



ASSESSMENT GUIDELINE

Communicate in the outdoors using two-way radio

Unit Standard: 4573

Level: 2 Credit: 1 Version: 6

Published by Sfrito 2006

Purpose:

People credited with this unit standard are able to communicate in the outdoors using two-way radio.

This unit standard may be of interest to patrollers, heliski guides, mountain guides, outdoor leaders and instructors, snowsport area personnel, and emergency services.

Special Notes:

1. Range Single Side Band (SSB), or Very High Frequency (VHF), or Ultra High Frequency (UHF), using base or hand-held equipment.
2. The technical operation of radios and the use of radio frequencies are controlled by the Radiocommunications Act 1989, Radiocommunications Amendment Act 2000 and Radiocommunication Regulations 2001.
3. The Official Information Act 1982, Privacy Act 1993, and State Sector Act 1988 apply to the sending and receiving of messages.
4. Indecent language over the radio can be prosecuted under the Summary Offences Act 1981.
5. All activities must comply with the requirements of the Health and Safety in Employment Act 1992.
6. Radio licensees such as the Mountain Radio Service provide a handout with their radios outlining the protocol, channel(s), and frequency which they require people to use when hiring their radios.

Overview of assessment:

This assessment has 2 tasks

Task 1: Demonstrate radio maintenance procedures

Task 2: Set up and use a radio to communicate under difficult conditions

Task1: Demonstrate radio maintenance procedures

Resources:

- Radio and battery
- Battery charger
- Data log sheets if organisation requires it

Instruction to candidate:

During the task you are required to:

- Complete the daily maintenance steps to look after a radio set

Element 1: Communicate in the outdoors using two-way radio.

Performance criteria	Evidence/Judgement
1.1 Daily maintenance and recharging procedures are completed to operational requirements.	<ul style="list-style-type: none">• Candidate completes the daily maintenance and recharging tasks according to the manufacturer's recommendations• Any data recording requirements of the organisation are correctly carried out• For example:<ul style="list-style-type: none">- On a ski field or similar operation this may mean: Batteries are removed and replaced; batteries are placed in charger according to manufacturer's recommendations; batteries are placed in correct location if charger is full.- With a mountain radio this may mean for example: Turning it off after using it for a transmission; packing it up ready for next use

Task 2: Set up and use a radio to communicate under difficult conditions

Resources:

- Handheld radios with battery for the candidate
- Another radio (handheld or base set) to communicate with
- <http://www.mountainradio.co.nz/>
- [http://www.mountainsafety.org.nz/assets/images/MTN%20Radio%202005\(1\).pdf](http://www.mountainsafety.org.nz/assets/images/MTN%20Radio%202005(1).pdf)

Notes to the Assessor

1. Difficult conditions include:
 - Noise such as poor radio reception, mechanical noise
 - Or environmental conditions such as rain, snow or wind
2. Communication must occur under two different difficult conditions

Instruction to candidate:

During this task you are required to do the following under difficult conditions:

- Set a radio up to be used
- Select the correct channel or frequency
- Communicate with the base radio and another radio in the field

Element 1: Communicate in the outdoors using two-way radio.

Performance criteria	Evidence/Judgement
1.2 Radio is set up and used to obtain best coverage and reception.	<ul style="list-style-type: none">• Battery is charged and radio turned on• Any other manufacturer's recommendations are followed e.g. aerial is correctly fitted and used; squelch control is adjusted• The right channel or frequency is chosen• Acknowledgement of successful communication is received• Messages are spoken clearly and calmly• Offensive language and slang are avoided• Correct terminology is used e.g. on a skifield locations are given using landmark references and true right or true left.• Any relevant organisation protocol is followed e.g. priority is given to certain transmissions; communication occurs at the pre-arranged times.
1.3 Channel or frequency is selected according to the requirements and urgency of the message, within the frequency range authorised on the radio licence.	
1.4 Messages are sent and received using language acceptable under the Summary Offences Act 1981.	
1.5 Messages are sent and received using radio protocol as required by the organisation and/or radio licensee.	

<p>1.6 Messages are communicated and/or relayed under difficult conditions with the required detail, and communication is acknowledged.</p> <p>Range difficult conditions – poor radio reception or difficult environmental conditions (eg noise, rain, snow, or wind);</p> <p>may include – ‘10’ codes, phonetic alphabet;</p> <p>evidence of two difficult conditions is required.</p>	<ul style="list-style-type: none"> • Minimum details necessary are communicated. For reporting an accident this could mean: <ul style="list-style-type: none"> - Nature, location of accident; actions taken; what assistance is requested • Any critical details are recorded e.g. actions taken or instructions received • If communication is not successful then an alternative strategy is used e.g. ‘10’ codes, phonetic alphabet, relaying transmission
	<ul style="list-style-type: none"> • The candidate identifies which channel or frequency critical recipients can be contacted on e.g. ski patrol on a skifield; mountain radio service.

Candidate Name _____ NSN _____

**Unit 4573 (v6) Checklist
Communicate in the outdoors using two-way radio**

Assessor name: _____

Organisation name: _____

C/NYC

Comments

Task 1: Demonstrate radio maintenance procedures

- Candidate completes the daily maintenance and recharging tasks according to the manufacturer's recommendations
- Any data recording requirements of the organisation are correctly carried out

Task 2: Set up and use a radio to communicate under difficult conditions

Difficult condition 2

Difficult condition 1

- Battery is charged and radio turned on
- Any other manufacturer's recommendations are followed e.g. aerial is correctly fitted and used
- The right channel or frequency is chosen
- Acknowledgement of successful communication is received
- Messages are spoken clearly and calmly
- Offensive language and slang are avoided
- Correct terminology is used
- Any relevant organisation protocol is followed
- Minimum details necessary are communicated
- Any critical details are recorded
- If difficult conditions mean communication is not occurring then an alternative strategy is used
- The candidate identifies which channel or frequency critical recipients can be contacted on

DATE	CANDIDATE'S SIGNATURE	ASSESSOR'S SIGNATURE	C/NYC

Comments: