

Control avalanches using helicopter bombing

Level 5

Credits 6

Purpose People credited with this unit standard are able to operate in a safe manner as a team leader while undertaking avalanche control work from a helicopter, and operate as a team leader in the use of handcharges for avalanche control work from a helicopter.

Subfield Snowsport

Domain Avalanche

Status Registered

Status date 28 March 2001

Date version published 23 February 2007

Planned review date 31 December 2008

Entry information Prerequisite: Unit 4563, *Control avalanches using handcharges*, or demonstrate equivalent skills and knowledge.

Accreditation Evaluation of documentation and visit by NZQA and industry.

Standard setting body (SSB) Sport, Fitness and Recreation Industry Training Organisation Limited

Accreditation and Moderation Action Plan (AMAP) reference 0050

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 All activities must comply with the policies and requirements of the enterprises involved and any relevant legislative and/or regulatory requirements which include but are not limited to the Hazardous Substances and New Organisms (HSNO) Act 1996, Health and Safety in Employment Act 1992, and their associated regulations.

- 2 The hazardous substances provisions of the HSNO Act 1996 was introduced progressively from July 2001. This included the repeal of the Dangerous Goods Act 1974, Explosives Act 1957, Explosives Regulations 1959, and aspects of the Transport Act 1962. The Environmental Risk Management Authority (ERMA) will be responsible for assessing and approving hazardous substances and where appropriate, setting controls on the way the substance is used. Any questions relating to the transitional provisions for hazardous substances should be directed to ERMA New Zealand, <http://ermanz.govt.nz>, telephone 04 916 2426 or Sfrito, <http://www.sfrito.org.nz>, telephone 04 385 9047.
- 3 It is a requirement of the snowsport industry that people working towards this unit standard work as an assistant on a team (that is, under supervision) for a minimum of one season including roles as an observer, assistant bomber, and bombardier.
- 4 People undertaking this unit standard require mountain travelling skills (foot, board or ski) in the event of a helicopter malfunction, and it is strongly recommended that they have leadership skills in avalanche search and rescue.
- 5 Avalanche(s) which occur as a result of control work are documented according to the *New Zealand Guidelines and Recording Standards for Weather, Snowpack and Avalanche Observations*, (Wellington: New Zealand Mountain Safety Council, 2003).
- 6 There are minimum assessor requirements for assessment against this unit standard. The details of these requirements are available on the Sfrito website <http://www.sfrito.org.nz>.
- 7 Helicopters and their pilots must meet the requirements of the Civil Aviation Authority (CAA) for helicopter bombing operations.

Elements and performance criteria

Element 1

Operate in a safe manner as a team leader while undertaking avalanche control work from a helicopter.

Performance criteria

- 1.1 Explosives and their components are secured and transported in the helicopter according to HSNO regulations and operational requirements.
- 1.2 Safe practices are demonstrated for reducing exposure to hazards and minimising the danger from explosives during control work.

Range communication procedures with helicopter pilot and assistant and/or spotter, harness system used, construction of primer prior to entering helicopter, assembly of charge in helicopter, completing area closure for public safety.

1.3 Safety equipment is carried according to operating guidelines and industry practice.

Range transceivers, radios, mountain clothing and equipment.

1.4 Emergency procedures for jettisoning explosives are demonstrated in a simulated situation, in accordance with HSNO and CAA regulations and the operating requirements of the helicopter and pilot.

Element 2

Operate as a team leader in the use of handcharges for avalanche control work from a helicopter.

Performance criteria

2.1 Handcharges are assembled in approved locations and in accordance with HSNO regulations.

2.2 Placement locations are designated and communicated to the pilot and the helicopter bombing team pre-flight.

2.3 Charges are dispatched according to industry requirements and operational requirements.

Range lighting of fuse in relation to helicopter, throwing of charge in relation to helicopter in slow flight and/or hover, use of communication procedures with pilot and assistant and/or spotter, stop watch used.

2.4 Control work is documented using industry guidelines and according to operational requirements.

Range time, date, location, placement of charge, type and size of detonation, detonation status, avalanche occurrence and/or non-occurrence, avalanche characteristics, resulting damage, misfires.

2.5 Misfires and suspected misfires are dealt with according to operational and safety requirements.

Range information recorded, waiting period observed, non-sparking shovels used, placement of second charge or location marked for disposal later in season.

2.6 Team members are supervised during all parts of the assembly and dispatching of projectiles.

Please note

Providers must be accredited by the Qualifications Authority, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Sport, Fitness and Recreation Industry Training Organisation Limited info@srito.org.nz if you wish to suggest changes to the content of this unit standard.