

LEAFLET 11**SAFETY IN MILITARY TRAINING AND EXERCISES****CONTENTS****Para**

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LEAFLET FOR LINE MANAGERS**REGULATIONS**

- 1 The following regulations apply to this leaflet:
 - 1.1 Health and Safety at Work etc. Act 1974 Sections 2, 3, 7, 8 and 36.
 - 1.2 Management of Health and Safety at Work Regulations 1999 Regulation 3.

DEFINITIONS**Military**

2 This leaflet is written for all three Services, and the word 'military' covers Royal Navy, Army and Royal Air Force training, adventurous training, activities carried out by the cadet forces, and other hazardous military activities involved in recruiting, selection and public relations.

Hazard

3 Hazard is the actual or potential condition that can cause injury, both immediate and delayed, illness or death of personnel or damage or loss of equipment or property.

Severity

4 Severity is the degree of injury, numbers of personnel affected, property damage, or other factors that could occur as a result of a hazard.

Risk

5 Risk is the probability of exposure to injury or loss from a hazard. This leaflet is concerned with the risk of accidents occurring during training and is managed by both the commander and his staff and is essentially Force Protection. Tactical risk is the risk associated with hazards that exist due to the presence of the enemy on the battlefield. The commander alone determines how and where he is willing to take tactical risk.

Controls

6 Controls are actions taken to eliminate hazards or reduce their risk.

Residual Risk

7 Residual risk is the level of risk remaining after controls have been applied for hazards.

BACKGROUND

8 The military are required to undertake training and exercises that are inherently dangerous, to ensure that personnel are provided with the best possible preparation for the roles they may undertake in times of conflict. This leaflet is concerned with assisting commanders with managing the balance between the risks faced and the benefits that may accrue, and indicates how they must integrate risk management into their planning and estimates. The need to balance the safe working practices and the safe environment requirements of legislation with the Defence imperative is recognised. Hazardous training activities must be managed to ensure that force protection measures are implemented to maintain military fighting power and to ensure that the MOD complies with the law.

DUTIES**Persons Undergoing Training**

9 Personnel undergoing training shall adhere to any instructions supplied before or during training, and recognise any hazards they will face during training.

Commanders

10 Commanders at all levels have a personal responsibility for ensuring that activities are undertaken in as safe a manner as is reasonably practicable, taking due regard to any risks to personnel. This responsibility cannot be delegated. The mechanisms for discharging this duty may be delegated and assistance and support obtained, but legal responsibility remains with the MOD through its chain of command and respective commanders.

11 Commanders who direct training are to ensure that:

11.1 Such training takes place in a manner that is as safe as is reasonably practicable, in accordance with current Service instructions, regulations and directives.

11.2 Service instructions, regulations and directives applicable to the training activities are communicated to those undergoing training and are followed.

11.3 The safe system of training applies to the activity, and if it does not, ensure that a risk assessment has been undertaken and that any control measures required to reduce risk have been implemented.

11.4 Those being trained are informed of the hazards they will face during the training.

11.5 When as a result of an activity risk assessment the residual risk cannot be adequately controlled and the activity is deemed necessary to maintain operational effectiveness, the commander should obtain 1 star approval for the activity to continue.

11.6 If he wishes to deviate from Service instructions and regulations, particularly if it involves live fire training, and the activity is deemed necessary to maintain operational effectiveness, the commander should obtain 2 Star approval for the activity to continue.

11.7 The effects of any changes to proposed exercises, particularly exercises in progress, be subjected to risk assessment.

1 Star Commanders

12 Study the submissions made by commanders for activities carrying significant risk that cannot be adequately controlled, and if the Defence imperative benefit is crucial, authorise the activity.

2 Star Commanders

13 Study the submissions made by commanders wishing to deviate from Service instructions and regulations, particularly if it involves live fire training. If the Defence imperative benefit is crucial, authorise the activity.

RETENTION OF RECORDS

14 Risk assessments and relevant control measure instructions are living documents. Reviews should be carried out:

14.1 If there is reason to suspect that the risk assessment is no longer valid.

14.2 If there are significant changes to the activity.

14.3 Annually.

15 Redundant risk assessments should be retained for 3 years. The time frame should come into line with the figure the Retention of Records WG decide.

MANAGING THE SAFE SYSTEM OF TRAINING

16 Guidance on managing the safe system of training is set out at Annex A to this leaflet.

RISK ASSESSMENT PROCESS

17 The risk assessment process in military training is described at Annex B to this leaflet.

LEAFLET 11 ANNEX A**SAFETY IN MILITARY TRAINING AND EXERCISES****CONTENTS****Para**

	GUIDANCE FOR LINE MANAGERS
1	Safe system of training
2	Safe persons
3	Safe equipment
4	Safe practice
5	Safe place
6	Persons at risk during military training
7	Confirmation that the safe system of training is applicable
8	Risk assessment
	Dispensation
14	1 star endorsement
15	2 star endorsement
16	Risk assessment process
17	Generic risk assessment
19	Exercise instructions
21	Changes/amendments to exercises
22	Example

GUIDANCE FOR LINE MANAGERS**SAFE SYSTEM OF TRAINING**

1 The Safe System of Training (SST) consists of four separate elements 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 is reasonably practicable within the constraints imposed by the operational imperative. The four elements are safe persons, safe equipment, safe practice and safe place.

Safe Persons

2 Safe Persons are persons who have received appropriate information, instruction training and supervision in order to carry out a specific task e.g. sailors, soldiers and airmen under training. A competent person within the SST is deemed competent by virtue of his qualifications, currency, experience and maturity. e.g. instructors. It is essential that Commanders provide an appropriate level of supervision, and those conducting the training take the necessary time and pay sufficient attention to detail in order to eliminate mistakes.

Safe Equipment

3 Equipment, including explosives and ammunition, is brought into service following a safety case, with appropriate documentation defining the safe operation and maintenance of the equipment under Service conditions. Commanders must ensure that their subordinates have, and make use of, the correct equipment to carry out an activity. Commanders must ensure that equipment is used and maintained as laid down and ensure that only competent persons are allowed to operate and service the equipment. Complete training and maintenance records must be kept.

Safe Practice

4 Practices are conducted in accordance with drills and instructions laid down by the Service authorities. Drills and procedures are identified by the equipment safety case and by the training imperative in accordance with the systems approach to training. 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 Place

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

PERSONS AT RISK DURING MILITARY TRAINING

6 There are 3 categories of people at risk in training:

6.1 The Military Personnel undergoing training and those conducting it.

6.2 Controlled Personnel Civilian staff employed in support of training.

6.3 General Public This includes those unaware of the military training activity and in the worst case, the trespasser, who deliberately disregards warnings or is unable to interpret warning signs through age or lack of knowledge.

CONFIRMATION THAT THE SAFE SYSTEM OF TRAINING IS APPLICABLE

7 It is not within a commander's delegated authority to deviate from Service instructions and regulations. The first step therefore, prior to carrying out a risk assessment in training, is to establish whether or not all elements of the Safe System of Training (SST) are in place. If all elements of the SST are in place, there is no need to proceed further with a risk assessment, (See also Para 12 below)

RISK ASSESSMENT

8 The aim of risk assessment in training is to:

9 To establish, if all elements of the SST are not in place, whether there are any hazards not covered by the SST and consequently if there is any residual risk.

10 Analyse the residual risk to decide if the residual risk is:

10.1 Adequately Controlled, where the risks are deemed to be acceptable by the commander in charge of the training activity, in which case the activity can be carried out.

10.2 Not Adequately Controlled, where there are unacceptable risks, in which case further measures are to be introduced to control adequately the risks.

11 Where residual risks cannot be adequately controlled the activity is not to proceed unless dispensation is granted in accordance with paragraphs 14 and 15 below.

12 A risk assessment, as set out in Annex B must be carried out when:

12.1 Instructions for the activity proposed are not covered by, or are contrary to, drills and instructions issued by the appropriate Service authority.

12.2 Risk assessments for activities at a specific site are not provided, and endorsed, by the appropriate authority, together with the controls required to reduce the risk to being as low as reasonably practicable to the categories of people listed above.

12.3 Where 2 star endorsement is required as per paragraph 15 below.

13 Proposed Changes to Training Exercises. It is essential that the effects of any proposed changes to training exercises be subjected to risk assessment. The Health and Safety Executive have pointed out that many military training accidents are the result of last minute changes to exercises, the consequences of which have not been fully thought through.

DISPENSATION

1 Star Endorsement

14 When as a result of an activity risk assessment the residual risk cannot be adequately controlled and the activity is deemed necessary to maintain operational effectiveness, the commander in charge of the training activity should obtain 1 star approval for the activity to continue.

2 Star Endorsement

15 If the commander in charge of the training activity wishes to deviate from Service instructions and regulations, particularly if it involves live fire training, and the activity is deemed necessary to maintain operational effectiveness, the commander should obtain 2 star approval for the activity to continue.

RISK ASSESSMENT PROCESS

16 The Risk Assessment Process in Military Training is set out at Annex B to this leaflet.

GENERIC RISK ASSESSMENT

17 Generic risk assessments (GRAs) are employed where similar activities are undertaken or repeated. These assessments describe the hazards involved and a standard set of control measures that should be routinely employed to reduce the associated risks. Repetitive training activities carried out in training units lend themselves particularly to GRAs. The methodology for carrying out generic risk assessments in military training is the same as the risk assessment process set out in Annex B to this leaflet and the proforma at Appx 1 to Annex B should be used to record the GRA. Examples of GRAs are given at Appendix 2 and 3 to Annex B.

18 However, given infinitely variable factors present in military activities, for example the location of training, the weather or the state of training of personnel, generic risk assessments will require careful scrutiny to ensure that they are applicable to the specific activity at that specific time and location. Where the officer or person carrying out the training risk assessment considers that there are hazards requiring additional control measures, he should list them on the risk assessment form.

EXERCISE INSTRUCTIONS

19 Exercise instructions, both written and verbal, should contain within the Coord Paragraph, the heading Exercise Risk Assessment. The latter is the result, essentially, of a military estimate, using the following factors:

19.1 Personnel: Military, civilian staff and the general public.

19.2 Equipment.

19.3 Material - food, water, fuel, etc.

19.4 Procedures

19.5 The environment - the most important factors are likely to be climate, weather and terrain.

19.6 Service publications, drills and instructions.

20 If all the elements of the SST are in place, the Exercise Risk Assessment sub paragraph would simply state 'SST in place'. If not, the detail in the Exercise Risk Assessment sub paragraph may be conveniently relegated to an annex to the exercise instruction in the standard format for risk assessment at Appx 1 to Annex B to this leaflet.

Changes/Amendments to Exercises

21 Exercise instructions should state who is authorised to make changes to the exercise. (See Para 13).

Example

22 Appendix 4 to Annex B illustrates the procedure to be adopted by way of an extract from an exercise instruction for an adventurous training white water exercise.

LEAFLET 11 ANNEX B**SAFETY IN MILITARY TRAINING AND EXERCISES****CONTENTS**

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- 1 THE RISK ASSESSMENT PROCESS IN MILITARY TRAINING
- 3 Step 1 – describe the activity-the subject of the risk assessment
- 4 Step 2 – identify the hazards associated with the activity
- 6 Step 3 – identify any existing controls
- 7 Step 4 – identify any residual risks taking into account existing controls
- 10 Step 5 – identify the need for any further controls.
- 11 Step 6 – identify any residual risks taking into account the further controls
- 15 Step 7 – communicate and implement the controls
- 16 Step 8 – review the risk assessment
- 17 Worked examples

Appendix

- 1 Military Training Risk Assessment Proforma
- 2 Tarzan Course at Commando Training Centre, Royal Marines (Example)
- 3 Hill Walking Brecon Beacons (Example)
- 4 Exercise Instruction and Risk Assessment (Example)

THE RISK ASSESSMENT PROCESS IN MILITARY TRAINING

- 1 The steps to be taken in carrying out a military training risk assessment are:
 - 1.1 Step 1 – Describe the Activity - the subject of the risk assessment.
 - 1.2 Step 2 – Identify the Hazards associated with the Activity.
 - 1.3 Step 3 – Identify any Existing Controls.
 - 1.4 Step 4 – Identify any Residual Risks taking into account Existing Controls.
 - 1.5 Step 5 – Identify the need for any Further Controls.
 - 1.6 Step 6 – Identify any Residual Risks taking into account the Further Controls.
 - 1.7 Step 7 – Communicate and Implement the Controls.
 - 1.8 Step 8 – Review the Risk Assessment.
- 2 The risk assessment process is set out in detail below. Generic Risk Assessments for military training activities are also carried out using the process set out below.

STEP 1 – DESCRIBE THE ACTIVITY-THE SUBJECT OF THE RISK ASSESSMENT

- 3 The activity may consist of one single training practice such as top roping and abseiling or a complex series of events during a Joint Service exercise. It is important that the whole scope of the exercise is taken into account. Describe the activity in column b of the risk assessment proforma at Appendix 1 to Annex B.

STEP 2 – IDENTIFY THE HAZARDS ASSOCIATED WITH THE ACTIVITY

4 Identify whether or not all the elements of the SST are in place. If they are, there is no need for a further risk assessment.

5 If they are not, identify if there are any hazards not covered by the SST. Six factors should be considered in the identification of hazards:

- 5.1 People - military, controlled personnel and the general public.
- 5.2 Equipment.
- 5.3 Material - food, water, fuel, etc.
- 5.4 Procedures.
- 5.5 The environment - the most important factors are likely to be climate, weather and terrain.
- 5.6 Relevant Service publications, drills and instructions.
- 5.7 List the hazards in column c of the risk assessment proforma at Appendix 1 to Annex B.

STEP 3 – IDENTIFY ANY EXISTING CONTROLS

6 Existing controls are in the main to be found in the close observance of drills and instructions laid down by the Service authorities, by range standing orders, by site specific risk assessments, or in generic risk assessments. Existing controls should be listed in column d of the risk assessment proforma at Appendix 1 to Annex B.

STEP 4 – IDENTIFY ANY RESIDUAL RISKS TAKING INTO ACCOUNT EXISTING CONTROLS

7 Taking into account the hazards identified and the existing controls, decide whether there is any residual risk remaining and whether that risk is Acceptable (the risks are adequately controlled) or Not Acceptable (the risks are not adequately controlled).

8 Answer the question 'Is the residual risk acceptable?'. Enter Yes or No in column e of the risk assessment proforma at Appendix 1 to Annex B.

9 If the answer is No, proceed to Step 5. If the answer is Yes, proceed to Step 7. The risk assessment should be signed and dated by the officer in charge of the exercise or the activity.

STEP 5 – IDENTIFY THE NEED FOR ANY FURTHER CONTROLS

10 Hazards categorised as having residual risks Not Acceptable will need further control measures applied. The additional control measures required should be listed in column f of the risk assessment proforma at Appendix 1 to Annex B.

STEP 6 – IDENTIFY ANY RESIDUAL RISKS TAKING INTO ACCOUNT THE FURTHER CONTROLS

11 Taking into account the controls identified at Step 5, decide whether there is any residual risk remaining and whether that risk is Acceptable (the risks are adequately controlled) or Not Acceptable (the risks are not adequately controlled).

12 Answer the question 'Is the residual risk following the application of the additional controls acceptable?'. Enter Yes or No in column g of the risk assessment proforma at Appendix 1 to Annex B.

13 If the answer is No, the activity must not continue unless 1 star endorsement is obtained under Annex A para 14 of this leaflet.

14 The risk assessment should be signed and dated by the officer in charge of the exercise or the activity, and further endorsed once the additional controls required have been effected.

STEP 7 – COMMUNICATE AND IMPLEMENT THE CONTROLS

15 Risk controls are implemented to manage the risk in order to reduce its likelihood and severity. These should include both existing controls and any additional measures identified by the risk assessment. It is essential that specific instructions are issued regarding the hazards and the control measures to be implemented by those conducting the training and communicated to those affected by the training.

STEP 8 – REVIEW THE RISK ASSESSMENT

16 Reviews should be carried out:

16.1 If there is reason to suspect that the risk assessment is no longer valid.

16.2 If there are significant changes to the activity.

16.3 Annually.

WORKED EXAMPLES

17 Examples of risk assessments are attached to this Annex:

17.1 Appx 2 - An extract from a generic risk assessment for the Tarzan Course at the Commando Training Centre Royal Marines.

17.2 Appx 3 - A generic risk assessment for a CCF activity.

17.3 Appx 4 - An exercise instruction and related risk assessment.

LEAFLET 11 ANNEX B APPENDIX 1

SAFETY IN MILITARY TRAINING AND EXERCISES

MILITARY TRAINING RISK ASSESSMENT PROFORMA

Unit/Formation:

Assessor:

Activity/Exercise:

Date Assessment:

Relevant Publications/Pamphlets/Procedures:

Review Date:

Steps relate to the Risk Assessment Process

Generic Risk Assessment: Yes/No

Ser	Activity / Element (Step 1)	Hazards Identified (Step 2)	Existing Controls (Step 3)	Residual Risk (Step 4)	Additional Controls Required (Step 5)	Residual Risk (Step 6)
(a)	(b)	(c)	(d)	(e)	(f)	(g)

	Name	Post	Date	Signature
Existing and Additional Controls Agreed				
Additional Controls Implemented				

LEAFLET 11 ANNEX B APPENDIX 2

SAFETY IN MILITARY TRAINING AND EXERCISES

MILITARY TRAINING RISK ASSESSMENT PROFORMA - TARZAN COURSE (BLDG L171) AT COMMANDO TRAINING CENTRE ROYAL MARINES

Unit/Formation: CTCRM

Assessor: WO2 Jones

Activity/Exercise: Tarzan Course

Date Assessment: 4 Sep X1

Relevant Publications/Pamphlets/Procedures: A. CTCRM Standing Orders and Instructions
 B. Duty Physical Training Instructors - Obstacle Course Check List.
 C. RMC Ropes and Climbing Frame Inspection Policy (HQRN 9/35/9 dated 3 Mar XX).

Review Date: 4 Sep x2

Steps relate to the Risk Assessment Process

Generic Risk Assessment: Yes/No

Ser	Activity / Element (Step 1)	Hazards Identified (Step 2)	Existing Controls (Step 3)	Residual Risk (Step 4)	Additional Controls Required (Step 5)	Residual Risk (Step 6)
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Commando Slide	a. Fall from top of the slide due to the toggle rope not being correctly positioned.	(1) Safety catch net positioned 2.5 m below the step-off platform. (2) PTI on platform to act as dispatcher.	Yes	Nil	
2	Commando Slide	b. Fall due to toggle rope failure (ie breakage due to fraying, etc).	(3) The Troop Instructor is required to inspect all toggle ropes prior to, and on completion of use, reporting any ropes considered unsafe. Students soak toggle ropes in water prior to dispatch. (4) The PTI on the step-off platform inspects each toggle rope before despatching the man down the slide. (5) The PTI manning the brake rope inspects each toggle rope after completion of the slide. (6) Toggle ropes are changed every 7 days or earlier if excessive wear is evident.	Yes	Nil	

	Name	Post	Date	Signature
Existing and Additional Controls Agreed				
Additional Controls Implemented				

LEAFLET 11 ANNEX B APPENDIX 3

SAFETY IN MILITARY TRAINING AND EXERCISES

MILITARY TRAINING RISK ASSESSMENT PROFORMA - HILL WALKING BREACON BEACONS

Unit/Formation: Loamshire ACF

Assessor: Capt Smith

Activity/Exercise: Hill Walking Brecon Beacons

Date Assessment: 14 June XX

Relevant Publications/Pamphlets/Procedures: A. Cadet Training Safety Precautions
B. JSP 419

Review Date: 14 June X1

Steps relate to the Risk Assessment Process

Generic Risk Assessment: Yes/No

Ser	Activity / Element (Step 1)	Hazards Identified (Step 2)	Existing Controls (Step 3)	Residual Risk (Step 4)	Additional Controls Required (Step 5)	Residual Risk (Step 6)
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	Hill Walking Brecon Beacons	Inclement weather	Sufficient instructors: 1:6 Foul weather clothing Weather forecast Briefing	Yes		
2	Hill Walking Brecon Beacons	Trips and falls	Correct footwear, first aid kit, evacuation procedures	Yes		
3	Hill Walking Brecon Beacons	Getting lost	Planned routes held by base Escape route held by base Maps/compasses Briefing Adequate map reading training Comms Base search party	Yes		
4	Hill Walking Brecon Beacons	Fatigue	Sufficient instructors: 1: 6 Physical assessments prior to departure	Yes		
5	Hill Walking Brecon Beacons	Thirst, hunger	Food, water	Yes		

	Name	Post	Date	Signature
Existing and Additional Controls Agreed	Capt Smith	Det Comd	14/6/XX	
Additional Controls Implemented				

LEAFLET 11 ANNEX B APPENDIX 4

SAFETY IN MILITARY TRAINING AND EXERCISES

EXAMPLE OF AN EXERCISE INSTRUCTION AND RISK ASSESSMENT

EXTRACT FROM EX FRENCH SPLASH EXERCISE INSTRUCTIONS

'5. Coord.

- a. Ex Risk Assessment. Safe System of Training. Additional hazards set out in the risk assessment at Annex A to this instruction.
- b. Changes/Amendments to Exercise. Lt I D Clare is authorised to change /amend the exercise. The changes are to be risk assessed.

MILITARY TRAINING RISK ASSESSMENT PROFORMA - EX FRENCH SPLASH : WHIT WATER CANOEING ARDECHE

Unit/Formation: 1 Blankshires

Assessor: Lt I D Claire

Activity/Exercise: **Ex French Splash - Whit Water Canoeing Ardeche**

Date Assessment: 25 Jan XX

Relevant Publications/Pamphlets/Procedures: A. JSP 419
B. AGAI Vol 1 Ch 11

Review Date: N/A

Steps relate to the Risk Assessment Process

Generic Risk Assessment: ~~Yes~~/No

Ser	Activity / Element (Step 1)	Hazards Identified (Step 2)	Existing Controls (Step 3)	Residual Risk (Step 4)	Additional Controls Required (Step 5)	Residual Risk (Step 6)
(a)	(b)	(c)	(d)	(e)	(f)	(g)
1	White water canoeing in Ardeche	Drowning	Swimming tests, capsize drills, rescue techniques, buoyancy aides, river not in full flood, instructor ratio 1:3	No	All require prior experience fast flowing rivers. Exercise arranged Snowdonia prior to Ex French Splash. Gradually increase level of adventure & demand not exceeding participants mental & physical ability	Yes
2	As ser 1	Capsize resulting in injury	Training and proficiency	No	As ser 1	Yes
3	As ser 1	Cuts and abrasions	First aid kit. Trained first aider	Yes		
4	As ser 1	Head injuries	Helmets worn all times	Yes		
5	As ser 1	Hypothermia	Wet suits, towels, dry clothing	Yes		
6	As ser 1	Waterfalls/barriers	Guide book, knowledge/experience of river	Yes		
7	As ser 1	Waterborne disease	Guide book, local knowledge Medical kit	Yes		
8	As ser 1	Canoe/paddle failure	Canoes/paddles maintained and inspected	Yes		

	Name	Post	Date	Signature
Existing and Additional Controls Agreed	Lt I D Clare	OIC Exercise	25/1/XX	
Additional Controls Implemented	Lt I D Clare	OIC Exercise	14/6/XX	