

Bruce Jamieson, PhD

www.brucejamieson.ca

Phone: +1 403 617-3668; Email: bruce.jamieson@snowline.ca

Education

PhD, Avalanche Mechanics, 1995, Dept. of Civil Engineering, University of Calgary.

Professional affiliations

- Professional Member of Canadian Avalanche Association since 1984. President 1992-95.
- Professional Member of American Avalanche Association since 1992.
- Life member (non-practicing) of Association of Professional Engineers and Geoscientists of Alberta

Selected awards and distinctions

- Gordon Ritchie Service Award from Avalanche Canada, 2021
- Peter Schaerer Lifetime Achievement Award from Canadian Avalanche Association, 2014.
- Honorary Fellowship from American Avalanche Association, 2014.
- Honourary Membership, Canadian Ski Patrol System, 2008.
- Honourary Member, Association of Canadian Mountain Guides, 2006.
- Visiting Researcher, Swiss Federal Institute for Snow and Avalanche Research, June – August 2002, and October – November 2008.
- Outstanding Achievement Award for Applied Research from the Canadian Avalanche Association, 2007.
- Best Practice Award for Accident Prevention from National Search and Rescue Secretariat, 2005.
- Professional Achievement Award from Canadian Avalanche Association, 2000.
- Chair of 1996 International Snow Science Workshop in Banff.

Experience

- Professor, Dept. of Civil Engineering, U. of Calgary until August 2015, then Professor Emeritus.
- NSERC Research Chair in Snow Avalanche Risk Control, 2004-2014.
- Principal Investigator of the Applied Snow and Avalanche Research group at the University of Calgary (ASARC). Supervised 24 graduate students investigating avalanche runout estimation, hazard mapping, avalanche forecasting, and snowpack tests. Supervisor of field studies for snow and avalanche research over 24 winters.
- 1997-2020, consultant/engineer/reviewer on avalanche protection/risk assessment/mapping projects in North and South America for occupied structures (residential and backcountry), highways, resource roads, trail systems, worksites, energy corridors, structures for transmission lines and ski lifts, and mine infrastructure.
- Avalanche forecasting for ski areas or backcountry operations 1981 to 2014.
- Instructor for Canadian Avalanche Association Industry Training Program 1993 to 2020.
- Instructor of over 30 avalanche awareness courses 1983 to 1996.
- Investigations of six fatal avalanches including the 1999 avalanche in Kangiqsualujjuaq, Quebec.

Selected publications

- [*Avalanche Craft – Strategies for reducing risk in the backcountry*](#), with Terry Palechuk, 2021.
- *Backcountry Avalanche Awareness, 1989-2018*. 2018 edition with Terry Palechuk. Sales of all editions exceed 120,000.
- [*Planning Methods for Assessing and Mitigating Snow Avalanche Risk*](#) (B. Jamieson, Ed.), Canadian Avalanche Association, 2018.
- [*Technical Aspects of Snow Avalanche Risk Management*](#) (C. Campbell, S. Conger, B. Gould, P. Haegeli, B. Jamieson, G. Statham, Eds.), Canadian Avalanche Association, 2016.
- [*Avalanche Accidents in Canada 5, 1996-2007*](#), Jamieson, B., P. Haegeli and D. Gauthier. 2010. [Canadian Avalanche Association](#), Revelstoke, BC, 429 pp.
- Jamieson, B. and T. Geldsetzer. 1997. [*Avalanche Accidents in Canada: 1984-96*](#), [Canadian Avalanche Association](#), Revelstoke, BC, 203 pp.
- [*Land Managers Guide to Snow Avalanche Hazards in Canada*](#), (B. Jamieson, C. Stethem, P. Schaerer, D. McClung, Eds.), Canadian Avalanche Association, 2002.
- Over 70 papers in ISI journals and over 100 conference papers. Listed online at www.ucalgary.ca/asarc/publications.

Training videos

See <https://www.brucejamieson.ca/videos>

Selected presentations

[Recent presentations, training and CPD sessions](#)

Education and training services

Bruce Jamieson provides specialized avalanche workshops, CPD and webinars for avalanche practitioners and industry.

Recent topics include:

- assessing and mitigation avalanche risk for planning developments and operations in or near avalanche terrain
- avalanche risk for workers and backcountry recreationists
- energy balance at the snow surface
- human triggering of avalanches
- applying uncertainty and risk concepts to decisions
- modern snowpack tests
- forecasting deep slab avalanches
- ski cutting - history and risk

Previous clients include:

- various backcountry & lift-serviced snow-sport operations
- Division of Engineers and Geoscientists in the Resource Sector (Engineers and Geoscientists BC)
- Canadian Avalanche Association
- BC Ministry of Transportation, Snow Avalanche and Weather Programs
- Parks Canada
- Icelandic Search and Rescue
- Portland Mountain Rescue