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9 July 2018

Dear Mr O'Brien,

Thank you for your email of 21 June in which you requested the following information:

"Based on the Freedom of Information Act 2000, I would like to request the following information:

A copy of AGAI vol 1 ch 18"

I am treating your correspondence as a request for information under the Freedom of Information Act (FOIA) 2000.

A search for the information has now been completed within the Ministry of Defence, and I can confirm that information in scope of your request is held and is attached. Some of the information is exempt from release under section 40 [Personal Information] of the FOIA. The information are email addresses and telephone numbers. Section 40 is an absolute exemption and there is, therefore, no requirement to consider the public interest in making a decision to withhold the information.

If you have any queries regarding the content of this letter, please contact this office in the first instance. Following this, if you wish to complain about the handling of your request, or the content of this response, you can request an independent internal review by contacting the Information Rights Compliance team, Ground Floor, MOD Main Building, Whitehall, SW1A 2HB (e-mail { HYPERLINK "mailto:CIO-FOI-IR@mod.uk" }). Please note that any request for an internal review should be made within 40 working days of the date of this response.

If you remain dissatisfied following an internal review, you may raise your complaint directly to the Information Commissioner under the provisions of Section 50 of the Freedom of Information Act. Please note that the Information Commissioner will not normally investigate your case until the MOD internal review process has been

completed. The Information Commissioner can be contacted at: Information Commissioner's Office, Wycliffe House, Water Lane, Wilmslow, Cheshire, SK9 5AF. Further details of the role and powers of the Information Commissioner can be found on the Commissioner's website at **{** HYPERLINK "https://ico.org.uk/" **}**.

Yours sincerely,

Disclosure and Litigation Leader

VOLUME 1
CHAPTER 18
Training Risk Management: Water Hazards

[DTrg(A)/PhysDev/05/15(PD)]

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RECORD OF AMENDMENTS

Change Number	Authority	Amendment Date	Amendment
1	SO1 PD – DTrg (A)	Aug 14	Convert in to JSP 101 format.
2	SO1 PD – DTrg (A)	Aug 14	Update policy where required.
3	SO1 PD – DTrg (A)	Aug 14	Update and insert hyperlinks.
4	SO1 PD – DTrg (A)	Aug 14	Re-word para 18.026 (this has not affected the policy on swimming).
5	SO1 PD – DTrg (A)	Aug 14	Update all JSP 375 references and hyperlinks.

PART 1 – INTRODUCTION

Introduction

18.001. Water provides an alien and challenging environment in which to develop operational capability in Army personnel through military training, which includes: tactical training, learning to exploit the battlefield environment e.g. canal/river crossings; physical training, developing strength and stamina e.g. wading, obstacle courses, swimming; Adventurous Training (AT), developing physical and mental resilience through challenging outdoor activities e.g. offshore sailing, canoeing/kayaking; and Sport, enhancing physical fitness and competitive spirit, e.g. swimming, water polo. Water features will therefore be an absolutely integral component of Army training. Water also provides an environment for personal enjoyment 'as an off duty' activity for many people.

18.002. However, water can easily kill: not only through asphyxiation (in as little as 30 mm depth when face down), but also through irritation of the lungs, by both sea and fresh water, as well as through temperature-related effects: cold shock; loss of swimming dexterity; and, even within 20 mins in UK waters, hypothermia (excessive heat loss). Drowning itself is quick and silent, although it may be preceded by distress which is more visible. A person drowning is unable to shout or call for help, or seek attention, as they cannot obtain enough air. Over 50% of the annual open-water immersion deaths in the UK occur within 3m of a safe refuge.

18.003. There are risks attached to all realistic military training, but effective safety management maintains military fighting power, as well as complying with law. The hazards of water in all activities must be recognised and adequate controls put in place to manage the balance between the risks faced and the benefits accrued, thus maintaining freedom of action to deliver practical and profitable training. Active risk management must be integrated into the planning and conduct of activities on, in or over water, balancing safe practices and the safe environment requirements of legislation with the Defence imperative. Hazards are also present in off-duty situations and must be addressed to provide a safe activity.

18.004. The Training for Land Systems (JSP 375, Part 2, Vol 1, Chap 40) and the Commander's Guide to Safety and Risk and Environmental Management provides the required guidance on generic risk management.

Aim

18.005. The aim of this instruction is to assist the Chain of Command with the Risk Management process to be followed for all activities involving the hazards of water, in order to deliver effective training with high standards of safety and environmental protection.

Format

18.006. It is not the intent of this instruction to detail the safety rules to be followed in every activity: the range of activities, with their own associated authorities, is far too wide for a single document to keep up-to-date with change and development in material and practices. Other than stating clearly the specific military rules to be followed, it aims to identify the intranet/internet links to appropriate military, national and international safety regulations, codes or advice, that are to be used by supervising officers as an aid to conducting safe activities. In all cases of referenced documents and instructions, the latest published edition at the time of reading is the authoritative source, regardless of whether it is directly referenced in this AGAI.

Scope

18.007. This instruction applies to Army Regular and Reserve/Volunteer Forces. It also provides the minimum standards for Army Cadet Forces, who are working with more vulnerable

people with less physical and mental maturity; therefore JSP 535 (Cadet Training Safety Precautions) must also be followed.

18.008. This instruction is applicable:

a. To military training, authorised Adventurous Training (AT) and organised Sport conducted by the Army, including administrative support to these activities.

(1) Military Training. Not only the more obvious types such as amphibious operations, watermanship, vehicle flotation, fording, PT lessons and bridging etc, but also combat survival, sea survival, initiative exercises, battle swimming, military parachuting, selection cadres and Special Forces.

(2) Adventurous Training. The activities recognised under the Joint Service Adventurous Training (JSAT) Scheme (JSP 419), including those obviously taking place in or on water (canoeing/kayaking, caving, offshore sailing and sub aqua diving) as well those where water may be encountered (mountaineering, gliding and free fall parachuting); also occasional activities undertaken as Challenge Pursuits (e.g. coasteering, canyoning, white water rafting).

(3) Organised Sport. Activities conducted in accordance with AGAI Vol 1 Ch 5 (Sport).

b. Participants in any authorised activity as a duty of care which is or can be considered to be, an organised Service body, 'on duty' and operating under either a nominated or a *de facto* leader.

c. Whenever Service, welfare or unit-owned equipment is used, whether the participants are on or 'off duty'.

18.009. This instruction does not cover:

a. The movement of Service personnel in Royal Navy, Royal Fleet Auxiliary or chartered ships and in Service or chartered aircraft or helicopters, where the responsibility for the safety of passengers and crew rests with the Captain of the ship or aircraft.

b. Military parachuting, where the responsibility for control of parachutists until landed and for the selection of dropping zones rests with the Royal Air Force. Where an Army unit is made responsible for the safety organisation of a dropping zone, which includes a water hazard, then the responsibility for military parachuting remains with that Army unit, who must then comply with this AGAI.

c. The normal operations and training carried out in Royal Logistic Corps (RLC) vessels and craft. The regulations governing these operations are available on the APMP MOSS Site. However, when ships or craft are used for other purposes such as, for example, a simulated sea-borne assault or in an AT role, these instructions will apply.

d. The conduct of military diving, which is overseen by the Diving Standards Organisation at FLEET Diving HQ (FDHQ) within the Defence Safety and Environment Agency (DSEA) (see the MOD Diving Safety Website) or boat operations in support of military diving, for which the rules are given in:

(1) BR 2806 - UK Military Diving Manual - Vol 1 - 4

(2) BR 67 - The Admiralty Manual of Seamanship

Further advice can be obtained from the Diving Standards Officer (Army), [redacted]{ HYPERLINK "mailto:DSEA-DMR-DST-DSOA@mod.uk" \h [redacted]; tel military - [redacted] or civilian - [redacted].

e. Participation in sport or leisure pursuits arranged privately or by a civilian organisation, not using Service equipment or facilities.

Other Relevant MOD Instructions

18.010. MOD Management of Ship Safety & Environmental Protection. JSP 430 sets out the policy and procedures for ship and equipment safety, and defines key responsibilities, requirements and principles. It is published by the Defence Safety Environmental Authority (Maritime) (DSEA (M)) and endorsed by the Maritime Stakeholders' Safety and Environmental Committee (MSSEC), on which the Capability Director Combat Service Support (CD CSS) is the senior Army member.

18.011. MOD Boat Manual (JSP 848). JSP 848 sets out the MOD policy for matters relating to the justification, procurement, support, repair, allocation, re-allocation and disposal of all MOD owned boats. The JSP also defines the safety regime, documentation and certification arrangements. A MOD boat is defined as any vessel typically under 24m included on the MOD Boat register, along with various small craft owned and operated by MOD units, that are not permanently manned (including canoes, inflatable and Personal Water Craft).

Editorial Responsibility

18.012. Responsibility for publishing this instruction, compiled from information provided by Subject Matter Experts, lies with SO1 PD DTrg (A).

18.013 – 18.014. Reserved.

PART 2 – ENVIRONMENT, HAZARDS & SAFETY PRINCIPLES

Environment

18.015. This instruction has been drafted primarily in the context of weather and water conditions encountered in the United Kingdom and North West Europe. In overseas theatres when tides, temperature, salinity, etc are markedly different from those found in UK waters, this instruction may be amended by the appropriate Headquarters to take account of these different conditions.

18.016. Categories of Water. Before any training on water takes place, the water intended for use must first be assessed. Whilst AT and Sport activities use their own specific categorisation, the following categories are to be applied to all waters intended for military training, whether in UK or abroad, irrespective of any or no categorisation applied by other countries:

a. **Open Water.** Open water is any expanse of water that has uncontrolled physical characteristics i.e. extent, temperature, depth, current etc. It may be the sea, a lake, river, canal or other area, as opposed to a swimming pool.

b. **Wadable Water**. Water that is no deeper than waist height of the smallest person involved and flowing no faster than a slow walking pace i.e. 1m/sec may be used for personnel to cross water obstacles on foot without losing contact with the bed of the water. See also para 18.065.

c. The UK Maritime and Coastguard Agency (MCA) categorises coastal and non-coastal waters not regarded as 'sea' according to the following 4 definitions in para 3 of the Merchant Shipping Notice (MSN) 1827M dated Apr 11. Whilst legally limited in application, these definitions are to be used to assist risk management:

(1) Category A. Narrow rivers and canals where the depth of the water is generally less than 1.5m.

(2) Category B. Wider rivers and canals where the depth of the water is generally 1.5m or more and where the significant wave height could not be expected to exceed 0.6m at any time.

(3) Category C. Tidal rivers and estuaries and large, deep lakes and lochs where the significant wave height could not be expected to exceed 1.2m at any time.

(4) Category D. Tidal rivers and estuaries where the significant wave height could not be expected to exceed 2.0m at any time.

d. The Army has further developed MCA Area of Operation Category 6, given in para 3.2.1 of the Marine Guidance Note (MGN) 280 ('to sea, within 3 miles from a nominated departure point and never more than 3 miles from land, in favourable weather and daylight'), to define.

(1) **Inshore Waters.** Waters no more than 3 miles offshore from a nominated departure point, in which vessels must be in VHF radio contact with a qualified controller.

e. DES Ships have created a further category covering all other waters, which are not relevant to this Instruction:

(1) **Deep Sea.** All waters 3 miles or more offshore. This category subsumes MCA Area Categories 1-5. The MCA categories 1-4 are listed at para 18.016, sub para c above.

Hazards

18.017. Drowning. The dangers that may cause drowning include: being trapped under water; repeated submersion in stopper waves or sea swell; rising water levels, both sudden e.g. freak waves, flash floods and dam releases, and slow e.g. rising tide; unintended falling into water; and being swept away by tides or water flow.

18.018. Hard Objects. The dangers from hard objects around water include: falling rocks from cliffs; jumping, diving or falling onto submerged objects, both natural and artificial; jumping, diving or falling from height into water without the correct body position; being swept by the water against something solid; and being hit by a vessel, particularly by its propellers.

18.019. Immersion in Cold Water. The temperature of the sea around the coast of UK and Northern Europe is seldom much higher than 15ºC.

a. Cold Shock. The sudden shock of immersion in cold water potentially presents a serious hazard. Entry into water that is below 15°C results in an initial involuntary gasp, followed by uncontrollable hyperventilation in which breathing rate can increase up to four fold. The common result is inhalation of water, which can rapidly cause drowning, particularly in choppy water where it may be difficult to keep the airways above water. An effective lifejacket is required to be worn in order support the airways clear of the water. Holding the breath for more than a few seconds can prove very difficult, if not impossible. This makes escape from entrapment within or under a vehicle or vessel extremely unlikely, unless provided with a device to support underwater breathing during escape, such as the re-breather bag fitted to lifejackets for amphibious vehicles.

b. Swimming Failure/Fatigue. Those who survive the first couple of minutes of cold immersion, even if strong swimmers may become incapable of swimming for more than a few minutes. Due to local cooling of the limbs, muscles will stiffen, causing the swimming stroke to become weak and awkward; the desire to keep the face out of cold water causes the legs to sink, the swimming position more vertical with increased drag. This is inefficient and leads to rapid exhaustion. Eventually they fail to keep their airways clear of the water, and drown, sometimes just a few metres from safety. Effective lifejackets are required to be worn to support the airways clear of the water.

c. Prolonged Immersion. Water removes heat from the body much more quickly than air does, so anyone immersed in water below 30° C for longer than 20 minutes is at risk of becoming hypothermic. The colder the water, and the leaner the individual, the greater their risk of cooling quickly. Immersion protective garments retain insulated air against the body and greatly slow cooling, often staving off hypothermia for 24 hours or more, but may put the body into a less favourable position to make drowning more likely. Those who survive long enough to suffer body cooling, normally drown once the cold has reduced their ability to keep their airways clear of the water, unless they are wearing an effective lifejacket with a splash screen to keep water off the face.

18.020. Exposure. Even in moderate temperatures, wind chill when wet presents a serious danger to personnel, both in and out of the water, exacerbated when tired. The risks include Non-Freezing Cold Injury, Freezing Cold Injury and Hypothermia. Consult JSP 539 - Climatic Injuries in the Armed Forces - Prevention and Treatment Chapter 3 for guidance, particularly Appendix 1 to Annex A, the Cold Injury Risk Assessment Aide Memoire. The other hazard of excessive environmental exposure, in the form of sunburn, must not be ignored.

18.021. Disease & Poisons. Immersion in infected fresh water can lead to human disease, consisting of mild, serious or even fatal symptoms. Medical advice should always be sought if such symptoms arise. Poisonous fauna (e.g. jellyfish, sea urchins & anemones) and occasional

flora exist in various waters; local advice should always be sought. It is imperative that a comprehensive Risk Assessment is conducted prior to entering any flood waters.

The Ability to Swim

18.022. It is the responsibility of all commanders to identify the swimming competency of ranks under their Command prior to any activity in, near or on water.

18.023. Although the ability to swim does not guarantee survival from unexpected immersion in water, it certainly improves one's chances. On the other hand, swimmers' ability is often over-estimated, both by individuals themselves and by others, which is itself a danger. There are many circumstances which even the strongest swimmer could not survive. However, the ability to swim can still be a vital life-skill and every opportunity should be taken to teach Army personnel to swim, both in Initial Training and in unit training programmes.

18.024. A Non-Swimmer is someone who has not demonstrated the swimming ability required in the appropriate swimming test described in paras 18.028 and 18.029 below.

18.025. Other than when crossing Wadable Water (see para 18.016b and 18.076), extremely careful consideration must be made by commanders whether it is essential for Non-Swimmers to be placed in or on water. Where this is deemed essential for duty reasons, extra precautions must be put in place.

18.026. All Service personnel participating in any water-based activities (less AT and CP) must have passed the Military Swimming Test (MST) which is to be recorded on JPA. For AT and CP activities, the MST is still applicable, but the Joint Service Adventurous Training Swim Test (JSATST) is an eligible alternative; those personnel that have already passed the MST, and have it recorded on JPA, are not required to conduct the JSATST. Personnel that have not passed the MST or JSATST are to be made known to commanders at all levels (DDH, OCs, Pl Comds, Pl Sgts, etc) and water-based activity instructors as non-swimmers. Service personnel defined as non-swimmers are restricted to land-based activities only. With regards to AT, Sport and CP water-based activities, no risk is to be carried.

18.027. Regardless of para 18.025, non-swimmers are not permitted to participate in the following activities:

a. Any Joint Service Adventurous Training (JSAT) activity, Sport or CP activity where water is involved.

b. Unsupervised swimming or paddling.

c. Canoeing/kayaking, except under close supervision in a swimming pool.

Swimming Tests

18.028. Military Swim Test (MST). The MST is to be passed once during the career of every officer and soldier, although amputees must be re-assessed post-injury before being declared competent to swim. The MST result is to be recorded on JPA and, by PT staff, on the Fitness Information Software System (FISS)/Operational Deployment Record (ODR). Ideally the MST will have been passed during Ph 1 or Ph 2 initial training; otherwise units are to train their non-swimmers with support from Formation PD Branches. The test is to be conducted in a swimming pool and all elements of the test are completed in one session, each part following on immediately from the other. The test as detailed at Annex D to AGAI Vol 1 Ch 7 Physical Training comprises:

a. Wearing a swimming costume.

b. Complete a standing jump from the poolside into water deeper than the individual is tall.

c. On surfacing, tread water vertically for 2 minutes.

d. Swim 100m, any stroke in a horizontal body position, without time limit. At no time is the swimmer to touch the sides or the bottom of the pool.

e. When ordered to do so, leave the pool by climbing unaided over the end or sides without using steps.

18.029. Joint Service AT Swimming Test (JSATST). The JSATST as detailed in JSP 419 is the minimum requirement for participation in any water-based AT and CP activities (see Part 4). The test is conducted under the supervision of unit PT staff. It need only be passed once, however activity leaders and instructors may require participants to re-take the test in order to confirm competence. Results are recorded in each individual's AT Log Book. Where specific activity Service or National Governing Body (NGB) authorities require a more stringent test, such tests will take precedence over, and negate the requirement for the JSATST. The JSATST comprises:

a. Deep water entry wearing light clothing.

b. 50m swim wearing light clothing within 4 minutes.

18.030. Combat Military Swimming Test (CMST). The CMST is not mandatory. It is available to confirm that personnel are capable of being self-reliant (once they have passed the MST) when having to cross still water obstacles out of their depth. Participants wear combat clothing, less boots and helmet, which are included in a flotation pack with other personal carriage equipment. The test comprises:

a. Demonstrate the ability to create a flotation pack.

b. Enter the water by any safe method and swim 50m with the flotation pack.

c. Tread water without the flotation pack for 2 minutes.

d. Swim a further 50m without any flotation pack.

As well as using the flotation pack, on open water personnel are to wear the Riverine Buoyancy Aid (RBA) (see para 18.033c).

Principles of Water Safety

18.031. Safe System of Training. The Safe System of Training (SST) as detailed in (JSP 375, Part 2, Vol 1, Chap 40) consists of four separate elements (Safe Persons, Safe Equipment, Safe Place and Safe Practice) where the hazards have been assessed and the consequent controls have been integrated at the highest level into formal procedures in order to reduce the risks to As Low As Reasonably Practicable (ALARP) within the constraints imposed by the training imperative determined by the operational requirement. A risk is ALARP when the cost of any further risk reduction is grossly disproportionate to the benefit obtained from that risk reduction.

18.032. Safe Persons. Safe Persons are those who have received appropriate information, instruction, training and supervision and are deemed Competent to carry out specific tasks by virtue of qualifications, currency, experience and maturity. It is essential that commanders provide an appropriate level of supervision, and those conducting and undertaking the training take the necessary time and pay sufficient attention to detail in order to eliminate mistakes. The following Competent personnel are required (subject to the activity):

a. **Water Safety Officer (WSO).** For military training (less PT wading), and some Sport activities, but not necessarily for AT, a WSO must be appointed to supervise the Safety Organisation. Safety officers are not to carry out any additional duties concurrently. For military training the Safety Officer must be a SNCO or above and qualified as a Watermanship Safety Officer (WSO) (Basic) for Category A & B Waters and WSO (Advanced) for Category C, D, 6 and Inshore Waters. The duties of a WSO include:

(1) To be briefed on the form and scope of the proposed training.

(2) Carry out a reconnaissance and a complete full site (JSP 375, Part 2, Vol 1, Chap 8) and activity (JSP 375, Part 2, Vol 1, Chap 40) specific Risk Assessment of the training area to establish the extent of any hazards and the controls necessary to reduce the risks to ALARP. In addition to the Met Office for weather and the Hydrographical Office (Easy Tide) for tidal information, local authorities should be consulted for tidal, depth, current, weirs or hazards to navigation and weather condition information.

(3) To advise the Commander on.

(a) The Risk Assessment and the control measures.

(b) The safety organisation required.

(c) The equipment required.

(d) The requirement for, and the contents of, safety orders, if none currently exist for the training being carried out.

(e) The need for briefing troops taking part and for practising safety and survival drills.

(4) To establish the availability of resources that may be required, e.g. lifeboats or Search and Rescue helicopters, and how to obtain assistance.

(5) To command the Safety Organisation, if necessary from the Safety Boat.

(6) To take charge at all times.

(7) To control the VHF safety radio net.

(8) To be responsible to the commander of the training for the safety of personnel and equipment by ensuring that the Safety Orders are obeyed.

b. **Instructors**. As required by number of students/trainees.

c. **Safety Boat Helmsman and Crew.** The manning of the Safety Boat is to be determined by the WSO but is never to be less than 2 people.

(1) Military Training. For military training the helmsman must be an NCO and RYA-qualified Safety Boat Operator and the crewman a Basic Boat Operator. One of the crew is to be first aid trained with a particular knowledge of resuscitation.

(2) AT or Sport. Crew qualifications for safety boats used for AT or other activities should follow NGB regulations and advice. Normally this would be the RYA Safety Boat Operator or an equivalent qualification.

d. Military Craft. Only military craft are to be employed as safety boats. Helmsmen must be qualified to helm the craft and hold the relevant NGB safety boat certificate.

e. Lifeguards. The standard lifeguard qualification is the Royal Life Saving Society (RLSS) National Pool Lifeguard Qualification (NPLQ). Competent lifeguards are required to be current (in-date) and have completed the mandated monthly ongoing competency training with a registered Trainer/Assessor. Open water sites may require lifeguards to be qualified to specific standards, e.g. beach lifeguards. 'On duty' lifeguards are not to swim and may only enter the water in order to assist personnel who are in difficulty.

f. Participants/Students. Non-swimmers (see para 18.024), classified as those who have not passed the appropriate swimming test, will not be allowed to undertake any water based activities. Where permitted to participate, non-swimmers must be readily identifiable, known to all participants and wearing an appropriate life jacket (see para 18.033c). Immunisation (Tetanus, Hepatitis A in UK; Hepatitis B, Polio, Typhoid or Dysentery abroad) may be required to safeguard participants from disease.

18.033. Safe Equipment. Equipment used must be appropriate to the task and must not be used beyond its design capabilities. It must be in good condition and maintained to the required standards. Only Competent persons can be allowed to operate and service the equipment. Complete training and maintenance records must be kept. The following Safety Equipment may be required:

a. **Safety Boat.** A dedicated Safety Boat, which will be reliable, properly maintained, powerful enough to deal with local water and weather conditions, and large enough to accommodate both its crew and personnel rescued from the largest craft under supervision. (Unless water conditions deteriorate significantly and unexpectedly, it is unlikely that all craft will capsize or get into difficulty at the same time). It must be equipped with appropriate and effective communications (see para 18.034d). As a guide, a scale of one safety boat for every six craft on the water is recommended. See Annex A for further details.

b. **Safety Boat Equipment.** As required for military training (Annex A) or by NGB.

c. **Personal Water Safety Equipment (WSE).** 2012DIN04-133 (Water Safety Equipment Management – The Selection of Life Jackets & Buoyancy Aids) details the MOD-approved WSE that must be used for operational, recreational or training activities by MOD Service and civilian personnel, except where otherwise exempted (para 18.052). This DIN also details the performance characteristics of each available WSE and provides guidance on the selection and use of WSE, specifying the activities for which it is suitable or not suitable. The RNLI website provides additional information on selection, fitment, maintenance and storage of life jackets and buoyancy aids.

(1) Life Jackets (LJ). LJ are intended to self-right and support conscious or unconscious persons with their airway clear of the water; they are therefore suitable for swimmers and non-swimmers alike. The LJ's buoyancy (measured in Newtons (N)) indicates the amount of clothing and equipment that can be safely worn. Inflation of the LJ is either manually or automatically activated.

(2) Buoyancy Aids (BA). BA are only suitable for competent swimmers in sheltered waters or in situations where help is always close at hand. The BA will provide support to a conscious person who can help themselves. It will not right a facedown unconscious wearer onto their back or support their airway clear of the water.

d. **Immersion Suits.** Keeping the skin warm under a protective layer of trapped air, inside an immersion suit, is an excellent way to reduce the risks of cold shock, swimming failure, and hypothermia. All those engaged in activities on or by water who are at significant

risk of entering the water should normally be protected by effective wet or dry immersion suits if the water temperature is below 15° C, unless there are good reasons for them not to be worn. For water temperatures between 15° and 20° C, the risk assessment should consider the thermal penalties (e.g. over-heating) of protective garments against their potential benefits.

e. **Personal Protective Clothing.** As required e.g. to prevent hypothermia (activity and spare clothing) or impact injury (helmets).

18.034. Safe Practice. Practices are to be conducted in accordance with drills and instructions laid down by Service or other authorities. Safe practices include following correct procedures, the presence of adequate training and supervision, the provision of warnings, and the use of Personal Protective Equipment (PPE) and special clothing. It is essential that all training be monitored to ensure that procedures are strictly adhered to. Safe practices will include:

a. **Safety Organisation.** The requirements of the Safety Organisation will depend on the scope of the training and on local conditions. Two key elements are the WSO (para 18.032a) and Safety Boat (para 18.033a).

b. **Safety Orders.** Wherever there are significant hazards due to activities in, on or close to water, the SST must be clearly addressed by the CoC in Safety Orders to ensure all concerned in organising, supervising and taking part in training and activities. Safety Orders are to reflect information given in this AGAI and take into account site specific conditions. Safety orders based on a full Risk Assessment may be in the form of:

(1) Standing Orders for a type of training activity.

(2) Standing Orders for a particular location, such as a river-crossing site, water sports or sailing club.

(3) Specific written orders for a particular Exercise or AT expedition.

(4) A written safety brief given verbally to participants (normally delivered on site).

(5) The Training Objectives of a Service-recognised course of instruction.

c. **Contents of Safety Orders.** The contents of Safety Orders will vary according to activity and location but, as a minimum, should include:

(1) Reference documents.

(2) Limitations imposed by ground/water hazards, weather, equipment, qualifications and Standing Orders.

(3) Composition of the safety organisation, personnel, numbers, qualifications and equipment.

(4) Details of planned pre-training.

(5) List of safety drills and immediate actions required in an emergency (including contact details for the emergency services).

(6) Location of up-to-date Risk Assessment and who conducted it.

(7) Details of safety briefings to be delivered prior to or during training.

(8) Communications plan.

d. **Communications.** A safety radio net is mandatory during all military training on water whether by day or night. Marine band VHF radios must be used when operating on Category C, D, 6, Inshore Waters and Deep Sea (para 18.016), as dictated by MCA regulations, for direct communications with the Coastguard and other emergency services. Operators of Marine Band VHF radios are to be trained and licensed under current Radio Communications Agency (Ofcom) Regulations. Mobile telephone communications are not to be relied upon.

e. **Safety Briefings and Drills.** All personnel involved must be practised in all eventualities, routine and emergency. They are to be given a full and comprehensive brief on the day's activities and tasks prior to departing. The brief is to include, but not necessarily limited to:

(1) The area and duration of the task.

(2) WSE. The correct selection, fitting and use of WSE or other personal safety equipment (e.g. breathing devices, lights etc).

(3) Wearing Equipment. The method of wearing other equipment under life jackets/preservers/buoyancy aids and the method of securing larger items of equipment such as bergans, radios and platoon weapons.

(4) Non-Swimmers. The physical identification of non-swimmers by visible markings and the briefing of all concerned as to who they are.

(5) Evacuation/Abandonment Drills. These will be different for each type of craft or vessel.

(6) Man Overboard Drills. Action to be taken by a safety boat to recover a man overboard.

(7) Communications and Signals. The communications plan, both routine and emergency. Signals (e.g. light and sound) to be used in an emergency to contact both Service and civilian agencies.

(8) Fire Precautions and Fire Fighting.

(9) Whole Body Vibration (WBV). The possible effects of, and the requirement to report either at the time or within 24 hrs of the incident, any possible ill effects that may be attributed to WBV iaw JSP 375, Part 2, Vol 1, Chap 26 and 2013DIN06-031 - Boat Operating Parameters to reduce Whole Body Vibration.

(10) Other Drills. Towing, being towed, grounding, collision and damage repair.

f. **Night Training.** For night training and conditions of reduced visibility, a more elaborate safety organisation and plan will be required. Apart from the provision of searchlights for safety boats, there will be a need for lights to mark limits and hazards and it may be necessary to position vehicles downstream of hazards so that their headlights can be shone over the water in the event of an accident. Boats and vehicles are to carry a distinctive light for use as a distress signal in emergency; the light must be powered by a self-contained electric source as provided by the Technical Authority. Troops are to be briefed on the meaning of light signals and that, where there is a possibility of safety being compromised during the course of an exercise, the requirements of safety (such as the use

of lights, noise, boat engines etc) will over-ride the need for tactical considerations. For military training, night viewing aids are to be made available to the WSO.

g. **The 'Rules of the Road'.** The International Regulations for the Prevention of Collisions at Sea (IRPCS) are the 'Highway Code' for the water and are to be understood and complied with by all those on the water. They enhance safe navigation by prescribing the conduct of vessels underway, specify the display of internationally-understood lights and sound signals and set out collision avoidance actions in close quarter situations. Merchant Shipping Notice (MSN) 1781 (M + F) implements IRPCS in UK waters. Summaries of some of the rules are contained in the Military Engineering Volume II, Pamphlet No 7C - Watermanship together with details of how they may alter in a combat zone.

18.035. Safe Place. A safe place is one in which the controls necessary to enable authorised training to be conducted safely have been identified by a site-specific risk assessment and are directed through appropriate standing and safety orders.

Risk Assessment Factors

18.036. Leaders of activities on, in or over water are to ensure that a Risk Assessment (see para 18.004) is undertaken by a competent person, covering those risks that are reasonably foreseeable, and that identified controls are implemented. This includes assessing and planning for contingencies arising from foreseeable changes in weather, water conditions and other factors. Factors to be considered on every occasion that an activity takes place include the site-specific hazards and the hazards associated with the route to and from the venue, ashore and afloat where the activity is taking place. The Risk Assessment must identify what skills, knowledge and competencies are needed for leaders/operators at each venue, but they will probably include knowledge, skills or experience of the boat, characteristics of water (i.e. waves, tides, currents, depth and temperature of water and river flows) and other site specific hazards when launching and recovering if required. In accordance with JSP 375, Part 2, Vol 1, Chap 40, authorising officers are to satisfy themselves that leaders/operators have the necessary blend of qualifications, experience, maturity, currency, instruction techniques, communication skills and life-saving/rescue/emergency techniques for the activity. Appropriate first aid equipment and emergency equipment are to be identified and provided. Up-to-date information on weather and water conditions is to be obtained before starting any activity. Authorising officers are to satisfy themselves that those personnel being led on such activities have the necessary knowledge, training and experience for the level and nature of the activity.

Swimming Site Management

18.037. The management of MOD operated swimming pools is detailed at Annex C.

18.038. Any 'open water' (see para 18.016a) swimming site must also be managed appropriately in accordance with this AGAI, JSP 419 (for JSATST) and UK Health and Safety legislation, wherever located in the world. There may also be local laws to be complied with. Lifeguards may be required to be trained to different standards e.g. as a Beach Lifeguard.

18.039 – 18.040. Reserved.

PART 3 – MILITARY TRAINING

Safety Organisation

18.041. A qualified WSO (see para 18.032a) is to be on site for all training on, in or over water, with the sole exception of wading in safe Wadable Water (see para 18.016b). The WSO must be able to communicate with the safety organisation and exercise commander when not co-located with them is to be given authority to suspend all training immediately by the use of a prearranged signal should it be considered necessary for any reason and must be continuously re-assessing the risks, particularly environmental.

18.042. A safety radio net is mandatory for all training in, on or over water by day or night. Exceptions may only be made when training is tightly controlled in a confined area where no other water users are present. This fact must be noted in the Risk Assessment for that training. Other than for training on Category A and B waters, (see para 18.016) marine band VHF radio is to be used by operators who are qualified, e.g. RYA VHF Short Range Certificate, and licensed. Mobile phones are not to be used for this purpose.

18.043. The WSO should assess whether sentries, with suitable communications are required to be posted up and down stream when training takes place on water used by civil craft.

18.044. Safety orders are to be published for each training area, exercise or course where training on, in or over water takes place. All instructors and students are to receive a verbal safety brief from the Safety Officer prior to the start of training.

Physical Hazards

18.045. Where possible, physical hazards such as weirs, are to be excluded from exercises. Where this is not possible:

a. Such hazards are to be clearly marked, particularly at night and in conditions of poor visibility.

b. The Safety Officer is to cover the following points when briefing participants on any hazard.

(1) The location of the hazard(s).

(2) How the hazard is marked or can be recognised.

(3) The danger posed by the hazard.

(4) Actions to be taken to avoid the hazard.

(5) Emergency procedures should an incident occur involving the hazard.

c. Consideration is to be given to positioning a specific safety boat at the hazard.

18.046. Watermanship training usually involves the crossing of water obstacles; where training involves the passage along a stretch of water, additional precautions are necessary:

a. Careful reconnaissance is to be made of the stretch of water to be navigated.

b. The Water Authority is to be consulted over hazards.

c. Exercise instructions are to contain details of the hazards to be met, and the actions to be taken to avoid or negotiate them.

d. When transiting Category C & D waters (see para 18.016) all military craft are to produce a written and current passage plan. This is to be submitted to the higher formation, tasking organisation or operational command as appropriate.

Individual Safety

18.047. All individuals taking part in or supervising training on, in or over water are to wear the appropriate type of WSE (para 18.033c), except on the occasions described in para 18.052. If it is essential for other equipment to be worn, then that must not impede the safe operation of that WSE; the selection of WSE must take that equipment into account. Heavy equipment such as bergans, man-pack radios and platoon weapons are to be carried such that they may be easily dropped/divested.

18.048. All personnel are to be briefed on safety and where necessary are to have practised man overboard recovery, capsize and abandonment drills on land prior to their activity.

18.049. A roll call of participants is to be taken before and after training, and after any emergency situation in order to ensure that all personnel are accounted for.

18.050. All personnel are to know any pre-arranged emergency signals and what action to take when an emergency is declared.

18.051. **Marine Safety Helmet.** The Marine Safety Helmet (MSH) is designed for cranium protection and is to be worn during launching, recovery (by davit or crane) of and transiting in small craft operations. Specialist communications headsets, if required, must be provided by the operator. Armed Boat Personnel Ear Defenders (NSN 6515 99 126 3570) are to be worn in addition to any communications fitted to the helmet. The requirement to wear MSH can be relaxed if a specific risk assessment has been carried out or at the discretion of the craft's Coxswain, if:

a. The craft is in a waiting station during boarding operations (motionless).

b. The craft is motionless.

c. At a dive site conducting diving operations.

Personal Water Survival Equipment (WSE) Exemptions

18.052. Exemptions (para 18.033c) to the wearing of WSE are:

a. When being transported on RN, RLC or commercial craft where instructions have been given that WSE need not be worn.

b. In AFVs or other vehicles where the wearing of WSE could hinder emergency evacuation of the vehicle, i.e, crossing Close Support Bridges. The specialised Vehicle Crew Life Jacket (VCLJ) (see para 18.033c) is available for persons transiting water inside vehicles.

c. Divers wearing Underwater Swim Suits whilst working on a dive site.

d. During an authorised PT lesson when wading through water (see para 18.016b).

18.053. **Authorisation to Use WSE.** Details of the authorisation required to use WSE are at Annex B.

Watermanship & Seamanship Training

18.054. Definitions. Watermanship, Seamanship and Navigation are the combination of skills involved in handling any form of craft, equipment, raft or ferry that transports its crew and load dry-shod[1] over water.

a. Watermanship is the combination of skills involved in operating any form of boat, raft, improvised equipment or ferry in a safe and effective manner. Training objectives are based on BR 67 - The Admiralty Manual of Seamanship and practical training normally takes place on inland waters such as rivers, canals and lakes.

b. Seamanship is the practical skill or art of handling a ship or a boat.

c. Navigation is the act or art of directing ships, of determining position by astrological and mathematical methods and of setting courses and speeds to be followed on a voyage.

18.055. Watermanship and Seamanship Qualifications. See Military Engineering Volume II, Pamphlet No 7C - Watermanship Chapter 8 or the Army Department Maritime Instructions (ADMI) via the APMP MOSS Site.

18.056. Training and Testing.

a. Testing in watermanship and the use of watermanship equipment, including the use of outboard motors, may only be carried out by qualified instructors.

b. Watermanship or Maritime qualification courses will normally be conducted within the RSME or 73 Trg Sqn (25 Regt RLC). Units wishing to conduct Safety Boat Operator courses are to contact 36 Trg Sqn, 1 RSME (see Annex B) for further details.

18.057. Equipment. Watermanship equipment is held by RE training establishments, units and Logistic Commodities and Services, Logistic Services (LCS LS) depots; it is intended primarily for operations and the training of RE units. It may only be issued to units with, and used by, qualified instructors and operators.

Vehicles Trafficking Close Support Bridges over Wet Gaps

18.058. Due to the inherent danger of AFVs slewing off RE Close Support Bridges the following precautions should be taken when training over wet gaps:

a. Crews should practice on surface laid bridges or bridges over dry gaps before continuing onto wet gaps.

b. All bridges are to be clearly defile marked.

c. An individual (usually RE) is positioned at the far end of the bridge in full view of the AFV crew. This individual is there to signal to the driver to halt the vehicle prior to it falling off the bridge sideways or in the event of an incident that could result in injury or damage. The vehicle commander should then dismount and guide the AFV to safety.

d. AFV crew members are not to wear auto-inflate life jackets, as these could trap them within a submerged vehicle, or any form of life jacket that would impede their evacuation from the vehicle. The Vehicle Crew Life Jacket (VCLJ) is a manually-activated inflatable life jacket specifically designed to be worn by vehicle crews.

[1] Without wetting.

e. Windows should be wound down and where possible all hatches and doors should be locked open.

f. Consideration should be given to dismounting passengers to cross on

foot. **Vehicles Fording or Swimming Wet Gaps**

18.059. UK military vehicles are only capable of shallow fording wet gaps 1.0 - 1.5m deep, depending on the vehicle.

18.060. The basic principles for fording or swimming any military vehicle are:

a. The river flow is to be ascertained by the Safety Officer to ensure that it does not exceed vehicle limitations.

b. A vehicle recovery plan is to be prepared.

c. A pollution control plan is to be prepared.

d. Each vehicle is to ford with a commander in addition to the driver.

e. All vehicle crew hatches are to be open and doors unlocked.

f. Crews are not to be strapped in or to wear WSE that would impede their escape from the vehicle.

g. All personnel are to be briefed to avoid revolving tracks and wheels should they have to enter the water in the event of an emergency evacuation.

Royal Engineers Working over Water

18.061. Bridging training and demolition exercises over wet gaps will present a hazard to those working over the gap. The following precautions are to be taken:

a. A qualified WSO is to be appointed.

b. WSE and/or safety harnesses are to be worn. The WSO's Risk Assessment should take account of working heights and depth of water.

c. The WSO determines the requirement for, the size, manning and positioning of the safety boat(s), dependent on the hazards and the numbers at risk.

Amphibious Operations Training

18.062. Amphibious operations training covers a wide spectrum of activity, from a full-scale seaborne assault down to e.g. the infiltration of a patrol from the sea. The scale and scope of safety arrangements will naturally depend on the scale of the training. A safety boat is not required when only RCL, LCVP, CSB and Mexeflote are used, but one is to be provided if small craft, e.g. Gemini, assault boats or canoes, are used. The safety boat crew is to be qualified in handling the boat at sea. Strict attention must be given to tidal, surf, wave and weather conditions.

Training for Joint/Combined Operations

18.063. Due to the nature of their role, some Army units are required to train and qualify alongside other Services in preparation for Joint or Combined Operations. Under such circumstances, COs are to satisfy themselves that the following criteria has been met:

a. Training. When participating in training organised by another Service, that the relevant risks have been identified and a suitable safety organisation is in place to mitigate them in accordance with the safety regulations of that Service.

b. Qualification. When soldiers are required to gain seamanship qualifications usually awarded by other Services, it should be done so after completing a recognised course at the relevant training establishment. All details of the course and qualifications gained must be entered on the individuals JPA Competency Record.

Dismounted Cross Country Movement

18.064. Cross-country movement is an integral part of several forms of dismounted training such as physical/endurance training, escape and evasion, initiative tests etc. Water obstacles may be encountered and the keenness of those under training may expose them to danger unnecessarily. Therefore such training must be conducted in compliance with these safety directions, furthermore only Wadable Water (para 18.016b) may be crossed by personnel without WSE and without a WSO being present. The planning and conduct of all other water crossings, swimming or using rafts or boats must involve a WSO and a safety organisation.

18.065. The following controls should be used to determine safe Wadable Water to cross:

a. Water speed less than walking pace (<1m/s).

b. Water depth less than waist height (<1m).

c. Far shore/bank visible.

d. No in-water obstacles, including reeds that would restrict movement.

e. High sided banks, which are difficult to exit/egress, must be avoided.

f. No risk of seasonal or flash flooding.

g. Be aware of local waterborne diseases.

18.066. The following may be used to further reduce risks in Wadable Water:

a. Rehearsed crossing drill.

b. Always pair up, use buddy-buddy system to react to emergencies.

c. Troops are not overloaded with equipment, ammunition, bergans, etc. All loads are to be carried high on the back over one shoulder on the downward current side thus allowing easy release of the equipment if individuals experience difficulty.

d. Use of stick for balance or to judge water depth.

e. Weak swimmers identified and closely monitored.

f. Head count, particularly at night, of all troops entering/exiting the water.

g. Wear helmets if there is a risk of tripping or falling on rocks.

h. Access to warm dry clothing to prevent hypothermia.

18.067. Where the swimming of a river or other water obstacle is a required part of an exercise then the safety precautions for Combat Military Swimming (CMS) (see paras 18.072-18.075) are to be applied and swimming is only to take place at controlled sites.

18.068. All activity on the Defence Training Estate must take place in accordance with Training Area Standing Orders.

Riverine Operations

18.069. The conduct of Army Riverine operations by dismounted troops, which includes the use of boats to transit rivers and tactical river crossing procedures, is detailed in Chap 8 of the DCombat publication; Infantry Tactical Doctrine Vol 1 Pam 5 Infantry Company Group Jungle Tactics. Safety procedures, including the specific responsibilities of the Exercise Director and WSO, are described in Chap 10, Sect 3 of the same publication. In addition, the Riverine Buoyancy Aid (RBA) (see para 18.033c), as a minimum, is to be used by all exercising troops.

18.070. The RM Standing Instructions for Water Obstacle Crossing (SIWOC) – Individual and Group Patrol Drills lay down the safety rules that are to be applied and the instructions that are to be followed by those responsible for the organisation and supervision of non-operational water obstacle crossing training by all Regular and Reserve members of the RM or Other Services attached or permanently serving with the RM. It is commended for further reading in preparation for water crossings.

18.071. Non-Swimmers (see para 18.024) are permitted to participate in river crossing training, provided:

a. They are easily identifiable to all personnel.

b. Only one weak or Non-Swimmer is permitted into the water at any one time, under visual control of the WSO.

c. The soldier must be closely supervised and assisted by competent swimmers at all times.

d. If out of his depth, the soldier is to wear fully inflated WSE.

Combat Military Swimming

18.072. The aim of Combat Military Swimming (CMS) is to enable troops, with weapons, ammunition and equipment, to cross water obstacles when other methods are not available, or their use is inappropriate for tactical reasons. The preparation of improvised flotation aids using the swimmer's military equipment or either items (e.g. empty jerry cans or logs) is a good test of initiative. However, reliance on such a flotation aid is not endorsed and all CMS, including the CMST (para 18.030), in open water must be conducted with swimmers wearing a RBA (see para 18.033c).

18.073. Training must be thorough and progressive and conducted by qualified instructors. No-one is permitted to take part in swimming practices beyond their proven ability; all participants are to have passed the MST (see para 18.028) as a minimum.

18.074. CMS may be conducted in a swimming pool by a qualified in-date PTI, assisted by qualified lifeguards (see Annex C). In open water, a full Safety Organisation under the command and control of a WSO is required. This training is to be planned and executed by a WSO. The Risk Assessment is to include:

a. Safe Persons:

(1) Stage of training reached.

(2) Numbers of trainees.

(3) Equipment, personal and platoon weapons being carried.

(4) Aids being used.

(5) The fitness and fatigue level of the troops involved.

(6) Appropriately qualified lifeguards present.

b. Safe Place - the water and its environs:

(1) Depth.

(2) Distance from bank to bank.

(3) Rate of flow less than 1 m/s.

(4) Surface and sub-surface obstructions.

(5) Access to and egress from the water.

(6) Extra precautions for night, poor visibility.

(7) Precautions imposed by theatre or Training Area standing instructions.

(8) Weather and when the air temperature is at 5^{o} C or less, extra precautions are to be taken to prevent the onset of hypothermia.

c. Safety Practice:

(1) Non-Swimmers identified and excluded. Weak swimmers identified for particular supervision.

(2) A safety organisation commensurate with the risk is to be in place and briefed prior to any personnel entering the water.

(3) All personnel taking part in the training are to receive a safety brief.

18.075. Limitations. The following limitations are imposed on Safety Officers planning CMS:

a. Safety Boats. A safety boat crewed and equipped in accordance with para 18.033 must be provided when swimmers will be further than 25m from firm ground that can be easily reached by a life guard.

b. Safety Rope. Safety ropes must be used across flowing water when no safety boat is present. Throw lines and safety ropes may also be used to augment safety boats although care should be taken to correctly position both rescue aids in relation to the current. Safety Officers may consider using safety ropes as an aid to crossing or to improve confidence in troops undertaking CMS training.

c. Maximum Current. CMS is not to take place if the flow of water exceeds 1m/s. (Safety officers should also note that swimming across or against currents in excess of 0.5m/s can only be sustained for short periods.

d. Communications. The safety officer must have a reliable means of communications on site that will allow him to summon aid and evacuate casualties immediately.

e. Safety Staff. Qualified lifesavers are to be on site and dressed ready to enter the water throughout the training. The numbers required and their location will be determined by the safety officer's Risk Assessment. All safety staff should be conversant with approved resuscitation techniques.

Physical Training, including Swimming

18.076. Wadable Water. Wadable Water (see para 18.016b) i.e. which is less than 1 metre in depth or shallower than waist height of the smallest person in the group, whichever is less, and flowing at less than 1 m/s, may be used in planned and authorised PT lessons without a WSO being present. The activity is subject to:

a. A thorough written site-specific Risk Assessment, which records the depth of the water, speed, hazards up/down stream, any external influences that may affect the height or speed of the water and other river users. The Risk Assessment must be conducted prior to the start of any activity by the qualified PTI. The Risk Assessment must be authorised by the officer in charge of the exercise as detailed in.

b. If during the activity the group encounters a water depth in excess of that previously recorded in the Risk Assessment, the group must immediately retrace its steps to the point of entry and exit the obstacle.

c. Authorised PT involving water obstacles may only be conducted by day.

d. The PTI must have successfully completed the Water Safety Module during their PTI training and have practical experience of the water obstacle to be used.

18.077. Swimming. Normal swimming may be conducted as military training, both teaching the ability to swim to MST (see para 18.028) standards and as a physical training activity. Such swimming must take place only in safe waters, whether a swimming pool or open water.

a. Under Health and Safety legislation, swimming pool operators, whether Service or civilian, are responsible for determining Safe Practice in and around the pool in accordance with Managing Health and Safety in Swimming Pools (HSG 179) published by the Health and Safety Executive (HSE). There is no Service dispensation.

b. Unless under formal instruction, or wearing an approved WSE (see para 18.033c), Non-Swimmers (see para 18.022 - 18.027) are to remain in their depth.

c. When using WSE, feet-first entry into water must be carefully supervised. If a life jacket is inflated, entry into water from above 4.5m is not permitted.

d. Qualified lifeguards holding an appropriate, in-date, award of at least the RLSS NPLQ are to be present in numbers to satisfy the ratios required in Annex C. Lifeguards 'on duty' are not to swim and may only enter the water in order to assist personnel who are in difficulty.

e. Personnel who are Medically Limited Deployable (MLD) or Medically Non-Deployable (MND) are not to participate in swimming without prior medical approval.

f. Medical Precautions. Personnel with infections of the ear, nose, throat or eyes and those who are off-colour with minor illnesses (colds, diarrhoea, etc) should not swim.

18.078. Open Water Swimming (OWS). OWS may be conducted as a military, sporting or recreational activity. This paragraph covers all OWS organised by Army personnel, unless specifically conducted under NGB rules and regulations as sport. Clear, justified aims are to be established whenever open water swimming is planned as military training. All OWS must be controlled on behalf of the commander by a WSO, who is conversant with all OWS safety aspects, supported by a full safety organisation. Safety guidance is at Annex D.

18.079 – 18.080. Reserved.

PART 4 – ADVENTUROUS TRAINING, SPORT AND RECREATIONAL ACTIVITIES

Introduction

18.081. Many outdoor activity disciplines may be conducted as Adventurous Training (AT), Sport or recreation (2014DIN01-099), dependent on circumstances, and are therefore grouped together by activity in this Part. Whilst distinct in Army regulations, there are few differences in the requirement to maintain the safety of personnel. In all cases the experience and skill of personnel will be a significant factor to be considered in the Risk Assessment.

18.082. AT is an 'on duty' activity that consists of participation in specific challenging outdoor activities, deliberately incorporating controlled exposure to risk under the regulations in JSP 419 and AGAI Vol 1 Ch 11. There are other outdoor activities (Challenge Pursuits (CP)) that involve elements of risk, thrill and adventure; some of these can, when correctly authorised in accordance with AGAI Vol 1 Ch 11, be conducted as part of an AT Exercise and therefore be 'on duty'. The Safety Officer responsibilities will invariably be vested in the qualified Leader or Instructor responsible for the supervision of the activity in accordance with JSP 419 and JSP 375, Part 2, Vol 1, Chap 40. Even if activities are led and organised by civilian companies or personnel; COs, as the Delivery Duty Holder, are not absolved of responsibility to ensure the safety of their personnel. The CoC are reminded that those Service personnel defined as non-swimmers either through the MST or JSATST are restricted to land-based AT and CP activities only and are not to conduct or be involved in any waterborne activities. There is to be no risk carried during the conduct of AT or CP waterborne activities.

18.083. Sport is generally an activity with a competitive intent. Dependent on sport and circumstances, it may be conducted either on or 'off duty', as described in AGAI Vol 1 Ch 5. Those authorising and organising sport are responsible for ensuring that it is conducted safely; in principle this will be in line with NGB rules, regulations or guidelines. However, in some instances it maybe appropriate to enforce a higher standard above and beyond that of a NGB in order to further reduce. Sports Association and Union contact details are maintained by the Army Sport Control Board (ASCB).

18.084. Recreation activities that are conducted principally for welfare purposes and can involve families and Dependents, but may also be authorised Rest and Recuperation (R&R) or Decompression, regardless of how funded, remains the responsibility of commanders and organisers.

Safety Principle

18.085. All activities are to be conducted, at the very least, in accordance with the safety direction, and other rules and regulations, of the appropriate NGB. The Internet and NGB websites are to be consulted regularly for up-to-date detail. The Safe System of Training (para 18.031) is to be applied at all times. Commanders and other responsible military personnel are to complete a Risk Assessment for all activity as a routine.

Specific Activities

18.086. General. The following paragraphs provide some specific direction on the conduct of activities, but do not limit the Risk Assessment to these areas.

18.087. Air Activities.

a. Gliding. Flights over the sea outside the gliding range from land are prohibited.

b. Hang-Gliding, Paragliding and Parascending. A pilot flying over water must wear a Civilian Air Authority (CAA) approved buoyancy aid; back-mounted air-bags or foam/air

protectors that could act as flotation devices must be disarmed or removed before overwater manoeuvres. Pilots should be trained and practised in how to perform a water landing. Any glider or other equipment that has come into contact with salt water must be thoroughly rinsed in fresh water: all maillons & karabiners must be removed and unscrewed for thorough washing, as corrosion generally occurs in the threaded area. If flight over water is deliberate, a safety boat should be deployed.

c. **Parachuting.** All non-operational free-fall parachuting is to be conducted in accordance with the British Parachute Association (BPA) Operations Manual. Suitable buoyancy aids are to be worn by parachutists when flying over the sea and open water (excluding minor rivers and small ponds) when the Parachute Landing Area (PLA) exists within 1200m of the water hazards listed above. No-one is to complete a water jump without first undergoing training in the correct techniques. Such jumps may only be made when:

(1) There is a minimum of one safety power boat to each parachutist in the air.

(2) The weather is suitable, and the wind is within normal limits.

(3) All parachutists are equipped with a suitable buoyancy aid and have been briefed on its use.

(4) Drop Zone control is organised by an Advanced Instructor who is present during the entire programme.

(5) All water jump procedures have been thoroughly briefed in accordance with the BPA Operations Manual and the procedures for abnormal landings into water are to be revised.

18.088. Angling. See para 18.089 for direction on the use of boats. In addition, organisers of angling are to ensure that safe procedures are put in place for all aspects of angling.

18.089. Boating. Boating is the use of rowing or low-powered craft for gentle recreation use, including angling, whether that is conducted as Sport or not. For Powerboating see para 18.095d and Annex K.

a. Units with rowing or powered craft for the use of Service personnel are to publish standing/safety orders controlling their use in order to establish Safe Practice in accordance with para 18.033. These are to include at a minimum:

(1) Limits to the geographic area in which the boats may be used.

(2) Minimum and maximum number of people required/allowed in each boat.

(3) Occasions when lifejackets or personal buoyancy aids are to be worn. All lifejackets/buoyancy aids worn are to be specifically designed/approved for the activity and must carry a CE (Conformité Européenne) mark of approval.

(4) Emergency drills for fire, collision, grounding, capsize and man overboard.

(5) The requirement that personnel are appropriately insured when ‘off duty’.

(6) Outboard Motors (OBMs), if used are to have the correct propeller guards fitted.

b. No one is to be allowed to operate a powered boat unless they hold a RYA Powerboat qualification or an equivalent recognised qualification.

c. **Safety Equipment.** The following safety equipment is to be carried as a minimum:

(1) An anchor with attached warp of at least 3 times for chain and 5 to 6 times for rope, of the depth of water at high water.

(2) Powered boats are to carry either a second OBM or a pair of oars or paddles.

(3) All boats are to carry a bailer, even if fitted with self-bailers.

(4) All boats used in Category C, D, 6 and Inshore waters, and Deep Sea, (see para 18.016) are to carry:

(a) At least 2 rocket parachute red flares, 2 orange smoke signals and 3 hand-held red flares.

(b) At night and in restricted visibility, lights as dictated by the International Regulations for the Prevention of Collisions at Sea (IRPCS) – MSN 1781 (M + F) Rule 20.

(c) The carriage of a hand-held VHF radio on all boats used on inshore, coastal or tidal waters is recommended. The radio operator must hold a VHF operator's certificate.

d. **Capsizing.** In the event of a boat capsizing, the crew is to stay with the boat rather than attempt to swim ashore (except on calm, inland waters where a swim to the shore is obviously safe and achievable).

18.090. Canoeing and Kayaking. Canoeing and kayaking 'on duty' are conducted either as AT (para 18.082) or as Sport (para 18.083) governed by the Army Canoe Union (ACU) who can be contacted via the Army Sport Control Board (ASCB). It may be conducted in open canoes, inland kayaks, sea kayaks, surf kayaks and any other vessel propelled primarily by single or double bladed paddle, as opposed to an oar. The safety instructions at Annex E apply to:

a All canoeing in the Services, unit and canoeing club craft whether provided by public or non-public funds.

b Canoeing in private craft whether a charter fee is being paid or not.

18.091. Caving. Caving 'on duty' is conducted either as AT (para 18.082) or under the auspices of the Combined Services Caving Association (CSCA). The safety instructions at Annex F apply.

18.092. Kite Surfing. Kite Surfing is an Army Sport (para 18.083), which is governed by the Army Sailing Association (ASA). The ASA is a member of the British Kite Surfing Association (BKSA) and has adopted the BKSA certification scheme for all training and testing of instructors in accordance with national standards. All Army units or clubs wishing to issue a civilian qualification certificate from the BKSA or International Kite Boarding Organisation (IKO) are to be registered with the ASA. The basic principles behind operating a safe kite surfing regime are to follow the fundamental rules on buoyancy aids and lifejackets, conduct local Risk Assessments and issuing appropriate safety orders, the correct instruction and testing of kite surfers by qualified instructors and the placing of restrictions on less qualified personnel. The ASA will conduct inspections in conjunction with the BKSA and IKO, of equipment and facilities of units and clubs at regular intervals both in the UK and overseas. The safety instructions at Annex G apply to all Army kite surfing on equipment purchased by Public, unit or welfare funds.

18.093. Mountaineering. Whilst hill-walking, trekking or mountaineering, it may be necessary to conduct either planned or unplanned river crossings. The British Mountaineering Council provides guidance on the skills required.

18.094. Rowing. Rowing is an Army Sport (para 18.083) governed by the Army Rowing Clubs Association (ARCA). The NGB for all forms of rowing, including river, coastal, surf and ocean is British Rowing. Its guidance, 'Row Safe: A Guide to Safe Practice in Rowing'; details, in displayable leaflets, the responsibilities, minimum standards and further good practice for both clubs, coaches, competition organisers water safety advisers and participants, and is to be followed by all Army rowing units and personnel. Specific highlights for 'Fine' or inland rowing are included at Annex H. Those undertaking coastal, surf or ocean rowing must assess the application of different standards in accordance with British Rowing Coastal and Open Water Rowing guidance.

18.095. Sailing. As detailed below, sailing activities can be conducted 'on duty' either as AT (para 18.082) or as Army Sport (para 18.083) governed by the Army Sailing Association (ASA). For the purpose of organisation, the ASA is classified as a "Region" within the Royal Yachting Association (RYA) and has adopted the RYA certification scheme for the training and testing of instructors and helmsmen in accordance with national standards. All Army units or clubs holding sailing boats are to be registered with the ASA and are to conform with their instructions. The basic principles behind operating a safe sailing regime are; following the fundamental rules on buoyancy aids and lifejackets, conducting local risk assessments and issuing appropriate safety orders, correct instruction and testing of helmsmen, crew and windsurfers by qualified instructors and the placing of restrictions on less qualified personnel. The ASA will conduct inspections, on behalf of the RYA, of boats, boards, equipment, facilities and training standards of units and clubs at regular intervals. RYA qualifications are specific to discipline.

a. **Dinghy Sailing.** All Army dinghy sail training centres that have RYA recognition as Recognised Teaching Centres (RTCs) come within the ASA Region and are under the control of the ASA/RYA Regional Coach and the ASA Rear Commodore Dinghies. The safety instructions at Annex I apply to all Army dinghy sailing boats purchased by Public, unit or welfare funds.

b. **OffShore Sailing.** Offshore sailing is the only AT activity that may be conducted competitively during certain recognised events in accordance with AT regulations (see para 18.082). Army Offshore Sailing Centres wishing to issue a civilian qualification from the RYA are to be registered with the ASA under the supervision of the ASA/RYA Qualifications Manager and the ASA Rear Commodore Offshore. The safety instructions at Annex J cover all Army Offshore Sailing in boats purchased by Public and Non public funds.

c. **Powerboating.** See also para 18.089 for low-powered boats and Annex A for Safety Boats. Activities known as powerboat thrill rides where the riders are driven at high speed and in rough conditions are not to be undertaken at any time. General guidelines for the following powerboat, including Rigid Inflatable Boats (RIB), activities organised by Service personnel are given at Annex K:

(1) Recreational Powerboating.

(2) Powerboat coastal trips.

(3) Powerboat joyrides.

d. **Windsurfing.** All Army windsurfing centres that have RYA recognition come within the ASA Region and are under the supervision of the ASA/RYA Regional Liaison Officer and the ASA Rear Commodore Windsurfing. The safety instructions at Annex L apply to all Army dinghy sailing in boats purchased by Public and Non public funds.

18.096. Snorkelling. Snorkelling may be used as a training element within sub-aqua diving, and thus as an AT activity, or as a recreational activity in its own right. In all cases British Sub-Aqua Club (BSAC) 'Top Tips for Safe Snorkelling' are to be complied with as rules. BSAC also provide advice on safe equipment. The BSAC publication 'Snorkelling for All' provides a useful source document for equipment, training, technique, rescue skills and safety tips. Non-swimmers (para 18.024) are prohibited from snorkelling.

18.097. Sub-Aqua Diving. All authorised sub-aqua diving is an AT activity, which must be conducted in accordance with JSP 917 - Adventurous Training Vocational and Recreational Diving Manual, which follow BSAC guidelines and the Health & Safety Executive (HSE) Accepted Code of Practice (ACoP) for "Recreational Diving Projects". Those COs responsibilities for unit Sub-Aqua diving clubs, and the supervisory and management structure available to advise and assist them in carrying out their duties are detailed in 2009DIN07-021. The Army Sub-Aqua Diving Association (ASADA) provides SME advice to Army Sub-Aqua clubs and divers. For the conduct of military diving see para 18.009d.

18.098. Surfing. Surfing is an Army Sport (para 18.083) governed by the Army Surf Riders Union. The putative NGB (from Jan 11) is Surfing GB. Guidance on surfing equipment, skills and safety can be found at { HYPERLINK "http://surfinghandbook.com" \h }, but the safety instructions at Annex M apply to all Army surfing. For kayak surfing see para 18.090 and Annex E; Wakesurfing (surfing on the wake of a power boat) is not to take place.

18.099. Swimming. See also para 18.077. Swimming, including diving and water polo, as an Army Sport (para 18.083) is governed by the Army Swimming Union (ASU). The NGB is British Swimming, incorporating the Amateur Swimming Association (ASA).

a. **Open Water Swimming.** See para 18.078 and the safety guidance at Annex D. British Swimming has produced guidance on Open Water Event Management.

b. **Diving.**

(1) Care is to be taken to ensure that diving only takes place when there is a sufficient depth of water. The depths of water and side/overhead clearances must comply with recommendations stated on pages 54-55 of Appendix 8 to the extant HSE Managing Health and Safety in Swimming Pools (HSG 179). No diving is to take place in depths of less than 1.5 m with the exception of competitive racing starts, providing that the swimmer has achieved the standard of the ASA Competitive Start Award.

(2) When diving boards are used, the diving area must be sectioned off from the swimming area and swimmers excluded from the diving zone. Diving boards in use must be subject to direct supervision to ensure that they are used correctly and safely, and that swimmers and divers do not endanger each other.

(3) Water depths are to be clearly marked on pool-sides.

(4) A lifeguard qualified to RLSS NPLQ is to be present for all diving. An approved spinal board is to be immediately available, with sufficient trained staff available to affect a safe spinal rescue.

c. **Water Polo.** The rules for water polo are to be followed.

18.100. Water Skiing and Wakeboarding. Water skiing and wakeboarding are Army Sports (para 18.083), governed by Army Water Skiing and Wakeboarding. The safety instructions at Annex N apply to all Army water skiing and wakeboarding activities.

a. The NGB is the British Water Ski and Wakeboard Federation (BWSF) and are responsible for water skiing (one or two skis), slalom skiing, trick skiing, jumping, wakeboarding, wakeskating, kneeboarding, barefooting and water ski racing.

b. Although having no responsibility for towing inflatable equipment (e.g. designs such as 'Ringos', tubes, 'Biscuits', Sausages', 'Bananas' and other trade names), BWSF has produced a set of safety recommendations for these activities.

c. Wakesurfing (surfing on the wake of a power boat) is not to take place.

18.101. Windsurfing. See para 18.095e.

Challenge Pursuit Activities

18.102. JSP 419 (Section 1, Para 8) permits challenging outdoor training (CP)) that may be conducted in activities such as; coasteering, canyoning, white-water rafting other than the Core AT disciplines, provided that these support operational effectiveness in the same way as AT. Such activities must contribute directly to the aims of AT and therefore enhance its benefits. Single Services may determine, authorise and sponsor these activities as they see fit within their resources, but outside JSAT Scheme funding. However, appropriate governance must be in place for all such activities. In all cases a robust RA process must be adopted to ensure that the CP activity is conducted as safely as possible in accordance with the SST (para 18.031).

18.103. Those service personnel defined as non-swimmers either through the MST or the JSATST are to be restricted to land-based AT and CP activities only and are not to conduct any waterborne activities. There is to be no risk carried during the conduct of waterborne activities (para 18.026).

18.104. By definition, such activities do not have a structure of MOD qualified supervision. Therefore they will often be conducted at civilian specialist activity centres. If led by military personnel, they must have appropriate, current civilian qualifications. Such arrangements do not absolve COs, as the Delivery Duty Holder from ensuring that the activities are undertaken responsibly and safely.

18.105. Guidance on the safety factors to be considered can be found at Annex O.

18.106 – 18.115. Reserved
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ANNEX A TO CHAPTER 18
SERVICE CRAFT SUITABLE FOR USE AS SAFETY BOATS

General

1. The MOD holds and maintains numerous small craft which are suitable for use as safety boats during military training, AT or Sport.

Service Craft

2. Both Military Engineering Volume II, Pamphlet No 7C - Watermanship Chapter 9 and the Army Department Maritime Instructions (ADMI) via the APMP MOSS Site give basic information to safety officers about craft usually available to Army units in order that they may select the craft most suitable to their activity. Information about safety boats obtained from other Service sources should be sought from that Service's Technical Authority.

Non-Service Craft

3. Non-Service craft, i.e. those provided from welfare or unit funds, may be used as safety boats provided that the following criteria are met:

a. The craft has an in date Certificate of Survey which has been conducted by a qualified marine surveyor.

b. The craft has an in date Certificate of Insurance.

c. Outboard Motors (OBMs), if used, are to have the correct propeller guards fitted.

d. The boat is equipped in accordance with direction from the NGB for the discipline in which it is employed.

e. The helmsman is qualified in accordance with para 18.032c to operate that craft as a safety boat for the planned activity.

Technical Advice

4. DES Ships CSS Head is responsible for the maintenance support and is the Platform Duty Holder for all MOD owned boats. Technical questions relating to these craft should be directed to the Commercially Supported Shipping (CSS) Boats Team based at Abbey { HYPERLINK "mailto:Wood_DESShipsCSS-Boats2-GL@mod.uk" \h } [redacted]. Private or unit owned craft are outside the responsibility of DES Ships CSS Head.

Crew Qualification

5. Details of those Army personnel (less Special Forces) qualified to helm these craft may be found in Military Engineering Volume II Pamphlet No 7C - Watermanship Chapter 8 or ADMI via the APMP MOSS Site. Small fast craft are to have a minimum manning of two personnel, with the second person having the ability to recover the boat to safety if required.

a. Service Craft during Military Training, AT or Sport. The helmsman of these craft is to hold the relevant qualification for both the type of craft and the category of water operated on. They must also hold the correct qualifications both military and NGB.

b. Non Service Craft during AT or Sport. The helmsman of Non Service craft used during these activities is to hold the NGB qualifications for both the relevant craft and for the category of water.

Engines/Outboard Motors

6. The requirement for the inspection and maintenance of Service boat engines is laid down in the relevant user handbook. Engines obtained through welfare or unit funds are to be maintained to the same standard as that laid down for Service engines of a similar nature and a record of maintenance kept.

7. Unless specifically exempt by the NGB for that particular activity, OBM are to be properly fitted with propeller guards designed for that OBM propeller. See Army Port & Maritime Policy Temporary Memorandum (APMP-TM) 001/10 dated 18 Nov 10 and the RYA Guidance on Propeller Guards.

Number of Safety Boats

8. It is unlikely that all craft or vessels will capsize or get into difficulty at the same time. The safety boat(s) are to be capable of rescuing the crew and passengers of the most heavily manned craft or vessel on the water. On occasions more than one safety boat will be required, as a guide, a scale of one safety boat for every 6 vessels or craft on the water is strongly recommended by day or night. One safety boat for every 15 M3 Rigs is acceptable on Amphibious Engineer training.

Safety Boat Equipment

9. Each safety boat must be scaled with the appropriate Safety Equipment that should include, but not necessarily be limited to:

a. An anchor and cable made fast to the boat. The cable is to be at least 3 times for chain and 5 to 6 times for rope of the maximum depth of High Water for the area of operation.

b. A boat hook.

c. A bailer (in addition to any self-bailers).

d. Powered boats are to carry a pair of oars or paddles (except Combat Support Boat (CSB)) or a secondary OBM.

e. A life ring, Perry buoy or similar type of WSE system to assist in Man Overboard recovery.

f. A First Aid kit, stretcher (held on shore if the size of boat precludes otherwise) and Emergency rescue/thermal blanket.

g. A clearly visible marker buoy, line and sinker to mark obstacles or lost equipment.

h. A radio with spare batteries. A VHF radio net is mandatory (see para 18.034d) during all military training on water whether by day or night. Reliance on mobile telephones is not recommended.

i. A sharp safety knife for clearing rigging etc.

j. A suitable tool kit and basic spares for the OBM.

k. An air horn for signalling.

l. In addition to the above, all boats used in Category C, D, 6, Inshore waters, and Deep Sea (see para 18.016) are also to carry:

(1) At least 2 rocket parachute red flares, 2 orange smoke signals and 3 hand-held red flares.

(2) At night and in restricted visibility, lights as dictated by the International Regulations for the Prevention of Collisions at Sea (IRPCS) – MSN 1781 (M + F) Rule 20.

(3) Night vision equipment and a man overboard recovery system if issued and applicable.

m. At night all safety boats are to carry a source of white light, such as a fitted searchlight or powerful hand-held spotlight and/or white illuminating flares. Night viewing aids are also recommended.

ANNEX B TO CHAPTER 18
PERSONAL WATER SAFETY EQUIPMENT (WSE) MANAGEMENT

1. The Management of MOD approved WSE is detailed in 2012DIN04-133 (Water Safety Equipment Management – the Selection of Life Jackets & Buoyancy Aids). Annex A to 2012DIN04-133 details the performance characteristics of each available WSE and provides guidance on the selection and use of WSE, specifying the activities for which it is suitable or not. However, if any person is in any doubt as to the correct selection of WSE for a particular activity, please contact the MOD Technical Authority on the contact details listed below.

2. The MOD Technical Authority for Non-Aircrew WSE used for operational, training or official recreational activities is:

Project Manager, Maritime Platform System - Maritime Spares - General Stores & Sea Survival (MPS-MS-GSS)
DE&S Ships, Ash 2C, #3214
MOD Abbey Wood
BRISTOL BS34 8JH
Tel: [redacted] or [redacted]
Email (DII): [redacted]

3. The Army Water Survival Equipment Policy Committee (AWSEPC) is the policy focus for all WSE used by the Army. It is chaired by Chief of Staff CD CSS and meets annually. Further information, including Terms of Reference and Records can be found at the APMP MOSS Site. The point of contact is the Secretary on Marchwood Mil [redacted] or civil [redacted] or { HYPERLINK "mailto:DRLC-HQ-APMPSO2@mod.uk." \h } [redacted].

4. WSE that does not have an NSN and is not in the Water Survival Equipment Log (WSEL), previously known as the Sea Survival Equipment Log (SSEL) should not be used for authorised activities except in exceptional circumstances and, even then, only after a full Risk Assessment has been carried out. For more information on WSEL/SSEL, go to the SSE Help Page on the APMP MOSS Site.

5. In order to hold and maintain WSE, a unit must meet the following requirements:

a. The unit must hold a current copy of the WSEL/SSEL, inclusive of all up to date supplementary documentation.

b. Have a Supervisor and Maintainer on strength or available to carryout the required maintenance.

c. Comply with the instructions for WSE maintenance as laid down in the Foreword of the WSEL/SSEL.

d. The WSEL/SSEL is to be inspected by the CO or nominated Safety Officer/SNCO at a minimum of 3-monthly intervals.

e. An annual HQ staff inspection of the WSE and WSEL/SSEL must be requested by the unit and carried out by a nominated inspector. Further information can be obtained from the Secretary of AWSEPC (see Para 3 above).

6. Units are to ensure that all users are fully conversant with the operation of WSE, having been briefed by qualified personnel on how to wear and operate it correctly, prior to use.

7. Information on WSE training and WSE supervisor and maintainer training courses can be obtained from:

AESD(SEG)
Daedalus Building
HMS Sultan
Military Road
GOSPORT
PO12 3BY
DII - [redacted]

Tel - [redacted]
Mil - [redacted]

RE Boat Operations
36 Training Squadron
1 RSME Regiment
CHATHAM
Kent
ME4 4UG
DII - [redacted]
DII - [redacted]

Tel - [redacted]
Mil - [redacted]

ANNEX C TO CHAPTER 18
SWIMMING POOL MANAGEMENT

1. All Army-managed swimming pools, wherever situated, are to be operated in accordance with 2013DIN06-019 which references the Health and Safety Executive publication “Managing Health and Safety in Swimming Pools” (HSG 179).

Personnel

2. Lifeguards. In addition to any instructors/teachers actually conducting training or recreational lessons, qualified lifeguards holding an appropriate in-date award of at least the RLSS NPLQ are to be present whenever bathers are on the pool side or in the water.

a. Lifeguards must be current and competent, having completed the mandatory monthly ongoing training and competency.

b. Lifeguards on duty are not to swim and may only enter the water in order to assist personnel who are in difficulty.

c. The number of lifeguards required to be on duty is dependent on the activity and numbers swimming:

(1) Military Swimming Training:

(a) Non-swimmer Training. A minimum of one lifeguard for every 12 non-swimmers.

(b) Competent Swimmers. A minimum of one lifeguard for every 20 swimmers.

(c) Mixed Ability Groups. A minimum of one lifeguard for every 12 non-swimmers plus an additional lifeguard when the total number of swimmers exceeds the Competent Swimmers group size.

(2) Recreational Swimming:

(a) A minimum of one lifeguard for every 30 bathers.

(3) Competitive Swimming:

(a) One lifeguard.

d. Lifeguards are to have immediate access to the Emergency Services. Telephones or radios must be available for this purpose and are to be regularly checked for serviceability. However, where there are instances of lifeguards operating in a pool environment alone, at any time, there must be provision for a rapid emergency button system (‘Bang Button’) in situ that will allow the lifeguard to hit the button and enter the pool to effect an immediate aquatic rescue. ‘Bang Buttons’ must sound in a location that allows an immediate response without any further verbal communication.

e. Additional personnel who are trained and are in-date First Aiders are to be immediately available to the on duty 'pool side' lifeguard. They must be contactable via a ‘Bang Button’ system if there are any instances of lone lifeguarding.

f. Lifeguards are to be on 'pool-side' duty for a maximum period of 45 minutes in any one hour and should include position rotations with other lifeguards, where applicable. They

should then have an 'off pool' break of approximately 15 minutes. During this break they may be utilised for other duties, e.g. cleanliness checks etc. In exceptional circumstances, lifeguards may be required to be on pool-side duty for up to 90 minutes; however this must not be normal practice.

g. Whereas manning levels may meet the minimum standards, swimming pool Emergency Action Plans (EAPs) must cover the management of serious incidents where more than one trained person may be required.

h. Pool managers are to be aware of the resource implications (finance, time and qualified staff) arising from mandatory lifeguard training and the impact that will have upon management plans.

i. If civilian clubs/organisations provide their own lifeguards, they are required to provide evidence of both current NPLQ qualification and monthly ongoing training and competency, which must be recorded on site.

Equipment

3. The following items of safety equipment are to be available and instantly accessible to poolside lifeguards:

a. Reaching equipment - rigid poles are ideal.

b. Throwing aids - ropes with or without flotation aids, e.g. torpedo buoys. Rings (unless lightweight neoprene foam Perry Buoys) are not to be used as they are difficult to control, are hard and heavy and may cause further injury.

c. Portable equipment - throw bags, rescue tubes and pocket masks. Portable equipment is to be carried by the pool-side lifeguard or stowed adjacent to the lifeguard position.

d. Approved spinal board.

e. Desirably: Minute man with oxygen.

4. All swimming pools are to be fitted with an emergency alarm system ('Bang Button'), which can be operated by a lone lifeguard who is required to perform a rescue. This alarm should take the form of an audible panic button which when struck sounds in an adjacent area to summon immediate additional trained assistance.

5. Where Automated External Defibrillation (AED) equipment is available, all NPLQs and additional personnel expected to administer treatment must be fully trained, competent and current is its use.

Process

6. Each swimming pool is to have Pool Safety Operating Procedures (PSOPs) written for it by the unit responsible for the facility. An assessment of hazards and associated risks must be undertaken and decisions taken as how best to manage, minimise or eradicate each potential risk before PSOPs are written.

7. The format for PSOPs is fully detailed in HSG 179 and includes two separate detailed written instructions:

a. **Normal Operating Procedures (NOPs)**. The NOPs describe how the pool is organised and operated to ensure the safety of staff and users. NOPs are to be regularly reviewed and, where necessary, revised. They are to include:

(1) Details of the pool including dimensions and a plan of the building.

(2) Identification of potential risk areas and dangerous activities which are to be forbidden.

(3) The maximum number of swimmers who may be in the water during each activity.

(4) First aid provision and training procedures.

(5) Alarm systems.

(6) Lifeguard duties.

(7) Supervision of specialist activities/equipment.

(8) System of work - communications call out procedures, work rotations, maximum duty periods etc.

(9) Staff training.

(10) Staffing levels and their duties.

b. **Emergency Action Plan (EAP)**. The EAP details the procedures to be followed by staff and users in the event of a foreseeable emergency. It is to cover any likely eventuality and is to be regularly practised, reviewed and updated where necessary, at a minimum every six months and after every incident when the EAP was required to be used. The procedures may be detailed by Aquatic or Non-Aquatic emergencies, or may be grouped differently, e.g. into the following categories:

(1) Need to Evacuate:

(a) Fire alarm/outbreak.

(b) Bomb threat.

(c) Release of toxic gases.

(2) Physical:

(a) Reduction in water clarity.

(b) Lighting/heating failure.

(c) Structural failure.

(3) Accidents:

(a) Discovery of casualty in the water.

(b) Injury to bather(s).

(c) Spinal injuries.

(d) Dry-side emergency.

8. Civilians using Service swimming pools are to be made aware of the conditions under which they are permitted access and the working practices of the particular pool. Such briefings are to be given by pool managers; civilian users are then required to sign a certificate to the effect that they have both received the briefing and understood it. One copy of the certificate is to be passed to the civilian concerned and another is to be retained within unit records.

ANNEX D TO CHAPTER 18
OPEN WATER SWIMMING SAFETY ORGANISATION

Fundamental Safety Rule

1. All individuals who undertake any Open Water Swimming (OWS) activities (para 18.078) are to have passed the MST.

Safe Persons

2. **WSO's Duties.** In addition to para 18.032a, the WSO must:

a. Be conversant with all safety aspects required for OWS training to be undertaken, with particular emphasis on the aspects of cold water immersion and the onset of hyperthermia (paras 18.019 – 18.020).

b. Carry out a reconnaissance of the swimming area to be used, with particular emphasis on identifying hazards such as current, tides, weirs or underwater obstacles.

c. Determine whether one or more safety boats are required. This will depend on the training area, climatic conditions, water hazards, the competence of the participants and the conclusions of the Risk Assessment.

d. Submit the Risk Assessment with the Commanding HQ prior to training taking place. For training authorised by the Army Swimming Union (ASU) the Risk Assessment is to be submitted to the Secretary ASU.

e. Produce and enforce safety orders in accordance with para 18.034. Ensure that all personnel are conversant and briefed (normally on site) before training commences.

f. Ensure that all participants are Safe Persons (see below).

g. Ensure that all swimmers are accounted for at all times. A record of who is in the water and who is not is to be kept. A delegated assistant, part of the Safety Organisation can undertake this duty.

h. Ensure an appropriate level of medical support. The WSO must identify the location of local Emergency Services and be familiar with the method of contacting them.

3. **Swimmers.** A competent open water swimmer should be able to train in water with a temperature of 15ºC for two hours without suffering adverse effects of cold water immersion.

a. Swimmers are to be strong and competent, having completed a suitable (as a guide, not less than 2000m) continuous indoor OWS qualification swim.

b. Swimmers should undertake acclimatisation training to minimise the adverse effects of cold water immersion. Initial novice training periods should not be longer than 20 minutes and should build up as their acclimatisation and competence increase.

c. Swimmers are to be briefed on and conversant with the requirements of the safety orders.

d. No swimmer is to swim alone. All swimmers must swim with at least one other, keeping pace with each other and prepared to act as the first point for assistance should their partner encounter difficulties.

e. All swimmers are to wear a brightly coloured easily visible silicon swimming hat, which ensures that each swimmer is visible. Swimming hats will also aide the retention of body heat.

Safe Place

4. **Water Sports Venues.** There are numerous water sport venues that are operated by civilian companies that facilitate OWS. Units wishing to conduct OWS training at such venues must appoint a WSO (para 18.032a) who is responsible to his/her CoC that the civilian organisation conforms to the SST. In addition to the duties of the WSO listed above, the following areas are to be adhered to:

a. The venue has clear and appropriate Risk Assessments.

b. All swimmers are booked in and out of the water.

c. All swimmers are monitored throughout their swim by a lookout.

d. A safety boat (para 18.033) is available to assist a swimmer in distress.

e. The water is tested for algae and other water borne diseases.

f. The water temperature is monitored and appropriate for OWS (15°C as a minimum).

5. **Sea swimming on swimming beaches.** Many beaches are manned and designated as swimming beaches. Any OWS training is to be scoped by the WSO prior to swimming taking place. Swimming as an authorised activity can take place if:

a. The beach is designated as a swimming beach and manned by lifeguards.

b. Swimming takes place inside the designated area.

c. Swimmers conduct the activity in pairs or groups (pods).

6. All other locations are required to meet all of the conditions detailed in this Annex.

Safe Equipment

7. **Safety Boat.** Where deemed necessary by the WSO, a safety boat is to be provided for OWS in accordance with para 18.033. The number of safety boats used will be determined by the experience and numbers of swimmers; as a rough guide, a scale of one safety boat for every 20 swimmers is recommended. Additional safety craft should be considered when novice open water swimmers predominate or adverse weather, temperature or sea state conditions prevail.

8. **Other Craft.** Craft such as canoes and kayaks can be used as part of the safety organisation but not in place of a safety boat. They can only be used to guide swimmers and provide additional observation to assist the WSO in supporting the safety organisation.

9. **Safety Vehicle**. A safety vehicle may or may not be required when swimmers are in the water. This will be determined by the location of the proposed swim and the conclusions of the Risk Assessment.

10. **Radios.** A safety radio net is mandatory during all military training on water whether by day or night. Marine band VHF radios must be used when operating on Cat C, D and inshore waters as dictated by MCA regulations for direct communications with the coastguard and other

Emergency Services. Operators of marine band radios are to be trained and licensed under current Radio Communications Agency regulations.

Safe Practice

11. Further guidance on the safe management and the organisation of OWS can be found at **{** HYPERLINK "http://www.swimming.org" \h **}** - Management of Open Water Swimming Events.

12. Medical Support. As a minimum a first aid kit must be available. Consideration should also be given to providing a sleeping bag or other means of keeping an injured swimmer warm.

Night OWS Training

13. Swimming at night requires a more elaborate safety organisation. In addition to day time training requirements, the following are to be adhered to:

a. The WSO must ensure that participants undertaking training at night have undertaken appropriate day time OWS training and are therefore deemed competent open water swimmers.

b. As a rough guide, a scale of one safety boat for every 8 swimmers is recommended. OWS training is feasible within Category A, B or sheltered inshore water (para 18.016) where the marked course has unobstructed observation from both the shore and safety boat. If OWS training takes place in offshore or unprotected inshore waters, or in Category C and D waters, a ratio of one safety boat per individual or pair of swimmers is advised.

c. In order to ensure that swimmers are visible at all times whilst in the water, two cylumes are to be pinned to a swimming costume (NSN: 626 00 1074 4229 – 12 hour Green) and one attached to the swimmer's hat/goggles (NSN: 626 00 1209 4434 – 8 hour Green). The safety organisation and safety boat must maintain observation on those undertaking night swimming at all times. It is recommended that additional crew members are used specifically for this purpose.

ANNEX E TO CHAPTER 18
SPECIFIC CANOEING AND KAYAKING SAFETY

Fundamental Safety Rule

1. All individuals who undertake any canoeing or kayaking activity are to have passed the MST or the JSATST.

General

2. Canoeing and kayaking 'on duty' are conducted either as AT (para 18.082) or as Sport (para 18.083) controlled by the Army Canoe Union (contactable via the ASCB). Whilst "canoeing" and "kayaking" refer directly to specific designs of craft, the generic activity is referred to within this Annex is termed "canoeing".

3. These instructions apply equally to:

   a. All canoeing in the Services, unit and canoeing club crafts whether provided by public or non-public funds.

   b. Canoeing in private craft 'on duty', whether a charter fee is being paid or not.

4. Responsibility for ensuring that craft are fit for use, instructor/student ratios are met and that training is conducted safely lies ultimately with the Leader/Instructor conducting the activity. Detailed AT policy guidance is provided in JSP 419.

Safety Equipment

5. All craft used for AT activities are to carry safety equipment as follows:

   a. **Sea Kayaks.**

      (1) Sealed bulkheads. Watertight hatch covers in place.

      (2) Deck lines. Tight and in good condition.

      (3) Toggles. Toggle loops are to be in a good state of repair.

   b. **Inland Kayaks.**

      (1) Floatation bags. Located and inflated to ensure the craft remains on the surface of the water if flooded.

      (2) Sealed bulkheads. Watertight hatch covers in place.

      (3) Grab handles. For rescue purposes. In addition, short lengths of open ended tape can be tied to the carrying handles both bow and stern for ease of reach for individuals in the water.

      (4) Buoyancy. Secure inherent buoyancy within the kayak.

      (5) Footrests. Fitted to all kayaks.

c. **Open Canoes.**

(1) Floatation bags. Located at the bow and stern and inflated to ensure the craft remains on the surface of the water if flooded. Larger bags are often required in advanced situations and higher graded water (Grade II+).

(2) Painter lines. Located at the bow and stern for towing purposes.

(3) Swim lines. Located at the bow and stern.

d. **Surf Kayaks.**

(1) Floatation bags. Located at the bow and stern to ensure the craft remains on the surface of the water if flooded.

(2) Carrying Handles. Short lengths of tape fitted to the carrying handles on the bow and stern for ease of reach of swimmers.

6. **Personal Protective Equipment (PPE)**

a. **Buoyancy Aid.** One for each person to be worn at all times in order to enhance a canoeist's buoyancy and to provide impact protection for the body. It must:

(1) Be Conformité Européenne CE marked as meeting EN393 standard with a minimum uplift buoyancy of 50N.

(2) Be correctly sized and fitted.

(3) Have a whistle attached for emergency use.

(4) Be comfortable to wear, so that body movement is not impaired.

(5) Be suitable for the particular paddle sport to be undertaken.

b. **Helmets.** Helmets are to be worn when canoeing, unless otherwise decided by a suitably qualified instructor taking account of local conditions. Helmets must:

(1) Be CE 1385 approved.

(2) Designed for the activity.

(3) Be made of strong, lightweight material, e.g. plastic or carbon fibre.

(4) Cover head, providing ample protection to the forehead, temple and back of the skull.

(5) Float.

c. **Clothing.** Recognising the wide range of disciplines embraced by canoeing and the significant range of climatic conditions under which it takes place, clothing must be appropriate to the activity and conditions. Clothing should:

(1) Offer protection from a range of weather conditions, be it warm or cool.

(2) Not inhibit body movement.

(3) Act as a source of protection.

(4) Not hinder the wearer's ability to swim safely in the water.

7. General Equipment. In addition to the safety equipment already described, the following general equipment is to be provided by the organiser/instructor to each canoeing/kayaking group for all AT and journeying activities except where annotated:

a. Distress flares (sea kayaking only).

b. Spare paddle (split paddles for sea/inland kayaking).

c. Repair equipment.

d. Tow line.

e. A form of communication (mobile or satellite phone).

f. First aid kit.

g. Group shelter (for journeying activities).

h. Water proof torch.

i. Sling and Karabiners (inland kayaking and open canoeing).

j. A sharp knife.

k. Throw lines (inland kayaking and open canoeing only).

l. Map and compass - for sea kayaking or any form of journeying (GPS, with spare batteries, is advisable but not essential).

ANNEX F TO CHAPTER 18
SPECIFIC CAVING WATER SAFETY

Fundamental Safety Rule

1. All individuals who undertake caving activities within a cave system that has an active[1] water source are to have passed the MST or the JSATST.

General

2. All caving activities are to be subjected to a Risk Assessment and, where appropriate, a site-specific Risk Assessment. The senior instructor/leader conducting the activity is ultimately responsible for ensuring that all equipment is fit for use, instructor/student ratios are met and that training is conducted safely.

Hazards

3. Deep Water. Defining deep water could easily become prescriptive; however using the Risk Assessment combined with personal knowledge of the cave, a less prescriptive and more informed decision can be made. Leaders/instructors must bear in mind that cavers have drowned in relatively shallow water (as little as knee to waist high). Deep water is used to describe a body of moving or static water that exceeds the waist height of the shortest person present. Deep water is not to be entered by any Non-Swimmer (para 18.024) and ought to be avoided by swimmers, not only because of the risk of drowning, but also because immersion will increase the risk of hypothermia.

4. Fast Flowing Water. Fast flowing water (i.e. moving at a speed faster than a slow walking pace) is a serious hazard. Crossing relatively shallow fast moving water may cause a caver to be swept off their feet and into 'deep water' or over a pitch head. Personal knowledge of a particular cave system may indicate that there is little risk. However, extreme care must be taken in an unfamiliar cave system. The risk of crossing water is mitigated by use of a traverse line, safety rope or avoiding the crossing altogether. If carrying a 'tackle sack', it is not to be attached to the caver by its hauling line. One strap is to be taken off a shoulder so that the sack can be quickly discarded if the caver finds himself or herself in difficulty in 'deep water'.

5. Free Diving Sumps. Subject to a site specific Risk Assessment, only experienced cavers are to undertake free diving sumps or restricted ducks. The leader must already be experienced in passing that specific sump. All members of the party must be swimmers and are to be suitably dressed in a wetsuit. If the water is particularly cold, the leader is also to consider the use of a wetsuit hood and goggles. Cavers should get fully immersed in the water prior to diving the sump, in order to remove any air trapped in the clothing and to accustom the caver to the cold water. Only sumps up to 5m are to be attempted by free diving.

Underground Swimming

6. Only those who have passed the MST are permitted to undertake planned swimming underground whilst caving.

7. Swimming will often be the quickest and easiest method of crossing deep water; however it is potentially the most dangerous. The majority of caving equipment is heavy and will cause cavers to sink quickly. A 3mm wetsuit provides only limited buoyancy, therefore a buoyancy aid must still be worn. If swimming is planned the leader must ensure that:

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1 A cave system that floods regularly as opposed to a dry cave system that has no active water source.

a. All personnel have passed either the MST or JSATST. Notwithstanding any documented swimming test, if there is any concern about an individual's ability to swim it is the responsibility of the leader/instructor to ensure that competency is verified.

b. Whilst swimming underground, all personnel are to wear an appropriate CE-approved (Conformité Européenne) buoyancy aid (see para 18.033c), checked by the instructor/leader before activities start.

c. All personnel are to wear wetsuits in caves where conditions are likely to involve prolonged exposure to cold and/or water (perhaps as indicated in the cave guidebook, where available).

d. All packed equipment floats. This will usually require that the equipment is loosely packed in watertight containers or sealed dry-bags.

Emergency Swimming

8. In an emergency it may be necessary to swim in 'thermal' caving clothing, without a CE-approved buoyancy aid. The leader must consider the following points:

a. If the swim is short, use a releasable safety rope attached to each person in turn so that they can be pulled to safety if they get into difficulty.

b. Use equipment such as dry-bags, water bottles or bivi bags to make improvised floatation devices. Extreme caution must be exercised, as loss of this emergency buoyancy in a critical situation may be fatal.

c. Remove boots before swimming. The weight of footwear has a detrimental effect on a person's ability to swim.

d. Remove harness and loosen clothing at waist, ankles and wrists, to allow free flow of water, which also reduces any 'snagging' with unknown objects, even though this will increase the risk of hypothermia. The action of swimming tends to cause water to collect within the layers of clothing, especially where constricted, which increases negative buoyancy and greatly restricts movement.

e. Equipment is not to be attached to the caver. It must be easily discarded if the caver gets into difficulty.

f. Cold water will rapidly cause fatigue (para 18.019) and hypothermia will be a major factor to consider prior entering the water. Consider removing relatively dry warm clothing prior to the swim and sealing inside a waterproof bag whilst in water. If fibre pile or fleece material gets saturated, it provides little or no thermal insulation; it must be wrung out to expel as much water as possible to reduce the risk of subsequent hypothermia.

9. The collection of water in sealed cuffs, ankles or boots, or around the upper body when a tight caving belt is worn increases the potential for negative buoyancy. The time lapse between entering the water to negative buoyancy is dependent on how long water takes to fully saturate the clothing. This can differ according to the movement of the individual in the water and how watertight the over suit is at neck, cuff and leg. Tests have shown how quickly negative buoyancy can occur:

Ser	Clothing and Equipment	Sink or Float?	Time to Sink	Reserve of Buoyancy	Comment
(a)	(b)	(c)	(d)	(e)	(f)
1	Fibre pile undersuit PVC oversuit belt and harness	Sink	1 min 36 sec	Nil	Movement in the water will reduce the time to sink.
2	As above, plus full Single Rope Technique (SRT) kit	Sink	1 min 05 sec	Nil	
3	Neofleece and full SRT kit	Sink	1 min 56 sec	Nil	
4	3mm wetsuit and full SRT kit	Float		<2 kg	Very little reserve
5	5mm wetsuit and full SRT kit	Float		4 kg	Very buoyant

Boats

10. The use of inflatable boats is rarely necessary and will be limited to expedition caving. A large tyre inner tube, with appropriate Risk Assessment, will normally suffice. As boats can easily be punctured and inner tubes are very unstable, buoyancy aids are to be worn by all personnel when using boats or inner tubes underground.

ANNEX G TO CHAPTER 18
SPECIFIC KITE SURFING SAFETY

Fundamental Safety Rule

1. All individuals who undertake any kite surfing activity are to have passed the MST. Kite surfers must be capable of swimming in adverse conditions whilst wearing a wetsuit and be water confident.

2. A nominated Safety Officer must supervise all activities.

Personal Safety Equipment

3. All personnel kite surfing are to wear a CE-approved Buoyancy Aid and helmet. An impact vest is not a recognised form of buoyancy and is not to be used for learning to kite surf. The impact vest is not required when undertaking any form of recognised BKSA or IKO training.

4. When racing in Service events, competitors are to wear a full length wetsuit of a thickness relevant to the time of year. Dry suits are not to be used when kite surfing.

Competitor Competencies

5. When racing in Service events, competitors are limited to the following competencies but should be aware that when competing in racing, all participants should have BKSA insurance:

a. Novice Fleet. Competitors will still be fairly new to the sport and not deemed to be fully competent. It is expected that riders will not be able to stay upwind and therefore all racing will be tailored towards across-wind or down-wind courses.

b. Intermediate Fleet. Competitors will be deemed to be independent and expected to kite upwind and to self-recover if necessary. A rider assessment may need to be conducted to confirm the competitor's competence. Courses will be tailored to upwind, across- and down-wind courses, and include basic course racing and freestyle.

c. Advanced Fleet. Competitors will be fully competent and experienced kite boarders able to deal with advanced coastal conditions. They will be able to compete in the four key race formats of course racing, freestyle, wave and speed.

Safety Procedures

6. Units and clubs undertaking kite surfing are to conduct Risk Assessments and publish a Safety and Operating Procedures manual. They are to take account of:

a. BKSA Schools Manual.

b. BKSA / IKO teaching syllabus.

c. Advice from the ASA Kite Surfing Training Manager.

7. The Safety and Operating Procedures manual is to include:

a. The major emergency response procedure.

b. The geographical limits, tidal and weather conditions in which kite surfing is permitted.

c. The maximum number of students to instructor ratios.

d. Details of distress signals used.

Safety Boat

8. The safety boat should be appropriate for the task, seaworthy and ready to go without delay when students are on the water. Safety boats are to be the most suitable and safety enhancing type for the location in question. The majority of kitesurfing school operations will have a regular small rigid inflatable in place for rescue purposes. The safety boat must carry provisions equivalent to that laid out in the RYA Guidance Notes - Appendix 13.

Procedures

9. A detailed weather forecast, specific to the activity and location is to be obtained from a suitable authority before any kite surfing commences.

10. The instructor or leader must obtain access approval from any land owner, existing club or local authority.

11. The safety equipment to be carried includes:

a. Knife with folded serrated blade.

b. Waterproof VHF radio or mobile phone.

c. In a grab bag:

(1) First aid kit.

(2) Secondary means of communication.

12. Completed medical forms and Next of Kin details for all participants are to be readily available.

13. **Insurance.** Personnel must insure themselves for kite surfing activities. BKSA membership includes insurance for UK residents and is recommended for all competitors at Service competitions. COs are to ensure that the requirements for insurance at unit level are met in accordance with AGAI Vol 3 Ch 90 paras 90.081 – 90.088.

14. **BKSA Guidelines**. The BKSA Safety Guidelines should be followed by all kite surfers.

Kite Surfing Training

15. All training is to be directly supervised by a BKSA kite surfing Senior Instructor or equivalent IKO Level 2 Senior Instructor.

16. The instructor/student ratio must never exceed 1:4 whilst on the water, independent of the presence of any non-qualified assistants.

17. There is to be a Safety Boat present, manned, suitable for the prevailing weather/water conditions and for both rescuing personnel from the water and returning equipment to a safe area. The Safety Boat helmsman must be qualified as at least a RYA Safety Boat Operator, or a recognised equivalent qualification, and have received specific training in kite rescue techniques.

Kite Surfing Racing

18. All Army competitions must have a published Safety Instruction, which is to be contained in the Notice to Race. The Safety Instruction is to explain the event safety plan and identify at a minimum:

a. Safety Officer and the Safety Officer's responsibilities.

b. Safety Organisation CoC.

c. Safety craft and crewing levels.

d. Geographical sailing boundaries.

e. Local hazard warnings.

f. Safety signals:

(1) For safety craft.

(2) For competitors.

g. Methods of contacting Emergency Services.

h. Personal buoyancy requirements.

ANNEX H TO CHAPTER 18
SPECIFIC INLAND ROWING SAFETY

1. **Fundamental Safety Rule.** All individuals who undertake any inland rowing activity are to have passed the MST.

2. The *'Row Safe'* publication from British Rowing (the governing body for the sport of rowing) provides all relevant details with regards to risk management, equipment, participants, monitoring and health in relation to all rowing activities and is to be used in accordance with this AGAI.

3. **Unit/Club Safety Adviser.** The primary responsibility for ensuring safe practice within a unit lies with the CO as the Delivery Duty Holder and within a club environment, the Club Officers and Committee. Units and clubs are to appoint a specific individual as a Unit/Club Safety Adviser to take the lead in promoting safe practice; but such an appointment does not remove the accountability for safety from the unit CO or Club Officers and Committee members. The Water Safety Adviser must not be seen as the only person responsible for safety, but rather the person who can advise the unit CO or Club Committee and work with the Captain, Officers, coaches and others to identify and respond to safety issues by adopting minimum standards and good practice. If for any reason a Club Safety Adviser is not appointed or does not adequately perform this advisory function the accountability for the provision of adequate safety advice remains with the unit CO or Club Officers and Committee.

Safe Equipment

4. Clothing must match the forecast weather conditions. The principle of having close fitting garments which allow easy movement is important, as this avoids the oar or sculls getting caught which could lead to a capsize. Bulky fleeces and quilted tops, that can absorb water and become very heavy when wet, must be avoided.

5. Wellington boots, which cannot be easily removed or kicked off without using hands, should never be worn in the boat as they present a real danger if the wearer ends up in the water.

6. Boats and equipment must be checked prior to each outing, including:

   a. Boat and blades – in good condition.

   b. Bowballs – securely fastened.

   c. Heel restraints – strong and correctly adjusted.

   d. Boat buoyancy – secure hatches, canvas and bungs, manufacturer's information plate etc.

   e. Loose or damaged parts.

   f. Steering equipment – fully working.

7. **Coaching and Safety Launches.** The British Rowing minimum standards must be followed. The suitability and limitations of any launch for affecting a rescue of rowers or boats must be assessed. It is not a reasonable assumption that 'any launch is better than none'. Clubs and launch drivers (minimum standard: RYA Level 2 Powerboat Handling Certificate or equivalent) should not assume that coaching launches are always rescue launches, and that launch drivers must be capable and confident in rescue techniques.

Safe Place

8. The following factors need to be considered:

a. Local navigation rules – boat booking board, outing times, etc.

b. Where to turn around and which direction to row.

c. When it is safe to row, when it isn't.

d. Lighting, visibility and weather conditions.

e. The location of the Row Safe guidance, notice board and local safety rules.

f. Local hazards like stream or tide, and other water users.

g. Rights of way etc.

h. Emergency contact point, telephone locations, telephone numbers and who to summon in case of an emergency.

Safe Practice

9. In the event of a capsize the golden rule is to stay with your boat, summon assistance and get your body out of the water as soon as possible. Rowers ought to know how to turn the boat over, get back in or use it as a life raft.

10. **Boat handling.** Rowers must be able to:

a. Lift and carry the boat/equipment safely.

b. Use the trestles correctly.

c. Launch, land and steer the boat correctly.

d. Stop the boat on the water safely.

e. Back down and turn a boat around correctly.

11. **Throw Lines.** Personnel must practice affecting a rescue by using a throw line to pull a person in the water to safety.

ANNEX I TO CHAPTER 18
SPECIFIC DINGHY SAILING SAFETY

Fundamental Rules

1. All individuals who undertake dinghy sailing activities are to have passed the MST.

Risk Assessments and Safety Orders

2. Units and Clubs undertaking dinghy sailing are to conduct Risk Assessments and publish a Safety and Operating Procedures manual. They are to take account of:

a. The RYA Principal's Pack.

b. The RYA Guidance Notes.

c. RYA National Sailing Scheme Logbook G4.

d. RYA Coaching Manual G101.

e. Advice from the ASA Regional Coach.

3. The Safety and Operating Procedures manual is to include:

a. The major emergency response procedure.

b. The geographic limits, tidal and weather conditions within which sailing is permitted.

c. The maximum numbers allowed in each type of boat.

d. Details of distress signals to be used, and when to be carried aboard.

e. Provisions for the testing of dinghy buoyancy that should be done annually before the boats are allowed on the water. Positive buoyancy is to conform to the rules for that class of craft.

f. Safety fleet and operating procedures.

g. Instructor/student ratios.

Procedures

4. At least one member of a sailing party is to hold an in-date first aid qualification.

5. Event organisers of collective sailing and individuals who are sailing independently are to obtain a detailed weather forecast (specific to inshore waters/sailing) from a suitable authority prior to the commencement of the sailing activity.

6. Individual sailors are always to make their intentions known to a responsible adult (preferably the boatswain, harbourmaster or duty officer) on shore before embarking on tidal waters. They are to ensure that they leave a next of kin contact number in case of emergency, estimated time of return and sailing area. Importantly they are to book in on return.

7. **Safety Boats.** In accordance with the RYA Guidance Notes, sufficient and appropriate safety boats must be available to provide separate cover for all sailing and personal watercraft activities in progress at any one time. They should be afloat and ready for immediate use during activities and be driven by trained drivers. Instructors supervising basic skills courses from a

safety boat should not normally provide safety cover for other groups. The mechanical failure of a safety boat should not compromise the safety of the overall operation.

8. For a full list of equipment to be carried on safety boats, see the powerboat section and the powerboat checklist in Appendix 13 to the RYA Guidance Notes.

Competence of Helmsmen

9. The following sub-paragraphs define the competence of the various grades of helmsmen and the restrictions to be placed upon them. They fall in line with the RYA National Sailing Scheme syllabus, which can be found in RYA National Sailing Scheme Logbook G4. Individual Clubs may vary the permitted wind strengths responding to local conditions having conducted their own Risk Assessment and published local orders.

a. Novice. A Novice helmsman is not to be in charge of a sailing boat unless under instruction or within sailing school conditions.

b. Level 1 - (RYA Level 1) Start Sailing. A Level 1 helmsman has been given a short introduction to the sport of sailing and may only take charge of a boat if the crew is Level 2 or above. All the conditions in sub-para c below shall be observed with regard to wind strength and sailing areas.

c. Level 2 - (RYA Level 2) Basic Skills. A Level 2 helmsman may sail a simple dinghy in sheltered water in wind below 18 knots (Force 4). He is permitted to take charge of a boat, but not a double-handed boat with a novice as a crew, and masthead flotation must be fitted at all times. The sailing area is to be clearly specified and confined to that from which a recall signal can easily be seen or heard. He is to be kept under constant observation while afloat. A safety boat is to be available and in communication with the observation point. He has been taught how to right a capsized dinghy and how to increase or decrease the area of sail. He is only allowed to sail in tidal waters if his certificate has the 'coastal endorsement' signed by a qualified Principal/Senior Instructor/Coach.

d. Seamanship Certificate. A helmsman holding the Seamanship Certificate may sail a dinghy in the local area providing the sailing club, harbourmaster or coastguard knows their whereabouts. He is capable of sailing in sheltered waters in winds up to 18 knots (Force 4). He is capable of heaving-to, anchoring and reefing afloat, and can right an inverted dinghy. Masthead flotation will be fitted to any ASA-affiliated club-owned boat whilst sailing away from the centre, unless a local Risk Assessment by the Principal/Chief Instructor has confirmed otherwise.

e. Start Racing Certificate. A helmsman holding the Start Racing Certificate has a sound introduction to Dinghy Racing at club level. It is assumed that every student attending the Start Racing course will have already mastered the practical skills and absorbed the background knowledge implied in the syllabus for RYA Basic Skills, sailing in sheltered areas in winds up to 18 knots (Force 4). It is not however necessary for any student to have completed a Seamanship course before starting the Start Racing course. A Start Racing helm can compete in racing in any wind speeds by authority of the Race Officer with full safety facilities available, or accompanied by a dedicated safety boat. All ASA boats, either racing or training will carry suitable masthead flotation, unless the Risk Assessment indicates otherwise. During an organised Start Racing Course, the Principal/Chief Instructor must ensure that the students carry out a controlled total inversion drill with spinnaker recovery prior to signing the certificate.

f. Day Sailing Certificates. The helmsman is to be well aware of his capabilities and the limitations of sailing craft. In sheltered water, away from the centre, he must be competent to sail in strong winds up to 25 knots (Force 6). He is to be confined to the area specified for

Level 2 helmsmen in winds above 25 knots, unless, participating in racing with the authority of the Race Officer with full safety facilities available or accompanied by a dedicated safety boat when sailing outside this area under tuition; when masthead flotation must be fitted.

g. Sailing with Spinnakers Certificate. The helmsman is to be well aware of his limitation when sailing either a Symmetric Spinnaker boat (Bosun etc) or an Asymmetric Spinnaker (Laser 2000, RS400 etc) in sheltered waters, in wind speeds up to 18 Knots (Force 4). It is not however necessary for any student to have completed a Seamanship or Day Sailing course. He may compete in racing above these wind speeds by authority of the Race Officer with full safety facilities available, or accompanied by a dedicated safety boat. All ASA boats, either racing or training will carry suitable mast head flotation. During an organised course the instructor must ensure that the students carry out a controlled total inversion drill with spinnaker recovery prior to issuing the certificate.

h. High Performance Certificate. The helmsman is to be well aware of his and the boat's limitations. This is the highest individual performance certificate available on the National Dinghy scheme and the holder should be able to make a seamanship decision how to set up the boat after taking into account the weather forecast. The High Performance helm can sail a Symmetric (Bosun etc) or Asymmetric (Laser 2000, RS400 etc) in winds up to 25 knots (Force 6) and be able to reef where appropriate, or be able to alter the rig settings and sail shape to reduce power; both on and off the water.

ANNEX J TO CHAPTER 18
SPECIFIC OFFSHORE SAILING SAFETY

Fundamental Rule

1. All individuals who undertake offshore sailing activities are to have passed the MST or the JSATST.

2. The safety of a yacht and her crew is the sole and inescapable responsibility of the skipper who must do their best to ensure that the yacht is fully sound, thoroughly seaworthy and manned by a crew with the appropriate experience, qualifications, training and physical ability to face all weathers and difficulties that might occur. They must ensure that all safety equipment is properly maintained and stowed, and that the crew know where it is kept and know how it is to be used. The qualifications required by the skipper and crew are described in JSP 419 and on the Joint Service Adventurous Sail Training Centre Website.

Safety Equipment

3. All yachts used for offshore sailing are to carry as a minimum the following safety equipment:

a. **Safety Harness.** Each crewmember shall have a harness and a safety line not more than 2 metres long with a snap hook at each end. The harness shall be fitted with a crotch strap or thigh straps. A harness and lifejacket shall be worn by a crewmember when wearing a foul-weather suit, at night, when conditions require it and when otherwise ordered.

b. **Lifejackets.** Each crew member shall have a lifejacket with a whistle, marine grade retro-reflective material, a lifejacket white light with at least 0.75 candles intensity for a duration of at least 8 hours and at least 150 N of buoyancy (see para 18.033c).

c. **Lifebuoy.** The following lifebuoys shall be provided within reach of the helmsman and ready for instant use:

(1) One lifebuoy with a self-igniting light and a drogue.

(2) One lifebuoy equipped with a drogue, a self-igniting light and a pole and flag. The pole is designed so that the flag, when attached to the lifebuoy with 3 metres of floating line will fly at least 8 feet off the water.

d. **Rescue Line.** A 30m, minimum breaking strain of 115kg, buoyant line, stowed within the helmsman's reach.

e. **Flotation Equipment.** Sailing yachts over 5.5 metres in length going into Deep Sea (para 18.016e) must carry either:

(1) An Inflatable Liferaft sufficiently large to carry everyone on board and approved by the Marine Coastguard Agency (MCA) (Marine Guidance Note (MGN) 280-2 Section 13). It is to be carried on deck or in a locker opening directly onto the deck and capable of being deployed and occupied within 15 seconds. It is to be serviced annually.

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(2) An Inflatable Dinghy sufficiently large to carry everyone on board. If built with 2 compartments, at least one to be always kept inflated; if built with only one compartment it must always be kept fully inflated. In sheltered waters it may be towed, otherwise it is to be carried on deck with oars and rowlocks secured to the dinghy. If

the vessel has enough permanent buoyancy to float when swamped with 115 kg added weight, a dinghy with 2 compartments may be stowed.

General Equipment

4. In addition to the safety equipment already described, the following general equipment is to be provided:

a. Two anchors, each with warp or chain of appropriate length. Where a warp is used, at least 5.5 metres (3 fathoms) of chain is to be used between anchor and warp.

b. Two bilge pumps (one of which must be operable from the cockpit).

c. Efficient compass and a spare compass.

d. In date Charts and Almanac covering intended area of operation.

e. In date pyrotechnic signals shall be provided as detailed below:

	<20 miles daylight & favourable weather	<20 miles	≥ 20 miles & < 60 miles	≥ 60 miles & < 150 miles	Unrestricted
Para Flare	0	4	4	6	12
Red Hand Flare	2	6	6	6	6
Smoke	2	2	2	2	2

f. Tow rope of adequate length.

g. First-aid kit including anti-seasickness tablets and suitable and up to date first aid manual.

h. Radio receiver (for weather forecasts).

i. Flashlights shall be provided including:

(1) A high-intensity self contained heavy-duty handlamp, watertight, with spare batteries and bulbs.

(2) A high-intensity heavy-duty handlamp powered by the ship's batteries, instantly available for use on deck and in the cockpit, with spare bulbs.

(3) A watertight flashlight with spare batteries and bulb.

j. A Radar Reflector that conforms with MGN 349 (Carriage and Use of Radar Reflectors on Small Vessels).

k. Engine tool kit.

l. Two buckets each with at least 9 litres capacity and lanyards of stout construction.

m. Radio VHF Marine Band with a minimum power of 25 watts and including channel 16.

n. An automatic position fixing device, e.g. GPS.

o. A foghorn.

p. Echo sounder or lead line.

q. Distance measuring instrument (log).

r. A strong, sharp knife sheathed, attached by a lanyard and readily accessible in the cockpit or on deck

Fire Fighting Equipment

5. The following fire fighting equipment is to be provided:

a. 1 x fire blanket in the galley.

b. For all vessels with cooking facilities or engine, a minimum of two fire extinguishers with a minimum fire rating of 5A/34B.

c. For vessels over 15 metres in length, additional fire extinguishers with a minimum fire rating of 13A/113B.

6. Dry powder fire extinguishers are preferable, but Carbon Dioxide (CO2), foam or Halon (BCF) extinguishers of equal extinguishing capacity are permitted.

Identification

7. The name, number or generally recognised sail number is to be painted prominently on the vessel or dodgers in letters or figures at least 22cm high.

ANNEX K TO CHAPTER 18
SPECIFIC RECREATIONAL POWERBOATING SAFETY

Fundamental Rule

1. All individuals who undertake any powerboating activity are to have passed the MST.

General

2. Specific advice on the feasibility of activities and appropriate instructor/operator qualifications may be obtained from the Army Sailing Association (ASA) Regional Coach (RC).

Specific Hazards

3. **Whole Body Vibration Injuries.** Where people are travelling at high speed in rough water there is the possibility of Whole Body Vibration and back injuries. The helm of the boat should keep the ride as smooth as possible keeping the boat in contact with the water at all times, especially in rough weather and communicate when powering up, down and changing course. Crew and passengers must:

a. Have forward facing seats.

b. Have suitable hand holds inside the boat.

c. Have both feet on the floor facing forwards.

d. Sit on a soft surface.

Safe Persons

4. **Group Leader/Instructor Competence.**

a. The following minimum RYA qualifications are required when powerboating with passengers in current and forecasted conditions:

(1) Calm conditions and smooth water - RYA Powerboat Level 2 with VHF radio certificate.

(2) Rough conditions, waves - RYA Advanced Helm.

b. Group leaders/operators are to hold an in-date First Aid qualification covering CPR and EAR or ensure such a trained and current individual is in the group. First Aid qualifications must have contained an assessment of the skills required to deal with the hazards associated with the activity.

5. **Group Size.** All personnel on board must have a seat and be able to secure themselves with both feet on the floor facing forwards.

Safe Equipment

6. **Personal Equipment and Clothing.** Personnel are to wear a 150N Life Jacket (para 18.033c) and a safety helmet (Gecco or similar). Warm, windproof and waterproof clothing may be required. Goggles may be useful.

7. **Powerboat.** The boat must be assessed as suitable for the conditions and area of operation and every person must have a suitable seating position with hand holds, forwards facing feet on the floor.

8. **Boat Equipment.** Powerboats must be equipped with, as a minimum:

a. Kill-cord and spare.

b. Enough fuel plus 20% for the expected passage.

c. Anchor and warp.

d. VHF radio.

e. Alternative means of propulsion.

f. Flares.

g. First aid kit.

h. Thermal blanket or similar.

i. Small tool kit.

j. Sharp serrated knife, which can be locked open.

k. Spare warps and lines.

l. Spare 150N life jackets.

m. Charts of the area.

n. A steering compass in coastal venues.

Safe Practice

9. The following powerboat operating procedures must be adhered to:

a. A suitable kill-cord is to be worn by the helm at all times the engine is running.

b. The engine must not start whilst in gear.

c. The kill cord must be operational and stop the engine when disconnected.

10. **Man Overboard.** In the event of someone falling overboard, the RYA Man Overboard recovery method is to be followed. The engine must be turned off when the Man Overboard is in contact with the boat.

Safe Place

11. **Venue Selection.** It is critical to ensure that the venue selected is suitable for the capabilities of the boat and operator.

ANNEX L TO CHAPTER 18
SPECIFIC WINDSURFING SAFETY

Safe Persons

1. Fundamental Safety Rule. All individuals who undertake any windsurfing activity are to have passed the MST. Windsurfers must be capable of swimming in adverse conditions whilst wearing a wetsuit and be water confident.

2. A nominated Safety Officer must supervise all activities.

3. Qualified RYA windsurfing instructors, who may also act as the Safety Officer, must undertake all instruction.

4. The instructor/student ratio must never exceed 1:6 whilst on the water. If an additional Assistant Instructor is available, the ratio can increase to 2:12, if under the direct supervision of an on-site Windsurfing Senior Instructor.

5. Instructors teaching windsurfing under the aegis of an ASA/RYA recognised teaching establishment are to hold their own instructor indemnity insurance. A suitable policy is available from the RYA. All instructors teaching at an Army Windsurfing establishment must be insured against liability whilst teaching.

6. Windsurfing Certificate and Instructor qualifications are classified ‘open sea’ or ‘inland’: ‘open sea’ refers to coastal, tidal and inland waters: ‘inland’ refers to inland, non-tidal waters only.

7. The safety boat helmsman must hold a minimum qualification of RYA Safety Boat Operator or a recognised equivalent qualification.

Safe Equipment

8. Personal Safety. Buoyancy aids must be specifically designed/approved for windsurfing and must be CE-approved. They are to be worn by every windsurfer who has not reached RYA Intermediate Level proficiency. Buoyancy aids are optional for those at Intermediate Non-Planning Level, or higher, except when dictated by local rules or the Safety Officer. Wetsuits must be made available when conditions dictate. Dry suits are not recommended.

9. Safety Boats. In accordance with the RYA Guidance Notes, sufficient and appropriate safety boats must be available to provide separate cover for all sailing and personal watercraft activities in progress at any one time. They should be afloat and ready for immediate use during activities and be driven by trained drivers. Instructors supervising basic skills courses from a safety boat should not normally provide safety cover for other groups. The mechanical failure of a safety boat should not compromise the safety of the overall operation.

10. Safety Equipment. For a full list of equipment to be carried on safety boats, see the powerboat section and the powerboat checklist in Appendix 13 to the RYA Guidance Notes.

Safe Practice

11. Good seamanship practice is to be observed at all times.

12. Unit or Club Safety and Operating Procedures are to be published.

13. Notification of Sailing Plans. Prior to launching, windsurfers are to make their sailing plans known to the Safety Officer. Windsurfers are to only sail in company or whilst being supervised.

14. Insurance. Personnel must insure themselves for windsurfing activities. RYA Windsurfing membership includes 3rd Party liability insurance. COs are to ensure that the requirements for insurance at unit level are met in accordance with AGAI Vol 3 Ch 90 paras 90.081 - 90.088.

Safe Place

15. Weather Forecasts. A local weather forecast is to be obtained before sailing or racing is due to start. The Safety Officer is responsible for ensuring that sailing takes place only when a risk assessment has been conducted and it is considered safe to do so.

Racing

16. All racing will be controlled by the Race Officer who may also act as the Safety Officer, although it is strongly recommended that a separate Safety Officer is appointed.

17. All competitions must have a published Safety Instruction which is to be contained in the Notice to Race. The Instruction is to explain the event safety plan and will contain a minimum of the following subject headings:

a. Safety Officer.

b. Safety Officer's responsibilities.

c. Safety CoC.

d. Safety craft and crewing levels.

e. Geographical sailing boundaries.

f. Safety signals:

(1) For safety craft.

(2) For competitors.

g. Methods of contacting Emergency Services.

h. Personal buoyancy requirements.

ANNEX M TO CHAPTER 18
SPECIFIC SURFING SAFETY

Fundamental Rules

1. All individuals who undertake any surfing activity are to have passed the MST.

2. No surfer is to surf alone regardless of surfing ability.

General

3. The risk to safety when surfing has 2 parts, namely:

   a. The surfboard which can endanger both the surfer and other water users.

   b. The environment in which surfing takes place.

Safe Persons

4. **Categorisation of surfing ability.** Individual surfing ability is split in to four levels which are characterised by the performance statements in the table below:

Ser	Ability Level	Performance
(a)	(b)	(c)
1	Learner	Developing awareness of physical and environmental hazards. Only catching broken waves and stays within chest depth of water. Developing basic skills of 'popping up', 'trimming' and 'turning'.
2	Novice	Aware of physical and environmental hazards. Competent in paddling beyond breaking waves in 2-3ft surf. Developing skills to catch and ride green waves.
3	Intermediate	Competent in identifying and avoiding hazards. Competent in catching and riding green waves in 4-5ft surf. Can conduct basic manoeuvres on the face of a wave.
4	Experienced	Extremely competent in identifying hazards and taking appropriate action. Competent in catching and riding challenging and technical waves. Can conduct advanced manoeuvres on the face of a wave.

5. Learners and novices. Learners are to be supervised by a qualified instructor and a surf lifesaver. Novice surfers may surf without instructor supervision providing they surf in the designated surfing area on a lifeguarded beach.

6. Intermediate and experienced surfers. Surfers may surf unsupervised at locations within the remits of their ability.

7. Surf lifesavers. Must hold the minimum qualification of Surf Life Saver Award (SLSA) or Royal Life Saving Society (RLSS) Beach Lifeguard. Surfing GB Instructors are required to hold a surf lifesaver qualification. When learners and novices are on the water, supervising surf lifesavers are not to surf.

8. Instructors. Surf Instructors must hold a surf coach qualification recognised by Surfing GB. Instructors are to be easily identifiable and carry a means of communicating with surfers under instruction, i.e. whistle. Instructors must adhere to the max student/coach ratio and are not to surf except, for demonstrations to the pupils.

Safe Equipment

9. Learners and novices are to use soft skinned surfboards.

10. All surfers are to wear a wetsuit.

11. Lifejacket and buoyancy aids used for this activity is to be specifically designed/approved for this activity and are to be CE-approved.

12. All surfboards must be fitted with suitable leashes (ankle straps) which are to be worn whilst surfing.

13. If a Malibu board is used, it should be of appropriate length for the surfer's weight. A board which is too long is hard to control, whilst one which is too small can be dangerous, especially in high surf. The following board length per surfer's weight guide should be used:

Surfer's Weight	**Board Length**
8 stone (50.8 kg)	9ft 3ins (2.82 m)
9 stone (57.1 kg)	9ft 6ins (2.89 m)
10 stone (63.5 kg)	9ft 9ins (2.97 m)
11 stone (69.8 kg)	10ft 0ins (3.04 m)
12 stone (76.2 kg)	10ft 3 ins (3.11 m)
13 stone (82.5 kg)	10ft 6ins (3.18 m)

14. The following safety equipment must be available and easily accessible; either on the beach or close vicinity to the surfing location:

a. First aid kit.

b. Pocket mask.

c. Spare leash.

d. Survival blanket.

e. Whistle.

f. Rescue buoyancy device (i.e. Torpedo).

g. Mobile phone.

Safe Practice

15. All units and clubs owning surfboards are to issue standing orders covering each of the subjects listed below:

a. Where surfing may take place.

b. Safety rules for surfers.

c. Safety checks for equipment.

d. Safety equipment requirements.

e. Emergency Action Plan for casualties to include:

(1) In water emergency and rescue procedure.

(2) On land emergency and aftercare procedures.

f. Codes of practice for surfing and the environment.

16. Whenever surfing takes place at least one person must be left ashore. Whilst ashore they are to constantly watch the surfers on the water and act as an incident controller.

Safe Place

17. Before surfing the following is to be established:

a. Local regulations regarding where surfing may or may not take place.

b. Local conditions of the intended surfing area:

(1) Is the tide rising or falling?

(2) Are there any submerged rocks?

(3) Where are the rip currents flowing?

18. When surfing takes place from a public beach where swimmers and other water users are present, a safety officer is to be appointed. He is responsible for ensuring all necessary safety precautions are rigidly observed.

19. Where a resort provides a surfing area (defined by black and white checked flags or markers), this area only must be used. Surfing is not to take place in the same area as other water users such as swimmers and anglers.

ANNEX N TO CHAPTER 18
SPECIFIC WATER SKIING AND WAKEBOARDING SAFETY

Fundamental Rule

1. All individuals who undertake water skiing and wakeboarding activities are to have passed the MST.

General

2. The risk to safety when water skiing or wakeboarding can be divided into 2 parts, namely:

   a. The towing boat, which can endanger its crew, the skier and other water users.

   b. The skier, who can endanger other water users as well as himself.

Safe Persons

3. A Safety Officer, who is responsible for all ski operation and is to ensure that all necessary safety precautions are rigidly observed, is to be appointed:

   a. Whenever 3 or more individuals are taking part in water-skiing.

   b. When skiing takes place from a public beach or other area where swimmers or other water users are present.

4. **Driver Qualifications.** All water ski boat drivers must hold the British Water Ski and Wakeboard (BWSW) Ski Boat Driver (SBD) 2 award as a minimum. Garrisons and units are to arrange for additional training and testing of the driver in:

   a. Familiarising drivers with the water to be used.

   b. Local "rules of the road" and local by-laws.

   c. Elementary boat maintenance and familiarisation training with the different types of engines and propulsion systems.

5. **First Aid Qualification.** At least one of the boat crew is to be qualified in methods of resuscitation and general first aid. An in-date MATT 3 Battlefield Casualty Drills Level 2 qualification or equivalent is acceptable.

6. **Instructor Qualifications.** Learners and novices are always to be directly supervised by a BWSF instructor, or someone with an equivalent recognised qualification.

Safe Equipment

7. All those in the boat and the skiers (less competent trick skiers) are to wear an approved buoyancy aid (see para 18.033c) and dependent on local climatic conditions, a wetsuit or drysuit.

8. The BWSW Code of Practice is to be adhered to by Army water skiing operations to avoid the significant impact of noise on communities.

Safe Practice

9. The BWSW Code of Practice prescribes the minimum safety standards that must be applied to all water skiing and wakeboarding activity operated by Army personnel. Additional military

regulations are detailed below. All water skiing activity organisers must communicate both sets of standards to all participants.

10. **Additional Army Safety Regulations**. All garrisons and units owning water ski boats are to issue Standing Instructions for each of the subjects listed below, based on the BWSF Code of Practice:

a. Where water-skiing may take place.

b. Who is qualified to drive the boat.

c. How many may travel in the boat.

d. Safety rules for water skiers.

e. Safety rules for boat drivers.

f. Safety checks for boats.

g. Launching regulations.

h. Code of practice for water-skiing and the environment.

i. Distress signals and prevention of collisions.

j. Standard equipment and safety equipment requirements for powerboats.

k. Details of 'first parade' and 'last parade' checks for boats.

l. Safety recommendations for use of 'Towed Inflatable Aquatic Apparatus'.

ANNEX O TO CHAPTER 18
CHALLENGE PURSUIT WATER ACTIVITY SAFETY CONSIDERATIONS

Fundamental Rule

1. All individuals who undertake Challenge Pursuit (CP) water activities are to have passed the MST or JSATST.

General

2. Organisers and leaders should consult widely, particularly using internet search engines to discover NGB sites such as { HYPERLINK "http://safesport.co.uk" \h }, to identify the risks involved and normal safety precautions. Activities may be overseen by recognised bodies, either British or of the nationality where the activity takes place, in which case their rules must be followed as a minimum.

3. CP activities can involve multiple environments, e.g. water and rock. All hazards must be assessed and controlled.

4. Further advice on the feasibility of activities, appropriate instructor/leader qualifications, and the application of JSP 375, Part 2, Vol 1, Chap 40 and the Risk Assessment process can be obtained from Formation PD Branches, OC Trg HQ JSMTC and the LAND Accident Prevention and Investigation Team (LAIT).

Safe Persons

5. Participant Competence. As delivery Duty Holders, COs must satisfy themselves that those personnel being led on such activities have the necessary knowledge, training and experience for the level and nature of the activity.

6. Group Size. The size of the group, and the number of instructors required will depend on a number of factors including the skills and competence of the group, the venue used and the experience and qualifications of the group leader. JSP 419 instructor/student ratios for recognised activities can be used as guidelines.

7. Group Leader/Instructor Competence. The Risk Assessment must identify what skills, knowledge and competencies are required by leaders and instructors; these will probably include knowledge, skills or experience of the site's water characteristics (i.e. surf, tides, currents, depth and temperature of water and river flows). Authorising officers are to satisfy themselves that leaders and instructors have the necessary blend of qualifications, experience, maturity, currency, instruction techniques, communication skills and life-saving/rescue/emergency techniques for the activity. Relevant JSAT qualifications may provide evidence of appropriate competence, but civilian qualifications, such as the British Coasteering Federation Guides Scheme, UK Canyon Guides or White Water Safety & Rescue should be preferred.

8. First Aid Qualifications. First aid considerations include a procedure for re-warming cold participants and should take into consideration the nature of the venue, transport arrangements, evacuation methods, etc. Group leaders/instructors are to hold an in-date First Aid qualification covering CPR and EAR or ensure such a trained and current individual is in the group. First Aid qualifications must have contained an assessment of the skills required to deal with the hazards associated with the activity and identified in the Risk Assessment.

Safe Equipment

9. Appropriate first aid and emergency equipment is to be carried as identified in the Risk Assessment.

10. Clothing and Equipment Selection. What is appropriate may vary from day to day and venue to venue. For most activities that involve entering the water an appropriate buoyancy aid (para 18.033c) and helmet (approved for the activity undertaken) will be required. The Risk Assessment will identify what equipment is needed and the competencies needed to use it safely.

11. Safety Boats. A safety boat may be required (para 18.032c).

Safe Practice

12. Up-to-date information on weather and water conditions is to be obtained before starting any activity.

13. Civilian Agency Liaison. When using civilian agencies organisers/leaders should engage closely to ensure that, *inter alia:* the civilian organisation is reputable with a good safety record and adequate insurance cover; activities are appropriate for the competence of participants and participants are aware of what is required of them. A copy of the military Risk Assessment is to be passed to the civilian agency.

14. Briefings/Communication. Group leaders/instructors are to tell participants what they can do to help ensure their own safety. It may not be appropriate for instructors to deliver all relevant instructions in one briefing and verbal communication at some venues can be very difficult. Group leaders/instructors are to decide whether other systems of communications are necessary and introduce them where they are needed.

15. Emergency Action Plans. All those involved in the activity need to be aware of their responsibilities in the event of an emergency. Those leading the activity need to have the necessary competencies and the equipment to deal with any immediate problems and know how to get help if required. Authorising officers are to ensure that an Emergency Action Plan has been prepared and is known and understood by all leaders/instructors, civilian agencies (where appropriate), support staff and participants.

Safe Place

16. Venue Selection. It is critical to ensure that the venue selected is suitable for the capabilities of the group. It is advisable to have alternative venues and start/finish and access/egress points so that the degree of difficulty and the duration of the trip are at the right level for the group. On the day, the most appropriate venue or variation on the venue should be used taking into consideration the weather conditions, competence of the group, numbers participating and the quantity of experienced staff.