

81/6



BRISTOL NUN KUN EXPEDITION 1981



*Top Row (left to right): Damian Carroll, Barry Needle, Steve Berry
Bottom Row (left to right): Norman Croucher, Steve Monks, Richard Berry, John Margesson*

MEMBERS

The only person missing from this list who would have come with us is Arnis Strapcans (24), a close friend and leading Bristol climber who was killed in the Alps in the summer of 1980.

Steven K. Berry (Leader), Age 32. Introduced to the mountains by his father at the age of 12. Climbing experience includes one previous Himalayan expedition, also climbing in the Rocky Mountains and Yosemite, USA, a number of alpine seasons and extensive climbing in the British Isles, including the first ascent of the Bristol & West building!

Richard J. Berry (Travel Officer), Age 29. Younger brother who has climbed in Yosemite, USA, the Alps, the High Atlas Mountains (Morocco) and Great Britain.

John B. Margesson (Equipment Officer), Age 29. His father was amongst the first white men to view Nun Kun. His parents live in Chepstow. Already a well-travelled expeditioner having trekked in Nepal, climbed in the High Atlas of Morocco, Arctic Norway, the Alps, Central America and various mountain ranges in Africa.

Barry Needle (Food and Medical Officer), Aged 38. Climbed with SAB in the Himalayas in 1977. 16 years membership of a Peak District Mountain Rescue Team, numerous Alpine seasons and was a member of the 1974 Cilo Dag Expedition to SE Turkey.

Steven Monks (Photographic Officer), Age 22. Author of the new Avon Gorge guide book. He has already over 50 new rock routes in this country to his credit, mainly in the South West. He has made numerous ascents of the hardest climbs in the Alps and Norway.

Damian Carroll, Age 25. Seven years climbing in Great Britain, three Alpine seasons including many top grade rock and ice climbs, two expeditions to Norway, one involving the crossing of an ice cap and much white water rafting.

Norman Croucher, O.B.E., Age 40. Joined us after his own planned expedition to Gangapurna in Nepal fell through. Norman lost both legs below the knee at the age of 19 when, under the influence of alcohol, he fell onto a railway line and was run over by a train. This did not stop him! He recovered and, after training by walking from John 'O Groats to Lands End, he started a new climbing career. His artificial legs have taken him up more than 30 peaks in the Alps, including the Eiger, the Matterhorn and Mont Blanc. He has climbed twice in South America and scaled Huascarán (21,830 ft.) in Peru.

This year he is the Vice-President in this country for the International Year of Disabled People, and his outstanding achievement in climbing the White Needle Peak, 21,500 ft. and reaching the height of 22,000 ft. on the East Ridge of Nun will, we hope, go a long way in encouraging other disabled people in other spheres of life.

In particular it was Norman's own self-sacrifice that later, under bad weather conditions, allowed Barry and John the chance to reach the summit of Nun. We could not have asked for a better companion and his inexhaustible supply of jokes kept us amused the whole trip.



OBJECTIVES

1. To climb Nun, 7,135 metres (23,410 ft) by its East Ridge. This was to be the first British ascent and the second ascent of the East Ridge.
2. To climb Zaska I, approx. 21,500 ft, by its unclimbed North Face.

INTRODUCTION

Nun Kun is a mountain massif situated in Kashmir, North Western India. The massif comprises a great number of impressive snow and ice peaks, Nun and Kun being the highest of them, Nun, or Shel Changma meaning "Crystal Willow", is the higher of the twins. It is the highest peak in Indian Kashmir and we understand is rated as the 162nd highest mountain in the world.

Nun remained unclimbed until 1953 when the French climbed the West Ridge. However most of the reconnaissance work and early attempts were made by the British, dating back to 1898. These included an attempt by my father, Maj. Roy Berry. He too chose the East Ridge, but due to lack of time, poor weather and in particular the failure of their stoves, they had to be content with the second ascent of White Needle Peak, one of Nun's subsidiaries.

Nun has now been climbed a number of times, mostly from the West, but it was only in 1978 that a Japanese team succeeded in conquering the East Ridge. Apparently ours was the first British effort in the area since the time of my father. This is surprising as there are very many worthwhile objectives in this region and access could not be easier.

THE STORY

by S.K. Berry

Firstly I should start by saying that nearly as much work is done before and after as on the expedition itself. A great deal of excitement, for us, was actually in the successes we had in raising support and in seeing the expedition materialise from a dream to a reality.

Two years work went into the organisation and planning, and many problems had to be overcome, but eventually we formed a fully committed team, received our permission from the Government of India, raised the money, bought what we needed beyond what we had been given or lent, booked our flights, threw in our jobs, packed our bags and were off.

The last few weeks leading up to departure had been frantic; meetings, phone calls, piles of paperwork, rushing from one place to the next trying to secure items of essential equipment that were late in delivery, one problem after another, so much so that when Damian and I sat down in the Air India Jumbo 747, Flight 102 Heathrow-Frankfurt-Delhi it was a great relief.

MAY 5th to 13th

The two of us were flying out one week ahead of the rest in order to clear the various formalities in Delhi prior to starting our journey for the mountain.

For some time I had been corresponding with Alok and Rennie Chandola who live in Delhi and who have interests in hotels, a trekking and travel agency, and who take a special interest in climbing expeditions. Alok himself is a climber, having twice been to 25,000 ft on Nanda Devi and has climbed on a number of other Himalayan expeditions.

Alok met us at the airport at 2.30 a.m. and drove us back to his house, where to our utter amazement we had a room with bathroom en suite, air conditioning and servants to call upon.

These are marvellous people and we are forever in their debt; not only did they put us up all the time we were in Delhi but they stored all our expedition equipment and Rennie did miracles for us in guiding us through the maze of Indian bureaucracy, handling our customs clearance, onward travel etc. Her natural air of authority and quick wits had the highest officials bowing and scraping everywhere we went.

Great to be in India again, such a fascinating country where nothing, absolutely nothing, is the same as Great Britain. The heat, God the heat. Every day in Delhi saw the thermometer rise to well over 100 degrees F and at night it was not much cooler.

Delhi is a hive of crazy people rushing around on bikes, scooters, rickshaws and cars, all tooting at the same time and taking no notice of any traffic regulations – perhaps there aren't any! All manner of races, creeds and colours; rich men, beggar men, men in pyjamas, men in suits, women hidden by yashmaks, beautiful women in silk saris, all sorts of people.

However there was no time for sightseeing for Damian and I, and a week flew by during which we rescued our kit from the customs, met the BBC in connection with the film I was to make for them, went to the Indian Mountaineering Foundation (IMF) to rendezvous with our Liaison Officer, bought more gear in Delhi market, booked the bus, train and plane to get us to Leh, and spent some time in bed recovering from the expected dose of "Delhi belly".

13th – 16th MAY

More chaos ensued as we met the others off their flights and a few hours later, following on from a press conference, we drove to New Delhi station to catch the train to Jammu.

Being on a tight budget we all squashed into one compartment which contained eight sleeping berths, eight people, eight rucksacks and ten large cases of expedition equipment. We celebrated the start of our journey with a bottle of Glorious Twelfth Scotch.

It was a hot, uncomfortable night, the only relief was to be found by climbing on top of the carriage for a breath of fresh air.

Travelling across India with an expedition is a never-ending series of arguments with taxi drivers, bus conductors, lorry owners and rickshaw people who once they see you are at their mercy for transport use every possible means to extract the highest possible price. Just the same as any other country – but it takes longer! Changing from the train to the bus at Jammu was no exception.

First the prolonged negotiations with the railway porters, then by using the back door at the ticket office and paying a bit more we managed to obtain tickets. However the bus driver would not take our luggage so we paid extra for that, but still he would not take it and a full scale row started in which every Indian within earshot participated. Soon there was a crowd of 50 or 60 people all shouting and gesticulating. The station manager had the last word and wanted 100RS, we settled at 25RS, shook hands with those who minutes earlier were calling us all the names under the sun and off we went.

A further 12 hours bus journey through spectacular gorges and hill country brought us down into the fabled vale of Kashmir. This rich state surrounded by mountains is a paradise of green paddy fields and wooded countryside, but by the time we bumped our way into Srinagar at 9.30 p.m. all we wanted to do was sleep.

Sorry, not allowed – first you must have the customary haggle with the local hustlers, tricksters and taxi drivers. Eventually the police cleared the crowd for us and we drove to the house of a friend of Alok called Gafoor.

Here we keeled over after sampling some more of the whisky supplies.

Gafoor is a young man who is nearly blind yet he was one of the nicest people we met, very friendly, hospitable and cheerful. He has a newly-built house and 3 or 4 acres of orchard. We stayed here for two days.

15th – 16th MAY

Another two days of hassle. Originally we had intended travelling over the Zoji La Pass and thence into the Suru Valley, and on to our mountain. However this pass is blocked all year apart from the summer months and there now seemed to be some doubt as to whether it was closed. If it was open to traffic we knew we would save money and time. The answer was that it was barely open and still under the control of the army. It proved impossible to travel by this route so accordingly we took the flight to Leh in order to approach Nun from that side.

17th MAY

A day to remember. We caught the weekly Indian Airlines Boeing 737 early in the morning. We had by now bought most of our local food supplies and our kit had increased to around 700kgs. Panic! They would not take it on the plane. Then, equally mysteriously, it was loaded onto the aircraft and off we go again.

What a flight. Five minutes from take off and we were over snowy mountains as far as the eye could see. Great excitement, and the Captain allowed me to film from the cockpit. There's K2 (the second highest peak in the world) and Nanga Parbat and Gasherbrum, Masherbrum and a forest of famous peaks. Suddenly there is Nun, on the other side of the plane. What a giant, dominating the scene and although Kun is only a few hundred feet lower it seems insignificant in comparison.

All too soon we were past and descending towards Leh, capital of Ladakh, which sits in a desolate valley, overshadowed by its impressive palace and monastery; a bit reminiscent of Lhasa in Tibet.

Again we have a letter of recommendation from Alok addressed to a friend of his who owns the best hotel in Leh. We got Maharajah treatment for a fraction of what it would normally cost, and such good food!

However, a problem was looming up again in the form of the local taxi drivers. They wanted to rip us off to the tune of 3,500RS per jeep, four jeeps required, to our destination. We found a lorry driver who would do it for 510RS. The taxi drivers didn't like this too much and said it was illegal for the lorry to take us. In the end this slight difference of opinion was solved by taking the matter before the Chief Superintendent of Police. We ended up with one lorry and two jeeps to take us to Kargil.

18th and 19th MAY

Accordingly at 3.30 a.m. we stumbled out of bed for the most impressive 7½ hour road journey I think I have ever had.

We were sorry to leave the magical city of Leh with its red-robed monks, Buddhist shrines and Tibetan-looking people, but this drive made up for it.

The tortuous road took us over two major passes, the Fotu La, 13,479 ft and the Namika La, 12,500 ft. For some of the time we were driving beside the River Indus, at other times through deep gorges, everywhere arid, rocky, desolate hills with snowy peaks as a backdrop. A geologist's fantasy; the hills having all kinds of contorted strata and varied coloured rocks. Occasionally there would be an oasis with Ladakhi villagers scratching a living and near the Namika La Pass we saw the famous Lamayuru Monastery.

Kargil is a bit of a dump, a scruffy town but with an excellent tourist bungalow and very helpful tourist officer, whose help we were to be very grateful for later on. Firstly though we had another row with our taxi drivers verging on the scale of an international incident, which was only solved by the intervention of the local Sessions Judge. The local bank manager was dug out of his house at 8 p.m. to pay them off as we had run out of cash, and we heaved a sigh of relief to see them drive off into the sunset.

A day of comparative rest followed, during which we purchased our supply of paraffin, cashed some more money and paid a courtesy visit to the District Commissioner for the State of Jammu and Kashmir. A very pleasant man who promised to be very unpleasant to the taxi drivers from Leh if the occasion and opportunity arose.

20th MAY

The last leg of our road journey. Just one lorry this time, which took us bouncing up the dirt road towards Panikar in the Suru Valley. This long, deep, fertile valley was quite a change from the desert-like scenery from Leh.

We checked in at the police station at Sanko where we signed a register, noting that Mickey Mouse had been there before us, and Barry posed handcuffed to the local Bobby.

Ever onwards, jolting and bouncing along the rough track, until we came round a corner and there was Nun. I expected to be impressed, but I was stunned. So was everyone else! It dawned on us it was going to be very hard work getting to the top.

Further on the lorry got inextricably stuck in a snow drift so there we camped for our first night under nylon.

By now we had with us Ghulm Rasool, Russell to us, who was the son of one of the important families in Panikar. He wielded a lot of influence and the porters did just what he said. We were paying Russell to take film back to his nephew the Tourist Officer in Kargil, and so by keeping him happy we kept the porters happy.

21st and 22nd MAY

Two days of marching with our 18 ponies and nine porters were to bring us to Gulamantongus, the end of the road, and the start of our trek to the base of our mountain.

During these two days, three of us took a short cut over the Purkutse La, 13,500 ft, which gave us beautiful views of the North face of Nun. Our course was now taking us through breathtakingly beautiful mountain country, past the snout of the mighty Gangri Glacier and on, up a road strewn with massive rock falls, avalanches and deep snow drifts. We felt sure it would require an army to clear it for the summer months. To our amazement when we came down off the mountain on 2nd July this work had been done!

On our walk we bumped into an Englishman and, stranger than fiction, it turned out to be a friend of John's who, upon hearing of our expedition, had followed us out from Delhi. He delivered a letter to me from the IMF concerning Dr. Thomas Mutch.

Dr. Mutch was an American space scientist who, in 1980, had disappeared whilst climbing Nun. The Daily Telegraph had reported on its front page that he had been kidnapped by the Russians at a height of 22,000 ft. Intrigued by this report and not wishing to end up in a Labour camp in Siberia, I wrote to the IMF for information. They were now keen that we should locate the body and bring it down the mountain.

23rd and 24th MAY

The river crossing! this proved to be more exciting than I imagined, particularly as I very nearly got swept away. Even the horses had trouble and talk about cold water, it numbed one's feet, legs and other parts within seconds.

The night of 23rd we camped at a spot known as Moraine Camp and the following day struggled and stumbled up the side of the Shaffat Glacier. The ponies were remarkable, crossing steep, treacherous ground. At one point a pony missed its footing and literally somersaulted three or four times down the hillside. By luck it was stopped from rolling to its death. The porters seemed to think the horse was at fault and proceeded to turn the air blue with their cursing.

We had now reached Bullock-Workman's Camp at approx. 15,000 ft, named after the famous American couple who had been there in 1906. From here we now had our first views of Nun from the East, and Zaska I still a long, long way away.

25th – 29th MAY

We were now on the snowline, and these next few days were spent in shifting all our kit up to where a Japanese team, attempting Kun, had their base camp. We arrived as they left, and discovered one of their members was seriously ill with high altitude sickness. He was flown out by helicopter.

This was our first taste of the really hard work involved in load carrying "up the hill". For the first day we had the nine porters, but then we paid them off and were on our way. This was a great feeling, just the mountains and us. The nearest telephone was at Sanko, five days march away.

I should like to make a slight digression here, for it was at this point that our Liaison Officer, Mr. Neelam Kumar, left us. He had been a pain in the backside from day one, and I'm afraid to say we had grown to dislike and distrust him. Our fears were not unfounded. He said to us that he wanted to go trekking for two weeks and so we lent him 700RS and waved goodbye. We did not see him again until we were flying home from Delhi airport, where he returned our equipment but not the money.

We also discovered that, having left us, instead of trekking he had returned direct to Srinagar where he stayed 18 days with our friend Gafoor. He was met four days later by his wife, and not only did he not pay to stay there or for any of the food that was cooked but borrowed a further 200RS from Gafoor. Certainly at the time we left none of this had been paid back.

Lastly concerning Neelam Kumar, apparently when he arrived in Srinagar he sent a letter to the IMF accusing us of not providing him with a porter or cook, when in fact he did not carry a single load, not even his personal rucksack, nor did he do any cooking. He likewise accused us of climbing White Needle without his permission, when again we had discussed it with him and he had given us his verbal approval.

A thoroughly nasty piece of human flotsam, but I am glad to say not typical of Indians as a whole. We met during our stay countless people who were extremely kind and hospitable to us.

Our Base Camp (BC) was at 16,250 ft on a snow plateau and unfortunately we had set down next to the Jap site in a slight dip. One morning this turned into a small lake, threatening to make ours the first underwater camp at over 16,000 ft.

For all our problems we had by the 29th established an Advanced Base Camp (ABC) at a height of 18,400 ft and our route was easy and safe. We had dropped into only a couple of small crevasses, and there was only one steep section under a huge rock lump that from a distance looked like a rabbit. Our ABC was just above Rabbit Rock in what we thought was the only certain safe spot.

Halfway between the two camps we had a 'dump' of equipment and spare food which was soon broken into by Mountain Choughs. These birds tagged along to 19,500 ft constantly looking for opportunities to share our precious food supplies.

30th and 31st MAY, 1st and 2nd JUNE

Up until now the weather had been good; clear nights, sunny days with a little snow in the afternoon, but now Nun was aware we were here and showed us she was not going to give in easily.

The storm started and went on for four days and five nights. Just continuous snow and wind making movement, particularly bowel movement, highly uncomfortable. Cooking was a desperate affair, even in our deep snow-trench-kitchen with covered roof.

Life was an endless round of scrabble, cards, reading, writing diaries and sleeping. Sleeping was an uncomfortable experience, punctuated by attempts at keeping the snow off the roof and dreams of being buried alive.

3rd and 4th JUNE

What was this? – sunshine! The lethargy had to be dispelled and heavy loads strapped on our backs for a carry to ABC. 5½ hours of torture saw us at ABC where the tents had been partly collapsed by the snow. It had been extremely exhausting plodding up through all the fresh snow. Our special cross country skis and snow shoes helped but no words can convey the agony of high altitude exertion. Cruel weather – another storm on the night of 3rd covered our tracks, and all that hard work had to be repeated. The altitude by now was beginning to tell but our enforced stay at 16,250 ft. helped a lot in our acclimatisation.

5th, 6th and 7th JUNE

Steve Monks and Damian had now pushed out ahead and had located the site for Camp 1 (C.1) at about 19,500 ft. This was at the foot of the ridge leading up to White Needle Peak. What a sensational place! The two tents were literally on a small snow shelf, 3 - 4 ft away from an enormous vertical drop.

The panorama of peaks had now really opened up for us. To the South, East and West was a vast array of amazing Himalayan peaks. These included Sickle Moon, Bramah I, Zaska, I, II and III and literally hundreds more. Most of them are almost certainly unclimbed, unnamed and not even surveyed. Nun still towered above us, blocking our view of the Karakoram, but now we could see the route ahead. It looked steeper and more dangerous than we had imagined from the photographs we had, but the feeling filled us all that at last we were making positive progress, another couple of camps and 4,000 ft and we'd be there!

Again the route between ABC and C.1 was easy and safe, there were only two large crevasses for which we left a rope in place. However we found that in cloudy conditions it was easy to lose the way on this section.

We were all now established at ABC with all the gear and food we needed and there was a fair amount of praying going on for good weather.

8th, 9th, 10th, 11th JUNE

However the weather again took a turn for the worse, trapping Richard and Barry at C.1, Norman, John and me at ABC, and Steve and Damo at Base where they had gone briefly for a rest. A day spent lolling around in a tent seems to pass by all too quickly; a lot of the time is taken up with thinking about, discussing, preparing and eating food. Wild cravings develop for ham sandwiches, sausages, steak and chips, mushrooms on toast, bacon and eggs, fish and chips etc. etc. English food was the thing we missed most. Or was it real ale? Certainly sex was not in the forefront of our minds as is the case back home, but was relegated to the realms of subconsciousness.

By now we had been on the move or stationary since our first day's march on 21st May, a total of 19 days, and we kept consciously estimating our stock of food. If the weather kept up this barrage of snow and wind we would all have to return to Base for another massive carry from our Zaska I reserves – an unthinkable task!

However things gradually improved and between bouts of bad weather we managed another two carries to Camp 1. Richard and Barry did a recce halfway up White Needle ridge and Steve and Damo came up again from BC with a surprise visitor.

Robin Moyors is a freelance photo-journalist and having read of our expedition in Delhi had decided to follow us out to get a story about Norman for *Time Life* magazine. He arrived at ABC with minimal gear and ½ box of cherries, which we promptly ate and regretted it. He told us of fresh bear tracks round our Base Camp, but luckily on this occasion the bears had done no damage.

The quantities of snow that were falling on us were appalling and one morning it completely covered the tent doorway making it difficult to get out.

Needless to say as we went further and further above the snowline so, at night, it got colder and colder. Most nights the temperature was around -20°C , and one night we recorded -30°C at both Camps 1 and 2. However the thermometers were not very reliable so these figures could be inaccurate.

However, the weather began to show signs of a let-up and my plan was to allow John and Norman to have a go at White Needle and so they set off from Camp 1 on the 11th. We glimpsed them briefly, slowly going up the ridge, and halfway up they bivouacked for the night.

Norman's account of their climb is as follows:-

ASCENT OF WHITE NEEDLE PEAK

11th and 12th June

By 3.00 p.m. the weather had worsened to moderate wind and light snow, so we decided on a bivi in a snow pit at about twenty and a half thousand feet. This put us in an ideal position to descend the next day if need be, or ascend if the weather allowed. The night was cold and stormy, but a double Goretex bivi bag made it safe, if not comfortable.

The morning of the twelfth was extremely cold and the stove would not light at first, but I managed to get it going inside my rucksack. The cold and bad weather made us wait until 9.00 a.m., when we roped up and gave it a try. Within five minutes John had gone thigh deep in a crevasse, a fate which we were both to suffer a few times over the next few hours.

Snow conditions were far from good and we sank to the knee. Worst of all, though, was the weather, with very poor visibility. John broke trail almost all the way, and had all the hard work to do because of this.

Shortly after noon we reached a spot where Barry and Richard had dumped a load and turned back. We added a stove, fuel, bivi bag and a snow shovel to the little pile.

The weather turned very bad, "If it doesn't get better we'll have to go down", John said.

Half an hour later we were still hoping the weather would improve, which it did for short periods. We went on. At its steepest the slope reached about 50° and we were a little concerned about the possibility of avalanche. We ploughed on through deep snow and hit the summit ridge, running at right angles to our path of ascent up White Needle's steep back. We then turned left. The ridge was heavily corniced, forcing us to keep some way down, with awful exposure on the left. We were on the summit by 2.20 p.m.

The weather cleared briefly, allowing us to confirm that the way over White Needle was a reasonably safe way. We descended to ABC that day.

Taking into account that fact that three out of five previous expeditions failed on Nun's east ridge, and one successful expedition put only two out of fourteen people on top, I did not seriously expect to get to the top myself; I was there to help. White Needle had attracted me from the first time I saw it, and climbing it put quite a little ache inside; I had climbed a Himalayan peak of modest height, and whatever happened next I would not go home with an empty heart. This cheered me a great deal, for it helped me to accept more easily that now the task was to get someone, anyone, on Nun's summit. I wondered, in the unlikely event of my joining a summit attempt, if I had what it took to sacrifice my own chance if the need arose, but the ascent of the elegant White Needle made it easier to contemplate that option.

13th JUNE

By now Steve, Damo, Barry and myself were poised at C.1 to push the route on to Camp 2. We had begun to believe the weather was never going to clear and the summit would never get any closer, but now on the 13th, always a lucky number for me, the weather turned and the sun shone down out of a cloudless sky.

8.30 a.m. found the four of us clawing our way up the ridge. This was what it was all about! Almost knife edged in places with enormous drops on either side. Then, just after a steep section with a fixed rope, Barry, in front of me, slipped on a section of ice (he had no crampons on), he fell and stopped himself sliding by using the point of his ski-stick. For one horrible moment I thought he was going over the edge but he managed to get his axe free and recovered himself. I hastily put my crampons on!

Soon the magic 20,000 ft barrier had been broken and in high spirits we reached an area where the ridge broadened out into a small plateau before the final slopes of White Needle. Here we could look down on the enormous snow plateau 3 miles wide between Nun and Kun, and were almost on a level with the top of Zaskar I.

I had come up in fairly minimal clothing and was now getting cold. I therefore bade the others good luck and returned to Camp 1. Barry went on to the summit with the other two who then descended the other side to the col between White Needle and Nun. Here was to be Camp 2 and the start of the East Ridge.

My plan was basically to put Steve and Damo out front for the route finding and 1st summit attempt as they were our most accomplished ice climbers and were "going well". The others of us were to be lined up in a 'queue' ready to occupy Camps 1 and 2 as they became vacant. Richard and I were to be next followed by Barry, John and Norman. I have said little about Norman so far and this is a good point at which to relate something of his performance. If you have been with him for anytime the fact that he is disabled becomes almost forgotten. He is great to be with and only slightly slower at climbing than the rest of us. Nearly all the time we had to contend with soft, deep, snow, which is exhausting work for a normal man — it didn't stop Norman! Certainly he did not carry as much — perhaps this was because he had a smaller rucksack?!

I thought after his supreme effort on White Needle that he would be content with that. The route ahead on Nun was long, and looked dangerous and difficult. White Needle had to be crossed again and at this time Norman, too, was of the view that it might be too much for him. It says something of the man that his thoughts were for his companions, and his attitude throughout was that if he felt he was impairing anybody's chances he would bow out gracefully, and Norman is very graceful! We had agreed, therefore, that Norman was to go with John and Barry as far as Camp II from where they could assess their chances.

14th JUNE

First, though, we had to try and find a shorter route across the lower slopes of White Needle, so accordingly Barry, Richard and I made our way back up the ridge to the small plateau. Richard did not feel up to forcing his way with us across to Camp 2 so he dumped his load and soloed up to White Needle.

Barry and I started off to traverse the slopes towards Camp 2. We had a terrible epic and count ourselves lucky to be still alive. The route led under some wobbly looking seracs and then the slope steepened, the snow deteriorated, becoming thigh deep and liable to avalanche. Eventually we went on, alternating leads, Barry fell into a bergshrund and a little further we came on to steep ice covered with rotten snow. We could see Steve and Damo peering over at us from Camp 2, so near and yet so far! We agreed our lives were in imminent danger and edged carefully back in retreat. This meant that all attempts on Nun would have to be done by going over White Needle. We dumped our loads of food and equipment with Richard's and headed back for C.1.

15th JUNE

From my diary:-

What a day! Up 6.30 off by 7.45. Barry, Richard and I — the plan to pick up all the stuff left at the high dump and carry it over White Needle to C.2.

So off we go, lovely day, no cloud about. Trouble is when load carrying you have to take duvet, salopettes, cag etc. as even on a sunny day it's cold around 20,000 ft.

Snow from night before made the going hard. Richard led nearly all the way to the saddle. I led most of the rest to C.2.

Damo and Steve again late to appear, descended from the col and slowly traversed below the nasty bit to the East ridge and by 3.30 p.m. had parked themselves in the main bergshrund. When we did eventually get to C.2 we found that they had taken all their gear and food and so they must be going for the summit.

But what a day we had. Such a struggle getting up. White Needle, especially the steep slopes near the top — desperate. Then when we got to the top the cloud had moved in and it was pretty scary moving along the long summit ridge (goes on forever) with massive cornices to the right and mind-bogglingly big drops on the other. Nasty snow and poor visibility, but then you don't expect it to be easy do you!?

Just as it was looking impossible to continue the cornice disappeared and there was quite a large flattish area. We had expected a steep dangerous descent to the col, but here we were surprised. It was a doddle, and only 200-300 ft. A real surprise. A Jap fixed rope over some ice.

Having got down the clouds parted and there was Nun looking more impressive than ever. Kun, powerful, all rock, as a backdrop. Knackered!

Dropped our loads, took some film, ate some sardines and then off back again, me lagging behind with another headache. Combination of sun, altitude, too much work and very little drink.

By the time we were on White Needle I was in a right state, giddy, weak, bad headache.

Shepherded back down to the saddle and Richard and I went right down the ridge to C.1 roped, in a very exhausted state. Still only 9½ hours total.

MY FIRST HIMALAYAN PEAK OVER 20,000 ft.

16th JUNE

Success for Steve and Damo! We watch through the binoculars as they climb the 650 ft steep slope above the bivouac in the bergshrund. Their ascent is described below mainly from extracts from their diaries, Damo writes:-

13th JUNE

“. . . All three of us have heavy sacs and the last stretch up the steep slopes was very strenuous. Got to the top of White Needle at 13.40. Knackered! Barry dumped his gear on to us and set off back to C.1 in very poor conditions, while Steve and I carried on over the top to the col. We got lost on a steep ice slope and had to rope up to climb out, losing the shovel during the precarious manoeuvres. Found ourselves on top of White Needle as the clouds parted! We could see John and Norman's tracks about 100m. away and 15-20m. lower down where they had stopped below what we all had thought to be the corniced summit. "Our" summit is flat and rectangular and gives FANTABULOUS views all round: Nun dominates but Kun and the snow basin are spectacular. The East ridge of Nun, which we should attempt tomorrow, looks very steep, narrow, and a difficult proposition.

Only two minutes down to the col, which is broad and flat and in a great position. Tent up and in our pits by 18.00 (but with frequent stops because of thin air). Camp 2 is in place and in operation."

14th JUNE

Steve writes:-

"We'd arrived at C.2 the day before after a long and hard carry over the top of White Needle. This morning we'd made a brief reconnaissance out on to the East ridge — or the slope just below it — but were turned back by continuing steep and hard ice after only a couple of pitches.

We decided to rest up that afternoon and try a different route again tomorrow — I, in particular, was feeling very tired and was glad to have this short respite."

15th JUNE

“We woke at 4.00 a.m. — it was very cold but still and clear — good weather for a summit attempt. Unfortunately the altitude was starting to have an effect on me and I was feeling slightly ill. Damo made some tea for breakfast while I dozed. Neither of us could manage a whole Mars bar.

I found myself very reluctant to move from my sleeping bag and continued to doze, hoping I'd feel better late on. Damo accepted this stoically and we eventually got up and moving at about 8.00 a.m. From the edge of the col we descended one rope length, over a bergshrund which ran all the way along the slope below the East ridge, and on to the slope below it. It was as we had hoped, less steep, but had a deep covering of powder snow.

We set off traversing the slope, leaving our descent rope in place and immediately found it very hard going. The snow varied from knee depth almost up to our waists and progress was very slow — we were only able to take ten steps or so before having to rest and catch our breath. After several hours we had only covered four rope lengths — 600 ft.

The day continued in much the same monotonous vein. All the time we were ascending slightly, keeping just below the bergshrund, the East ridge rising up higher and higher above us. After about nine hours we reached the point where we had decided we would re-cross the bergshrund and ascend the slope above to the east ridge proper — we were now well past all the rock pinnacles which had barred the start of the ridge. By this time we were both very tired and decided to stop here for the night — bivouacking in the bergshrund itself. We ate a little dried meat for supper and drank as much tea as possible as we were both dehydrated. We both had a good night's sleep, although the temperature fell to about -20°F (-29C), and got moving at about 8.00 a.m., when the sun had started to warm us up. The start of the day produced the greatest difficulties that we were to find of the climb. A difficult step over the bergshrund followed by a steep and hard ice pitch climbed on the front points of our crampon and tips of our ice axes. We left our last spare rope hanging down the top of this pitch to help our descent over the bergshrund.

The slope above continued steep — about 60° — although the ice was less hard, and slightly less exhausting to climb. It took us another three hours to climb the remaining four rope lengths to the top of the slope and the East ridge proper.

We both felt very elated as we reached the ridge as we knew the main difficulties were over. We were now in patchy cloud but had a splendid view down the other side of the mountain — a view we had been longing to see for many weeks.

Above us the ridge continued steep and sharp for perhaps only another 200 ft or so and then broadened out to a last steep bulge before gradually easing off to the wide summit plateau. We set off again.

The cloud closed in on us from time to time on the ridge and I began to feel very tired again. We stopped and ate a Mars bar as we had not been able to eat any breakfast this morning. Damo set off again going very slowly although the snow was deep and my movement at this altitude — 23,000 ft — very exhausting. I trailed along behind.

Eventually the angle started to ease and we realised we were now very close to the summit. Elation produces new energy, and this combined with the now windswept and hard snow speeded us up considerably.

We moved along the summit plateau as the angle was easy and we had to hurry as it was getting quite late (about 5.00 p.m.). We reached the top at about 5.30 p.m. There was patchy cloud and it was very cold with a moderate wind. We took a few photographs and started to descend almost immediately. We had left our bivouac equipment in the bergshrund and knew we had to get back to it as we would not have survived the night out without it at this altitude. The descent was infinitely easier and in the end it only took us two hours to get back to the bergshrund — the ascent had taken us almost ten. We were both totally exhausted and simply crawled into our sleeping bags and slept.”

17th JUNE

Damian writes:-

“ . . . Last section up to C.2 is desperate. Steve almost out on his feet, I'm not much better. Down to only five steps at a time; cloud, wind, spindrift, exhaustion, misery, anywhere-but-here. Big avalanche behind us.

The 'schrund collapses beneath me and I'm smothered and angry and frustrated — but eventually I pull onto the ice slope and painfully go up to get a rope for Steve.

. . . 55° angle, tangled rope. Automaton exhausted movement, fumbling for so long that eventually Steve staggers up and out of the cloud, his tiredness hiding the icfall below him. Uncontrolled drunken staggering back to the tent and food and drink and rest and safety. Two Mars bars and two cups of water since the evening before last — two emaciated and disillusioned climbers. Never again.

Later that night, miles below at ABC I write: “Food, rest, warmth.

LUXURY.

WE'VE DONE THE BASTARD!!”

Amazing how a mountain takes on a personality when you've struggled so long.

Meanwhile Richard and I were preparing for our summit bid and first, from C.1 we had again to climb back to C.2 taking all our personal gear, equipment and more food and paraffin. Again an exhausting climb but in better conditions; this day it was Richard who was feeling all in, and so we dumped a few of his things that were not absolutely essential.

We met Steve and Damo at C.2, congratulating them on their success, eventually they pushed on off to ABC leaving us to brood about the coming two days.

18th JUNE

A storm in the night put paid to any advantage that could have been gained by following old tracks.

Off by 7.30 a.m. and first an abseil down an ice pitch. Unfortunately at the end of the rope I was still dangling on steep ice, so followed a lengthy and exhausting series of manoeuvres to bring Richard down and to climb down off the ice to the easier snow slopes.

Not a good start to a really horrible day, traversing across steep rotten snow fields, mostly in mist, snow up to our waists in places, with all the time the knowledge that at any time an avalanche might roar down from above. 9 hours saw us safe in the bivi. Good job I had the mechanical genius along as the stove was just about in-operative. Ate some Sweet & Sour Pork and mash, to bed at 9.00 p.m.

19th JUNE

A long, hard day starting at 4.30 a.m. saw us dragging ourselves onto the summit late in the afternoon and back to the bivouac at nightfall. We had finished the job our father had set out to do 35 years ago!

20th – 23rd JUNE

And so back to Barry, John and Norman at C.2, (John's Account).

Sleep was shattered by the alarm – 3 a.m. I put on a brew and stuck my head out of the tent. It was still dark, but there were no stars to be seen and a bitter wind was sweeping over the col from the north; not an encouraging prospect. I woke Barry and Norman and we eventually staggered out into the excruciating cold and wind and set off at first light.

We had viewed the route through breaks in the cloud the previous day and now tackled the first difficulties, climbing down a fixed rope on the steep snow/ice slopes below the col. This was the same line taken by the previous parties and although the wind and snow had obliterated all tracks, we had a good idea of what was ahead from Steve and Damian's description. We crossed the bergschrund and started the long traverse on the snow slopes below, with Barry and I taking turns to break the trail. It was not unduly steep nor difficult, but the snow-slopes swept away in an unbroken arc to the ice-cliffs of the glacier below, and worst of all we found ourselves struggling through thigh-deep snow – each step an appalling effort and reducing us to automatons, gasping desperately for air. When we had seen Steve and Richard on this section we had wondered why they had been so slow – now we knew!

About 11 a.m. we met them on their way down, suddenly appearing out of the mist. They had made it to the top and were descending, tired but jubilant. What great news – if only we can do as well. The three of us pressed on and finally reached the bergschrund after 8 hours, too tired to go any further. So we settled into the bergschrund bivi and what a superb spot it was, being perched at the top of the snow slopes at about 22,000 ft and the steeper ice slopes overhanging above; the floor was fairly flat with only a few holes and the outward edge was protected by a 4 foot parapet.

After a surprisingly comfortable night we rose about 5.45 a.m. All three of us felt fit and well. We traversed along the lip of the bergschrund to the spot where Steve and Damian had left a fixed rope and where the route ascended the steeper slopes up to the East Ridge itself. This section, which we expected to be the crux, looked most intimidating; there was a 5 foot gap between the upper and lower slopes, and the upper slope was ice. Barry led off and even with the aid of a fixed rope it was an extremely strenuous move at that altitude; but he managed it and led on to a dead-man belay 90 ft above. Norman now tackled the bergschrund and it was a desperate struggle to pull and lift his legs onto the ice; after an hour he at last established himself but he was so exhausted from his endeavours that he was unable to continue. Sadly he made the decision to return; a great disappointment for us all. He descended, returning to the bivi. It was now my turn to tackle the 'schrund and with a strenuous struggle, gasping desperately for breath and with head swimming, I pulled onto the ice slope. This felt far from secure; the angle was about 60° and the ice shattered under axe and crampon placements. However, this pitch was the hardest and the following 560 ft to the crest of the ridge was on snow, still steep and exposed, but feeling safer. The weather however was not with us and we climbed pitch and pitch in a white-out and steady snow fall.

At last we reached the ridge, but there was little relief here, for it was a knife edge at first, then broadening and steepening to a 50° ramp with that awful, knee-deep snow once more. We remained roped, but moved together. Little technical difficulty on this section, but an appallingly hard slog and with the strain of constantly peering ahead into the white-out, trying to avoid walking over the cornice to the left or slipping too far down the slope to the right. We had been delayed by our struggles at the bergschrund and by the weather, so it was 5 p.m. when we at last reached the level area where the North Ridge joins the East Ridge. We were both exhausted, so we decided to bivi there and try for the summit next day, hoping also that the weather might improve. At the foot of the final section of the ridge, at about 23,200 ft, we found a sheltered hollow under an ice mushroom and settled down there for the night, digging into the snow bank to create partial snow holes.

Once again we both had a surprisingly good night and in the morning felt well. We were also immensely relieved to find that the skies had cleared over-night and now had breathtaking views from our eyrie over the snow plateau to Kun. Despite the bitter cold, we rose quickly and set off up the final snow ridge, first on one side, then the other, to finally reach the summit at 8 a.m. What a moment! We had made the top, to make it a success rate of 6 out of 7!! What is more we were fresh enough and felt well enough to enjoy our achievement. We shook hands and then indulged in an orgy of photography of ourselves and the incredible views in all directions, including Sickle Moon on one side and Nanga Parbat on the other. And we were looking down on everything – we truly felt on top of the world. The summit itself was marked with a small wooden cross, a ski-pole and Richard's umbrella; what will future ascensionists think of that!

We said a silent prayer for Arnis Strapcans, our friend who had died in the Alps the previous summer, and all too soon it was time to descend. We dropped rapidly to the ramp, where we once more entered the familiar white-out. However, our tracks were still visible and by 2 p.m. we had rejoined Norman in the bergschrund bivi. He had spent an unpleasant 24 hours with constant spindrift and snow slides falling in on him.

We had a quick brew and then descended once more, to C.2, feeling exhausted, but satisfied. The following day we evacuated C.2, carrying everything over White Needle and down to C.1. The enormous job of carrying everything off the mountain had begun.

24th JUNE

Meantime the rest of us had been resting, not that we had the energy to do anything else, even resting was hard work! So three days went by in the usual fashion, eating, reading, eating, writing, eating, playing Scrabble, eating, sleeping, etc. I kept worrying about the other three, the rest kept telling me not to worry, and our minds were taken off it by a new craze – solo whist. This we played into the early hours of each morning with the aid of candles, and hand torches suspended from the ceiling.

On the 22nd we'd seen briefly through a break in the clouds two sets of tracks on the 650 ft section indicating that they must be on their way back down.

Sure enough on the 23rd they appeared over White Needle and made it down to Camp 1.

Mid-day on the 24th we welcomed them into ABC. What a huge relief – we were all safe and sound and we'd made it to the top!

By now our food and fuel had been consumed at such a rate that there was hardly anything left, so we had already decided to break camp that day and head on down to Base Camp for a grand celebration. We were determined not to have to come back up to ABC, so nothing was to be left behind. These are the times when you discover just how much you can carry on your back. We constructed two 'sledges', made up of skis and pack frames and these we loaded up as well. Using two men to each sledge, and with Steve and Damo dragging loads behind them separately, we picked up our caravan, and said goodbye to ABC.

The sledges were pigs to handle and poor old John, fresh off the summit, was so tired that when he fell over it took him five minutes to get up again. We lowered the sledges down the steep slope at Rabbit Rock, after which the going became easier.

The thing that was a surprise was how the terrain had changed. Our good spell of weather, with every day sunny since 13th June, (nearly two weeks) had caused a tremendous 'melt'. Now vast areas previously covered in deep snow were either bare ice or rock. The landmarks had changed completely.

However, a much bigger surprise was in store for us! When we got to Base we found it had been raided, not by a bear as we might have expected, but by an Austrian team attempting Kun.

Our Mess Tent containing all our spare personal kit, including passports, airline tickets, money and film had been totally turned upside down and many of our things were missing. Not only that but our two bottles of whisky were gone and the Mars bars too. Our food dump had been rifled and every sack opened.

We didn't know whether to laugh or cry, sure as hell we became very angry and it was with difficulty that we persuaded Norman not to descend upon them and tear them limb from limb (he was Drinks Officer and he had promised to get us all drunk). Further they had inadvertently knocked over our main supply of paraffin, thereby threatening to spoil our chances of Zaska I.

We were stupefied and kept dazedly wandering around picking things up, putting them down again and saying things like: "There must be a rational explanation, mustn't there?" and "This can't be real, give me a kick, I must be dreaming."

When their leader, Franz Holzenberger, arrived next morning he was led into the Mess Tent where I refused to shake his hand and turned on the tape recorder. Poor bloke just couldn't stop apologising! Apparently having found our camp empty, their liaison officer had told them there was not supposed to be another expedition in the area (of course he only had information concerning Kun and not Nun), and also having found Steve Monk's diary, whose last entry was one month previous, he had assumed the camp to have been abandoned. Where he thought we were, God only knows! He seems to have thought we had all gone off down the other side of the mountain.

Such a gross error is almost unbelievable but in all fairness he tried to make amends by giving us back three quarters of our whisky and most of the other things, by paying us for food and film they had used, and by giving us food and fuel from their own supply, lastly by offering to take Norman with them up Kun.

I am sure most of their intentions were good and they had meant to take back our passports, etc. to the British Embassy. However, there is, in my opinion, no excuse for helping themselves to our whisky and personal possessions or for ransacking our camp – it looked like a bomb had hit it!

We parted on good terms and I shook his hand. Norman was particularly pleased with the turn of events.

26th JUNE

Unfortunately the Austrian leader showed up again with their Liaison Officer, who now gave his veto for Norman to join the Austrians. He was worried that if anything went wrong there might be serious recrimination against him.

We promised to give him a written undertaking, signed also by the Austrian leader, absolving him from any liability and argued that in the Year of Disabled People Norman's achievements would be of considerable International importance. He promised to give the matter further consideration and let us know his decision.

We spent the day preparing our plans for an attempt on Zaska I. Steve Monks and Damian declared that they felt the route too dangerous. After our mammoth effort on Nun, a route on the North face or North West ridge seemed out of the question and the proposal was to attempt a repeat, in Alpine style, of the 1980 Japanese route. This seemed the safest route up the mountain but the long ridge ramp from the North Col to the snow plateau was threatened by a group of seracs. We had seen one avalanche sweep this ramp three weeks earlier but having examined the seracs through binoculars felt the risk of another such avalanche was now greatly reduced.

Accordingly Barry, John, Richard and myself packed enough food and gear for a planned four day ascent. The first day was to take us from our present base camp to a new base of operations on the North Col., from there we were going to climb the ridge/ramp early the following morning aiming to arrive on the snow plateau above the serac barrier. The third day we hoped to get to the summit and back perhaps to the North Col. The last day would take us to Bullock-Workman's Camp to meet the others.

Steve and Damian volunteered to start load carrying down from Base Camp prior to going off for a bit of rock climbing lower down.

Richard and John had by now started on a survey of some of the surrounding peaks and further intended to finish this work after climbing Zaska I.

27th JUNE

Unfortunately the day started badly as although we got up early, for one reason or another, we did not get away until 9.15. One hour's steady plod across the flank of ZI's subsidiary peak brought us to the start of the climb to the North Col.

Norman had kindly carried a load across for me and now he headed back to Base Camp. On the way back he was lucky enough to see three or four Ibex making their way across the snow down towards the lower valleys. We think that they were probably on their way over from the Fariabad valley to the South of Nun.

Our climb started with a short ice wall and carried on up short snow slopes interspersed with crevasses. Anyway we stopped at an ice slope for lunch and were all sitting down when we heard a very loud rumble of an avalanche. I think Richard said "that's a big one" and I replied "But it's not here though". There may have been other comments.

Then there was a deafening roar and we all looked up – the avalanche was pouring over the ice cliffs directly above us! What a sight! Enormous. Someone, I think John, yelled "Run!"

Instantly I got up and started running down the slope. I thought sickeningly "I am a deadman, this is it, there's no chance." I fell on my face and thought "I'll be flattened any second" got up and ran again. The crampons I'd just put on were sticking in the snow, threatening to make me fall again.

I looked round, chaos, the avalanche coming towards me. Blocks of snow and ice flying past me, two of the others off on the left, it looked safer so I ran left.

Then I was out of it and stopped, looking round for the others. Two safe, a third (was it Richard) in the middle of it being tossed up then out of view. Oh no, he's buried! I shouted something like "Oh my God, not Richard" and immediately saw he was ok and yelled "Barry". Then, miracles, he sat up and we got him out. He had badly bruised his calf muscle. Incredibly, we were all alive.

Some of our gear was buried and three of our rucksacks had been thrown up together in a heap. A lot of kit was buried and lost, my camera although buried was found by chance and still worked.

What had made me unclip from the rope at lunch time? Richard was on the other end of it and running in a different direction.

Just a few minutes later and I would have been leading the ice slope – I would have had no chance. One of my more lucky escapes from the Grim Reaper.

We had to get Barry down, there was no question of going on. I think Richard said "That's our warning, let's count ourselves lucky and go down". We all agreed.

28th, 29th and 30th JUNE

A period of recovery for Barry and load carrying for the rest of us. The end of heavy duty work was now in sight as two horses and two men were due up to Bullock Workmans on 2nd July, with a further nine men coming up on 4th July. It seemed very odd to us that the expedition was drawing to a close.

Norman had learned from the Austrian leader that the Liaison Officer had come out against his participating on Kun, and accordingly Norman climbed back up to the Austrian Camp 1, next to Rabbit Rock, to talk to him. This resulted in the Liaison Officer changing his view and he in fact was very keen to see Norman make the attempt.

However, unknown to us, the Austrian leader had not consulted the rest of his team, and five days later after having given me his word that Norman would accompany him in the first summit party, his team took a vote and vetoed his decision.

Naturally Norman was very disappointed. The "no" decision was in fact a very understandable standpoint; they were a large party – 13 members, on a very tight schedule, they had only one month, and as we heard later they had inadequate fuel supplies.

My criticism is of their leader, who by giving us an undertaking to climb with Norman had put Norman to a lot of trouble, and yet again soured our relationship.

Another event of note was an attack on one of our equipment dumps by a wild bear. We had made quite a large cache of equipment between BC and Bullock Workmans, which also contained some flour and rice, and on the morning of 30th June, on my way up to Base, I arrived at this dump to find it had been ripped to pieces by a bear.

His tracks were very clear on the snow and our equipment was spread over a wide area, some of it had rolled down the slope and been swept away by a glacial stream. One of the boxes had contained a large metal cooking pot, this was found with holes in it where his claws had punctured the metal.

For the rest of the walk up to Base Camp I took considerably more interest in my immediate surroundings.

On the night of the 30th we actually received a visit into Bullock-Workmans Camp which we now shared with the Austrians, from a bear, probably the same one, he was seen by one of the Austrian's Sherpas. Their team members, sleeping in their mess tent, heard him sniffing round its outside. Probably the smell of our unwashed bodies drove him away; I had by now not taken my clothes off since the day the lorry got stuck in the snowdrift.

Richard and John finished their survey work and only one more important job remained, burying our empty tins. This we made a thorough job of, collecting at the same time all the other cans we found lying around in profusion. Within six months they will probably have been dug up again, as the porters seem to make this a habit, thinking these rich expeditions may have buried something valuable!

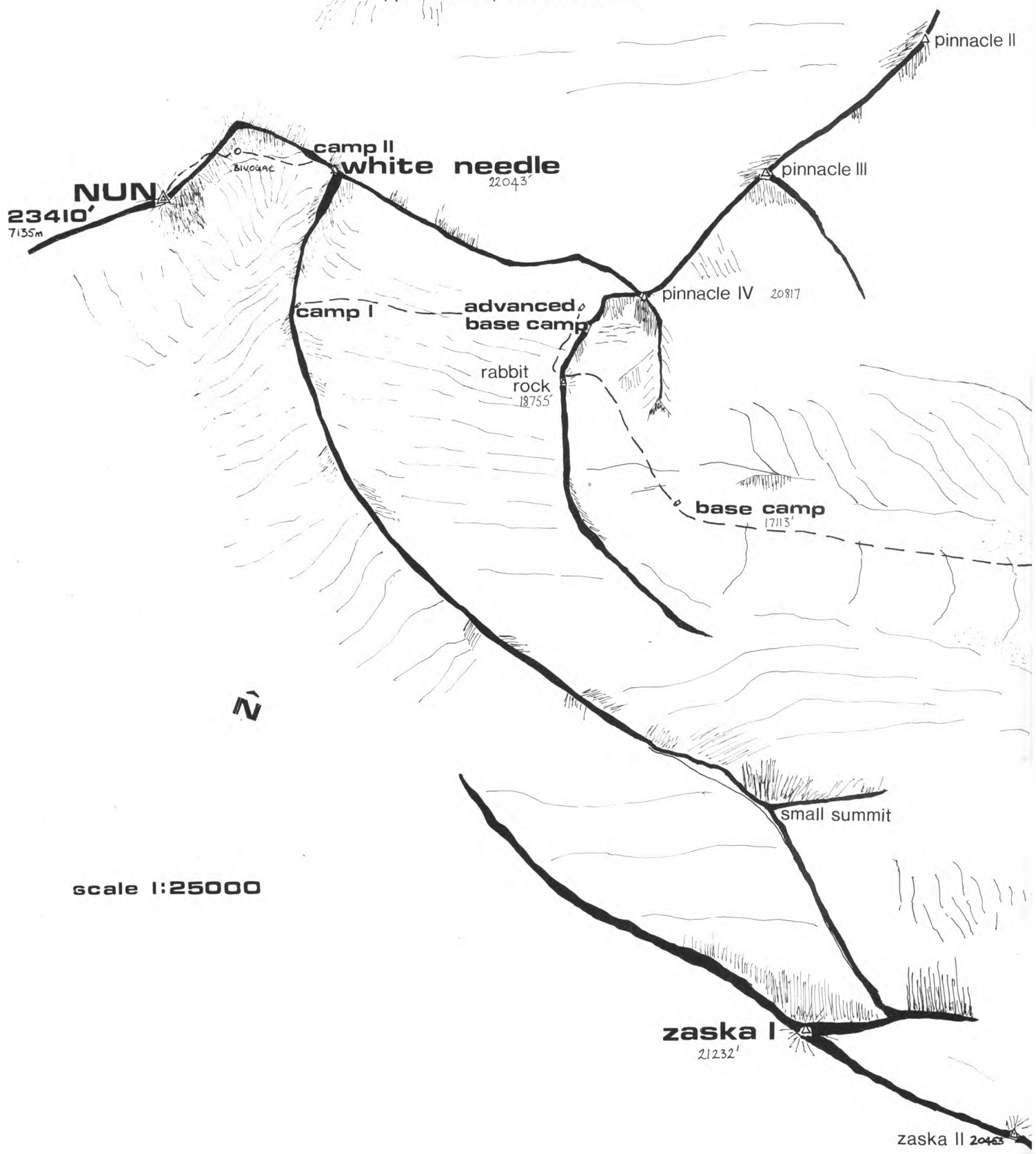
Having brought everything down to Bullock-Workmans from where the porters could carry to the road head, our party was now going to split up.

Steve and Damo had already gone off to arrange the porters and were going on to Kargil to await our arrival. Richard



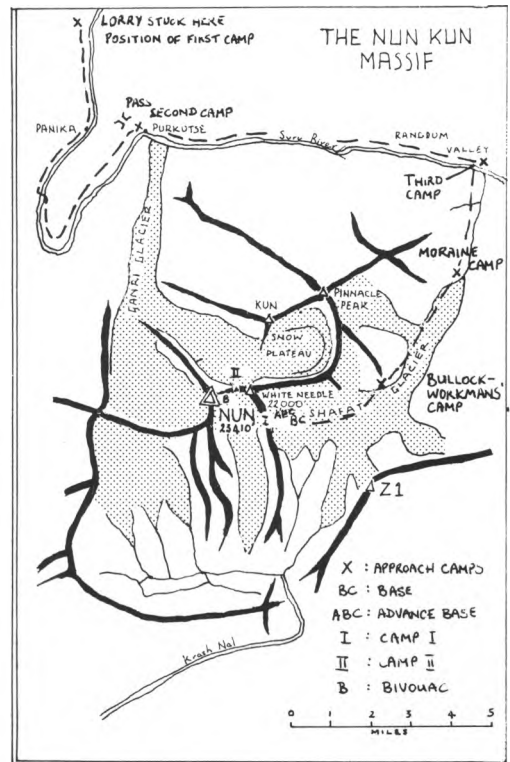
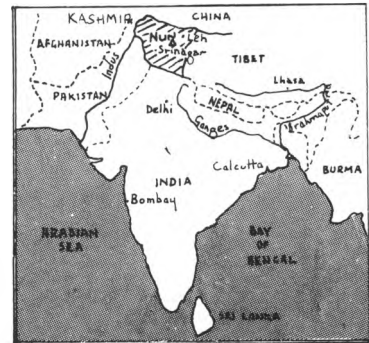
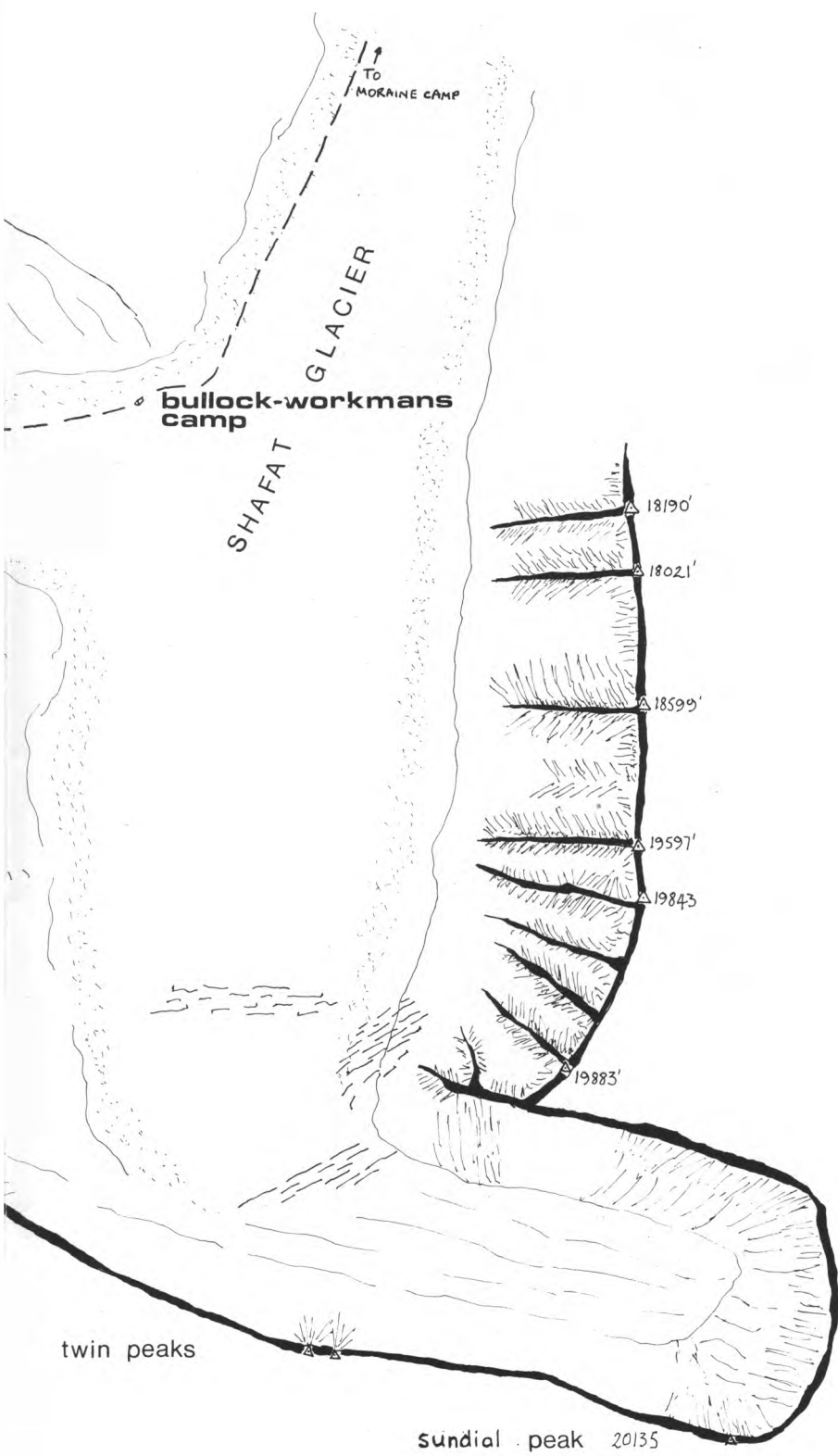
Nun and White Needle from Base Camp

△ approximate position of mt kun



scale 1:25000

THE BRISTOL NUN-KUN EXPEDITION 1981





John Margesson on summit of Nun

and I were going down four days ahead of Barry, Norman and John in order that we could make a detour from the road head to visit the remote monastery of Ringdom Gompa. We would return in time to meet the others who would then make the same visit to Ringdom whilst we carried on to Kargil with the equipment.

Having completed the load carrying from Base on the 1st, Richard and I continued on down to Morrairie Camp. The weather by now had taken a turn for the worse and was raining. This weather set in, and the Austrians now got the treatment we had at the beginning – a series of bad storms. Due to their lack of time this meant they were not to get a good opportunity at attempting the summit of Kun.

After a sad farewell to Nun we spent a gruelling 3½ hours staggering down the moraine getting lost, falling over and getting wet. Now that all the snow had gone scores of different flowers were bursting forth and after weeks of nothing but snow it was a real pleasure to see.

The second day saw us down to the river, which had swollen with all the newly melted snow. The Austrians had had the good sense to bring an inflatable boat for this crossing, and had said we could use it, but now that we were back in “civilisation” we found it was not going to be quite that easy!

Two local men had been left to guard the boat which was on the other side and no matter how much we shouted they would not budge. I tried throwing messages wrapped round stones across to them, still they just stared across at us. A jeep stopped 200 yards away on the newly opened road and after a chinwag with all concerned they came back and still would not budge. An hour and a half went by at the end of which I made a particularly fierce show of anger combined with threats of violence which finally brought them across.

Having been ferried across we shook hands, had a good laugh, gave them some backsheesh for being so kind as to come and get us, and carried on our way.

We wandered up the road a little way and then settled down for the arrival of the first truck. Two eventually appeared in a cloud of dust and who should be on them but Russell with our nine porters, unable to cross the river here they were going further up the main valley.

Also by amazing coincidence there were four people from Bristol University on their way to the Zanskar Valley to study Yaks, for a period of four months. So we climbed aboard and carried on for a couple of hours till we came to the village just before Ringdom called Yuldo. Here we spent a very pleasant evening sampling some of the local whisky.

3rd, 4th and 5th JULY

Although really our expedition had virtually finished at this point, it is worth recounting in brief our visit to Zanskar as it is a little known and remote kingdom of exceptional beauty.

Granted the road journey, 12 hours, 100 kms. from Yuldo, was not very comfortable, but the scenery was fabulous. We saw very many unknown and almost certainly unclimbed peaks, and passed over the Pensi Las Pass, 17,000 feet. This is quite something and has fantastic views down on a very large glacier.

The villages and people were like something out of a fairy story. The people are very Tibetan in appearance, very happy and friendly, many of the women, even when working in the fields, wear very costly head-dresses covered in large stones of turquoise and jade, decorated with silver jewellery. The men wear robes of coarse woollen cloth dyed a deep red, and wear strange pointed hats.

Their houses are built to withstand the extremely harsh winter conditions. Zanskar valley is one of the coldest inhabited spots in the world with temperatures that fall in winter to -40°C. Consequently the houses have very thick walls, small windows, small doors and a kind of thatch made up of twigs and wood on a flat roof. They are usually painted white with ochre red paint round the windows and doors.

However it is the monasteries, or gompas, that are really worth seeing. The Zanskarites are a Buddhist people and recognise the Dali Lama. From childhood I had always thought of these remote areas in the Himalayas as lands where mystical monks lived in ancient monasteries practising some strange meditative religion. A romantic thought – but indeed this is how it seemed. Richard and I only entered two of these Gompas; the one at Ringdom, and one in the village of Karsha, near Padam. Their inner temples are rich in beautiful patterns, carvings, books and idols of their gods. At Ringdom the monks were performing one of the daily ceremonies, seated in their courtyard chanting Buddhist prayers and burning incense. We felt very much an intrusion in our Western clothes and clicking away with our cameras.

All too soon we left Padam, capital of Zanskar, and jolted our way back to Gulamantongus where we met the others.

6th – 20th JULY

The end of the trip! Time to wind down, and so from Gulamantongus we went via Panikar, Kargil and Dras over to the now open Zoji La Pass, through Sonamarg and thus to Srinigar.

We need, and felt we deserved, a rest. We had all lost considerable weight and far from being fit were wasted away. We needed to eat and rest. Of course Srinigar is famous for its beautiful lakes and houseboats. We rented one of these floating palaces and stayed just over a week there.

Undoubtedly one of the nicest places where you could wish to spend a holiday is on a houseboat in Srinigar, and we made the most of it. Before long, though, we started to go our various ways. Richard had been joined by his girlfriend, Di, and they now planned a holiday in Sri Lanka, flying down to Colombo and stopping to see various places on the way.

Steve and Damo were conscripted to take all our equipment back to Delhi with them in a lorry. They both had reasons for getting back to the U.K. early. The gear was stored with the Chandolas in Delhi. I wanted to see the Golden Temple at Amritsar and so took this in on the way back to Delhi. John, Barry, Norman and Judy (Norman's wife) stayed on in Srinigar until the last minute, joining me in Delhi on 18th July.

Two highly frantic days were then spent booking us onto a flight for the 20th, clearing our equipment through customs and booking it all onto our flight, sending telegrams, buying souvenirs, mending our tents, contacting the BBC and finally

attending a large press conference at the Gymkhana Club. Here we were interviewed by Indian National TV and radio along with most of the Indian national papers. Needless to say Rennie gave us invaluable assistance with these jobs and checked a last minute crisis with our baggage literally 20 minutes before take-off.

AI 800 left Delhi at 7.35 p.m. for Bombay, where, due to our sponsorship with Air India, we were given a 'special handling' status. We were given somewhere to kip down for a few hours and treated to food and drinks. Air India were marvellous to us and gave us every courtesy all our time with them. However, 2.00 a.m. in the morning was not the best time to tell me the equipment had not joined the flight and I am afraid one of their managers got a bit of an earful.

AI 103 left Bombay 4.50 a.m. and stopped briefly at Kuwait. A good flight with a good Steve McQueen film and lashings of food. Air India were to do us one more favour, as when we arrived at Heathrow I discovered that my parents were on holiday: Air India provided us with two taxis to take us into London.

Almost the first thing we did upon reaching Norman's flat was to head off down to the pub for a real pint and some proper English food. Good to be back in the land of the living!

EQUIPMENT APPENDIX

by J. Margesson

My first task was to approach various equipment manufacturers in order to try and persuade them to assist us and I began writing letters in the summer of 1980. A frantic six months ensued during which I endeavoured to put all the pieces of the jigsaw together, so that all our gear was available for packing over the Easter weekend, 3 weeks before our departure.

A considerable amount of equipment we were able to pool from our own resources, but inevitably there were a number of items which we had to beg or borrow from manufacturers and we are extremely grateful to the firms who assisted us. A list of our benefactors is given at the end of the report. We found that most firms were prepared to offer a discount, a number offered trade prices and a very few were actually able to give us equipment free of charge.

Of these, N.R. Components and Westcroft deserve special mention, who both, between them, supplied us with the bulk of our tentage and high altitude clothing. Both firms went to great lengths to make special modifications, and we found their equipment to be excellent.

The altitude of Base Camp, and Advanced Base Camp, and the fact that we were tackling a 7,000 m. peak meant that we had to be equipped to a full Himalayan scale and be prepared to meet extremes of weather, conditions and temperature. Although it was often pleasantly warm in the sun by day, the temperature plummeted as soon as the sun disappeared and we recorded a minimum of -30°C. Another consideration was that we were trying to keep our equipment down to a minimum, so as to avoid becoming too heavyweight an Expedition. In the end we air-freighted from Britain about 240 kg. of baggage in addition to each individual's sac. In addition a certain amount, including cooking pots, jerry cans, paraffin and so on, were purchased in India, so that of the 800 kg. which we eventually carried to Base Camp, probably about 300 kg. was equipment, with the remainder consisting largely of food.

We had 7 tents with us. Four were the 320 model tents supplied by N.R. Components, who also supplied our mess tent, a 420 model. These all performed very well and stood up to the worst that the weather could throw at us. The mess tent in particular was excellent and was invaluable at Base Camp, where it remained. It was large enough to sleep four in comfort and to accommodate all 7 of us during the days in bad weather. In addition we were loaned one 2 man 'Force Ten' tent by Vango, which lived up to its reputation as a reliable standard tent. Finally we also used a 3 man dome tent which did excellent service at Advanced Base Camp. Above this level, however, we used 320's exclusively. We were camping on snow throughout the Expedition and spent 6 weeks in all above the snow-line. To make life bearable in this situation we found 3mm. Karrimat flooring to be an almost indispensable luxury; each individual also used a personal karrimat and this combination provided adequate insulation. For our high level bivis we used Wintergear goretex Bivi bags, which proved to be excellent; we had 2 single and one double bag, but found the single bags to be more versatile and comfortable.

The item of equipment which gave us most trouble was undoubtedly our stoves. These we had pooled from our own resources and were an assortment of primuses and one MSR, and none of them worked particularly well, although fortunately we always had enough working sufficiently well to provide us with food and drink. The cause of the trouble was a combination of poor quality local paraffin, the cold and the altitude. We used standard cooking pots and pans, except for a pressure cooker donated by Tefal, which proved invaluable.

We took four pack-frames with us and these made load carrying just a little bit less arduous and enabled odd shaped boxes or sacks to be carried without splitting the load up. They also formed an essential component of the ski sledges we built at the end of the Expedition to facilitate the ferrying down of loads.

The skis in their more normal role proved their worth in the deep fresh snow we encountered for much of the time. We had 2 pairs of Roy 'Explorer' skis (160 and 170 cm.); this is a robust ski-mountaineering ski and when fitted with skins they made moving uphill a great deal easier. We used them up to Camp 1. The soft or crusted snow conditions made downhill ski-ing more tricky! We also had a pair of Langlauf skis, but these were not so suitable. As a further aid and in deep snow, we had 2 pairs of snow-shoes which were extensively used. As always the ski-sticks were used for innumerable jobs unconnected with ski-ing! The two snow shovels were also in constant use for everything from digging out the tents after snow storms, to levelling sites for the tents.

The climbing was exclusively on snow and ice; however had we tackled Zaska I as was originally intended, we would have encountered technically difficult rock. As a result we took a great deal of climbing equipment, including helmets and rock gear which, in the event, we never used. We climbed on single 150 ft. 9 mm. ropes which we found to be an ideal compromise between safety and weight, and the vast majority of belays were ice-axe belays, although we did also use dead-men and ice screws.

Vango very generously lent us four Cervin rucksacks and the rest of the team used various models of Karrimor sacs, which performed excellently. All of the team wore some sort of training shoes for the walk in, but all were equipped with double boots for the mountain. Five members used Koflach boots with plastic outers and these were excellent, being warm, strong and comfortable, and of course very light. One member used Trappeur 'Everest' boots, which are a traditional leather design.

Our clothing was provided by individuals, although some was generously supplied by Westcroft. This included a goretex jacket and overtrousers, which were really excellent and ideal for the Himalayas. These were used extensively as a wind-proof outer layer and since there were no condensation problems, they could be left on all day. In addition they provided us with fibre pile jackets which proved popular both on the mountain and as casual wear. and also thermal underwear which was worn continuously by almost everyone above Base Camp.

They further gave some members different 'systems' of Thinsulate clothing. This is the latest material on the market as an alternative to Down clothing. The 'system' comprised Gortex'd salopettes, waistcoat, underjacket, and finally an outer duvet with hood. It was found that even in the coldest conditions the waistcoat was not needed. We were very impressed by this Thinsulate clothing, it being very warm, light and un-bulky!

As far as gloves were concerned, both Dachstein mitts and Damart gloves lived up to their reputations of excellence. The former were extremely warm and the latter are hard to beat for a combination of warmth and hard-wearing and sensitivity, allowing intricate tasks to be performed. Goggles or sun glasses were of course essential and a brimmed hat was also a wise precaution against the sun. Further protection against the sun was provided by glacier cream and lip salve generously donated by Faillon Ltd.

We had to provide a basic scale of equipment for our Liaison Officer and a list of items we supplied to him is given below. Finally one must not forget packing materials. We transported everything from India in plastic-covered cardboard boxes, given by Ashton Containers Ltd., but we purchased in India hessian sacks and plastic lined paper sacks. These, together with copious supplies of string, proved invaluable, both for transport on the mountain and for the journey back to Britain.

Overall our quality and quantity of equipment was about right. With hind-sight I would change a few things; for instance, I would reduce the amount of climbing gear, probably take new stoves and ensure that the paraffin is good quality. However there were few items which were never used and nothing serious was left behind!

The equipment we took with us was as follows:-

No.	Item	No.	Item
<u>Communal</u>		<u>Personal Climbing Gear</u>	
1	420 Mess Tent	6	Pairs double boots
4	320 2-man tents	7	Whillans sit harnesses
1	Vango 'Force Ten' 2-man tent	7	Climbing sacs
1	3-man Dome Tent	8	Ice-axes (1 spare)
1	Plastic Sheet	7	Ice hammers
3	Bivi bags	8	Pairs of crampons and straps (1 spare)
	3 mm. Karrimat tent flooring	7	Head torches
6	Primus paraffin stoves and spares	7	Compasses (silva)
1	MSR stove		
3	5 gal. paraffin containers	<u>General Personal Gear</u>	
1	Hurricane Lamp	8	Down sleeping bags and liners (1 spare)
1	Pressure cooker	7	Karrimats
	Assorted cooking pots and pans	3	Alarm clocks
7	Sets of KFS plate and mug		Various cameras and film
2	Snow shovels		Personal log book, toothbrush etc.
2	Max/min thermometers	8	Pairs of goggles (1 spare)
1	Altimeter	7	Water bottles
1	Pair of binoculars		Personal clothing including duvet, goretex suit etc.
4	Pack frames		
6	Distress flares	<u>Equipment supplied to the Liaison Officer</u>	
1	Spring balance	1	Pair of double boots
	Various tools and repair materials	1	Sleeping bag
	Hessian and plastic sacks and string	1	Climbing sac
	Surveying equipment	1	Whillans sit harness
	Filming equipment	1	Karrimat
8	45 m. x 9 mm. perion ropes	1	Duvet
2	Deadmen	1	Waterproof suit
2	Snow stakes	1	Ice-axe
3	Pairs skis and poles, plus skins and accessories	1	Pair of carmpons and straps
	Assorted ice-screws, rock pegs, chocks, slings and karabiners.	1	Pair of gaiters
1	Pair of jumars	1	Head torch
5	Helmets	1	Pair gloves, overgloves and goggles
	Glacier cream and lip salve	1	Compass (silva)

FOOD APPENDIX

by R.B. Needle

As Food and Medical Officer, it was stated that my function was to cure anyone that I had poisoned previously. I regret to say I was never given the chance in either capacity.

Food is often the main topic of conversation on any trip, however small, but when you spend five weeks or so above the snowline, it takes on a very high priority. The main problem I was faced with, was how much weight could we afford to take out with us on the flight. This dictated my policy.

In the end it became a frantic rush, compounded by enforced lengthy Easter shutdowns as a result of the industrial recession, to obtain the dehydrated food from Batchelors and Raven Leisure Products. These were used in the main at and above Advance Base Camp. Lower down I relied largely on fresh food purchased locally at Srinagar, but found great difficulty in obtaining tinned meat, as this is no longer available in Kashmir for religious reasons, and no tea bags (which are less messy than loose tea). The few tins of meat I did obtain were dated back to 1978, and I just kept my fingers crossed that it was not 'infected'. (On returning home one of the first things I read, was of an expedition that had failed to climb its objective due to food poisoning from tinned meat). However, our meat did not, that I am aware, cause any problems, though it was not particularly appetising.

The assault rations I took were freeze-dried meals. For these I am indebted to my uncle, Stan Wooller of Auckland, New Zealand, who gave the bulk of them, sending them by airmail at great cost to ensure arrival in time. Dingles of Bristol and J.A. Sharwood of London also donated some exceedingly tasty and appetising meals.

For day and hill rations I purchased locally, cheese, biscuits, nuts and raisins. But pride of place went to the Mars Bars donated in England. There were several mild arguments as to who had had more than their fair share.

Nicholas Laboratories kindly supplied us with Staminade which was a very welcome addition to our water bottles, and Kelloggs gave some Rise and Shine, which was also much in demand.

I made no set of menus, and as we all took turns at cooking, this left plenty of scope for individual flare and tastes. With regard to the quantities set out below, except for one or two items, the supplies took us through the six weeks we were on the mountain. At the end, we had 15 packets of porridge left, a little rice, dahl, flour and sugar, 2 tins of milk, 3 tins of Ghee and some small portions of dehydrated food. We did in fact lose some food when the kitchen was buried under the heavy snowfalls and when a food and equipment dump was ravaged by bears. It would have been beneficial to have had more drinking chocolate, sardines and tinned meat and fruit. The fresh vegetables we had, lasted in general very well, but the potatoes were not really edible after being frozen solid.

One worrying feature was the poor quality of Indian matches (lighters are a must) and the poor quality of the locally purchased kerosene (paraffin). The latter gave us a lot of problems, causing the stove jets to block up frequently. Through an accident we lost several litres of kerosene and even with the help of the Austrian Expedition, who had their own fuel shortage problems, we only just had sufficient to make the walk back out. Had we made a sustained effort on Z1 things might have been very different.

In general the food purchased in Srinagar was adequate rather than tasty and appetising, but this was mainly due to lack of choice as a result of having to purchase our requirements inside 24 hours. Our tight schedule also prevented better packaging of the food for transportation. It was all placed in cardboard boxes, then into either the standard hessian sacks and/or the excellent woven polypropylene sacks. The latter proving their worth many times over.

The pressure cooker donated by Tefal (U.K.) Ltd. was used as far as advanced base, and is a must for all expeditions. Its weight being more than compensated for by the fuel saved, and better cooked meals.

Litter is an increasing problem, especially along popular treks and approaches. All our litter above the snow line was brought down to base camp and burnt. Any that was not consumed was carried down to the Bullock Workman camp and buried. All the tins and bottles visible that had been left by previous expeditions were also collected up and buried. It is a fact that the stony ground prevents deep burial, but if everything to be left is burnt, it is less likely to be dug up again by the local population, e.g. bears, which is what appears to happen.

Items purchased in Srinagar

40 kg.	rice	4 jars	marmalade	24 pkts.	chewing gum
13 kg.	dahl	4 jars	honey	30 tins	meat (various)
30 kg.	flour	12 tins	sardines	6 tins	fruit
1 kg.	pure ghee (refined butter)	20 rolls	toilet paper	105 lts.	kerosene (paraffin)
7 kg.	Dalda (refined oil)	4 doz.	matches	10 kg.	cauliflower
2 kg.	salt	2 doz.	candles	10 kg.	cabbage
10 doz.	eggs	2 pkts.	washing powder	3 kg.	oranges
3 kg.	boiled sweets	2 btcls.	washing liquid	2 kg.	peas
9 tins	cheese	30 pkts.	cheese	8 doz.	packets of biscuits
4 kg.	tea	40 pkts.	porridge	20 kg.	onions
1 kg.	coffee	6 pkts.	spaghetti	30 kg.	potatoes
½ kg.	drinking chocolate	6 pkts.	egg noodles	3 kg.	ladies fingers
40 kg.	sugar	3 jars	tomato ketchup	10 kg.	carrots
20 kg.	milk powder	36 bars	chocolate	2 kg.	limes
4 jars	jam	4 kg.	mixed fruit and nuts		

In addition to the above the expedition took out from England all the assault rations i.e. freeze-dried meals, dehydrated soups, potato powder, minced meat, dried vegetables, custard and sweets, muesli, and heavier items donated by Dingles of Bristol and J.A. Sharwood of London. These included items such as complete vacuum packed meals (excellent), sardines, stock cubes, various chutneys, curry powder and spices. We also somehow managed to find room for the whisky kindly donated by Glenfiddich and Glorious Twelfth, and of course the Mars Bars.

FINANCIAL APPENDIX

Naturally the accounts below do not show the full picture. We all had a good deal of personal items of clothing and equipment to buy, plus our film. Perhaps the greatest cost to us was our jobs and loss of earnings. A small price to pay!

EXPENDITURE	£
Expedition equipment	1,387.61
Food and fuel	572.59
Travel and customs duties	2,539.36
Accommodation	155.15
Horses (40.00 Rs per day) and porters (30.00 Rs per day)	609.03
Medical	10.62
Insurance	180.00
Office expenses	208.63
Miscellaneous	73.20
	<hr/>
Total Expenditure	£5,798.56
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INCOME	£
Maj. R. Berry	1,000.00
Mount Everest Foundation	700.00
British Mountaineering Council	400.00
Wexas	100.00
BBC	418.00
Other cash sponsors	1,030.00
Sale of Arnis Strapcans' Equipment donated to the expedition	85.30
Personal contributions by members	2,500.00
Lectures/articles	112.00
Bank interest	262.74
	<hr/>
Total Income	£6,608.04
	<hr/> <hr/>

Income	=	£6,608.04
Expenditure	=	<u>£5,798.56</u>
Balance	=	<u>£809.44</u>

This balance will in fact be used in paying for this report, equipment repairs and in supplying our sponsors with enlarged photos for their own publicity purposes.

PHOTOGRAPHIC APPENDIX

The expedition as a whole used a wide selection of cameras from the lightweight Rollei and Olympus compacts to the more heavyweights SLR's such as the Nikon EM and Pentax KX. None of them gave any serious problems during the trip. The Nikon did give some cause for concern as the wind-on mechanism started to work loose and the low light intensity warning bleeper stopped working. The former was easily rectified and the latter scarcely a problem.

We had been led to expect some difficulties with electronic shutter mechanisms in very cold conditions, but in fact no such problems arose even though at one point a film shattered on rewinding after being left out overnight.

The very high light intensity when high up in the mountains gives some particular difficulties for photography. A good ultra-violet or skylight filter is absolutely essential and this also helps to protect the lens from dust, which can be a problem in the lower valleys. A fast film is also necessary. All our personal films were colour transparencies – 25 or 64 ASA.

Even so it is difficult to get a correct exposure with the subject either appearing as a silhouette due to under-exposure caused by excessive light from the surrounds or drowned in the glare of over-exposed snow. Bracketing of exposures is the best way of ensuring good results (if film supplies permit) and the resulting spares can cut down on the expense of duplication later on.

Black and white prints are essential for the various sponsoring firms as well as magazine and newspaper articles. A positive effort is often needed to make sure these pictures are taken, and a separate camera for Black and White shots would probably be a good idea. Our black and white film was all Kodak Pan X 125 ASA.

Our special thanks go to the following organisations who were very generous in the help they gave us:

Kodak who supplied us with colour transparency film at a good discount and the Bristol Evening Post who donated all our black and white film.

Nikon (U.K.) Ltd. and Dixons of Bristol also gave us generous discounts on various items of camera equipment and Bald Patch Mountaineering gave a camera case, very useful for protecting camera equipment from the harsh handling it received.

In addition Norman had all his film needs free from Agfa and an Olympus XA compact camera from Olympus.

FILMING APPENDIX

by *S.K. Berry*

We were lucky enough to secure a contract with BBC Bristol to film the expedition. The BBC were to supply us with the following equipment:-

- 2 BRAUN movie cameras – Type N120 156 Macro with ultra violet filters
- 1 remote shutter release
- 1 tripod
- 100 reels of super 8 mm film (2½ mins. each)
- 1 small tape recorder
- 20 tape cassettes
- 1 directional microphone

In return we were to shoot the film ourselves for use on the BBC's Points West evening programme. As part of the contract we were told that should the film be of a good enough quality then one ½ hour programme would be made for Regional television.

In addition to the equipment on loan, the BBC paid us an initial £400.00, with the promise of a further contract for the editing and commentary in the case of the ½ hour programme being made.

As I had never used a cine camera before, several meetings took place at the BBC in which I was given a good deal of technical and theoretical advice on how to use the equipment, and points to watch for in making the film.

Unfortunately no-one warned me to clean the film gate in the camera when loading the film, and this resulted in a slow build-up of 'muck' on the gate, which in turn, produced a picture with a heavy black border. For this reason much of the film was unusable and a ½ hour programme became impossible, much to our great disappointment.

Making such a film is both extremely interesting and also very hard work. In the later part of the climbing the camera was like a lead weight, and had it not been for my brother carrying it for me on the day we went to the summit, it would certainly have been left behind at the top of the difficult 650 ft. slope.

Apart from the build-up of 'muck' in the film gate, every praise should be given to the camera whose two best features were its ability to stand up to rough treatment, and to continue operating in very cold conditions.

We had temperatures down to -30°C at night on occasion. This tended to sap the power of the batteries, but having replaced them the camera carried on working normally.

No other serious problems were encountered though I would add that it is very useful to have an adequate supply of cleaning material for the lens, and plenty of sticky tape to seal the used film cassettes.

General hints for anyone considering doing such filming are that I think notes should be kept of the contents of all reels. (Mine were stolen, along with one of the cameras on the way back to Delhi). Number each reel and 'shoot' the number on the film box after loading. Do not zoom or pan unless for very special effect, generally hold the camera still and shoot on average for 8 seconds, longer if it is good action. Use a tripod wherever possible.

In fact the BBC cleverly welded on to the top of my ice axe a screw thread, onto which I could secure the camera. This was very useful instead of a tripod, and invaluable for remote shutter release photos on the summit.

They were not so clever about permission to film in India; the 'Beeb' only discovered in the last week prior to departure that permission was needed, and in fact I never did obtain the necessary authority. Actually in India it is permissible for a tourist to shoot super 8 mm and to take into the country, 50 cassettes.

GEOLOGICAL APPENDIX

by *Damian Carroll*

The regions of Ladakh and Zaskar form one of the most exciting areas in the world for the geologist as well as for trekkers and climbers. Here are to be found the remains of the tremendous collision 20 million years ago when the Indian sub-continent, on its journey across an ancient ocean, ran into Asia. The enormous forces involved threw up the Himalayan ranges, which are still rising in places, and part of the join, or suture, lies between Kargil and Leh. Here can be seen the great sequences of sandstones and shales laid down in the narrowing sea between the two continents, and then squeezed, folded and uplifted as the gap closed. Amongst these sedimentary rocks are fragments from the base of the earth's crust, ophiolites, raised through a vertical distance of 50 km or more.

These deep rocks provide a "window" to the earth's deep interior and, being one of the few places in the world where this has occurred, are of immense importance to geologists.

The Nun Kun massif lies to the south of the suture, in an area of highly metamorphosed rocks. These were earlier marine sediments burned and cooked by the earth's internal heat, then thrown up by the collision as schists and gneisses – hard crystalline rocks which have resisted erosion better than the softer sediments to the north and south.

In the Suru and Shafat Valleys, large granite intrusions can also be seen, where the intense pressure and folding melted the rocks, which then forced its way into the surrounding schists. This red granite now forms beautiful aiguilles up to 19,000 ft. high, with some tremendous buttresses and smooth faces – a good target for the rock climber.

Within the schists which form Nun and neighbouring peaks are rock bands rich in minerals, the most common being red garnets up to 3 cm. across, while among the screes and moraines we occasionally came across masses of green crystal, which in retrospect may have been jade. A pity we didn't know at the time!

Some previous climbers to Nun Kun have apparently been under the impression that Kun and the peaks around it form the remains of an extinct volcano. They lie in a ring around a huge snow basin and do look remarkably like an eroded crater wall. However, the rocks are hard granite and metamorphic schists – not nearly as exciting as a volcanic crater.

No detailed geological studies have been carried out in Ladakh and Zaskar as yet, so there is great scope for scientific as well as mountaineering exploration.

SURVEYING APPENDIX

It was decided to make a simple plane table survey of the immediate area where we were climbing and accordingly the following instruments were hired from the Royal Geographical Society:-

- i) An 18" plane table with tripod and cover
- ii) An Indian alidade
- iii) A "Suunto" clinometer (this could be read to one degree and could be estimated to 10 minutes)
- iv) An Abrey level (this could be read to 10 minutes)

Immediately prior to striking base camp a 30 meter tape was used to set out a base line of 500 metres with the additional help of the alidade and ski poles.

Three points were then established at either end and along the base line from which sightings onto the major peaks/features were taken using the alidade.

Clinometer readings were taken from one end of the base line and these were supplemented and checked by readings from the Abrey level where major and important features were concerned.

A photographic record of the panorama was also taken from the base line.

In all approximately thirty-five features were plotted at a scale of 1:25000, this process was undertaken over a period of three days and involved about 8 hours work.

A clear sighting of Nun (which was the only known height) was impeded by the formation of cloud and the accuracy of the heights as shown is therefore suspect.

LIST OF SPONSORS & ACKNOWLEDGEMENTS (Alphabetically)

by S.K. Berry

The success of our expedition would never have been possible had it not been for the initial contribution of £1,000 from my father. Especial thanks is also given to Air India for their generous support, and lastly to those equipment manufacturers whose new technology products were to perform so well on the mountain.

We would like to extend our grateful thanks to our sponsors and hope that they can enjoy some feeling of success with us.

Mr. Adams, Manager, Lloyds Bank, Bond Street, Bristol
Agfa
Air India
Arnis Strapcans (deceased)
Ashton Containers Ltd.
M. Ashraf, Deputy Director Tourism, J & K State, India

BBC
Berghaus
Maj. R. Berry, FRICS
BMC
B.P. Oil Ltd.
Bristol Evening Post
Bristol Round Table
Bristol & West Building Society

Mr. and Mrs. A. Chandola

Damart Thermawear Ltd.
Diana Corbin
Dingles
Dixons Ltd.

Farillon Ltd.
Fowlers of Bristol
Frenchay Hospital

Gafoor Wahid
Ghulm Rasool
Capt. N. Gifford
Glenfiddich
Glorious Twelfth

E.R. Hemmings Esq.

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Dr. John Minors
Mountain Equipment
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N.R. Components (Todmorden) Ltd.
A.T. Needle, Esq.
Nicholas Laboratories Ltd.
Nikon (UK) Ltd.
Norma Welsh

