FIRST CLASS CADET LOGBOOK

FLYING OPERATIONS   INITIAL EXPEDITION TRAINING

MAP READING   BASIC RADIO COMMUNICATIONS

NAME:

SQUADRON/UNIT:

ROYAL AIR FORCE **AIR CADETS** the next generation

Version 2: This logbook is for cadets who are completing their First Class Cadet training from 01 Jan 2022

Welcome to the Royal Air Force Air Cadets

You have just joined the UK's leading uniformed youth organisation. The RAF Air Cadets has aviation at the heart of its activities and is fully supported by the Royal Air Force. I hope you will take every opportunity to visit Royal Air Force stations and fly in one of their Air Experience Flight aircraft and to go gliding. There is something for everyone in the Air Cadets and I encourage you to explore every opportunity on offer, be it flying and gliding, adventurous training, sport, music, the Duke of Edinburgh's Award, drill and ceremonial, academic studies, community and charity work, shooting and camping.

Please always remember that the Air Cadets are the public face of the Royal Air Force and we therefore expect you to wear your uniform with pride and to behave in a way that reflects the professionalism, discipline and high standards of the Royal Air Force.

Our motto is "Venture Adventure" and I very much hope that you will have lots of fun and excitement during your time as a cadet. Remember, too, that your safety is of paramount importance to us so, if you are ever worried that you or a fellow cadet might be at risk of harm, report your concerns to one of our adult volunteers, who are there to keep you safe.

As you start your journey as a cadet, I wish you every success along the way. Our amazing team of volunteers will enable you to learn new skills and achieve your full potential - but only if you are prepared to make the effort required. So, work hard and have fun - you are with like-minded people and are now a very welcome member of the Air Cadet family.

Commandant Royal Air Force Air Cadets

Air Commodore
A C Keeling OBE

Flying Operations

Features of an airfield

Features & types of aircraft used for Air Cadet flying & gliding

Processes used to launch gliders and maintain flight

The lookout system

The phonetic alphabet

<table>
<tr><td colspan="4" style="background:red;color:white">PASS LEVEL - MANDATORY QUESTION</td></tr>
</table>

Learning Outcome 1: Know the features of an airfield			
Task P1	Describe types of runway layouts found on airfields.		
Activity 1	Name the three types of runway layouts. Give their main uses and the advantages and disadvantages for each type.		

Runway Type 1:

		Yes	No
Main use		Yes	No
Advantages		Yes	No
Disadvantages		Yes	No

4

Runway Type 2:

		Yes	No
Main use		Yes	No
Advantages		Yes	No
Disadvantages		Yes	No

Runway Type 3:

		Yes	No
Main use			
		Yes	No
Advantages			
		Yes	No
Disadvantages			

Activity successfully completed

Date	Signature	Name/Rank

Learning Outcome 1:
Know the features of an airfield

Task P2	Describe main features of airfields.
Activity 1	Identify the main features of an airfield. Some features are listed more than once.
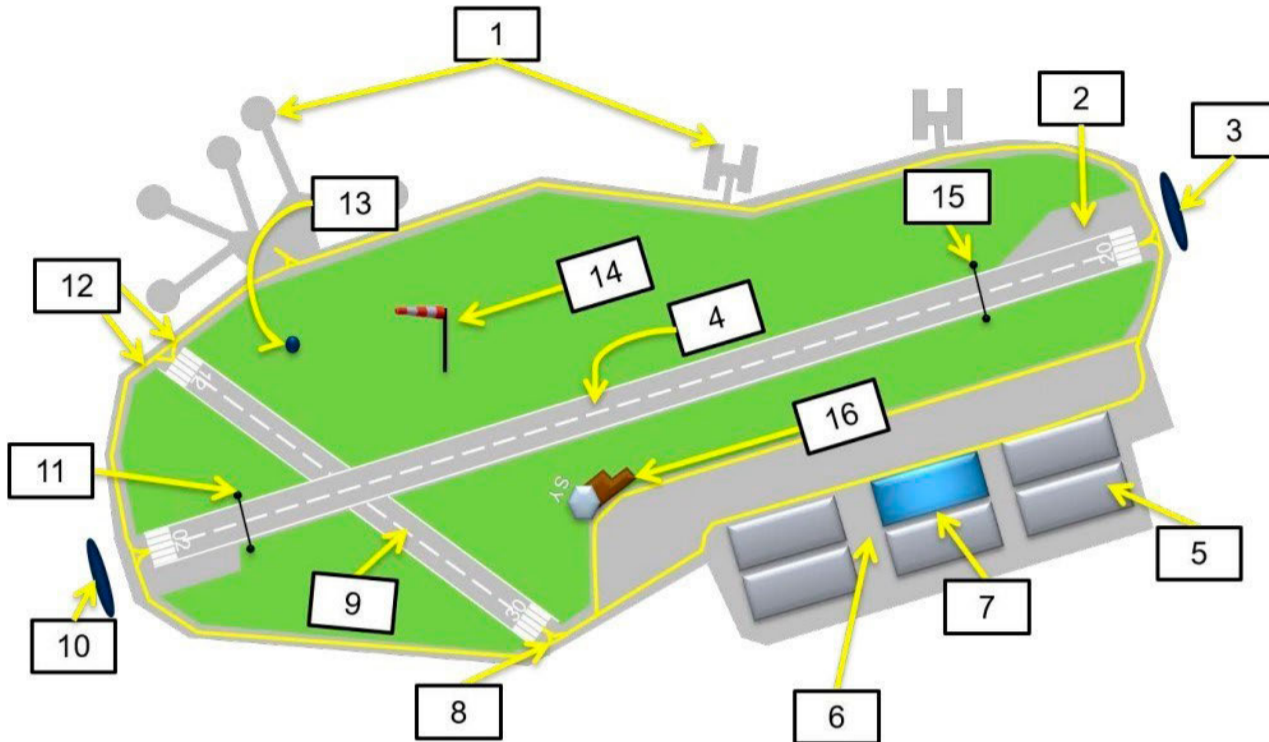
Tick the box if correct – Put a cross in the box if incorrect

		Y	N			Y	N
1				2			
3				4			
5				6			
7				8			
9				10			
11				12			
13				14			
15				16			

Activity successfully completed		
Date	**Signature**	**Name/Rank**

Task P2	Describe main features of airfields.
Activity 2	Look at the airfield features listed below. Write a sentence for each feature describing what it is used for.

Control Tower

Hangars

Windsock

Identification Beacon

Aircraft Servicing Platform/Dispersal Area

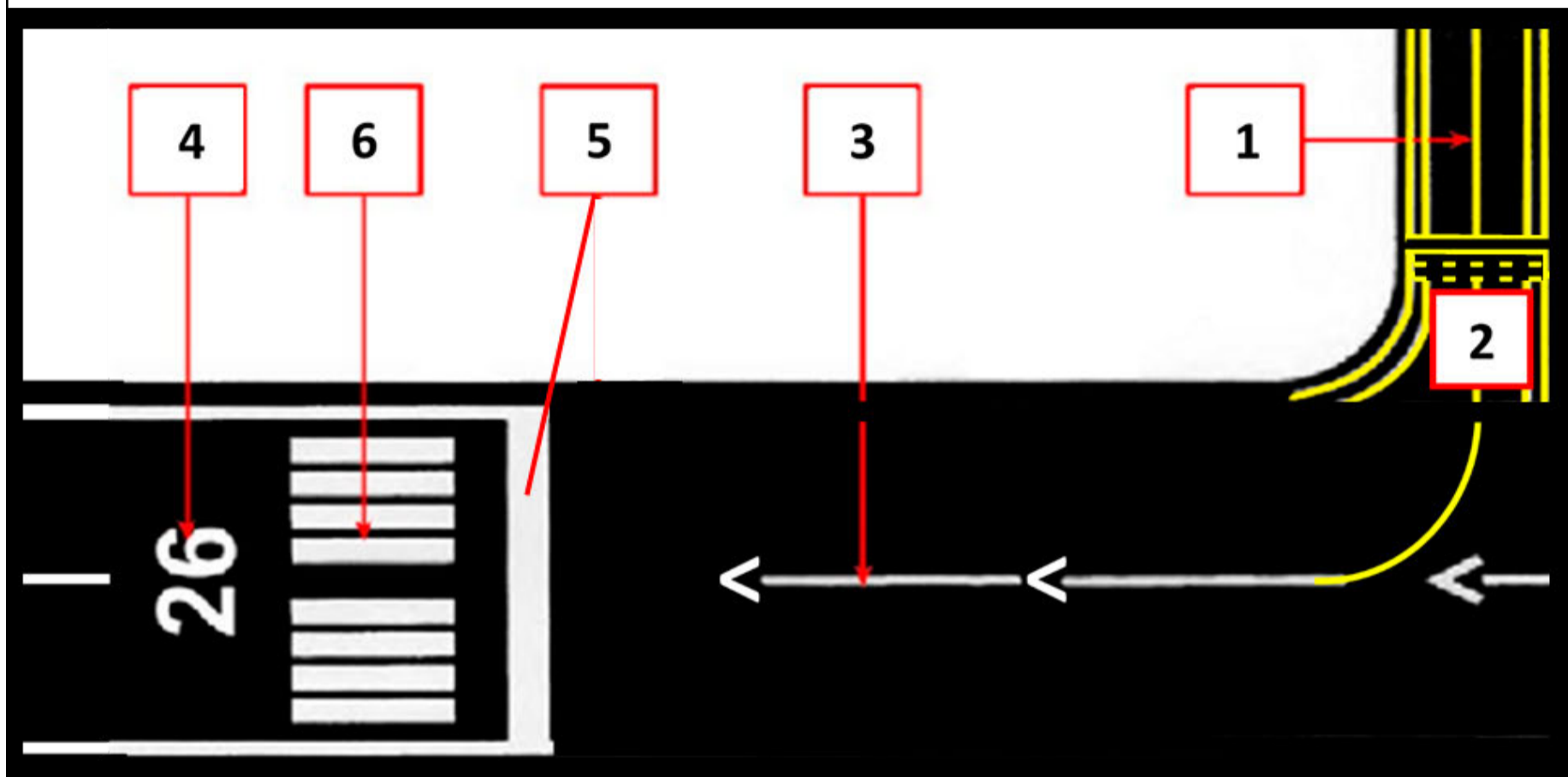| Activity successfully completed		
Date	Signature	Name/Rank

FLYING OPERATIONS
Learning Outcome 1: Know the features of an airfield

MERIT LEVEL – OPTIONAL QUESTION

Task M1	Explain purpose of types of runway marking.
Activity 1	Identify the labelled runway markings and explain their purpose.

1 Name		1 Purpose		Y	N
2 Name		2 Purpose		Y	N
3 Name		3 Purpose		Y	N
4 Name		4 Purpose		Y	N
5 Name		5 Purpose		Y	N
6 Name		6 Purpose		Y	N

Activity successfully completed

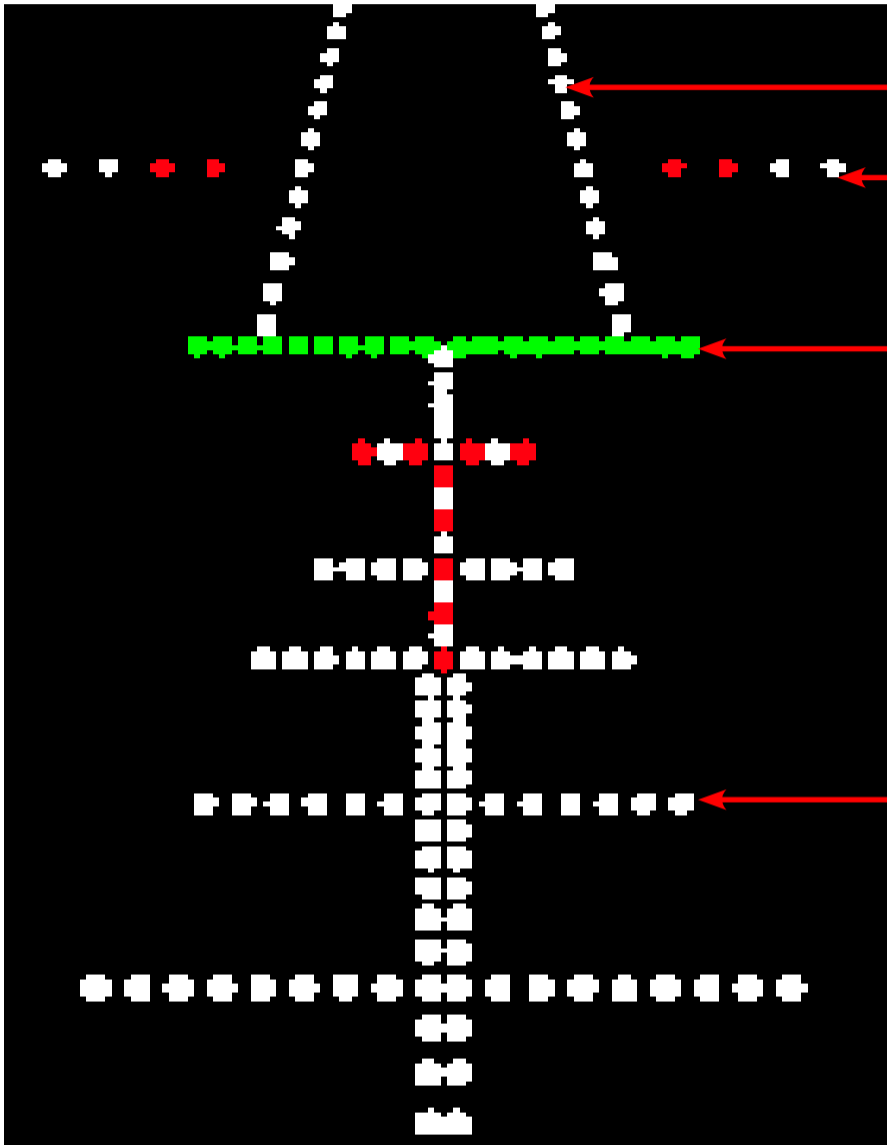| Date	Signature	Name/Rank

First Class Cadet
FLYING OPERATIONS
Learning Outcome 1: Know the features of an airfield

MERIT LEVEL - OPTIONAL QUESTION

Task M2	Explain purposes of types of airfield lighting.
Activity 1	Identify the name of the runway lights marked in the image below.

	1
	2
	3
	4

Activity 2	Describe the purpose of the runway lights marked in the image in M2 Activity 1 (above).

		Y	N
1 Purpose			
2 Purpose			
3 Purpose			
4 Purpose			

Activity successfully completed

Date	Signature	Name/Rank

Task D1	Evaluate the strengths and weaknesses of airfield designs.

Evaluate the strengths and weaknesses of three different types of airfield designs. Think about:
  • Types of runway layouts
  • Main features and functions of airfields
  • Runway markings and their purposes
  • Airfield lighting
Review the strengths and weaknesses of these, giving a conclusion and a reason for your views.

Activity 1	Identify and evaluate the **strengths** of airfield designs and their features.

Airfield Type 1:

Airfield Type 2:

Airfield Type 3:

Activity 2	Identify and evaluate the **weaknesses** that can be found in airfield designs.

Airfield Type 1:

Airfield Type 2:

Airfield Type 3:

Activity successfully completed		
Date	**Signature**	**Name/Rank**

FLYING OPERATIONS
Learning Outcome 2: Know features and types of aircraft used for Air Cadet flying and gliding

PASS LEVEL - MANDATORY QUESTION

Task P3	Describe key features of aircraft used for air experience flights and gliding.
Activity 1	Identify Air Cadet aircraft and describe their key features.

Aircraft	Name of aircraft, its use and key features
	Name:
	Main Use:
	Key Features:
	Name:
	Main Use:
	Key Features:

Activity successfully completed

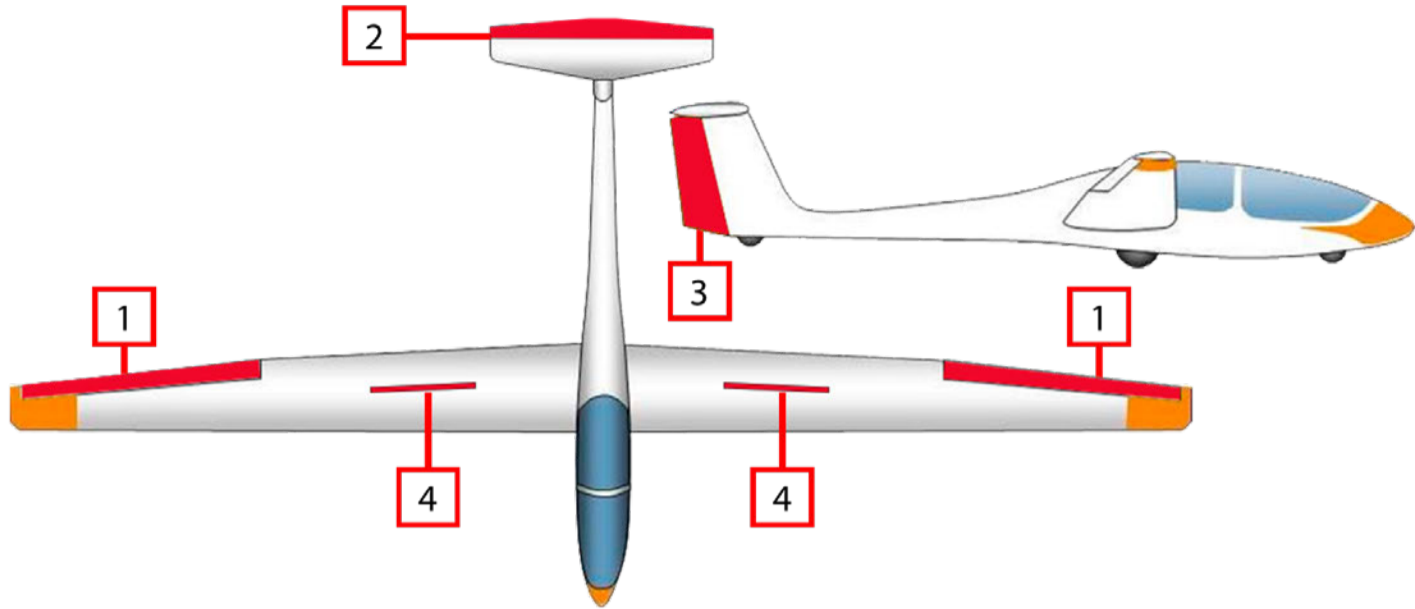| Date	Signature	Name/Rank

FLYING OPERATIONS
Learning Outcome 2: Know features and types of aircraft used for Air Cadet flying and gliding

PASS LEVEL - MANDATORY QUESTION

Task P4	Identify important control surfaces used in flight.
Activity 1	Identify the glider control surfaces marked below.

1:	**3:**
2:	**4:**

Activity successfully completed

Date	Signature	Name/Rank

FLYING OPERATIONS
Learning Outcome 2: Know features and types of aircraft used for Air Cadet flying and gliding

MERIT LEVEL - OPTIONAL QUESTION

Task M3	Explain purpose and use of flight instruments of featured aircraft types.
Activity 1	Identify each of the following aircraft instruments and briefly explain their purpose.

Name:

Purpose:

Name:

Purpose:

Name:

Purpose:

Name:

Purpose:

Name:

Purpose:

Activity successfully completed
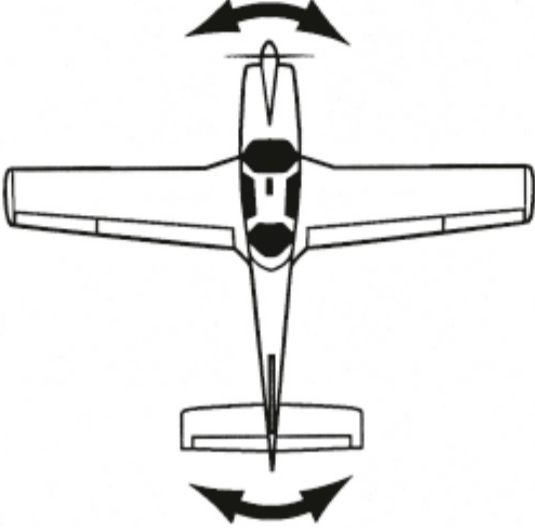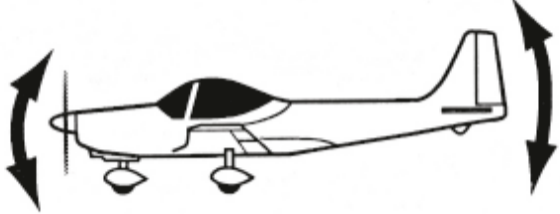
Date	Signature	Name/Rank

FLYING OPERATIONS
Learning Outcome 2: Know features and types of aircraft used for Air Cadet flying and gliding

DISTINCTION LEVEL - OPTIONAL QUESTION

Task D2	Analyse effects of control surfaces on aircraft's attitude from straight and level flight.
Activity 1	Name the movement, say what actually happens and which control surface effects this movement.

Control Surface Effect 1	**Control Surface Effect 2**	**Control Surface Effect 3**
Name of movement:	Name of movement:	Name of movement:
What actually happens?	What actually happens?	What actually happens?
Which control surface effects this movement?	Which control surface effects this movement?	Which control surface effects this movement?

Activity successfully completed

Date	Signature	Name/Rank

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First Class Cadet
FLYING OPERATIONS
Learning Outcome 3: Know processes used to launch gliders and maintain flight.

PASS LEVEL - MANDATORY QUESTION

Task P5	Describe processes used to launch gliders.
Activity 1	Name the three commands used to winch launch a glider from the ground and describe what happens.

Command 1:	What happens?

Command 2:	What happens?

Command 3:	What happens?

Activity successfully completed		
Date	**Signature**	**Name/Rank**
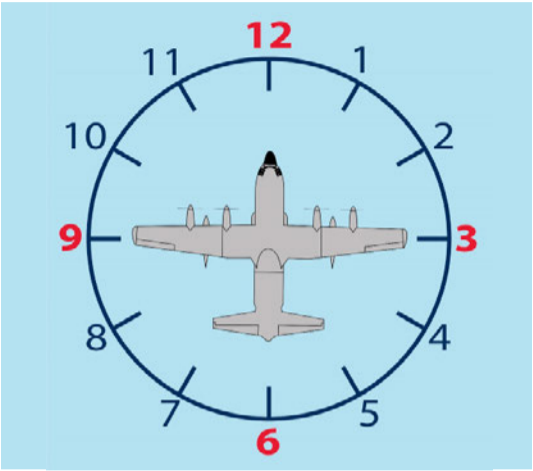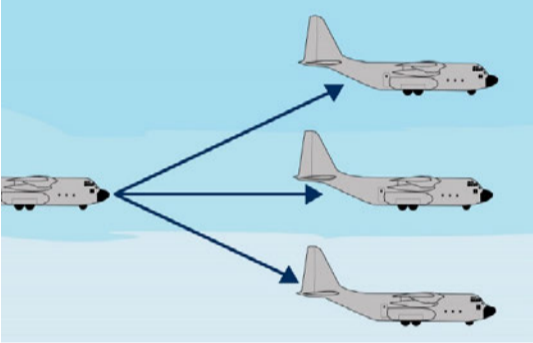
FLYING OPERATIONS
Learning Outcome 4: Know the importance of the lookout system whilst flying and gliding.

PASS LEVEL - MANDATORY QUESTION

Task P6	Describe how to identify an aircraft or object using the clock code
Activity 1	Describe how clock code is used to report the position of other aircraft. Use the images to help you.

How would you use the clock code to report the position of other aircraft?

Activity successfully completed

Date	Signature	Name/Rank

MERIT LEVEL - OPTIONAL QUESTION
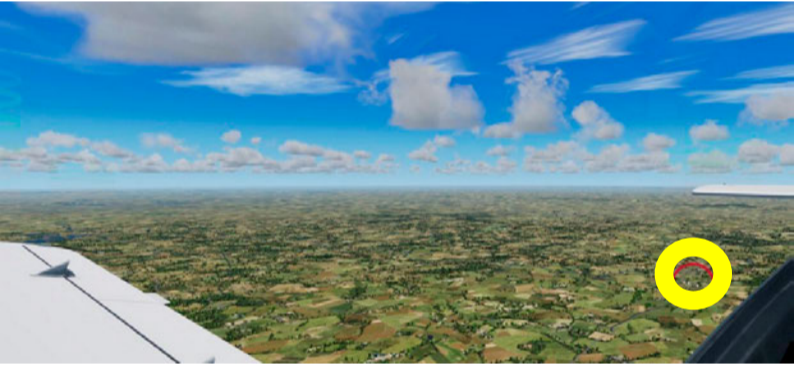
Task M4	Explain why it is important to be ale to identify an aircraft or object using the clock code.
Activity 1	State three reasons why it's important to keep a good lookout for other aircraft.

1

2

3

Activity successfully completed

Date	Signature	Name/Rank

Task M4	Explain why it is important to be ale to identify an aircraft or object using the clock code.
Activity 2	Report the positions for these aircraft in the yellow circle and explain why these aircraft might be a danger.

Position:

Potential danger:

Position:

Potential danger:

Position:

Potential danger:

Activity successfully completed

Date	Signature	Name/Rank

FLYING OPERATIONS
Learning Outcome 5: Know the phonetic alphabet to be an active member of crew whilst flying or gliding.

PASS LEVEL - MANDATORY QUESTION

Task P7	Demonstrate the phonetic alphabet.
Activity 1	Fill in the boxes with the name for each letter and the number 0.

A		N	
B		O	
C		P	
D		Q	
E		R	
F		S	
G		T	
H		U	
I		V	
J		W	
K		X	
L		Y	
M		Z	
0			

Activity successfully completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P7	Demonstrate the phonetic alphabet.
Activity 2	Complete a practical phonetic alphabet activity. Repeat a simple message replacing the letters used with the phonetic alphabet.

Activity successfully completed

Date	Signature	Name/Rank

Map Reading

Scales & features of Ordnance Survey Maps

Grid References

Plan routes using Ordnance Survey map features & contour lines

First Class Cadet
MAP READING
Learning Outcome 1: Know the scales and features of Ordnance Survey Maps

PASS LEVEL - MANDATORY QUESTION	
Task P1	Describe the types and uses of maps.
Activity 1	Match different types of maps to their uses.

Activity Assessment Sheet successfully completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION	
Task P2	Identify the main symbols on Ordnance Survey maps.
Activity 1	Undertake a quiz on the symbols found on 1:50000 and 1:25000 maps

Activity Assessment Sheet Quiz was successfully completed		
Date	**Signature**	**Name/Rank**
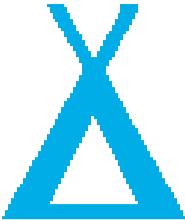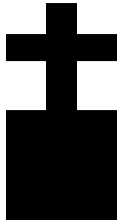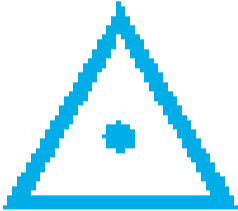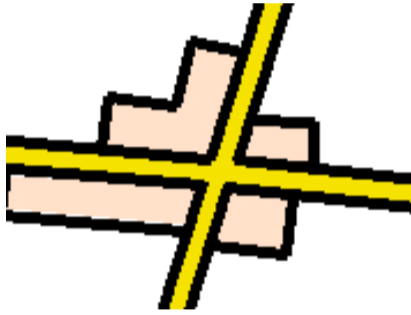
PASS LEVEL - MANDATORY QUESTION	
Task P2	Identify the main symbols on Ordnance Survey maps.
Activity 2	Write in the boxes beneath symbol what each represents.

1:50000 Ordnance Survey map symbols

1.	2.	3.
4.	5.	6.

7.	8.	9.	10.

11.	12.	13.

Task P2 / Activity 2

	Yes	No		Yes	No		Yes	No		Yes	No
1			2			3			4		
5			6			7			8		
9			10			11			12		
13											

Activity successfully completed		
Date	**Signature**	**Name/Rank**
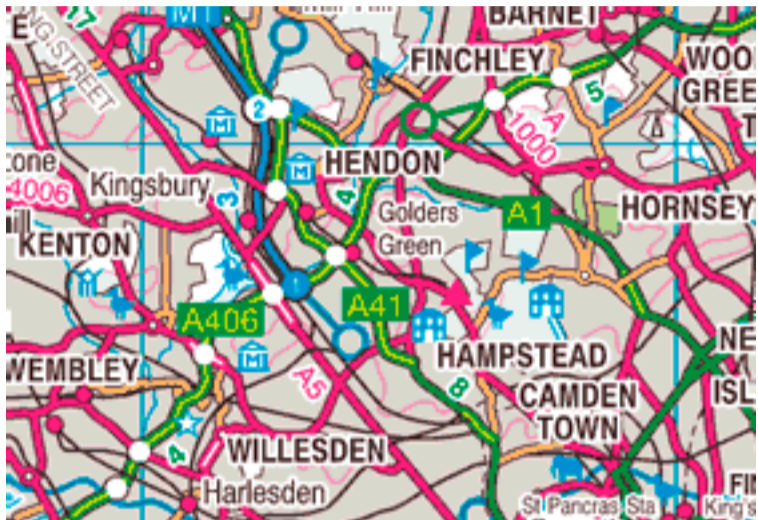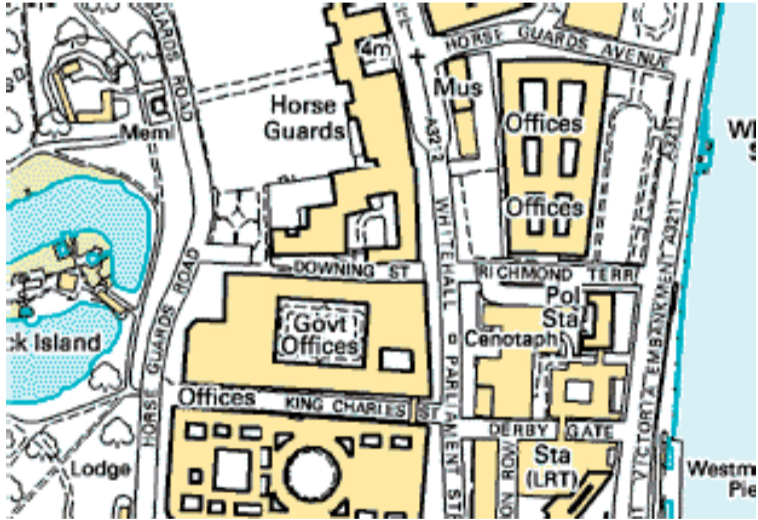
First Class Cadet
MAP READING
Learning Outcome 1: Know the scales and features of Ordnance Survey Maps

MERIT LEVEL - OPTIONAL QUESTION

Task M1	Explain the importance of the use of scale and symbols on Ordnance Survey maps.
Activity 1	Identify the scale of the following maps, say what the purpose of each is and why the scale is important for that role.

1.

2.

3.

	Yes	No		Yes	No		Yes	No
1			2			3		

Activity successfully completed		
Date	**Signature**	**Name/Rank**

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MERIT LEVEL – OPTIONAL QUESTION	
Task M1	Explain the importance of the use of scale and symbols on Ordnance Survey maps.
Activity 2	Using a 1:25,000 or 1:50,000 Ordnance Survey map explain to your instructor why symbols are important to planning a route, locating your position and finding your way.

A satisfactory explanation was give using an OS map

Date	Signature	Name/Rank

First Class Cadet
MAP READING
Learning Outcome 2: Be able to use the UK grid referencing system

PASS LEVEL - MANDATORY QUESTION

Task P3	Use grid referencing systems on Ordnance Survey maps to find locations.
Activity 1	Undertake practical grid referencing exercises.

Activity Sheet Grid Referencing exercises were satisfactorily completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P3	Use grid referencing systems on Ordnance Survey maps to find locations.
Activity 2	Find the 6 figure grid references of the details indicated by the 14 arrows on the Potters Bar map in the back of this booklet. Instructor – Tick if correct.

1			2		
3			4		
5			6		
7			8		
9			10		
11			12		
13			14		

Activity successfully completed

Date	Signature	Name/Rank

First Class Cadet
MAP READING
Learning Outcome 3: Be able to plan routes using Ordnance Survey map features and contour lines

PASS LEVEL - MANDATORY QUESTION	
Task P4	Describe the main land features found on Ordnance Survey maps when planning routes.
Activity 1	With your instructor, use an OS Map to identify the main land features and describe what they look like, or point them out.

Activity Assessment sheet successfully completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION			
Task P4	Describe the main land features found on Ordnance Survey maps when planning routes		
Activity 2	Using the Rhum map in the back of this booklet to name the relief features 1 to 5 on the map.		

		Y	N
Feature 1			
Feature 2		Y	N
Feature 3		Y	N
Feature 4		Y	N
Feature 5		Y	N

Activity successfully completed		
Date	**Signature**	**Name/Rank**

MERIT AND DISTINCTION LEVEL - OPTIONAL QUESTION

Task M2/D1	Explain why the land features shown on Ordnance Survey maps are important for planning routes (M2).
	Plan accurate routes using the features shown an Ordnance Survey map (D1).
Activity 1	You should now plan two or more routes using the land features of OS maps. These routes must be accurate and achievable. On at least one of these routes you should explain to your instructor why land features are important to the planning of the route.

Task M2/D1 Activity Assessment Sheet was satisfactorily completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

| Task P5 | Use the contour lines shown on an Ordnance Survey maps to plan routes. |
| Activity 1 | Using the Rhum map in the back of this booklet to answer the following questions. |

Question 1: What are the types of slopes under the lines numbered 6 and 7?

Answer:	Y	N

Question 2: What is the approximate height above sea level of Long Loch?

Answer:	Y	N

Question 3: What is the difference in height between the Kinloch Mountain Rescue Post and Hallival (395 963)?

Answer:	Y	N

Question 4: What is the name of the feature numbered 8 and what is its highest point?

Answer:	Y	N

Activity successfully completed

Date	Signature	Name/Rank

MERIT LEVEL - OPTIONAL QUESTIONS (ACTIVITIES 1 – 3)	
Task M3	Assess the slope gradient when planning routes.
Activity 1 Question	If the Vertical Interval between two places is 90 metres and the Horizontal Equivalent is 2 kilometres, what is the gradient (to the nearest whole figure)?
Activity 1 Answer	
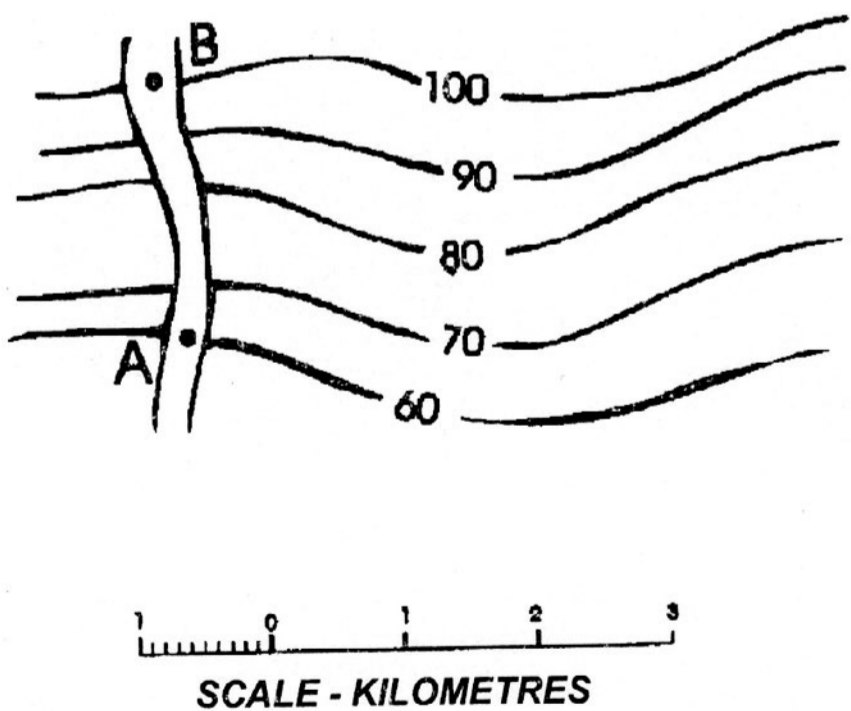
Activity successfully completed		
Date	**Signature**	**Name/Rank**

Activity 2 Question	Which of the following gradients is the steepest? 1:5 / 1:9 / 1:15 / 1:30 / 1:50
Activity 2 Answer	

Activity successfully completed		
Date	**Signature**	**Name/Rank**
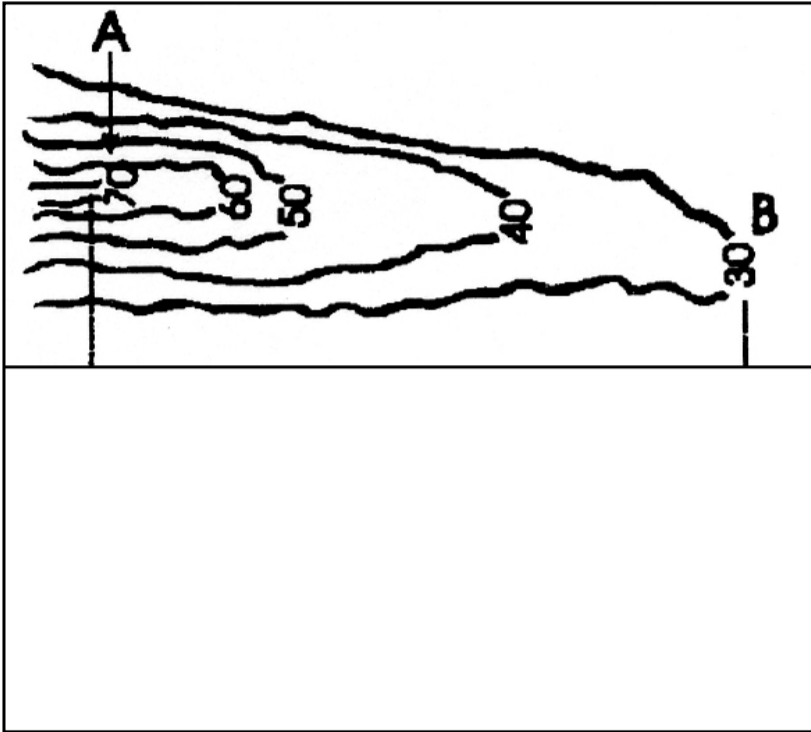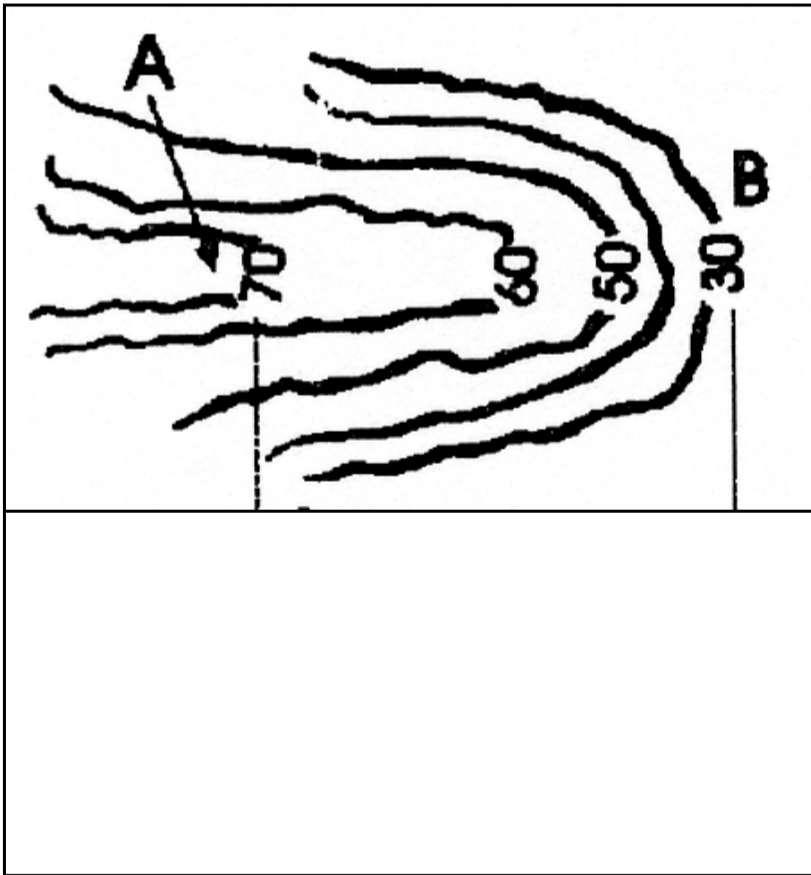
Activity 3 Question	Calculate the gradient between Point A and Point B on the diagram and show it as both a ratio and a percentage.

Activity 3 Answer	

SCALE - KILOMETRES

Activity successfully completed		
Date	**Signature**	**Name/Rank**

Task D2	Analyse sections of land profile by projection from map contour lines to get accurately from one point to the next.
Activity 1 Question	Draw a cross section of the slope beneath the diagram.

Activity 2 Question	**What is name of this type of slope?**	**Activity 2 Answer**	
Activity 3 Question	**Can point B be seen from point A?**	**Activity 3 Answer**	

Activity 4 Question	Draw a cross section of the slope beneath the diagram.

Activity 5 Question	**What is name of this type of slope?**	**Activity 5 Answer**	
Activity 6 Question	**Can point B be seen from point A?**	**Activity 6 Answer**	

Activity 7 Question	Draw a cross section of the slope beneath the diagram.

Activity 8 Question	What are the 2 land features shown?	Activity 8 Answer	
Activity 9 Question	Can point B be seen from point A?	Activity 9 Answer	

Activity 10 Question	Draw a cross section of the slope beneath the diagram.

Activity 11 Question	Which slope is steeper A or B?	Activity 11 Answer	
Activity 12 Question	Can point B be seen from point A?	Activity 12 Answer	

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Activity 13 Question	Draw a cross section of the slope beneath the diagram.
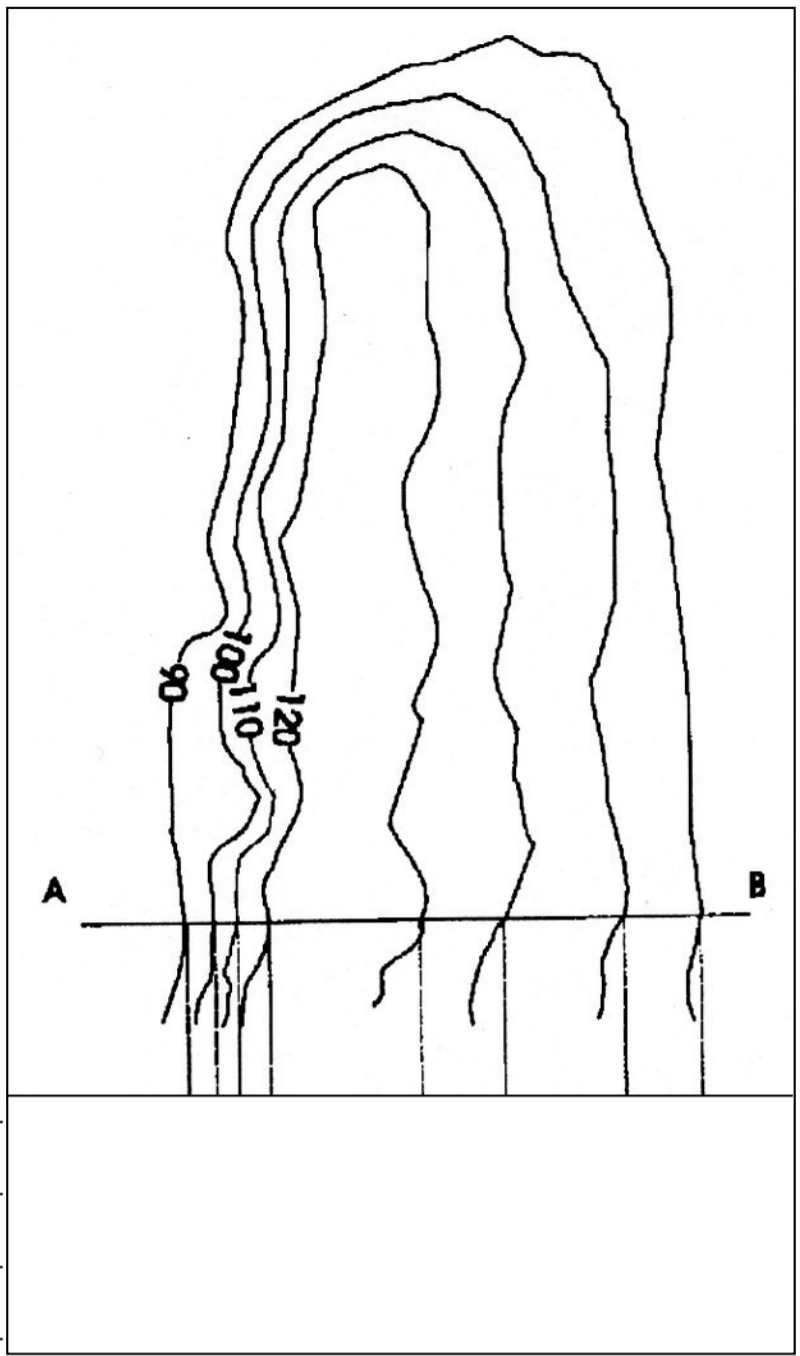
Activity 14 Question	What is this land feature called?	Activity 14 Answer	
Activity 15 Question	Can point B be seen from point A?	Activity 15 Answer	

Task D2 / Activities 1-15 - Marking

1	Yes	No	2	Yes	No	3	Yes	No	4	Yes	No
5	Yes	No	6	Yes	No	7	Yes	No	8	Yes	No
9	Yes	No	10	Yes	No	11	Yes	No	12	Yes	No
13	Yes	No	14	Yes	No	15	Yes	No			

Activity successfully completed

Date	Signature	Name/Rank

Initial Expedition Training

Plan & prepare for safe walking expeditions

Use tents & carry equipment safety

Principles of safe camp craft on an expedition

Recognise & treat the effects of hypothermia & heat

PASS LEVEL - MANDATORY QUESTION

Task P1	Describe factors for consideration when planning a walking expedition.
Activity 1	Identify 4 factors that should be considered at the initial planning stage of an expedition.

1.

2.

3.

4.

Activity successfully completed

Date	Signature	Name/Rank

MERIT LEVEL - OPTIONAL QUESTION

Task M1	Explain the importance of factors for consideration when planning a walking expedition.
Activity 1	Why are the 4 factors identified in the previous question important?

1.

2.

3.

4.

Activity successfully completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P2	List the Country Code.
Activity 1	List the 5 main points of the Country Code.

1.

2.

3.

4.

5.

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P3	Describe the purpose of a route card in a walking expedition.
Activity 1	Complete a route card for an imaginary or actual expedition. Explain verbally why each part is important.

Activity Assessment Sheet successfully completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P4	Identify how to prepare expedition equipment and clothing suitable for the walk being planned.
Activity 1	Demonstrate how expedition equipment can be prepared.

Activity Assessment Sheet successfully completed

Date	Signature	Name/Rank

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MERIT LEVEL - OPTIONAL QUESTION

Task M2	Explain the importance of correct equipment for safety for everyone in an expedition.
Activity 1	Identify expedition safety equipment. Explain its use and importance.

Equipment	Use	Importance

Activity successfully completed

Date	Signature	Name/Rank

DISTINCTION LEVEL - OPTIONAL QUESTION

Task D1	Evaluate safety considerations for walking expeditions.
Activity 1	Identify the safety considerations and say why they are important.

Safety Considerations	Why are they important

Activity successfully completed

Date	Signature	Name/Rank

First Class Cadet
INITIAL EXPEDITION TRAINING
Learning Outcome 2: Be able to use tents and carry equipment safety

PASS LEVEL - MANDATORY QUESTION	
Task P5	Demonstrate the erection of tents for a walking expedition.
Activity 1	The cadet is able to erect a tent as part of a practical exercise.

Activity Assessment Sheet successfully completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION	
Task P6	Demonstrate methods of kit packing for an expedition.
Activity 1	The cadet is able to pack a rucksack as part of a practical exercise.

Activity Assessment Sheet successfully completed		
Date	**Signature**	**Name/Rank**

MERIT LEVEL - OPTIONAL QUESTION	
Task M3	Use tents and carry equipment appropriate for a specific expedition.
Activity 1	The cadet is able to use a tent and a rucksack in a practical activity.

Activity Assessment Sheet successfully completed		
Date	**Signature**	**Name/Rank**

DISTINCTION LEVEL - OPTIONAL QUESTION	
Task D2	Justify selection of tents and carry equipment for specific expedition scenarios.
Activity 1	Why is specific equipment needed in particular circumstances? Give examples.

Activity successfully completed		
Date	**Signature**	**Name/Rank**

First Class Cadet
INITIAL EXPEDITION TRAINING
Learning Outcome 3: Understand the principles of safe camp craft on an expedition

PASS LEVEL - MANDATORY QUESTION	
Task P7	Describe the principles of warmth and comfort in camp.
Activity 1	Identify 4 things that can improve warmth and/or comfort whilst in camp on an expedition.

1.

2.

3.

4.

Activity successfully completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION	
Task P8	Describe the essentials of siting, pitching and striking a camp.
Activity 1	Identify 3 important factors for each of the following

Siting a camp 1:	
Siting a camp 2:	
Siting a camp 3:	
Pitching a tent 1:	
Pitching a tent 2:	
Pitching a tent 3:	
Striking a camp 1:	
Striking a camp 2:	
Striking a camp 3:	

Activity 1 successfully completed		
Date	**Signature**	**Name/Rank**

Activity 2	Practice the essentials of siting, pitching and striking a camp.

Activity 2 successfully completed		
Date	**Signature**	**Name/Rank**

MERIT LEVEL - OPTIONAL QUESTION

Task M4	Explain the principles of safe camp craft on an expedition.
Activity 1	How can the principles of safe camp craft be applied to an expedition?

Activity successfully completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P9	Explain food and cooking safety considerations for expeditions.
Activity 1	The cadet gave a verbal explanation and a demonstration of food and cooking preparation.

Activity Assessment Sheet successfully completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION	
Task P10	Explain the symptoms of hypothermia and heat excess.
Activity 1	Explain the symptoms of hypothermia.

1.

2.

3.

4.

5.

6.

7.

Activity 1 successfully completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION	
Task P10	Explain the symptoms of hypothermia and heat excess.
Activity 2	Explain the symptoms of heat exhaustion.
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

Activity 2 successfully completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION	
Task P10	Explain the symptoms of hypothermia and heat excess.
Activity 3	Explain the symptoms of heat stroke.
1.	
2.	
3.	
4.	

Activity 3 successfully completed		
Date	**Signature**	**Name/Rank**

40

INITIAL EXPEDITION TRAINING
Learning Outcome 4:
Understand how to recognise and treat the effects of hypothermia and heat on individuals

PASS LEVEL - MANDATORY QUESTION

Task P11	Describe how to treat hypothermia and heat excess.
Activity 1	Describe how to treat hypothermia in addition to seeking immediate medical help.

1.

2.

3.

4.

5.

Activity 1 successfully completed

Date	Signature	Name/Rank

Activity 2	Describe how to treat heat exhaustion in addition to seeking immediate medical help.

1.

2.

Activity 2 successfully completed

Date	Signature	Name/Rank

Activity 3	Describe how to treat heat stroke in addition to seeking immediate medical help.

1.

2.

Activity 3 successfully completed

Date	Signature	Name/Rank

Basic Radio Communications

Types of radio equipment used within the RAF Air Cadets

Sending messages on the Air Cadet radio network

Procedures needed for the safe use of radio

First Class Cadet
BASIC RADIO COMMUNICATIONS
Learning Outcome 1:
Understand the types of radio equipment used within the RAF Air Cadets

PASS LEVEL - MANDATORY QUESTION

Task P1	Describe the types of radio equipment used within the Air Cadet radio networks.
Activity 1	Answer the following questions.

Type of Radio	Main Use	Average Range	Advantages or Disadvantages
Base Set			
Vehicle Installation			
Hand Held Radio			

Activity successfully completed

Date	Signature	Name/Rank

PASS LEVEL - MANDATORY QUESTION

Task P2	Describe how radio equipment's operational frequency can limit its use.
Activity 1	Undertake a verbal assessment.
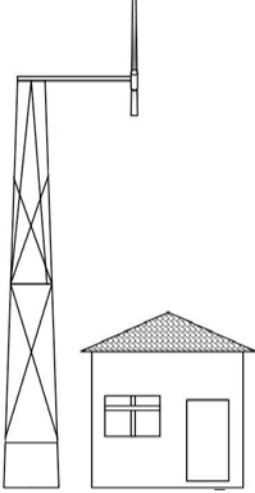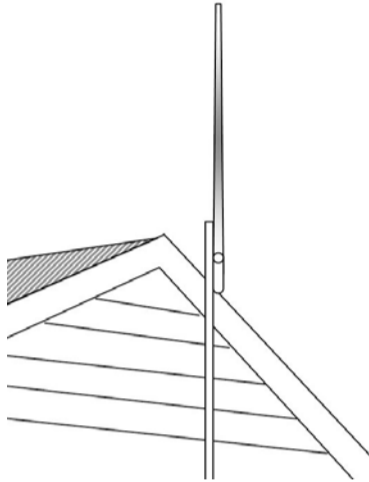
Activity Assessment Sheet successfully completed

Date	Signature	Name/Rank

BASIC RADIO COMMUNICATIONS
Learning Outcome 1:
Understand the types of radio equipment used within the RAF Air Cadets

PASS LEVEL - MANDATORY QUESTION	
Task P3	Outline the link between aerials and the range of radio transmissions.
Activity 1	Annotate the following diagrams showing which aerial locations are better for Medium, Short and Long Range communications.

1.	2.	3.

PASS LEVEL - MANDATORY QUESTION	
Task P3	Outline the link between aerials and the range of radio transmissions.
Activity 2	What conclusion do YOU come to as regards to the height of the aerial and range of transmission?

Activity 1 & Activity 2 successfully completed		
Date	**Signature**	**Name/Rank**

BASIC RADIO COMMUNICATIONS
Learning Outcome 1:
Understand the types of radio equipment used within the RAF Air Cadets

PASS LEVEL - MANDATORY QUESTION		
Task P4	Describe some of the features of an Air Cadet Radio Network that enable the sending of messages.	
Activity 1	Complete the following table for each type of Network.	
	MRL 47 ⟷ **MRH 67** / **MRK 17** ⟷ **MRK 92** (interconnected)	**MRL 47** **MRH 67** / **MRV 92** / **MRK 17** **MRK 92** (star)
Name the type of network shown.		
May MRK92 freely talk to MRL47?		
Who controls this network?		
Who sends most of the messages?		
Will all stations be able to communicate directly?		

Activity successfully completed		
Date	**Signature**	**Name/Rank**

45

BASIC RADIO COMMUNICATIONS
Learning Outcome 1:
Understand the types of radio equipment used within the RAF Air Cadets

MERIT LEVEL - OPTIONAL QUESTION

Task M1	Explain the relationship between frequency and aerial length
Activity 1	What is the relationship between frequency and aerial length?

Explanation satisfactorily completed

Date	Signature	Name/Rank

MERIT LEVEL - OPTIONAL QUESTION

Task M2	Explain the construction of a callsign used by an Air Cadet Unit and how a mobile callsign would be constructed from a base callsign.
Activity 1	Complete the table below.

What is your unit callsign?		
Indicate what each part of the callsign means	M	
	R	
What would be added to indicate a mobile callsign?		

Explanation satisfactorily completed

Date	Signature	Name/Rank

First Class Cadet
BASIC RADIO COMMUNICATIONS
Learning Outcome 1:
Understand the types of radio equipment used within the RAF Air Cadets

DISTINCTION LEVEL - OPTIONAL QUESTION	
Task D1	Evaluate the factors which will influence the choice of a control station.
Activity 1	What factors do YOU think are relevant?

Factor	Comment

A satisfactory understanding of choices		
Date	**Signature**	**Name/Rank**

First Class Cadet
BASIC RADIO COMMUNICATIONS
Learning Outcome 2:
Be able to send messages on the Air Cadet Radio Network

PASS LEVEL - MANDATORY QUESTION	
Task P5	Use the phonetic alphabet to spell words and convey figures in radio messages.
Activity 1	Undertake a verbal test of knowledge, spelling several words and using multiple numeric sequences.

Activity Assessment Sheet 'Phonetic' exercise was satisfactorily completed		
Date	**Signature**	**Name/Rank**

PASS LEVEL - MANDATORY QUESTION	
Task P6	Use radio procedures to obtain radio checks.
Activity 1	Undertake a simulated verbal test of procedures using known station and generic calls.

Activity Assessment Sheet 'Radio Check' exercise was satisfactorily completed		
Date	**Signature**	**Name/Rank**

BASIC RADIO COMMUNICATIONS
Learning Outcome 2:
Be able to send messages on the Air Cadet Radio Network

MERIT LEVEL - OPTIONAL QUESTION

Task M3	Use radio procedures to convey messages using correct messaging techniques.
Activity 1	Undertake a verbal test of various simulated message procedures.

Activity Assessment Sheet Verbal test was satisfactorily completed

Date	Signature	Name/Rank

DISTINCTION LEVEL - OPTIONAL QUESTION

Task D2	Use radio procedures to relay messages to other stations which are out of reach from the originating station
Activity 1	Undertake a verbal test of procedures using correct prowords and network control principles.

Activity Assessment Sheet Verbal test was satisfactorily completed

Date	Signature	Name/Rank

First Class Cadet
BASIC RADIO COMMUNICATIONS
Learning Outcome 3:
Be able to follow the procedures needed for the safe use of radio

<table>
<tr><td colspan="2" style="color:red">PASS LEVEL - MANDATORY QUESTION</td></tr>
<tr><td>Task P7</td><td>Demonstrate the safe care, handling and disposal of radio batteries.</td></tr>
<tr><td>Activity 1</td><td>Practically demonstrate, or discuss with your instructor if no batteries are available.</td></tr>
</table>

Activity Assessment Sheet successfully completed		
Date	**Signature**	**Name/Rank**

<table>
<tr><td colspan="2" style="color:red">PASS LEVEL - MANDATORY QUESTION</td></tr>
<tr><td>Task P8</td><td>Show correct procedures when using portable radio equipment.</td></tr>
<tr><td>Activity 1</td><td>Practically demonstrate, or discuss with your instructor if no equipment is available.</td></tr>
</table>

Activity Assessment Sheet successfully completed		
Date	**Signature**	**Name/Rank**

BASIC RADIO COMMUNICATIONS
Learning Outcome 3:
Be able to follow the procedures needed for the safe use of radio

PASS LEVEL - MANDATORY QUESTION	
Task P9	Identify health and safety issues associated with radio operations when operating radio equipment.
Activity 1	List the health and safety issues associated with radio operations below and any safety actions you would take.

Issue	Action

Health and Safety issues successfully completed		
Date	**Signature**	**Name/Rank**

BASIC RADIO COMMUNICATIONS
Learning Outcome 3:
Be able to follow the procedures needed for the safe use of radio

MERIT LEVEL - OPTIONAL QUESTION							
Task M4	Demonstrate the safe assembly of a handheld radio, battery and aerial.						
Activity 1	Practically demonstrate, or discuss with your instructor if no equipment is available.						
Battery handling		**Radio handling**		**Correct assembly**		**Aerial fitting**	
Yes		**Yes**		**Yes**		**Yes**	
No		**No**		**No**		**No**	

Demonstration/Discussion successfully completed		
Date	**Signature**	**Name/Rank**

Potters Bar Map

Rhum Map
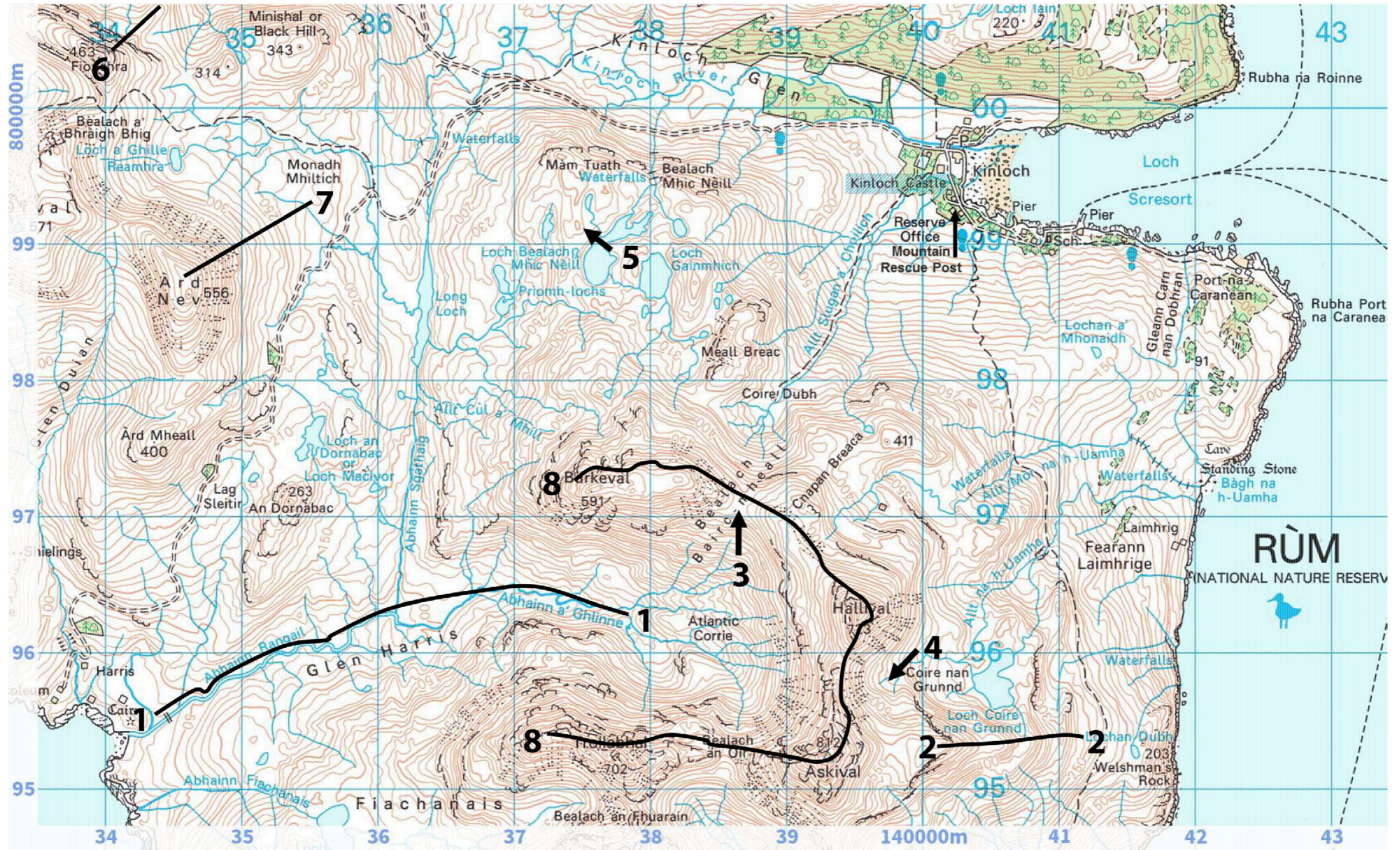
CADET'S DECLARATION

I declare that answers given in this Logbook are entirely my own work.

Date	Signature	Name/Rank

INTERNAL VERIFICATION DECLARATION

DECLARATION

This declaration should be made by someone who has not signed any of the contents of the Logbook, as per ACTO 18.

I declare that I am satisfied that the contents of this Logbook are the cadet's own work and have been appropriately assessed.

Date	Signature	Name/Rank

NOW UPDATE BADER SMS

Document Audit		
Date	Signature	Name/Rank