

AVALANCHE NEWS NO. 31

NOVEMBER 1989

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 of organizations concerned with avalanche safety, education and research.

The editor welcomes and expects contributions; all reasonable comments and discussions will be printed. The articles in AVALANCHE NEWS reflect the views of the authors, and only when it is specifically stated do they represent the opinion of the Canadian Avalanche Association.

No paid advertisements are carried. Suppliers who wish to draw attention to their products should send information to the editor who will publish a note when the equipment has value in avalanche work and safety.

AVALANCHE NEWS is issued three times per year, usually in February, 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
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PROFESSIONAL AVALANCHE COURSES

by Peter Schaerer

The directors and the members of the Canadian Avalanche Association have resolved that the training courses previously under the direction of Selkirk College and the British Columbia Institute of Technology should be administered by the Canadian Avalanche Association.

The Association felt that the concept of a trade school under its direct supervision would best meet the needs of the industry. The National Research Council through its Avalanche Centre of the Institute for Research in Construction will assist the Canadian Avalanche Association by developing the instructional material of the courses and sharing the administration.

The Canadian Avalanche Association has appointed Mrs. Holly Lansdowne as the administrator of the courses for the 1989-1990 Winter. Holly works at the office of the National Research Council at Revelstoke, B.C.

The Canadian Avalanche Association intends to apply for certification as a private training school in the Provinces of Alberta and British Columbia.

The course curricula, methods of instruction, course locations, instructors, and high standards are the same as in previous years. The course fees are the same as those of the Winter 1988-1989.

Information and Registration

Brochures containing registration forms and information about the planned courses may be obtained from:

CANADIAN AVALANCHE ASSOCIATION
TRAINING SCHOOLS
P.O. Box 2759
Revelstoke, BC
VOE 2S0

Telephone: (604) 837-2435

The preferred time for telephone calls is Monday through Friday, between 0900 and 1300 hours (Pacific Standard Time).

The following courses are organized by the Canadian Avalanche Association for the Winter of 1989-1990.

* Avalanche Safety for Ski Operations - Level 1

- a. December 2 to December 8, at Whistler, B.C.
- b. January 7 to January 13, at Creston, B.C.
- c. January 28 to February 3, at Mount Engadine Lodge, near Canmore, Alberta.

Course Fee: \$625

The participants must be intermediate skiers and must have basic ski touring experience.

* Avalanche Safety for Transportation and Industry - Level 1

- a. December 4 to December 8, at Creston, B.C.
- b. December 11 to December 15, at Creston, B.C.

Course Fee: \$450

The course is for participants who are not skiers; there are no prerequisites.

* Avalanche Safety for Ski Operations - Level 2

December 10 to December 17, at Whistler, B.C.

Course Fee: \$875

Prerequisites:

- a. Advanced skiing ability;
- b. Level 1 course or equivalent;
- c. One hundred days' field experience after completion of Level 1 course;
- d. Participation in two avalanche search and rescue practices.

* Avalanche Safety for Ski Operations - Level 2 - Refresher

December 19 to December 21, at Creston, B.C.

Course Fee: \$385

The course is intended for persons who have completed a Level 2 course in ski operations and who need upgrading of their knowledge and techniques. The participants should have practiced for two winters after completing their Level 2 avalanche course.

Courses by Other Organizations

Private operators may organize avalanche schools of a standard equal to those of the Canadian Avalanche Association. A set of conditions, which are available on request, must be met in order to have the courses approved by the Association.

The following approved courses will be offered this coming winter:

* Avalanche Safety for Transportation and Industry - Level 1

November 24, at Meziadin Lake, B.C., east of Stewart

Organized by North Coast Road Maintenance Ltd., Terrace, B.C.,
Telephone (604) 638-8300

* Avalanche Safety for Ski Operations - Level 1

January 8 - 14 and January 15 - 22, at Mistaya Chalet, B.C.,
near Golden

Organized by Mistaya Alpine Tours, Golden, B.C.
Telephone (604) 344-6689

Courses for the Recreational Skier

The following organizations offer week-long avalanche courses for backcountry skiers:

NORDIC SKI INSTITUTE
Box 1050, Canmore, Alta.
TOL 0M0
Telephone (403) 678-4102

PTARMIGAN TOURS
Box 11, Kimberley, B.C.
VIA 2Y5
Telephone (604) 422-3270

MOUNTAIN WEATHER FORECAST

Garry Wells, Deputy Director of Weather Service Operations of the Atmospheric Environment Service at Vancouver has announced that the Mountain Weather Forecast Program has resumed as of November 1, 1989.

This year the format will consist of a Mountain Forecast Bulletin issued four times daily. Time of issue will be 4:00 am, 10:00 am, 3:00 pm, and 7:00 pm - all P.S.T. Regular distribution will be over the AES data network. It can also be accessed via a telex link.

Upper wind forecasts produced by the Canadian Meteorological Centre will again be received at the Pacific Weather Centre. The format will be similar to that of last year. Further distribution of the wind forecasts will depend on user requirements.

The mountain weather forecast may be obtained from the local weather offices. It is available on tape through telephone at 666-1081 for the South Coast and Vancouver Island, and 765-1881 for the Okanagan.

Consultation with the Shift Supervisor of the Pacific Weather Centre is available at 666-2728.

INTERNATIONAL SNOW SCIENCE WORKSHOP 1990

by ISSW '90 Committee

The International Snow Science Workshop "A Merging of Theory and Practice," which is held every two years, will take place at Bigfork, Montana, on October 9 to 13, 1990.

The workshop will focus on all aspects of snow science, with particular emphasis on the following topics:

1. Snow stability evaluations and avalanche hazard forecasting.
2. Avalanche awareness education and public warning systems.
3. Avalanche control techniques.
4. Avalanche protection (engineering, design and zoning).
5. Avalanche and winter search and rescue.
6. Snow related liability and litigation.

7. Avalanche dynamics and runout.
8. Physical and chemical properties of snow.
9. Snow formation and mountain meteorology (including snowmaking).
10. The effect of wind on snow deposition, distribution, and structure.
11. Snow and weather monitoring systems (methods, sensors, telemetry, software).
12. Snow management (compaction, removal, methods of transport).
13. Other related topics.

The ISSW '90 Committee encourages presentations of descriptive narratives and/or case histories of successful field methods, as well as quantitative analyses of specific topics. The committee especially encourages presentations by field practitioners.

All persons interested in making a presentation on any of the suggested topics should submit an extended abstract (200-500 words) to the ISSW '90 Committee by February 1, 1990, for evaluation for the program (these extended abstracts will not be published). For accepted papers, a shortened abstract (50-250 words) will be needed by June 15, 1990, to be printed for distribution at the workshop.

Attendance space will be limited. Based on attendance at previous workshops, the 1990 Workshop is expected to fill early. Those who plan to attend should send their registration and fee as soon as possible.

Brochures with registration forms may be obtained from:

ISSW '90 COMMITTEE
P.O. Box 372
Bigfork, Montana 59911
U.S.A.

PUBLICATIONS

Guidelines for Weather, Snowpack, and Avalanche Observations, prepared by the Avalanche Research Centre, Institute for Research in Construction, National Research Council of Canada and the Canadian Avalanche Association.

National Research Council of Canada, Associate Committee on Geotechnical Research; Technical Memorandum No. 132; Publication NRCC, No. 30544, 1989, 49 pp., price \$10.

Order copies from: Publication Sales, National Research Council, Ottawa, K1A 0R6, by requesting publication NRCC No. 30544 and enclosing the payment of \$10(Can) per copy (cheque or money order made payable to the Receiver General of Canada).

The type, techniques, and recording format of observations for operational avalanche hazard forecasting are described. The observations cover the weather, characteristics of the snowpack, in-situ strength tests of the snow, and occurrences of avalanches. Forms for reporting avalanche accidents and avalanche damage are included.

The guidelines, which were first printed in 1982, were revised by a committee appointed by the Canadian Avalanche Association. The revisions are essentially editorial; few changes were made to the list and methods of observation.

Proceedings of The International Snow Science Workshop,
October 12-15, 1989, Whistler. A Merging of Theory and Practice.

The publication (303 pages) contains the 47 papers that were presented at the workshop. They cover snowpack physics and observations, weather forecasting related to the formation of avalanches, snow stability evaluation, hazard forecasting, weather equipment, search methods and equipment, and avalanche control techniques.

A limited number of copies of the proceedings are still available and may be purchased from:

CANADIAN AVALANCHE ASSOCIATION
3650 Wesbrook Mall
Vancouver, B.C. V6S 2L2

Telephone (604) 666-8046

Price: \$25(Can) or \$21(US), mailing cost included;
cheque or money order should be included.

Proceedings of The Symposium on Snow and Glacier Research Relating to
Human Living Conditions, held at Lom, Norway, September 4-9, 1988.

Annals of Glaciology, Vol. 13, 1989, 303 pp. Published by the
International Glaciological Society, Lensfield Road, Cambridge,
CB2 1ER, U.K. Price £ 20.

The papers that were presented at the Symposium and printed in the proceedings treat a variety of topics as follows:

- Eleven papers on the motion of avalanches;
- Five papers on avalanche formation and forecasting;
- Six papers on avalanche control, risks, and zoning;
- Five papers on snow properties including snow creep and glide;
- Five papers on blowing snow;
- Three papers on snow accumulation and runoff from snow melt;
- Nine papers on the dynamics of glaciers;
- Twelve papers on runoff and sedimentation from glaciers.

Avalanche News No. 28 contains a summary of the papers that refer to avalanches.

PERSONAL

Jack Bennetto has become the Manager, Snow Avalanche Programs, of the British Columbia Ministry of Transportation and Highways. He succeeds Geoff Freer who is now the District Highways Manager, Lakes District, Burns Lake, B.C.

During the past three years, Jack Bennetto was the District Avalanche Technician for the Nicola District at Merritt, B.C. He was in charge of the avalanche safety program for the Coquihalla Highway.

AVALANCHE RESOURCE AGENCIES

The list of resource agencies attached to Avalanche News No. 29 (February 1989) will be updated and published with Avalanche News No. 32, in February 1990.

All avalanche workers and agencies in Canada are urged to check the list and notify the office of the Snow Avalanche Programs of the B.C. Ministry of Transportation and Highways concerning changes; see address on the front page of Avalanche News.

Consider also whether persons and agencies presently not listed should be included.

