

QUB Mountaineering Club

hill walking and rock climbing at Queens

QUBMC Expedition to Kaindy Glacier,
Tien Shan, Kyrgyzstan
August 2016



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1. Summary

The author of this report and the members of the expedition agree that any or all of this report may be copied for the purposes of private research and mountaineering.

In August 2016 the remote Kaindy glacier in the Tien Shan range was visited by 10 members of the Queen's University Mountaineering Club (QUBMC). For many of the party this was their first expedition. Having arrived by helicopter the team aimed to acclimatise, explore the glacier systems and make first ascents of unclimbed peaks in the area. Basecamp was at approximately 3890m.

After some exploration of the area and a few failed attempts the team managed to make successful ascents of two major peaks (Pk Oskal (оскал), 4870m and Pk Svyatoye Mesto / (святое место), 4658m) and reached a number of high points and cols of more questionable significance.

2. Participants

| Team Member | Role | Nationality |
|---------------------|---------------------------|-----------------|
| Owen Largey | Leader & Climber | Irish |
| Stephen Rooney | Medical Officer & Climber | Irish |
| Michael Campbell | Climber | Irish |
| Kevin Cheung | Climber | British |
| Thomas O'Hagen | Climber | Irish |
| Matthew Boyd | Climber | Irish/British |
| Kora Przybyzewska | Climber | Polish |
| Conor Gilmour | Climber | Irish |
| Aleksey Zholobenko | Climber | British/Russian |
| Vladimir Zholobenko | Climber | British/Russian |

Table 1

We decided early on that 10 would be the absolute maximum number of participants and even this number would require careful planning if the trip was not to be too unwieldy.

3. Choice of location

Early discussions focused on what people wanted for the expedition. More established objectives such as Denali, Elbrus and Pk Lenin were discussed but the ascent of virgin peaks was high on a few people's agenda and in the end came out on top. Having established this we followed an admittedly similar line of reasoning to the previous QUBMC expedition and took the below factors into account.

- Time of Year
- Costs
- Red tape
- Potential for unclimbed peaks
- Participant capabilities

Many remote destinations that were initially bandied about (Alaska, South America, Himalayas) but we eventual calmed down and enthusiasm was tempered with practicality. The benefits of Kyrgyzstan as a destination weighed heavily.

- Suited our timing. Universities will only support expeditions that occur outside of term time. August/September in Kyrgyzstan are generally considered the months with optimally stable weather.
- Relatively cheap and with almost zero red tape compared to other options. We wanted to access remote virgin peaks but had no interest in running into expensive visas, bribes or minders.
- The club had been there before as had certain (at the time, potential) participants. We had information and contacts that would prove highly useful for logistics.
- Reasonably politically stable in most of the country.
- Superb potential for unclimbed peaks in a variety of ranges
- Suited our level and mix of abilities (not extreme altitude). There were many potential areas with objectives that lay between 4500 and 5500m.

4. Research and History of the Area

Having decided on Kyrgyzstan we read through trip reports and spoke to the ITMC about areas that might have potential for new routes. After some debate we concluded that the Kaindy glacier fitted the bill although we did have to accept that not all of its expedition history may have been documented.



Fig 1. Location Kaindy Glacier in Tien Shan

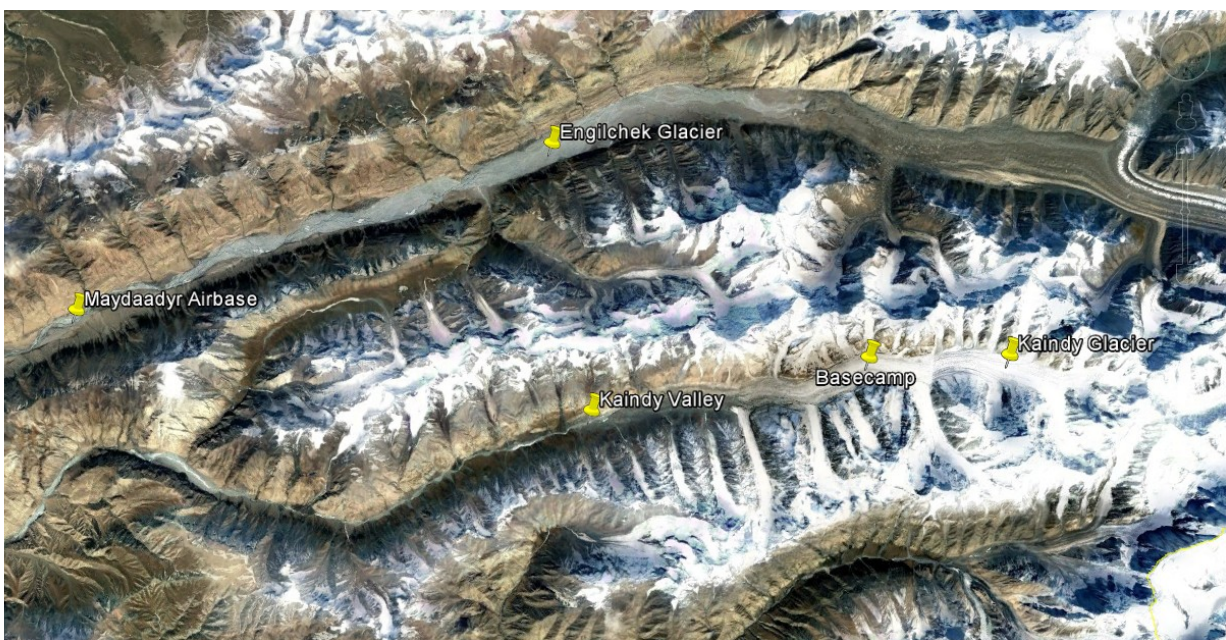


Fig.2 Overview of Kaindy valley/glacier (Our basecamp at 42° 5'23.46"N, 79°41'25.11"E.)

Below is a chronological list of the documented mountaineering expeditions we could find for the area. Note that we encountered many spelling variations of the name Kaindy/Kaingdy/Kayndy/Kayindi Valley.

1995 British Tien Shan Kirov Expedition

The expedition to climb Peak Kirov 6073m at 42° 2'1.49"N , 79°53'3.08"E (using the Kaindy glacier for access) by Rob Collister and John Cousins successfully passed through the Kaindy glacier and summited Peak Moelwyn (5784m). While they failed to reach the summit of Kirov they came impressively close (with highpoint of approx 5400m) and their account is well worth a read.

Available from http://www.alpinejournal.org.uk/Contents/Contents_1996_files/AJ%201996%20140-146%20Collister%20Tien%20Shan.pdf

1995 Tragedy on Peak 5445

A UK team suffer the loss of Mick Davies while attempting Peak 5445. Two Russian climbers are also killed while attempting a rescue.

1995 Paul Hudson Expedition

A 10 man UK team successfully ascend two new peaks (Angel Peak and White Horse Peak) and 3 high points (all 1st ascents). We are grateful to Paul for his assistance in providing a copy of the report which is available from the Alan Rouse library in Sheffield. This report was useful in providing photos and information on potential targets. It also reassured us that a 10 man expedition is perfectly feasible. A shortened version of their report is available from www.therockface.co.uk/

2004 Polish Expedition

This led to the successful ascent of Byssymylda 4901m. This was lower down the glacier than we expected to climb at approx Lat 42° 1'55.40"N, Long 79°33'0.91"E. We could not find a trip report but a video of their trip is available (in both English and Polish) at <https://www.youtube.com/watch?v=epm211X0QCc&feature=youtu.be&t=669>

2013 Russian Walking Groups

The glacier is occasionally frequented by 'glacier walking' (a form of mountaineering where participants see summits as completely optional.) Such activities are rarely documented but one example of a group passing through the Kaindy in 2013 can be found at http://www.mountain.ru/article/article_display1.php?article_id=7167 (google translate may be helpful). The main benefit of this report to us was the many photos taken by the team as they passed through.

2014 Swedish Kirov attempt

An attempt was made to approach Peak Kirov from the Inchylek glacier but abandoned due to deep snow conditions while still 25km from their planned Kirov basecamp. <http://www.swedishexpeditions.se/sv/kirovbloggen.html>

2015 Swiss-German Team

A Swiss-German group that made two first ascents; Pk 5445 (Pk Dom) and Pk 5171m (Pk Molchalivyy). A report has been completed by the team but as far as we know not yet submitted.

5. Objective

As stated in our funding applications,

“we intend to explore the unclimbed peaks in the lower southern sector for acclimatisation and subsequently attempt the unexplored south aspects of the peaks in the central northern sector if it is deemed safe. We believe that the advantage of selecting this area for the expedition is that the large number of targets allows us to pick objectives on the spot depending on conditions of both mountains and climbers.”

Despite the previous expeditions to this area there were still plenty of potential objectives from which to choose. We were aware that mountaineering in this region is a serious undertaking due to the remoteness and somewhat unpredictable conditions typical in the Tien Shan. We wanted to adopt a careful approach and make ascents only where and when it was possible to do so reasonably safely.

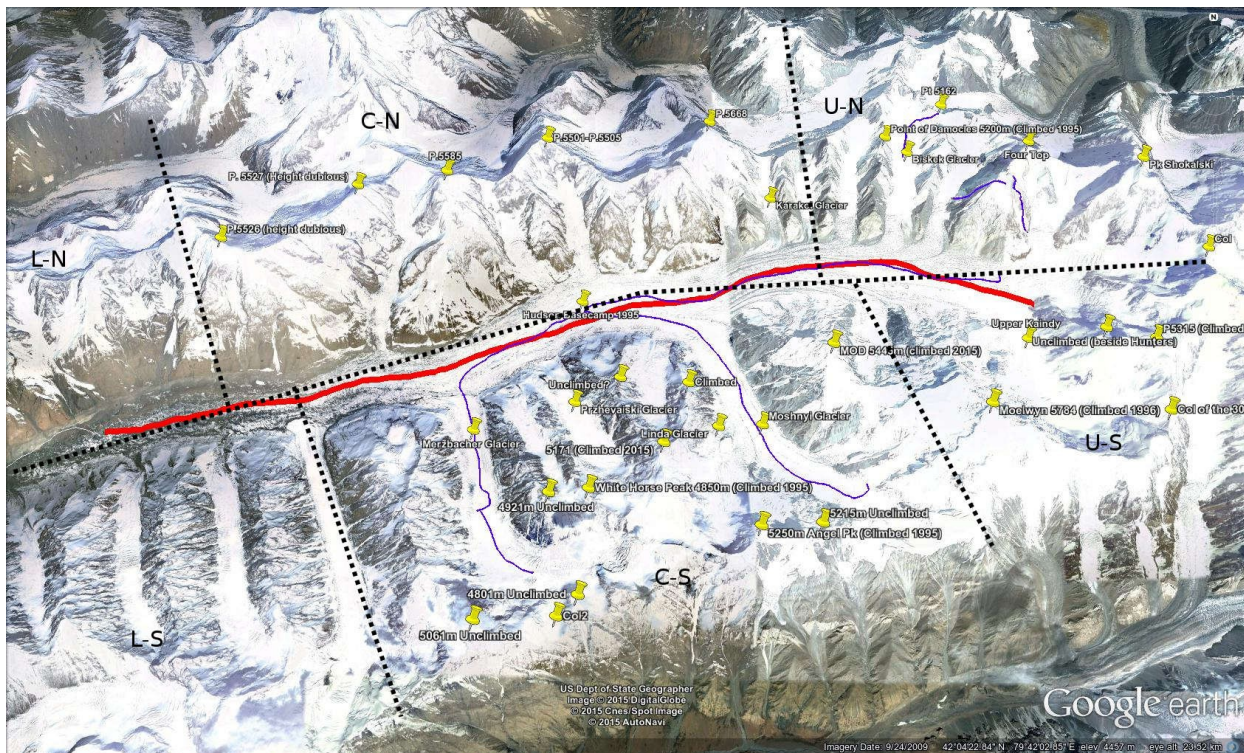


Fig 3. Photo from Google Earth (used in MI Application)

The glaciers flows down from 4000m to around 3000m with the lowest peaks at an altitude of around 4500m and the highest just below 5800m. As seen above we had divided the glacier into lower, central, upper and north and south. Of these only the central southern segment had been explored, with a small amount of exploration of the upper segments. The lower segments and central northern segments were practically unexplored. Our actual basecamp ended up very close to the one we had planned (located at $42^{\circ} 5'23.46''N$, $79^{\circ}41'25.11''E$.)

6. Schedule

Overall duration: 29th of July to the 31st of August 2016

| Date | Activity |
|-------------------------|--|
| 29 th July | Leaving Belfast |
| 30 th July | Arrival in Bishkek |
| 31 st July | Shopping, retrieving lost luggage and final preparations |
| 1 st August | Travel to Karakol |
| 2 nd August | 3AM truck to Maydaadyr Airbase and helicopter to basecamp |
| 3 rd August | Walking down glacier to look for lines. Storm in the evening |
| 4 th August | Snowing all morning. Clearing up a little in the evening. |
| 5 th August | Heavy snow most of the day. All members tent bound. Sat phone tested and working. |
| 6 th August. | Raining and snowing heavily most of the day. |
| 7 th August | Sunny day. Groups walking to explore the glaciers |
| 8 th August | Various groups walking in to higher camps to attempt peaks |
| 9 th August | Merzbacher glacier- Owen, Conor & Thomas reach Col at top of Merzbacher. Kora stays at high camp. |
| 10 th August | Glacier 5- Michael and Rooney attempt Pk 5001m but back off due to avalanche risk. High point on Ridge immediately south of basecamp reached by Thomas and Owen. |
| 11 th August | Bad weather. Rest day for most. Kev and Vlad inspect potential rock lines. |
| 12 th August | Some bad weather in afternoon. Tent day for most. Kev and Vlad reach col at back of of glacier 5. |
| 13 th August | Thomas, Owen, Michael, Rooney & Alek walk up Merzbacher to establish high camp. |
| 14 th August | Conditions unsuitable in Merzbacher glacier for summit attempt. Owen, Thomas and Alek walk up the glacier and inspect the route intending to make an attempt the next morning. Some precipitation and a considerable lightening storm during the late evening/night. |
| 15 th August | Successful summit day on Pk Oskal (1 st ascent for Alek, Thomas, Owen, Rooney and Michael) |
| 16 th August | Alek and Thomas attempt Pk 5061m. Decide to back off due to poor conditions. Large serac avalanche at 830AM. The powder from this wipes out our high camp. No one hurt but tent damaged. |
| 17 th August | Rest day for most |
| 18 th August | Heavy snow fall. Second rest day. |

| | |
|-------------------------|---|
| | |
| 19 th August | Various groups walking in to higher camps to attempt Pks |
| 20 th August | Various groups walking in or sleeping at higher camps preparing to attempt peaks |
| 21 st August | Vlad and Kev attempt Pk 5061. Back off due to dangerous seracs. They retreat and climb Pk Oskal (second ascent). |
| 22 nd August | Owen and Rooney attempt Pk "Sitting Lady". Back off 150m from the summit. Alek attempts to solo Pk Dom but retreats. |
| 23 rd August | Rest day for most. Alek did not attempt Pk Dom due to concerns over fresh snow. |
| 24 th August | Attempt on Pk Svyatoye Mesto called off due to conditions. |
| 25 th August | Conor, Alek, Matt, Thomas & Kora climb Pk Svyatoye Mesto (first ascent) Helicopter used to fly out of glacier early due to stormy forecast. Truck to Karakol. |
| 26 th August | Stay in Karakol |
| 27 th August | Stay in Karakol |
| 28 th August | Stay in Biskek |
| 29 th August | Stay in Biskek |
| 30 th August | Early morning flights out of Biskek. |
| 31 st August | Arrival back in Belfast |

Table 2. schedule

7. Logistics

For logistics and dealing with what little red tape there exists in Kyrgyzstan we used a well established company called ITMC. We knew them from the previous QUBMC expedition and they assisted us with accommodation, a minibus to/from karakol, GAZ-66 to the Maydaadyr Airbase and a MIL 8 Helicopter in and out of the glacier. They also arranged for our travel permits (approx \$30) which are needed to access most of the Tien Shan. For some nationalities a VISA is required to visit the country but no one in our group was affected by this.

Originally we had planned to access the valley by a combination of truck and foot. In theory a GAZ66 or URAL truck could enter the Kaindy valley and make progress at least part of the way towards the glacier (red line in Fig 4) however this plan was limited by the unpredictability of the terrain. If there was uncrossable terrain near the start of the route this approach could leave us with a 70km walk. A walk-in of this length was doable but would limit our route time and probably have prevented us from attempting anything in the upper Kaindy. The ITMC suggested using a

helicopter. This option was only slightly more expensive, reasonably reliable and arguably no less environmentally friendly. The approximate helicopter route (shown in blue in Fig 4) took around 35 min. It also meant we would have contact with the people who, in the unlucky event of an accident, would be helping with a rescue.

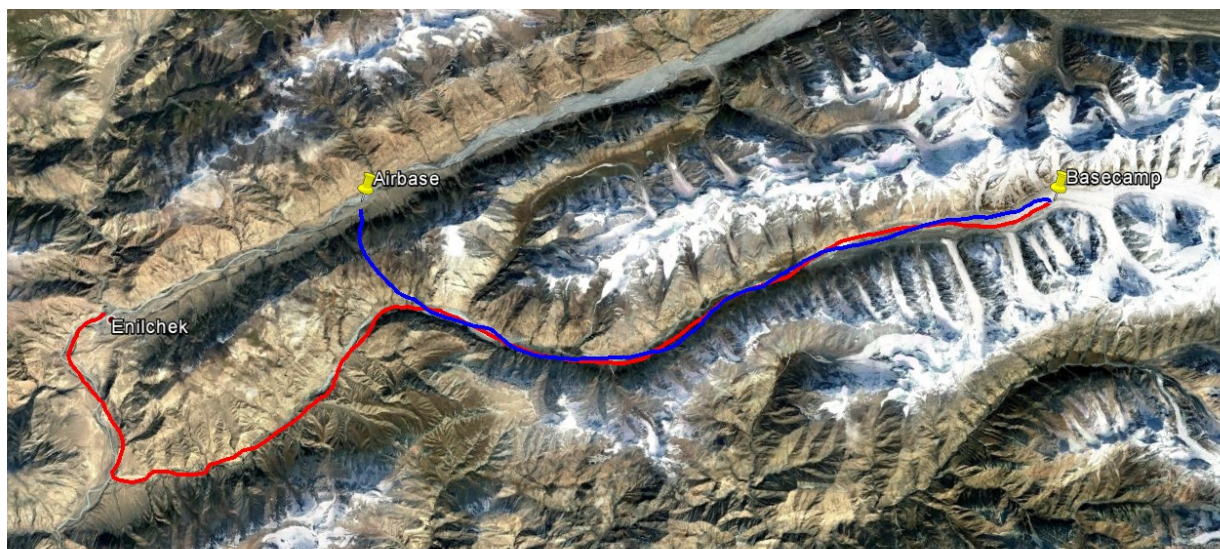


Fig 4. Access to the Kaindy Glacier.

We experienced no catastrophes with our logistics. One member had their luggage lost on arrival in Bishkek but it turned up a day later. This contained many important pieces of gear and it was a relief to recover it. The ITMC kindly assisted us in communicating our lost baggage with the airport and fortunately we had built some extra shopping time into our schedule. The accommodation in Bishkek was cramped for 10 people and had no working fridge or air conditioning but we made do. Future groups would be wise to request these things when booking a place to stay. Shopping for the approx 35kg of meat was left until our last day in Bishkek to avoid it going off.

Due to an open slot/weather window in the helicopter schedule we ended up having an extremely accelerated and tiring trip to the airbase. After a long drive to Karakol we were given the option to go earlier the next morning to the airbase than planned (i.e. we'd only get a couple of hours sleep before rising at 3AM). This then turned out not to be so much an option as a certainty. In some ways this was good as it got us to the glacier a day earlier than planned but it made for less rest in Karakol than some of us would have liked. It also affected the schedule of a few people who had planned to take prophylactic altitude drugs. Be advised that the ITMC seem to have limited control over the helicopter schedule and if the pilot wants to go at a certain date/time then that's when you fly.



Fig 5. Driving through the night in the GAZ-66



Fig 6 The arrival of the Mil-8 at Maydaadyr Airbase

We passed through a military checkpoint as we approached the helicopter base and our paperwork was checked. Prior to flying we were asked to weigh all our equipment. We had never been able to learn exactly what the upper limit weight limit was but the ITMC had suggested that anything under 2500kg would be fine. We showed the pilots where we had hoped to land before the flight took place but they also asked to see the map again while flying up the Kaindy glacier. It would perhaps have been useful to have a printed copy of the map handy for pilots to reference.

8. Equipment General

We attempted to coordinate gear via a shared google document. This allowed the group to share lists of their personal gear and debate what was needed for communal gear. It was a good system although planning and weighing their gear was more interesting to some members than others.

Clothing systems

A wide variety of systems were used for activity depending on personal preference. Base layers (typically merino) and light weight trousers were standard for walk-in days when it wasn't snowing. Early morning starts saw the use of our down jackets or heavier Buffalo/Montane jackets but these were mostly stuffed in rucksacks during the climbing. During climbs most people wore base layers, trousers micro fleece, gaiters and when needed standard waterproofs. Those prone to getting cold were sensible/experienced enough to have taken suitably insulating layers (e.g. Mountain Equipment Citadels and PhD Xero Down Mitts).

Footwear

Arguably the most important bit of gear. From other expedition reports for this area we had read about climbers suffering from cold feet (even in La Sportiva Nepals) and so for the sake of their toes everyone was encouraged to bring adequately warm boots. Again a great variety was seen (Scarpa Vegas, Omegas, La Sportiva G2 SM, Spantiks). Given the fairly warm temperatures we had we possibly could have gotten away with more standard alpine boots. On walkins we frequently encountered deep snow/holes and our gaiters, built in or otherwise, were useful.

One regret we had was the lack of rock shoes. Having read so many reports about poor rock we had only brought a couple of pairs, intending to focus mostly on snow/ice lines. While there was a lot of loose material around there were also reasonable lines (especially towards the end of the melt). Future expeditions to this region take note.

Fuel

We had made reasonable access to melt water a priority for our choice of base camp with the intention of reducing our fuel consumption. We had planned to use petrol in base camp for approx ¼ of cooking and gas the rest. Gas would also be used the multi-day routes and up high. For 10 people over a maximum of 25 days we had estimated a total of 3L of petrol and 45 cannisters of gas (230g each). We went for a mix of 15 kovea and 30 tramp cannisters with belief that the kovea cannisters had a better propane/butane ratio and would perform more efficiently. In reality most people noticed little difference. Despite the high ratio of weather related tent days we found these fuel quantities to be suitable for our considerable tea making/cooking requirements and with a comfortable quantity to spare.

Cooking equipment

Two MSR universals were used for the petrol cooking and a wide range of gas burners were also brought (including Vango Ultralite, pocket rocket, Pinguin Pyro Multifuel and the HiGear Blaze.) All participants were experienced in camping cooking and had practised their set-ups in advance. Efficiency tests prior to cooking on a glacier are recommended. Cooking was done carefully inside the large tent during bad weather and on a table of rocks if it was sunny.



Fig 7. Drying out gear and communal cooking

Sleeping systems

Most people used two mats, an inflatable and a foam matt. The inflatables included Thermarests and Alpkit Dummo. This allowed us to have the luxury of both mats at base camp, while usually carrying only one up to higher camps. This also gave us some redundancy in the event of a punctured inflatable. For sleeping bags most people used down fill (examples include Alpine dream 900 or Neutrino Endurance), but a few brought synthetic. As a general rule most of our bags were rated to at least -7 degrees centigrade or contained over 600g of down. Silk liners are recommended as they improve warmth and dry out easily.

Tents

Our basecamp was made up of two medium tents and one large 5 man with a porch. The two medium sized tents were Vango Pulsar 300s and comfortably slept 2 people and their gear. The large tent was a Vango Solero 5 that was acquired second hand off gumtree for £30. It was useful for storage, socialising, cooking and slept 4 people. We also had 5 smaller tents (e.g. Wild country Zephyros 2, Helium 200 and Terra Nova UL-Voyager) and these were used by teams for summit attempts and as backups.

Damage was sustained to the large tent when it was blown over by an unexpected helicopter landing beside our basecamp approximately halfway through the expedition. The pilot informed us that a group of Russian mountaineers had two injured members somewhere on the glacier and had called for a rescue. The pilot had landed beside our tents to ask if we had seen anyone. We thought we had seen tents further down the glacier on our fly in but otherwise had met no one. We provided them with spare copies of our maps and at the end of the trip heard that the injured party were evacuated without incident. The tent pole was repaired enough to allow continued use of the big tent and at least we now knew that a helicopter rescue was possible for this area. Bringing a tent repair kit on expeditions is thoroughly recommended.

By and large most people were able to sleep well both in basecamp and in the advance camps, a notable exception being a restless night on the Mersbacher glacier due to an ongoing ocarina performance of “Hall of the mountain king” played to a backdrop of thunder and lightning.

Communications Gear

Walky talkies

We brought 4 pairs of walktalkies on this expedition (mostly Binatone Action 1100s). These were all capable of communicating with each other when in range. These were intended to work between climbing teams in similar areas, possibly on different routes, and where possible with members in basecamp. In retrospect it would have been useful for each climbing pair to have a set and for one to have a permanent home in basecamp. Future expeditions bringing multiple sets might want to split up the devices and any large collections of batteries between their luggage as security in Moscow airport did not approve of all of these things in one bag. The walkies most important moment was probably informing the final day climbing party to speed up their descent as the helicopter was coming a day earlier than expected.

Satelite Phones

Two satelite phones were brought on this trip and they were useful for communication with friends and family back home. One of these was a motorola 9505 Iridium that was aquired off ebay and a pre paid SIM was acquired from a company called Global Telesat Communications. The second phone was We had arranged with QUBMC member Aimee Smith for her to be our single contact based in Belfast. She relayed emails out to family members and was able to give us weather updates.

A Spot Tracker device was also used to keep track of our activities and could in an emergency be used to send a preset rescue request to the Kyrgyz authorities. Aimee in Belfast was able to track the device position and movements via an online portal.

All communication gear was tested in advance and copies of important numbers were brought and kept with the gear. The redundancy of equipment was due to the location and difficulty of escape.

Climbing gear

We had not planned fixed climbing partnerships but had intended to climb mostly in pairs of two. We brought enough ropes for each team (typically 60m half ropes) plus a few spares should we need them. We had approximately 4 rock racks with one typically consisting of 6 extenders, a set of nuts, set of tricams, and 5-6 slings. Our total number of ice screws came to 52 (at least 10 for each climbing team) and this proved to be excessive for most of our routes.



Fig 8 Rope cut in half due to rockfall during Kevin and Kora's attempt of the still unclimbed "sitting lady".

Other gear

Numerous members of the expedition had watches with altimeters. These were useful for navigation, keeping us on a sensible acclimatisation schedule and recording the heights of peaks.

Shovels were brought and made the initial clearing of snow for basecamp considerably easier. They were not brought to or needed in any of our higher camps.

Kindles were a handy source of entertainment during bad/weather/rest days.

The MSR guardian purefilter was initially mocked when suggested in the planning stages but turned out to be a very useful method of cleaning water when at basecamp.

9. Medical Report (by Stephen Rooney)

Any expedition to remote areas will benefit greatly from a fully trained and experienced medic as a member of the team. However lacking this a recently qualified dentist would have to act as a substitute.

All members of the expedition had at the very least BLS (basic life support) skills with some more advanced skills (particularly of note was Alex who had acted as medical officer in previous expeditions as well as his undergoing of additional training for medical emergencies in a wilderness setting.)

Several reference texts were bought which proved invaluable throughout the trip.

Medicine for Mountaineering 6th Edition- this proved to be an excellent reference source if slightly bulky.

Oxford Handbook of Expedition and Wilderness Medicine (Oxford Medical Handbooks)- well written and compact covering a full range of possible incidents, would highly recommend for anyone considering a similar undertaking.

BNF- a copy of the BNF was taken to confirm dosages of any medications, in hindsight very little of this book was required and only taken the relevant at pages would have reduced weight.

Medical kit

A light weight but comprehensive medical kit was taken and stored in its own clearly labelled "grab bag" this was stored in an easily visible position at base camp. Members of the expedition were encouraged to bring their own small kit for mountain days as most were already in the habit of this and familiar with their own equipment. These ranged from a roll of duct tape and a pain killer to quite an extensive kit. As we were unsure of the availability of drugs/ equipment in Bishkek almost all supply's were brought from Belfast. This proved an unfounded as there were numerous reputable pharmacies available and some items were easier to acquire there than at home such as lidocaine and steroids. The kit was designed to be usable by all members of the team and kept as simple as possible should there be an incident and the medical officer be in available. In hindsight cards detailing the treatment of likely incidents would have been a useful addition.

Camp hygiene

The camp was placed on a high point in the centre the glacier with a stream on either side. One stream was designated for clean water and the other for washing. Water was filtered at base camp with the MSR guardian purefilter and however when away from camp most opted to just drink from streams. The latrines were located 200+m away from camp beyond a small rise, access to this involved crossing the "wash stream" in the hopes that this would encourage hand washing. Washing hands in glacial streams or using snow can be an unpleasant experience and was not always adhered to as strictly as it should have been. Alcohol hand wash was available but was in limited supply; for future expeditions a larger supply would be recommended. Food was stored above the camp under a tarp with meat being wrapped in muslin, this was periodically removed when weather permitted to encourage drying. Although no illness was attributed to contaminated food during this trip suspicions were rising towards the end.

Medical incidents

Thankfully there were minimal medical incidents on the expedition and none severe.

GI issues

On arrival at Bishkek several members of the team were struck with Gastrointestinal upset. This was initially attributed to the groups fondness of a delicious but highly suspect local delicacy of deep fried horse meat "pancakes" but this was later traced to the poor decision to eat raw fish on a flight. Those affected were isolated into one room, kept away from the food supply and given symptomatic treatment. For those who continued to have symptoms on travel days loperimide was provided. One member of the group had symptoms lasting 5 days and which extended until we were at base camp. They were placed on a 3 day course of ciprofloxacin and recovered with out incident.

Allergies and intolerances

Several members of the team had preexisting condition of intolerance or allergies to several foods. Only one adrenaline auto injector was available on the trip thankfully this was not needed however a greater supply of adrenaline would be recommended. One member did occasionally fall foul of contamination of cooking utensils though always recovered well.

Altitude sickness

Due to a minor logistical/communication error the groups ascent to altitude was more rapid than originally planned. This resulted in a delay in taking any prophylactic altitude medication "diamox" and several members opted out not take any. Those on diamox appeared to recover from the altitude quicker than those with out particularly those on the slow release formula who also reported fewer side effects. There were no major incidents from the effects of altitude.

Minor trauma

There was the usual minor trauma incidents of cuts and scrapes none of which were significant. There were also several minor joint issues which we treated with rest and NSAIDs (Nonsteroidal anti-inflammatory drugs) and recovered well.

Effects of cold

There was one instance of minor frost nip following self induced prolonged immersion in a glacial pool. This resulted in parasthesia of the finger tips which took several months to recover although has now resolved completely.

10. Financial

We applied for funding from the following organisations: Mountaineering Ireland, the Mount Everest Foundation, the Queen's Belfast Alumni Fund, the NEA award. Of these we were fortunate enough to be awarded £3000 from Mountaineering Ireland, £1650 from the MEF along with £1150 from the QUB Mountaineering Club. We also arranged a talk in Belfast about past club expeditions from which we raised £130 and hosted a pub quiz from which we raised £50. This gave a total contribution of £5980.

The main costs of the expedition were our flights, food and the services of the ITMC. A joint account was set up and £6399 (\$8532 using exchange of 0.75) of the ITMC costs were transferred ahead of our expedition. The remaining ITMC costs of almost £1600) were then paid in cash when we arrived in Biskek. Most people acquired all their food in Bishkek with the exception of Michael and Kora who who had particular dietary requirements. Our flights were paid for individually and mostly many months in advance.

Individual contributions vary as not everyone took advantage of the money raised but on average members were paying approximately £900 out of their own pocket.

We might have saved ourselves a few hundred overall had more of us purchased euros prior to the Brexit referendum instead of in July 2016 however the rate of exchange ended up being similar to when we first costed the expedition so our plans were not massively disrupted.

For Financial breakdown and ITMC services breakdown please see appendix A and B.

Climbing

Peak Oskal (оскал), West Face

4870m, 400m, Grade- AD Alpine Style, Successful First Ascent, Weather Clear.

Location- 42° 4'23.26"N, 79°41'53.49"E

Description- From the Kaindy glacier ascend the Merzbacher glacier for approx 3.5km. The glacier is reasonably safe until this point and is suitable for a high camp (42° 2'39.07"N, 79°40'11.82"E). Camp in the middle of the glacier as large avalanches can threaten from the Eastern side. Walking South East towards Peak Oskal tend slightly to the right of the glacier to avoid the larger crevasses. Ascend the middle of the west face trending leftwards between exposed rocks. Teams can move together digging into the snowy face to place occasional screws. After two hundred and fifty meters trend slightly rightwards to gain the ridge at a reasonable angle (on this route the face is never more than 55 degrees). Ascend the ridge to the domed summit keeping a healthy distance between you and the eastern cornices. To retreat simply follow steps back down the ridge and abseil down the face (x5 60m abseils should clear the bergschrund.)



Peak Oskal West Face

09/08/16- Initially attempted by Conor, Owen & Thomas. Retreat from bottom of face due to high avalanche risk. Snow slopes looking loaded and hazardous.

15/08/16- Alek, Thomas & Owen (1st rope), Rooney & Michael (2nd rope). Successful first ascent. Good weather. Less snow on the face. The walkin over the glacier featured poor snow conditions. Many holes and perpetually falling in as far as the waist.

21/08/16- Vlad & Kevin. Successful second ascent. Similar conditions to first ascent.

Peak Svyatoye Mesto (святое место), North West Ridge

4658m, 700m, Grade- PD Alpine Style, Successful First Ascent, Weather fine but cloudy

Location- 42° 4'23.26"N, 79°41'53.49"E

Description-Cross from Kaindy glacier onto scree slopes on the NW flank of the peak, to the W of the glacier flowing South to North down the same flank of the peak to meet the Kaindy glacier. Climb stable scree to reach a large headwall of ice (formed by the tongue of the glacier) which is turned on the right by descending into and crossing a small gully with easy-angled ice until a plateau is reached. At the south end of the plateau a snow slope of 35 degrees is used to gain a broad ridge. This can be climbed along the crest or down on the right hand (SW) side above rock on the right. The ridge is easy angled for the majority of its length but steepening to a 45 degree

face for the last 70m.

The summit is the first of a series of pinnacles forming at greater ridge feature to an unclimbed peak to the South.

Notes: The lower half of the route may present a modest danger of rockfall on the scree slope. The crest of the snowy ridge is part of a glacier, we do not believe that there is much in the way of crevasses on the crest, but care should be taken. When gaining the summit care should be taken as depending on conditions and exact route taken, there may be rotten rock or cornices.



25/08/16- Conor (solo), Thomas & Kora (one rope), Alek & Matt (one rope). Successful first ascent.



Looking back at Peak Svyatoye Mesto

High Points and Routes

North East Shoulder of Ridge, East of Przhvaivski Glacier

Location 42° 4'50.05"N, 79°42'4.21"E

09/08/16- High point reached by Owen and Thomas. Very poor snow conditions. Perpetual sinking up to the waist. Reached a high point on the ridge and further climbing (swimming) would have been ill advised.



Route up to high point 4350m

High point on West face of Peak 5001m via Glacier Bay 5,
10/08/16- Attempted by Rooney and Michael. Very poor snow conditions and objective danger. Climbers eventually retreat.



High Point on East Ridge of Peak 5061 at the top of the Merzbacher glacier
Location 42° 1'49.61"N, 79°39'55.47"E
16/08/16- Attempted by Alek and Thomas. Concerns over the conditions of the ridge led to a decision to retreat.



Photo taken during the attempt. Climbers approx at their high point.



Photo taken half an hour later during large avalanche.

High Point on East Face, approx half way up Merzbacher Glacier

Location 42° 2'42.32"N, 79°39'32.66"E

22/08/16- High point reached by Alek, Conor and Matt. Ice climbing until heavy barrage of ice and rock forced a retreat.



High Point on South Face of Peak “Sitting Lady”

Location 42° 6'14.01"N, 79°45'53.23"E

16/08/16- Attempt by Kevin and Kora. Heavy snow and rock fall. Rock fall cutting ropes. Retreat after 6 pitches of the traverse.

22/08/16- High point reached by Owen and Rooney. Soloed most of the route. Pitching of the upper slabs. Only 150m from summit forced to retreat. Running into a succession of dead end slabs and unprotectable steep choss. Peak finishes with steep tower.



High Point on West Ridge of Peak Dom

Location 42° 3'57.11"N, 79°44'46.19"E

22/08/16 Alek solos up to 4800m before backing off due to snow conditions. On a return visit the

next day a heavy snow fall and whiteout conditions end his attempts on the mountain.

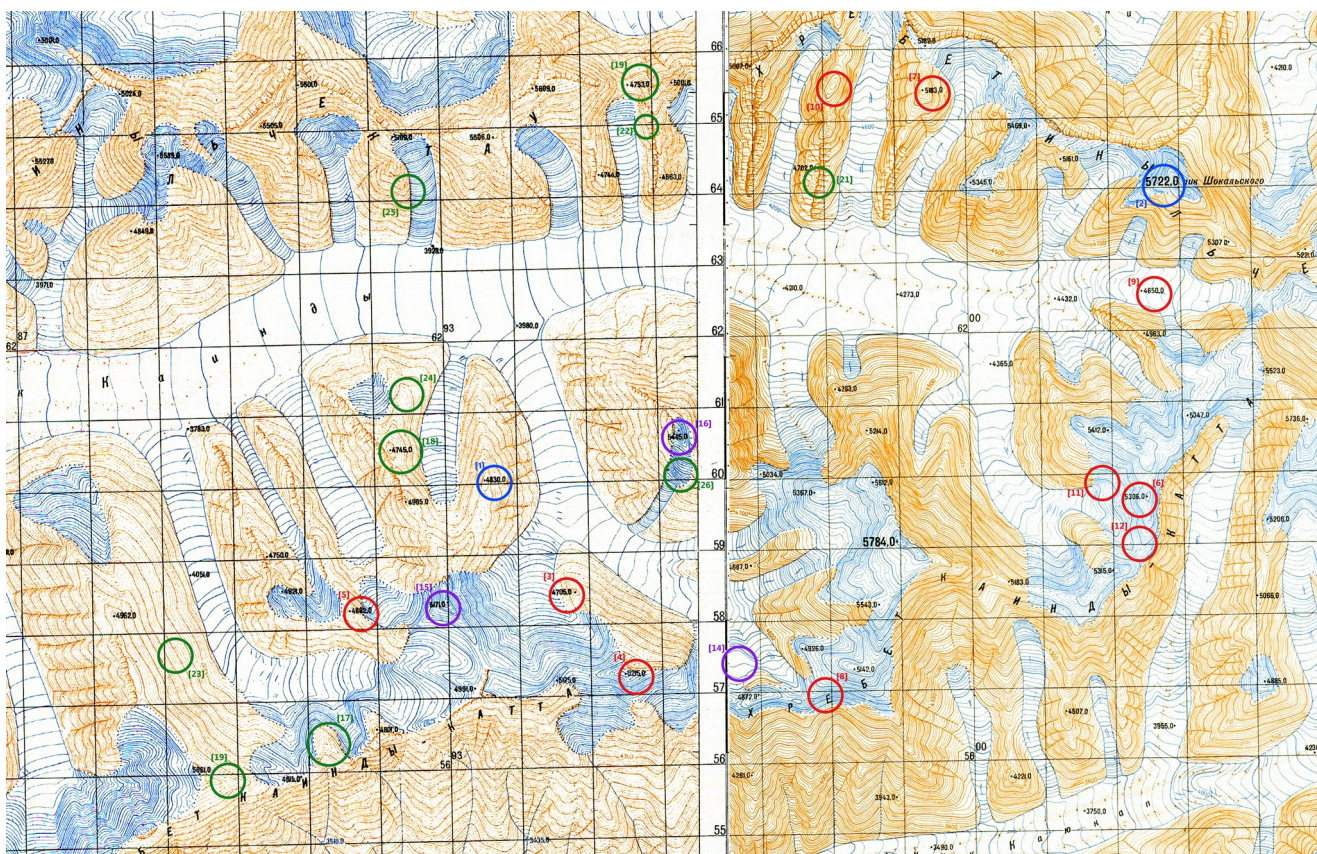
High Point on South Ridge of Peak 5000

Location 42° 5'57.64"N, 79°41'59.90"E



Route description: The team planned to gain the rocky SE ridge by the rock face (S face), and continue through mixed ground to the summit. The team scrambled up steep scree to the base of the rock, where, following five pitches of rock of various quality (up to UIAA IV), the ridge was gained. The ridge was sharp, with sparse protection. This factor, together with advancing time and weather, meant that a decision to retreat was taken. The team would have benefited greatly had they brought rock shoes. On the descent, a relatively new loop of abseil tat was found, evidence that the peak had been attempted by another team, most likely in the last couple of years.

11. Maps



Peaks climbed Prior to 1995

- [1] Satellite solo in 1995 by Lisa Holiday
- [2] Pik Shokalsky

Paul Hudson Sheffield Expedition –1995

- [3],[4]: Angel Peak (unsure which, discrepancies between maps)
- [5]: White Horse Peak
- [6]: Hunter Point
- [7]: Point of Damocles
- [8]: Snow Dome above Moshnyi Glacier
- [9]-[12]: High points

Polish Expedition – 2004

- [13]: Byssymylda

German / Swiss Expedition – 2013

- [14]: Moschny Pass
- [15]: Pik Molchavilyy
- [16]: Pik Dom

QUBMC Expedition – 2013

- [17]: Pik Oskal
- [18]: Pik Svyatoye Mesto
- [19]-[26]: High Points

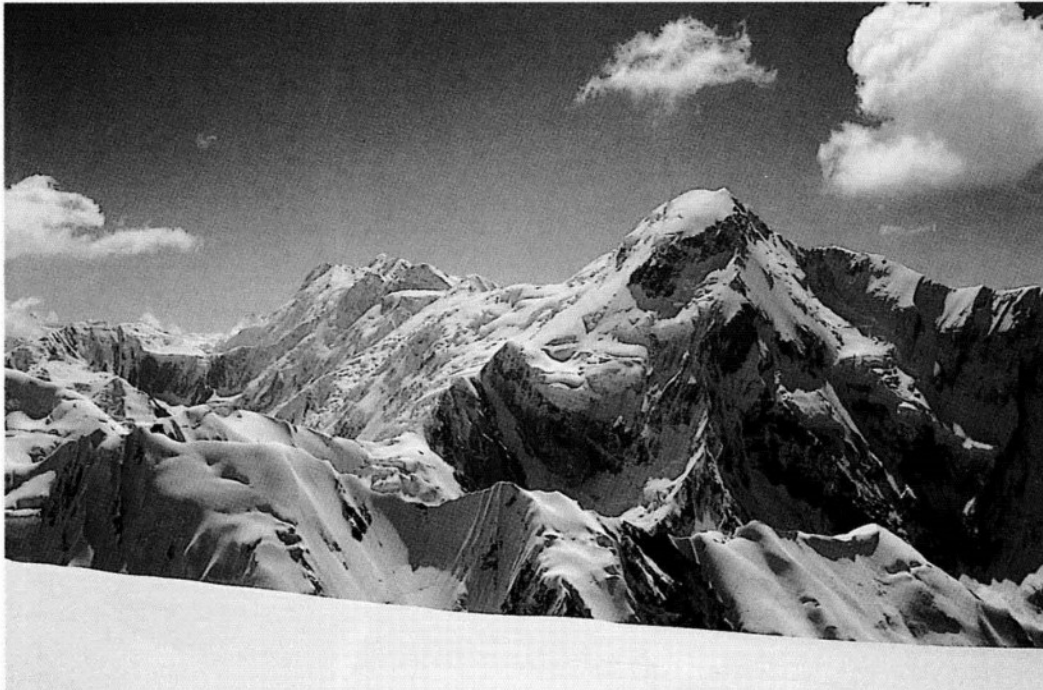
12. Conditions (weather, rock and snow/ice)

The weather was reasonably good during the expedition with less precipitation and more consistently sunny days towards the end. Unfortunately the snow conditions were consistently poor. Considerable amounts of snow combined with warmish weather and a lack of good freezing lead to soft dangerous slopes that we were reluctant to risk.

After the expedition the ITMC told us of guides reporting from nearby Khan Tengri that confirmed poor snow conditions in that location and a considerable and unusual lack of summiting among guided groups.

13. Future Exploration

The biggest unclimbed objective in the area is the as yet unclimbed Peak Kirov (6073m). The logistics to reach the base would be considerably simplified if a group were to use a helicopter and set up a basecamp close (but not too close) to the base of the peak. Given the right conditions it's possible an objectively safe route up the north face could possibly be found. As their report suggests the ridge attempted by Rob Collister and John Cousins would be a serious undertaking.



43. Pik Pobeda (L), 7439m, and Pik Kirov (R), 6073m, seen from the 5000m col at the head of the Kayndy valley. The SW Ridge of Kirov is the R skyline. The high point reached was the end of the horizontal section. (*Rob Collister*) (p140)

Picture from the 1995 British Tien Shan Kirov Expedition Report

Another worthy objective in the area includes the peak nicknamed Four Top by Paul Hudson's group. We had been eyeing up a route on the rocky southern slopes but did not attempt partly due to the considerable rockfall and avalanches that we witnessed.



The unclimbed Fourtop (second from the right).

14. Special Thanks

Special thanks to Alek and Vlad for kindly acting as translators and organisers. While it is perfectly possible to get by with English only, it greatly eased communication to have Russian speakers as part of the group.

A special thanks must go to Mountaineering Ireland, the MEF and QUBMC for their financial support towards this expedition. We are also grateful to the MEF for their donation of snow flukes.

15. Appendices

A. Finance

Finance

| Income (£) | | Expenditure (£) | |
|------------|------------------------|-----------------|---|
| Sum | Source | Sum | Source |
| 3000 | Mountaineering Ireland | 5100 | Flights (approximate) |
| 1650 | MEF | 230 | Border permits |
| 1150 | QUBMC | 306 | Minibus for transfer Bishkek-Karakol-Bishkek |
| 130 | Exped Talk | 367 | Cross country vehicle GAZ-66 for transfer Karakol-Maydaadyr-Karakol |
| 50 | Pub Quiz | 452 | Accommodation |
| 8523 | Personal | 6536 | Helicopter flight Maydaadyr- Kaindy Glacier- Maydaadyr |
| | | 160 | First Aid Supplies |
| | | 80 | Tat |
| | | 1072 | Food (~\$1400) |
| | | 200 | Various in Biskek and Karakol |
| 14503 | Total Income | 14503 | Total Expenditure |

B. ITMC Breakdown



ITMC Int Ltd

Travel in Kyrgyzstan and Central Asia

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E-mail: itmc@elcat.kg www.itmc.centralasia.kg

INVOICE

036-1 / 2016

Customer: Owen Largey
Address: _____
Tel. / Fax: _____
Service: Travel service in Kyrgyzstan

Date: 12/07/2016
ITMC Ref. Code: 37
Group, persons: 10
Travel dates: 29/07-29/08/2016
NB: -

| No | Service | Price | Pers. | Day/Hours | Total |
|----------------------|---|---------|-------|-----------|-----------------|
| <i>Accommodation</i> | | | | | |
| 1 | 3 rooms apartment in Bishkek (July 29-31; Aug 28,29) | \$70 | | 5 | \$350 |
| 2 | Home stay in Karakol (August 1, 27) | \$12 | 10 | 2 | \$240 |
| <i>Transport</i> | | | | | |
| 3 | Minibus for transfer Bishkek-Karakol-Bishkek (Aug 1, 28) | \$200 | | 2 | \$400 |
| 4 | Cross country vehicle GAZ-66 for transfer Karakol-Maydaadyr-Karakol (August 2, August 27) | \$240 | | 2 | \$480 |
| 5 | Helicopter flight Maydaadyr- Kaindy Glacier- Maydaadyr (Aug 2, 29) | \$3,200 | | 2h 40 min | \$8,530 |
| <i>Formalities</i> | | | | | |
| 6 | Border permit | \$30 | | 10 | \$300 |
| 7 | "Tramp" gas canisters, 230 gr | \$9 | | 15 | \$135 |
| 8 | "Kovea" gas canisters, 230 gr | \$7 | | 30 | \$210 |
| GRAND TOTAL: | | | | | \$10,645 |

(USD Ten Thousand Six Hundred & Fourty Five)

C. Dietary requirement advice (by Michael Campbell)

I wanted to write a section about an expedition diet when you have many allergies. There are many detailed diet plans available these days, from mountaineers with years of experience, focusing on required nutritional intake and what's easy to prepare. This won't match the calibre of those, but rather will be an account of my blind stumblings in hope that someone in future doesn't make the same mistakes.

Personally I'm allergic to whey (cow's milk protein) and intolerant to gluten and red meat. Difference between allergy and intolerance being the former involves the immune system and the latter sums up to "my stomach is too useless to digest this". Combination of modern day hippys and the old mountaineering adage "man up", probably has most thinking that intolerances are nonsense. However if you can't digest it then it comes back up, and if you're vomiting all of your meals then you aren't going to be climbing very hard. Personally I had three separate forced rest days that I spent lying in the snow vomiting. It is a waste of time in good weather windows and the day after it makes hiking/climbing harder having zero calories the last 24 hours.

The entirety of the expedition food was to be bought in Osh Bazaar, but I couldn't depend on being able to find enough to eat so I planned to bring all my food with me, anything I found at the bazaar would be a bonus. I booked an extra hold bag on flights, 23kg allowance and filled it to the brim. To help organise I used the nutritional plans from the 2012 QUBMC expedition report, written by Alek Zholobenko, and aimed for a daily intake of 4000 calories and 150g of protein.

For me personally it seemed like far too much calories however I wouldn't have any other food on the glacier and it was better to have too much food than too little. *(I did have a fair amount of left over food, but I did also come back from the glacier 9kg lighter so I'd say in hindsight the calorie amounts were about correct. The difficulty was being bothered eating them.)* The main difficulty is getting enough fat and protein when you can't eat cheese or cured meat. I had three main foods to get round this, Builder bars, Huel and peanut butter.

The summarised breakdown of all the food I brought is below. In addition to the food below we found ytka (cured duck) in the bazaar, a discovery which hadn't been matched since the Israelites recieved mana from Heaven. A large amount was bought for the group but I ended up eating almost all the delicious utka single handed. Something I will owe the others for a long time to come! But, as a result very little of the peanut butter was eaten.

Also common at the bazaar was bales of white translucent corn noodles, gluten free so these were also bought. When we tried to cook them, we couldn't cut them with any of our knives no matter how sharp. A set of scissors which later in the trip snipped metal wire, had severe issues only eventually cut through the noodles with repeated hacking. They were very slow to cook and when finally cooked were chewy and tasteless. If you see these in the bazaar I would recommend staying clear!

Huel

I couldn't have completed the expedition without this. "Huel" is a meal replacement shake, essentially a protein shake that has your daily requirement of everything else, all your fibre, fat and protein. Drinking an entire meal is not for everyone, and takes some getting used to. I would personally describe it as drinking thick vanilla flavoured porridge. It's an incredibly quick and effective way to get a lot of protein and carbs into your system, you literally "Just add water". I originally planned to drink one shake a day on the glacier, so I wouldn't get sick of it, and use it as a quick breakfast at advanced camps. However while great at base camp, it turned out to be too much faff at advanced camps. Keeping enough water unfrozen for the alpine starts was difficult, and then downing 700ml of ice water is incredibly grim in the cold. Another comment is that after drinking, there's always a bit left in the bottle. If you don't clean it out, it goes off and smells horrific. And the smell gets into the plastic and anything you drink in future tastes like arse.

Highly recommend Huel, I now take it for quick lunches in busy days at work. For full nutritional breakdown, google.

Builder bars

My “on route” food. These are what I kept in my pockets and ate when I was hiking or climbing and didn't have time for faffing around. Even though I was sick of these long before I got to the end, I should have brought more of them. I ended up rationing them for when I was away from base camp and it would have been nicer to have been able to stuff my face freely. They are a lot denser than they look, and if you aren't hungry you have to force them into yourself (i.e. every alpine start) but they are tasty and full of protein. They even met the high honour of approval from the ever sceptical and highly pragmatic Alek Zholobenko.

Peanut Butter

At home in Ireland I live off this stuff, eating it straight from the tub with a spoon. It seemed perfect way to get fat and calories into me on the glacier. But at altitude your sense of taste changes and for some reason, I severely went off the idea of peanut butter on the glacier. Partly to blame was the tub that exploded in the bag on the way over. After licking clean a half kilo of peanut butter off a 90L duffel you might also go off the idea.

Smash

Needs no introduction. Name brand smash is gluten free and milk free, but so is the Tesco name brand. The Tesco stuff is cheaper, and comes packaged in small individual portions so is easy to divvy up during the trip. My dinners at advanced camp were smash with vegetable stock cube dissolved in the water. Tasty but without cheese or meat, it's a fairly liquidy dinner. Needs supplemented with Builder bars or ytka.

Dark Chocolate Chips, 65% cocoa

I found these on amazon in 1kg bags. By dictionary definition all dark chocolate should be dairy free, but in practice I've found most of it has milk for taste. Completely milk free chocolate that isn't incredibly dark is hard to find. I also should have brought more of these. Small chocolatey equivalent of crack cocaine. Not having massive nutritional value they were originally intended as a luxurious treat to break up the monotony but by end of the trip it became a daily staple. 80% of my free time was spent reading kindle and stuffing my face with these. For advanced camps I divvied it up into sandwich bags. I should have brought more of these (sandwich bags and the chocolate chips).

Halva / ХАЛВА

A solid oily block of crumbly brown stuff. Looks like cardboard, tastes amazing. I was introduced to this brilliant substance by the Zholobenkos, made by crushing sesame seeds and adding sugar. It's sweet to the taste, and is very dense and calorific to taste. A little is very filling but too messy to eat enroute. Bought at the bazaar it's allergen friendly and was enjoyed repeatedly with tea.

The summary of this is that even if you have allergies, there are still a lot of foods still available that work for mountaineering. Your diet won't be as varied as your climbing partners, you will spend more money and if you are moving between huts then you need to carry extra weight. But you can still get through it all, just takes more planning.



Early recognisance walk up the Merzbacher (photo by Conor Gilmour)



Ridge on (Pk Oskal (оскан) during descent (photo by Michael Campbell)

Participants (left to right)

Vladimir Zholobenko, Kora Przybyzewska, Matthew Boyd, Michael Campbell, Kevin Cheung, Conor Gilmour, Thomas O'Hagen, Owen Largey, Stephen Rooney and Aleksey Zholobenko.

