

*The British-Ukrainian
Tien-Shan Expedition
1994*



The Full Report

The British-Ukrainian Tien-Shan Expedition

1994

Patron: Chris Bonington, CBE

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--The Expeditions Committee
--The Travel Bursary Committee
--The Enterprise in Higher Education
The Mount Everest Foundation
The Sports Council
The British Mountaineering Council
Leeds Sports Development Unit
Meopham Parish Council
Gravesend Borough School
St. George's School

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Bolle Sunglasses
Nikwax
DMC
Silking
Fujichrome
Wild Country
Rab

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--The Department of Modern Slavonic Studies
Leeds University Union Mountaineering Club
Kiev Mountaineering Club
Dennis Gray
Andy McNae
Parents, family, friends and fellow climbers

Foreword

The Full Report has two main aims. Firstly it serves to inform the reader how and why our expedition evolved, to introduce its participants, to describe how we reached our destination and what we attempted and achieved in the mountains.

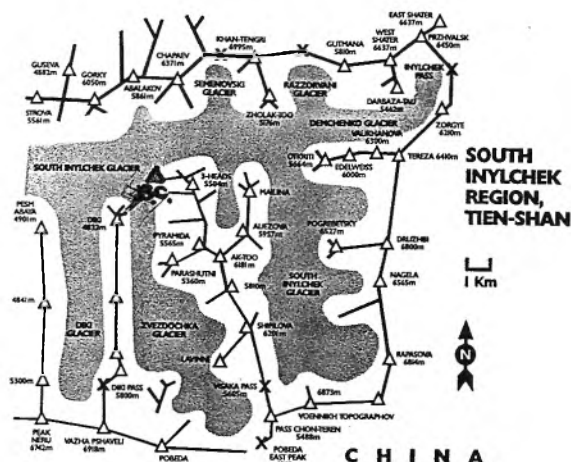
Secondly, this report gives information for future expeditions; how to get to there and how to avoid problems in arranging access, the potential that Tien-Shan holds for innovative climbing in terms of route potential, and how this is limited by prevalent weather patterns and rock types.

The expedition also presents specially prepared reports, drawn up for a number of organisations that helped us. These are issued as supplements and are available on request.

The Full Report is edited by Nick Williams.

It has been compiled with contributions from all British expedition members.

Map of the Kirgizian Central Tien-Shan area



Legend:

X = pass or col B.C. = Base Camp

The Expedition Members



Nick Williams
Co-leader



Anton Bykov
Co-leader



Alik-Petruk
Doctor



Chris Bedford
Secretary



Sveta Lineva
Cook



Mat Dickinson



Adam Jackson



Sasha Lyapun



Rich Cross



Paul Benstead



Kolya Gurunov



Igor Chaplinsky



Taras Metropan



Lyosha Dolyetsky



Yuri Strelnikov



**Pavel Frantzovich
Slavinsky**

Joined us in Almaty and took part in the expedition but were not part of the original team

Origins and Planning

Visits to Kiev, as well as climbing trips to the Crimea and Caucasus by British climbers kindled the first ideas for an expedition to the Greater Ranges of the former Soviet Union. The British team members had all been undergraduates at the University of Leeds and contact with Ukrainian climbers originally arose through academic exchanges with the University of Kiev.

We decided to go to Tien-Shan, a mountain region shared by Kazakhstan, Kirgizia and China. It is an area that has only seen a handful of western visitors. More information on the area will follow.

In arranging the details of our venture within the CIS, the Ukrainians would be invaluable. Not only did they speak perfect Russian, the language of communication in the former USSR, but they were familiar with the kind of problems that we were likely to encounter. These included the difficulties posed by a decaying and inefficient bureaucracy and the criminal opportunism of the emerging elite.

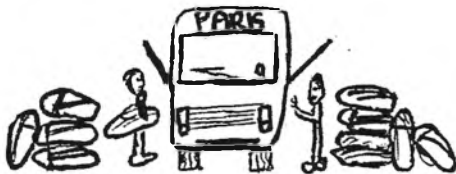
The British team was more likely to have more success with potential sponsors and greater opportunity to raise the kind of money that was necessary to organise such a venture. The British team would therefore be providing the bulk of the financial outlay.

This international arrangement was very convenient: without it neither party could be assured of reaching such a remote destination. It also became a prosperous relationship in all respects; in the months spent planning, in travelling overland, in establishing base camp and climbing in the mountains.

The Journey

The logistics of transporting a whole expedition and its equipment across five thousand miles and nine countries proved quite a challenge. If our budget had not been so tight and we had not been ignorant of the risks posed both by the criminally minded and travelling by Aeroflot we most probably would have flown. We had to be as sure as we could that we could get to our destination and return home safely, with no equipment losses on the way. We therefore decided to travel overland.

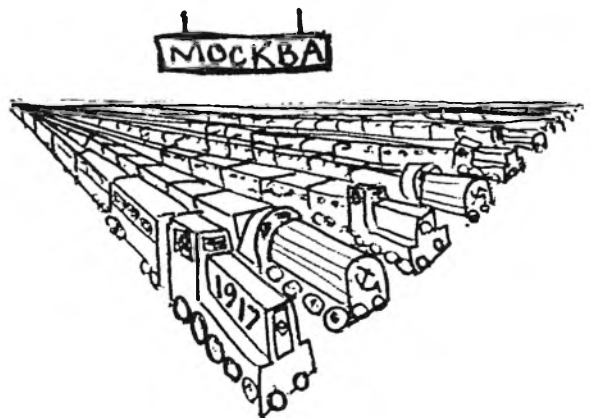
London to Moscow



We took a Eurolines coach via Paris to Moscow. It would be safer than passing through Moscow Airport and much cheaper than flying, both in ticket prices and excess baggage costs. Our expedition T-shirts and big smiles did the trick in stuffing masses of equipment onto the coach for free (we each had two large rucsacs and a daysac: every person carried about 70 Kg each). The benefits gained by travelling this way probably outweighed the disadvantages of spending three days confined to a single seat, although during the voyage we begged to disagree.

Moscow to Almaty

Making travel arrangements in the CIS is more complicated than in Western Europe. As tickets have to be purchased exactly 14 days in advance, the Ukrainians bought tickets for us in Moscow. The options allow you to pay bribes for favours or else be prepared to queue for hours without any certainty of success.



The train journey was a fantastic experience. It took three and a half days to travel to Almaty. There were more than thirty stops, mostly along the line of the main rivers and we had many opportunities to purchase the local delicacies (usually watermelons). We saw the Volga and the steppe of Southern Russia, the receding Aral Sea and the seemingly endless Kazaki desert.



Trains in the CIS come in two categories; good or extremely bad. On the way to Almaty we were fortunate enough to have an air-conditioned carriage, an endless supply of hot drinking water and a fairly understanding guard. However, to save money we had all applied for tickets that were valid only for citizens of the former USSR.

Since none of the British team but Nick spoke Russian, we pretended to be deaf and dumb Latvian sportsmen with Sasha as our coach. Although we tried to blend in with the other travellers, we were found out when a glass or two of the native spirit gave voice to our meaningless gesticulations. Luckily, the carriage attendant seemed to enjoy watching our pranks and turned an official blind eye.

Our return journey was not so pleasant. After six weeks of physical punishment, we did not take kindly to the lack of air-conditioning through the arid desert and the cockroaches which crawled out from every hole, nor to the attendant's melon-trading sideline which occupied every other available space in the carriage. We had all become anxious to return to the creature comforts of home.

* * * * *

Anton had arranged the necessary invitations for Kazakhstan for the British team through Allibert Asia, a French-Kazaki firm. They are probably the second largest travel company with interests in Tien-Shan. Khan-Tengri Mountain Services is a more prestigious firm, but they were only organising flights to the North Inyl'chek Glacier this year. There are a number of smaller outfits also operating.

Allibert Asia sent invitations to us in Britain, and also applied to the Ministry of Foreign Affairs in Almaty. They telexed the details to the Russian Consulate in London and we in turn applied to the consulate with our invitations. This is normal procedure. Our passports were not returned until the last minute and even then the visas were faulty. Such incompetence is to be expected. Another personal visit to the consulate was therefore necessary.

We had arranged to meet a representative from the company when we arrived.. A day's negotiating by Nick and Anton confirmed the travel plans and they ordered various things that we needed on base camp. The company did not go out of its way to fit in with our schedule. A helicopter timetabling change speeded up our journey out, so that we found ourselves on the glacier sooner than expected.

Peak fees had been introduced by the Kirgizian government in June and we had not been previously informed of this. The added expense was not welcome. The suddenness of this demand made us suspect that not all of this sum was likely to end up in the hands of the correct authorities, but if we refused to pay this normally legitimate fee, the company would not guarantee us safe conduct into and out of the mountains.

Almaty to Base Camp

We hired a private bus from Almaty to the helicopter pad at Akkol', in the Tien-Shan foothills, altogether an eight-hour trip.

We travelled through the night to avoid the intense heat and dust of the day. Some claim that it is actually possible to sleep en route, despite the poor quality of the road. Predictably, the bus broke down leaving Almaty, and heralded a healthy plume of smoke from a wheel arch.

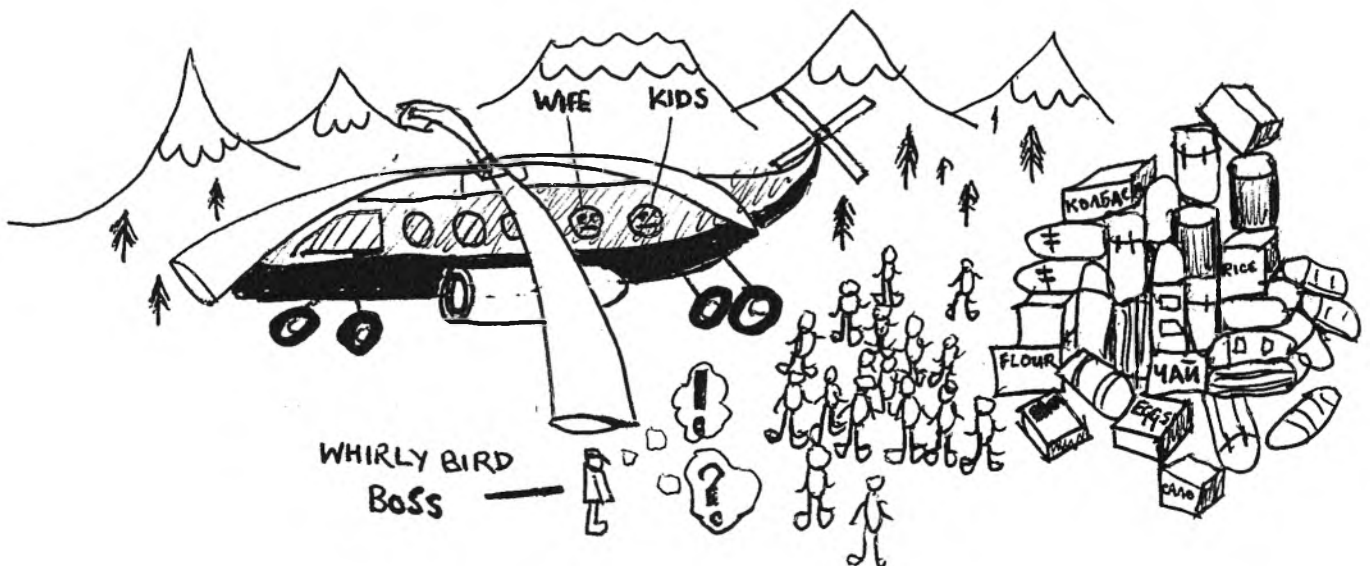


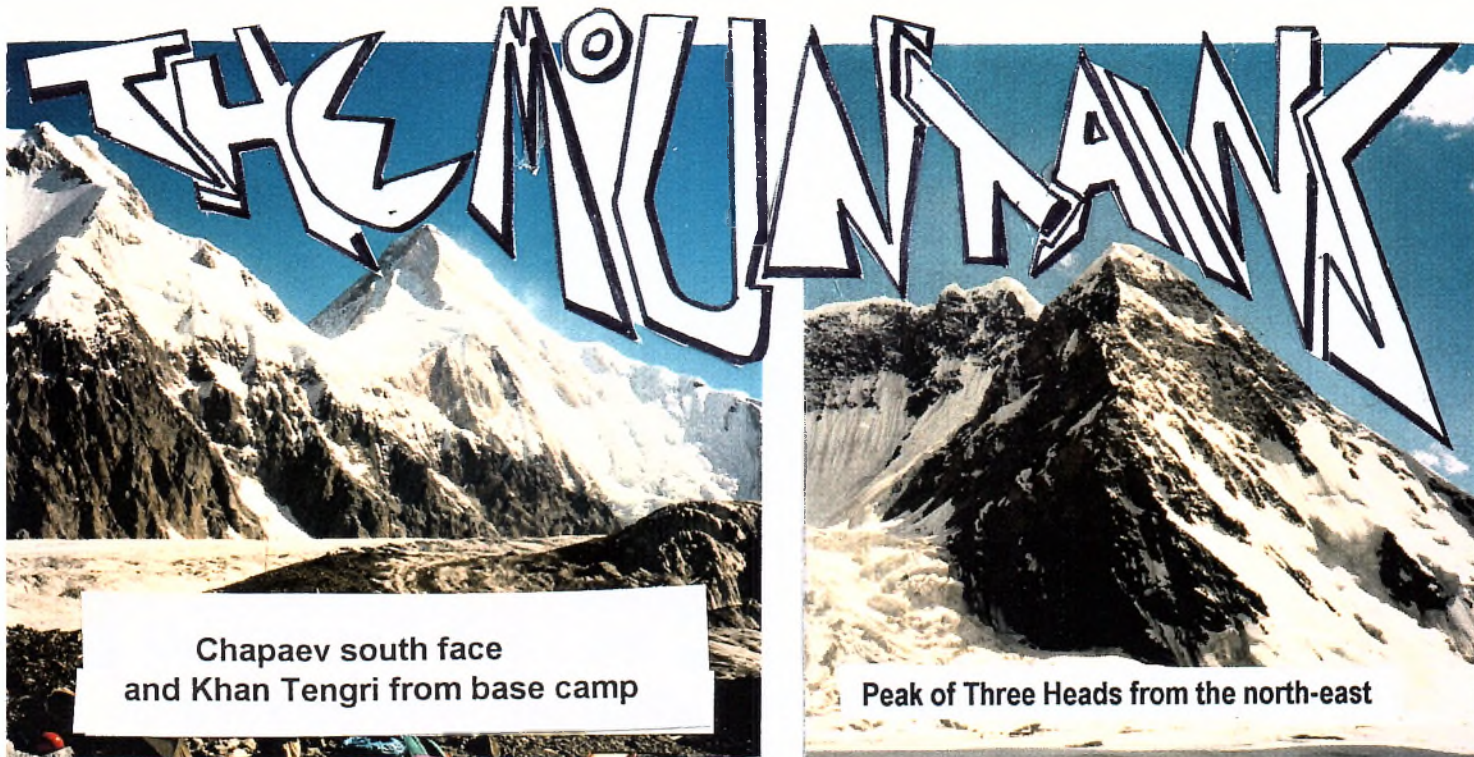
The bus ride out to the helicopter pad was also a bureaucratic adventure. At the Kirgizian border Vadim Khaibulin, one of the company directors, was already buttering up the guards, flying ahead in the helicopter, as it was returning from a weekly maintenance check-up in Almaty. He smoothed our passage; a party of sixteen could not slip in behind the guards without being noticed.



At another checkpoint in no man's land which marked Kirgizia and China, Anton was politely invited to entertain the border captain. A refusal would have put the expedition's future in jeopardy. There were fewer such tests of heroism on the return journey.

The bone-shaking and cramped bus ride was followed by a forty-minute flight from Akkol' to Base Camp on the South Inyl'chek Glacier. We were assured that the helicopter (decommissioned Aeroflot) would take two and a half tonnes of gear and sixteen people. By the time the pilot's friend's wife and kids had turned up for a free ride we were over the weight limit and had to be ferried in two trips.



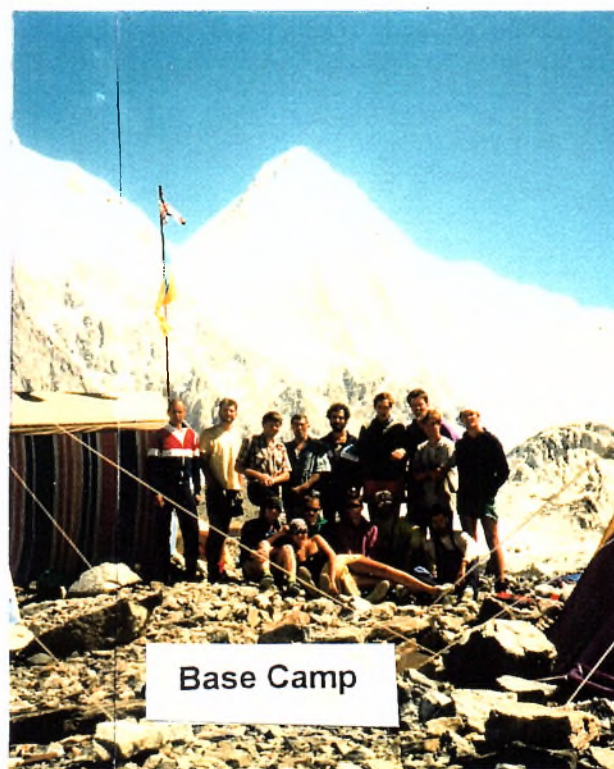


Chapaev south face
and Khan Tengri from base camp

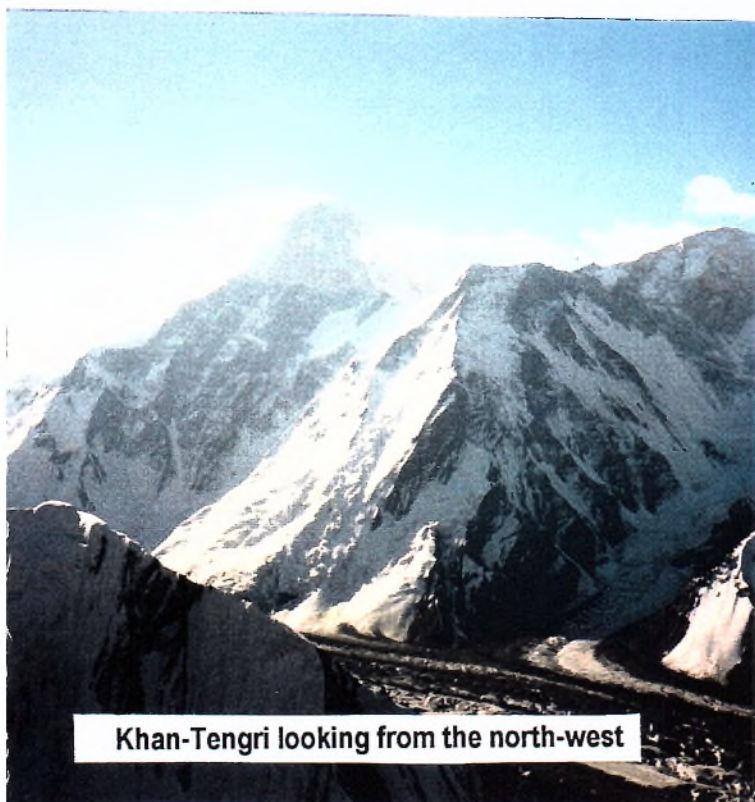
Peak of Three Heads from the north-east



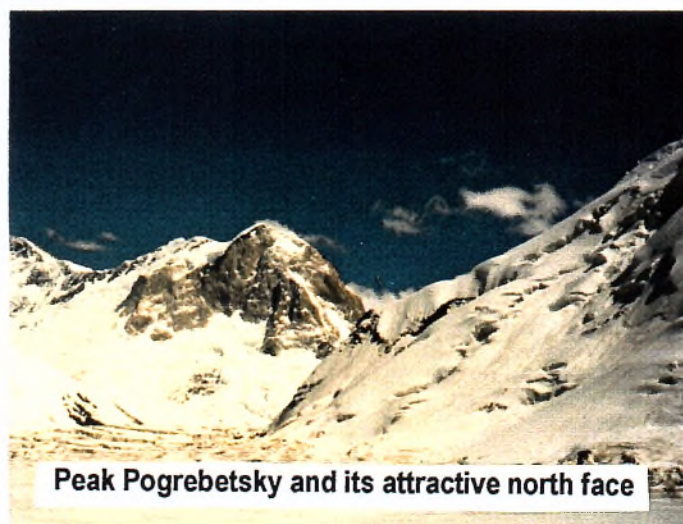
Fly Wall on Sovetskaya Kirgizia.
The line of our route was to take the far left of the wall



Base Camp



Khan-Tengri looking from the north-west



Peak Pogrebetsky and its attractive north face

Khan-Tengri Chronicle

Khan-Tengri is one of the world's classic mountains. It is almost unparalleled in its symmetry and beauty. It has therefore received a great deal of attention from climbers in the Soviet Union since the 1930s. There are many routes, and the most popular of these is the west ridge. We had designs on the Sviridenko Route (Russian 6A), a hard and direct line of the highest quality on the South Face and which then joins the well-known Marble Ridge.

A four man team consisting of Igor, Kolya, Yuri and Lyosha attempted the Sviridenko Route. At about 5100m, Kolya was hit by rock fall and injured. This was a great pity as they were climbing extremely well and had made rapid progress. They were forced to retreat, abseiling down the way that they had come. This took them a full two days. By the time they had returned to camp, Kolya was feeling much more active and he had fully recovered by the end of the expedition. The deterioration of the weather did not allow any further attempts on this route.

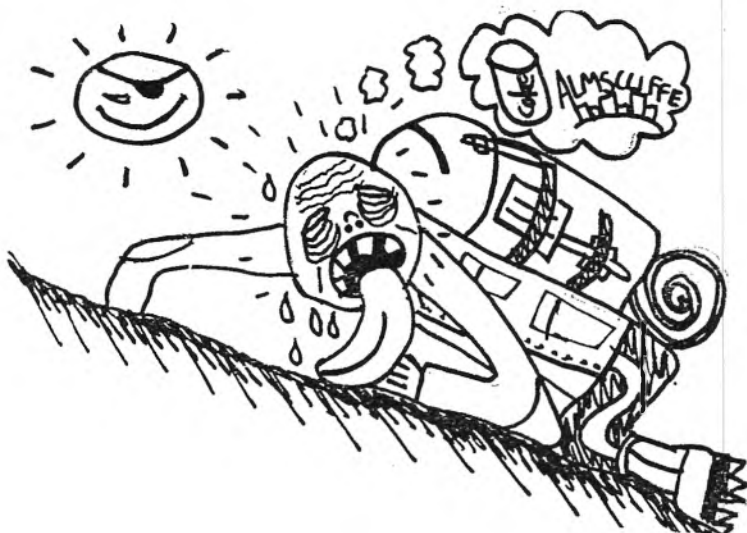
Several attempts were made on the west ridge throughout our stay, most of which were foiled by bad weather. From base camp on the South Inyl'chek Glacier there are two distinct sections. The first part climbs a heavily crevassed and steep ice fall to the col which divides Peak Chapaev and Khan-Tengri. The climbing is not difficult, but its location below Chapaev makes it a renowned accident spot, and has claimed the lives of many experienced climbers.

Camp is made in snow caves at 5900m, an excellent site. It is inadvisable to camp on the flat just before the final steep slope to the col; this is a dangerous avalanche-prone area. We were avalanched on this slope while in snow caves and advise others not to do likewise.

We found it reasonable to attain the col in a single day, although many parties prefer to take two, camping just above the icefall. The second part of the climb is on the exposed and windy west ridge.



A week after initial acclimatisation, a brief period of fine weather enabled Paul, Chris, Anton, Sasha, Alik and Taras to reach the col and make a summit bid. The weather was unfortunately very unstable.



Paul and Chris attempted the west ridge first, but were forced to retreat only 100m from the summit in extreme conditions. They improvised an exposed and dangerous bivouac at 6700m and descended the next day, suffering acute fatigue and dehydration.

The Ukrainians attempted the route the next day. However, by the time that significant height had been gained, the weather turned again, bringing strong winds and heavy snowfall. Anton, Taras and Alik returned to the sanctuary of the snow caves from around 6300m. Sasha made the summit in a brave solo push in near zero visibility. On return, he was unable to find his own snow cave, but was fortunate enough to stumble into another party's, and they gave him shelter.

Mat and Rich made the next attempt on the mountain but decided not to leave the snow caves at all because of the bad weather. Seventy miles per hour winds and blinding spindrift made progress in either direction extremely difficult. They stayed three days in the cave before deciding to retreat as their reserves were running low. Avalanche danger was especially bad after recent snowfall and route finding was hard in the half-buried icefall.

The last attempt on the mountain was happily successful for several members of our expedition. Towards the end of our stay a four-day period of blue skies inspired Adam, Nick, Mat, Rich, Taras, Kolya, Yuri and Lyosha. All made the summit, except Taras who unfortunately fell ill. We returned to base camp the day before we were to leave the area, and feeling in great shape.

The west ridge is an interesting and sustained route, mostly on mixed ground and never exceeding Scottish Grade III. There were plenty of fixed ropes in various degrees of decay. We found climbing Khan-Tengri an outstanding experience and recommend the peak, especially to those wanting a quality introduction to the high mountains.

New Route Attempts

The expedition also had the objective of establishing a new route in the range. In the earlier, pre-acclimatisation period of our stay we attempted two new routes.

Adam, Nick, Mat and Rich set off for Pogrebetsky to see the potential that the North Face had to offer. They were forced to retreat on the lower snowslopes because of bad weather. Unfortunately the wall was not free from snow for a long enough period to warrant a second attempt.



Chris and Paul climbed on the North Face of Peak of Three Heads, situated only an hours walk from camp. They were forced to abandon at about 5000m because of snowfall. They bivouacked and retreated the next day.

More serious attempts were made on two other unclimbed routes once we were fully acclimatised.

Chapaev (6371m)

Mat and Rich tried the South West Ridge of Chapaev. The first 600m climbs a 'gable-end' rock triangle and the remainder of the route follows an snow and ice arete, corniced in many parts. The pair made only a single attempt on the route.

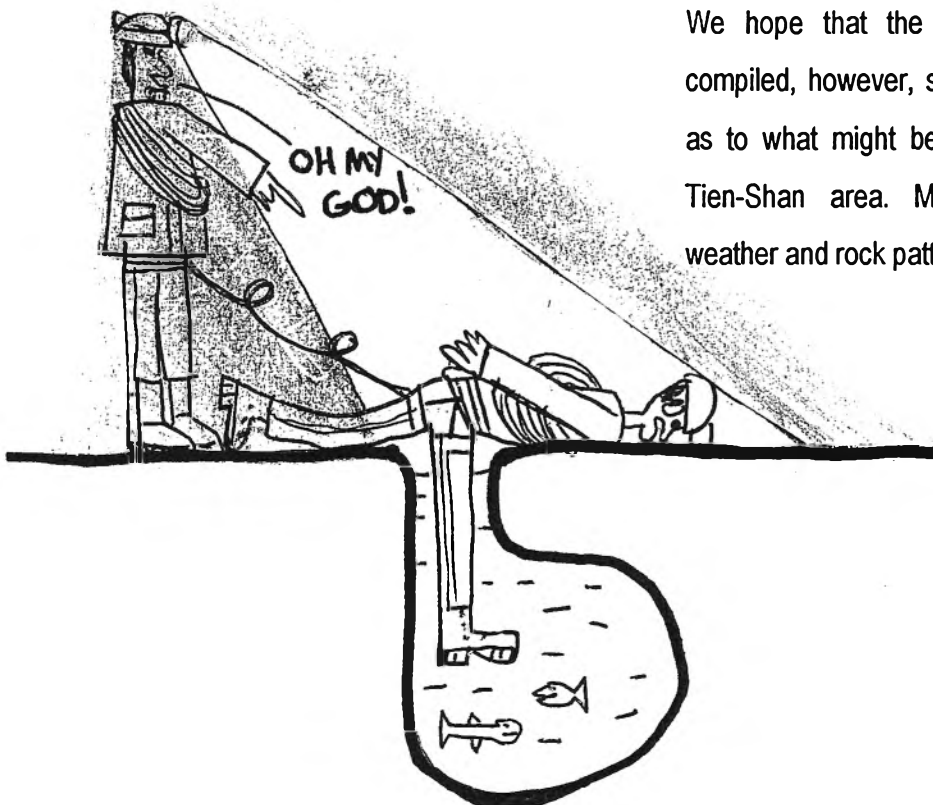
A late start was made to enable the verglaced drainage on the initial rock buttress to dry. Although the weather was fine, very slow progress was made due to the poor quality of the rock. There was a dangerous lack of protection placements and persistent stone fall. The route was abandoned on a huge expanse of slabs upon which a single adequate belay could not be found. A worried descent was made by down climbing as neither was prepared to trust any single piece of protection.

Sovietskaya Kirgizia (5800m)

Nick and Adam attempted the so-called "Fly Wall", a rock wall located on the South Face of Sovietskaya Kirgizia's East Summit (5650m). It is a vast unclimbed wall of grey rock 700m in height and access is impaired by a complex and dangerous icefall between Sovietskaya Kirgizia and Peak Gorky. This leads to a huge amphitheatre below the main wall. This had reputedly been visited by Russian climbers several years before but no route attempts been made.

We observed it in detail through a powerful telescope and discovered an extensive crack system on a pillar in the far left of the wall. The icefall took a day's careful negotiation and Nick and Adam established a higher camp on the crevasse-torn floor of the arena. They began the route before dawn the next day, but shortly after leaving the relative safety of an ice wall to the left which served as access onto the rock pillar, they decided to retreat by down climbing and abseiling at about 400m from the amphitheatre.

They were unsuccessful for much the same reasons as Mat and Rich. The rock was generally very loose, consisting mainly of flaking layers of marble. The infrequency of suitable cracks did not give adequate protection and stone fall was regular. Prevailing bad weather throughout the season meant that we were unable to attempt other lines.



We hope that the information that we have compiled, however, serves as a useful guideline as to what might be generally expected in the Tien-Shan area. More detailed accounts of weather and rock patterns follow.

New Route Potential

Mountaineering in Tien-Shan has been typical of ranges throughout the former USSR. Tradition dictates that only the highest peaks in any one area deserve attention. This has led to the concentration of routes on mountains such as Khan-Tengri and Pobeda, yet left the rest of the range in an early stage of climbing development.

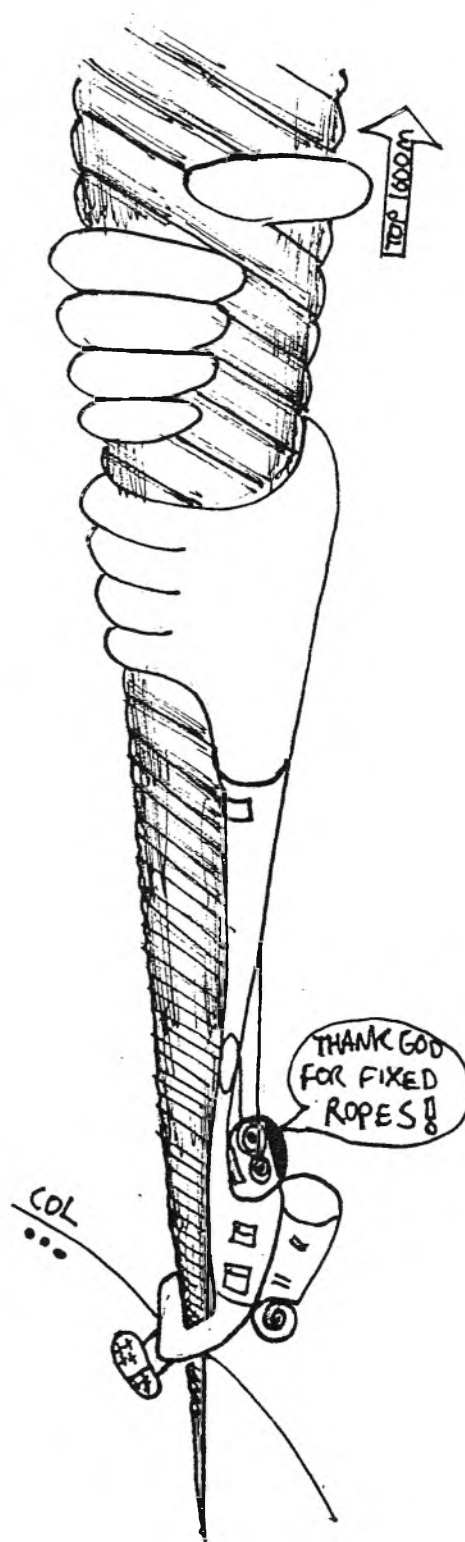
We carried out the reconnaissance of a number of possible objectives from the South Inyl'chek Glacier. The following is just a summary list of the most obvious opportunities which await the adventurous mountaineer.

Khan-Tengri (7010m)

At least ten routes in existence accounting for the most attractive lines on the mountain. There is potential for high quality variations on the south face. One new route was added on the south face this summer, following the snow slopes to the right of Sviridenko.

Pobeda (7439m)

A long and broad-shouldered mountain with a striking ridge 2 km in length, all of it over 7000m. The ridge has claimed the lives of many climbers - its exposed position catches the brunt of storms from the Xinjiang deserts. At least seven routes exist on its northern aspect, all of which are serious undertakings. To create a new line might need more than just inspiration.



Peak Topographov (6873m)

The sight of the peak's magnificent unclimbed south ridge from the summit of Pobeda has inspired Soviet climbers for years. The route, however, begins in China and visas and peak fees would be payable to two nations. A magnificent plumb-line for the master organiser!

Peak Pogrebetsky (6527m)

This mountain perhaps ranks second only to Khan-Tengri in its austerity. To date there are only two routes, on the north-east slope and the steeper western slope. A far more challenging objective would be the north face. It is composed of 800m of very steep rock and ice which leads to the summit. A Polish team attempted a direct line a few seasons previously but retreated just at the base of the route due to the high technical difficulties. Several lines look possible on the face, all of a serious nature. The south-west ridge also seems to sport a fine line, involving more than 1200m of height gain.

Peak Chapaev (6371m)

An attractive but dangerous mountain. Therefore, despite the ease of access to its base, there have been few attempts. There is new route potential on the mountain, but rock quality is poor. Only the south-east ridge and west ridge from Gorky have been climbed to date. The north-east ridge has only been used in descent.

Sovietskaya Kirgizia (5800m)

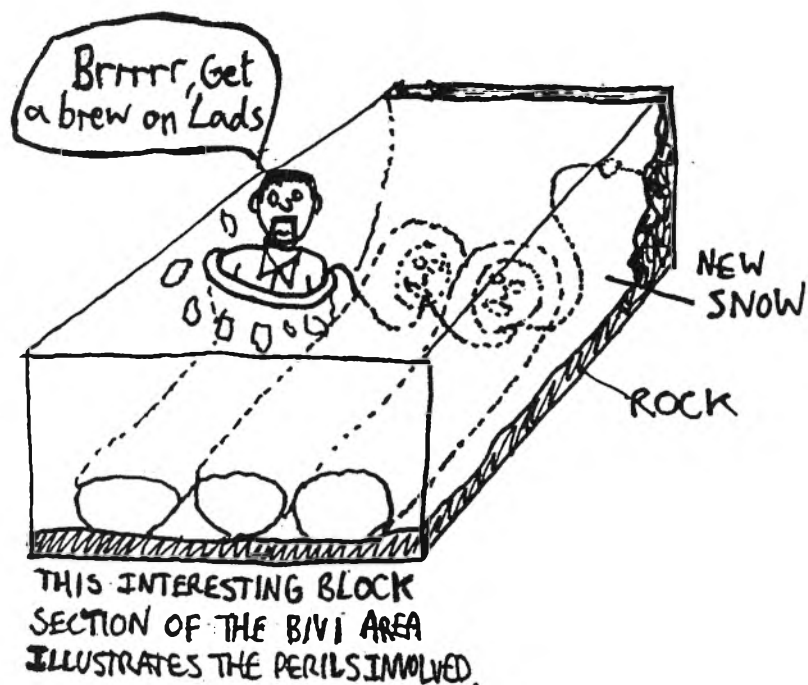
This complex mountain has only one route which takes a slope on the southern side. It has also been traversed from west to east.

Peak Gorky (6050m)

This mountain boasts two routes, from the west and east, both following highly corniced ridges. A significant line is the south ridge, attempted by a previous British expedition.

Weather and Conditions

The South Inyl'chek Glacier and its encompassing peaks form a huge natural wind tunnel which localises the wind direction to west or south-westerlies almost without exception. The storm fronts always come in a similar orientation and with amazing speed - stories of unpredicted and severe weather conditions in the area were proven to be well-founded.



We were plagued by bad weather during our stay in Tien-Shan, spending at least 50% of our climbing time in storm-bound snow holes or base camp tents.

The regional relief pattern helps to explain why Tien-Shan is victim to so much poor weather. The immense region of desert and flatlands to the south and east of Tien-Shan form a large catchment area for warm air masses, these in turn precipitate as they approach cooler mountainous areas.

One important pattern about the weather, we noticed, was that periods of good and bad weather were very cyclical, with three or four days of similar weather followed by its exact opposite. To receive more than five consecutive days of clear skies is extremely rare. This is a great problem when undertaking long and committing routes, especially if allowing for a consolidation period after snowfall to avoid avalanche danger - thereby wasting precious fair weather days. Enthusiastic local guides confirm that it is a tradition to climb Khan-Tengri in bad storms - so get your goggles on and go for it!

Regular snowfall and high winds make avalanches and cornice collapse serious threats on many routes. Most of the ridges on and Chapaev were highly corniced, some had double cornices. Most notable were those following a north-south orientation, as might be expected from local wind direction.

Often the winds were very severe - we had a tent ripped apart at base camp during a particularly violent night - and because of this, snow holes are very common forms of refuge at high altitude. There were as many as seven permanent caves on the west col, some of which slept ten people in comfort. These caves took quite a while both to build and to rediscover after heavy snowfall. They became quite a meeting ground for climbers of all nations and backgrounds.



Rock Quality

No formal geological study was made of the area, all our information was gathered simply from general observation. The geology of the region appeared quite varied as observed from the helicopter. The low level valleys were rimmed with solid outcrops of pink granite, which rapidly deteriorated into black shale as the snow-line was reached, the mountains looking like giant slag heaps. The latter, in retrospect, seemed to dominate most of the range in the Inyl'chek region.

In the vicinity of base camp, the geology was dominated by sediments and metasediments, ranging from very loose shale, like the unconsolidated mudstones on the southern side of Peak Gorky, to more solid phylites and metaquartzites on the west ridge of Khan-Tengri. The Marble Ridge on Khan-Tengri appeared markedly different from the west ridge, being composed of a very smooth light-coloured rock; we were assured this was of good quality.

An exception to the generally poor rock quality in the region was Pogrebetsky. We were interested in the north wall, as awe inspiring photographs had suggested it might be composed of solid granite. Closer investigation reveals that the rock could be of a high calibre - a view shared by local experts.

Very regular rock falls were seen in and heard from all parts of the range - a sign of the high erosion rate in these mountains - so remember your helmet. The potential for winter lines would be superb in this haven for loose rock fanatics, but in such a northerly latitude, the winters would be pretty cold.

Appendix A-Itinerary

7 July	British team members meet at Chris' house in Meopham.
8 July	10 pm, Leave London Victoria for Paris Bagnolet.
9 July	10 am, Leave Paris for Moscow.
10 July	Anton, Alik and Sasha leave Kiev.
11 July	9 am, Anton, Alik and Sasha arrive Moscow. Meet the British at 3 pm.
12 July	3 pm, Kolya and Sveta arrive Moscow. 10 pm, all leave for Almaty.
16 July	7 am, arrive Almaty. Met by Allibert Asia. 9 am, meet Taras, Igor, Yuri, Lyosha and Pavel Frantzovich at the airport.
17 July	Purchase of food in Almaty. 6 pm, leave by bus to Akkol'.
18 July	4 am, arrive in Akkol'. 9 am, leave by helicopter to base camp.
19-21 July	Reconnaissance walks and acclimatisation period.
21 July	Anton, Taras, Alik, Sasha, Yuri, Lyosha, Igor and Kolya leave for 4200m camp below Khan-Tengri.
22 July	Paul and Chris climb on Peak of the Three Heads and bivi at 5100m. Nick, Adam, Rich and Mat leave for Pogrebetsky. Bivi at 4700m. Ukrainians reach 5400m on Khan-Tengri. Storms in the night.
23 July	All British plus Anton, Taras, Alik and Sasha return to base. Yuri, Lyosha Igor and Kolya continue up to 5900m and snow hole.
24 July	Remaining Ukrainians return to base camp.
25 July	All British, except Nick, leave for 4200m below Khan-Tengri.
26 July	Mat, Adam and Rich climb to 5900m and snowhole.
27 July	Nick joins Paul and Chris. Climb to 5800m on Khan-Tengri. Snow hole.
28 July	Storms. All return to base.
29 July	Rest.
30 July	All Ukrainians, Paul and Chris leave for 4200m camp. Adam and Nick leave to do a new route on Sovetskaya Kirgizia. Rich and Mat leave for a new route on Peak Chapaev.
31 July	Lyosha, Igor, Yuri and Kolya start Sviridenko Route on Khan-Tengri. Kolya hit by a rock at 5100m and begin to abseil down. Chris, Paul, Anton, Taras, Alik and Sasha up to the col. Adam and Nick camp below route on Sovetskaya Kirgizia at c5000m.

	Rich and Mat attempt new route but decide to retreat from 300m up and camp at 4200m below Khan-Tengri.
1 August	Ukrainians on Sviridenko Route descend to 4500m by rappel. Paul and Chris up to 6900m on Khan-Tengri but have to descend in storms. Bivi at 6700m. Adam and Nick attempt new route. Decide to retreat. Rich and Mat reach the col.
2 August	Nick and Adam return to base camp. Alik, Anton and Taras attempt Khan-Tengri but return to snow hole. Sasha reaches the summit and returns to other snow caves on the col. Chris and Paul return to the col. All Ukrainians on Sviridenko Route return to base.
3 August	All at the col return to base, except Mat and Rich.
4 August	Mat and Rich return to base in appalling conditions.
5-8 August	Storms. Rest at base camp.
9 August	Nick, Mat, Adam, Rich and Kolya up to the col.
10 August	Mat, Adam and Rich up to 6300m but return to col. Kolya makes the summit and returns to col. Yuri, Lyosha and Taras up to the col.
11 August	Mat, Rich, Adam, Nick, Yuri and Lyosha and Yuri up to the summit. Taras up to 6500m. All return to the col.
12 August	All at the col return to base camp.
13 August	9 am, helicopter arrives. Transfer to Akkol'. 2 pm bus leaves Akkol'. 10 pm, arrive Almaty.
14 August	Expedition dinner!
15 August	Yuri, Lyosha, Taras, Igor and Pavel Frantzovich leave for Kiev.
16 August	British on a day out to Medeo.
17 August	British, plus Sasha, Kolya and Sveta visit rock-climbing area (Shymbulak), near Medeo. Bouldering in the evening.
18 August	Rock routes and sunbathing.
19 August	Return to Almaty. 7 pm leave for Moscow.
22 August	10 pm, arrive Moscow.
23 August	7 pm, Ukrainians leave for Kiev.
24 August	10 am, British leave for Paris. 11 am, Ukrainians arrive Kiev.
26 August	5 am, arrive Paris. 9 am, leave for London. 5 pm, arrive at Chris' house.

Appendix B-Budget

Expenses		Income	
Transport		Group grants	
London - Moscow rtn	£1158	The University of Leeds	£1100
Kiev - Moscow rtn	£110	The Mount Everest Foundation	£700
Moscow - Almaty rtn	£1208	British Mountaineering Council	£700
Almaty - Akkol' rtn	£102	Leeds Sports Development Unit	£250
Akkol' - Base Camp rtn	£1294	Sub-total	£2650
Other	£37	Personal grants	
Sub-total	£3909	To Nick Williams:	
Supplies		The University of Leeds	£400
To the mountains	£627	To Chris Bedford:	
Base camp food	£281	Meopham Parish Council	£150
Mountain rations	£151	Gravesend Borough School	£150
Sub-total	£1059	St. George's School	£100
Equipment		Sub-total	£800
Hardware	£712	Personal contributions	
Medical supplies	£257	Nick Williams	£500
Sub-total	£969	Matthew Dickinson	£900
Miscellaneous		Richard Cross	£900
Accommodation	£185	Paul Benstead	£900
Insurance	£1134	Adam Jackson	£900
Administration	£667	Chris Bedford	£500
Peak Fees	£323	The Ukrainian team	£387
Publicity	£96	Sub-total	£4987
Other	£95		
Sub-total	£2500		
Total Expenditure	£8437	Total Income	£8437

Note 1 Equipment bought personally is not included in this list. Included are only items bought for communal use, and that had not yet been re-designated by the end of August for post-expedition use.

Note 2 These figures include income and expenditure only up until the end of the expedition.

Note 3 Post-expedition presentations have to date raised over £100 for Cancer Research.

Note 4 This budget only allows for the income and expenditure of thirteen people. It does not include that which was submitted or incurred by the three participants who joined us for the helicopter fight, shared our base camp and who climbed with us, but had not been part of the original team.

Appendix C - Equipment (British team only)

Passport	
Visas	
Money	US Dollars in small bills and unmarked
Credit Cards	One bank in Almaty accepts Visa
Inoculation certificates	In case, but we didn't need them
Spare passport photos	Idem
E111	For travel in Western Europe
Insurance documents	
Tickets	
Copies of documents	In case of loss - kept separate from original
Russian phrase book	
Writing paper	
Pens and pencils	
Chess board	
Expedition log book	To show grandchildren
Note pads	
Maps of the area	
Playing cards	2 packs - vital
Books	A good selection that all might read
Stereo and tapes	A varied selection
Football	Glacial terrain unfortunately too rough
Tennis ball	With a shovel, made a good game of cricket
Ice axe	Plus a spare between all
Ice hammer	Plus a spare between all
Ski poles	Useful both on walk-ins and on routes
Crampons	Plus a spare pair between all
Ropes	1 each 9mm plus 1 spare
Harness	
8 foot slings	2 each
Figure of eight	
Screwgate karabiners	3 each
Set of shunts	2 each
Tat	About 50m
3 full racks	Wires, friends, screws, dead man, quick draws, etc.
Flares	For emergency use only
Tents	3 two man tents (Wild Country)
Shovels	3 (Camp) - all of these broke
Stoves	3 MSRs - burnt low octane local fuel
Pans	Various
Rucsacs	2 each
Daysacs	1 each
Compass	
Whistle	
Watch / alarm clock	
Wallet	

Sewing kit
 Water bottle
 Plate / bowl
 Cup
 Knife / fork / spoon
 Sharp knife
 Camera
 Film
 Head Torch
 Batteries
 Group first aid kit
 Medical Encyclopaedia
 Comprehensive tool kit

Very well used
 Very important

Compact 35mm
 A mixture - both Fujichrome and print
 Petzl
 Duracell, 3 each
 As detailed in Appendix E
 "Medicine for Mountaineering" (chilling!)
 Duct tape, saws, spanners, glue, nuts, etc.

2 Karrimats
 Bivi bag
 Sleeping bag
 Sleeping bag inner

Or Karrimat plus Therm-A-Rest

Down

Plastic boots
 Yeli gaiters
 Vapour bag liners
 Flip-flops
 Lightweight boots or trainers
 Rock boots

Simple plastic sacs. Proved worthwhile
 For on trains and at base camp

Total block sun cream
 Lip salve
 Glacier glasses
 Sun hat

Factor 25

Plus spare pair each / ski goggles
 Important

Gore-Tex salopettes
 Gore-Tex jacket
 Mittens
 Outer mittens
 Spare gloves
 Thermal gloves
 Balaclava
 Hat
 Set of thermal underwear
 Insulated salopettes
 Thermal socks
 Walking socks
 Fleeces
 Jumpers
 Down jacket
 Jeans
 Tracksuit bottoms
 Shorts
 T-shirts
 Washing kit
 Towel

Wild Country Extreme proved excellent

We used silk



Appendix D - Provisions

We bought most of our food in Almaty. This was principally because we did not want to transit a ton of food across half of Asia when it was readily available in Kazakhstan. Provisions were generally cheaper there and quality was not too bad. Certain items we did arrange to take with us because we had heard that they were not too easy to obtain, including sugar and chocolate. We also made sure that we had enough curry powder and tea bags before we left for Asia.

Fresh food does not keep very long on a glacier. Vegetables tend to get frostnip and must be insulated from the ground. We built a fridge below the moraine's rocks for meat, cheese and butter, but daytime temperatures were often quite high and not everything kept well. Bread stayed edibly fresh for about ten days, unleavened bread perhaps twice as long.

We estimated that approximately 50% of our days in the mountain would be spent in base camp. This proved generally correct, as although we were only able to attempt serious climbing during 85% of our stay, we were on the hill for half of the total time in preparation for any break in the weather.

Food was bought for and consumed by sixteen people including two non-climbers. This gave us 200 base camp man-day rations and 200 mountain man-day rations, plus we added extra in case of emergency. Travel rations were considered a separate entity; we purchased these en route through wherever we were passing.

Food bought in England

Porridge	2 Kg	Rice	2 Kg
Spaghetti	3 Kg	Soup	125 portions
Tuna	24 tins	Biscuits	24 packets
Mars bars	48	Tea bags	550
Coffee	500g	Drinking chocolate	1 Kg
Powdered orange drink	20 litres	Dried milk	2 Kg
Chilli powder	400g	Spices	400g
Curry powder	1 Kg	Oxo cubes	64
Freezer bags	4 boxes	Dustbin bags	40

Food bought in Ukraine

Powdered drinks	500g	Sugar	35 Kg
Dried milk	10 Kg		

Food bought in Almaty

Spaghetti	12 Kg	Rice	14 Kg
Gretchka	15 Kg	Bread	50 loaves
Meat	52 tins	Sausages	10 Kg
Fish	50 tins	Dried fish	4 Kg
Cheese	15 Kg	Butter	3 Kg
Eggs	400	Yeast	500g
Flour	15 Kg	Apples	90 Kg
Prunes	3 Kg	Potatoes	90 Kg
Green peas	14.5 Kg	Carrots	30 Kg
Beetroot	10 Kg	Peppers	90 Kg
Marrow	8 Kg	Aubergines	8 Kg
Red beans	7 Kg	Onions	50 Kg
Garlic	5 kg	Tomatoes	25 Kg
Cucumber	58 Kg	Condensed milk	120 tins
Tea	9 packets	Petrol	40 litres
Candles	40		

A typical mountain man-day ration consisted of:

Breakfast

50g of porridge or grechka with nuts and dried fruit

Drinks

Lunch (taken as snacks throughout the day)

25g of salami or salo

50g of biscuits

50g of cheese

1 bar of chocolate (60-100g)

40g of dried fruit and nuts

Drinks

Dinner

50 g of spaghetti or rice

1/2 an onion

1/2 a green pepper

1/2 a tin of meat or fish

Drinks

Other daily provisions

Candles, matches, petrol (c. 200g), toilet paper, salt and spices

We aimed to intake at least 3-4 litres of liquid a day in various flavours.



Appendix E-Medical Supplies

We were very fortunate to have a qualified doctor on our team, who was able to treat us in the mountains when anything went wrong. He had his own medical supplies which are not listed, as in the UK they are not even available on prescription to the severely bedridden. Listed is an assortment of dressings and drugs bought in Britain which were, or could have been, extremely useful.

Lint	Needles	Dehydration powder
Tape	Tweezers	Laxatives
Plasters	Scalpel	Indigestion tablets
Fingers stalls	Thermometer	Diarrhoea tablets
Gauze	Magnifying glass	Pain killers including Codeine
Finger dressings	Scissors	Water purification tablets
Assorted bandages	Syringes	Antiseptic cream and fluids
Finger dressings		Antihistamines
	Multi-vitamins	Intestinal infection tablets
	Cod liver oil tablets	Respiratory tablets

Medical Complaints

Despite our comprehensive first aid kits, some of us felt the effects of climate change, exhaustion, not washing for six weeks and using communal tea mugs. The following is just a short list of ailments suffered while on expedition.

Indigestion Dietary changes shocked the stomach and indigestion tablets proved to be the cure.

Altitude sickness All members suffered this to a certain extent, especially those who thought they could climb to 7000m within a few days of arrival. We took Aspirin which helped to thin the blood and it helped out with the stinging headache.

Frostnip and frostbite A big toe was all but lost. Trental and Aspirin helped thin the blood to improve circulation, especially in the outer capillaries.

The common cough Unfortunately almost incurable at this altitude without Lemsip, Tunes or Fisherman's Friend. It was regretted that such cheap and obvious medicaments had not been brought.



Diarrhoea Suffered by all, all of the time.

Toothache Irony has it that the trainee dentist of the expedition suffered from an infected molar. We all volunteered to help with using the multi-purpose monkey wrench, but he decided to grin and bear the pain until we returned to civilisation.

A colon infection Despite our attempts at cleanliness, such a serious complaint was able to break out. Proper drugs on return to civilisation cured the sufferer.

Supplements

A number of supplements have been prepared. These have been required as additions to this report by certain of our sponsors.

They are available on request from the addresses in the notes.

- Expedition Planning. For the Enterprise in Higher Education.
- Wild Country. Mountaineering equipment manufacturers.
- Bolle. Optical specialists.
- Silking. Silk garment designers.
- Nikwax. Fabric protection innovators.

Notes

A very limited number of expedition reports will be available from Nick Williams on Fax number (01223) 843934 or from the Enterprise in Higher Education at the University of Leeds.

Copies of all the expedition supplements will be available from Nick Williams. Copies of the Expedition Planning supplement will be available at the Enterprise in Higher Education at the University of Leeds.