

AVALANCHE NEWS NO. 8  
January 1982

EDITORIAL NOTE

The intention of AVALANCHE NEWS is to assist communication between persons and organizations engaged in snow avalanche work in Canada. Short articles cover reports of accidents, upcoming and past events, new techniques and equipment, publications, personal news, activities or organizations concerned with avalanche safety, education and research. Contributions are expected from the readers.

Avalanche News is issued three times per year, usually in January, June and October. There is no subscription fee. Requests for copies and notifications of changes of address should be sent to the publisher.

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**AVALANCHE NEWS**  
Canadian Avalanche Association, 3904 West 4th Ave., Vancouver, B.C., V6R 1P5  
JANUARY 1982 No. 8



## CANADIAN AVALANCHE ASSOCIATION

The steering committee appointed during the meeting of avalanche safety operators on May 5, 1981, at Banff has written a constitution and by-laws and submitted them to the Registrar of Companies of the Province of British Columbia. On December 30, 1981, the certificate of incorporation was issued; consequently the Canadian Avalanche Association is now a reality.

### Constitution

The constitution of the Association states:

1. The name of the society is "CANADIAN AVALANCHE ASSOCIATION".
2. The purposes of the Canadian Avalanche Association are:
  - a) To represent persons who are professionally engaged in avalanche work in Canada.
  - b) To establish and maintain high standards of professional competence and ethics for persons engaged in avalanche safety programs.
  - c) To exchange technical information and to maintain communications between persons engaged in avalanche safety programs.
  - d) To establish and maintain standards of education in avalanche safety.
  - e) To organize training courses in all aspects of avalanche hazard control for professionals.
  - f) To promote and to act as a resource base for public awareness programs about avalanche hazards and safety measures.
  - g) To promote research and development in avalanche safety.

### Membership

The following by-laws pertain to the admission of members to the Association:

1. In these by-laws, unless the context otherwise requires,
  - a) "directors" means the directors of the society for the time being;
  - b) "registered address" of a member means his address as recorded in the register of members;
  - c) "avalanche-related activity" means the carrying out on a field level either work necessary for evaluating snow avalanche hazards or research concerning snow avalanches, or the implementation of protective measures against snow avalanches, including restrictions to travel, avalanche control, search and rescue;
  - d) "supervisory position" means carrying out work that includes the supervision of persons who take observations for the purpose of evaluation avalanche hazards, making decisions concerning protective measures and being responsible for the safety of persons travelling in terrain subject to avalanche hazards;
  - e) "society" means the Canadian Avalanche Association.

3. The members of the Society are the applicants for incorporation of the Society and those persons who subsequently have become members, in accordance with these by-laws and, in either case, have not ceased to be members.
4.
  - a) A person or corporation may apply to the membership committee for membership in the Society and his application shall be accepted or rejected by the directors on the recommendation of the membership committee.
  - b) Applications for membership shall include proof that the requirements of By-law 9 or 12 have been met.
5.
  - a) A member may be expelled under By-law 10(d) or 13(d) by a special resolution of the members passed at a general meeting.
  - b) The notice of special resolution for expulsion shall be accompanied by a brief statement of the reason for the proposed expulsion.
  - c) The member who is the subject of the proposed resolution for expulsion shall be given an opportunity to be heard at the general meeting before the special resolution is put to a vote.
6. A member whose membership in the Society has ceased under By-law 10(a) or 13(a) may be re-instated by ordinary resolution passed at general meeting.
7. All members are in good standing except a member who has failed to pay his current annual membership fee or any other subscription or debt due and owing by him to the society and he is not in good standing so long as the debt remains unpaid.
8. Every member shall uphold the constitution and comply with these by-laws.
9. A person shall be eligible for active membership if he was involved in an avalanche-related activity in Canada on a full-time paid basis during four (4) winters of the six (6) years immediately preceding his application for membership and in the last two (2) of these winters held a supervisory position in field operations.
10. An active member shall cease to be a member of the Society:
  - a) by resolution of the directors upon recommendation of the membership committee when the member has not been active in avalanche-related work on a full-time paid basis for three (3) years, or;
  - b) by delivering his resignation in writing to the secretary of the Society or by mailing or delivering it to the address of the Society, or;

- c) on his death, or;
  - d) on being expelled, or;
  - e) on having been a member not in good standing for twelve (12) consecutive months,
11. Active members shall submit annually a summary of their avalanche-related activities of the past year.
12. A corporation or association shall be eligible for associate membership if it is involved in an avalanche-related activity or avalanche education on a part-time basis.

An associate member shall cease to be a member of the Society:

- a) by resolution of the directors upon recommendation of the membership committee when the member has not been active in avalanche-related work or avalanche education for three (3) years, or;
  - b) by delivering his resignation in writing to the secretary of the Society or by mailing or delivering it to the address of the Society, or;
  - c) on dissolution, or;
  - d) on being expelled, or;
  - e) on having been a member not in good standing for twelve (12) consecutive months.
25. a) Except as otherwise provided in this by-law, only active members are entitled to vote at a general meeting.
- b) An associate member may vote by its authorized representative in the election of an associate member in good standing to the position of director representing the associate members.
- c) Voting shall be by show of hands, unless a secret ballot is required by twenty (20%) percent of the active members present.
- d) Voting by proxy shall not be permitted.
44. The membership committee shall:
- a) receive applications for membership, investigate the qualifications of applicants, and recommend acceptance or rejection of applications to the directors of the society.
  - b) when necessary, investigate whether a member continues to meet the requirements for membership, and recommend termination of membership in accordance with By-Law 10(a) or 13(a) when he does not.
45. The membership committee shall consist of:
- a) an active member elected as chairman;
  - b) two additional active members.

Annual General Meeting

The first annual general meeting will be held on May 5, 1982, at Revelstoke, B.C.

Directors

The steering committee has elected the first directors of the Association. Their names had to be submitted to the authorities as a requirement for incorporation. The directors will retire from office at the forthcoming annual general meeting when either new directors will be elected or the first directors will be re-elected.

The first directors of the Canadian Avalanche Association are:

Peter Schaerer (President)  
National Research Council  
3904 West 4th Avenue  
VANCOUVER, B.C. V6R 1P5

Telephone: Bus - 604-732-4829; Res - 604-987-3716

Willi Pfisterer (Vice-President)  
Parks Canada  
P.O. Box 10  
JASPER, ALBERTA T0E 1E0

Telephone: Bus - 403-852-4401; Res - 403-852-3210

Geoff Freer (Secretary-Treasurer)  
B.C. Ministry of Transportation and Highways  
940 Blanshard Street  
VICTORIA, B.C. V8W 3E6

Telephone: Bus - 604-387-1738; Res - 604-383-6610

Walter Schleiss (Chairman of Membership Committee)  
Parks Canada  
P.O. Box 1585  
REVELSTOKE, B.C. VOE 2S0

Telephone: Bus - 604-837-6274; Res - 604-837-3877

Herbert Bleuer  
Mountain Guide  
P.O. Box 258  
WHISTLER, B.C. VON 1B0

Telephone: Bus - 604-932-5331; Res - 604-894-6994

Chris Stethem  
Avalanche Consultant  
P.O. Box 8  
WHISTLER, B.C. VON 1B0

Telephone: Bus - 604-932-3871; Res - 604-932-3788

The membership committee consists of Walter Schleiss, Willi Pfisterer, and Herbert Bleuer.

#### Fees

Upon acceptance of their applications, members shall pay an entry fee of \$20.00 (By-law 49).

The annual membership fee for active and associate members shall be decided at each annual general meeting (By-law 50).

#### Application For Membership

All persons who qualify for active membership and companies which wish to become associate members are invited to submit their applications to the Chairman of the Membership Committee, Mr. Walter Schleiss, P.O. Box 1585, Revelstoke, B.C., VOE 2S0.

Persons who apply for active membership must include a list of avalanche-related activities with references that permit checking of the activities when questions should arise. The enclosed application form may, but need not be, used.

It is recommended that applications be made as quickly as possible in order to allow processing before the first annual general meeting.

#### PREVENTIVE AND RESCUE MEASURES: CONCLUSIONS OF FORUM, DAVOS, 1979

The theme of a workshop held at Davos, Switzerland on September 12-14, 1979, was avalanche safety in skiing. A publication contains the papers, discussions, and conclusions of the meeting (see Avalanche News #6, page 9).

The conclusions were published as a series of statements which were edited and supplemented by the program committee after the workshop. They are not resolutions accepted by a majority of conference participants, but in the view of the workshop organizers they express the opinions of the participating experts, point to needed measures, or detect unsolved problems.

The conclusions of the workshop might be of interest to the readers of Avalanche News; therefore, they have been translated from German and are published here.

### Preventive Measures

- Measures for prevention of avalanche accidents have first priority.
- The public information about avalanche hazards, avalanche rescue, and mountain hazards in general must be intensified without application of scare tactics.
- Special attention must be paid to teaching avalanche knowledge in schools.
- Those who are responsible for others - in particular ski instructors, mountain guides, tour leaders - shall receive avalanche education in greater depth.
- The knowledge shall be taught in ski schools and courses. In particular, the topic "deep snow skiing" shall include instruction about avalanche hazards.
- It is recommended that experts in education, psychology, and the media be consulted when developing information programs concerning avalanche dangers.

### Avalanche Warning

- Avalanche warnings shall contain a realistic assessment and also inform about favourable conditions.
- Warnings must be in a language that is understandable and can be broadcasted by the media. It is useful to introduce standardized terms which must be defined in publications.
- Best is a weekly issue with supplementary reports whenever the conditions change significantly.
- The reports shall reach the public directly and without delay. Additional reports containing more details may be issued to regional organizations.
- Dissemination through television must be improved.

### Safety of Ski Resorts and Their Access

- Accommodations in a town must be safe from avalanches.
- Measures must be taken according to the size and infrastructure of the location when there is no absolute safety, namely:
  - structural defences;
  - organization of a local avalanche warning service (with warning, alarm, and evacuation)
  - artificial release of avalanches in close vicinity of dwellings must be carried out only under exceptional circumstances and by observing strict safety measures.
- The access to towns must be made safe either by structures or artificial release, and by accepting a residual risk; otherwise the access must be closed during avalanche periods. Closures must be enforced, for example with barriers.
- Automatic avalanche detection and traffic control systems may be suitable in special cases.
- The person responsible for closures and re-openings shall have no commercial interest in keeping the access open.
- Objective criteria for closure and opening must be established in advance.



### Safety of Ski Areas

- Developed ski areas shall have a safety organization suited to local conditions.
- Mountain railways and other means of passenger transport shall be safe from avalanches. Where this is not the case they must be protected:
  - by structural means;
  - by operational safety measures (artificial release), or;
  - by suspensions of traffic.

In this case too, the power of decision must rest with independent persons. Decisions concerning safety measures must be made at the location itself and not by a remote administration that has no direct observation of the conditions.

- Marked ski runs must either be made safe by avalanche control or be closed during periods of avalanche hazard.
- There should be at least one safe or easily controllable ski run from each mountain lift terminal.
- Conditions for safety shall be of primary consideration when issuing operating permits, and shall be reviewed from time to time.
- The extent of ski runs and trails usually is not identified clearly. Problems might arise occasionally concerning their boundary toward uncontrolled terrain.
- Ski runs in deep snow near lifts are the principal safety problem. Such runs shall be designated clearly as uncontrolled areas. In addition, local organizations shall post temporary warnings, for example by erecting signs.
- Telephone ski reports could contain information about open runs and their condition as well as the hazard in uncontrolled terrain.

### Artificial Release of Avalanches

- A variety of methods are applicable. Explosives take first consideration. Their effect is optimal when the detonation takes place above the snow surface.
- All methods contain a residual risk when no avalanche was released as a result of application. The magnitude of the risk depends on the method used.
- Ski stabilization and ski testing shall be done only after explosives have been applied.
- The positions for personnel carrying out the artificial release must have a safe access and be safe from avalanches during the application of explosives.

### Rescue by Party Members

- Search undertaken by party members has the greatest chance for recovering buried persons alive and is the most important means of rescue.
- A distinction must be made between a search with avalanche victim detectors and a search without them.
- The rescue by party members without a detector primarily consists of a search by eye, voice, and ear.
- If unsuccessful, help must be called.
- The duration of search by party members depends on size of the group and the possible arrival time of an organized rescue team. Local conditions will dictate the decision.

- Survivors who are not buried shall be able to probe and to dig with their own means. It would appear that the means presently available for these tasks have not been adequately developed.

#### Organized Rescue

- An organized rescue relies on a rescue organization which is part of the infrastructure of a ski area or a region.
- There is unanimity about the personnel, call out, and equipment of a rescue organization; therefore special statements are unnecessary.
- The arrival of an avalanche dog at the accident site makes a continuing search by eye and ear unnecessary. The dog has priority.
- A probe team shall contain at the maximum about 20 persons.
- Coarse probing shall be repeated (in a different direction if possible) if initially unsuccessful, before fine probing is initiated.
- No relevant cases of trenching for the search of buried persons when probing has been unsuccessful are known. (The problem will not be studied further because it does not concern rescue methods).
- If possible and justifiable, an organized search shall be carried out for at least two days. It is essential that the search continue during the night. The action shall be suspended only with permission of the next of kin.

#### Avalanche Victim Detectors

- Detectors based on the transmitter-receiver principle greatly assist the rescue by party members and are to be used by groups.
- The use of transceivers must not encourage users to take risks, as any avalanche burial is highly hazardous to life even with a rapid recovery.
- Who should carry transceivers?
  - ski tourers outside organized areas;
  - deep snow skiers in the vicinity of organized areas;
  - safety and rescue personnel for their own safety and to be able to search for lost persons.
  - persons who are exposed to avalanches when carrying out their duties, and course participants in winter terrain exercises.
- The transceivers must be switched to transmit (Check!) at the departure from a resort or a mountain terminal, regardless of whether an avalanche hazard is suspected
- Each party equipped with transceivers must carry portable shovels. Locating a buried person is only the first step toward his rescue; digging him out is the second one.
- The successful application of transceivers is conditional on instruction in operation, repeated practice, and function checks before each departure.
- Electronic search means, other than transmitter-receiver equipment, are being tested (radar, radiometer, secondary radar). Either they will not be available in the near future or they do not have any clear advantages over the use of transmitter-receiver equipment or the avalanche dog. The magnetometer makes the location of buried motor vehicles (construction equipment etc.) possible.

### The Avalanche Dog

- The avalanche dog remains a most valuable means of search for an organized rescue.
- The dog has the advantage of locating buried persons who carry no specific device.
- The effective search depth of a dog is on the average about two metres; however, occasionally victims (dead persons) have not been located at a lesser depth and persons (alive) have been located correctly at a greater depth.
- The successful use of an avalanche dog depends on careful and continuous training of the man and the dog.
- The most effective deployment of an avalanche dog is with a helicopter or from a mountain terminal.
- The dog - as a part of an organized rescue and requiring no specific device on the buried person - and the transceivers - as rescue equipment used by party members - supplement each other. The application of both means shall be promoted.

### PUBLICATIONS

AVALANCHE CONTROL, FORECASTING AND SAFETY. Proceedings of a workshop held at Banff, Alberta, 1-4 November, 1976. Technical Memorandum No. 120 of the Associate Committee on Geotechnical Research, National Research Council Canada. Price: \$1.00.

The book contains the presentations and discussions at the avalanche workshop in Banff. The topics of the workshop were avalanche safety measures in ski areas, highway operations, helicopter skiing, and back-country travel; techniques of avalanche hazard forecasting; avalanche warning programs; and equipment for search. The publication would make a useful addition to the proceedings of the Workshop 1980 for persons who have not received it previously.

GUIDELINES FOR WEATHER, SNOWPACK, AND AVALANCHE OBSERVATIONS. Technical Memorandum No. 132 of the Associate Committee on Geotechnical Research, National Research Council Canada. Price: \$3.00.

The publication describes the type, techniques, and recording format of observations recommended for operational avalanche hazard forecasting. The observations cover the weather, characteristics of the snowpack, in-situ strength tests of the snow with a shear frame, ramsonde, or shovel and occurrence of avalanches. Forms for recording and reporting avalanche accidents and damage are included. The observations described have been accepted as standard in avalanche safety operations in Canada.

PROCEEDINGS OF AVALANCHE WORKSHOP, 3-5 November, 1980, Vancouver, B.C.  
Technical Memorandum No. 133 of the Associate Committee on Geotechnical Research, National Research Council Canada. Price: \$10.00.

The objective of the workshop was to discuss the state of the art of selected topics of avalanche hazard forecasting and safety. The proceedings contain the formal presentation and summaries of discussions under the headings: data collection; weather information; snowpack observations; avalanche hazard evaluation; education; public warning programs; and rescue.

McCLUNG, DAVID M: FAILURE CHARACTERISTICS OF ALPINE SNOW IN SLOW DEFORMATION. Proceedings, International Symposium on the Mechanical Behaviours of Structured Media, Ottawa, 18-21 May, 1981, pp. 409-418. Reprint available as Publication No. NRCC 19675 of the National Research Council Canada. Price: \$1.00.

Seasonal snow in mountains is a bonded granular material for which failure depends on deformation rate and strain conditions. Failure characteristics of slowly deformed alpine snow are interpreted in terms of the following two mechanisms: (1) micro-fracturing of bonds that can produce loss of stiffness, a peak on the deformation curve and subsequent strain-softening; and (2) plastic slip and associated effects such as compaction, regelation, and bond formation (healing) that produce strain-hardening.

Data indicate that alpine snow displays a strong tendency for plastic slip and hardening effects when compressive deformation is present. It appears that some aspects of rate effects are understandable in terms of competition between micro-fracturing and plastic slip and healing effects in simple shear experiments, for example. Dry snow slab release is discussed as a possible application of these concepts.

The publications of the National Research Council, including the Technical Memoranda of the Associate Committee on Geotechnical Research may be obtained by mailing the appropriate remittance - cheque or money order, payable to the Receiver General of Canada - to:

Publication Sales  
National Research Council  
OTTAWA, ONTARIO K1A 0R6

McCLUNG, D.M., 1981. AVALANCHE FATALITIES IN HIMALAYAN MOUNTAINEERING. The American Alpine Journal, Vol. 23, Issue 55, pp. 138-145. The American Alpine Club, New York.

The author has compiled statistics on fatalities caused by avalanches between 1895 and 1979. The accidents were stratified according to peak, height, geographical location, type of activity when the accident occurred, and nationality of the victims.

INTERNATIONAL SNOW SCIENCE WORKSHOP  
\*A MERGING OF THEORY AND PRACTICE\*

MONTANA STATE UNIVERSITY  
BOZEMAN, MONTANA, U.S.A.  
OCTOBER 21-23, 1982

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Objective

The Montana State University Snow and Avalanche Research Group will hold a workshop to provide an opportunity for the mutual exchange of new ideas between those engaged in the study of theoretical professional and recreational aspects of snow. The workshop will consist of two days of discussion, a banquet Friday evening and a Saturday field session at Bridger Bowl Ski Area.

Topics

The workshop will be concerned with the following topics:

1. Snow Metamorphism and Classification
2. Avalanche Control and Prediction
  - \* Weather
  - \* Public Information
  - \* Education
  - \* Explosives and Shock Waves
3. Wind Blown Snow, Creep and Glide
4. Avalanche Zoning
5. Grooming, Packing and Snow Making  
(Alpine and Cross-country)
6. Safety and Rescue
7. Safety Procedures for Back-country Travel
8. Other Relevant Topics

Presentations

We encourage all persons interested in giving a presentation on any of the suggested topics to submit an abstract to the review board by June 1, 1982. Abstracts should be no less than 50 and no more than 250 words in length. All accepted abstracts will be published (with author's permission) for distribution at the workshop.

Workshop will include:

- \* Oral presentations
- \* Symposia developed around current topics (with keynote speakers)
- \* Poster session. Note: A poster session is a visual presentation which will be displayed in an exhibit hall, and based on topics of current interest. Each poster session contributor will be allowed a special 4x8 foot panel for the display.
- \* Ample time will be allowed for open discussion from the floor.
- \* Space will be available for exhibits pertaining to the commercial aspects of snow. Those companies or organizations wishing to present an exhibit will be charged a nominal fee, and should notify the organizing committee of their intent and the nature of their exhibit.

Further Information

If interested in attending the workshop, please fill out the form below by March 1, 1982 and return it to:

John Montagne  
 Department of Earth Sciences  
 Montana State University  
 BOZEMAN, MONTANA 59715 USA

A second mailing providing more details will be sent to those who return the requested information.

Due to limited mailing, please share this information with others interested.

Approximate registration fee: \$30.00 U.S.

Please detach form and return by March 1, 1982.

NAME .....

AFFILIATION .....

ADDRESS .....

(Please check)

WOULD LIKE TO ATTEND .....

WOULD LIKE TO PRESENT .....

\* ORAL ..... TOPIC .....

\* POSTER SESSION ..... TOPIC .....

\* Request further information on abstract format .....

AVALANCHE RESOURCE AGENCIES  
JANUARY 1982

(1) Technical Information and Consulting

Peter Schaerer  
National Research Council Canada  
3904 West 4th Avenue  
VANCOUVER, B.C. V6R 1F5  
Telephone: 604-732-4829 (Bus)  
604-987-3716 (Res)

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P.O. Box 2759  
REVELSTOKE, B.C. VOE 2S0  
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604-837-4861 (Res)

V.G. (Fred) Schleiss  
P.O. Box 1585  
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*837-6590*

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and HIGHWAYS  
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604-383-6610 (Res)

Chris Stethem Consulting Ltd.  
Avalanche Safety Services  
P.O. Box 8  
WHISTLER, B.C. VON 1B0

Telephone: 604-932-3871 (Bus)  
604-932-3788 (Res)

Herbert Bleuer  
Mountain Consultants Inc.  
Box 258  
WHISTLER, B.C. VON 1B0

Telephone: 604-932-5331 (Bus)  
604-894-6994 (Res)

(2) Avalanche Conditions, Search and Rescue

Banff National Park:

Correspondence: The Chief Warden  
Banff National Park  
P.O. Box 900  
BANFF, ALBERTA TOL 0C0

Information concerning avalanche conditions:

Taped message on telephone 403-762-3600  
Banff Wardens' office (open 24 hours per day)  
Lake Louise Wardens' office 403-522-3866  
Park information bureaux 403-762-3324  
Avalanche control offices at Sunshine Village, Lake Louise Ski  
Area, Mt. Norquay

Emergency telephone: 403-762-4506

Jasper National Park:

The Chief Warden  
Jasper National Park  
P.O. Box 10  
JASPER, ALBERTA Telephone: 403-852-4401

Parks information office at Jasper.

Glacier and Mount Revelstoke National Parks:

Correspondence: The Superintendent  
Glacier and Mount Revelstoke National Parks  
P.O. Box 350  
REVELSTOKE, B.C. VOE 2S0

Information concerning avalanche conditions:

Parks office at Revelstoke Telephone: 604-837-5155  
Information office at Rogers Pass Telephone: 604-837-6274



Search and rescue:

The Chief Warden, Revelstoke  
Wardens' office, Rogers Pass Telephone: 604-837-5155  
Telephone: 604-837-6274

Yoho National Park  
Box 99  
FIELD, B.C. VOA 1G0 Telephone: 604-343-6467  
Attention: Chief Park Warden

Kootenay National Park  
Box 220  
RADIUM HOT SPRINGS, B.C. VOA 1M0 Telephone: 604-347-9615  
Attention: Chief Park Warden

Waterton Lakes National Park  
WATERTON, ALBERTA TOK 2M0 Telephone: 403-859-2352  
Attention: Chief Park Warden

Kluane National Park  
Haines Junction  
YUKON Telephone: 403-634-2251  
Attention: Chief Park Warden

British Columbia Ministry of Transportation  
and Highways

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Snow Avalanche Section  
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District Avalanche Technicians:

Ed Campbell  
Box 1923  
HOPE, B.C. VOX 1L0 Telephone: 604-869-2401

Wayne Jamieson  
Box 460  
LILLOOET, B.C. VOK 1V0 Telephone: 604-256-4255

John Tweedy  
238-10th Avenue  
CRESTON, B.C. VOB 1G0 Telephone: 604-428-9307

Bill Wellwood  
P.O. Box 490  
STEWART, B.C. VOT 1W0 Telephone: 604-636-2410

Mike Zylicz  
#300-4546 Park Avenue  
TERRACE, B.C. V8G 1V4 Telephone: 604-635-6254

The Ministry of Transportation and Highways have trained personnel and have rescue equipment on all mountain highways with avalanche problems.

Parks Branch of British Columbia Ministry  
of Lands, Parks and Housing

Parks & Outdoor Recreation Division  
East Kootenay District  
Box 118  
WASA, B.C. V0B 2K0 Telephone: 604-422-3212

Attention: Chris Sadleir

Services: a) backcountry information  
b) search and rescue  
c) educational programs

Parks Branch  
MANNING PARK, B.C. Telephone: 604-840-8836

Parks Branch  
(Seymour Mountain and Cypress Park) Telephone: 604-929-3911  
NORTH VANCOUVER, B.C. (Ski Reports) 604-929-2358

Parks Branch  
(Kokanee Creek)  
NELSON, B.C. Telephone: 604-825-4421

Parks Branch  
(Alice Lake)  
BRACKENDALE, B.C. VON 1H0 Telephone: 604-898-3024

Alberta Provincial Parks

Kananaskis Provincial Park  
Box 59 Telephone: 403-678-5508 (Canmore office)  
CANMORE, ALBERTA TOL 0M0 403-591-7222 (Kananaskis Park)

Attention: Lloyd Gallagher & Dave Hanna

Services: a) backcountry travel  
b) search and rescue  
c) educational programs

Ski Areas

Whistler Mountain  
Whistler Mountain Ski Corporation  
Box 67

WHISTLER, B.C. VON 1B0

Telephone: 604-932-3434

Attention: Roger McCarthy

Red Mountain Ski Area  
Box 939

ROSSLAND, B.C.

Telephone: 604-362-7384

Attention: Jim Spence

Snow Valley Ski Ltd.  
Box 788

FERNIE, B.C. VOB 1M0

Telephone: 604-423-6041

Attention: Scott Aitken

Mt. Washington Ski Area  
4713 Oakridge Drive  
COURTENAY, B.C. V9N 6A7

Telephone: 604-334-2966

Whitewater Ski Society  
Box 60

NELSON, B.C.

Radio Telephone: 99424

Attention: Ken Moyle

Blackcomb Mountain  
P.O. Box 98

WHISTLER, B.C. VON 1B0

Telephone: 604-932-3141

Attention: Ken Newington

Canadian Ski Patrol System

Brian Weightman  
Avalanche Officer  
C.S.P.S. Calgary Zone  
2198 Home Road N.W.  
CALGARY, ALBERTA

Telephone: 403-253-7601 (days)  
403-286-7245 (eve)

Peter Spear  
National Avalanche Officer  
117 Waskatenau Crescent  
CALGARY, ALBERTA T3C 2X7

Telephone: 403-249-0055

George Evanoff  
Pacific North Division-Avalanche Officer  
1960 Garden Drive  
PRINCE GEORGE, B.C. V2M 2V8

Telephone: 604-564-7814

Heli-Ski Operators

B.C. Powder Guides  
Box 258

WHISTLER, B.C. VON 1B0

Telephone: 604-932-5331

(Mines Hotel, Bralorne, B.C.,  
mid-February to mid-March)

Telephone: 604-238-2234

Hans Gmoser, Mark Kingsbury  
Canadian Mountain Holidays  
Box 1660

BANFF, ALBERTA TOL 0C0

Telephone: 403-762-4531

Ernst Buehler  
Canadian Mountain Holidays, Cariboos  
Box 1660

BANFF, ALBERTA TOL 0C0

Prince George Mobile N699377  
"Cariboo Lodge"

Klaus Fux  
Canadian Mountain Holidays, Valemount  
VALEMOUNT, B.C.

Telephone: 604-566-4487

Dominic Neuhaus  
Canadian Mountain Holidays, Monashees  
MICA CREEK, B.C.

Telephone: 604-834-7223

Buck Corrigan  
Canadian Mountain Holidays, Revelstoke  
REVELSTOKE, B.C.

Telephone: 604-837-2107

Colani Bezzola  
Canadian Mountain Holidays, Bobbie  
Burns  
GOLDEN, B.C.

Golden Mobile N698837 Bobbie Burns Two  
Vancouver Mobile N710058 Bobbie Burns One  
Red Deer Mobile 5NF2292 Bobbie Burns One

Leo Grillmair  
Canadian Mountain Holidays, Bugaboos  
BANFF, ALBERTA TOL 0C0

Vancouver Mobile N710064 Bugaboo Lodge  
Red Deer Mobile 5NF0667 Bugaboo Lodge

Sepp Renner  
Canadian Mountain Holidays, Panorama  
INVERMERE, B.C.

Telephone: 604-342-6941

Rudi Gertsch  
Purcell Helicopter Skiing  
GOLDEN, B.C.

Telephone: 604-344-5410

Peter Schlunegger  
Selkirk-Tangiers Heli-Skiing  
REVELSTOKE, B.C.

Telephone: 604-837-5271

Fairmont Hot Springs Heli-Skiing Ltd.  
Fairmont Hot Springs Resort  
FAIRMONT HOT SPRINGS, B.C.

Lodge: 604-345-6311

Allan Drury  
Selkirk Wilderness Skiing  
MEADOW CREEK, B.C.

Telephone: 604-366-4424

Mike Wiegele  
Wiegele Helicopter Skiing  
BLUE RIVER, B.C.  
BANFF, ALBERTA

Telephone: 604-673-8344

Telephone: 403-762-4171

(3) Search and Rescue

Dog for Avalanche Search - Parks Canada

Earl Skjonsberg  
Banff National Park Telephone: 403-762-3324 (Bus)  
BANFF, ALBERTA 403-762-3430 (Res)

Alphie Burstrom  
Jasper National Park Telephone: 403-852-4401 (Bus)  
JASPER, ALBERTA 403-852-3555 (Res)

Gordon Peyto  
Glacier National Park Telephone: 604-837-6274 (Bus)  
REVELSTOKE, B.C. 604-344-5041 (Res)

Dale Portman  
Banff National Park Telephone: 403-522-3866 (Bus)  
BANFF, ALBERTA 604-343-6494 (Res)

Dog for Avalanche Search - R.C.M.P.

The following dogs and their masters have received special avalanche training:

Chilliwack Sub/Division

Cpl. Terry Barter Telephone: 604-795-9424

Cranbrook Detachment

Cpl. Gordon Burns Telephone: 604-426-8422

Cochrane, Alberta Detachment

Cpl. Chris Banham Telephone: 403-932-2211

Courtenay Detachment

Cpl. Rod Nichol Telephone: 604-338-7421

Kamloops Sub/Division

Cpl. Jim Brown Telephone: 604-372-3111

Nanaimo Detachment

Cpl. Dale Marino Telephone: 604-754-2345

Nelson Detachment

Cpl. Wayne Murphy Telephone: 604-352-4104

North Vancouver Detachment

Cpl. Rick Clark Telephone: 604-985-1311

Penticton Detachment

Cpl. Bill Henderson Telephone: 604-492-4300

Prince George Detachment

Cst. Al Soniff Telephone: 604-562-3371

Terrace Detachment

Cpl. Ron Flack Telephone: 604-635-4911

Vernon Detachment

Cpl. Gary Gillette Telephone: 604-545-7171

Whitehorse Detachment

Cpl. Jim Brewin Telephone: 403-667-5521 or 403-667-5573

Provincial Emergency Program

The British Columbia Provincial Emergency Program co-ordinates most local search and rescue groups in the Province. Equiries can be directed to:

R.E. Neale, Director  
Provincial Emergency Program  
931 Ellery Steet  
VICTORIA, B.C. V8V 1X4 Telephone: 604-387-5956

B. Thorshaug, Search & Rescue Co-ordinator  
Provincial Emergency Program  
931 Ellery Street  
VICTORIA, B.C. V8V 1X4 Telephone: 604-387-5956

Regional co-ordinators are located at:

Victoria

Mr. W.C. Dalley (Claude)  
(Bus) 207-2951 Tillicum Road Telephone: 604-387-3458 (24 hour)  
VICTORIA, B.C. V9A 2A6 604-386-8523 (unlisted)

(Res) 1685 Tampico Place  
VICTORIA, B.C. V8N 5H2 Telephone: 604-477-2463 (Res)

Lower Mainland

Mr. F.G. Clegg (Frank)  
(Bus) 800 Cassiar Street Telephone: 604-294-8202 (24 hour)  
VANCOUVER, B.C. V5K 4N6 604-294-9714 (Unlisted)

(Res) 6892 Centennial Drive Telephone: 604-858-9980 (Res)  
SARDIS, B.C. VOX 1Y0

Prince Rupert

Mr. J.A. Stott (Jim) Telephone: 604-624-2121 (Bus)  
(Bus) Room 111, Courthouse Local 237/282  
PRINCE RUPERT, B.C. V8J 1B7 604-624-2126 (After hours)

(Res) 2060 Graham Avenue Telephone: 604-624-2517 (Res)  
PRINCE RUPERT, B.C. V8J 1C8

Mr. R. Roy (Richard) Telephone: 604-624-2121 (Bus)  
Assistant Regional Manager Local 237/282  
(Bus) Room 111, Courthouse PRINCE RUPERT, B.C. V8J 1B7 604-624-2126 (After hours)

(Res) 1709 Jamaica Avenue Telephone: 604-624-9539 (Res)  
PRINCE RUPERT, B.C. V8J 2Y7

Prince George

B.C.E. Akehurst (Barry) Telephone: 604-562-8131 (Bus)  
(Bus) 302-1575 Fifth Avenue Local 283/337  
PRINCE GEORGE, B.C. V2L 3L9 604-562-8139 (After hours)

(Res) 753 Faulkner Crescent Telephone: 604-563-5531 (Res)  
PRINCE GEORGE, B.C. V2M 5E1

Nelson

E.H. Gower (Ean) Telephone: 604-352-2211 (Bus)  
(Bus) 552 Stanley Street 604-352-2131 (24 hour)  
NELSON, B.C. V1L 1N2

(Res) 617 Carbonate Road Telephone: 604-352-7892 (Res)  
NELSON, B.C. V1L 4P6

Kamloops

M.E. Dyer (Murray) Telephone: 604-372-3956 (Bus)  
(Bus) 315-546 St. Paul Street 604-372-3213 (24 hour)  
KAMLOOPS, B.C. V2C 5T1

(Res) 2478 Young Street Telephone: 604-376-3453 (Res)  
KAMLOOPS, B.C. V2B 4M8



First Aid Ski Patrol

P.O. Box 2651  
VANCOUVER, B.C.

(4) Education

Outdoor Recreation Council of British Columbia

Suite 100, 1200 Hornby Street  
VANCOUVER, B.C. V6Z 2E2 Telephone: 604-687-3333

Avalanche Films

"Avalanche" - 50 minutes

Film Library  
Tourism British Columbia  
1190 Melville Street  
VANCOUVER, B.C. Telephone: 604-668-2732

Canadian Ski Patrol System

Brian Weightman  
Avalanche Officer  
C.S.P.S. Calgary Zone  
2198 Home Road N.W.  
CALGARY, ALBERTA Telephone: 403-253-7601 (days)  
403-286-7245 (eve)

Peter Spear  
National Avalanche Officer  
117 Waskatenau Crescent  
CALGARY, ALBERTA T3C 2X7 Telephone: 403-249-0055

George Evanoff  
Pacific North Division-Avalanche Officer  
1960 Garden Drive  
PRINCE GEORGE, B.C. V2M 2V8 Telephone: 604-564-7814

(5) Weather Offices

Atmospheric Environment Service

Correspondence and equipment:

Regional Director  
1200 West 73rd Avenue  
VANCOUVER, B.C. V6P 6G5 Telephone: 604-732-4673

Mountain Weather Forecast:

Telephone: 604-732-4341

Officer In Charge  
Pacific Weather Centre  
1200 West 73rd Avenue  
VANCOUVER, B.C. V6P 6H9

Telephone: 604-732-4163

Attention: Chief Meteorologist

Alberta Weather Office  
Edmonton International Airport  
EDMONTON, ALBERTA T5J 2T2

Telephone: 403-437-1250

CHANGES

Changes, additions, or deletions to this list should be reported to the Snow  
Avalanche Section, British Columbia Ministry of Transportation and Highways.

Jim Bay  
Box 1193  
REVELSTOCK, B.C.  
V0E 2S0