

IS YOUR GUIDE CERTIFIED? THE DEVELOPMENT OF A TRAINING AND CERTIFICATION PROCESS FOR THE CANADIAN MOTORIZED BACKCOUNTRY GUIDES ASSOCIATION

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ABSTRACT:

Formally trained, coached, and assessed competencies are defining characteristics of professional guiding practice. The primary responsibility of a guide is the management of client safety and experience within a hazardous environment. This requires balancing two operational objectives that may at times be in tension: (1) service delivery ensuring clients receive the experience they have purchased—and (2) risk management—ensuring all participants return safely.

Canada does not require certification for motorized guides. As a result, individuals can operate without standardized training, assessment, or accreditation. While many motorized operators hold land-use tenures issued by the British Columbia Ministry of Water, Lands and Resource Stewardship, a significant number of providers such as small-scale B&B operators, informal “parking lot” guides, and photographers offer guiding services without formal land access or regulatory oversight.

In 2021, a cohort of eight experienced practitioners initiated the development of a formal training and certification framework specific to winter motorized backcountry guiding. The design process addressed four core questions: What competencies define a motorized guide? What performance standards should be applied? How will those competencies be evaluated? And how can industry-wide adoption be achieved?

Existing certification models from the Association of Canadian Mountain Guides and Canadian Ski Guides Association provided a structural foundation. However, these frameworks are primarily oriented toward human-powered and mechanized (heli/snowcat) ski guiding. Motorized (snowmobile and snow-bike) guiding presents distinct operational demands, including extensive terrain use across multiple drainages, variable aspects and elevations, and continuous machine-based mobility. These characteristics necessitate a discipline-specific competency and assessment framework.

Twenty-five established guides were engaged in the development process and designated as the initial certification cohort. Embedding experienced practitioners in both the design and validation phases enhanced the credibility of the framework and reduced perceived evaluator bias, while also creating early-stage advocates within the industry.

The establishment of a standardized certification system represents a shift toward the professionalization of motorized guiding. Although not mandated by regulation, certification provides a benchmark for competency, promotes consistency in risk management practices, and strengthens client trust. Over time, it is expected to function as a de facto industry standard, redefining expectations for professional practice.

KEYWORDS: Backcountry Guiding, Snowmobiling, Risk Management

1. INTRODUCTION

1.1 *Economic impact*

It is evident that snowmobile tourism is a significant economic driver (British Columbia Snowmobile Federation, 2019). The estimated economic impact of snowmobile tourism in 2018 was \$159 million dollars. Of this, \$22.6 million was spent on rental and guiding operations. It begs the questions - who is offering guiding services and what are their qualifications?

1.2 Number of fatalities

The Avalanche Canada fatality database lists just under 100 snowmobile/snowbike fatalities over the last twenty-five years. This is comparable to the number of backcountry skier fatalities. It is difficult to complete a comparative risk analysis, as there is no accurate assessment tool to determine the number of user days for the two disciplines. With two highly respected backcountry ski guide training and certification programs in the ACMG and CSGA, driving ski/board based avalanche risk management, would a backcountry snowmobile training and certification process also have a positive influence on the avalanche fatality rate?

1.3 TASARM

The Technical Aspects of Snow Avalanche Risk Management: Resources and Guidelines for Avalanche Practitioners in Canada (TASARM) provides guidance and best practices for avalanche risk management (Campbell et al., 2016). These guidelines provided the basis on which to build a training and certification process for snowmobile guiding. Along with the training and certification principles developed by the ACMG and CSGA (Piche et al., 2023), this allowed for a focused process and progression in the creation of a mountain snowmobile certification.

2. PROGRAM HISTORY

The British Columbia Commercial Snowmobile Operators Association (BCCSOA) was formed in 2005 by a group of twelve commercial snowmobile companies. Its goal was to support company owners with marketing, government relations and operational standards. They generated a document titled “Operating Guidelines - Snowmobile Tour Operations”. This was an important first step, but as the association was focused more on the operations, rather than the guides, it was never implemented as a guide training and certification process. By 2015, the BCCSOA had lost momentum as an industry association.

The Canadian Avalanche Association and Avalanche Canada recognized the importance of recreational and professional avalanche training for snowmobilers. A federal grant in 2010 led to the creation of the educational video Throttle Decisions, and funding for places on the CAA Level 1 for Snowmobile Operations. Snowmobile guiding was growing and the CAA certification became the de facto guide certification. Guiding companies advertised that their guides were CAA and first aid certified.

In 2021, key industry players banded together to form a guides association. The perceived need for trained and certified snowmobile guides generated action. The collective vision of the initial team of eight members led to a registered association, the Canadian Motorized Backcountry Guides Association (CMBGA), and the basis for a training and certification program.

3. PROGRAM CHALLENGES

We identified four key challenges as we began the building process.

- Develop a training and certification program that addresses the current and anticipated future needs of the motorized backcountry guiding industry.
 - What does a guide need to be able to do? And how well?
 - How much training is needed?
 - How long should the exam be?
- Promote buy-in within the motorized winter industry including companies, guides, guests, and the recreating public.
 - Why should I put time and money into a certification when it is not required and I am already doing the job?
 - Who are you to determine whether I am competent to do the job I am doing?
 - Show me the cost – benefit equation.
 - Why should I hire/employ a certified guide? Will it cost more?
- Develop credibility within the broader winter adventure industry, including associations (CAA, AvCan, ACMG, CSGA, HeliCat), ski guiding operations, and the recreating public (ski, board, snowshoe).

- Is it a trustworthy, responsible and reliable standard?
- Will it reduce the conflict between motorized users and skiers?
- Develop credibility with land managers (BC government ministries, and First Nations)
 - How does it fit with established policies?

All of these challenges had to be tempered by the available capacity and expertise of the board of directors, committee members and general membership of the association.

4. OUTCOMES

4.1 Curriculum development

Curriculum is thought to have four components: subject matter, students, teachers and environment (Connelly & Clandinin, 1988). The subject matter working group did not start with a blank slate. The daunting nature of building a training and certification program was eased by looking to the initial work completed by Amber Granter and the BCCSOA. Both the ACMG and the CSGA were very helpful. We modelled our certification process on their established norms. By pulling the best concepts and practices from their programs, we were able to describe the needed competencies and construct the initial DACUM. We had eight subject matter experts, who used their knowledge base to analyze the job demands and describe the needed competencies. We modelled the curriculum development process on the one used by the CAA. Subject matter experts (SME) generated content. The content was reviewed by a second SME. The process and the flow was monitored by a curriculum specialist. The team spent eight months generating the subject matter content, then met for a five day workshop. Some of the workshop time was spent in tabletop discussions, with the bulk of the time spent field testing.

The next stage was to expand beyond the initial group of eight and create more widespread buy-in. Eight more active guides were recruited based on their positions within the industry. These key players were crucial to the process. They spent five days assessing the content and the assumptions behind it. They looked for both missing elements and unnecessary elements. By the end of this stage, the WHAT of the competencies was completed. The final stage was to build the assessment rubric of how well a candidate need to demonstrate each competency.

All four components of curriculum development have been addressed. Subject matter development has been the primary focus; what a guide needs to be able to do and how well. A variety of entry points and opportunities for training address the students' readiness to learn and be assessed. Instructor training sessions and mentoring have prepared the instructor team. Mustang Powder was chosen as it provided a challenging exam environment.

CMBGA Lead Guide Training and Certification DACUM v.5.1

April 15, 2026

		1	2	3	4	5	6	7
A	Demonstrate Movement Skills	Demonstrate uphill travel techniques	Demonstrate downhill travel techniques	Demonstrate tree riding technique	Demonstrate sled cutting technique	Demonstrate sidehill travel techniques	Demonstrate tandem riding	
B	Perform Rescue Skills	Demonstrate avalanche rescue techniques	Demonstrate rope rescue techniques	Rig a sled for ground-based evacuation	Demonstrate competence in working with helicopters including rigging a sled for evacuation	Evacuate an injured rider using a toboggan	Demonstrate client stuck sled extrication	Organize a lost rider search
		Perform basic sled repair						
C	Demonstrate Hazard Management	Plan and organize trips in Challenging and Complex terrain	Apply the concepts of hazard and risk to terrain travel	Apply strategies to manage uncertainty and confidence	Apply strategies to reduce exposure and vulnerability	Assess and manage cornice hazards	Collect, evaluate and communicate avalanche and weather data	
D	Navigate in Challenging and Complex Terrain	Analyze avalanche terrain in the office and in the field	Demonstrate a working knowledge of wilderness navigation	Use a map, compass, altimeter and GPS to navigate	Demonstrate whiteout navigation	Apply glacier travel techniques		

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		1	2	3	4	5	6	7
E	Demonstrate Guiding Terrain Travel Uphill / downhill	Conduct guide's meetings Create a daily zone list	Conduct a client pre-trip safety meeting	Set a track based on avalanche conditions and client skills	Demonstrate techniques for group control and setting boundaries	Demonstrate techniques for setting up a hill climbing area for clients	Manage fall hazards (cliffs, creeks)	
F	Demonstrate winter living skills	Build and use a variety of winter shelters and emergency bivis	Demonstrate high levels of competence in personal care, clothing and equipment use	Build a fire	<i>Plan, organize, and prepare nutritious trail meals</i>			
G	Leadership Skills	Communicate with participants to determine their risk propensity	Teach avalanche awareness and companion rescue skills	Coach riding skills	Demonstrate group leadership	Manage group dynamics and conflict		
H	Professionalism	Describe the scope of practice of a snowmobile guide	Travel according to local rules, regulations, access and wildlife issues	Manage personal wellness and limitations	Maintain a high level of personal fitness	Use high quality guiding equipment		

Table 1 – CMBGA DACUM – Eight categories and 45 learning outcomes

We recruited a group of nine more curriculum developers to aid in the development of the assessment process. They were all active guides in leadership roles. We spent eight days at Mustang Powder. Five of the original subject matter experts took the role of examiners, while the nine new recruits took turns in the role of candidate. The assessment process was constructed.

There is a delicate balance between the complexity and comprehensiveness of a training and assessment program, its cost, and the desired outcome. Quick, cheap and easy will not achieve the desired outcome of a high quality guide. Long, expensive and complex might produce a high quality guide who cannot earn enough to justify the investment.

4.2 Certifications

Three levels of motorized backcountry guide certification were developed:

Level 1—Trail Guide

A Trail Guide operates under organizational supervision to lead groups on designated trails. If the trails travel through avalanche terrain, an Avalanche Safety Plan clearly defines procedure with closures and/or avalanche control. This is a stand-alone certification and is not a prerequisite for the Assistant Guide.

Prerequisites

- AST 1
- 40-hour First Aid

Level 2—Assistant Guide

An Assistant Guide obtains further training under the supervision of a lead guide. During the intermediate stages of an Assistant Guide's development, they will assume leadership of a group, with supervision from a Lead Guide. Eventually, the Assistant Guide will assume leadership of a group without a Lead Guide in attendance.

Prerequisites

- Backcountry riding experience in a leadership role in a variety of regions and snowpacks.
- CAA Operations Level 1

- 80-hour Advanced Wilderness First Aid

All motorized activities are appropriate, including travel on winter condition glaciated terrain. The work of an Assistant Guide is subject to supervision.

Level 3—Lead Guide

Lead Guides are competent in all aspects of mountain travel. They exhibit exemplary group management skills with a focus on safety and client satisfaction. They use effective navigation and skilled route selection to optimize the guests' day. Lead guides often fill the role of operations manager or supervisor.

There are no specific terrain or activity restrictions for Lead Guides, except as imposed by personal or experiential limitations. All motorized activities are appropriate, including travel on winter condition glaciated terrain.

Prerequisites

- Participants must have significant personal winter mountain travel expertise in complex terrain. They should already be working for a guiding operation, with a minimum of two seasons and 100 days working with guests.
- CAA Operations Level 2
- 80-hour Advanced Wilderness First Aid

At this point in the evolution of the association, participants can enter the certification stream at any level. Level 2 certification is not a prerequisite for Level 3. Level 3 candidates have a choice to take the training course prior to the exam, or enter straight into the exam.

4.3 The exam

The exam has been running at Mustang Powder. The lodge is at 1740m, with avalanche terrain right outside the door. The exam is conducted at a 3:1 ratio, with four full travel days, plus a technical skills assessment day. Candidates share the leads each day and with 30-50 kilometers of travel through avalanche terrain, each candidate has at least one complex lead every day.



Image 1 - Kiwi Cruise exam lead options – Three primary, plus a couple of alternates. 330m of elevation gain, 1.7 kilometers. Time to complete a candidate assessment lap – 15-45 minutes. A single piece of terrain offers multiple opportunities for assessment.

4.4 Assessment Rubric

Candidates are assessed on eight categories, with four possible outcomes: Pass, Pass minus, Marginal, and Fail. They must pass all components. The categories are:

A) Movement Skills - Uphill, downhill, sidehill, trees, sled cuts

The candidate is able to ascend, descend, and sidehill in all terrain with precision, style and confidence. Well positioned sled cutting technique.

B) Rescue Skills - Avalanche, rope, sled, heli, toboggan, stuck, lost rider

The candidate is practiced, efficient, and effective at constructing and deconstructing technical systems. All systems are executed quickly and efficiently.

C) Hazard Management - Planning, recognition, analysis, risk reduction, exposure

The candidate is able to recognize and mitigate hazards. The candidate has an excellent awareness of the options, possibilities and ramifications and then makes appropriate decisions. The candidate is able to anticipate the need to modify plans due to evolving hazards.

D) Navigation - Terrain analysis, map, compass, GPS, whiteout

The candidate is able to locate position using map, compass and altimeter, both above and below tree-line, in all weather conditions. Develops a quality route plan for each day, including whiteout contingencies.

E) Terrain Travel - Guide's meeting, client briefing, routefinding, tracksetting

The candidate demonstrates the ability to research and create appropriate route options. Conducts an efficient guide's meetings that results in a daily zone list. Conducts an efficient client pre-trip safety meeting. Sets a track based on avalanche conditions and client skills. Demonstrates excellent techniques for group control and setting boundaries. Can recognize and make macro and micro adjustments to terrain choices to increase enjoyment, decrease fatigue and reduce stress.

F) Winter Living Skills - Shelters, fires

The candidate demonstrates highly developed living skills. Excellent demonstration of shelter construction using high quality designs and appropriate methods of construction. Efficient in terms of time to construct and minimal energy expended.

G) Leadership - Communication, coaching, group dynamics, client care

The candidate has an excellent grasp of leadership strategies. Clear communication with participants to determine their risk propensity. Excellent instructional skills when teaching guests rescue skills and riding skills. Is able to facilitate group dynamics and ease interpersonal conflict.

H) Professionalism - Personal wellness, equipment management, travel practices

The candidate travels according to local rules, regulations, access and wildlife issues. Maintains a high level of personal wellness and fitness with regards to adapting to varying levels of physical exertion and changing weather conditions. Uses high quality guiding equipment.

5. FUTURE WORK

The CMBGA completed its first Strategic Plan in January of 2026. A number of initiatives were identified, and key growth opportunities were targeted.

- Communications and Engagement: Streamline communications and engagement with industry partners, membership, government and the public
- Finances: Ensure appropriate financial planning to ensure sustainability
- Governance: Improve governance oversight and effective operations
- Programming: Improve the efficiency and effectiveness of the training and certification programs
 - Expansion of the Trail Guide program into the Sea to Sky region and Quebec
 - Build a glacier travel curriculum component
- Collaborations: Expand existing and develop new collaborations
 - Continue to grow CPD development in conjunction with the CAA, ACMG and CSGA.
 - Grow the research and development process. CMBGA members presented nine papers at the 2026 ISSW.

6. CONCLUSION

In only five years, the CMBGA has experienced tremendous growth. The association has over 65 certified members, as of April 2026. Most are from British Columbia, with a number from Alberta. There are two members from the USA. CMBGA certification is recognized within the CAA membership application process. The CMBGA has joined the Mountain Professional CPD Series which is a collaboration with the CAA, ACMG and CSGA.

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Mustang Powder has been incredibly supportive in the hosting our exams. It is an amazing venue to run an exam.

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