

EXPEDITION SUPERVISOR HANDBOOK



1. PURPOSE & SCOPE

This handbook provides **Expedition Supervisors** with clear, practical guidance for the **safe planning, supervision, and management of expeditions** within the Army Cadet Force (ACF), including Duke of Edinburgh's Award (DofE) activities.

It is designed as a **training and field reference manual**, consolidating essential information on:

- Leadership responsibilities
- Emergency procedures
- Dynamic risk assessment
- Supervision and record keeping
- Expedition first aid
- Navigation fundamentals

The handbook supports Expedition Supervisors in delivering safe, wellmanaged expeditions that enable cadets to develop confidence, resilience, and independence while operating within appropriate safeguarding and safety boundaries.

2. INTRODUCTION

Expedition Supervisorship within the Army Cadet Force is more than supervising a route card or checking equipment. It requires **judgement, responsibility, and a clear duty of care** for young people operating in unfamiliar and sometimes demanding environments.

Whether leading a Duke of Edinburgh's Award expedition, a cadet adventure training activity, or a remote field exercise, the Expedition Leader sets the standard for:

- Safety
- Professional conduct
- Calm, decisive decision-making

Expeditions deliberately place cadets outside their comfort zones. Fatigue, adverse weather, navigation challenges, and minor incidents are normal and form part of the learning experience. **Serious emergencies are rare — but preparation is essential.**

A competent Expedition Leader:

- Anticipates problems early
- Manages risk proportionately
- Maintains oversight without removing appropriate challenge
- Enables cadets to learn, develop, and succeed safely

Good Expedition Supervisorship is often unnoticed by others — but it is always felt by the cadets.

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3. LEADERSHIP RESPONSIBILITIES

Expedition Supervisors are responsible for **cadet safety before, during, and after** all expedition activities.

This responsibility extends beyond route supervision and includes leadership, decision-making, communication, and safeguarding throughout the expedition lifecycle.

Key Responsibilities

Expedition Supervisors must:

- Plan, assess, and review routes and activities
- Monitor weather forecasts, terrain, and environmental conditions
- Maintain effective supervision and communication
- Ensure first aid readiness and emergency preparedness
- Act calmly and decisively during incidents or unexpected situations

Leadership presence, sound judgement, and clear decision-making are **critical safety controls** on expedition. Leaders must be prepared to adapt plans dynamically in response to changing conditions while maintaining the overall aims of the activity.

4. EMERGENCY PROCEDURES & LOST DRILLS

Effective emergency management relies on **early recognition, calm leadership, and clear decision-making**. Expedition Supervisors must be prepared to respond proportionately to incidents while maintaining control of the wider group.

Emergencies during expeditions are uncommon; however, when they do occur, a structured and methodical response is essential.

4.1 What Constitutes an Emergency

An emergency may include, but is not limited to:

- Injury or accident
- Sudden illness
- A lost individual or group
- Inability to continue safely
- Severe or deteriorating weather conditions
- Critical equipment failure

Leaders should always err on the side of caution and escalate concerns early rather than attempting to manage a deteriorating situation alone.

4.2 Immediate Actions Following an Incident

When an incident occurs, Expedition Supervisors should follow a structured response:

1. Stop

Halt the group and prevent further risk.

2. Assess the Situation

- Ensure the safety of the rest of the group
- Identify immediate hazards
- Establish the condition of any casualties

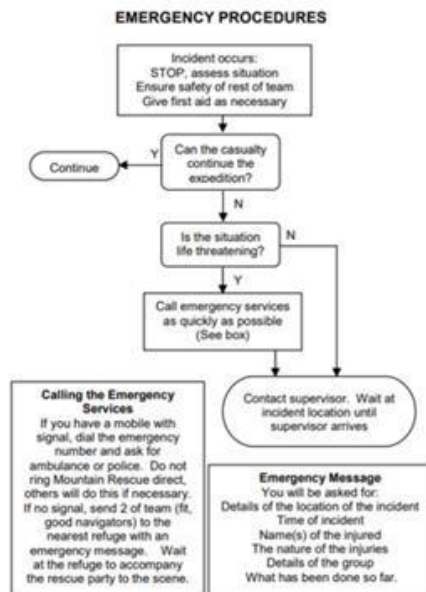
3. Provide First Aid

Administer first aid as required, within the scope of training.

4. Decide on Continuation or Escalation

Consider whether the casualty or group can continue safely, or whether escalation is required.

This decision-making process is supported by the Emergency Procedures flowchart carried by Expedition Supervisors.



4.3 Contacting Emergency Services

Where emergency assistance is required, Expedition Supervisors should act promptly.

Situation

Action

Mobile signal available Dial **999** or **112**

No mobile signal Send **two people** with a written message

Where emergency services have been contacted:

- Remain at the incident location where safe to do so
- Prepare to guide rescue services to the site
- Maintain supervision of the remaining cadets

Clear, concise information should be provided, including:

- Exact location (OS Grid Reference / what3words)
- Nature of the incident
- Number and condition of casualties
- Actions already taken

4.4 Lost Drill

If an individual or group becomes lost, Expedition Supervisors must apply the **Lost Drill** immediately.

1. **Stop**

Do not continue moving without a plan.

2. **Establish Last Known Position**

Identify where the group or individual was last positively located.

3. **Check Map and Compass**

Reconfirm position using available navigational aids.

4. **Do Not Wander**

Avoid unplanned movement, which may worsen the situation.

5. **Escalate if Unresolved**

If the situation cannot be resolved promptly, escalate in line with emergency procedures.

Early application of the lost drill prevents minor navigation errors from developing into serious incidents.



5. EXPEDITION SAFETY CARD

All Expedition Supervisors must carry an **Expedition Safety Card** during expedition activities. This card provides essential information to support effective decision-making and emergency response in the field.

The Expedition Safety Card should be readily accessible at all times.

The card must include:

- Emergency contact numbers
- Group names and numbers
- Relevant medical information
- Current location details (OS Grid Reference and/or what3words)
- A summary of the Lost Drill

The Expedition Safety Card acts as a **critical reference tool**, particularly under pressure, and supports clear communication with emergency services and supervising staff.

Expedition Safety Card	
Safety and advice	
If your team is undertaking an unaccompanied practice or qualifying expedition in wild country, has the Expedition Area Co-ordinator been notified of your plans, using the Expedition Notification Form (e.g. the Green Form)?	
Notification no:	
• For all DoE expeditions, the Supervisor must be in the area. • Do you know how and where to contact your Supervisor in an emergency? • Have you prepared escape routes and alternative routes in the case of bad weather? • Do not be afraid to turn back or change to the bad weather route if conditions make it unsafe to proceed. If you have to do this, your duty is to contact your Supervisor as soon as possible. • Never split your team unless in the case of an accident. • Weigh your pack. Keep your load to a maximum of a quarter of your body weight. • Get the latest weather forecast and set out early in the day. • Agree the expedition emergency procedures with your Supervisor and their team. The information on this card should be used in conjunction with the training from your Supervisor and DoE Leader.	
Mobile phones	
DoE teams must not rely on mobile phones in case of an emergency situation. Participants carrying a mobile phone as a potential support tool need to be trained in their functionality and best use.	
All users of the countryside should follow the Countryside Code:	
• Be safe: plan ahead and follow any signs. • Leave gates and property as you find them. • Protect plants and animals, and take your litter home. • Keep dogs under close control. • Consider other people. Participants are expected to follow their agreed codes of conduct and behaviour and not to disturb rural communities.	
Access to private land:	
Remember: Permission must be obtained from the landowner before you camp on private land. For the various rules on access which apply in the UK, please see www.DofE.org/expedition .	
This is a reference card only and does not constitute full emergency procedures/policy.	
Accident procedure	
In the event of an accident, keep calm – remember your training.	
1. Carry out immediate first aid and make any casualties comfortable whilst waiting for help. Remember: make the casualty's position easily seen.	
2. Assess situation and agree plan.	
3. Organise assistance and inform Supervisor.	
• Follow your training and contact your Supervisor. If emergency assistance is required, dial 999 immediately and ask for the police and then mountain rescue (then contact your Supervisor). • If needed, two persons to go for help (if possible). • Raise alarm at nearest habitation.	
4. Give the International Distress Signal: six signals at one-minute intervals.	
5. Record key information to tell emergency services.	
Date and time of the accident:	
Location: OS Card no. Grid Reference:	
Approximate place name or nearest recognisable feature:	
Condition of injured person(s):	
Name(s)	Responsiveness: alert/verbal/response to pain/unresponsive. Injuries: bleeding/fractures/burn/medical conditions etc.

6. SUPERVISION, RECORDS & SAFEGUARDING

Effective supervision is a core responsibility of the Expedition Leader and is essential to both **safeguarding** and **learning outcomes**.

Leaders must maintain oversight of cadet welfare, group cohesion, and progress throughout the expedition.

6.1 Supervision on Expedition

Expedition Supervisors should:

- Maintain regular headcounts, particularly at decision points and after rest breaks
- Monitor physical condition, morale, and fatigue levels
- Adjust pace, rest periods, and route choices as required
- Ensure cadets understand expectations and boundaries

Supervision should enable cadets to operate independently where appropriate, while ensuring leaders can intervene promptly if safety is compromised.

6.2 Daily Action Record

Expedition Supervisors must maintain a **Daily Action Record** throughout the expedition.

This record should include:

- Route covered
- Weather conditions
- Group wellbeing
- Incidents or near misses
- Key decisions made and the rationale for those decisions

Accurate and timely records:

- Support safeguarding and accountability
- Provide evidence of decision-making
- Enable effective post-expedition review and learning

Records should be completed as soon as practicable and retained in accordance with ACF requirements.

Daily Action Record

Organisation / Group: _____

Activity / Location: _____

Date: _____

Leader(s): _____

Group Size: _____

Daily Log

Section	Record
Route Covered	(Planned route, actual route taken, key waypoints)
Weather Conditions	(Forecast vs actual, changes during the day, impact on activity)
Group Wellbeing	(Physical condition, morale, fatigue, injuries, concerns)
Incidents / Near Misses	(What happened, who was involved, outcome, actions taken)
Decisions Made	(Key decisions, reasons, risk considerations)

Additional Notes

(Anything relevant to safeguarding, learning points, or future improvements)

Review & Sign-off

Learning Points / Follow-up Actions:

Record completed by: _____

Signature: _____

Date: _____

7. DYNAMIC RISK ASSESSMENT

Dynamic risk assessment is a **continuous process** conducted throughout an expedition. Conditions rarely remain static, and Expedition Supervisors must constantly monitor the route, environment, weather, and the condition of the group.

Risk assessment does not stop once the expedition begins — it is ongoing and responsive.

Expedition Supervisors should continually ask:

- What hazards are present?
- What could go wrong?
- Who could be harmed?
- Are current control measures still effective?



Plan and assess the risks in advance

We have example risk assessments according to walk difficulty to help you get started.



Adapt plans to local circumstances

Adopt or adapt our resources in a way that works for you to manage any specific considerations for your walk.



Share your plan with walkers

You can do this in your welcome briefing at the start of the walk before setting off.



Make changes if you need to

Stay alert to your surroundings and walkers and take a dynamic approach on the day.

7.1 Common Hazards and Controls

The table below identifies common expedition hazards and typical control measures. These controls should be applied proportionately and adjusted as conditions change.

Hazard	Typical Control Measures
Roads	Single-file movement, controlled crossings led by the Expedition Leader
Medical issues	First aid kit carried, ICE information available
Navigation	Regular headcounts, OS map and compass in use
Terrain	Appropriate footwear, rest breaks, route adjustments
Livestock	Calm movement, rerouting where required

7.2 Detailed Hazard Assessment and Controls

The following section provides a detailed breakdown of common expedition hazards, potential consequences, and appropriate control measures. These measures support dynamic decision-making and should be adapted to suit the specific expedition.

Roads (Walking)

Hazard:

Walkers are at risk of road traffic accidents. Other road users may also be placed at risk.

Control Measures:

- Select routes that minimise walking along busy roads without pavements or footpaths
- Where unavoidable, maintain single-file movement
- Warn the group clearly when vehicles are approaching
- Identify and use the safest available crossing points
- Ensure cadets take responsibility for their own safe crossing under supervision

Injury or Medical Episode

Hazard:

A casualty may require first aid treatment or emergency services.

Control Measures:

- Carry a first aid kit suitable for the activity
- Ensure cadets carry ICE information (card, keyring, or phone-based)
- Confirm the group has the means to contact emergency services
- Ensure mobile phones are adequately charged before departure
- Use OS Locator or what3words to provide accurate location

information In areas of poor or no mobile signal:

- Use emergency text (where pre-registered)
- Send a pair of walkers to seek assistance
- Use a whistle: **six blasts, pause for one minute, repeat**

Getting Lost or Going Missing

Hazard:

Individuals or groups become lost or separated.

Control Measures:

- Recce routes where possible, or plan thoroughly using maps and local knowledge
- Conduct headcounts at the start of the walk, at junctions, and after breaks
- Appoint a backmarker where appropriate
- Carry appropriate navigation aids, including:
 - Ordnance Survey map
 - Compass
 - GPS-enabled mobile device
 - OS Locator application

Physical Conditions

Hazard:

Walkers may slip, trip, or fall, resulting in injury.

Control Measures: Before the walk:

- Adapt the route to account for physical conditions
- Ensure the walk description reflects challenging terrain (e.g. hills,

stiles) At the start:

- Brief cadets on known hazards such as busy roads, slippery bridges, barbed wire, or electric fences During the walk:

- Continuously highlight hazards to the group
- Zig-zag on steep ascents or descents where possible
- Take adequate rest breaks

Unsafe or Unstable Geographic Features

Livestock

Hazard:

Walkers may be at risk of injury from livestock.

Control Measures:

- Cross fields calmly and quietly
- Re-route where necessary
- Follow the Countryside Code
- Leave gates and property as found

Environmental Conditions (Heat and Cold)

Hazard:

Environmental conditions such as **high temperatures, direct sun, cold, wind, and wet weather** may lead to heat-related illness, cold injury, fatigue, dehydration, or reduced decision-making ability.

Who may be harmed:

- Cadets
- Expedition Supervisors
- Support staff

Potential consequences:

- Heat exhaustion or heat stroke
- Hypothermia
- Frostbite or trench foot
- Reduced physical performance
- Impaired judgement and coordination

Control Measures:

Before the expedition:

- Check weather forecasts and consider temperature, wind chill, and precipitation
- Adjust routes, timings, and load carriage to suit forecast conditions
- Ensure cadets are briefed on appropriate clothing, sun protection, and hydration
- Confirm sufficient water capacity and access to refilling points
- Plan escape routes and sheltered rest locations
- Complete CFSO 3801 Army Cadets Dynamic Risk Management & Decision Making – Daily Action Recording Form

During the expedition (Dynamic Controls):

- Monitor cadets for early signs of heat or cold stress
- Enforce regular hydration and food intake
- Adjust pace and rest frequency according to conditions
- Seek shade in hot conditions and shelter in cold or wet conditions

- Modify or curtail activity if environmental conditions deteriorate
- Ensure wet clothing is replaced promptly where possible
- Complete CFSO 3801 Army Cadets Dynamic Risk Management & Decision Making – Daily Action Recording Form

Escalation:

- Apply first aid immediately if heat or cold illness is suspected
- Stop the activity if safe continuation is compromised
- Escalate in accordance with emergency procedures where symptoms worsen or fail to improve

Environmental hazards are **dynamic and cumulative**. Expedition Supervisors must continually reassess conditions and be prepared to adapt plans to safeguard the group.

Date and Activity:		1	2	3	4	5	6
A	Intensity of Activity (Physical Exertion)	Description	Intensity	Light	Moderate	High	Very High
		Score	0-3	4-5	6-7	8-9	10-11
		Army Cadet Example	Chaperone / Teacher / Instructor / Subordinate	Training / Subordinate / Subordinate	Training / Subordinate / Subordinate	Training / Subordinate / Subordinate	Training / Subordinate / Subordinate
B	UV Index Score	Low (1-2)	Moderate (3-5)	High (6-7)	Very High (8-10)	Extreme (11+)	
C	Select Most Appropriate Risk Level	High Potential for Injury	10% - 20%	20% - 30%	30% - 40%	40% - 50%	50% - 60%
		Low Potential for Injury	10% - 15%	15% - 20%	20% - 25%	25% - 30%	30% - 35%

Dynamic Risk Assessment Checks

Event	Date	Time	Risk Score	Mitigating Actions	Next Check	Check by
	01/03/23	11:00am	3, 4, 5, 10	Being assessed in light of the risk in the event of a change in circumstances	Monitor 10:00	Capt Jones
1						
2						
3						
4						
5						
6						
7						
8						

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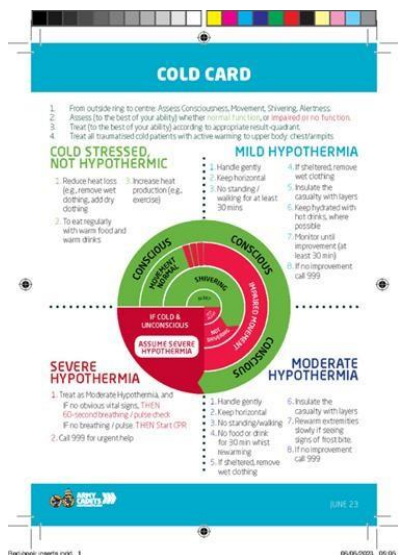
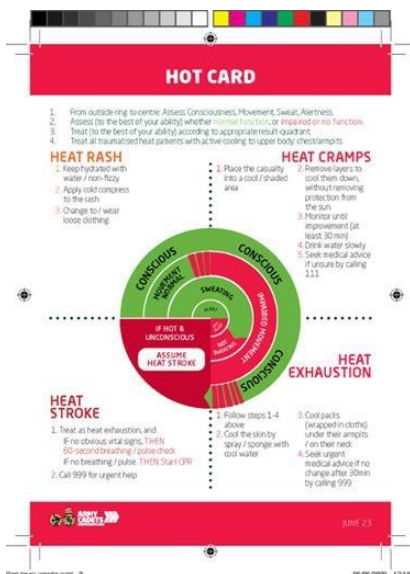
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Scoring Action Table for the Prevention and Management of Climatic Illness

Overall Score	Actions
13-18	- Evaluation of risk ownership of activities are to be continued, direction and guidance outlined in ACSD 1210 - Apply any additional measures, direction and guidance issued by HQ RRC Cadets Branch.
19-23	- Traveling to locations must be done in suitable transport for the climatic conditions. - Reduced intensity of exercise significantly to Light Exercise Rate. - Weather conditions to be monitored using forecasts / observations etc, at least every hour. - All individuals should not be standing for prolonged periods of time.
24-28	- Stop and Avoid activities between 11:00-14:00 hrs. - Change of activity timetable to cater for early morning / late in day delivery or enhance the opportunity for rest periods during the middle of the day. - Protective clothing (long-sleeved / long pants) and sun protection (hat) to be worn at all times.
29-33	- Activities must be avoided during dark / night time hours. - All individuals to wear protective clothing from the elements including extremities at all times. - Activities must be regularly checked for any signs of Non-Freezing Cold Injuries (NFCI) or Freezing Cold Injuries (FCI).
34-38	- Activity Center to engage with their MSD / MSDA and, where possible with their TSA for additional support and guidance. - Load / equipment being carried during activities must be monitored with participants. - Signaling or warning systems if any individual becomes unwell / presents with symptoms of climatic injuries, activity must be reviewed before resuming. - Activity Center to review Risk Management Plans for safety and / or CFAEs, any are issued are higher risk individuals on-site with the activity. - Weather conditions to be monitored using forecasts / observations data, at least every 2 hours.
39-43	- All individuals are to apply sun protection lotion, wearing clothing to protect from the sun. - Reduced intensity of exercise significantly to Light Exercise Rate. - Weather conditions to be monitored using forecasts / observations data, at least every 2 hours.
44-48	- All individuals to wear additional layers, ensuring extremities (hands, feet, face) are covered and protected. - Reduced intensity of exercise significantly to Moderate Exercise Rate. - All individuals to maintain drinking water and hot fluids where possible and are monitored in their own time, during and post activities.
49-53	- Arrive to power / stop or more from activities are provided that are protected from the weather (sun / wind / rain). - Weather conditions to be monitored using forecasts / observations data, at least every 2 hours.
54-58	All individuals are to remove outer layers, unless wearing layers under coats to be removed.
59-63	- All individuals to ensure additional layers are worn. - Consideration on the effect of wind-chill are being taken into account on the individuals participating.
64-68	- Ensure hydration facilities are provided. - All individuals wearing suitable clothing for the activity taking place.

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8. EXPEDITION FIRST AID

Expedition Supervisors must be prepared to manage **minor injuries and medical conditions**, recognise serious illness or injury, and escalate appropriately.

This section provides **recognition cues and immediate actions** to support effective decision-making in expedition environments. It does not replace formal first aid training.

8.1 Dehydration

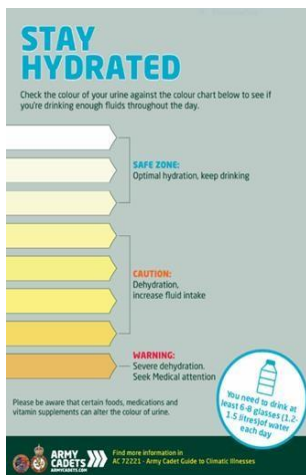
Dehydration occurs when fluid losses are not adequately replaced. In addition to water, essential salts are lost through sweating. Dehydration commonly occurs during prolonged activity, hot weather, or illness such as diarrhoea or vomiting.

Signs and Symptoms:

- Thirst
- Dark yellow, strong-smelling urine
- Reduced frequency of urination
- Dizziness or light-headedness
- Fatigue
- Dry mouth, lips, and tongue
- Sunken eyes

Treatment:

- Encourage rest
- Rehydrate using water and electrolyte solutions
- Monitor the casualty's condition



8.2 Heat-Related Illness

Heat-related illness can develop rapidly and must be recognised early.

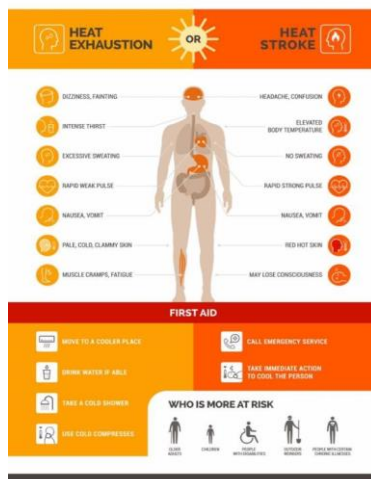
Heat Exhaustion Signs:

- Headache
- Nausea
- Warm skin **Treatment:**
- Stop activity
- Move to shade
- Cool the casualty
- Encourage fluid intake **Heat Stroke — MEDICAL**

EMERGENCY

Signs:

- Confusion or altered mental state
- Hot, dry skin **Action:**
- Call **999 / 112 immediately**
- Commence aggressive cooling
- Prepare for evacuation



TREATMENT OF HEAT INJURIES WHILE WALKING IN REMOTE AREAS



RECOGNIZE HEAT INJURIES

HEAT EXHAUSTION

- Feeling faint or dizzy
- Headaches
- Heavy sweating
- Pale, clammy skin.
- Rapid pulse
- Nausea
- Thirst
- Muscle cramps



Both can escalate due to dehydration,

HEATSTROKE

HEATSTROKE

- Confusion/disorientation
- Stumbling
- Slurred speech
- Seizures
- Loss of consciousness
- Red, hot, dry



Both can escalate due to dehydration, heat, and exertion.

GIVE FIRST AID WHILE WAITING FOR RESCUE

1 Move to Shade

Get casualty to shade, shelter or coolest area possible.



3 Cool the Body

- Cool with damp cloths, wet skin, fan air

5 Rehydrate

- Give frequent sips of water if alert (electrolytes are helpful)



2 Remove/Loosen Gear

- Remove excess clothing, loosen tight gear.



4 Cool the Body

- Give frequent sips of water if alert (electrolytes are helpful)

6 Monitor Condition

- Is casualty improving? Check for mental & physical changes.

6 Emergency Help

- Call for rescue ASAP. Recognize heatstroke as a medical emergency. If unresponsive, use recovery position.



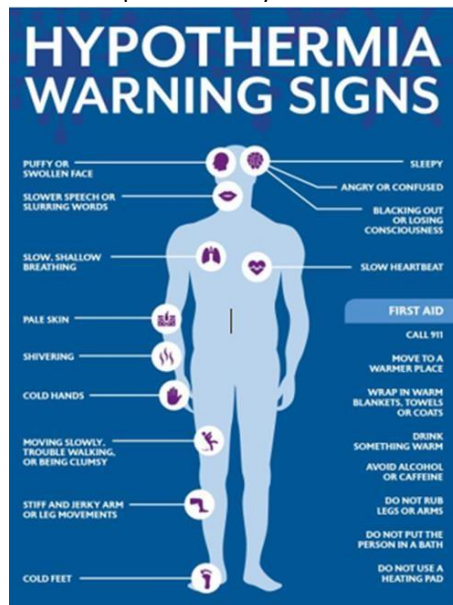
A rapid core temperature rise becomes life-threatening. Monitor and treat until help arrives!

8.3 Cold Injuries

Cold injuries may occur in wet, windy, or cold conditions and during periods of inactivity.

Mild Hypothermia Signs:

- Conscious and violently shivering
- Reduced physical ability
- Cold, pale, dry skin **Actions:**
- Insulate and wrap using a foil or plastic blanket
- Shelter the casualty and insulate from the ground
- Remove and replace wet clothing
- Rewarm slowly
- Provide warm drinks and high-energy food if conscious
- Keep the casualty horizontal and handle with care



Moderate Hypothermia Signs:

- Apathy, disorientation, irrational behaviour
- Rapidly decreasing responsiveness
- Cold, pale, dry skin
- Slow, shallow breathing
- Shivering reducing or stopping **Actions:**
- Treat as for mild hypothermia

- Do **not** give food or drink
 - Keep the casualty horizontal
 - Call **999 / 112** and arrange professional evacuation
-

Severe Hypothermia Signs:

- Unresponsive
- No apparent breathing
- Cold, dry skin **Actions:**
- Treat as for moderate hypothermia
- Handle with extreme care
- Call **999 / 112** and arrange urgent evacuation

8.4 Frostbite and Trench Foot General Principles:

- Do not rub affected areas
- Rewarm slowly
- Seek medical advice

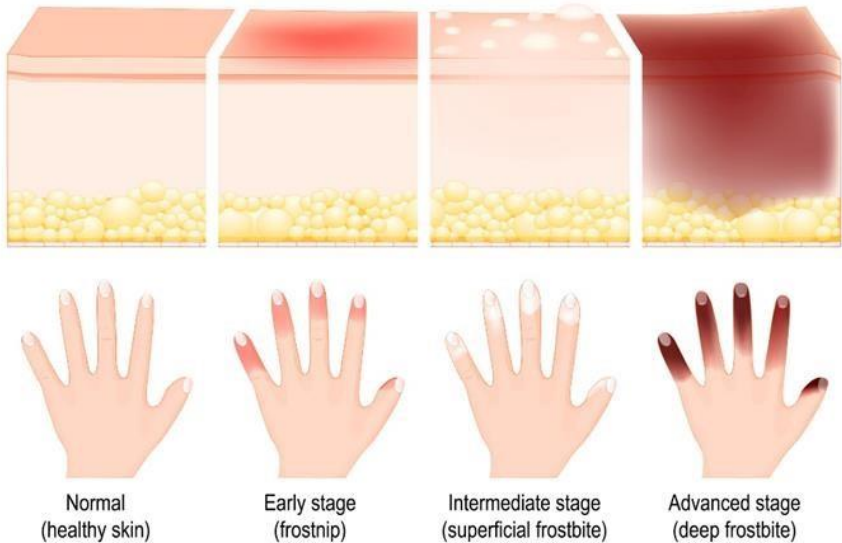
Severity Action

Mild Insulate and provide warm drinks

Moderate Keep horizontal and evacuate

Severe Handle carefully and call **999**

Frostbite stages



8.5 Bites, Stings & Plants

Ticks and Lyme Disease

Lyme disease is a bacterial infection transmitted by ticks and is widespread in the UK. Symptoms may develop up to a month after a bite.

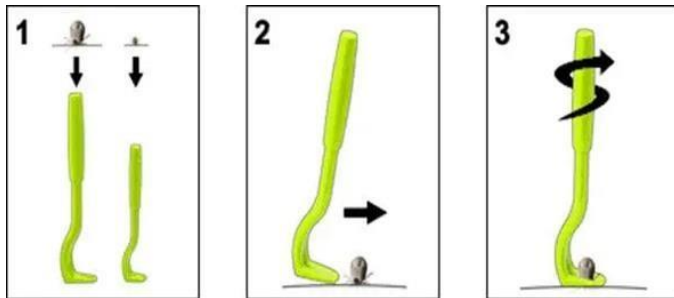
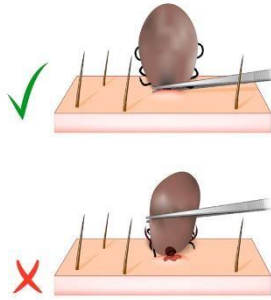
Prevention:

- Tuck trousers into socks
- Wear long sleeves
- Use insect repellent
- Conduct regular tick checks
- Carry a tick removal tool

Tick Removal:

- Remove ticks promptly using an appropriate tool (tick twister or card)
- Do not squeeze, burn, or apply substances to the tick

How to remove a tick



Signs and Symptoms:

- Circular “bull’s-eye” rash
- Fatigue
- Muscle or joint pain
- Headaches
- Fever
- Neck stiffness **Action:**
- Remove the tick as soon as possible
- Seek medical advice if symptoms develop
- Provide a clear history to the GP

Adder Bites

Adders are the UK’s only venomous snake. They may be encountered while basking in warm conditions and will usually move away if left undisturbed.

If bitten:

1. **Stay calm** — limit movement to slow venom spread
2. **Clean the bite** using clean water or a medi-wipe
3. **Apply a cool compress** (not ice)
4. **Keep the affected limb below heart level**
5. Remove tight clothing or jewellery

If the casualty shows signs of deterioration, severe reaction, or distress:

- Call **999 / 112**
- Place in the recovery position
- Monitor vital signs



Adders have a distinctive diamond pattern



Adults are between 40-70cm (16-28inches) long



They may be grey, brown or, rarely, black, like this one

Dangerous Plants – Giant Hogweed

Giant hogweed sap is toxic and causes severe skin reactions when exposed to sunlight. Eye contact can cause serious injury.

If exposure occurs:

- Wash the area immediately with copious soap and cool water
- Avoid sunlight for at least 48 hours
- Do not burst blisters
- Flush eyes thoroughly with clean water
- Seek medical advice if symptoms are severe or worsening
- Wash contaminated clothing promptly

Some individuals may also react mildly to cow parsley.



9. EXPEDITION INFORMATION

This section provides essential practical guidance to support safe and efficient expedition conduct.

9.1 Stove Safety

Expedition Supervisors must ensure safe stove use at all times.

Key principles:

- Use stoves in **well-ventilated areas only**
- Store fuel securely and upright
- Keep naked flames well clear of equipment
- **Never cook inside tents**

Leaders should supervise stove use closely and intervene immediately if unsafe practices are observed.



EXPEDITION

Stove safety instructions

Location

- Take some time to pick the cooking location. A firm level surface at ground level where the stove will not be knocked over is ideal and it must be at least two metres away from flammable items/tents.
- Consider the weather conditions and wind direction.
- Make it clear to other people that stoves are 'hot' and get everything needed together before starting to cook. Have somewhere safe nearby to put hot pans.

General safety

- Always be familiar with the stove & fuel before setting out.
- Be confident in how to use the stove and what dangers are associated with it and the fuel, for example gas canisters.
- Have water and a wet tea towel nearby, ready to use as a fire blanket. Always be careful to check if there is a flame or not, especially in bright sunlight.
- Never leave a lit stove unattended or unwatched.
- DofE participants and adults need to follow their Licensed Organisation's policies and the instruction and safety guidance given by the manufacturer of the stove they have chosen to use.

Spirit stove safety instructions

- The stove must be placed on a firm level surface, at least two metres away from flammable items/tents, in a place where it cannot be knocked over.
- Fill the stove from a small container, never from a bulk container such as a one gallon can or plastic container. (It is permissible to fill methylated spirits in a plastic container).
- The spirit must be carried in bottles specifically designed for the purpose which have a screw top and a safety valve. These should normally be around half a litre in capacity and the stoves should be filled from these bottles. Triang fuel bottles with safety valves are good to use as these will prevent a full bottle fire. Note – it is not immediately obvious when the bottle is in the locked closed position, any pressure on the plunger in the open position can lead to leakage.
- Fuel should not be handled near tents or any naked flames; it is good practice to have a 're-fuelling' area where fuel is handled away from the designated cooking area.
- One person should carry the stove or the spirit cup downwind, away from the tents and it should be

Gas stoves

- DofE teams must never use a gas stove that does not use self-sealing cylinders or cartridges.
- Remove cartridges from the stove for journeying and replace part used cartridges for full ones before the start of the expedition.
- It is best to use a gas stove that is low, stable and easy to shield from the wind.
- For exposed areas participants can use wind shields made of aluminium foil which can be bent into shape.

Gel fuels (Bio-ethanol)

- Do not fill gel burner over two thirds full.
- Never refill a lit or hot stove – the flame can be hard to see. Always check for heat – bubbling and a crackling noise indicates the gel is alight.
- Always refill from a small gel container, not a bulk container.
- Always keep unused fuel at least three metres away from the stove or any source of ignition and do not store in direct sunlight.

fuelled, or refuelled, in a place where there are no naked flames in the vicinity.

- Take great care when re-fuelling the stove, make sure that the flame is completely extinguished (the flame can be invisible, especially in sunlight) and the stove/burner has cooled before removing the burner to re-fill it (take the burner to the fuel, not the fuel to the burner). Remove the pan and carefully place a hand over the spirit cup or hold the corner of a sheet of paper just above the burner. This will indicate if the burner is still lit. The burner should be taken to the fuel, not the fuel to the burner (if the burner is cool enough to pick up it won't still be alight).
- If it is necessary to refill a burner, assume it is still burning. Go through the normal procedure of putting the burner lid over the flame to extinguish. Wait until the burner has gone cold before refilling.



EXPEDITION

The safe way to fuel and refuel spirit stoves



9.2 Packing a Rucksack

Correct packing improves comfort, balance, and safety.

Key principles:

- Distribute weight evenly, with heavier items close to the back
- Waterproof all kit appropriately
- Keep essential items easily accessible
- Adjust straps to ensure a secure and comfortable fit

Good packing reduces fatigue and supports effective movement on expedition.

DofE expedition kit tips:

PACK YOUR RUCKSACK

Liner
Use a dry bag or rublin sack to line your rucksack to keep everything dry.
Lifeforce Dry Bags

Sun protection
Store in a sealable bag to avoid leakage and keep near the top or in a pocket to regularly reapply.
Lifeforce Mountain Factor 50 Sun Protection

Fuel
Double-bag fuel canisters in a sealable bag and store vertically to avoid spillage.
Triangle Fuel

Waterproof jacket and trousers
Pack your bag in the order you will wear your kit. Remember last in first out.
Craghoppers Venth Jacket and Ascent Overtrousers

Head torch
Pack evening essentials such as batteries or chargers together so you can find them easier in the dark.
Lifeforce Intensity 150 Head Torch

Survival bag
Use up any gaps to help keep kit stable in the bag.
Lifeforce Survival Bag

Stove
Clean and dry thoroughly, then place close to your back to maintain your centre of gravity.
Triangle 25-TL Stove

Mid layers
Fleece are lightweight and dry quickly. Keep near the top as temperatures can change quickly.
Craghoppers Ek Fleece Jacket

Tent
Ensure the heaviest kit is close to your back and balanced on each side.
Vango Banane 300 Tent

Sleeping mat
Try to get all your kit inside your bag. If you have a large mat, you can tie it securely to the outside.
Vango Trek Sleeping Mat

Spare clothing
Push spare clothes to the bottom of the bag to fill the space available.
Craghoppers Chamon T-Shirt

First Aid
Keep your first aid kit in the same place and easy to handle. Store small items you might need during the day in the top.
Lifeforce Trek First Aid Kit

Rucksack
Make sure your rucksack transfers the weight of your kit to your hips and not on your shoulders.
Vango Sherpa 60-70 Rucksack

Wash kit
Lifeforce Travel Wash Bag

Lunch/food
Bag each meal separately to help ration your food. Pack your lunch at the top and have snacks to hand for extra energy boosts.
Wayfarer Expedition Food

Socks
Always take at least two pairs of socks and ideally one set for each day. Pack to keep dry.
Brigade Merri's Ultralight Merino Performance Boot Sock/Boot Socks

Sleeping bag
Keep your sleeping bag dry by placing inside a waterproof bag inside your rucksack.
Vango Lettuce Sleeping Bag

Eating/Drinking
Plastic or titanium camping gear are lightweight, won't break and easy to clean.
Lifeforce Elipse Mug and Plate

Towel
Lifeforce Travel Towel

More advice on how to save weight and waterproof your kit, as well as the official DofE Expedition Kit List, can be found at DofE.org/shop

Save at least 10%, and often more, in over 200 stores and online

GO **Blacks** **millets** **Ultimate** **REPUBLIC** **Naylors**

First everything for your next expedition at one of our first recommended retailers to store on advice. Find your nearest store at DofE.org/expedition-finder. Kit items shown are examples only. Always follow the advice and training of your DofE expedition supervisor. The Duke of Edinburgh's Award is a Registered Charity No. 1074992, and is a Registered Charity No. 1074992, and is a Registered Charity No. 1074992.

10. NAVIGATION FUNDAMENTALS (AIDE-MEMOIRE)

Navigation is a core expedition skill. This section provides Expedition Supervisors with a concise refresher of the knowledge and techniques required to navigate safely and accurately using maps, compasses, time, terrain, and natural aids.

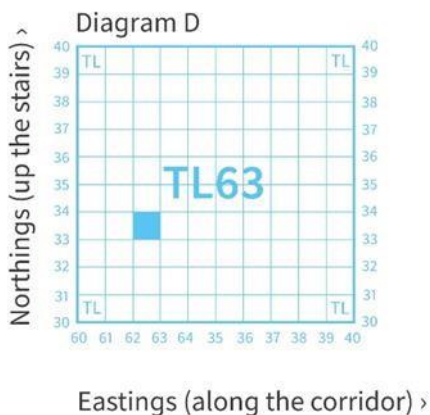
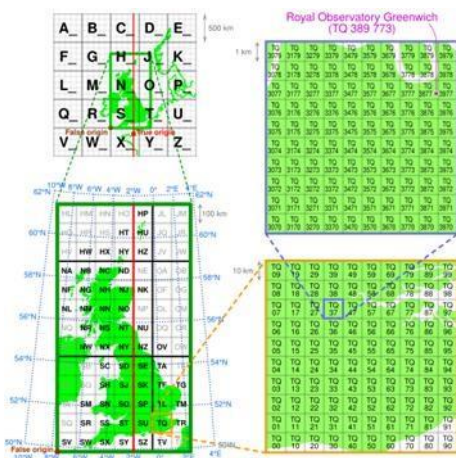
This section supports, but does not replace, practical navigation training.

10.1 Maps and the National Grid

Ordnance Survey (OS) maps are used throughout the UK for navigation. They are overlaid with a National Grid that allows any location to be identified using numbers.

The grid consists of:

- **Eastings** – vertical lines, numbered along the bottom and top of the map
- **Northings** – horizontal lines, numbered along the sides of the map Eastings are always read before northings.



Memory Aid

"Along the corridor, then up the stairs."

10.2 Grid References

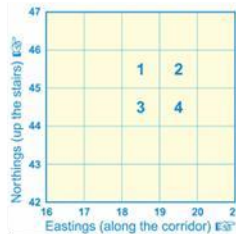
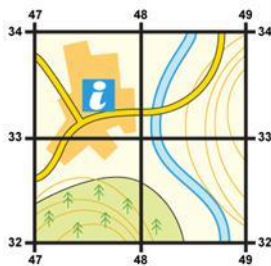
Four-Figure Grid References

A four-figure grid reference identifies a **1 km × 1 km square**. Example:

1234

- 12 = easting
- 34 = northing

This identifies the bottom-left corner of the grid square.



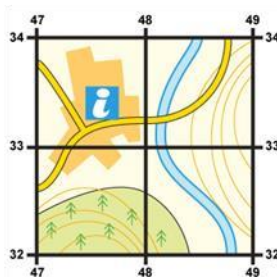
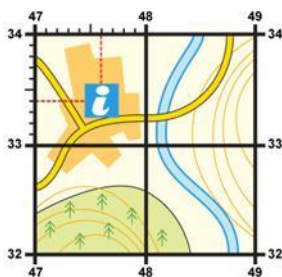
Six-Figure Grid References

A six-figure grid reference identifies a location to **100 m accuracy**.

Steps:

1. Identify the four-figure grid square
2. Divide the square into tenths from left to right (eastings)
3. Divide the square into tenths from bottom to top (northings)

Example: **123456**



0.3 Bearings

A bearing is a direction measured clockwise from north and written as three figures (e.g. 045°, 180°, 275°).

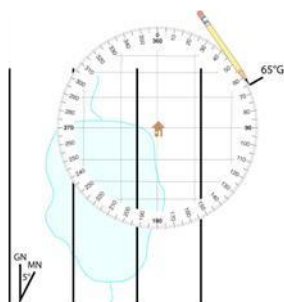
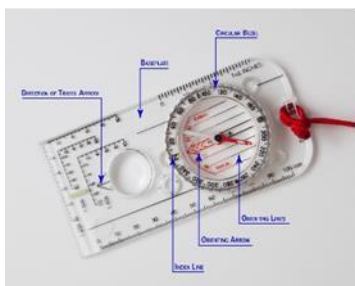
Grid Bearings

Grid bearings are taken from the map and measured from Grid North.

Steps:

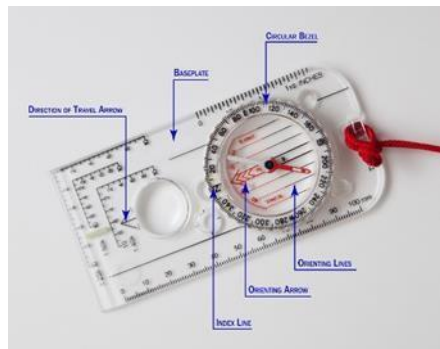
1. Place the compass edge between the start and destination
2. Rotate the compass housing until the orienting lines align with grid lines 3.

Read the bearing at the index line



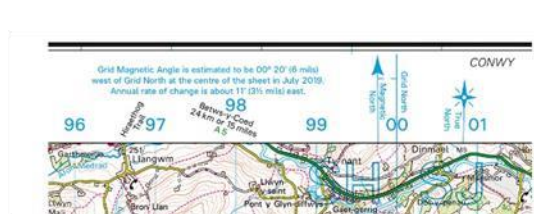
Magnetic bearings are followed on the ground using a compass and are measured from Magnetic North.

1. Convert the grid bearing to magnetic using the magnetic variation
2. Set the magnetic bearing on the compass
3. Turn until the needle sits within the orienting arrow
4. Select a feature along the line of travel
5. Walk to the feature and repeat



Magnetic North does not align with Grid North and moves slightly each year.

- Magnetic variation at the time of printing
- Annual change (increase or decrease)



- Grid to Magnetic: **Add variation**

- Magnetic to Grid: **Subtract variation**

Memory aid:

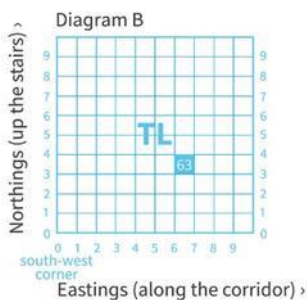
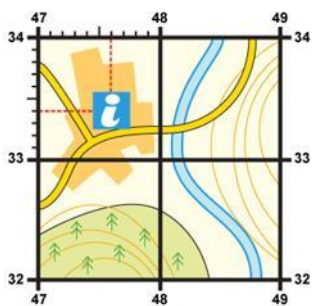
“Grid to Mag Add, Mag to Grid get RID.”

10.5 Plotting Position and Resection

Plotting a Known Position If

given a grid reference:

1. Identify the grid square
2. Measure eastings
3. Measure northings
4. Mark the position lightly



Resection

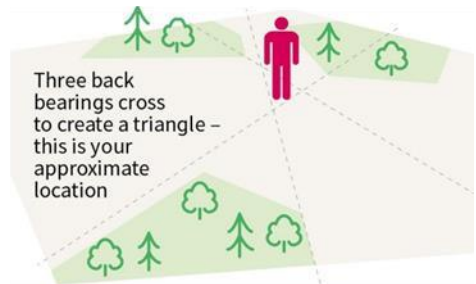
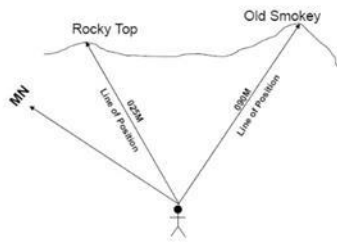
Resection is used when your position is unknown.

Steps:

1. Identify two or three visible features
2. Take magnetic bearings to each feature

3. Convert bearings to grid bearings
4. Add or subtract 180° to obtain back bearings
5. Draw the lines on the map

Where the lines intersect is your position.



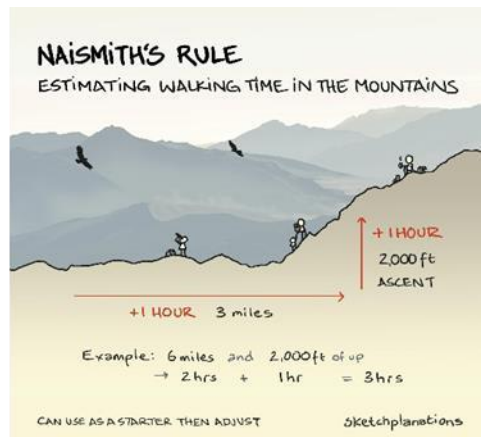
Gold Standard: Use three features to form a triangle of error.

10.6 Time, Distance and Naismith's Rule

Naismith's Rule provides a simple method for estimating journey time in hill walking.

Rule:

- Allow **1 hour for every 5 km** of distance
- Add **1 hour for every 600 m** of ascent



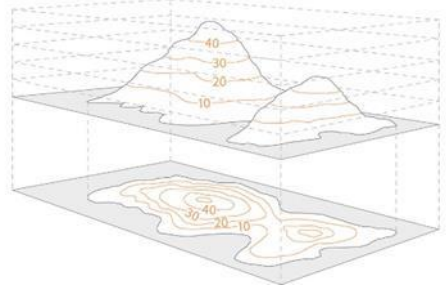
Memory Aid

"Five to one, six up adds one."

10.7 Map Symbols and Terrain Interpretation

Expedition Supervisors must be able to interpret OS map symbols accurately.

 Country park	 Public house(s)
 Craft centre	 Public toilets
 Cycle hire	 Recreation, leisure or sports centre
 Cycle trail	 Slipway
 English Heritage	 Theme or pleasure park
 Fishing	 Viewpoint
 Garden or arboretum	 Visitor centre
 Golf course or links	 Walks or trails
 Heritage centre	 Water activities (board)
 Historic Scotland	 Water activities (paddle)



Key principles:

- Close contours indicate steep ground
- Wide contours indicate gentle slopes
- Blue indicates water
- Green indicates vegetation



10.8 Navigating by the Stars (UK)

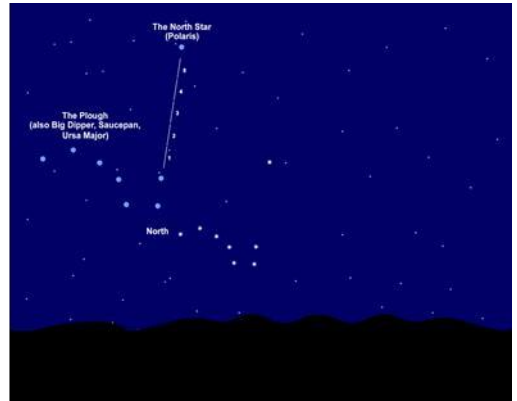
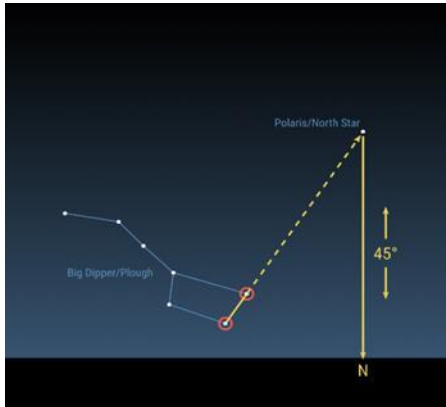
Star navigation is a supporting and emergency skill only.

Polaris (Pole Star)

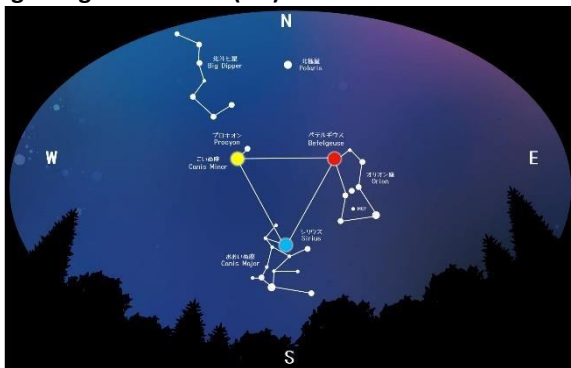
Polaris lies almost directly above True North.

To locate Polaris:

1. Identify the Plough
2. Use the two pointer stars
3. Extend the line approximately five times the distance



Navigating Using Orion's Belt (UK)



Visibility in the UK

Orion is one of the **most recognisable constellations in the UK winter sky.**

- Visible: **October to April**
- Best visibility: **December to February**
- Seen from: **urban and rural locations**
- Appears in the **southern sky**

At its centre are **three bright stars in a straight line**, known as **Orion's Belt**.

11. TRAINING SCENARIOS

The following scenarios are intended for **training, discussion, and rehearsal**. They allow Expedition Supervisors to practise decision-making, risk management, and emergency responses in a controlled environment.

Scenarios should be adapted to suit the experience level of the group and the training objectives.

Suggested scenarios include:

- Heat-related illness during an expedition
- Discovery of a tick during rest stops
- Blister prevention and treatment
- Hypothermia during prolonged rest or poor weather
- Sudden casualty collapse

These scenarios support leaders in developing confidence, situational awareness, and effective leadership under pressure.

Scenario 1: Heat-Related Illness on Expedition

KNOW THE DIFFERENCE!

HEAT EXHAUSTION
vs
HEAT STROKE

FAINT OR DIZZY

ANXIETY & CONFUSION

EXCESSIVE SWEATING

FAST, WEAK PULSE

NAUSEA OR VOMITING

COLD, CLAMMY SKIN

MUSCLE CRAMPS



THROBBING HEADACHE

ANXIETY & CONFUSION

SWEATING STOPS

FAST, STRONG PULSE

NAUSEA OR VOMITING

HOT, RED, DRY SKIN

LOSS OF CONCIUSNESS

TREATMENT

1. Get to a cooler place and rest
2. Drink water if concious
3. Cool shower or cold compresses



TREATMENT

1. CALL 9-1-1
2. Move to a cool area
3. Cool affected person with ice bath

Situation

Day 2 of a summer expedition.

Open terrain, little shade, higher temperatures than forecast.

One cadet begins to fall behind and appears unwell.

What You See

- Headache and nausea
 - Warm, flushed skin
 - Reduced pace and engagement
 - Poor hydration reported by peers
-

Decision Point 1 – Early Action What should you do now?

Expected Leader Actions

- Stop the group in shade
- Remove rucksack

- Encourage fluids
 - Loosen clothing
 - Actively cool (shade, airflow)
 - Monitor closely
-

Escalation

After rest, the cadet:

- Becomes confused
 - Complains of dizziness
 - Has hot skin and stops sweating
-

Decision Point 2 – Emergency

This is now consistent with heat stroke. Immediate

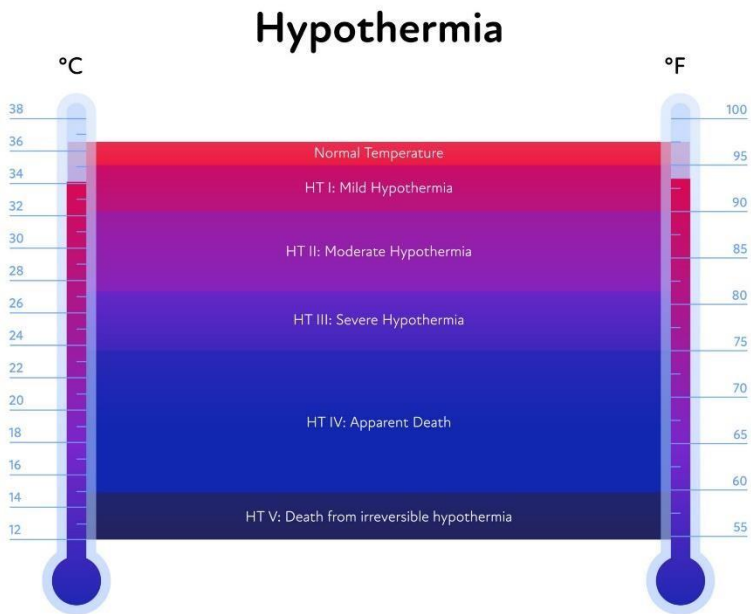
Actions

- Stop the activity
 - Call **999 / 112**
 - Commence aggressive cooling
 - Prepare for evacuation
 - Maintain supervision of remaining cadets
-

Learning Points

- Heat illness escalates quickly
 - Hydration and pacing are preventative controls
 - Early intervention prevents emergencies
 - Leaders must escalate decisively
-

Scenario 2: Cold Injury During Prolonged Exposure



S



Situation

Upland terrain. Persistent rain and wind. Lunch halt taken in exposed conditions.

One cadet becomes withdrawn and slow to respond.

What You See

- Violent shivering (reducing over time)
- Pale, cold skin
- Poor coordination
- Apathy and confusion

Leader Actions

- Shelter the group immediately
- Insulate casualty from ground
- Replace wet clothing
- Provide warm drinks if conscious
- Keep casualty horizontal
- Monitor continuously

Escalation

If shivering reduces or responsiveness drops:

- Call **999 / 112**
- Arrange evacuation

Learning Points

- Cold injury can occur above freezing
- Wind and wet conditions multiply risk
- Rest stops are high-risk periods

Scenario 3: Tick Discovery on Expedition



Situation

During a rest halt in long grass, a cadet reports a tick attached behind the knee.

Leader Actions

- Remove tick promptly using a tick tool
- Do **not** squeeze or apply substances
- Clean the area
- Record the incident
- Advise monitoring for symptoms

Follow-Up Advice

- Watch for rash, fever, fatigue
- Seek GP advice if symptoms develop

Learning Points

- Prompt removal reduces infection risk
- Aftercare advice is essential
- Incidents must be recorded

Scenario 4: Hypothermia at Rest

Situation

Extended rest stop in cold, wet weather.

One cadet becomes quiet and disengaged.

Key Risks

- Inactivity
- Wet clothing
- Wind chill

Leader Actions

- Shorten rest periods
- Encourage movement
- Use shelters
- Maintain morale and engagement

Learning Points

- Hypothermia often develops during rest
- Leaders must manage stops proactively

Scenario 5: Casualty Collapse

Move the arm closest to you out of the way.

Use your hand nearest to their head to hold their other hand and put this onto the side of their cheek to support the head and neck as you turn them.

Use your other hand to lift up the outside of their knee and use this as a lever to pull them over. Pull the knee to the floor, whilst supporting their head and neck with your other hand

Pull their bent knee upwards into a running position to stabilise their body.

Ensure that they are over enough so that their tongue flops forward and any vomit can drain out.

If you are not worried about a possible spinal injury, tilt their head back slightly to ensure the airway is properly open. If you are worried they might have a neck injury, just ensure they are rolled over enough to drain.

→ **Keep checking that they are breathing** by feeling their breath on the back of your hand.

→ Get the emergency services on the way if they haven't already been called.

→ **NB:** A pregnant lady in the third trimester should be placed on their left hand side to prevent occlusion of the inferior vena cava.



Situation

A cadet collapses suddenly on a remote section of route.

Immediate Actions

- Stop the group
- Assess: Danger, Response, Airway, Breathing
- Call **999 / 112**
- Provide first aid
- Manage group safety
- Prepare for evacuation

Learning Points

- Clear command and control is essential
- Group management is as important as casualty care

FINAL NOTES FOR EXPEDITION SUPERVISORS

This handbook is designed to **refresh knowledge and support good decisionmaking** during expedition activities. It is not intended to replace formal training, qualifications, or command guidance.

Effective Expedition Supervisorship is based on:

- Preparation
- Situational awareness
- Calm, proportionate responses
- Clear communication
- A strong commitment to safeguarding Expedition Supervisors should

always:

- Plan thoroughly
- Monitor conditions continuously
- Escalate concerns early
- Place cadet welfare and safety first

Well-led expeditions enable cadets to develop resilience, independence, and confidence while remaining safe and supported.