsals have a positive effect, all participants must attend all rehearsals.
7. Alcohol to be avoided 48 hours before event.
8. Light/early breakfast is recommended.
9. An increased medical plan to support the event is produced, resourced and rehearsed correctly – see med laydown.

Policy: JSP 950 ACSO 3215 JSP 375 - Heat illness prevention

Summary: Heat illness has been recognised as a risk for this event. However, there are control measures in place to reduce the risk of occurrence and medical support to rapidly identify, assess and treat if there is a suspected incident of heat illness.

Example 6 - Adventure training

Example showing risk management when a WBGT reading cannot be obtained

<table>
<tr><td colspan="2">Heat Illness Risk Management during Adventurous Training</td></tr>
<tr><td>Exercise Director: ATG(A) Centre CO</td><td>2* Risk Holder: GOC ARITC</td></tr>
<tr><td>OIC Activity: AT Instructor</td><td>Risk Assessment Signed Off By: ATG(A) Wing OC</td></tr>
<tr><td>Average Day Temp (not WBGT): 20 - 25°C</td><td>Average Night Temp (not WBGT): 10°C</td></tr>
<tr><td>Risk of Heat Illness: Low / Med</td><td>Policy: JSP 375 / ACSO 3222</td></tr>
<tr><td>Situation: Sgt (SI) Rob Smith RAPTC is an Adventurous Training (AT) Instructor at an AT Delivery Wing in North Wales. He has been tasked with leading a Joint Service Adventurous Training (JSAT) Advanced Summer Leader Course (ASL), conducting scrambling in the Snowdonia National Park. As part of the planning, he reminds himself of the Unit's generic Risk Assessment for the JSAT Mountaineering Scheme, the Unit's Medical Plan, the Unit's Standing Operating Procedures governing how he will conduct the course, and the ASL Training Objectives.

Operating in the outdoor environment requires the instructor to fully <u>understand all of the conditions</u> that will affect the group's ability to operate in the mountains - temperature (at different altitudes); wind speed and direction; wind chill; freezing levels; visibility; rainfall; water levels and flow; avalanche risk, ice and snow pack conditions; and potential risks and hazards all need to be assessed and brought together to form an assessment of how to operate safely in the mountains. These conditions affect the kit and equipment that will be taken, but more importantly, the speed, duration, intensity and route that is taken by the group, as well as what time the activity commences. With no competitive element to Adventurous Training, all of these variables can be altered after a dynamic risk assessment on the ground to react to the continually shifting conditions in the mountains. It is exactly why weather conditions form an integral part of every JSAT course and qualification.

The AT Wing Sgt Maj informs Sgt Smith that the temperatures for the day of the activity are forecasted to be 20 - 25°C (dry bulb temp). Obtaining WBGT readings in not feasible due to the scale and scope of the activity area. Sgt Smith therefore focuses on adjusting his plan to consider changes to the operating environment and to actively manage the dynamic risk.

The next morning, Sgt Smith attends the Daily Risk Assessment Meeting with his Wing OC, Wing Sgt Maj and other instructors.</td><td>What Happened Next:
Action 1. Daily Risk Assessment Brief. The Daily Risk Assessment meeting is the opportunity for Sgt Smith's Chain of Command to approve his plan. Attended by his Wing OC, Wing Sgt Maj and other instructors, the brief covers weather conditions, based on forecasts from the Met Office, Mountain Weather Information Service and other official weather providers are briefed, as well as each instructors' activity for the day. It is the first opportunity for Sgt Smith to outline how he will mitigate the risk factors that will affect his planned activity, having taken into account the training requirements of the JSAT activity, the Unit's SOPs and the current environment factors. Sgt Smith's plan is approved by the Wing OC and Wing Sgt Maj.
Action 2. Weather Forecast and Environmental Factors. Due to the increased temperature, the Wing Sgt Maj directs that the students depart earlier for the training to be able to train during the coolest part of the day.
Action 3. Location change. Following the weather brief Sgt Smith changes the venue from a south facing scrambling route (in direct sunlight all day), to a north facing route (in shade throughout the hottest part of the day). This is approved by the chain of command.
Action 4. Brief. Sgt Smith briefs his students on the day, including the weather, amended plan, route, considerations, hazards etc and to equip themselves appropriately for the weather conditions, e.g. layers, sun protection, water etc. Sgt Smith also ensures each individual is given responsibility for checking on other course members for signs and symptoms of heat illness.
Action 5. Dynamic Assessment. Sgt Smith continually and dynamically assesses the environmental conditions, the condition of his students, and the Training Objectives he is planning to achieve. He adjusts these accordingly to ensure the safety of his group.
a. On the walk-in to the scramble the temperature feels higher than expected – something Sgt Smith confirms by checking a revised weather forecast on his phone. He therefore decides to reduce the walk-in pace and introduces more water stops as a result.
b. This change has another effect. Sgt Smith identifies that there might not be enough time to complete the whole scramble and thus adjusts his route, deciding to descend early at a pre-determined walk-off point 3/4 along the original route.
Action 6. Debrief. On return, Sgt Smith debriefs the students and reports the changes he made to his original plan. These are recorded and briefed at the following day's Daily Risk Assessment Meeting to inform the other Wing instructors of the difference in climatic conditions in the area so that they may plan accordingly in case they want to deploy to that area.</td></tr>
<tr><td colspan="2">Summary: Operating in the outdoor environment requires the knowledge and assessment of all factors that affect the ability to operate safely in the mountains. By dynamically assessing the situation, control measures can be applied and altered to react to the continually shifting, dynamic conditions in the mountains. Throughout the activity, the instructor maintains a watchful eye on his students and the ever-changing weather conditions, making micro or macro adjustments to his plan and dynamically managing the risk. Any substantial changes to his original plan would be reported in to his Wing OC and Wing Sgt Maj for approval. Sgt Smith and his team complete the revised scrambling route without incident and return to barracks.</td></tr>
</table>

Example 7 – Air-conditioning failure

Example of non-exertional heat illness risk management

<table>
<tr><th colspan="2">Air Traffic Control – Air-Conditioning Failure.</th></tr>
<tr><td>Activity Director: OC Ops Wg</td><td>2* Risk Holder: AOC 1 Gp</td></tr>
<tr><td>OIC Activity: Day-shift Supervisor</td><td>Risk Assessment Signed Off By: SATCO</td></tr>
<tr><td>Risk of Heat Illness: Medium</td><td></td></tr>
<tr><td>1. The Stn Cdr of RAF Cottam has formally appointed (via the RAF Cottam Total Safety Management Plan (TSMP)) OC Ops Wg as the Exercise/Activity Director for Operations Wg activities. The TSMP also formally appoints the Senior Air Traffic Control Officer (SATCO) and his Sqn Execs as activity commanders and directs the Stn's adoption of the Heat illnesses Policy, including planning and management procedures. SATCO and his Sqn Execs fall within the TSMP direction and as such, the SATCO, has ensured that the RAF Cottam ATC Orders and procedures meet the Heat Illness Policy, including generic Risk Assessments (RA) for all ATC Operations. The metrological forecasts, including WBGT forecasts and readings, are obtained from the Stn Met Office in the form of a daily forecast and hourly updates to the Flight Operations Assistants (FOA) who promulgate the information on the ATC Briefing board and the Controllers Tote display system located to the right of each console position.
2. The day shift at RAF Cottam ATC, including the Day-shift Supervisor, are briefing via the ATC briefing board, in preparation to commence their shift at 0800. The Day-shift Supervisor notices in the "Hot Poop" section of the briefing board, that the WBGT is expected to rise above 20 degrees at 1300.
3. The ATC Switchboard receive a call from the Ground Radio Maintenance Section at 1205, alerting the Day-shift Supervisor that the main Air Conditioning Unit has failed. An engineer has been called, however is not expected on site for several hours. This failure will lead to a rapid and sustained increase in temperature.
4. At 1310 the Met Office (via Stn Tannoy and routine forecast) contact ATC, promulgating that the WBGT has been recorded at 24.5 degrees. Shortly after this notice, the current Director console controller calls the Day-shift Supervisor across complaining of a headache.</td><td>Mitigation:
1. The Day-shift Supervisor briefs the on-coming day shift of this potential hazard, reiterates to them all, the signs and symptoms of Heat illness and possible control measures should they be required and the importance of remaining vigilant across the shift.
2. Recognising that the heat within the Approach Room is climbing and will potentially climb further; Day-shift Supervisor reviews the work/rate tables and instructs controllers and FOA's to reduce the time spent on console via regular hand-over/change over.
3. He attempts to increase the ventilation within the Approach Room by opening doors and windows that can be utilised, conscious that Fire Doors are not to be left open, nor every window due to noise pollution, thus maintaining the SA of the controlling staff on console.
4. He reminds all personnel to consume regular amounts of water and consider their clothing and equipment.
5. He also considers calling additional stand-by Controllers into the Tower to elevate the problems that an increased turnover of personnel "on-console" will create.</td></tr>
<tr><td>Policy: JSP 375 & AP 8000 Leaflets</td><td>Actions On
1. Day-shift Supervisor immediately calls through to the crew room to request a relief controller.
2. Day-shift Supervisor and a fellow controller assist the Director console controller to the Crew room (which is well ventilated), instruct them to loosen clothing, implement a cooling process and advise him to hydrate with water immediately.
3. Day-shift Supervisor instructs the Switchboard Operator to call the Medical Centre and request assistance, which is acknowledged and implemented immediately.
4. Following the event, at the earliest opportunity, Day-shift Supervisor completed a DASOR of the occurrence and an accident report form MOD Form 7454A, reporting the suspected heat illness.
5. He sends the MOD Form 7454A onward to the Station Health and Environmental Advisor (SHEA). The Day-shift Supervisor then commenced an internal review of his and the shifts actions, elevating the outcomes and subsequent recommendations to the SATCO for review and possible implementation within ATC Orders.</td></tr>
</table>

Example 8 – Security force operations

An example of a dynamic approach to maintaining operational capability

<table>
<tr><th colspan="2">Security Force Operations when there is an increase in Alert state.</th></tr>
<tr><td>Exercise Director: OC 8 FP Wg</td><td>2* Risk Holder: AOC 2 Gp</td></tr>
<tr><td>OIC Activity: Stn Sy Off RAF Cottam</td><td>Risk Assessment Signed Off By: Stn Sy Off</td></tr>
<tr><td>Risk of Heat Illness: Medium</td><td></td></tr>
<tr><td>Situation:
1. The Force Protection Force Cdr (FPFC) has formally appointed, in the FP Force Total Safety Management Plan (TSMP), OCs of the RAF FP Wgs as the Exercise/Activity Directors for their respective Wgs activities. The TSMP also formally appoints Unit Cdrs, Sub-unit Cdrs and Team Leaders as activity commanders and directs the FP Forces adoption of the Heat illnesses Policy, including its planning and management procedures. OC 6 Sqn RAFP and her Sy Flt Cdrs, based on their respective stations, all fall within the TSMP direction and as such, the Flight Cdr of the Sy Flt at RAF Cottam has ensured that the Wgs procedures dovetail into the RAF Stns and that the RAF Stn Safety and Environment Management System (SEMS) contains all the required orders and procedures to meet the Heat Illness Policy, including generic Risk Assessments (RA) for all the security operations on the base (Guarding, Patrolling, QRF and MWD).
2. At 1100, the Stn Sy Off, arrived at the guard room and informed the Guard Cdr that the Security State had just been raised to Exceptional and that he was to immediately implement the plans contained in Stn orders. The Guard Cdr issued orders to his Junior Commanders, who immediately “live armed” all personnel and put them into full PPE with helmets. Having completed the move to the increased alert state, the Guard Cdr proceeded to undertake a review of his patrol plan and guarding levels. At 1300 hours, the PEd staff contacted the guardroom requesting that a tannoy be made to inform the unit that the Gymnasium WBGT reading had just been recorded at 20.5 and that the unit was to implement heat management plans.
3. At 1330, the Guard Cdr was called to the main gate by the cover guard as the MPGS vehicle searcher, who had been in the open for 1.5 hours, had been seen to be unsteady on his feet.</td><td>Mitigation:
1. The Guard Cdr immediately commenced a dynamic RA to ensure that he had the appropriate control measures in place to govern the change in WBGT levels.
2. The dynamic RA indicated:
• No reduction in the time on guard duty.
• A reduction in patrolling activity adopted a revised posture of 20 minutes patrolling and 40 minutes rest, up to a maximum of 4 hours.</td></tr>
<tr><td>Policy: JSP 375, AP 8000 Leaflet and FPF TSMP</td><td>Actions On:
1. The Guard Cdr immediately deployed to the main gate with a replacement guard and replaced the vehicle searcher, brought him under cover, removed his body armour and commenced cooling procedures.
2. Whilst monitoring the individual, he requested assistance from the duty medic.
3. Following the event, the Guard Cdr completed an accident report form F7454A, reporting the suspected heat illness and sent this onward to the Station Health and Environmental Advisor (SHEA).
4. The Guard Cdr then commenced an internal review of his and the Guard Force’s actions to produce a Learning Account</td></tr>
</table>

Example 9 – Maritime operations

An example of managing heat illness risk in enclosed compartments

<table>
<tr><td colspan="2">Heat Illness Risk Management During MMS Work</td></tr>
<tr><td>Average Daily Temp: 40°</td><td>Average Nightly Temp: 32°</td></tr>
<tr><td>Risk of Heat Illness: Medium</td><td></td></tr>
<tr><td>Situation: Heat Illness whilst working in hot and humid conditions in the Main Machinery Spaces (MMS) conducting UMMS maintenance and defect rectification.</td><td>Mitigation:
1. Heat illness brief given to the entire ships company as part of pre-deployment briefs. Heat awareness briefs were part of the Port Visit briefs as well as during new joiner’s medicals.
2. DEPCO and HODs aware that recently acclimatised personnel may not perform as well as previous acclimatised personnel and to allow for this with multiple breaks and rotation-based working.
3. Dehydration brief given to the entire ships company during Port Visit briefs as well as during new joiner’s medicals.
4. The timing of activities has been considered by HoDs and DEPCOs during the planning cycle to avoid the hottest periods.
5. Machinery Space WBGT temperatures for UAMR, GTR, MGR and Tiller Flat annotated by Medical Staff in the SCC every 24 hours.
6. Medical Officer issued all SC a water bottle.
7. ME Department issued with CamelBaks.
8. All personnel briefed by the Medical Officer on the symptoms and actions in the event of EHI.
9. ME Department issued light weight overalls.
10. ETBOLs to be adjusted accordingly to reflect regular breaks.
11. MEDTM released to provide awareness for all personnel, especially management, on the risk of heat illness and includes JSP 375 tables for WBGT Index and work rates.</td></tr>
<tr><td>Policy: JSP 375 - Heat illness prevention</td><td>Actions On:
Camelbacks utilised for MEs in engine spaces.

MBRs to be on standby to respond to heat illness casualties and I/Cs of evolution to be briefed by MBRs to monitor personnel to ensure ample water and breaks are had.

Additional Controls required are buddy system and basic first aid at scene so that initial treatment can begin immediately.</td></tr>
<tr><td colspan="2">Summary: The amount of time that an individual should spend within an environment for a particular work rate is detailed in JSP 375 as guidance. All members of the ME department are considered to be not acclimatised. The management team and MEOOWs are to make themselves aware of these limitations and ensure that personnel are managed so as to reduce the risk of heat illness. Consideration should also be given to refrain from personnel working in isolation within a MMS for a prolonged period of time. It is essential that all personnel are aware of the risk of heat illness and react accordingly. The reduction of risk to ALARP is a Command responsibility at every level to ensure that personnel are operating safely in a safe environment.</td></tr>
</table>