Canadian Ski Mountaineering Expedition

Jasmine Rickards

ANUMC Expedition fund application 2010 proposal for March – April 2011

This would be a trip for a group of hand picked club members to travel to Canada to complete a 6-7 day hut to hut ski mountaineering trip in rocky mountains of Canada. Skiing and mountaineering are two of the clubs primary sports. The trip would be a significant expedition crossing several glacier fields a mountain range on skis carrying back country camping and survival gear. The mountain range includes glacier crossings and ascents of several peaks above 3000m including Mt. Rhonda 3048m, the Baker Col, Mt Olive at 3110m and the Balfour high col at 3000m which would require some technical mountaineering skis, snow survival skills, and advanced skiing skills.

The benefits to the ANU Mountaineering club community would be:
- Eight competent skiing and mountaineering trip leaders.
- Leaders capable of coordinating larger range of skiing trips including ski mountaineering in New Zealand and longer traverse trips on the main range.
- A series of avalanche skills training sessions for ANUMC members run by expedition members including theory and practical e.g. digging pits and assessing snow conditions this will be especially useful for ANUMC members wishing to increase their preparation for a trip to New Zealand.
- A comparison of Canadian techniques, conditions equipment and methods with the Australian and New Zealand equivalents.
- A link with the Canadian Alpine Club and information gathering for future expeditions to this area.

Ski Mountaineering happens on the glaciers at higher elevations and is often oriented to climbing suitable peaks. To our challenges are added safe glacier travel, whiteout navigation and basic mountaineering skills. To get higher up we will base ourselves in high huts on the Wapta Icefields or camps.

Once arriving in Canada expedition members would complete a two day avalanche training course. This is important as snow conditions in Canada are quite different to Australian and New Zealand conditions and avalanches are more frequent. Consequently avalanche training courses in Canada are superior to the instruction available in Australia. As well as increasing the safety of the expedition this would increase the skill base of the ANU mountaineering club. The expedition members could then lead a one day avalanche training course for other club members upon their return.

The advantage of a ski mountaineering trip is that a great deal of terrain can be covered in a shorter amount of time than summer mountaineering. The trip would not be as technical as a pure mountaineering trip increasing the number of current club members that would
be adequately skilled to participate. It would be beneficial for participants to have completed a technical mountaineering course but not all expedition members would need this qualification and as such this would represent a leadership role for the members who have completed the course and a learning experience for those that have not.

This would be a chance to experience skiing and climbing in another country with a colder climate it would increase the knowledge base of the club members and provide a valuable resource to encourage planning future skiing and mountaineering trips to Canada. The skiing convenor has completed ski mountaineering trips in Canada and recommended that there are several club members who would be suitable for this expedition.

The ideal time of year for the trip would be late winter (i.e. March April) when the weather is warmer and the avalanche risk is reduced. At this time of year crevasses are largely filled.

The preparation for the trip would involve rope skills, trekking, navigation training, and ski touring. Crevasse rescue and roping up for ski travel can be practiced at the ANU climbing wall. Members would be required to carry some camping gear, food and ski and mountaineering equipment.

The required guidebooks would be Summits and Icefields by Chic Scott and Touring the Wapta Icefields, by Murray Toft a 1:50,000 topographical map similar to the NTS sheets but with photos and routes marked on it.

Upon the successful completion of the 7 day hut to hut expedition once the group has developed ski mountaineering skills, and depending on weather and snow condition there would also be the option for more confident and experienced expedition members to tackle a more challenging experience of flying into the Columbia-Clemenceau icefields and completing a ski mountaineering trip in a more isolated area where hut accommodation is not available. This would increase the weight of equipment needed to be carried and the skills and planning required.
Photograph: The high col on Mt Balfour on the Wapta traverse.

**Personal Experience and contributions to ANUMC**

- Active ANUMC member for almost 3 years
- Participation in almost all ANUMC sports including rock climbing, mountaineering, skiing, bushwalking, canyoning, mountain biking, and kayaking.
- Committee member 2010 (Mountain biking convenor)
- Trip leader for regular mid week and weekend mountain biking trips including Bike maintenance, women’s skills afternoon and entry of 2 ANUMC teams into 2010 Scott 24 hour mountain bike race.
- Trip leader for overnight bushwalking (including 2 week trip to western Arthurs in Tasmania), and ski trips
- Technical mountaineering course TMC New Zealand 2002-03
- 7 day NOLS wilderness first aid course 2005

Gabriella and Richard have expressed interest in the trip.
Basic itinerary for the Wapta Traverse

Travel Canberra to Sydney International Airport

Flight Sydney to Calgary

Collect provisions in Calgary

Shuttle to Canmore

2 day avalanche training course:
Training to be completed through an internationally recognised avalanche expert training company such as Yamnuska. This will include a visit to the Banff national park giving expedition participants a first hand introduction to Canadian snow conditions for skiing, glacier crossings, weather forecasts and mountain ascent information for the current season and this can be used by the group to make any alterations to the traverse itinerary,

Day 1: Transport to the starting point of Peyto Lake. The traverse is begun by descending through the forest to Peyto Lake. After crossing the Lake travel up the outwash valley from the Peyto Glacier to the base of the lateral moraine which can be climbed, carrying skis, to the edge of the glacier. Travel up the Glacier to reach the Peyto Hut travel 9km and climb 670m.
Day 2: Base camp at Peyto Hut, ascend Mt. Rhonda, the Baker Col, or Mount Thompson (expected 6+ hour return trip).

Day 3: Base camp at Peyto Hut ascend the other of Mt. Rhonda or the Baker Col (expected 6+ hour return trip). These summits will allow the group to practice crevasse rescue, roping up for glacier travel on skis and mountaineering skills.
Day 4: Cross the Icefields to Bow located on the edge of the spectacular amphitheatre below Mt. St. Nicholas with its hanging ice cliffs.

Day 5: Traverse to Balfour Hut near the snout of the Balfour Glacier. This includes climbing the 'Headwall' then heading over the high col between Mt. St. Nicholas and Olive. If weather permits climb a snow ridge to the summit of Mt Olive. This would be roughly 10km and 800m ascent.

Day 6 / 7: Early start required to the crux of the Traverse, the crevassed slopes leading to the 3000m Balfour High Col. This is undoubtedly the most spectacular section of the
traverse as we pass beneath Balfour with its towering seracs and corniced ridges. Reasonable visibility would be required and so the group may need to wait out bad weather to make the 10 km 6 hr crossing to Scott-Duncan Hut with 610m ascent.

**Day 6/7**

- Balfour to Scott Duncan hut - showing two variation
  1) Easterly less avalanche prone (more crevassed but avoids serac falls under Mt. Balfour)
  2) Westerly under Mt. Balfour - more avalanche prone

  Balfour col often white-out

  In all cases don't stray east on Balfour col - cliff danger

**Day 7/8:** From the Hut a long descent to the rocky thumb of Mt. Niles and along a canyon. Then across Sherbrooke Lake to a trail through the trees that brings us to the Trans Canada Highway at West Louise Lodge on the Kicking Horse Pass. Return to Canmore late-afternoon. Travel 13km, descend 1465m.
Accommodation: Mostly in Alpine club of Canada huts

3 x Canmore
2 x Peyto Hut
1 x Scott-Duncan Hut
1 x bow hut
1 x balfour hut
1 x west louise lodge

Day 7/8

1) Recommended - West of Mt Daly, and bench on West (under Mt Niles) is safer in avalanche conditions. Niles Canyon variation subject to any risk

2) East of Mt Daly is subject to cornice fall for whole distance on the Bath Glacier, and final descent is down an avalanche path (although one can go through heavy forest to the east)
Expected costs per participant:

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<th>What</th>
<th>Option 1</th>
<th>Option 2</th>
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<tr>
<td>Return Airfare Sydney to Vancouver Air New Zealand or Air Canada</td>
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<td>Return Airfare Vancouver to Calgary</td>
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<td>Shuttle Calgary to Canmore return</td>
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<td>Alpine Club of Canada membership Rocky Mountain</td>
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<td>Alpine club huts upgrade</td>
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<tr>
<td>Alpine Club of Canada Clubhouse and hut accommodation x 11 nights</td>
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<td>$36 x 11 = $396</td>
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<td>Annual Wilderness Pass 1 year</td>
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<td>2 day avalanche training course</td>
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<td>$176 CND +GST</td>
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<td>Transport Canmore to Banff / Lake Louise for field trip</td>
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<td>Shuttle to Lake Peyto</td>
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<td>Transport from Kicking horse pass to Canmore</td>
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<td>Provisions for 7-10 days</td>
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<td>Hire of satellite phone if required</td>
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Extra expense would be incurred if the group continued with chartering a flight into Columbia-Clemenceau icefields

**Equipment required**

**Hardware**

- Skis
- Boots
- Poles
- Climbing skins
- Avalanche beacon w/ fresh batteries
- Probe
- Shovel
- Ice axe
- Crampons and or ski crampons
- Mountaineering ropes - at least 1 per pair
• Slings- 1 double-length
• Prussiks, 2, Texas prussik setup
• Carabiners, probably 2 locking and 2 non-locking
• Harness

**Clothing for below freezing temps during the day and wind**

• Socks, 2 pairs
• Fleece pants or thick long underwear
• Waterproof shell jacket
• Shell pants, waterproof or soft shell
• Insulated jacket, down or synthetic
• Light jacket- fleece, softshell, etc.
• Base layer shirt, maybe 2
• Winter hat
• Sun hat
• Balaclava or neck warmer
• Liner or light gloves
• Gloves or mitts
• Sunscreen and lip balm
• Sunglasses
• Goggles
• Toiletries and personal first aid supplies (moleskin, ibuprofen, etc.)
• Sleeping bag- some huts are unheated,

**Other**

• Water bottles and/or insulated Camelback, at least 2 litres capacity
• Emergency kit- mylar bag, chemical heat packs, lighter ROBIN
• Headlamp + batteries
• Camera
• Compass
• GPS
• Maps
• Altimeter
• Group First Aid kit
• Leatherman/pocket knife/multi-tool
• Repair kit- sections of alum angles, locking wire, pipe clamps cable, epoxy, skin wax, duct tape, etc.
• Satellite phone- hire from Alpine Climbing club in Canmore?
• Snow study kit and snow saw ROBIN
• Stove
• Locks for storage lockers in Lake Louise