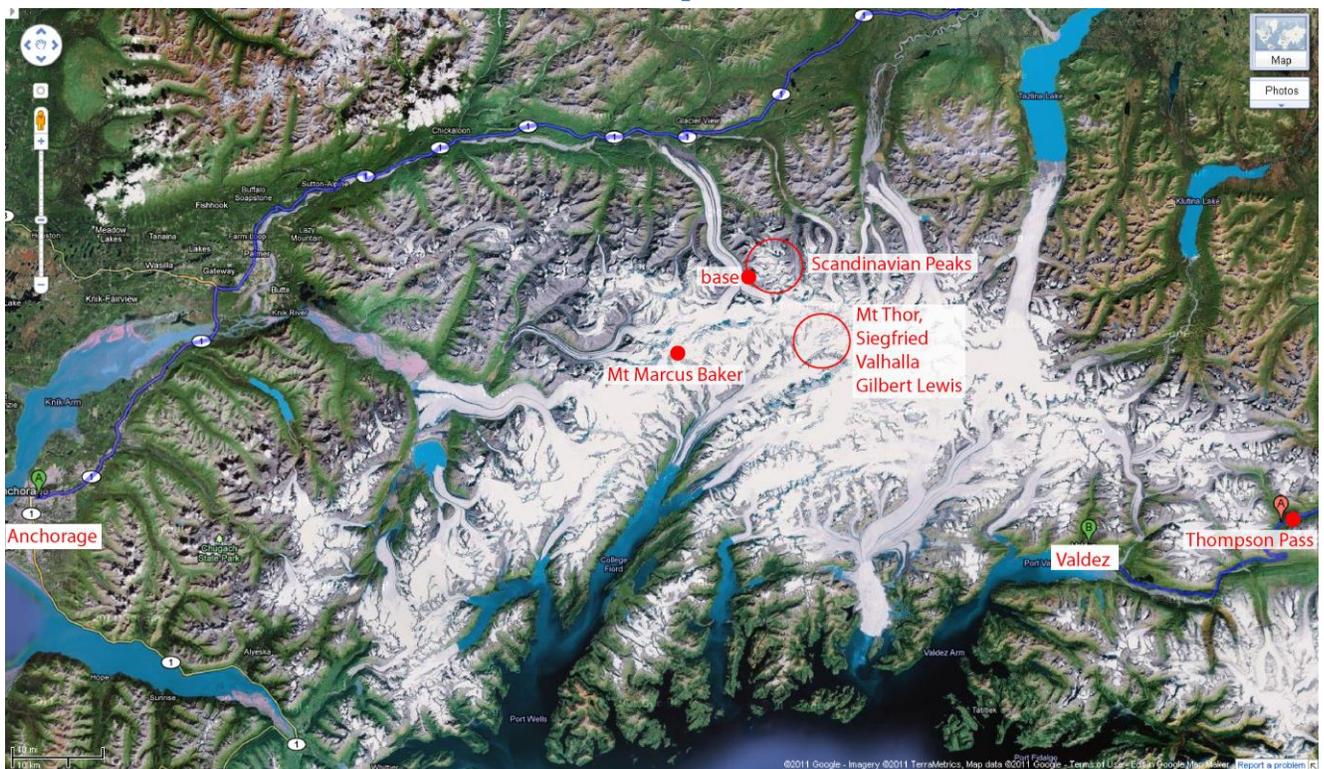




EXPEDITION REPORT

An Exploration of the High Chugach Mountains of Alaska by Ski

5TH – 27TH April 2013



Chugach area overview, from Anchorage to Valdez, with some exploration areas marked:

Summary

The Chugach Mountains of Alaska form a 300 mile crescent east of Anchorage, stretching to Valdez. The Valdez region is widely recognized as a world-class heli ski destination. The wider Chugach have received far less attention, but have much to offer, including committing multi-day ski mountaineering challenges. On this expedition, we investigated several regions within the Chugach, aiming to assess the ski mountaineering potential of the highest peaks of the range. In addition, we attempted the first British ski ascent and descent of the highest mountain in the range, Mt Marcus Baker (13,176 ft).

1. History

The first recorded ascent of Mt Marcus Baker was in 1938 by a team from the Harvard Institute of Geography that included Bradford Washburn. They flew from Valdez to a base camp on the Matanuska Glacier, 8 miles from its head, which would place their base camp between Mt Marcus Baker and the Scandinavian Peaks hut. The expedition was hampered by almost continuously unsettled weather, including an extensive series of storms. Base camp was established over several weeks in May and was complete by June 1. During the first three weeks in June, they established several camps on the Matanuska Glacier and north side of Mt Marcus Baker and reached the summit on 19 June 1938. Mt Marcus Baker has undoubtedly received many ascents in the intervening 75 years, but there are few detailed accounts of these ascents and the most popular approach appears to have been from the Knik Glacier, to the west. To this day, Bradford Washburn's account of the expedition remains the most detailed account of the ascent of Mt Marcus Baker from the north, via the Matanuska Glacier.

In contrast, much information is available about skiing in the eastern Chugach, largely as a result of the huge commercial success of Valdez-based heli-skiing operations. Nonetheless, the Valdez area clearly contains much excellent skiable terrain that is accessible by ski from the road. A recent slim guidebook provides an introduction to the skiable peaks that are accessible from the road, but little information on the slightly more inaccessible peaks.

2. Aims of our expedition

The aims of our expedition were to:

- Explore the ski mountaineering potential of the Chugach Mountains
- Assess the potential for future trips to the highest peaks in the Central Chugach Mountains
- Attempt the first British ski-ascent and descent of the highest mountain in the range, Mt Marcus Baker
- Communicate our findings & experience to the wider ski mountaineering community

We consider that all these aims have been met. There is undoubtedly enormous potential for ski mountaineering & future trips in all areas of the Chugach Mountains, especially the more remote central areas. We attempted the ascent and ski descent of Mt Marcus Baker ; the team had to turn back with a short but exposed abseil descent from a high point of ~11000ft. In this low snow year the ridge had become an ice climb for which we were not equipped.

3. Final Itinerary

Late April and early May are frequently the best months for ski mountaineering in North America. Spring weather often brings a stable, consolidated snowpack, while snow cover is still substantial, resulting in relatively safe travel on large, extensively crevassed glaciers (such as the Matanuska). Weather patterns are typically more stable in late than in early April and there is more daylight.

Itinerary

5 th April	Flight to Anchorage via Seattle. Team meets.
6 th -8 th April	Organisation & logistics; buy food & supplies. Backcountry skiing from Turnagain Pass, near Anchorage.
9 th April	Drive to Sheep Mountain; unable to fly to Scandinavian Peaks bivi hut. Overnight Sheep Mountain
10 th April	Morning ski up Gunsight Mountain; fly in to Scandinavian Peaks Hut in afternoon
11 th – 17 th April	Explore Scandinavian Peaks Area Establish advance base camp below Mt Baker; attempt on Mt Marcus Baker. Assess ski mountaineering potential of Mt Thor area
18 th April	Fly out, travel to Valdez (300 miles)
19 th -22 nd April	Backcountry skiing in Thompson Pass area, accessed from Valdez
23 rd & 24 th April	Poor weather – rest day & drive back to Anchorage
25 th -26 th April	Backcountry skiing from Turnagain Pass & Arctic Valley
27 th April	Return flight – Anchorage- London via Seattle

4. Expedition Team

The expedition was open to all members of the Eagle Ski Club with suitable experience and a team of 8 was assembled. Our team was predominantly British but with an international slant as participants are based in Sweden, France and the USA as well as Britain. Having a team of 8 members allowed us to split into two teams of 4 for safer glacier travel. There was a broad mix of ages and complementary experience within the team as some team members were stronger skiers while others were more experienced mountaineers. The team consisted of 6 skiers and 2 on split snowboards; 2 team members had travelled to the Polar regions before.



L to R: Matthias Danninger, Neil Mackenzie, Susie Amann, Phil Jardine, Dan Carron, Jack Waters, Ross Cluley, Lewis Luyken

Team Details

Susie Amann, 41 (Organiser)– organised a number of self-supported expeditions including to the Nef Glacier in Patagonian Chile. 30 years of skiing experience, predominantly in European Alps. Experience of leading teams of young people on expeditions in Chile, Indian Himalaya & Bolivia. First Aid qualified.

Jack Waters, 42 (Organiser)- has organized and led numerous mountaineering and ski trips and expeditions throughout Europe, the Middle East, North and South America and Australasia. Currently resides in North America.

Dan Carron, 58 – back country skier with some expedition experience. First Aid qualified.

Phil Jardine, 54 – mountaineer and skier. Has led ski teams in glacial areas but limited expedition experience.

Ross Cluley, 36 – Chamonix based experienced skier. Previous expedition experience to Greenland coupled with an outdoor upbringing in Scotland.

Matthias Danning, 31 – Sweden-based skier who has skied all over the world. Worked in Antarctica at a scientific research station. Experience of ski expedition to New Zealand.

Lewis Luyken, 30 – broad range of Alpine and Scottish mountaineering experience. This is his first expedition.

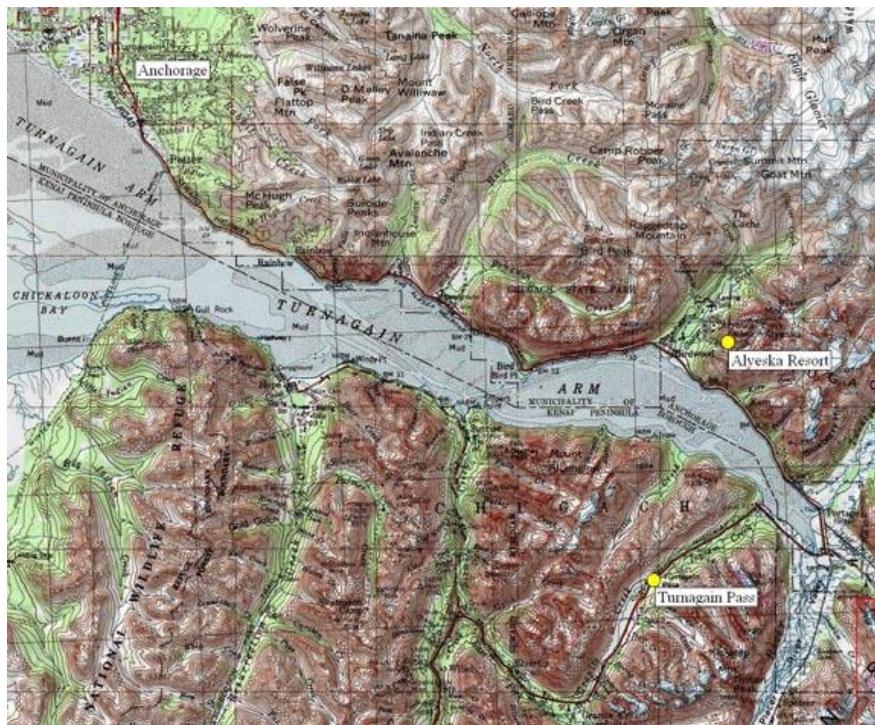
Neil Mackenzie, 30 – Scottish skier & mountaineer. Previous climbing expedition attempt on Canada/Alaska border.

5. Ski Mountaineering Achievements and Attempts

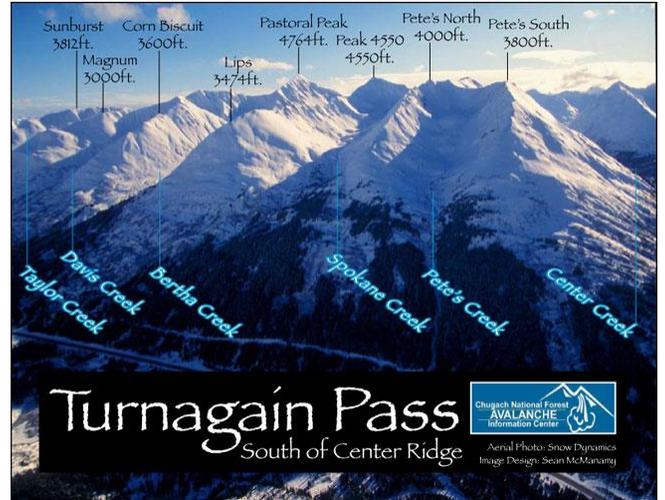
5.1 Western Chugach, around Anchorage

We skied for 3 days in total in the Anchorage area, at Turnagain Pass, Anchorage Front Range and in Arctic Valley. Turnagain Pass area (approximately an hour SE of Anchorage on the Seward Highway) offers excellent backcountry skiing from the road. Information on this area was readily available, and a driving recce identified that there is an almost unlimited potential of peaks to ski all along the Seward Highway.

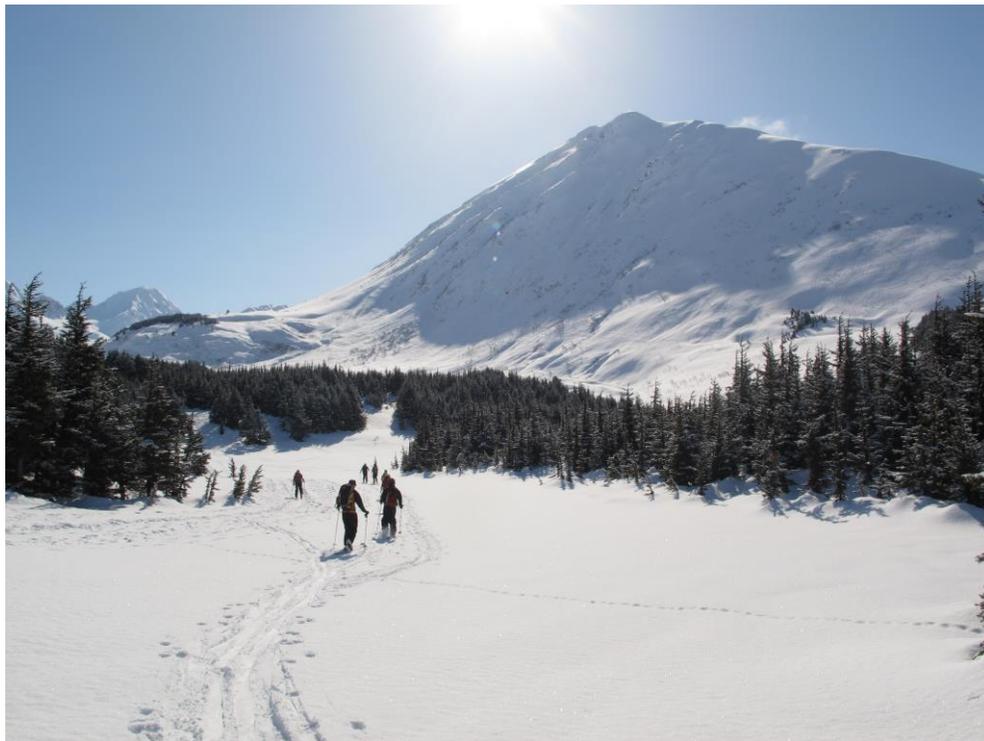
Overview map of the Anchorage/Alyeska/Turnagain Pass area:



Mountains on East side of the road at Turnagain Pass:



7th April Warm up day : The second day after arriving in Alaska, the team skied Central Ridge on Turnagain Pass, about an hour's drive SE from Anchorage. The previous day's poor weather meant that we enjoyed a fresh powder descent. This was the first time that the team skied together and gave us an opportunity to find our ski legs after the long journey, check that all the equipment worked as well as have a lot of fun!



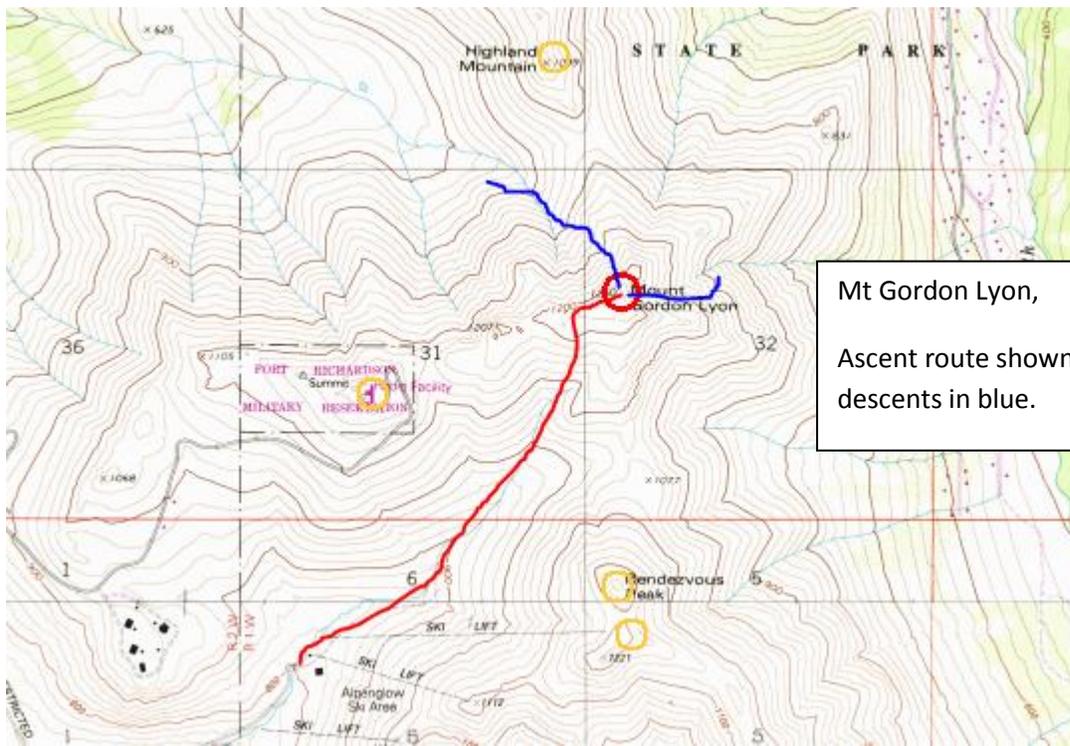
Setting off skinning on the first ski day, Sunburst Mountain on the right

Enjoying the powder on Centre Ridge, Turnagain Pass



25- 26th April : We returned to the Western Chugach for the final 2 days of the expedition. The two sub teams chose different objectives on 25th. Matt, Jack & Susie returned to Turnagain Pass and skied Tincan Mountain, ascending 2500ft to Tincan Common in 90mins. The snow conditions encountered were rather different than on the first ski day of the trip with challenging variable snow ; soft at the top then breakable crust. The rest of the team skied the Anchorage Front Range finding pleasant gullies on Peak 3 from the Rabbit Creek trailhead and a gully on the NW face of McHugh Pk., both within 20 minutes drive of downtown Anchorage.

Our final ski day was 26th April and the whole team skied together, heading north from Anchorage to Arctic Valley where there is a small resort giving road access into the Arctic Valley mountains. The team ascended Mt Gordon Lyon (4020ft) in good weather conditions which gave excellent views out to the sea. Different descents were chosen by team members, from a descent of the NW face to tackling a SE facing couloir ; the NW face needed care as it was approaching 40° at the top with hard packed snow, and had some terrain traps that were easily avoidable once spotted from above. The descent was uneventful and we skinned back up to the ridgeline for lunch in the group shelter to avoid the wind before skiing back down to the road access.



Mt Gordon Lyon,
Ascent route shown in red,
descents in blue.



Phil Jardine on the summit of Mt Gordon Lyon

5.2 Central Chugach : Scandinavian Peaks and Mt Marcus Baker

The most challenging part of the expedition was expected to be in the Central Chugach; this glaciated area includes the highest peaks of the Chugach Range, at 8,000-13,000 ft. Maps, photos and the few trip reports available suggested excellent ski mountaineering in the Central Chugach, but little detailed information was available before the expedition. We based ourselves at the Scandinavian Peaks hut, a small bivi hut owned by the Mountaineering Club of Alaska. We flew in and out of the Central Chugach as the terrain below the hut is heavily glaciated (see photo) and extremely complex. Fixed-wing light aircraft commonly land on the Matanuska Glacier, a few hundred yards below the hut and we flew in with Matt Keller of Blue Ice Aviation who has the most experience of landing there. We flew in from Sheep Mountain Airfield one by one in the tiny plane, a 2 seater supercub. Our skis were strapped to the wing and the plane landed close to the moraine below the hut.



Flying in over the Matanuska Glacier

Our aims before leaving for the central Chugach were to:

- (1) explore the Scandinavian Peaks group, immediately NE of the hut;
- (2) ascend and descend Mt Marcus Baker, SW of the hut;
- (3) ascend and descend one or more peaks around the head of the Harvard Glacier, SE of the hut.

These peaks appear challenging, but accessible by ski and we intended to ascend and descend as many as possible of these peaks on skis, snow conditions permitting. Our intention was to access the Scandinavian Peaks group as day trips from the hut; Mt Marcus Baker and the peaks around the head of the Harvard Glacier are further from the hut and we anticipated needing an advance base camp near Mt Marcus Baker and another near the head of the Harvard Glacier. We expected to spend 1-2 nights at each advance base camp.

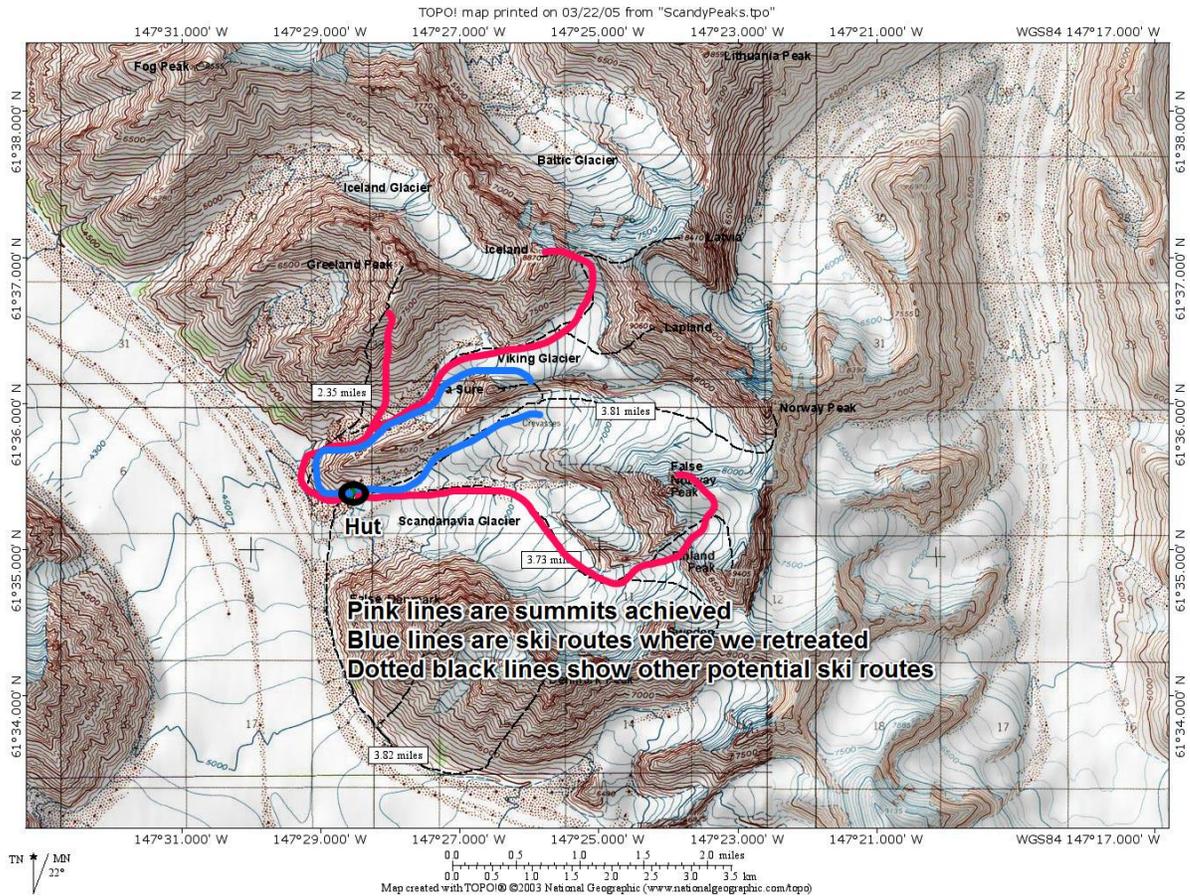
Accessing all of these peaks required extensive travel on large, often heavily crevassed glaciers, necessitating careful navigation. The scale of the Chugach range was also different to anything we had experienced before; it was very difficult to gauge the scale and distances as we had to remember that the glacier itself was a mile wide immediately below the hut.

We were extremely fortunate with the weather during our stay at this hut, with only 1 poor visibility day, and the rest blue sky days. The pattern was that extremely low morning temperatures (between -15C and -20C) meant early starts were undesirable but once the sun began to warm up the temperature could almost be considered pleasant. Days were long with daylight until 10pm so returning from a day at 6pm became normal.

2013 had proved to be a low snow year and so the glaciers were rather less covered than we might have anticipated.

Skiing the Scandinavian Peaks Area

Map of Scandinavian Peaks, with actual and possible ski routes marked.



Lewis Luyken approaching the Scandinavian Peaks Hut. Peaks in the background L to R, False Norway, Sweden, Finland, False Denmark.



During our stay at the Scandinavian Peaks hut we attempted or summited to following peaks:

Summits:

False Norway Peak (8960ft) – summited, accessed from Scandinavian Glacier, adjacent to the hut. Windblown crusty snow, rocky summit of shale & snow mixed.



Dan Carron on the lateral moraine of the Scandinavian glacier, just above the Scandinavian Peaks hut, en route to an ascent of False Norway Peak. Camera pointed southeast. In the background, Matanuska Glacier (photographer's left of skier) leading to Mt Marcus Baker (centre, far background).



Team members on the Scandinavia Glacier heading south east on the ascent of False Norway Peak. The route continues up the centre left ramp before turning sharp left to False Norway. The peak on the right is Finland Peak.

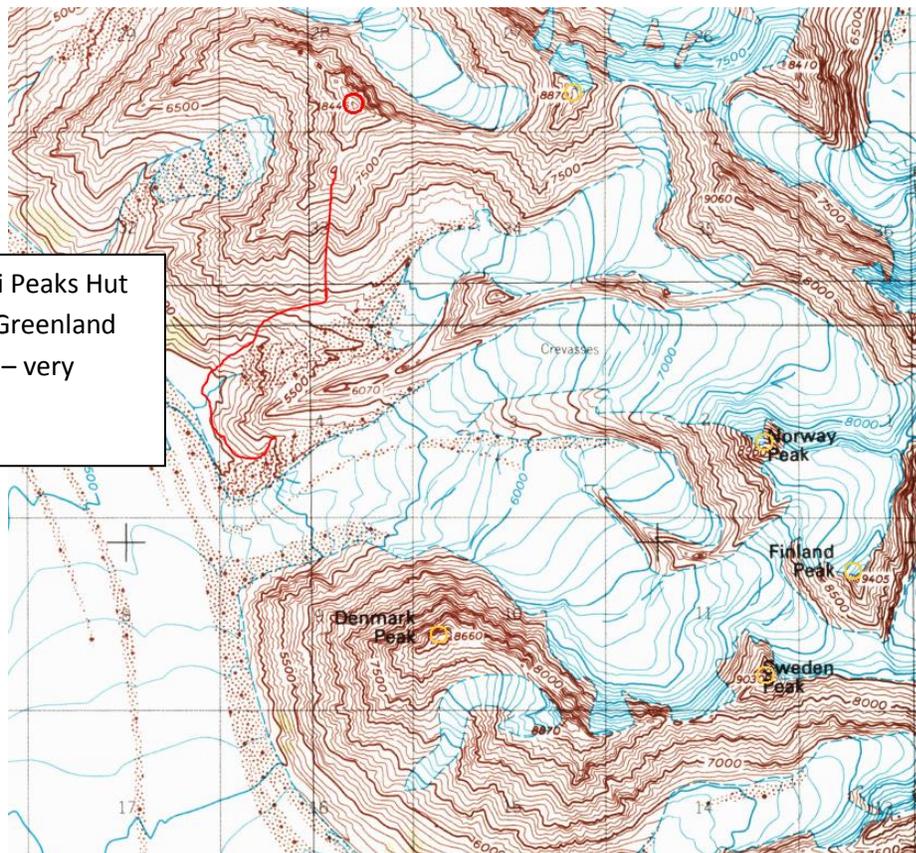


Taking a break on the way to the summit of False Norway Peak.

Iceland Peak (8870ft) – summited, accessed from Viking Glacier via Iceland-Latvia Col. Steep shale and snow mixed terrain to summit, with a sketchy descent back to ski depot. Excellent skiing all the way back to the base of the Viking Glacier, especially good through the lower ‘gun barrel’.

Greenland Peak (8445ft) – South Summit (8000ft), accessed from Viking Glacier. The usual ascent route follows the ridge

Route from Scandi Peaks Hut up gully to South Greenland Peak shown in red– very rewarding skiing!



broadly SW. We spotted a gully line further east which proved fruitful as it gave a 3000ft descent of consistent 35° angle. Snow conditions were of a dusting of powder on a consolidated base.

Attempts:

An attempt on Norway Peak proper was curtailed when an extensive crevasse field was encountered: the only likely route through was threatened by cornices so the team turned back. Similarly, a circuit around Yashure was not possible due to the fearsome crevasses en route.



Jack Waters surveying the possibilities on the northern arm of the Scandinavia Glacier

Mount Marcus Baker

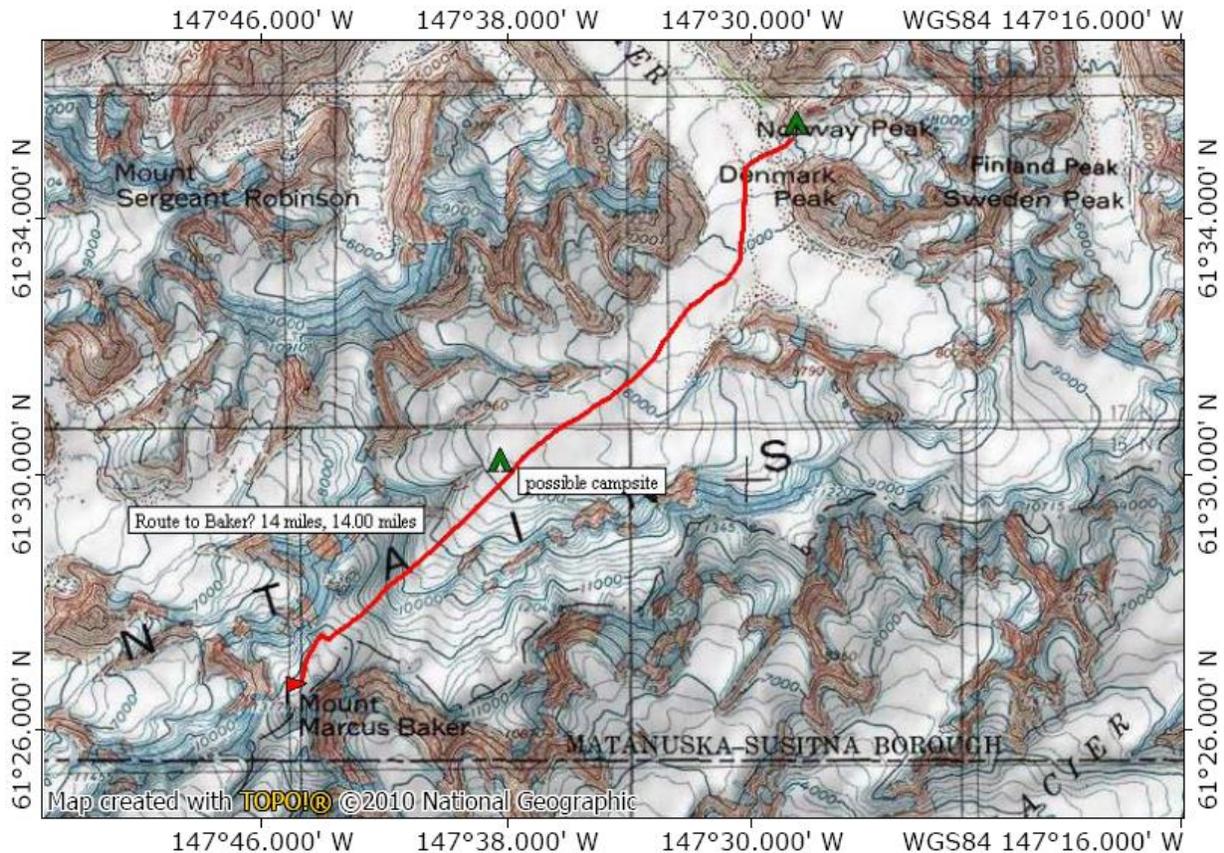
Our planned ascent route for Mount Marcus Baker was the same route as that taken by Bradford Washburn in 1938; his team had flown in and established their base camp higher up than we started from, in a location on the relatively flat upper Matanuska Glacier.

Our pre expedition planning had established that Mt Marcus Baker is about 14 miles from the Scandinavian Peaks hut with no intervening ridges so the ascent from around 5,000 ft to the summit (13,176 ft) would be around 8,000 ft. The route proceeds up the flat to gradually rising Matanuska Glacier to about 7 or 8,000 ft, rears up to about 11,000ft, then eases off to the summit.



Scandinavian Peaks Hut, Matanuska Glacier behind it, curving south east, Mt Marcus Baker is the highest point in the centre of the picture, indicated with the arrow.

Map of the route to Marcus Baker, from the Scandinavian Peaks hut to the summit (red flag). Likely location of advance base camp, at 7-8,000 ft on the Matanuska Glacier, is marked.



We began our attempt by having a recce day; a team of 4 headed out from the hut to assess conditions on the glacier, as we had seen and heard large chunks of seracs falling onto the main glacier and were uncertain of the extent of the crevasse fields. We discovered that notwithstanding the long distances, an attempt on the peak should be possible, as the glacier was unthreatening and that the NE ridge looked the most promising route in this low snow year. After this assessment, with a stable weather forecast, a team of five (Phil, Matt, Ross, Lewis and Neil) set out equipped to make a forward camp. They traversed 9 miles of the glacier and made camp at N61.58330, W147.50375 .



Temperatures overnight were down to -20°C making keeping warm and cooking a challenge.

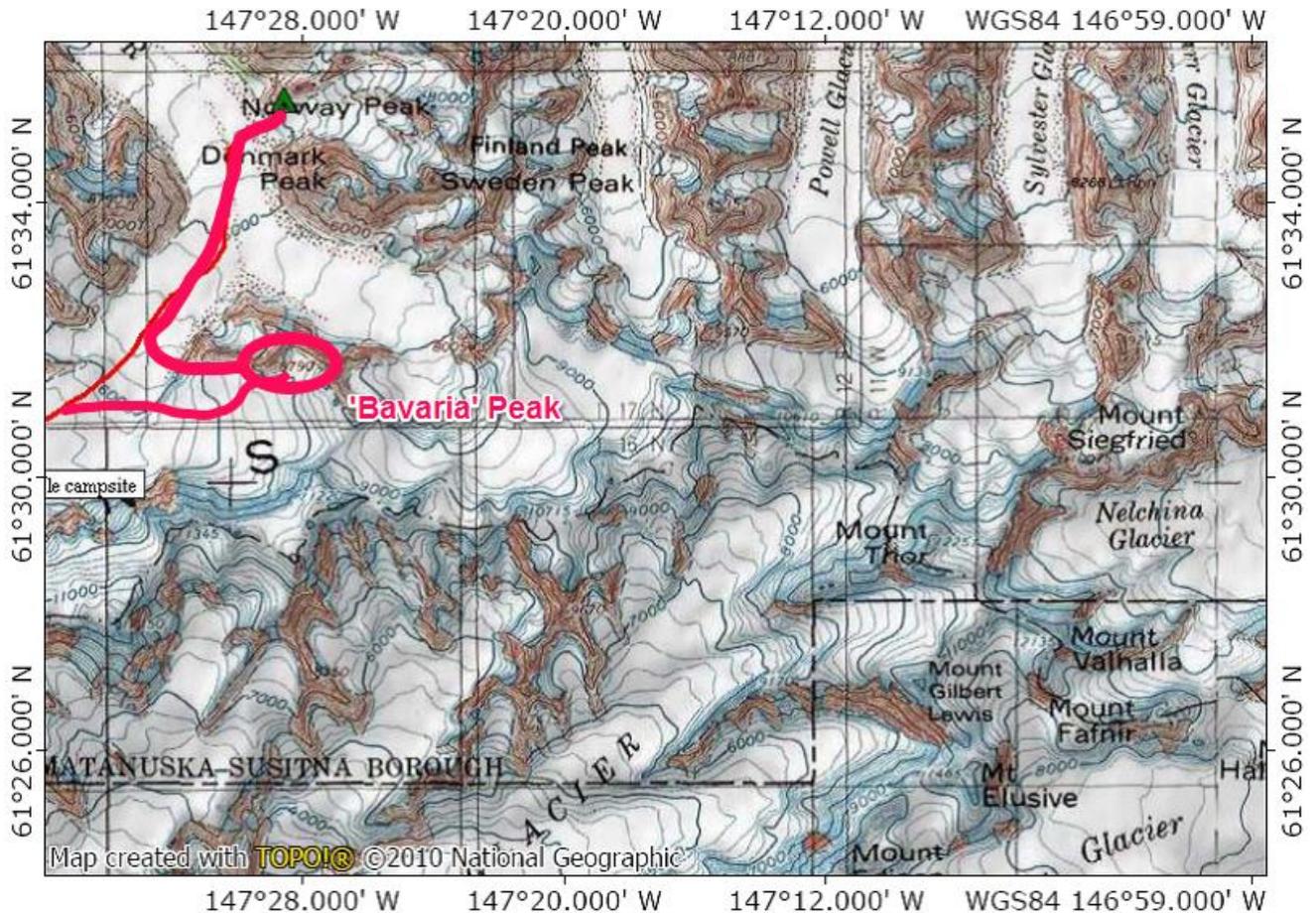
The following day the team began ascending Mt Marcus Baker via the NE ridge but were forced to turn back when the terrain began to require technical ice climbing for which we were not equipped. The low snow year had turned the snow ridge into an ice climb so a short abseil retreat was made and the team returned to the glacier camp.

Exploration of the wider area

Central Chugach: head of the Harvard Glacier

There are a cluster of interesting-looking peaks at the head of the Harvard Glacier. Possible peaks include Thor, Valhalla, and Gilbert Lewis. All appear to offer challenging, but skiable terrain. Our pre expedition studying of the map, showed that the glaciers in this area appeared to be significantly more complicated than the upper Matanuska and it proved to be very much so on the ground. The Harvard Glacier runs SW across the southern flank of Marcus Baker and these peaks form a wall at the head of the glacier, E of Mt Marcus Baker. We had an exploratory day up the Matanuska Glacier towards the head of the Harvard Glacier and were unable to identify a skiable route from the Matanuska onto the Harvard.

On the return from Marcus Baker the team identified an un-named ski-peak was for the following day's objective. It turned out to be deceptively far away, and by 5pm the following day the team summited before a long descent back to the hut. It was termed 'Bavaria Peak' in honour of Matt (who is from Bavaria) being the only one to ski down the west face directly from the summit.

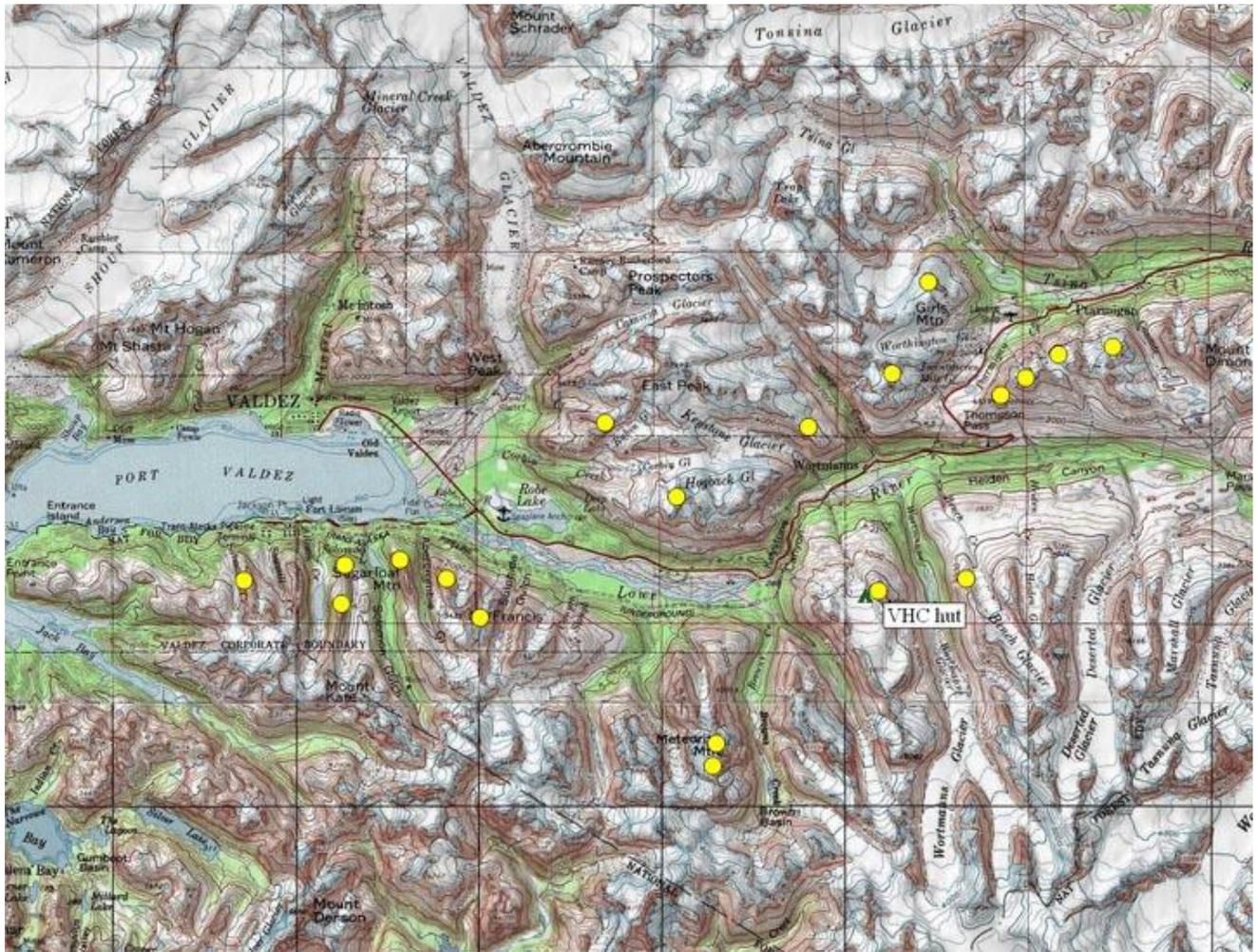


Scandinavian Peaks, 'Bavaria' Peak and head of the Harvard Glacier

5.3 Eastern Chugach- Valdez Area

We had about a week to explore the area around Valdez, before returning to Anchorage by road. Although the Valdez area is renowned for heli-skiing, from our pre-trip planning we judged that many of the interesting peaks and valleys in this area appeared readily accessible on skis. The peaks in this area are between 3-6,000 ft, with the road at sea level near Valdez and ascending to around 2,000 ft at Thompson Pass. We focused on accessible locations that are outside the areas commonly accessed by helicopter.

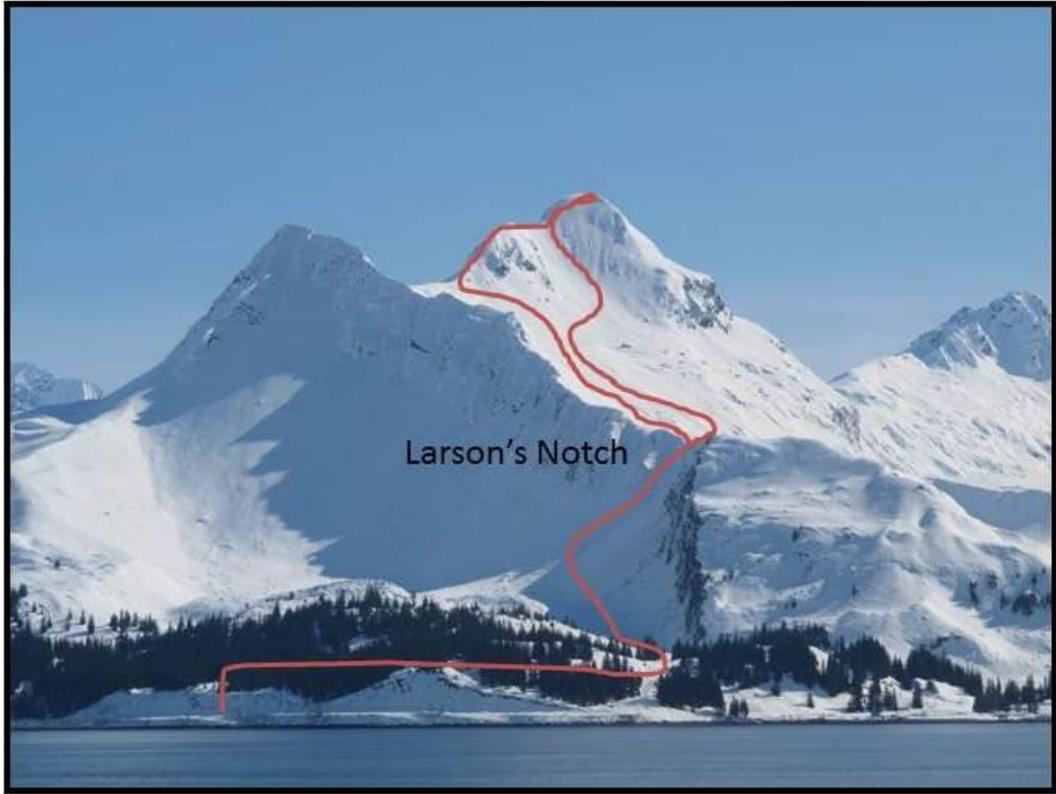
We made contact with Matt Kinney who has written a slim guidebook based on his experience of living and skiing in the area, who made some useful recommendations. In the end we had 4 ski days in this area, losing 2 to poor weather and no visibility.



Valdez area map, with some of the main road-accessible ski peaks (yellow):

Summits

Snow Dome (Nemok) – Sea to summit - 3780ft. The two teams took different routes up to this true ski summit. One team canvassed the descent route while the other took a sporting route along the ridge. The descent is approx. 38° at the top before the angle eases. Snow conditions were variable; some windblown, with some sections of powder in small gullies. On the lower section the snow conditions suited the boarders particularly.

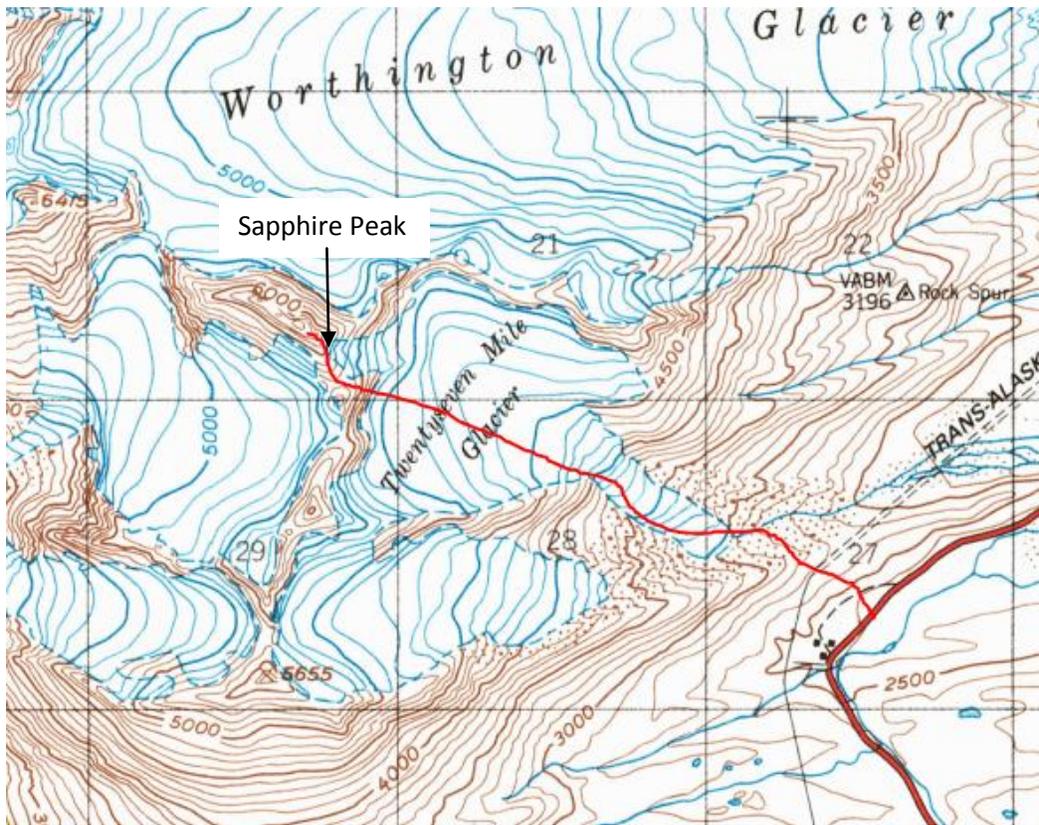


Red line shows the two routes taken to Snow Dome Summit, via Larson's Notch



Neil Mackenzie boarding from Nemok/Snowdome(righthand peak), on the North facing descent

Sapphire Peak – 6300ft . The ascent of Sapphire Peak proved to be a challenging ski mountaineering undertaking. After the initial approach, the 27 mile glacier icefall was very steep, necessitating ski removal and serac avoidance. Once the flatter section had been gained, the glacier traverse was straightforward. On the final ascent to the summit, we encountered unconsolidated snow and so turned back approx. 200ft before the summit.



The descent proved eventful. The top section is approx. 45° with the snow mainly hard and chalky but there was also some crust. On the descent, while making his first turn, Matt's ski released and he fell 450ft down the west face. Fortunately he suffered only a twisted knee. It was discovered that somehow the DIN on the binding had wound down which was the cause of the release. Following this fall, we all made our way carefully back down the glacier, and the icefall in worsening visibility.



Sapphire Peak – ascent shown in blue, descent in red.

Other Ski Tours

While in the Valdez area we also skied the following:

Gully Two – Mile 30 of Richardson Highway. Starting Altitude : 2050', High Point : 5000'

Aspect: West, Gully approx 30° all the way. Little Matterhorn Peak on Right, at gully top, terrain rolls onto a flatter glacier (pictured below)



Shorter tours were also had on the many easily accessible slopes in Thompsons Pass and from the Solomon Lake trailhead (Matts Slope and Larsons Notch) where good snow was found.

6. Weather & Conditions

Overall, we were incredibly fortunate with the weather during our 3 weeks in Alaska. It was snowing when we arrived and for our first few days. This meant we were delayed by a day flying in to the Scandinavian Peaks area. Subsequently, improvement meant that we had bluebird days for the entire time we were in the Scandinavian Peaks area. In Valdez we were not quite so fortunate; after sitting out one day, we decided to use the following poor weather day to return to Anchorage where the weather was better. The complete lack of any trees in the Valdez area means that flat light is a particular problem.

The snow conditions we encountered were influenced by the fact that 2013 was a low snow year, particularly in the Central Chugach. This made travel in the Scandinavian Peaks area and the attempt on Mt Marcus Baker much more difficult.

7. Communications

For communications from the Scandinavian Peaks area, the team rented an Iridium satellite phone in Anchorage. Supplied with two batteries and kept warm, no other recharging was needed. This was used to contact the pilot for our extraction, and also to receive text messages with the weather forecast. It is useful to know that text messages can be sent free of charge to satellite phones over the internet. Our thanks to Jonathan Garner for the daily weather updates by text.

In other areas of the Chugach, there was intermittent mobile phone coverage which was used as needed.

8. Logistics, planning, permits

The organizers did all the logistics and planning themselves, with help from other team members on specific areas such as maps and medical kit. We contacted the Mountaineering Club of Alaska for local information and received some help & contacts from them. No permits were needed for these areas but all members of the team joined the Mountaineering Club of Alaska, which is a pre-requisite to be able to use their bivi huts.

9. Travel

We travelled to Anchorage by commercial flights, via Seattle and then hired 2 vehicles for the 8 people which we drove ourselves. Initially we had one large minivan which could take 4 people and all the skis and one car which took the other 4 people. This was fine for our needs in Anchorage and we then offhired the car before setting out for the Scandinavian Peaks area so as not to pay for the hire of two vehicles which were not being used. We used a private shuttle to take half the party to Sheep Mountain airfield, while the rest went in the minivan. The minivan was left at Sheep Mountain airfield while we were in the Central Chugach. After exiting the Scandinavian Peaks area, 3 of the team drove back to Anchorage (approx. 2 hours) to collect a second vehicle (small 4WD SUV) for the remainder of the trip.

Our flights into and out of the Scandinavian Peaks were arranged with Blue Ice Aviation, the pilot Matt Keller having the most experience of the Matanuska Glacier.

10. Clothing, Equipment, Food

The climate in Alaska in April was difficult to predict, given the coastal nature of the Chugach mountains. We were prepared for cold conditions such as those encountered in the Alps in January, and experienced temperatures down to -20°C.

Each team member brought suitable personal equipment for ski mountaineering and glacial travel. Tent pairs then organized their own tents, stoves and other equipment. Ropes were organized so that there was 1 x 30m rope per pair, and 1 x 60m rope per team of 4. Other group equipment was a first aid kit, repair kit, spare binding, spare ski pole & skin, 2 bothy shelters, 2 x GPS and ice hammer.

We used sturdy 2 man expedition tents, pegged out with skis and bags filled with snow. Cooking was done with an MSR XGK stove which runs on white fuel and also with a Jetboil running on gas. In the Scandinavian Peaks hut, a white fuel burner was used as well as the XGK for melting snow for water and cooking meals.

We preordered and had sent a consignment of Mountain House dehydrated meals to friends of one of the party in Anchorage. The rest of the food requirements were bought in Anchorage at regular supermarkets.

11. Finances

Income		Expenditure	
Eagle Ski Club Grant	£ 1,500	Travel to Area	£ 6,320
Gino Watkins Grant	£ 1,000	Other Travel	£ 3,947
Personal Contributions	£ 13,382	Fuel	£ 427
		Admin	£ 130
		Field Equipment	£ 127
		Food & Accom	£ 3,850
		Insurance	£ 1,080
Total	£ 15,882	Total	£ 15,882

Each team member also supplied all their own ski and mountaineering equipment. The group equipment was largely sourced from items that team members already owned.

We are extremely grateful to the Eagle Ski Club and the Gino Watkins Memorial Fund for their support for this expedition and to the Alpine Ski Club for specific support to two team members.

12. Maps & Bibliography

We bought the USGS Topo Map of Alaska on CD in the planning stages of the trip and this was used to print out all the maps required for the expedition.

Guidebooks

Anchorage area: The Alaska Factor, Joe Stock 2012 ISBN: 978-1-57833-579-4

Valdez area: Alaska Backcountry Skiing Valdez & Thompson Pass, Matt Kinney Prince William Sound Books. ISBN: 1-877900-16-8

Account of Bradford Washburn 1938 Expedition to Mt Marcus Baker . Found in Alaska Ascents: World Class Mountaineers Tell Their Stories. Edited by Bill Sherwonit. Published by Alaska Northwest Books (2007) ISBN: 0882404792

13. Acknowledgments & Thanks

The organisers would like to thank the following for their help and support:

The Eagle Ski Club

The Gino Watkins Memorial Fund

Alpine Ski Club

Any ski mountaineer seeking further information can contact the organisers (Susie Amann and Jack Waters) via the Eagle Ski Club www.eagleskiclub.org.uk