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Caucasus Ski Traverse 1996



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Expedition Report

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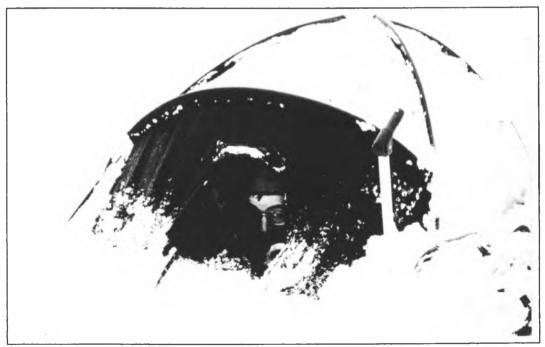


Figure 1. Tent-bound in Georgia during a storm.

Summary

The objective of the 1996 Caucasus Ski Traverse was to link passes along the highest part of the main Caucasian chain. The traverse took place during March and was undertaken by three members.

The plan was to traverse from Verkhny Balkaria in the east to Terskol in the west, remaining high in the mountains, usually between 2000m and 4000m, and only rarely descending below 2000m. Parts of the route have been completed before, but never as a continuous trip.

The group successfully traversed the most complex and remotest central section. Due to sickness the party did not cross the first pass, and dangerous snow conditions prevented a crossing of the last pass. It would appear that this is the first time the route has been traversed by a British party, and seems likely that it is the earliest traverse in the year. Unfortunately, since it was not completed by 21st March, a winter traverse cannot be claimed.

Travel and logistical plans had to be modified at the last minute, due to changes in the team. Rearranging our programme to take account of changes proved to be no problem, and the Russian individuals and companies we dealt with were flexible and helped us with our changed circumstances. Particular thanks is due to Vadim Buslik, who agreed to be an expedition member at the last minute, but was unable to accompany us on the main part of the traverse due to ill health.

We are grateful for sponsorship from a number of organisations. Financial support was received from the Mount Everest Foundation, the British Mountaineering Council, The Alpine Ski Club Memorial Adventure Fund and the Eagles Ski Club Georgina Travers Award. We also received the following help: food supplies at a reduced price from BCB International Ltd (Raven dehydrated food), loan of a tent and stove from David Hamilton, loan of an avalanche transceiver from Bob Horne and help with medical supplies from Imperial College.

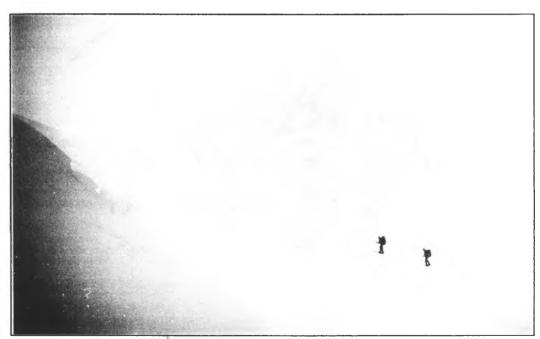
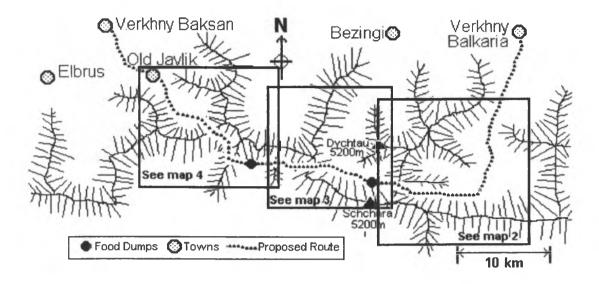


Figure 2. Crossing continents. Approaching Asia from Europe.

The Caucasus Mountains

The Caucasian Mountains are a 1100km long chain running from east to west between the Caspian and Black Seas, dividing Russia and Georgia. The highest peaks and largest glaciers are to be found in the central section and have a scale intermediate to that of the Alps and Himalayas.



Map 1. Route of the 1996 Caucasus Ski Traverse.

The central section forms an uninterrupted ridge of high peaks and passes. Eight of these peaks exceed 5000m and many others exceed the height of anything found in the Alps. It has been commented that the Caucasus have super-alpine climbs with Himalayan scale walk-ins.

The Caucasus were first explored during the last century by mountaineers from western Europe. Notable exploration was done by the British mountaineers D W Freshfield and A F Mummery. The German traverse of Ushba, in 1903 ,started the trend towards multi-day Caucasian traverses. In the years up to the start of the 1st World War, most of the peaks and passes were explored, and all the major summits attained. The tradition of traverses had also become popular.

The instability caused by the revolution and civil war meant that little exploratory mountaineering took place until the 1930s, though a German team completed the traverse of the Bezingi Wall in 1931. The area became popular with Russian climbers and walker, who ascended many of the peaks by the easier routes, often in large groups. Some notable first ascents were also undertaken. The 1937 British Expedition was the last western party to visit the region for twenty years. During this period the Russians developed their own distinctive climbing style and set of ethics.

A highly regulated series of permanent Alpinist's camps were set up by the trade unions, during the 1950s. These encouraged the ascent of well known routes by groups of six to eight climbers. Successful climbers would then tackle established routes of a higher grade. Only the best climbers tacked new routes, having progressed through the system. They naturally climbed the steeper and more difficult lines. The trade unions helped climbers to attend the camps and sporting achievement was highly regarded. Sporadic visits by foreigners were allowed from 1958. The first visits involved considerable bureaucratic difficulties, but in later years foreign climbers could attend international mountaineering camps arranged through Intourist. Since the collapse of Communism the mountaineering camp system has all but cease to function. Few Russian climbers can afford to visit the mountains and, despite relative ease of access, there is still a dearth of foreign climbers.

History of the Traverse

In mid June 1949 a Russian party completed the section of traverse from Bezingi to the Adyr Su valley on skis. In those days the area was very remote, the local, Balkarian population had been deported to central Asia by Stalin for alleged collaboration with the Germans during the war. It took the team four days just to approach the start of the traverse. Good snow enabled the use of skis from the Zanner Pass onwards. After the Semi Pass they descended the Kitlod Glacier well into Georgia, a route which is now somewhat impractical since the break up of the Soviet Union With good weather they headed north crossing the Bashil and Mestia Passes to reach the Adyr Su valley. During the traverse considerable problems were encountered with icefalls, crevasses and bergschrunds and avalanche risk was high at times.

In the USSR, winter mountaineering was banned for many years. This meant that although there had been many summer traverses, at least of parts of the route, nobody had completed the route in winter or early spring. David Hamilton and John Kentish visited the region in April 1992 for a ski mountaineering trip, skiing over the Gumachi Pass, from the Adyr Su to Adyl Su Valleys. After this, a serious attempt was contemplated for 1994. Local advice suggested the route would best be carried out from East to West.

The April 1994 expedition was arranged at very short notice. It was lead by David Hamilton, with Matthias Hammer, John Kentish and Mark Scarratt. The proposed route would commence at Verkhny Balkaria and intended to use various glacier systems and passes linking them to reach Terskol in the Baksan Valley. To keep weight down, a helicopter was used to position food dumps along the route. The helicopter was based in Elbrus Alpinist's Camp, and a group of heli-skiers and sightseers helped reduce the costs to the expedition members.

The expedition members travelled to the road head beyond Verkhny Balkaria, by private bus. From there they walked, with some occasional skiing, to the campsite below Dykhsu gorge. The next day the gorge was tackled. Deep snow, trees and boulders reduced progress to less than 1km/hour. By lunch time the gorge had been cleared, and good progress was made up the Dykh Kotio Bugoisu Glacier, to the second planned camp. Disturbingly, the Epigas supply ran out at breakfast time. Easy progress resumed in the morning, to the junction with the Bashkaauz Glacier. This glacier was steeper, but an ice fall was turned on the right. Above, the glacier was easy angled, but the heat of the April snow reduced the snow to the consistency of porridge. Beyond lay the steep slopes of the Dykhiauz Pass, with various gullies running up it. Late afternoon shade improved the snow, and the left hand gully was selected for ascent, as it appeared easiest. It was about Scottish Grade1/2 and required considerable effort to climb it. At the top, it was discovered that a huge ice cliff bared the way down, and double cornices prevented a traverse to a more suitable descent point. The party had to descend back the way they had come up, as it got dark.

A miserable camp was endured below the pass, with no food or liquid, and one member ill. With snow falling, the central gully was climbed and the pass ascended. The descent involved front pointing down exceptionally hard ice, followed by a frightening abseil over an overhanging ice cliff at the bottom. The 7mm rope used, made this exceptionally fast. A ski descent, avoiding crevasses and ice falls brought the team to the Austrian Hut in the Bezingi Glacier Basin.

The first cache of food lay by the hut, but it was realised that the gas supplies were insufficient for the next stage. Two members, including the sick member, decided to descend to Bezingi, allowing the other two, enough fuel to continue the traverse. A full scale storm ensued, confining the party in the hut for the next 36 hours. With metres of fresh snow there was no alternative but to abandon the traverse. The retreat to Bezingi took two days with the great depth of new snow.

It was decided by three of the members of this expedition to organise another expedition to re attempt the traverse. This led to the 1996 expedition. As detailed elsewhere the 1996 expedition failed to complete the stage from Verkhny Balkaria to Bezingi, but managed the section from Bezingi to the Adyr Su Valley. John Kentish, having completed sections of the route in 1992, 1994 and 1996, has overall, competed the whole traverse, though not in one push.

Expedition Membership



Figure 3. Expedition members. From left to right: Steve Jennings, John Kentish, Phil Wickens

The decision to mount the expedition rose from the failure of the 1994 attempt on the route. A second attempt was planned for spring 1995 by a team of four, including three members of the 1994 attempt. With MEF approval granted, two members had to withdraw, leading to postponement until 1996. Once again, various changes occurred to the expedition membership, with the last member, Vadim Buslik, a Russian mountaineer, joining the team less than a week before departure.

Vadim accompanied us on our first abortive attempt on the traverse, but became unwell. On medical advise he was unable to accompany us on the traverse, but was able to give considerable logistical support as well as acting as interpreter.

British members mountaineering experience

Steve Jennings has several seasons of Alpine climbing experience, mainly in the lower grades. He has over 20 years of climbing and hill walking in Britain, including Scottish winter climbing. Ski mountaineering experience during the last few years includes the Gran Paradiso in February 1993 and the Haute Route in February 1994. Other mountain experience includes visits to Iceland, Alaska, Norway and the Atlas mountains of Morocco.

John Kentish has climbed in the Alps during every summer from 1978 to 1989. He has been Alpine ski mountaineering every year since 1988, including a Christmas ascent of Mont Blanc and the Haute Route in February 1994. Visits to the greater ranges have included 2 visits to the Karakoram and an ascent of Ghul Lasht Zom 6611m in the Hindu Kush. Ascents of Aconcagua, Mount Kenya and Kilimanjaro, by the Heim Glacier have been made in recent years. In Russia he has visited the Cherskiy Mountains, making ascents of several unclimbed peaks. Two visits to the Caucasus, mostly ski mountaineering, have included an ascent of Elbrus and an attempt on the ski traverse.

Phil Wickens leads rock up to E1/E2 and winter climbs of up to Grade 5. He was leader of Imperial College Pamir Expedition 1992 which made 5 first western ascents and 3 new routes. In the Himachal Pradesh he completed 2 first ascents and an ascent to 6200m graded ED1. He has done various ski mountaineering in Scotland and the Alps including a competition in Beaufortain. He is a downhill ski teacher (ASSI qualified) and has taken part in slalom and GS races at national level. He has also done a lot of off piste skiing.

Expedition Outline

Date	Event	Notes
Sat-9-March	Fly London to Moscow. Stay overnight	
	with friends	
Sun-10-March	Fly Moscow to Mineralny Vody. Transport to Nalchik	
Mon-11-	Nalchik. Purchase food, fuel & other	
March	services, including portering.	
Tue-12-March	Transport Nalchik to Verkhny Balkaria. Walk to Dykhsu gorge campsite	Short walk, as transport continued beyond Verkhney Balkaria
Wed-13- March	Phil Wickens carries load to Dykh Kotiu Bugoisu Glacier	Sickness to John, Steve & Vadim prevents progress
Thu-14-March	Phil Wickens retrieves load. Descent Dykhsu gorge campsite to Border Post.	Continued sickness causes retreat to Nalchik
Fri-15-March	Walk from Border Post to Verkhny Balkaria then bus to Nalchik.	
Sat-16-March	Bus Nalchik to Bezingi. Tractor Bezingi to Bezingi Alpinist's Camp	Bus was very crowded
Sun-17-March	Vadim Buslik & Phil Wickens walk/ski Bezingi Alpinist's Camp to Baran Kosh campsite	Steve Jennings carried load to Baran Kosh & returned. John Kentish still sick, took short walk on Bezingi Glacier
Mon-18- March	Vadim Buslik & Phil Wickens walk/ski Baran Kosh to Austrian Hut-Bezingi	Steve Jennings & John Kentish took short walk on Mishirci-Chiran
	Alpinist's Camp	Glacier
Tue-19-March	Walk/ski Bezingi Alpinist's Camp to Baran Kosh campsite	New start to ski traverse
Wed-20- March	Ski Baran Kosh to Kel Pass and on to Zanner Pass, camp	
Thu-21-March	Ski Zanner Pass to Semi Pass and to Kitlod Pass, camp on pass.	Vadim Buslik returns to Bezingi. Three members continue traverse.
Fri-22-March	Descend Kitlod Pass, cross Tuiber Pass, camp on Zynal Glacier	Kitlod Pass steep with poor snow
Sat-23-March	Ski Zynal Glacier to Laskhedar Pass and traverse to Karakaya Pass. Camp on pass.	Poor weather forces an early halt.
Sun-24-March	Remain camped on Karakaya Pass.	Snow all day, no visibility.
Mon-25- March	Ski Karakaya Pass to Mestia Pass and down to Mestia Hut.	White out conditions, Mestia Pass had very dangerous snow conditions.
Tue-26-March	Ski Mestia Pass to Adyr Su Valley. Stay in house near Old Jailik.	Friendly locals give us accommodation. Dangerous snow causes abandonment of crossing of Gumachi Pass to Terskol.
Wed-27- March	Ski/walk Old Jailik. To Verkhny Baksan. Bus Verkhny Baksan to Terskol. Stay in MBS Hotel.	Two hour wait for bus. Accident on ice by hotel involves hospital visit
Thu-28-March	Downhill skiing at Cheget	
Fri-29-March	Downhill skiing at Elbrus	
Sat-30-March	Transport Terskol to Mineralny Vody. Fly Mineralny Vody to Moscow	
Sun-31-March	Sightseeing Moscow. Fly Moscow to London	Late night flight not recommended, if living out of London.

The Traverse

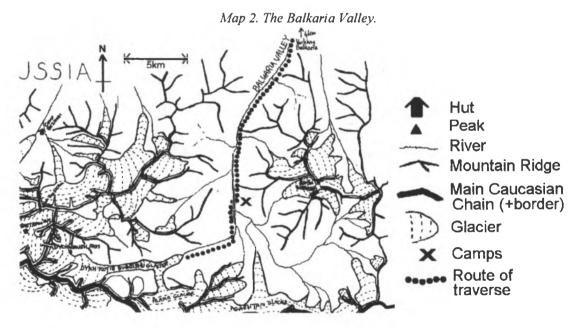
Travel to the mountains

The expedition travelled to Moscow Seremet'evo Airport with the usual pile of equipment. The transfers to our accommodation and to Vnukovo Airport, next day, went very smoothly. Whilst in Moscow we stayed with friends of Vadim Buslik, saving a considerable amount of money and rather more enjoyable than an hotel. Vadim and transport were waiting for us at Mineralny Vody Airport for the drive to Nalchik. Apart from running out of fuel, the journey went smoothly, and we were soon booked in at an hotel.

Because of the late alterations in our plans we had no firm arrangements for transport or services. A long negotiating session took place with Alp Service, the local mountain travel firm. This continued the following day. Their original outrageous prices were eventually reduced to an acceptable level, and agreement was reached. This included transport and obtaining of a special permission to enter border areas. Our original intention to place supplies along the route by helicopter was abandoned because poor weather in the foothills precluded flying. An arrangement, in which local unemployed climbers worked as porters, turned out very satisfactorily, and proved to be considerably cheaper than hiring a helicopter.

1st attempt on traverse

We travelled in a four wheel drive vehicle to beyond a military border post above Verkhny Balkaria, the start of the traverse. It was a relatively short, and level, walk to our first campsite below the Dykhsu gorge (see map 2).



Overnight, illness struck the party. Vadim suffered from severe chest pains and felt unable to continue. Steve and John had both developed a flu type illness and were unable to move. It was agreed to remain in camp for the day, in the hope of an improvement. Phil pushed the route out, up through the densely wooded and boulder strewn gorge ahead. He found it easier than expected and left a load at his high point, below the snout of the Dykh Kotio Bugoisu Glacier.

No improvement in health had occurred by the next morning. As we had little option but to retreat to the valley. The stashed supplies were recovered before the walk back to the border guard post. John was so unwell as to barely be able to cover this distance. The border guards supplied us with accommodation, and vodka, for the night. In the morning, we continued to Verkhny Balkaria, then by public bus to Nalchik. Vadim was found to be suffering from Tachycardia, and decided he would be unable to accompany us on the rest of the expedition, but would be able to give logistical support.

2nd attempt on traverse

Due to time constraints, it wasn't possible to recommence the traverse from Verkhny Balkaria. We travelled to Bezingi by public bus. This missed out the first major pass. From Bezingi transport by tractor took us to Bezingi Alpinist's Camp, opened specially for us.

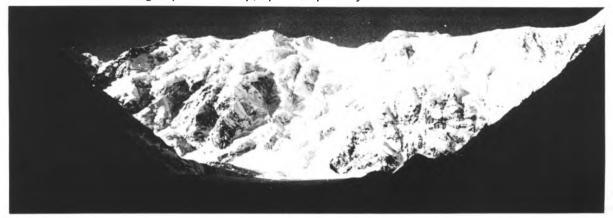


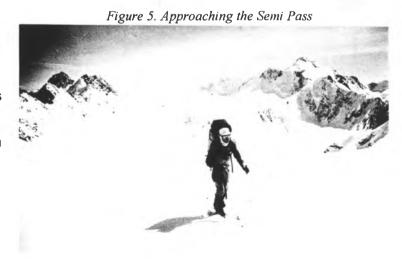
Figure 4. The Bezingi Wall.

In the morning Phil and Vadim walked or skied up the Bezingi Ulluchiran Glacier to Baran Kosh, a campsite on the true left of the glacier, in an ablation valley. They camped there overnight, continuing up to the Austrian Hut, the following day. The truncated route would no longer require a



stay in the hut. He then returned to Bezingi Alpinist's Camp. By this time, Steve had largely recovered from his illness, but John was still quite unwell.

The following day, we all proceeded to Baran Kosh, where the tents had been left in situ. We arrived in thick mist, with snow falling. Clear sunny weather greeted our departure from the camp. We ascended steep slopes towards Kel Pass, firstly on snow, then up a broad ridge of rock and grass. Kel Pass is basically a notch in a ridge. Immediately beyond, it was possible to don skis for the ascent to Zanner Pass. Our other food dump lay just below the pass in a small hollow. This made a good campsite, sheltered from the wind.



1996 Caucasus Ski Traverse

Vadim had accompanied us to Zanner Pass. He now returned to Bezingi, with the excess food and fuel from the cache, while Steve, John and Phil continued. The first proper ski descent of the traverse took us down the Zanner Glacier. Even with heavy rucksacks the skiing style left some good tracks in the snow. Within a short while, it was time to ascend again. The ascent to the Semi Pass proved straight forward. Beyond the pass we descended the Kitlod Glacier, keeping to the true

Figure 6. Descending the Kitlod Pass.



right, until we reached the branch heading up to the Kitlod Pass. This climb commenced with a steep zig zag ski ascent keeping to the right of a prominent ice fall. Where the slope became too steep and unstable to risk further use of skis, a direct ascent was made, kicking steps. The snow had a hollow feel to it. A final gentle slope lead to the Kitlod Pass. We camped by the pass sheltered by a rock pinnacle.

The Kitlod Pass is rather confusing, for it consists of a couple of low points on a ridge separated by a small peak. The usual descent route on the north side involves ascending this peak and descending the slopes from the summit. This is because the slopes from the summit, are more easily angled than those to either side. We chose the lowest, most western gully, as our route, which is quite steep, at the top in excess of 45°. Near the top lay some ice, which like most Caucasian ice in winter, was iron hard. The teeth on an ice screw placed in it bent. We were able to avoid this by a downwards traverse to the left, across very deep snow. This was undertaken as a roped descent, as some large snow slides were caused by the first person descending. This route took us near a rock rib, which

would afford some protection, should the centre of the slope avalanche. We pitched the slope most of the way down because of, firstly steepness and instability, secondly multiple bergschrunds, and thirdly some minor windslab lower down. The descent, including the final ski down, took about 5 hours.

From our low point on the Kulakcheget Glacier we skied up the easy angled slope to the Tuiber Pass. The descent of the west side of the pass was quite steep snow, covering rocks. We descended the relatively short slope to the Lychat Glacier using axes and crampons, the rope being unnecessary. Flat light made the descent of the true right of the Lychat Glacier to the Zynal Glacier awkward. It was very gentle, but crevasses and hollows were invisible, and the snow very crusty. At our low point we camped on a flat area, known as the Laskhedar Bivouac.

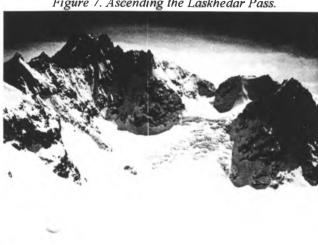


Map 4. From the Semi Pass to the Adyr Su Valley. See Map 2 for scale and legend.

The ascent of Laskhedar Pass began with steep snow slopes, just soft enough to ski up, with a large ice fall to our left. Above, the glacier opened into a large basin. The final slopes up to the pass were

steeper than anticipated. The snow was very rotten, and, with knee deep foot steps having to be kicked, very strenuous. Early sunshine had turned into cloud and snow, with a biting wind. The route from Laskhedar Pass to Karakaya Pass, although essentially a traverse, was very difficult to

Figure 7. Ascending the Laskhedar Pass.





distinguish. There appeared to be several potential passes, with the wrong passes leading to entirely different valley systems. Use of our maps and compass successfully brought us to the Karakava Pass. By this time the weather had deteriorated to whiteout conditions and heavy snow, so we camped for the night on the pass.

Poor weather forced us to remain in camp for the next day, only resuming progress a day later. Deep, new snow made progress difficult. The gentle descent of the Lekzyr Glacier was barely enough to let the skis slide. We had been informed of a route up a gully which acted as a short cut to the Mestia Pass. With the prevailing snow conditions we considered it prudent to take the longer, but safer route, down the glacier and up the next fork. Great difficulty was incurred with flat light obscuring features on the glacier, before we began our ascent to the Mestia Pass. The ascent commenced steeply, but gradually eased as we gained height. The effort require to maintain forward motion remained nearly as great due to the vast amount of fresh snow. The weather deteriorated to virtual whiteout and remained so for the rest of the day. The top section was almost flat and it was very difficult to be sure of our progress, until we nearly skied over a cornice.

Descent from the Mestia Pass proved very nerve wracking, despite one member having

skied this side of it previously. We skied most of it roped up. Even so, with negligible visibility, it was impossible to see if we were about to ski over seracs, or how steep the slope was. Numerous small avalanches were set off by the party, and a member skied over a huge crevasse with the snow bridge collapsing when he was half way across. We eventually made it to the Mestia Hut, where we spent the night. Here, we used the last of our food and fuel.

A pleasant ski down from the hut took us into the Adyr Su Valley. Our original plans to cross the Gumachi Pass and descend into the Advl Su Figure 8. The descent from the Mestia Pass.

Valley were abandoned, due to the dangerous snow conditions higher up. At a house near Jailik Alpinist's Camp, we were invited in by the occupants. They were mountain guides, hoping there would soon be some visitors. We were supplied with food and accommodation. Next morning we descended the track to the main road at Verkhny Baksan.



Afterwards

We travelled to Terskol by bus, and spent our last two days downhill skiing. Consideration

was given to an ascent of Mount Elbrus, but the risk of poor snow higher up, and a minor accident to an expedition member, necessitating a hospital visit, precluded this. In the event the weather was unsuitable anyway. Our return to Britain, with some sightseeing in Moscow, all went very smoothly.

Route details

Planned route details, where different from actual route taken

Route	Starting height	Finishing height	Height gain	Descent	Distance
See actual route details for section to Dyk	hsu Gorge				
Dykhsu Gorge to Dykh Kotiu Bugoisu Glacier snout	1700m	2000m	300m		6km
Dykh Kotiu Bugoisu Glacier snout to	2000m	2800m	800m		7km
Bashkha-auz Glacier to Dykhniauz Pass	2800m	3836m	1036m		5km
Dykhniauz Pass to Austrian Hut	3836m	3140m		696m	4km
Austrian Hut to Bezingi Gl. low point.	3140m	2880m		260m	3km
Bezingi Chiran Glacier low point to Zanner Pass	2880m	3980m	1100m		5km
See actual route details for section from Zanner Pass to Mestia Hut					
Mestia Hut to low point in Adyr Su Valley	3150m	2600m		550m	7km
Low point in Adyr Su Valley to Gumachi Pass.	2600m	3582m	982m		7km
Gumachi Pass to Jantugan Camp.	3582m	2130m		1452m	13km
Planned Totals			4,218m	2,958m	107km

Actual route

Route	Starting height	Finishing height	Height gain	Descent	Distance
Bezingi Alpinist's Camp to Baran Kosh	2180m	2650m	470m		7km
Baran Kosh to Austrian Hut	2650m	3140m	490m		6km
Austrian Hut to Bezingi Alpinist's Camp	3140m	2180m		960m	13km
Baran Kosh to Kel Pass	2650m	3600m	950m		3km -
Kel Pass to Zanner Pass	3600m	3769m	169m		2km
Zanner Pass to North Zanner Gl. low point.	3980m	3440m		540m	3km
North Zanner Gl. low point to Semi Pass	3440m	3769m	329m		3km
Semi Pass to Kitlod Glacier low point	3769m	3380m		389m	4km
Kitlod Glacier low point to Kitlod Pass	3380m	3628m	248m		1km
Kitlod Pass to Kulak Chegem Chiran Glacier low point	3628m	3240m		388m	1km
Kulak Chegem Chiran Glacier low point to Tuiber Pass	3240m	3607m	367m		2km
Tuiber Pass to Lychat Glacier low point	3607m	3100m		407m	3km
Lychat Gl. low point to Laskhedar Pass	3100m	3529m	429m		2km
Laskhedar Pass to Karakaya Pass.	3529m	3500m	100m	129m	3km
Karakaya Pass to Lekzyr Gl. low point	3500m	3160m		340m	5km
Lekzyr Glacier low point to Mestia Pass	3160m	3757m	597m		3km
Mestia Pass to Mestia Hut	3757m	3150m		607m	2km
Mestia Hut to Old Jailik, Adyr Su Valley	3150m	2430m		720m	9km
Old Jailik to Verkhny Baksan	2430m	1400m		1030m	16km
Actual Totals			5,159m	6,350m	136km

The actual totals relate to Phil Wickens, who made a visit to the Austrian Hut to collect food dumped there as well as the traverse.

The hut referred to above as the Austrian Hut is correctly known as Jangitau Hut. The name Austrian Hut is much more widely known in Britain, so this has be used to save confusion. The position of the hut is correctly known as the Austrian Bivouac.

Logistics

The big problem with ski traverses, as with many expeditions, is weight. Particularly with skiing, an excess of weight can lead to difficulties with balance, and increase the danger of injury, should a fall occur. This is of greatest concern on descents, particularly on steep or poor snow. A traditional solution for ski traverses is the use of pulks, however the steep nature of the terrain precluded the use of these. This meant that the main equipment for the traverse would have to be carried on our backs. The equipment included tents, stoves, ropes ice axes and other climbing equipment, sleeping bags and personal equipment. The obvious way to keep our loads to a minimum, was to carry a minimum of food and fuel. This would involve leaving food dumps along the route.

We planned to place supplies in strategic locations by use of a helicopter. On our arrival in Nalchik we found that the helicopter had not flown to the mountains for over a month due to poor weather in the foothills. It seemed highly unlikely that use of the helicopter would be possible. Also it's price had risen from \$500/hour at the end of 1995 to \$700. From Nalchik the round trip would take at least two hours. The Russians suggested the use of porters. This method of transportation of supplies has not previously been available in Russia. Unemployment is now so bad in the Caucasus, that local climbers are willing to do this work. The cost of porters was \$10/person/day. We rearranged our food dumps to make it easier for our porters to leave the supplies. It was more expensive to transport the porters to the road head, than for the actual porterage. We paid for food and fuel to be placed at the Austrian Hut on the Bezingi Glacier and below Zanner Pass.

Flights, using Aeroflot, from London to Moscow cost £300/ person, return. The internal flights from Moscow to Mineralny Vody cost £169/person, return. We had no delays of any significance on any of the flights. Leaving London our luggage weighed well in excess of our allowance, it included about 30kg of food. Our ski bags were carried free of charge and no excess baggage charges were incurred. On the internal flights we had to pay \$70 in excess baggage fees outward bound and \$32 on the return. The charges on the return, were apparently because of the length of ski bags, not because we were overweight. There are other flights available to the Caucasus, which are not widely known about, but which could save money especially given the costs in Moscow. Unfortunately they were either at unsuitable times or full, when we enquired. There is a flight from Shannon to Mineralny Vody for which we were quoted £550 return. There is also a flight from Istanbul to Nalchik, costing less than \$200 return. A return flight from London to Istanbul is about £200.

Visa support and transport across Moscow, to and from airports and our accommodation was supplied by a Moscow based company called Alpindustria, Tel/Fax 00 7 095 367 3183. An official invitation, required for issue of visas cost \$15/person. The transport cost \$60 for each journey, which is reasonable. Members of the party have used the company several times in the past, and it has proved very reliable, essential for catching flights. Alpindustria also supplied us with accommodation, in Terskol, after the traverse @ \$14/person/night, with excellent food, and transport back to Mineralny Vody Airport, costing \$85.

Transport to the mountains and various other services were arranged through a company based in Nalchik called Alp Service, Tel 00 7 866 22 22582 Fax 00 7 866 22 58540. It is very difficult to get through on these Nalchik numbers, twenty or thirty attempts were required to get a line. They supplied a vehicle from Mineralny Vody Airport to Nalchik, which cost \$100, this was expensive, but had been arranged at the last minute, they originally wanted to charge us even more The cost of a private vehicle from Nalchik to the road head in Verkhny Balkaria was \$100. This appeared competitive against other quotes. The vehicle took us some 20km up the rough track above Verkhny Balkaria. The cost of the public bus for the same journey was \$2.50/ person, including luggage, but a further 20km walk would be required. Alp Service also arranged our porters and their transport.

The mountains lie across the international border, between Russia and Georgia, and the route of the traverse crosses the border several times. The Russians have recently (1995) positioned border guards in the valleys leading to the border. A special permission is required to proceed beyond these border posts. Alp Service arranged for us to get this document. It cost \$36. It took a little negotiation with the company, because they had to tell the authorities that we were their official clients. Normally their clients would have a paid guide. The company was a little reluctant to agree to us going into the mountains without their representative, as they would have problems if we misbehaved. Other parties may have problems obtaining this document if unaccompanied. We had

no problems with any of the border post we visited. On one occasion we were given accommodation and a bottle of vodka by the Captain in charge of the post.

On our second attempt at the traverse we used the public bus from Nalchik to Bezingi. This was cheap, but fairly uncomfortable. It is recommended to arrive at the bus station early to obtain a seat. From Bezingi to Bezingi Alpinist's Camp we used a tractor and trailer arranged locally. The Alpinist's Camp was opened specially for us. We paid \$45 for the transport and 3 nights food and accommodation, including \$20 in gratuities for the staff.

Equipment

We took the minimum of equipment with us on the traverse. Even so it seemed very heavy.

Communal equipment. This consisted of 2 Wild Country Gemini Tents, 2 MSR Stoves, 2 50m, 7mm Ropes and 4 ice screws. The Gemini tents are rather cramped, especially when cooking inside, but are light weight and easily held in place with buried skis. There was a serious problem with internal ice build up. The MSR stoves performed well, using petrol. Russian fuel appears to have improved in quality, as we had very little problem with the stoves clogging up. We used about ½ litre of fuel/day, between three, even when melting snow. The ropes were very light weight, and unsuitable for leader falls. They were taken mainly for abseiling and protection when crossing crevassed areas. The only ice screw used was a Russian titanium one. The ice was so hard that the teeth buckled inward at about three quarters of the way in. This reflects the hardness of the ice, probably not a particular failing in the ice screw. The Russians informed us that there are special winter ice screws made, with a more robust design.

Skiing equipment. This was a matter of personal preference. Phil Wickens used Dynastar Yeti skis with Silvretta 400 bindings. Steve Jennings used Blizzard touring skis with Silvretta 404 bindings. John Kentish used Dynastar Altiplume skis with Dynafit Tour Lite Tech bindings. All three used Dynafit Tour Lite boots, of these John's were the latest model, with fitments for the Tour Lite Tech bindings. These boots were almost brand new, but suffered a serious problem. The soles started to fall off. This made attaching the boots to the binding very problematic. The pins on the front binding, spring in to locate in holes in the side of the boots, near the front. With the sole coming off, the pins wouldn't fit in the holes, but tried to locate between the sole and the bottom of the boot. This happened particularly if ice built up between the sole and the boot. The binding was then somewhat insecure and the safety release became unreliable. All three of us wore Berghaus Yeti Gaiters over our boots. These stopped a lot of ingress of snow, but were a very tight fit. It was difficult to make adjustments to the boots. If using these gaiters, it is recommended to use ones at least one size larger than one would fit for the size of boot. The only other problems with the skiing equipment was when low temperatures sometimes caused the skins not to stick properly and when higher temperatures caused snow to stick to the skins. These problems were solved by using spay on glue, on the skins, warming the skins under clothing and by waxing the bottoms of the skins.

<u>Climbing equipment</u>. Each person took one ice tool and crampons, the particular variety being of personal choice. These varied from a Simond Piranha technical hammer to a Camp Rally plastic ice axe. Similarly with crampons, these varied from models suited to technical ice to an ultra light weight alloy pair from Camp. This particular pair weigh less than one conventional crampon, but are unsuitable for ice climbing.

<u>Avalanche precautions</u>. Each member of the party wore an avalanche transceiver at all times, and shovels were carried. Descent of any dubious slope was checked from above with use of the rope, before the party committed themselves.

Clothing. Warm fleece clothing was worn by members of the party, frequently with a Goretex shell. Temperatures were predominantly low, but it was sometimes quite warm in the early morning sun. Members of the party had problems with cold extremities. The Dachstein Mitts used by some members of the party were barely adequate, the thicker Wild Country Mitts worn by one member would be recommended. There seemed to be no problem with the fleece becoming wet, even after skiing falls.

Food

Most of our food, for the actual traverse, was purchased in Britain. We transported approximately 30kg to Russia. The majority of the food was purchased in a local supermarket, however we also took a considerable quantity of Raven dehydrated meals, supplied to us by BCB International Ltd. The Raven meals come in a pouch, and can be eaten directly from it, after boiling water has been added. The main meals don't always reconstitute very well, particularly at higher altitudes, which makes them less palatable. Boiling them for a couple of minutes in a pot improves them considerably. The most popular of the range was sweet and sour chicken. The breakfasts, instant rice and sweets all reconstituted well in their pouches. Dehydrated food produced by McDougalls, who supply the military, was preferred by one member and had no problems in re-hydrating or palatability.

Our daily rations were as outlined below:-

Breakfast: muesli, Readybrek or Raven breakfast together with a couple of hot drinks. One member of the expedition didn't eat breakfast, preferring chocolate bars later on. Lunch: 3 chocolate or cereal bars. Lots of different varieties were taken. Evening meal: instant soup usually with noodles, Raven main course or McDougall's dehydrated food with mash, noodles or instant rice, instant semolina, custard or Raven sweet, 2 or 3 hot drinks were also consumed.

The quantity of food was felt to be a little too great. The evening meals proved a bit of a struggle to eat, with the sweets frequently not being eaten. This may have been due to the illness suffered by two members, which reduced their appetites.

Finances

Visiting the Caucasus mountains is a relatively expensive affair, regarding their distance from Britain. Without the grants from the main sponsors we would have been unable to undertake the expedition.

The expedition's main costs related to transport, both air and land. The air travel cost £469/person, from London to Mineralny Vody and return. Other transport costs were approximately £670, in total.

Expedition finances were difficult to control, due to the problems with membership changing, the final decision to go, only occurring a week before departure. It was fortunate that Aeroflot agreed to allow payment for the air fares only five days before departure, despite the international fares being the cheapest available. Other costs were effectively increased, due to the loss of a fourth British member. Food costs, of food brought from Britain, remained the same as we still had to take enough for four. This had a knock on effect, of increasing excess baggage charges, while reducing the number paying for them. Other items such as medical supplies and visa costs remained the same, but telephone and fax costs were increased. Naturally, the cost per person, of land transport increased considerably and the potential cost of hiring a helicopter, made this less viable. Luckily the used of porters negated this problem. Quotes were accepted from Alpindustria for services in Russia, many of which, we were forced not to use, at the last minute. This was due to a change of base, to Nalchik, arranged by Vadim Buslik. This left us open to possible overcharging, as we could not arrange services in advance. Overall we came to an acceptable agreement with Alp Service, our new service providers.

The accounts should be fairly self explanatory. We received a lot of services from acquaintances or people we met during the trip. Various gifts and gratuities were given to these people, which is the reason for the large amount of 'other expenses'. A substantial emergency reserve fund was taken with us, including enough money to hire a helicopter. This was taken in US Dollars. A substantial loss was incurred on this in conversion of the currency, firstly to Dollars and then back to Sterling.

1996 Caucasus Ski Traverse

Record of expenses for Caucasus Ski Traverse March 1996

		Expenditure Totals		
Currency	£	\$	Ru	Converted
Nature of Expenditure				to £
Flights London/Moscow @ £300 each	£900			£900
Flights Moscow/Mineralny Vody @ £169 each	£507			£507
Excess baggage charges		\$32	R350,000	£72
Visas	£40			£40
Alpindustria, Visa support		\$55		£37
Fax & Telephone	£31	\$10	R6,000	£39
Food & gifts taken from Britain	£260			£260
Medical supplies & drugs	£28			£28
Alpindustria, Moscow airport transfers		\$240		£163
Moscow accommodation		\$60		£41
Moscow sightseeing & transport		\$25	R91,000	£30
Food & beverages purchased in Russia		\$106	R304,000	£116
Private transport to & from mountains & other services		\$581		£396
Taxis & public buses		\$41	R115,000	£44
Hotels in Nalchik & Terskol		\$150	R108,000	£118
Bezingi Alpinist's Camp costs		\$45		£31
Other accommodation		\$20		£14
Downhill skiing (2 days)			R206,000	£29
Other expenses		\$250		£170
Loss on currency exchange	£85			£85
Insurance	£147			£147
Totals	£1,998	\$1,615	R1,180,000	£3,267
Totals in £	£3,267			

Income, Grants etc.	7
MEF	£800
вмс	£400
Phil Wickens Personal sponsorship :-	
Alpine Ski Club Memorial Adventure Fund	£200
Eagle Ski Club Georgina Travers Award	£150
Total Income	£1,550

Net Expenditure	£1,717

Total contributions for each of, Steve Jennings	£689
& John Kentish	

Total contributions Phil Wickens	£339

1996 Caucasus Ski Traverse

Medical

A very comprehensive but highly reduced medical kit was taken on the traverse. This allowed us to deal with varying degrees of pain, infections, gastro-intestinal problems, altitude problems, skin infections and disorders, eye trouble and dental problems. In addition a supply of dressings, suturing kit and sterile needles were taken. A list of drugs taken is shown below.

Drugs taken on the 1996 Caucasus Ski Traverse.

Drug	Quantity
Analgesia	
Paracetamol	100
Codeine Phosphate	50
Diclofenac	46
Buprenorphine	19
Infections	
Ciprofloxacin	80
Co-amoxiclav	60
Metronidazole	60
Gastro-Intestinal	
Prochlorperazine	40
Dioalyte	14

Drug	Quantity
Altitude	
Nifedipine	20
Acetazolamide	20
Skin	
Daktacort	1
Hydrocortisone	1 1
Betadine	1 1
Piriton	15
Eyes	
Chloramphenicol	1 1
Amethocaine	3
Teeth	
Dental filling kit	1

The 'flu-like illness experienced by two members of the team was treated with rest and paracetamol. One member suffered from tachycardia, which was treated by resting until professional advice could be given. A bruised knee was ice-packed and diclofenac administered. No altitude or cold related problems were encountered and the group were careful to remain well hydrated and nourished.

Weather

In general weather systems in the Caucasus move in from the south, making the Bezingi area renown for its violent, sudden storms and high winds, and making the weather on the Georgian side of the mountains generally worse. The mountains themselves can prevent, or slow, weather systems moving into Russia. In winter there are long periods of high pressure giving excellent skiing weather. Due to the weakness of the sun there is little build up of afternoon cumulus cloud and so localised storms are rare. During the period of the traverse the weather was initially very good. Most afternoons would cloud over, but snow fall was minimal and electrical storms absent. During the latter half of the trip, after the crossing of the Laskhedar Pass, a low pressure system moved in and the weather was generally bad. Although winds were not strong, snow fall was heavy and visibility poor. Once back in Russia in the Adyr Su valley the weather again improved.

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