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NUPTSE 1975



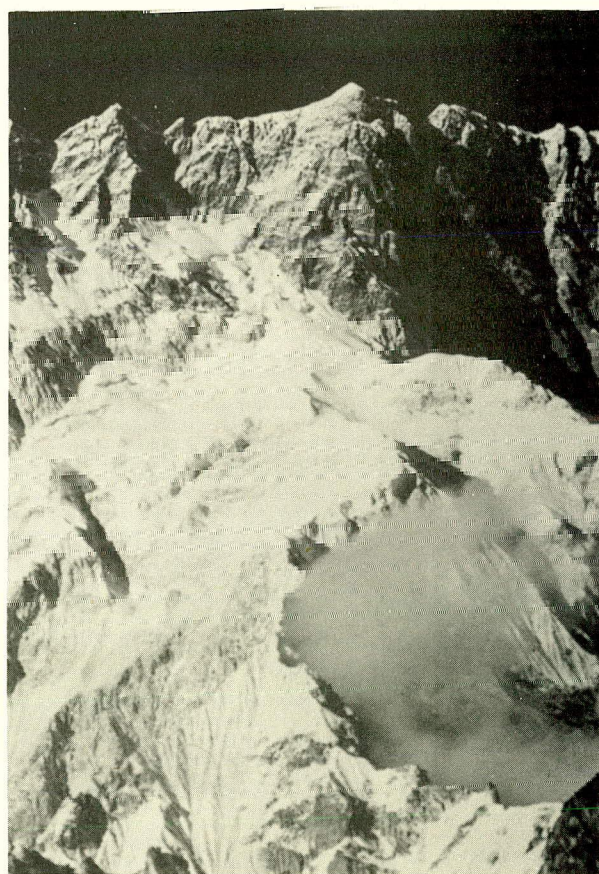
The Joint
British Army Mountaineering Association
and
Royal Nepalese Army
Expedition



The Team



The Leader



Nuptse Central Ridge

90/3/7

School of Infantry
Warminster, Wiltshire
BA12 0DJ

See Distribution

Aug 1976

PRELIMINARY REPORT: THE JOINT BRITISH ARMY MOUNTAINEERING
ASSOCIATION (AMA)/ROYAL NEPALESE ARMY NUPTSE EXPEDITION 1975

Map: The Royal Geographical Society, Mount
EVEREST Region 1961, Scale 1:100,000

Introduction

1. Following the successful ascent of ANNAPURNA (26,525') by an Army team repeating the French 1950 North Face route in 1970 the Association decided to mount an expedition to climb Mount EVEREST (29,028'). At first this was planned to take place in the spring of 1975. Later this was altered to spring 1976.
2. In the summer of 1973 a training expedition to the KULU area of the Indian Himalaya took place. From some 150 applicants a Team of 27 was selected. A total of 11 peaks were climbed, including 2 virgin ones and one by a new and technically hard route. The highest mountain climbed was MENTHOSA (21,140').
3. At the end of the 1973 Expedition, Lieutenant Colonel J D C Peacock (Vice Chairman AMA) and Major J W Fleming (Expedition Secretary AMA) visited Nepal to discuss possible objectives for the 1975 Expedition which was being planned. It was decided to apply to the Nepalese authorities for permission to climb CHO OYU (26,750') as a first choice with NUPTSE (25,850') as an alternative.

Expedition Planning

4. At the end of 1973 two Committees were set up to carry out Expedition Planning:

a. Policy Committee

Major General J M Brockbank CBE MC - Chairman
Lord Hunt
Mr G P Pirie-Gordon, William & Glyn's Bank

b. Planning Committee

Lieutenant Colonel J D C Peacock REME	- Chairman
Major A J Muston RAOC	- Equipment
Major G F Owens WFR	- Rations
Captain M W H Day RE	- Oxygen and Logistic Planning
Major J W Fleming PARA	- Secretary

In July 1974 Major Fleming was appointed to lead both the 1975 and the 1976 Expeditions. Accordingly Captain R A Summerton RE took on the duties of Secretary, while Major Fleming remained on the Planning Committee as Leader.

5. A planning cell was set up at The School of Infantry at Warminster. Major Fleming was posted there as a Grade 2 staff officer in August 1974.
6. The Planning Committee convened once a month to discuss and plan both expeditions, although the 1975 Expedition made first claim upon their time. Minutes of the Meetings were sent to the Policy Committee to keep them informed of developments.

7. At the end of 1974 the Nepalese authorities granted permission for the Expedition to climb NUPTSE, the political implications of climbing CHO OYU being too complex. We were allocated the season requested, namely the pre monsoon (spring) one.

8. The Expedition was sponsored as an Adventurous Training Exercise by The Ministry of Defence (Director of Army Training). It was endorsed by the Joint Services Expedition Trust (JSET) and supported by the Mount EVEREST Foundation (MEF), The Royal Geographical Society (RGS) and The British Mountaineering Council (BMC). The sponsoring Headquarters was The School of Infantry.

Aims

9. The aims of the Expedition were:

- a. To climb NUPTSE (25,850 feet).
- b. To test and to evaluate the high altitude performance of team members with a view to selecting a competent team to climb Mount EVEREST in 1976.
- c. To test rations, clothing, equipment and oxygen equipment for use on Mount EVEREST in 1976.
- d. To initiate a working relationship with the sherpas and porters in the Sola Khumbu Area to ensure smooth cooperation in 1976.

The Team

10. Members of the AMA were invited to apply to take part on the EVEREST Expedition through the medium of News letters. Some 180 applications were received. A 'paper' selection board followed which reduced this figure to approximately 40. These 40 people were then interviewed. From these interviews the 1973 KULU Team of 27 was selected.

11. The 1975 Team was selected in a similar way except that those on the 1973 Team were not required to be interviewed again. New applicants were however, interviewed.

12. It had always been the intention that the EVEREST Expedition, and those expeditions leading up to it, should be joint ventures with The Royal Nepalese Army. To this end it was considered to be of the greatest importance that the Nepalese members should train with their British Army colleagues at an early date, so that they would be able to take their full part in the Team. In 1973 The Royal Nepalese Army put forward 3 of their members to join us. In the spring of 1974 they were flown from Nepal to UK, where they trained with the AMA in Britain and in the European Alps.

13. The Gurkhas were selected on the basis of their climbing experience and expertise which they had previously obtained in New Zealand, Borneo, Norway, Kulu and the European Alps.

14. The final selection board, which was held in LONDON on 17 and 18 October 1974, chose the following Team to climb NUPTSE:

Captain C H Agnew of Lochnaw the Younger	Royal Highland Fusiliers (Communications)
Chief Technician G P Armstrong	Royal Air Force
Lance Corporal Basantakumar Rai	7 Gurkha Rifles
Major Bhagirath Narsingh Rana	Royal Nepalese Army
Corporal Bishnu Bahadur	Royal Nepalese Army
Lieutenant D A J Brister	Intelligence Corps
Surgeon Lieutenant Commander P N Dilly GM	Royal Naval Reserve (Doctor)
Major J W Fleming	The Parachute Regiment (Leader)

23. The tasks of the Advance Party were:

- a. To establish contact with the Indian Meteorological Officer in New Delhi to arrange weather forecasting 'feed back' facilities. This to be done on the way out to Kathmandu during a 2 day stay in New Delhi.
- b. To arrange weather forecasting facilities in Kathmandu with the Nepal Meteorological Office.
- c. To make contact and to brief the Royal Nepalese Army members of the Team.
- d. To make contact with the officers of The British Embassy, HMG Nepal, The Royal Nepalese Army, Royal Nepal Airlines, RCT movements, The Press Corps and Customs.
- e. To make arrangements for photographs (both colour as well as black and white) to be sent back to UK for processing.
- f. To liaise with the Japanese Ladies EVEREST Expedition so that we could conduct a recce of the Base Camp area and the Lho La for our venture next year.
- g. To arrange Banking facilities and the drawing of cash.
- h. To arrange the freight for the quick and easy issuing of clothing and stores in Kathmandu.
- j. To arrange to supervise the fly in of freight and food to the airhead at Lukla ($86^{\circ}44'$, $27^{\circ}41'N$) and then its onward journey by yak and porters to the Acclimatisation Camp (AC) in Dingboche ($86^{\circ}51'E$, $27^{\circ}54'N$) 14,000 feet.
- k. To arrange accommodation for the Main Body in Kathmandu.
- l. To arrange transport to the road head at Lamosangu for the Main Body.
- m. To move to Dingboche and to set up the AC.
- n. To recce a site for Base Camp (BC) on the Nuptse Glacier.
- o. To carry out further acclimatisation climbs as time allowed.

24. The smooth move of the Expedition and all its freight can in large measure be attributed to the success of the Advance Party in carrying out these tasks, in conjunction with Kefford whose contacts and local knowledge were of inestimable value to them. Also of immense help to the Advance Party in their tasks was Lieutenant Colonel J A Lys MC, The Defence Attache in the British Embassy.

25. The Advance Party of Peacock, Owens and Brister left Kathmandu on 4 March (having kept a low profile during the Coronation) for Dingboche. They were accompanied by Basantakumar Rai, who acted as guide and interpreter, and some 8 porters who carried their camping gear and food. At Lukla 3 of these porters were paid off and released. The party arrived at Dingboche on 19th March, where they were met by Khagendra Bahadur Limbu and by two of the sherpas, Pasang Tensing from Kunde and Tensing from Namche Bazar, both of whom, together with the Sirdar, Sonam Girmé, had been arranged by Mr Mike Cheney of Mountain Travel. They began to set up the AC and to accept the freight from Lukla.

26. Once they had acclimatised to the new height the party went up to the Nuptse Glacier ($86^{\circ}52'E$; $27^{\circ}55'N$) and recce'd a site for Base Camp at some 17,060 feet. This took 3 days and involved travelling up the West Lhotse Glacier ($86^{\circ}54'E$; $27^{\circ}55'N$) as well as the Nuptse to its West. Everything was still under snow, but they fortunately found a lake beside which BC could be set up. Even so the water was frozen and took some trouble to collect.

27. Some stores, climbing and camping kit as well as food and fuel now having arrived at Dingboche Peacock, Owens and Brister accompanied by Pasang Tamang and Tensing as local carriers for the first night only, moved up to a Camp from which they planned to climb Island Peak (20,300 feet). This was intended to be an acclimatisation climb on a peak which has, for some time, been regarded as a suitable objective for trekking as well as mountaineering parties.

28. It is not a technically difficult mountain; but it is a conspicuous one from Dingboche and a natural choice as a training climb. It offered a fine but easy snow route onto a long summit plateau before the final pinnacle was reached on 29 March. A foretaste of the winds to come on Nuptse was experienced in a particularly ferocious way on the summit plateau.

29. The party returned from this successful exercise on 30th March (Easter Day) to be welcomed by the Main Body who by this time had just reached the AC.

The Main Body

30. Through the good offices of Colonel P L Nicholson, Q Mov (2) Ministry of Defence and The Royal Air Force, to whom we are profoundly grateful, the Main Body travelled to Kathmandu by a series of RAF aircraft, on a fill up basis, during the first week of March. Some were routed via Hong Kong and then used the Gurkha airlift from there to Kathmandu; some were routed via Singapore and Brunei. We are extremely grateful to our Patron, Field Marshal Sir Michael Carver and to Major General. T A Richardson our Defence Adviser in New Delhi for arranging matters in India so that we were permitted to use the Gurkha airlift for this purpose. By 15th March the whole Team was in Nepal; the British members from UK; the Gurkhas from Hong Kong.

31. The Team assembled in Kathmandu. The British members staying in the cheap but perfectly adequate Nook Hotel, the Gurkhas in the Gurkha Transit Camp and The Royal Nepalese Army (RNA) members with their units.

32. During the stay in Kathmandu the team did a great deal of sightseeing - there is plenty of this to be done in that fascinating place. The method of transport was usually by hired bicycle at least two of which were stolen from outside the Hotel despite their having built-in locking devices! Two members thus owe bicycles in Kathmandu! Fleming was received by The Chief of the Army Staff, Royal Nepalese Army, and made contact with Mr Khanal of the Mountaineering Desk Ministry of Foreign Affairs (MFA) HMG Nepal from whom he received a briefing on the details they required to be sent back of our progress up the mountain. Additionally arrangements which the Advance Party had made concerning incoming and outgoing mail; press reports; arrangements for the dispatch of film; weather reports and possible casevac arrangements by helicopter from BC were all confirmed. It was a busy time.

33. On the 15th March the party drove to the road head at Lamosangu - some $2\frac{1}{2}$ hrs east of Kathmandu on the new Chinese border road - in 2 vehicles kindly arranged by The Royal Nepalese Army. At Lamosangu we were met by Corporal Nandaraj Gurung and by Corporal Narbu Sherpa, who were to accompany us on the March-in to Base Camp. They had recruited 24 porters from Nandaraj's village (in the Solu region) who also were to accompany us to carry the camping kit, food, fuel and cooking gear.

The Freight

34. In round figures a total of 23,000 lbs of freight comprising 16,000 lbs of food and 7,000 lbs of clothing, camping and climbing equipment, was flown out to Nepal from UK. Through the hard work and goodwill of Colonel Nicholson, The Royal Air Force and Major Gardiner RCT (ATLO, RAF Brize Norton), and of the freight organisations at the RAF stations of Akrotiri (Cyprus) Gan, Tengah (Singapore) and Kai Tak (Hong Kong) all this freight was transported at no cost to the expedition on a 'fill up basis' by means of aircraft travelling to Hong Kong or to Kathmandu via Brunei. The fly out of the freight took place from 18 January to 12 March.

35. In order to ensure smooth handling arrangements in Hong Kong a member of the team Captain King, was positioned in Hong Kong from 5th February. We are very grateful to the Composite Ordnance Depot for accommodating him so that he could supervise the transit of our freight through Hong Kong to such a degree that it all arrived in Nepal safely and intact. Our gratitude also goes to Colonel J E T Polley, Commandant, Army Apprentices College, Chepstow, for releasing Captain King so early for this purpose.

36. In Kathmandu the freight was received by Captain E Palmer RCT who supervised its passage through customs, thence to the Gurkha Transit Camp under arrangements kindly made by Major H Subba. On the arrival of Major Muston with the Advance Party these duties devolved upon he and Kefford, now in Kathmandu.

37. The freight had been so packed in UK that the goods other than that required in Kathmandu could be sent straight to the airhead at Lukla airstrip (86°44' E; 27°41' N). Arrangements to do this were put into the hands of the Sherpa Co-operative, by Kefford, who were contracted to move all the freight from Kathmandu to Base Camp on the Nuptse Glacier for a set sum. At the moment there is no better arrangement. STOL aircraft (Pilatus Porter/Islander) are used and flying generally takes place early in the morning on account of the build up of cloud later in the day. The despatch and loading of the freight was supervised by Muston and Kefford at Kathmandu airport during a number of early mornings.

38. At Lukla the stores were received by Angphurba (10 GR), Kubirjang (7 GR) and by the Sirdar (Sonam Girme). From there they were carried by porters and yaks to the AC at Dingboche (86°51' E; 27°54' N) - a 5 day journey with these loads.

39. At Dingboche stores that were required there were unpacked to await the arrival of the team, eg. camping stores, fuel, food and some climbing equipment, (crampons for instance so that they could be assembled and fitted to the high altitude (HA) boots). Equipment not required until Base Camp, was put aside and remained untouched until needed by the Team at that camp. The first loads were carried to BC on 30 March by porters and yaks locally recruited by Sonam Girme. The journey took 2 days - team members took 3 hours!! Once at BC (86°52' E; 27°55' N) the remainder of the stores were unpacked and issued out, supervised by Muston and Winship.

40. Personal clothing and equipment, wherever provided by the expedition or by individuals, travelled to Nepal as outlined above. Members were issued with the bulk of their clothing and equipment in UK. Once in Kathmandu individuals sorted out their own clothing, retaining that being required for the March in, and sending the remainder to Dingboche by air/porter. Final issues of climbing equipment (Whillans harness, jumar clamps, descendeurs etc) were made at BC.

41. The oxygen sets were sent out with the freight as outlined above. The cylinders, however, had to travel out to Nepal empty, because there was no dangerous air cargo (DAC) flight available to take them out full. Arrangements had been made to fill the cylinders in Calcutta (Indian Oxygen Co.). Unfortunately by the time this had been done the Expedition was within a week of returning to Kathmandu just before the monsoon broke.

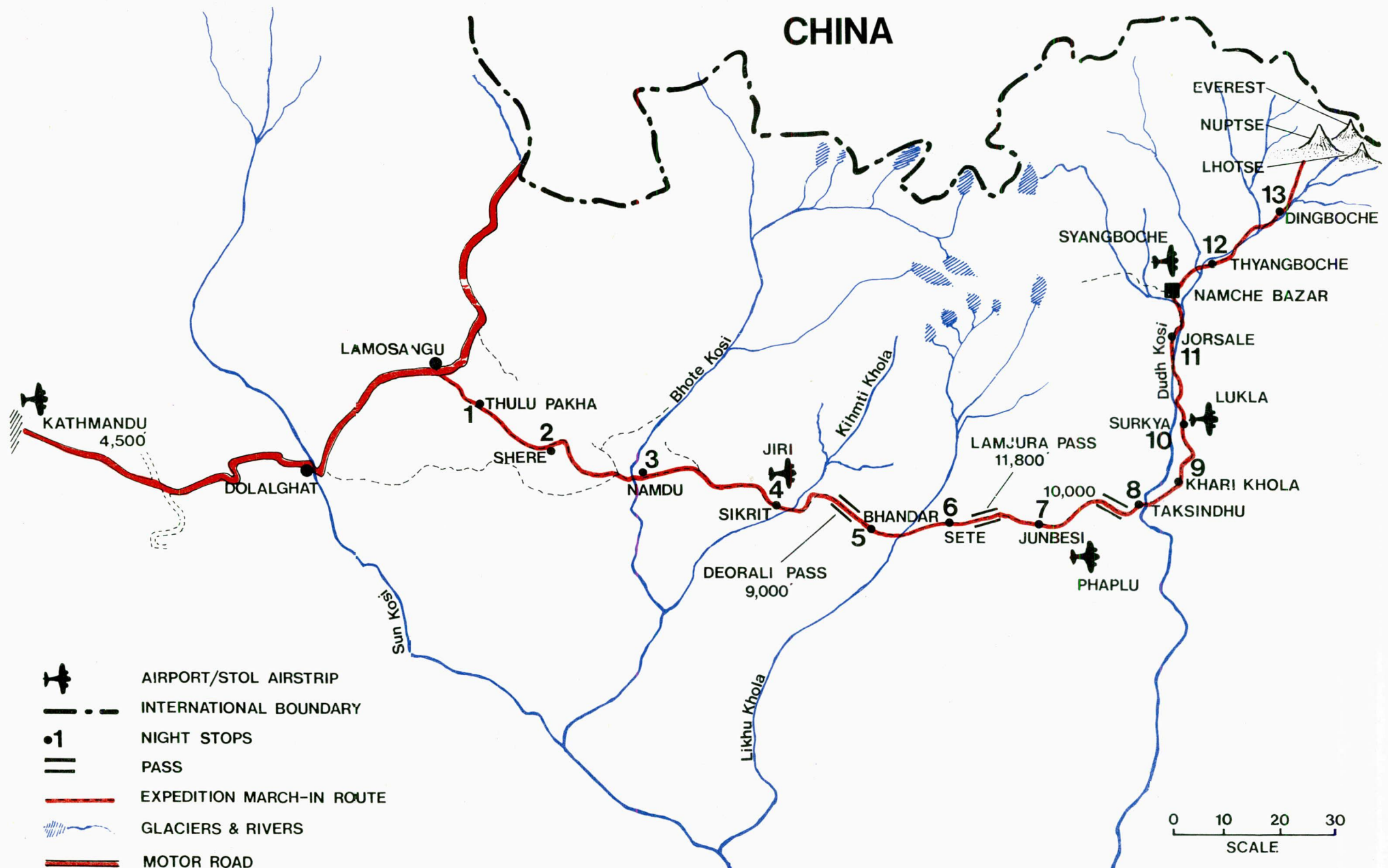
42. The non availability of a DAC flight also precluded the use of gas stoves and so the experiments which we had planned to conduct with them could not take place.

The March In - Lamosangu to Dingboche

43. With very few exceptions the routes taken by both The Advance Party and the Main Body were the same.

44. The Advance Party of 4 'Sahibs' and 8 porters left Kathmandu on 4 March and arrived at Dingboche on 19 March. The Main Body of 14 'Sahibs' and 24 porters left Kathmandu on 15 March arriving at Dingboche on 28 March. Dilly who arrived in Kathmandu from UK on 15 March travelled to Dingboche by air/foot, with Kefford, both arriving there on 21 March. Pasang Tamang joined the Main Body at Khari Khola on 24 March, for the remainder of the journey.

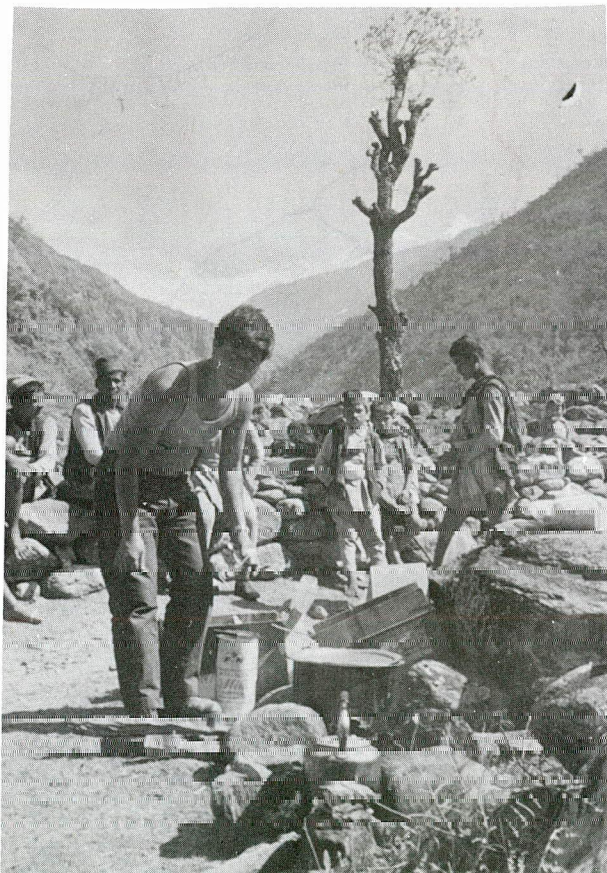
EXPEDITION MARCH-IN ROUTE



The March In



A Chi Shop



Breakfast



Namche Bazaar

45. The first part of the journey is by road to Lamosangu, about 50 miles east of Kathmandu on the new tarmac road which has been built to the Chinese Border. Royal Nepalese Army transport was used. After climbing out of the Kathmandu valley on to the Sanga Pass the road descends continuously until it runs beside the large Sun Khosi (River). Flanking the ribbon of metal are terraced fields worked by men and womenfolk in their constant battle to win rice, maize, potato and grain to sustain life in these dusty parts. Occasionally a green patch would denote some success for a fortunate family. We went through dry, dusty, dirty and cheerful villages, scattered as they were like currants in a vast pudding. At one of them we stopped for tea, a sickly light brown liquid, though not unwelcome, taken out of a sticky glass GS! - 16 cups of tea for 15p - it felt wonderful to be back travelling once more.

46. Having lost 2,300 feet on the way, we arrived in Lamosangu (2,200 feet) at 1500 hrs. Immediately we were besieged by people, but were rescued by the 24 porters we had selected and by Narbu and Nandaraj who were to be our 'mentors' during the March in. By dusk the vehicles had been unloaded, a camp had been pitched on the far end of the village, and a familiar meal of compo (though garnished with the not unpleasant taste of wood smoke) had been swiftly devoured. As I settled down to type my first Newsletter for Major Warwick to distribute to a large circulation of Patrons, Officers, relations and friends in UK and abroad. I heard the porters chattering away into the night over the glowing embers waxing and waning with the light breeze. Rather selfishly, I was suffused with a feeling of peace and contentment.

47. Winship piloted us with the utmost tolerance through the next 13 days. We would be woken with a mug of tea (Chia) brought by a smiling porter at 0545 hrs. At 0600 hrs Narbu would take the breakfast cooking party off to find some suitable site for this all important meal some 2½ hours along the way besides a water point. By 0630 hrs the 'Sahibs' had got up, packed up and were on the march in search of breakfast - one day we overtook it somehow and had to be called back! Then followed the line of heavily laden porters carrying the tents and camping gear, the food and fuel under the watchful experienced eyes of Nandaraj. Between 0900 and 0930 hrs we ate breakfast of cereals, sausages, beans and eggs, if any were available, biscuits and jam and tea or coffee. After collecting the necessary ingredients for lunch, away again, after an hour or so into the haze of an increasingly hot day. Lunch would be eaten in a tea shop, if a convenient one was to hand, or on the side of the track in the shade, in travelling groups of two or three. On all but two occasions the day's march ended at mid-afternoon and we would then wait for the porters to catch us up (sometimes they were up to 3 hours behind) before putting up our tents for the night, eating supper and turning in early at 2000 hours, following the peaceful pipe, to get a good night's rest for the rigours of the following day. Twice we put in long days and Winship and I went back down the track to guide the porters in by torch light. Sometimes we were lucky and camped near a river. Then we would wash away the dust and sweat from our rapidly thinning, though far from emaciated, bronzing bodies.

48. To begin with we could sleep outside because it was so warm. But as we got nearer the Himalayas and we climbed higher it became considerably colder; then we had to climb into tent and sleeping bag.

49. It was a magnificent route; a delightful and unbeatable way to get fit - climbing from 2,300 feet to 14,100 feet in 13 days carrying a load of 35 lb (Map at Annex A). Each pass one came to was higher than the last. The Lamiura at 11,500 feet was the highest and crossing this on the 7th day out denoted our arrival into Sherpa country. The dusty paths, through tensely terraced cultivation, worked by shy, and silent folk gave way to much more lush surroundings here. The fields were not so close or compact, the people were more friendly, less shy and inhibited. Life seemed to be more carefree. On the 8th May we turned a corner on the track high upon a promontory and saw the whole panoply of the high Himalaya in front of us. Just visible through an advancing squall was EVEREST, black, squat, powerful and flying the familiar banner. To its right LHOTSE; in front the NUPTSE ridge looking so very much lower. What an unforgettable

picture. Almost subconsciously we quickened our steps. We passed Lukla on the 11th day. Here commercialism, brought by the tourist flying in and out has come to stay. It is depressingly stark. Little kids rush up and chant "Namaste" (Good Day), "Meetei" (sweets), "Chocolat", 1 rupee!! Then to Namche Bazaar the capital of the Sola Khumb, a veritable town clinging for dear life to the side of a steep ridge; teeming with tourists, pilgrims and locals all peering at each other to try and decide who is which; laughter and gaiety abound. Although there is still snow on the ground summer is in the air and everyone is happy. It was hard to believe that we were at 11,500 feet. At Namche our trekking permits and passports were checked before we moved on the next day to Thyangboche. For most this was the highlight of the March-in. Thyangboche at 12,715 feet is set amongst glistening white summits, and tranquil, peaceful pine woods. It is an ideal situation and must be perfect for quiet meditation. Life; both human, animal and bird, revolves around the famous Monastery. The call to prayer reverberates around the surrounding mountains. From our camp site in the Monastery grounds, we were able to pick out our intended route on Nuptse.

50. On the way from Namche Bazaar to Thyangboche, Winship and Walshaw had called to see the airport manager at Syangboche to confirm the arrangements for incoming and outgoing mail, and also on the doctor who ran Sir Edmund Hillary's Hospital at Kunde just in case of need in the days to come.

51. At 1500 hours on 28 March (Good Friday) the Main Body reached Dingboche. It was snowing. The place looked as desolate and as uninviting as I imagine a Russian steppe would look. We were met by Dilly, Kefford, Angphurba, Khagendrabahadur, and Kubirjang and by Sonam Girme, Tensing and Pasang Tensing. Soon we were in the Mess Tent enjoying steaming cups of tea.

52. We paid off and released our 16 remaining porters - 8 had been paid off at Khari Khola because there was not enough for them to carry - and settled down to get used to the new height.

Acclimatisation Camp, Base Camp, Camp I

53. The next day dawned fine and sunny. The white summits around us shone against the deep blue sky. The view up and down the valley was breathtaking. Because it was still early in the season no locals were this high yet; they would wait for the summer before coming up this far. From the camp we were able to see Peacock, Owens, and Brister, make their successful ascent of Island Peak, a 20,300 foot mountain further up the valley. They climbed it by the south west ridge. It provided an excellent training climb, and no one suffered any altitude problems. They returned on Easter Day, 30th March, in time to join our short Easter Day service held in the Mess Tent.

54. The first loads started going up to Base Camp on 30th March. 105 loads went up while Khagandrabahadur and Kubirjang moved up to Base Camp to look after them. On the following day Owens and Fleming took the first 'sahib' loads up to Base Camp. It proved to be an easy route, nowhere too steep, but tiring all the same, unused as we were to the altitude. The round trip took only 3 hours. This was the first time I got a good close look at our proposed route on the mountain - from the lateral moraine behind the camp. The south face of Nuptse is a vast intricate almost overwhelming looking problem. From glacier to summit it is almost 8,000 feet high; its base is $1\frac{1}{2}$ miles wide. The central ridge looked an obvious route up, but it also looked steep, exposed and composed of rotten ice; then there was the rock band that spread right across the face, 1,000 feet thick, steep uncompromising rock; following this the long snow traverse which in 1961 was hard ice; this led to the base of a steep narrow couloir, a col and then the top. Tingling with excitement at the prospects of getting to grips with this route I retraced my steps to Dingboche.

55. An hour later a party of us were helping to carry the doctor of the Italian Lhotse Expedition from their Base Camp to our AC. He was suffering from pulmonary Oedema, and but for the efforts of Dilly and Kefford would have lost his life. The

next day we received an SOS from the Japanese Ladies Base Camp on EVEREST; 2 sherpas had had a fight and had injured themselves badly. Dilly went down to patch them up.

56. For the next few days each man left the camp to take some exercise in his own way, in order to help personal acclimatisation. Peacock went up into the EVEREST Base Camp area and recced the LHOLA. He took a number of photographs of this and of other approaches on to EVEREST.

57. On 2nd April; while the rest of the Team were backpacking loads up to Base Camp, Armstrong and Fleming joined Khagendrabahadur there and occupied it. That afternoon they recced a way to Camp I along the lateral moraine on the west bank of the Nuptse Glacier and then across a very unpleasant looking $\frac{3}{4}$ mile wide boulder field. Kubirjang returned to Dingboche because he was not feeling well.

58. The next day Armstrong and Fleming made the route to what was later to be Camp I (18,000 feet). Carrying light loads (30 lbs) they followed the lateral moraine for an easy $1\frac{1}{2}$ hours, slightly uphill work, before having to cross the glacier, right underneath the huge south face of the mountain. They marked the route with fluorescent flags. The boulder field was hard going, ankle breaking terrain. Up and down the whole time, treading on an uncertain surface of ice or scree, in the heat of the day. Sometimes huge boulders would shoot out from under one's feet leaving one breathless and frustrated in the sitting position. At length we crossed the infernal slag heap and found ourselves in a little snow basin bounded by CHUKUNG PEAK to the right, NUPTSE to the left, and the Central Ridge to the front. We climbed a steep snow slope and established Camp I at 18,000', just underneath our proposed route onto the ridge. After lunch and well pleased with our day's work we retraced our steps, repositioning the route flags where necessary arriving back at Base Camp in mid afternoon just as snow began to fall. Winship, Muston, Walshaw, Lane, Stokes, Bhagirath, Basanta and Pasang had all arrived to stay. Having taken more loads across to Camp I, consisting of food, fuel, camping and climbing gear, we erected the Camp on 5th April; Lane and Stokes occupied it on the 6th. We were now all set to tackle the ridge - the crux of the climb.

The Ridge - Camp II to Camp IV

59. The route to Camp II went across a cravasse and then steeply up the side of the ridge for about 800 foot of ice and snow to its crest. From here, looking east one got the most superb view of another Himalayan Giant, MAKALU (27,790 feet), a massive 'A' blocking the gap between LHOTSE and BARUNTSE. Turning left along the ridge one climbed easily to a rock gendarme round which one parted awkwardly, and underneath which we put Camp II at 19,200 feet. We called the rock gendarme The Mitre. The Camp was a spacious one as compared to our subsequent ones on the ridge even so there was only sufficient room for 3 tents before the 2,000 foot drop on either side to the West Lhotse Glacier on one side and the Nuptse Glacier on the other. The campsite had been used before, by the 1961 Expedition, because the rock platforms which they had used for their tents were still visible - indeed we used them ourselves for our 2-man Tunnel and 3-man Box tents.

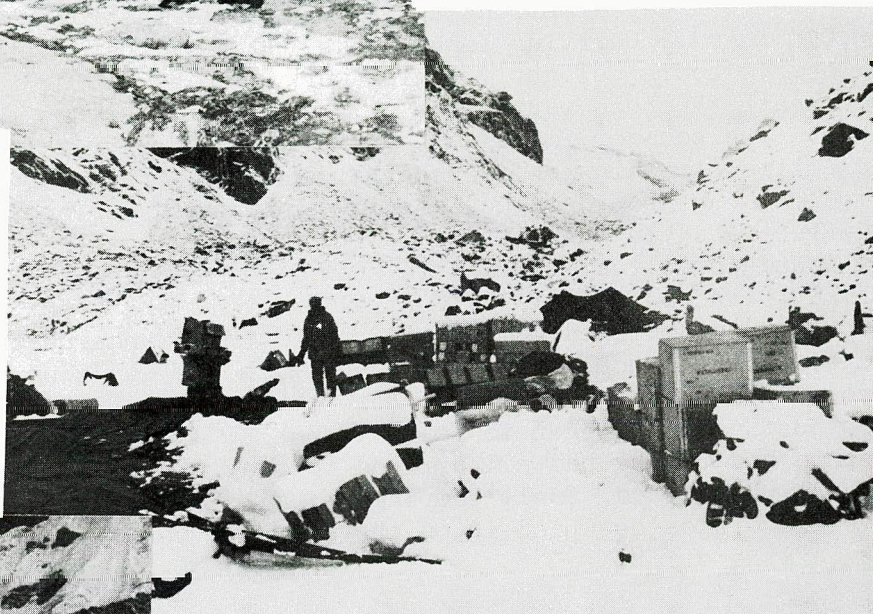
60. Stokes and Lane had been leading the way, with Brister and Armstrong trailing them putting in the fixed ropes. A fixed rope is a safety device which the climber attaches himself to by means of a junar clamp so that if he slips off the route he is saved by the tension which the weight of his body imposes on the rope. Fixed ropes are generally positioned on difficult or dangerous routes which are going to be used for load carrying.

61. From Camp II to Camp III the route was impressively steep, sometimes snow; sometimes hard brittle blue ice. The exposure, that is to say the airy feeling about one's feet was alarming! About half way up there was a rock pitch; it was steep and at the top overhanging. The 1961 party graded it at VI - not the sort of climb one expects in the Himalayas at an altitude of 19,600 feet. Stokes did very well up this (later on a wire ladder was fixed up it: but it was still hard work climbing it with a load) and the next day 13th April they sited Camp III at 19,800 feet on an airy ledge on which



*Ladies of the Japanese
Everest Expedition with
Armstrong and Summerton*

Base Camp in April



Camp 1



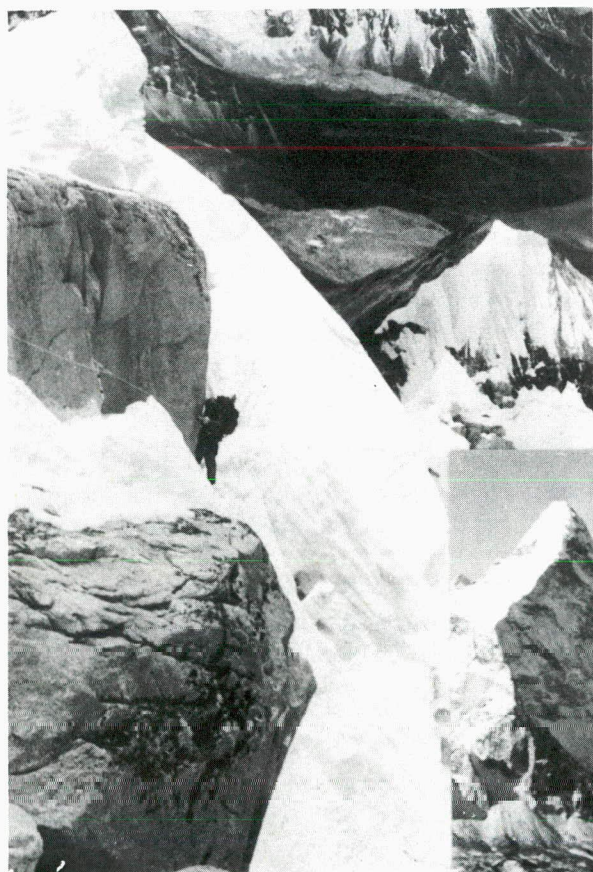
Between Camps 1 and 2



Camp 1 Using Tunnel Tents



Between Camps 2 and 3



*Camp 3 with
Ama Dablam behind*

one could put up 2 Tunnel tents and nothing else. Even to do this 2 hours work was needed to hack the necessary platform out of the ice and the tents had to be secured to the ice by ice-screws and rope for fear of being blown off so strong was the wind.

62. All the while the rest of the Team were ferrying loads up to Camps I and II from Base Camp. Dingboche had by now been completely executed, King, Gifford, Basante and Bisham having recovered from their various ailments and were now load carrying from Base Camp.

63. Having sited Camp III Lane and Stokes then went back to Base Camp for a two day rest. Brister and Armstrong took over the lead while Agnew and Walshaw put in the fitted ropes. Some 5 minutes above Camp III a Dump was established, since there was no room at the campsite itself, and later on we put a tent here which was then occupied by 2 men. Brister and Armstrong were climbing so well that it became somewhat of a race to stock the Camp III Dump with enough fixed rope and ironmongery in time.

64. By 17th April Brister and Armstrong had forced a way to a small "Notch" in the ridge and were believed to be only a short distance from our proposed Camp IV and the end of the ridge. They had done extremely well to find a route under the prevailing conditions. The route finding was complicated by rotten ice, huge unstable seracs (ice towers) tunnels going through the ridge and very varied weather conditions. Steps, for example, which had been fashioned the day before used to be completely lost by next day, either by new snow or by a toppling serac. Together with all this was the ever present sensation of the void beneath our feet.

65. Brister and Armstrong having returned to Base Camp for a rest, Agnew and Walshaw took over the lead with the aim of siting and establishing Camp IV as soon as possible. Dilly and Kefford followed on behind improving the route for ease of load carrying, and putting in the fixed ropes. Bhagirath, Lane, Stokes and Fleming were at Camp II, Peacock, Muston, Gifford, King, Narbu, Basanta, Krishna and Pasang were all at Camp I, while the remainder of the Team and the 3 Sherpas were at Base Camp ferrying loads across the glacier.

66. While at Base Camp, because our oxygen cylinders had not yet arrived from the Indian Oxygen Company in Calcutta, where they were being filled, Brister and Armstrong were sent round to the Italian Base Camp on Lhotse to borrow four of theirs for medicinal purposes. Because of our help to them at Dingboche, where Dilly cured their leader, Riccardo Cassin, as well as their Doctor, they were only too happy to help us out. Much generous hospitality was enjoyed by our envoys as well.

67. On 20th April Fleming replaced Walshaw in the lead partnering Agnew because Walshaw was suffering from an acute toothache and was forced to return to Base Camp for treatment. The next day Dilly and Kefford had to return thither; the former to treat his patients, the latter to rectify a warfare problem of Angphurba's - this resulted in the latter's departure from the Expedition. This was a blow for he was an experienced man. Because there was no one else who was sufficiently acclimatised to 20,000 feet at this stage Lane and Stokes came up to Camp III to fix the route behind Agnew and Fleming. Meanwhile the stores dumps at Camps II and III were growing steadily.

68. By now it was becoming obvious that the route between Camps III (19,800 feet) and the proposed site for Camp IV (21,000 feet) was so long and complex that it could no longer be pushed out from Camp III, but that the leading climbers would have to set up an intermediate camp in the "Notch" at 20,400 feet and work at the route to Camp IV from there. Accordingly Agnew and Fleming, with Lane and Stokes being used as "porters" set up this intermediate Camp IIIA, comprising one Tunnel tent on 22nd April. A little progress beyond Camp IIIA was made on this day before bad weather forced a retreat.

69. The next day, having started out extra early Agnew and Fleming completed the route to Camp IV (21,000 feet). It was an impressive lead by Agnew in continually deteriorating weather conditions. This time the lead pair were fixing the ropes as they went along, leaving the second pair to improve the route. Camp IV was put on a substantial col where the ridge joined the face. There was plenty of room for a number of tents. After a 10 hour day they were back at Camp IIIA.

70. The next day, 24th April, Agnew and Fleming returned to Base Camp leaving Lane, Stokes, Gifford and King at Camp III to improve the route to Camp IV. Basanta, Pasang, Krishna, Sherpas Pasang Tensing and Tensing were at Camp II and Peacock, Muston, Owens, Summerton, Brister and Armstrong were at Camp I.

71. From the 24th to 27th April the route from Camp III to IV was improved. Not without mishap for which negotiating a particularly tricky rock travers Gifford lost his hold of a tent, an anorak and some personal gear. Nevertheless on 27th April Camp IV was at last occupied by Gifford, King, Krishna and Pasang. It was a great day - the ridge had been cracked! Also on 27th April Agnew and Fleming moved up to Camp IIIA from Base Camp, intending to move this Camp up to Camp IV and occupy it.

72. The plan now was to stock camp IV with food, fuel, camping and climbing gear rather in the nature of an Advance Base from which we could launch ourselves up the mountain on to the top. We were now all filled with the urgency of this task. Time-wise we were alright since we had completed the ridge in 20 days. We had less than 5,000 feet to go and just over a month in which to do it.

Camps V, VI and VII

73. Being on a col Camp IV was an extremely windy place. Moreover it was very cold in the mornings when getting up, until the sun hit the tents. The route to Camp V lay up a series of steep snow slopes. In some places the snow was either melted off by the sun or blown off by the strong wind to expose hard, blue ice. In other places the surface was in good condition and cramponable. Just before the final steep slope to the Camp one had to negotiate a tricky traverse above a sheer drop of some 4,000 feet.

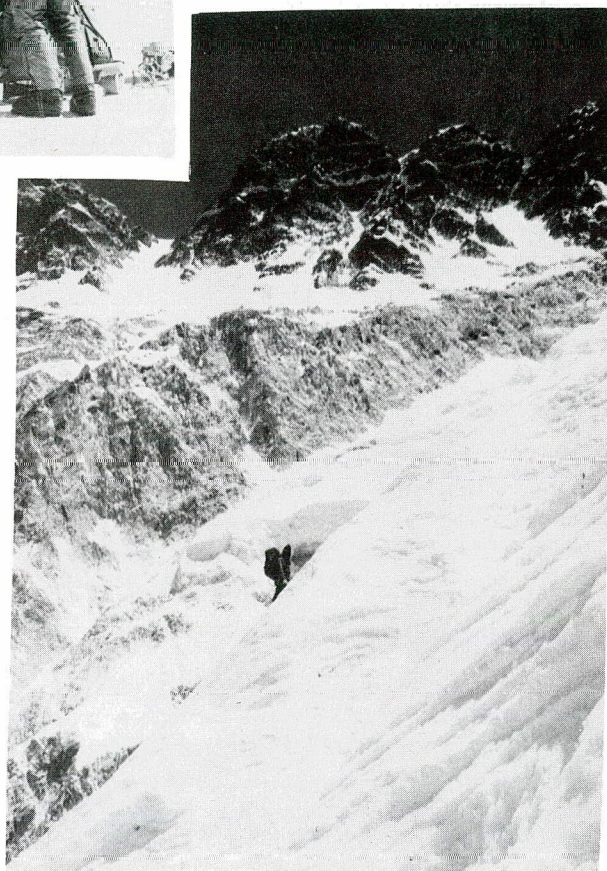
74. Gifford, King and Fleming reced the route up to Camp V on 29th April, fixing the rope where necessary as they went. The next day the same 3 accompanied by Pasang sited Camp V in a crevasse at 22,350 feet underneath the last major obstacle on the route, the Rockband. Any camp established in the open was very exposed to rock fall and toppling seracs from higher up the mountain; thus by putting the camp in the crevasse it was hoped that we would be protected from these 'missiles' to some extent. On the way down to Camp IV King sustained a damaged knee, from a big rock which had been dislodged, and had to be helped down by Gifford and Fleming - Pasang having gone down to Camp IV to summon help. This came in the form of Agnew, Owens and Summerton, the latter two having moved up to Camp IV that day.

75. Camp V was occupied by Agnew and Gifford on 1st May and they were joined there on 2nd May by Owens and Summerton, who as everyone knew, were to form the first summit pair. Lane and Stokes came up to Camp IV, as did Brister and Armstrong. While Camp V was being stocked from below Agnew and Owens were recceing the route through the Rockband. Once up at this height a route through this 1,000 foot vertical rock obstacle became more apparent. From Camp V a crevasse level was crossed on to a very steep cramponase snow slope about 500 feet high. The exposure down to the Nuptse Glacier, nearly 5,000 feet below, was extreme. After crossing more crevasses and a steep exposed traverse the rock band was reached. Agnew led very skillfully up this. At the top section there was a rock gully completely choked with ice so he had to make some hairy moves on the left, or exposed rock to complete the route. After a further deep powder snow, steep and exposed traverse, Camp VI was sited on 5th May by Agnew, Owens and Summerton at a height of 23,350 feet. Gifford had had to return to Camp IV (and thence to Base Camp) under supervision from Brister and Fleming because of frostbitten hands. On this day, too, Brister, Armstrong, Krishna and Pasang moved up to occupy Camp V.



Camp 4

*Just Below Camp 4
The Rock Band, Gulley to Summit Ridge
and the Summit itself
can all be seen behind*



*Looking down on Camp 4
and the Ridge.*

*Camp 1 can be seen
bottom left and the
Nuptse Glacier below*



*The Rock Band (Centre) with
Summit in top right corner*



*Camp 6 in Snow field above
the Rock Band*



Between Camps 6 and 7



*Final view of Nuptse, Everest and Lhotse
from Thyangboche*

76. Camp VI having been occupied on 6th May by Owens, Summerton, Brister and Armstrong, these four on 7th May made the route to the final Camp - VII. It lay along a traverse of over $\frac{1}{2}$ mile long, composed of snow, although in terms of height it was only 300 feet higher than Camp VI - 23,500 feet. The 1961 party had had to cut steps all the way along this traverse, in ice. This year it was easier because it was snow, though climbers still had to move one at a time. Snow the evening before had made the conditions tricky and so progress was slow. By the time they reached the site for Camp VII - about the same as the one used in 1961 - it was too late for Brister and Armstrong, who were carrying the tent, camping gear, food and fuel for Owens and Summerton, to return to Camp VI. They therefore remained at Camp VII for that night, returning to Camp VI the following day. Walshaw, having moved up to Camp IV on 6th May went to Camp V on the 7th.

77. Owens and Summerton rested all day on the 8th May. Agnew and Krishna joined them at Camp VII taking sufficient camping gear, food and fuel along with them. Walshaw and Pasang moved up to Camp VI; Lane, Stokes, Dilly and Fleming moved up to occupy Camp V. That night Peacock, at Base Camp gave us a good weather forecast from Kathmandu and India for the next day, our first summit bid day.

The Summit Bid - First Accident

78. Getting up at about 0430 on 9th May, Owens and Summerton left Camp VII in fine weather, for the top of Nuptse at 0715. They climbed up the 2,000 foot snow couloir which led to a col on the summit ridge, there they planned to follow this ridge for about 400 feet to the top of the mountain. To start with anyway, they climbed for a time, belaying each other in the usual way. Lane, Stokes, Dilly and Fleming took loads from Camp V to Camp VI. Kefford, Muston, Winship (who had now been replaced as Base Camp Manager by Peacock) and Tensing Sherpa carried loads from Camp III to Camp IV.

79. The eyes of all those who could see the final couloir were on the two minute figures progressing steadily up to the summit; carrying with them the hopes of us all. They were moving one at a time to begin with although it is possible that they changed this position later on. In general they kept to the right hand edge of the couloir, near the rocks, in the shade. By 1000 hrs they were over half way up. At about this time Winship, who in the company of Muston was load carrying from Camp III to Camp IV, and Kefford and Tensing Sherpa who were load carrying from Camp IV to Camp V heard a stonefall on their left coming down the mountain. They saw red and orange objects. Both a rucksack and an orange polythene survival bag were positively identified. At the same time observers at Base Camp and Winship noted that there was no one in the couloir. Later on Krishna at Camp VII volunteered the information that he had seen a rucksack fall past Camp VII - he was also hit on the head by a stonefall while resting outside the tent at Camp VII. It was not until the 1630 radio schedule that those who were load carrying between Camps V and VI were aware of all this. Even then there was no concrete evidence that anything other than articles had fallen down the mountain. Since in 1961 the first summit party had taken a 12 hour day for substantially the same journey, we had no reason to expect Owens and Summerton to return to Camp VII before 1915. Moreover since the weather had deteriorated from midday, there was just the possibility that they might have bivouaced in a snow hole on their way to, or on their way back from the top. Although the radios at Base Camp (Peacock) and at Camps III (Muston); V (Fleming) and VII (Agnew) opened up every hour on the $\frac{1}{2}$ hour from 1730 there was no further news. The other camps on the mountain were on a different radio net but were kept informed of what was happening by Fleming who had the appropriate set. At 2030 it was quite dark. There was no light to be seen coming down the couloir, Fleming decided to close down the radios for the night and to open up again early the next morning. He and Peacock had discussed the possibility of summoning a helicopter to search for bodies the next day if necessary.

80. Hardly anyone on the mountain slept that long, difficult but clear night. At 0500 the next morning (10th May) the first radio schedule took place. There was no news of any sighting of Owens and Summerton from Camp VII. The possibility of an accident to the summit pair could not now be ignored. Peacock requested a helicopter over the rear link radio. The message went to Namche Bazaar, thence via the Police Net to the Ministry of Foreign Affairs (MFA) at Kathmandu then to our Defence Attache' (DA), Lt Col J A Lys MC, at the British Embassy, who requested it from Royal Nepalese Army HQ. Bad weather prevented it from getting to Base Camp that day. Nevertheless there was still a glimmer of hope that Owens and Summerton might be alive, particularly if they had had to bivouac at any stage. Agnew and Krishna were instructed to climb up the couloir to see if they could detect anything. Unfortunately the latter was badly affected by the events, was still suffering from the stonefall on to his head and was not climbing well. Nevertheless by a supreme effort Agnew climbed up to a place from which he could see the whole of the couloir up to the final col. There were no signs of the missing pair. The climbers returned to Camp VII and reported the facts to Fleming at Camp V.

81. Despite what had happened movement up and down the mountain continued. Brister and Pasang moved across from Camp VI to Camp VII; Lane and Stokes moved up from Camp V to Camp VI; Kefford and Winship took loads from Camp IV to Camp V and then returned to Camp IV; Armstrong, who had a frostbitten hand moved down to Camp V from Camp VI. Agnew reported from Camp VII that Krishna had lost a crampon; he would have to wait for a replacement before attempting any movement either up or down.

82. Early on 11th May the Royal Nepalese Army Allouette III helicopter piloted by Commandant Pierre le Floch arrived. With Winship guiding them by means of the radio, Peacock and Gifford went to the Bergschrund into which the 'stonefall' had been seen to disappear. Later they emerged and reported that the bodies of Owens and Summerton had been identified. This stark paragraph belies the magnificent job both Peacock and Gifford had done, under emotional and dangerous circumstances. They deserved and got, our unbounded admiration.

83. On the same day Agnew and Krishna returned to Camp V from Camp VII; the latter using crampons borrowed from Pasang for the journey from Camp VII to Camp VI and borrowed from Fleming for the journey from Camp VI to V. On his arrival at Camp V it was discovered that Agnew had frostbitten fingers. These were immediately treated by Dilly. Armstrong descended towards Base Camp from Camp V. Plans were now firm for Brister and Pasang to go for the summit on the 13th May, possibly with Lane and Stokes making the foursome on account of their greater experience. To give greater depth to this assault Dilly and Fleming moved out of Camp V for Camp VI on 12th May, the same day that Lane and Stokes moved across from Camp VI to Camp VII to join Brister and Pasang. Their load included Pasang's crampons which had previously been loaned to Krishna for his descent to Camp VI, thence to Camp V. While moving up the steep snow slope between Camp V and Camp VI Dilly and Fleming were avalanched only just managing to stop themselves before plunging over a steep drop. They returned to Camp V. Krishna was escorted to Camp IV by Walshaw. The weather forecast for the next day, 13th May, was bad. This did not augur well for a summit bid.

84. 13th May dawned overcast; the mountains on the other side of the valley were wreathed in dark cloud even as early as 0600 hrs; an eerie atmosphere prevailed; there was a peculiar magenta glow to the scene. By 0800 it was snowing hard. No movement was possible on this day. Even so King and Walshaw by a great effort came up to Camp V from Camp IV. Word came through on this day, via the radio, that the Expedition's departure date from Kathmandu was to be 4th June. Accordingly a plan was worked out which would allow one more attempt on the summit; but to give everyone a good rest before this it was decided to evacuate the mountain for 4 days respite at Base Camp. Thus instructions were issued for the mountain to be evacuated, high camps first. At about 1915 a huge avalanche smothered Camp V completely flattening the tent normally occupied by

Agnew and Fleming. Fortunately they happened not to be in their tent at the time. For the next 2 hours and in complete darkness the occupants of the camp tried to dig out their tents. They were hampered by further avalanches. Although most of the kit was rescued from the flattened tent it was completely destroyed. So the 5 members at Camp V had to squeeze into one Tunnel tent for a very uncomfortable night. Sleep was impossible but morale remained high owing to the antics of Agnew, a constant stream of unprintable jokes and poems from Dilly interspersed with the dry, pithy humour of King. Those at Camp VII fared little better, their tents being continually bombarded by mini snow slides.

Evacuation - Second Accident

85. First light came now too soon - especially for those at Camp V. Mercifully it had stopped snowing but the overcast sky showed that this would only be a brief respite. Perhaps the monsoon had broken early? Those at the higher camps began evacuating the mountain. At Camp VII they had difficulty in finding two ropes because of the quantity of snow which had fallen so they cut a new one in half. Lane and Stokes left that camp at about 1015; Brister and Pasang at about 1145 hrs. The conditions were difficult as the snow on the traverse was 4 feet deep in places and they had small avalanche runnels to cross. Further down the mountain conditions were not much better as Agnew, Dilly and Fleming evacuated a cold, inhospitable and much battered Camp V. King and Walshaw were left there to see the 2 parties from Camp VII through and to make themselves as comfortable as possible at that bleak place. All day the parties continued the descent. By 1230 it was snowing hard at Camp IV. Krishna, who was at Camp IV, gave Agnew, Dilly and Fleming a much needed drink. They then continued their descent along the tricky route to Camp III, made more so by the foul weather and loose powder snow conditions. They finally arrived at Camp III at 1800 hrs after a hard 12 hour day - with no sleep the night before.

86. Further up the mountain Brister and Pasang were catching up Lane and Stokes because of the footholds which the latter were making for them. Visibility was down to 20 feet. But at about 1630 hrs the clouds parted and as Lane and Stokes were crossing a tricky rock pitch of the route they saw the other two only 200 to 300 feet above them and to the left. They shouted words of encouragement to each other; both parties seemed to be in good shape. The cloud then rolled in again. Arriving at Camp VI the first pair saw that only one tent was habitable so because it was not actually snowing and they seemed to have time in hand, they decided to press on down to Camp V. They got there at 2000 hrs in the dark, to be welcomed by King and Walshaw.

87. Early the next day, 15th May, Peacock and Gifford flew to the crevasse where Owens and Summerton lay, intending to bury the bodies according to local custom. But on arrival there they found that they had been buried already by the recent snow. After putting two small crosses beside the grave in the snow, they left and returned to Base Camp.

88. Leaving Muston and Winship at Camp III, Agnew, Dilly and Fleming continued their descent to Base Camp. Despite the vast amount of snow which had recently fallen the conditions on the mountain were decidedly icy. To the left and right powder avalanches were constantly thundering off the route. At Camps II and I the party was revived by the occupants there by means of hot drinks and food. They were also given their mail. Base Camp was finally reached at 1600 hrs. It was warm, green and marvellously comfortable after the rigours of the ridge. Lane and Stokes moved out of Camp V down to Camp IV. The conditions of the route made this an all day affair.

89. All that day, 15th May, there was no movement from Camp VI. It was Armstrong at Base Camp who first mentioned this. Peacock then told Fleming that he had noticed a "new black dot on the face" under a crevasse just to the right of, and level with, the bottom of the longest gulley cutting the Rockband. It could be a body. When told about it observers at Camps V, IV and Base Camp expressed divided opinions - some thought it was a rock. At about 1700 hrs unable to contain themselves any longer King and Walshaw left Camp V and moved up towards Camp VI. They got to the bottom of the Rockband and shouted up to the Camp. There was no reply. They returned to Camp V just as it was getting dark. On the radio schedule that night Fleming instructed them to go up to Camp VI the next morning to investigate. They would be supported, if necessary, by Krishna at Camp IV and by Muston and Winship at Camp III. In the evening it snowed.

90. King and Walshaw left Camp V at 0800 hrs. It was a sunny day, the first for some time. The snow conditions were bad. They had to move most carefully one at a time. It must have been a nerve wrecking and difficult journey even for those two experienced mountaineers. It wasn't until 1645 that they got to Camp VI. It was desolated and deserted. Sadly they thoroughly searched the area. In vain. Brister and Pasang had never reached the Camp on 14th May; no one had been there since Lane and Stokes had passed through. They reported back to Fleming who told them to return to Camp V at best, safe speed before it got dark. This they did. The team were stunned; four fine friends in less than a week. That evening the requirement for the helicopter to search for the bodies, and specifically to investigate the "new black dot" was confirmed over the radio. We turned in vainly hoping that it was all a nightmare and that when we awoke life, in reality, would prove to be kinder.

91. Through the good offices of Lt Col Lys and the Royal Nepalese Army the helicopter was permitted to spend the night out of the Kathmandu valley, at Syangboche. Accordingly it came especially early. For the third traumatic time Peacock went up to search the mountain face. Flying conditions were not ideal on account of the unpredictable and strong winds howling around the mountain. But Comdt Le Floch was well prepared for these conditions. He flew magnificently and thoroughly professionally. We were all very impressed. After approximately half an hour's flying, during which Peacock took photographs of the "black dot" for identification and proof later on, they returned. The "dot" had been identified as Brister and there was the signs of a rope leading up from his body into the crevasse. On the end of this rope would be Pasang. As for Owens and Summerton we have no means of knowing exactly why they fell. Owing to the dangers involved the bodies could not be recovered.

Recovery to Kathmandu

92. On its return to Kathmandu the helicopter evacuated Armstrong to Kunde Hospital. This is the nearest hospital to the EVEREST region, and was built by Sir Edmund Hillary. It is staffed by a New Zealand doctor whom Dilly was due to relieve for a spell so that the former could attend the Thami Religious Festival. Dilly would operate on Armstrong there.

93. In view of the prevailing weather conditions and also because by now we were running out of fit men and time I decided that the climb would have to be abandoned. Considering how close we had been to success and how well everything had gone up to the time of the accidents, this was a very hard, but wise, decision to take. I have never regretted it since; neither the weather, nor the conditions gave me any cause to do so.

94. Salvaging as much camping gear, climbing gear and personal gear as we could from the high camps on the mountain, we withdrew off it in good order and were all back at Base Camp on 19th May. Lane was suffering from frostbitten toes so a helicopter was indented for to Casevac him to Kathmandu. A very big Cairn was built at Base Camp and a large metal cross put on it to commemorate our lost friends.

Next year we shall put a plaque bearing a suitable inscription on it. 152 porters/yaks had come up from the valley to carry our loads to Namche Bazaar and Lukla, the airfield from which it had been arranged we should fly to Kathmandu on 23rd May.

95. Thus on the 20th May, following a simple and sad service round the cairn, attended rather touchingly by our Sirdar and the Sherpas, we left Base Camp for the dust and the heat of the valley. Things had altered from when we had been here before; the rivers were more swollen, cattle were grazing in the high pastures, men and women were working the fields in Dingboche, the shrubs were flowering in profusion. On the way down we met some of the Italian Lhotse south face expedition - they also had had to abandon their climb in the face of avalanche dangers. That night we reached Thyangboche and stayed in the Lhotse View Hotel, on rude wooden bunks, the smell of the wood smoke from the fire lulling us to sleep. It rained that night.

96. The next day we moved on to Namche Bazaar past hillsides ablaze with colour from the Rhododendrons. What an unforgettable picture. Bhagirath, Gifford, Kefford, Muston and Fleming all went via Kunde to visit Dilly and Armstrong and to thank the staff at the hospital for their medical help to us and for handling all our mail while we were on the mountain. That night at Namche we were guests in the house of Sonam Girmi. Here we left a lot of equipment that we shall need next year on EVEREST, to save transport costs.

97. The evening of the 22nd May saw the Team including Armstrong and Dilly who had joined us from Kunde, at the airstrip at Lukla. We slept that night in the airport buildings. The next day we left the mountain and flew out of Lukla taking just 48 minutes to arrive at Kathmandu, where it had taken us 10 days to walk it 2 months previously.

Kathmandu and return to UK

98. At the airport we were met most hospitably by Lt Col and Mrs Lys; Miss Liz Hawley, the Reuter correspondent dragged Dilly and Fleming off to her house for an interview; from there they went to see Lane in hospital. He was in rude health and in fact was discharged 2 days later.

99. We shall always remember the Lys's for their unbounded hospitality and generosity to us at this time. Their patience and kindness was never ending.

100. Receptions for us were held by HE The British Ambassador and Mrs Scott, by the Chief of the Army Staff of The Royal Nepalese Army General Shumshere J B Rana, and by the Defence Attache and Mrs Lys. We also had our own small party for those who had helped us, at Britannia House where we were staying. We were honoured that the Ambassador and Mrs Scott attended this.

101. A Memorial Service for our four lost comrades was held on Friday 30th May in the British Embassy Chapel. We were deeply touched by the number of people who were present at this.

102. We held a debriefing session to discuss any changes we may need to make to our food, clothing and equipment for next year.

103. A few days rest at either Tiger Tops Native Reserve or as guests of Capt and Mrs Kefford in Dharan provided a most welcome break. Fleming then reported to Mr Khanal (MFA) to submit his report on the Expedition, to bid for training peaks for next year before tackling EVEREST and to say farewell. Muston arranged for the kit we were leaving behind for use next year to be properly stored and for the remainder to either travel with us as excess baggage or to be put on the autumn Gurkha airlift by Capt Palmer REs, our ever helpful movements expert in Kathmandu.

104. On 4th June we flew out of Nepal for Singapore by Thai International as kindly arranged by Col Nicholson and Capt Palmer. We said au revoir for a year only to many, many friends and colleagues, military and civilian, in the mountains and on the plain. We had endured much together this time and it was a difficult parting for everyone.

105. In Singapore we were met by Lt Col Streater, a Vice Chairman Ama and his wife Sue. They put us all up in the house in Nee Soon.

106. The next day we flew in an RAF VC 10 uneventfully back to UK.

Administration

107. For the purposes of this preliminary report Annexures to the following subjects only are submitted at this stage:-

- a. Annex A - Equipment Report
- b. Annex B - Ration Report
- c. Annex C - Nepal Report
- d. Annex D - Ornithological Report
- e. Annex E - Financial Report

108. The subject of Administration will be covered more fully in the Final Report, which will be published later this year.

Conclusion

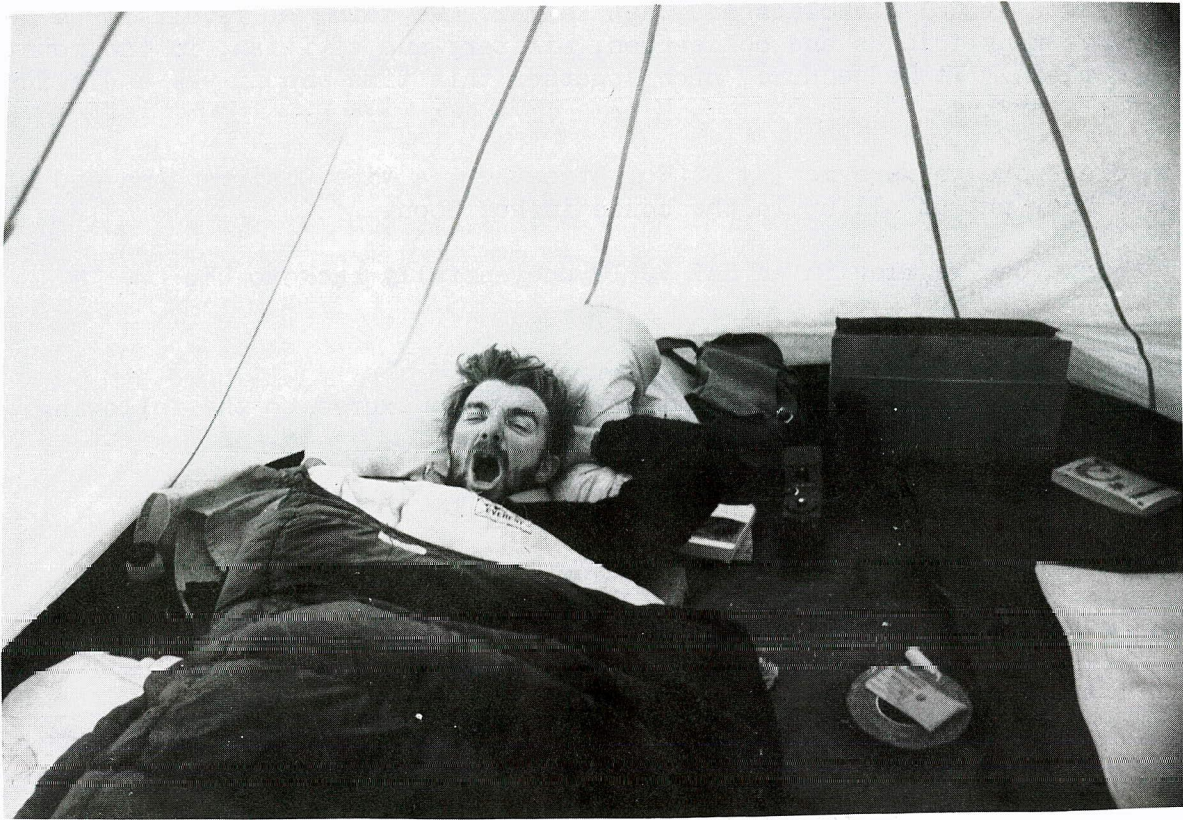
109. It is true that we did not climb to the summit of Nuptse, though we were very close and had overcome all the major obstacles on the mountain. As a final work up expedition for the AMA attempt on Mount EVEREST in the spring of 1976, though, the aim was well satisfied and the Association in conjunction with The Royal Nepalese Army can look forward with confidence to mounting its challenge on Mount EVEREST - the first to be attempted by a Team from essentially one Club.

Acknowledgements

110. An expedition of this magnitude to a peak the size of Nuptse relies a great deal on the good will and unstimulating help of a vast army of voluntary help. We were no exception. On behalf of the Team I express in words which are only so inadequate, my very deep and grateful thanks to you all for your help so unselfishly given. This is one of the main reasons for sending you this Report.

WARMINSTER
August 1976

(J W FLEMING)
Leader



Tailpiece !



EQUIPMENT REPORT

by

Major A J Muston RAOC

1. Introduction. A full list of the stores taken plus quantities and sources is at Appendix 1 to this report. The comments below cover those items which were not found wholly satisfactory. If there is no comment it may be assumed that the expedition was happy with the item as it stood. The clothing and equipment came from three main sources. Most of the clothing was straightforward civilian items which were obtained through Graham Tiso of Edinburgh. Some clothing and equipment was specially produced or modified. These items came from Stores and Clothing Research and Development Establishment or from Karrimor Products Ltd. Finally many items were articles as issued in the services.
2. High Altitude Boots. These were generally found to be satisfactory although two pairs leaked badly from new. A second pair of inner boots would have been welcomed by some members of the expedition.
3. Gaiters. Some members found that these were too small to fit properly over the HA Boots. Ideally a somewhat larger gaiter should be used with a double boot.
4. Overboots. There was a general dislike of these on sight and as a result the overboots were not given a full and unbiased test. When worn with crampons (which is always) the crampon has to be adjusted to the outermost position of the side adjustment. This means that only one screw can be used. This felt unsafe and probably is unsafe. However, the solution is to produce a longer adjustable arm to the crampon. Undoubtedly an insulated overboot will be required on Everest and this one would seem to be as good as any. Further investigation should now take place as to the use of the wire-held type of overgaiter e.g., the Chouinard Supergator.
5. Socks. There was a marginal preference for the Devold Dacore Socks over the SCRDE issue but it is doubtful if the additional cost is justified.
6. Crampons. There is a clear need for a longer adjustable side arm as discussed under Overboots above. The neoprene straps provided were slightly too wide. This meant that they had to be curved to go through the rings and the result was an unacceptably high proportion of breakage. There is also a case for putting the buckle closer together in order to allow a more accurate tightening of the straps on the boots. It is possible that one of the contributory factors to the frostbite cases sustained was overtightening of straps, because to have loosened to the next hole would have made the crampon a loose fit.
7. Underwear. Guardian and Damart long underwear was issued to the expedition on a 50/50 basis. The result was that those who wore Guardian thought it ideal and the same view was held by those who were issued with Damart. It is clear that both are very good for Himalayan climbing and it is a matter of preference for man-made or natural fibres to decide which one to choose. The disposable underwear supplied by Strentex Ltd was liked by those who wore it.
8. Pile Clothing. This had it's adherents but in general it was found to be too bulky to take very far up the mountain, although it was worn frequently at Base Camp. This is probably an item which should only be provided when a strong personal

wish for it is expressed. The one piece suits in pile did not prove very satisfactory and no one wished to have one again. There was general agreement that trousers were preferable to breeches.

9. Quilted Trousers. These were well liked and it was generally agreed that they were more suitable than pile trousers. Most expedition members felt that the provision of a jacket in the same material would obviate the need for the pile clothing. A zip rather than a velcro fly would have been preferred and the addition of pockets would have been welcomed by some. Full length trousers were preferred to breeches. Although not provided (nor needed) for the expedition it was generally agreed that down trousers will be needed for Everest.

10. Windproof Suits. These were universally liked and the jacket, in particular, has reached perfection. It is all that one could wish for as a windproof upper garment. It was agreed that trousers were preferred to breeches. Against the advice of SCRDE the crampon patch which was fitted to the lower inner leg for the 1973 expedition was removed. It needs to be reinstated to avoid damage being caused to the trousers by crampon spikes. The positioning of the pockets with the flap behind the side seam of the trousers caused some tearing at the bottom of the pocket. It is thought that if the whole pocket is positioned in front of the seam this will not happen. Since it is the trousers which seem to take most of the wear during an expedition it would seem advisable to make them of a heavier ventile than the jackets. It would be an advantage if the trousers could be put on over HA boots. This would be possible if the side strip of velcro was lengthened and SCRDE are asked to investigate the possibility of this. Nylon for the outer layer rapidly proved to be unsatisfactory as SCRDE forecast. Those who had one piece suits liked them but those who had two piece saw no reason to change to one piece. On the one piece suits there is a need for the zip to start further under the crutch to facilitate easy urination. The seat flap on the one piece suits needs to be cut with more surplus material and to have a broader velcro strip. Trousers could be shortened by about two inches compared to the normal trouser measurement since the trouser bottom rest on top of the HA boot rather than cover it as with a conventional suit. The green material used for a few of the suits stands out very poorly against the snow and renders the wearer almost invisible. On the grounds of safety this is a bad thing and it is suggested that green is not a colour to be used for mountain clothing.

11. Jerseys. The Shetland jerseys were much liked. If funds can be made available two should be provided in 1976 and the issued heavy wool jersey abandoned.

12. Gloves. Because of the large amount of abseiling and jumaring necessary on Nuptese the Dachstein and Polar Mitts were rapidly. The use of Army issue buckskin mitts, which were available, may have helped to decrease this wear. There seems to be little justification in providing expensive silk inner gloves when the cotton NBC type are available, although more pairs of the latter are needed. There is a need for a complete re-appraisal of the whole glove system before 1976.

13. Everest Sleeping Bags. Strangely enough the expedition did not have anyone over 6 ft in height. Had they done so he would have found the sleeping bag too short to have been able to use the 'mummy' hood. For tall climbers there is a need for a slightly longer version of what is otherwise a very good sleeping bag.

14. Fixed Rope. The 8000' taken was not enough and a lot of climbing ropes had to be misemployed. For any future expeditions on this route 15000' should be taken.

15. Descendeurs. This route needs one per man plus 10% spares.

16. Ice Screws. The CLOG ice screws were not liked. Salewa should be taken in future, and ideally most of them should be the 'drive in, screw out' type.

17. Day Sacs. These were not provided and it was agreed that they should be added to the list of items which a climber provides for himself.

18. Deadboys. These were not taken but it was suggested that they should be a personal issue in 1976 as being easier to carry than a deadman.
19. Ice Axes and Hammers. There was a need for about 6 heavy iceaxes to be held as expedition stores for tackling hard ice. Most climbers now have fairly light axes which are not suitable in all conditions. Some spare ice hammers would also have been useful as would one holster per climber. The holster should be of the webbing rather than the plastic type.
20. Rock-Pegs. More of these would have been welcome especially those of the channel variety. For one-time use they need not be the expensive chrome alloy type.
21. Ice Stakes. These would have been better with a swaged wire loop fitted. Holes drilled in the bottom end would probably have improved their holding power.
22. Snow Saws and Shovels. More of these were needed. It was suggested that one of each should be in every Camp Kit if not in every Tent Kit.
23. Tentage.
- a. The Vango Force Ten Mk V tents were specially modified with an additional A-pole and a snow valance. These proved ideal on the walk-in and at Base Camp. The size of the tent sites available at higher camps precluded their use higher up but there is no doubt that, given larger camp sites, they would be satisfactory.
 - b. Apart from two broken zips the Karrimor Box Tents acquitted themselves very well. For comfort they were second to none and one never had any fears as to their sturdiness and reliability. For this one paid the price of excessive weight - 50 lbs per tent and frame. However for the Himalayas where tents are normally sited and then not moved this is probably justified especially where any risk of stonefall or avalanche is involved. The inner cotton frost liner effectively dealt with any condensation.
 - c. The Blacks Tunnel tents proved satisfactory. Although very fragile looking they stood up well to the weather, condensation proved to be only a minor problem. They need time and care for the initial erecting but once sited on a good snow platform cause no bother. On two of the tents the door tore along the line of the semi-circular zip and this is an obvious point of weakness.
 - d. At 11 lbs the SCRDE tent was the lightest used. It is easy to erect and reasonably comfortable. Unfortunately of the ten tents in use only two had cotton liners, the remaining 8 had nylon. Had the nylon been of the very thin, porous type used in the tunnel tents all might have been well but, in fact, a heavier quality was used and the result was a shower bath from condensation each morning. Understandably this biased anyone using the tents against them. It is probably fair to say that, with the inner of a light cotton, the tents would be satisfactory up to about 21000' - 22000'. Above this the tunnel would be preferred.
 - e. Subject to the funds being available it is suggested that Vango Mk Vs and Black's Tunnels are used in 1976.
24. Stoves. These probably were the biggest cause for concern during the expedition. Regrettably it was not possible to take out the Primus gas cylinders for trial due to safety limitations on RAF aircraft. Thus the question of LGP versus kerosene was not resolved. The Blaxburners for use at Base Camp were an utter failure. In spite of many trials by different people using different priming fuels they just would not light and burn satisfactorily. Many of the Optimus 111 stoves caused considerable trouble, this applied to brand new stoves as well as previously used ones.

As the expedition progressed the kerosene became more and more suspect especially when the colour varied from nearly colourless to quite a deep brown in different jerricans. Nevertheless a full investigation into the pros and cons of silent burners, fuels, etc., is needed before 1976. It was discovered after the expedition returned to Kathmandu that AVTUR(JP 1A), filtered to 5 micron limits is available from the airport and any expedition using kerosene stoves in Nepal would be well advised to use this and nothing else. The Optimus Model 510 burner which has four burners was found ideal for providing plenty of hot water at Base Camp. This stove worked well.

25. Detergent. An attempt was made to provide liquid detergent at all camps but problems of freezing rendered this impossible.

26. 1 Gall Plastic Cans. Another dozen of these would have been useful to carry kerosene to the higher camps.

27. 1 Litre Plastic Bottles. Ideally these should be broader based and less given to falling over. None of those normally sold by camping shops appear to meet the requirement.

28. Millbank Bags. These were not used but should always be available on expeditions such as this.

29. Disposable Teatowels. These proved extremely useful for a variety of purposes as did some large rolls of absorbant paper normally used in RAF passenger aircraft.

30. Meta Fuel. Ideally at least 100 packets should have been taken. If this is done haxamine need not be used.

31. Candles. The short thick type are preferable to the more normal domestic pattern.

32. Tools. The following should be added to those taken: two 6" flat second cut files, a small vice, two adjustable spanners, some small pliers and a set of instrument screwdrivers.

33. Insect Repellant. This was not needed, but two galls of Lysol, or some similar strong disinfectant, would have been useful.

34. Binoculars. A lighter, centre focussing type would have been welcome. Consideration should be given to taking one telescope.

35. Stools. More of these would have been welcome.

36. Heaters. These were not taken but they would have added considerably to the comfort of the Base Camp mess tent.

37. Generator. To avoid the constant chore of manually recharging radio batteries a light generator would be very useful.

38. Skis. Although not needed this year they could be useful in 1976.

39. Pot Holders. A stock of the universal Bulldog Pot grip would be useful for 1976.

40. Thermos Flasks. These were not provided but would have been very useful as part of the Tent Kit.

41. Pressure Cookers. Some expedition members felt there was a need for these in each Tent Kit.

42. Paper Handkerchiefs. These was a request for these. It is probably best met by a small packet in each ration pack.

43. Waterbottles. These were the plastic army type. If they had been metal the contents could have been melted over a stove when they froze.

44. Thanks and Acknowledgements. The expedition would like to express its sincere thanks to those below for help in mounting the expedition.

Graham Tiso for much help and advice with equipment.

Stores and Clothing Research and Development Establishment for the provision of special clothing and tentage. In particular C Cooper, K Chidgee, E Prett and T Mitchell.

Mountain Equipment for the provision of sleeping bags and duvets at reduced price.

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GR Bodycote Ltd for donating long underwear.

Safety International for donating sunglasses to each member of the team.

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Institute of Army Education for the provision of a library of paperbacks.

Ronson Products for the gift of 6 lighters.

MOD (Air), St Georges, Harrogate for the provision of a variety of RAF stores items.

Messrs Milore for the provision of silk gloves at a reduced price.

Strentex Fabrics Ltd for the gift of 500 disposable teatowels and 200 sets of disposable underwear.

Kay-Metzler for the gift of foam mattresses.

Prestige Group Ltd for the gift of four pressure cookers.

Salter Industrial Measurement Ltd for the gift of two spring balances.

Sony (UK) Ltd for the loan of two tape recorders, microphones and tapes.

Royal Geographical Society for the loan of four altimeters.

Black and Edgington Ltd for the provision of four tents at cost price.

AB Optimus Ltd for the provision of stoves at cost price.

S Madeley Ltd for supplying socks at cost price.

DADOS Nepal for the provision of stores in Dharan.

Bridon Fibres & Plastics Ltd for supplying rope at cost price.

Karrimor Products for supplying tents, rucsacs, overboots, tarpaulins and other items at very reduced prices.

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J Hudson & Co Ltd for the gift of whistles for expedition members.

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CO 44 Command Workshops for the manufacture of box tent frames.

CO 27 Command Workshops for the manufacture of snow stakes and deadmen.

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Military and civilian staff of 44 PARA OFP(V) for much time spent in demanding, drawing and packing expedition stores.

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Mountain Rescue Team, RAF St Athan for the loan of a tragsitz.

Sgt Dewar of RAF Det, 44 PARA BDE for the provision of RAF stores.

Mrs Muston for the manufacture of pennants.

Pte Fox, 44 PARA OFP(V) for the provision of black plastic bags.

CLOTHING LIST

Item	Qty	Remarks
Galabier HA Boots	35	From Tiso.
Karrimor Gaiters, prs	26	" " . Standard type.
Nylon Overboots, prs	26	" " . Special order from Karrimor.
Fibrefill Duvet Boots, prs	26	" " . Made by Point Five.
Long Socks, prs	78	" Stores & Clothing Research Establishment.
Devold Devore socks, prs	27	" Tiso.
Insoles, prs	35	Army Issue.
Salewa Expedition Crampons, prs	35	From Tiso.
Spare Parts for Crampons		" " . Quantities on his advice but adequate
Spanners for Crampons	35	" "
Spare Straps for Crampons, prs	12	" "
Guardian Underwear, sets	12	Free from Bodycote Ltd.
Damart Underwear, sets	13	From Damart.
Fur Suits	25	From Stores & Clothing Research Establishment. (Some one piece rest two piece)
Climbing Shirts	60	RAF aircrew type.
Jersey, Heavy Wool	26	Army Issue. Part No. CC/8405-99-132-1771 etc.
Shetland Jersey	27	From W Bill Ltd.
Windproof suits	25	From Stores & Clothing Research Establishment. (Some one piece, rest two piece)
Cagoules	26	From Tiso. Cheap but long skirted.
Quilted trousers, prs	25	From Stores and Clothing Research Establishment.
	26	From Mountain Equipment.
Climbing Helmets, adjustable	6	2 from Tiso, 4 from AMA store (For Sherpas)
Silk Gloves, prs	30	From Milore.
Cotton Gloves, prs	30	Army Issue, NBC type.
Polar Mitts, prs	15	From Tiso, Helly Hensen.
Dachstein Mitts, heavy, prs	15	From Tiso.
Buckskin Mitts, prs	12	" AMA stores.
Black Leather Gloves, prs	9	" " "
Sunglasses, prs	26	" British American Optical Co.
Bush Hats	24	Army Issue.
Oxygen Helmets	26	From RAF
Disposable Underwear, sets	200	" Strontex Ltd.
Folding Goggles, prs	15	From Tiso (for Sherpas & spares)
Plimsoles, prs	50	For coolies.

SLEEPING EQUIPMENT LIST

Item	Qty	Remarks
Everest Sleeping Bags	26	From Mountain Equipment.
Army Sleeping Bags	30	Army Issue, Part No. J1/8465-99-130-0619.
Nylon Liners	30	Army Issue. For Ser 102.
Air Beds	30	" " . Part No 8465-21-107-4862.
Kaymetzler Foam Mats	26	From Keymetzler.
Closed Cell Mats	90	30 Army Issue, part No. 8465-99-138-082, 60 Karrimats.

CLIMBING EQUIPMENT LIST

Item	Qty	Remarks
Tereleene Tope, feet	8000	From RN sources, 9 mm diameter.
Viking No. 4 , 125'	10	Army Issue. Part No A5/5440-99-445-4717.
9 mm 150' ropes	10	From British Ropes.
Assorted part worn ropes	8	" AMA store.
8 mm Tensile rope, feet	300	" Tiso.
5 mm " " "	300	" "
Tiger web, 1" soft, feet	300	200' from Tiso, 100' from AMA store.
" " 9/16" soft feet	200	From Tiso.
Webbing, tubular 1" nylon, feet	400	" " , spec is WR 767 orange indent.
Bonatti karabiners, 12mm alloy	150	130 from Tiso, 20 from AMA store.
Bonatti 2000kg screwgate alloy karabiners	80	From Tiso.
Alloy angle snow stakes	10	From AMA store.
Tubular alloy 30" snow stakes	60	Made in 27 Comd Workshop REME.
Deadmen	64	34 from AMA store, 30 made in 27 Comd Workshop REME
Salew drive-on icescrews	30	From Tiso.
Salewa and cloc tubular icescrews	66	" AMA store.
Stubai icescrews	26	" " "
Rock pitons, assorted	46	" " "
Wooden wedges	7	" " "
Jumars, sets	24	" Tiso.
Clog descendeurs	12	" "
Caving ladders	4	" "
Interalp ice axes	6	" " . For HA sherpas and sprares only.
Whillans harness	24	" "
Torch, rightangles	30	Army Issue. Part No X2/6230-99-910-5033
Carriers, manpack	10	Army Issue. Part No CN/0565
Marker flag material, feet	100	From RN. Part No 0478/478037 Material, fluorescent.
Marker flag canes	100	Cut on way in.
Rucsacs Modified Randonneur	24	From Tiso.
Ruscas Lofoton	6	" "
Miniflares, packs	8	' RAF, 4 red, part no 12D/1393, 4 white part no 12D/1400
Whistles, plastic	24	From J Hudson & Co (Whistles) Ltd.
Compasses, lightweight	24	Army Issue.

CLIMBING EQUIPMENT LIST

Item	Qty	Remarks
Altimeters	4	From RGS on loan.
Sticks, ski, prs	20	Army Issue.
Snow saws	2	From AMA store.
Piton hammers	4	" " "
Survival bags	26	" " "
Etriers	8	" " "
Snow shovels	7	" " "
Tragsitz	1	From RAF.

CAMPING EQUIPMENT LIST

Item	Qty	Remarks
Karrimor Box tent	4	From Tiso. The re-modified box.
Blacks Tunnel Tents	7	From Blacks Double Skinned.
SCRDE Mountain tents	10	From Stores & Clothing Research Establishment.
Vango Mk V ST	4	From Tiso - modified for Himalayan use.
Arctic Guinea tents	2	" AMA store.
12 x 12 shelters	1	Army Issue.
Tarpaulins 36' x 36'	3	From Tiso. In 8 oz nylon.
" 12' x 12'	3	" " " 4 oz "
3 mm Karrimat, yds	6	" "
Tent Brushes	30	10 from AMA store, 20 from Woolworths.
Tent sponges	30	From HMSO.
Optimus 1 pt stoves, model 111	34	14 from AMA store, 20 from Optimus.
Blax Burners	4	From Tiso.
Primus gas double burner	1	" "
Primus gas single burner	4	3 from Tiso, 1 from AMA store
Primus gas cartridges	100	From Tiso (not taken due to aircraft safety problems)
Stove spares, assorted	--	From AMA store.
4 burner primus	1	From Optimus - model 510.
Jerricans	40	" Dharan.
" , 1 gall	12	3 from AMA store, 9 from Tiso.
1 litre KERO bottles (plastic)	30	8 from AMA store, 22 from Tiso.
Funnels	29	10 from AMA store, 19 local hardware shop.
Pressure cookers	4	From Prestige Ltd.
Billies, nest of three	29	12 from AMA store, 17 Army Issue.
Knives, cooks 6"	2	Army issue part no 21C/7340-99-942-4264
Ladles, cooks, ½ pt	2	Army Issue.
Can openers	2	" " part no 21C/7330-99-129-1463.
Slices, fish or egg	2	" " " " 21C/7330-99-120-3191.
Melaware, sets	36	From Antiference Ltd.
KFS, sets	30	Army Issue.
Ovens, Aldershot	2	Made in Army Workshop.
Kettles	5	Army Issue
Frying pans, large	3	Army Issue
Polythene bottles, ¼ pt	30	Local purchase in UK.
1 gall plastic cans	15	" " " " , 3 in AMA store.

CAMPING EQUIPMENT LIST

Item	Qty	Remarks
Millbank bags	10	Army Issue, 2 in AMA store.
Waterbottles	24	Complete with mug - Army Issue.
Lamps HPP	4	Army Issue.
Spares for lamps		Army Issue.
Plastic Scourers	60	Woolworths.
Steel wool, pkts	6	Army Issue.
Teatowels, disposable	500	From Strentex
Hexamine, pkts	30	Army Issue.
Meta fuel, pks	48	From Tiso.
Picks	1	Army Issue.
Machets (and cases)	4	" "
Pliers, aidecutting, prs	3	" "
Hole punch	1	From HMSO
Boot brushes	12	From Woolworths.
" dressing -	12	From Tiso.
Insect repellent, bottles	30	Army Issue.
" " , aerosols	10	" "
Foot powder, tins	50	" "
Anti-lice powder, lbs	20	" "
Washing powder, lbs	10	Local purchase in UK.
Araldite, packs	3	Army Issue.
Nails, mixed, lbs	2	" "
Screws, mixed, lbs	2	" "
Bifurcated rivets	100	From AMA store.
Flags Union	2	From Porter Bros.
" Nepalese	2	" " "
Flags AMA	3	From Mrs Huston.
Binoculars	3	Army Issue.
Tape recorder, cassette type	2	From Sony Ltd. - Model TC 55
Tapes for Ser 398	40	From Sony Ltd.
Thermometers, max & min	4	Army Issue, part no W10/6685-99-943-1645.
Peperbacks	170	From Institute of Army Education.
Polythene bottles, 2 pt	24	Local purchase in UK.
Assorted stationery		From 44 PARA PFP(V)
Tables, lightweight	2	Army Issue.
Stools, folding, aluminium	8	" " , part no J1/7105-99-102-5664

CAMPING EQUIPMENT LIST

Item	Qty	Remarks
Buckets plastic	3	Local purchase in UK.
Bowls	4	2 from AMA store, 2 local purchase.
Clothes pegs	96	Local purchase in UK.
Rags, assorted, bags	1	from 44 PARA OFP(V).
Pocket knives	24	From Swiss Cutlery Ltd.
Maps		From
Ultimate box tent	1	From AMA store.
Folding saws	3	" " "
Chelsea dubbin tins	36	From Tiso.
Lighters	6	From Ronson Ltd.
Black plastic bags	23	From Pte Fox, 44 PARA OFP(V)
Money box	1	From 44 PARA OFP(V).
Wire cutters	1	" " " "
Aluminium trays	15	Local deep freeze shop.

RATION REPORT BY CAPTAIN N.F. GIFFORD A.C.C.

INTRODUCTION

1. I was asked to write the ration report because of the death of Major Gerry Owens. I have been lucky enough to have his files to work from for background information but in several places I have had to surmise what his ideas were.
2. Gerry was very experienced in the field of high altitude rationing. This reflected in the acceptability of the packs throughout the Expedition period and that the only comments at the debrief held in Kathmandu were of a minor nature.

The Purpose of the Report is:

3. a. To report on the rations used during the Expedition.
- b. To outline the proposal for Everest rations for 1976.

General

4. The following rations were taken to Nepal for use by the Expedition;
 - a. 323 Boxes of 4 man composite ration
 - b. Bulk supplement, low altitude supplement (heavy duty supplement)
 - c. Items for trial purposes.
 - d. 1120 high altitude rations.
5. The comments made in each section are those of a general discussion and a questionnaire which asked for 'likes', 'dislikes', 'ideas' and improvements of each type of ration.

4 Man Composite Ration

6. The 4 man Compo ration was used for the basis of the walk in ration and Base Camp ration. The break down of Menus was as follows:-
 - a. A Pack 50 boxes : main meal Goulash
 - b. B Pack 45 boxes : main meal Corned beef
 - c. C Pack 40 boxes : main meal Caccorolo stoak and onions
 - d. D Pack 50 boxes : main meal Chicken curry
 - e. E Pack 49 boxes : main meal Steak and Kidney pudding
 - f. F Pack 43 boxes : main meal Chicken Supreme
 - g. G Pack 46 boxes : main meal Stewed Steak

7. The quality of this type of ration is first class and the variety (7) allows for a change in menu every day. This ration is constantly being reviewed by MOD. However, although the main meal was excellent people eventually became bored with the Breakfast element which was either canned sausage, baked beans (in every pack) bacon grill or bacon burger. While we all appreciated the difficulties of putting a 'real breakfast' into tins we felt that egg powder would have done much to enhance the situation.

8. It was also felt that chocolate pudding, ginger pudding and mixed fruit pudding eventually became monotonous as they were heavy puddings that did not "heat through" properly whereas rice, apple puddings and fruit salad were well accepted. Custard powder would have been a great asset.

Bulk Ration Items

9.	Serial	Item	Qty lb
	1	Biscuits Service S.P.	156
	2	Breadmix	250
	3	Yeast dried	75 x 2oz pkts
	4	Sugar	75 x 2oz pkts
	5	Butter concentrated	48
	6	Fruit canned	375
	7	Curry powder	48
	8	Matches	300 booklets
	9	Tea	5
	10	Milk powder filled	50
	11	Sugar	42
	12	Rolled oats	36
	13	Alpen	200 x 1½oz sachets
	14	Rise & Shine	144 x 2.5/8oz sachets
	15	Breakfast cereals	700 x 33/16oz pkts
	16	Cheese processed	30 pkts
	17	Lemon/orange powder	96

10. The comments were as follows:-

- We ran out of butter 2 days before leaving base Camp.
- Rise & Shine was used more than Lemonade powder, which was not popular.
- The cooking equipment and expertise of those preparing food did not allow for the full potential of the supplement to be used, - (this also applied to the Compo 4 man packs).

Low Altitude Supplement

11.	Serial	Item	Scale oz.	Ration per pk.oz	A m	B e	C n u
	1.	Tomato sauce	½	4	8	-	-
		Yorkshire relish	½	4	-	8	8
	2.	<u>Relishes</u>					
		Chutney	8	8	1	-	-
		Sweet pickle	6	6	-	1	-
		Chilli sauce	5	5	-	-	1
	3.	Peanut butter	8	8	1	1	1
	4.	<u>Biscuits sweet</u>					
		Garibaldi	7	28	4	-	-

Serial	Item	Scale oz.	Ration per pk.oz	A m	B e	C n	C u
	Bourbon	7	28	-	4	-	-
	Digestive	8	24	-	-	-	3
5.	Sugar	1	8	2	2	2	2
6.	Coffee instant	$\frac{1}{2}$	4	2	2	2	2
7.	Boiled sweets	1	8	1	1	1	1
8.	Meat extract	1	8	1	1	1	1
9.	Milk powder filled	4	32	2	2	2	2
10.	<u>Beverages</u>						
	Drink. Choc. mix	$2\frac{1}{2}$	20	-	-	-	8
11.	<u>Rise & Shine</u>						
	Lemon	$2\frac{5}{8}$	21	8	-	-	-
	Orange	$2\frac{5}{8}$	21	-	8	-	-
	Grapefruit	$2\frac{5}{8}$	21	-	-	-	8
12.	<u>Veg. dehydrated</u>						
	Peas	1	8	2	-	-	-
	Green beans	1	8	-	2	-	-
	Mixed veg.	1	8	-	-	-	2
13.	Mixed Herbs	2	2	2	2	2	2

12. The comments were as follows:

- Chutneys and pickles were well received but there was too much chilli sauce.
- Garibaldi and Bourbon biscuits were also in the HA ration, a change was therefore desirable.
- Marmalade could have been included.
- There was too much drinking chocolate.

13. It is interesting to note that meat extract, peanut butter, dehydrated peas and beans found their way up the mountain as climbers 'personal tasty items'.

Trial Items

14. There was one item on trial called KOUSA. It was a preparation of the Instant Whip variety. Several fruit flavours were tried by the majority of the Expedition members and comments were all favourable. Orange and apple were the most popular followed by blackcurrant, but the flavour of each pack was good. Sugar had to be added. This item could be prepared hot or cold.

High Altitude Ration

15. Serial	Item	Scale ozs.	Pack	A	B m	C e	D n	D u
	<u>Breakfast</u>							
1.	Alpen	$1\frac{1}{2}$	Sachet	-	3	-	-	3
2.	Rolled Oats	4	Sachet	1	-	1	-	-
3.	Oatmeal Block	1	Sachet	2	2	2	2	2
	<u>Snack</u>							
4.	Biscuits S.P.	3	Packet	1	1	1	1	1
5.	Chocolate F.C.	$1\frac{1}{2}$	Bar	1	-	1	-	-
6.	Choc. Bisc & fruit	$1\frac{1}{2}$	Bar	-	1	-	-	1
7.	Rolo	2	Packet	2	-	-	-	-
8.	Mars bar	2	Bar	-	2	-	-	-
9.	Aztec bar	2	Bar	-	-	2	-	-

Serial	Item	Scale ozs.	Pack	A	B m e	C n u	D
10.	Glucose	2	Packet	2	2	2	2
	<u>Jam</u>						
11.	Strawberry	$\frac{1}{2}$	Sachet	4	-	-	-
12.	Raspberry	$\frac{1}{2}$	Sachet	-	-	4	-
13.	Apricot	$\frac{1}{2}$	Sachet	-	4	-	4
14.	Margarine	1	Tube	1	1	1	1
15.	Sardines in oil	4	Can	2	-	-	-
16.	Sardines in tom.	4	Can	-	2	-	-
17.	Kipper fillets	7	Can	-	-	1	-
18.	Pilchards	5	Can	-	-	-	2
19.	Cheese	$1\frac{1}{2}$	Portion	2	2	2	2
20.	Nuts & Raisins	$1\frac{1}{2}$	Packet	2	2	2	2
21.	Biscuits sweet	7	Packet	1	1	1	1
	<u>Main meal</u>						
22.	Beef granules	$2\frac{1}{2}$	Sachet	2	-	-	-
23.	Mutton granules	$2\frac{1}{2}$	Sachet	-	2	-	-
24.	Steak & Kid. Pud.	$5\frac{1}{4}$	Can	-	-	2	-
25.	Minced beef	5	Can	-	-	-	2
26.	Potato mash powder	$2\frac{1}{4}$	Sachet	2	2	2	-
27.	Pre cook rice	3	Sachet	-	-	-	2
28.	Soup	1/3 pt	Sachet	4	4	4	4
29.	Oxo	1	Cube	4	4	4	4
30.	Apple Flakes	1	Sachet	2	-	2	-
31.	Apple & Bilb Flks	1	Sachet	-	2	-	2
	<u>Drinks Pack</u>						
32.	Tea Bags	1/16	Sachet	8	8	8	8
33.	Coffee instant	3/16	Sachet	4	4	4	4
34.	Drink choc. mix	$2\frac{1}{2}$	Sachet	2	2	2	2
35.	Rise & Shine	$2\frac{5}{8}$	Sachet	2	2	2	2
36.	Sugar	1	Sachet	8	8	8	8
37.	Milk Powder	$\frac{1}{2}$	Sachet	6	6	6	6
38.	Creamers	3 gms	Sachet	4	4	4	4
	<u>Sundries</u>						
39.	Sauce		Sachet	2	2	2	2
40.	Salt	0.2	Dispenser	2	2	2	2
41.	Toilet paper	20 sheets		1	1	1	1
42.	Matches	1 no	Box	2	2	2	2

17. The comments were as follows:

a. Breakfast:

- (1) Alpen : was reasonably popular. Members did get bored with its taste but they also realised its K calorific value. One member used to cook it before eating.
- (2) Porridge : was accepted for its nutritional value and no high altitude ration plan should exclude it out of hand.
- (3) Oat Meal Blk: was fairly well accepted by members. It was consumed dry with jam, sometimes added to porridge or eaten plain with brews. Another sound item.

b. Snack:

- (1) Biscuits SP : are calorifically high in value and provided the 'bread' basis for the ration. Although people did not like the biscuit so much there seems to be no alternative of the same high quality.
 - (2) Chocolate bars were never complained about. The only comment was that at an ultra high altitude bars might be frozen solid. A possible case for mini bars.
 - (3) Jam : a good item spoiled by unsuitable containers that leaked and made the inside of the snack pack sticky. This is mainly due to the item not being vacuum packed.
 - (4) Margarine : provided in tube form and seemed to be used in cooking rather than as a spread with jam on the biscuit. This was because it was hard to get out of the tube, due to the fact that it was frozen, (even if one cut the head off). There was a fair amount of wastage of margarine.
 - (5) Fish in tins: were for most people the main attraction of the snack element of the pack. The kipper fillets were delicious and were at a premium. Some people would have preferred one of the four fish choices to be a meat choice.
 - (6) Nuts and Raisins were accepted by all but it was felt that a separate packet of each would have been a little better.
 - (7) Biscuits Swt: came in two types of 7oz weight. Climbers became bored with the limited choice about half way through the Expedition and thought that this particular item was too heavy.
17. Dehydrated main meals : consisted of beef and mutton granules. They were easy to prepare and acceptable. However, as taste became more piquant one found it hard to find any difference.
18. Wet main meals : Steak and Kidney pudding and minced beef. These items were well worth their weight but the mince was 'fatty' tasting and, surprisingly, looked less appetising than the dehydrated meats. This could be due to the light colour.
- a. Potato Powder : was a trade item and easy to prepare. However, there was too much and one packet per two men would have been ample.
 - b. Precook Rice : was only in one pack and the Gurkhas, Nepalese and Sherpas always managed to corner the market. It was thought that one 4½ oz sachet would have been better than 2 x 3 oz as this would save carrying weight and portion wastage.
 - c. Instant Soup : was a Cuppa Soup product and was well liked by everyone. It is interesting that those who have eaten this soup on returning to UK have found it unpalatable in normal circumstances.

- d. Oxo Cubes : there need not have been so many in the pack.
- e. Apple flakes : were not very popular, the apple and bilberry flavour dyed ones lips a purple colour but did little else.

19. Drinks:

- a. Tea Bags : were the most popular of the brew items; indeed there were too few of them.
- b. Coffee inst : was in great demand for one member who did not drink tea but we all agreed there could be less in future.
- c. Drink. choc. : was very good value as it was a complete drink including sugar. There was possibly too much, one packet would do for two people.
- d. Rise & Shine : was liked by everybody, personal preference of flavours was well balanced.
- e. Sugar : could have been in smaller sachets to prevent so much wastage and there should have been 2 oz more.
- f. Milk powder : was found to be a very good, well accepted product.
- g. Creamers : could have been left out completely to save weight.

20. Sundries:

- a. Toilet paper : Extra sheets were thought to be needed.
- b. Matches : in boxes were far better than the booklet usually provided. Above 21,000 ft, they did not light well and sometimes two boxes were not enough. However, the stove did not help by being inefficient above Camp 4 (21,000').

21. WEIGHT

: The principal behind the ration design was one of selective eating. Therefore, we carried per pack, more than we could consume. This could be reduced carefully without changing the choices too much. Nevertheless it was the first time this multi choice had been tried and it proved it can work. Outer wrapping and boxing could be lighter by simply using less or making part of it disposable at Base Camp.

22. Additions to the Ration : There were no serious items required in the ration. Only variety or changes in flavour for the future.

23. Effect of Altitude : Tastes varied enormously especially above Camp 4 at 21,000 ft. Some people experienced a revulsion to fats others had cravings for strawberries and cream, Duck a l'orange and chocolate mousse!!!

Summary of High Altitude Rations

24. In brief the comments were as follows:

- a. Less internal packaging and outer sleeving.
- b. Less oxo cubes.
- c. 1 x rise and shine drink.
- d. 1 x instant potato.
- e. Change of jam.
- f. 1 x drinking chocolate.
- g. Less apple flakes.

25. Suggested improvements (not in any order of preference).

- a. Sugar increased and smaller sachets.
- b. A selection of rice flavours savoury rice etc.,
- c. More porridge.
- d. Pepper sachets.
- e. Green vegetables included.
- f. Water proof, wind proof matches.
- g. Boiled sweets.
- h. Chewing gum .
- i. Creamer, if it is included, in bigger sachets.
- j. Better quality coffee.
- k. Instant whip.
- l. Plain stewing meat tinned (corn beef).

Dietetics

26. Dietically the ration was very sound giving far more than the basic 3600/4000 K calories usually recommended for very hard work in normal conditions. This was achieved by allowing 1000/1400 K calories supplement for our 'peculiar' arduous circumstances. Correspondingly not only was the intake of carbohydrate and fat high, there was a large source of essential proteins and protein producing foods. The latter in the form of amino acids, having become unrequired protein would have oxidised into carbohydrate or fat to produce energy.

- a. Carbohydrates provided by sugar, cereals, biscuit, jam, raisins, milk, chocolates.
- b. Fats provided by peanuts, meat, fish, margarine, milk, cheese.
- c. Protein provided by meat, fish, milk, cheese, nuts, cereal, biscuits, chocolate.

27. Minerals present in the diet were:

- a. Trace elements of Sodium)
 Potassium)
 Calcium) meat, milk, cheese, kippers.
 Iron)
- b. and to a lesser degree:

 Phosphorus)
 Magnesium)
 Sulphur) beef, milk, sardines, biscuit.
 Iodine)
 Fluorine)
- c. also minor trace elements of:

 Copper)
 Zinc)
 Manganese) present in the ration as a whole
 Cobalt) (it is unusual to find a deficiency
 Selenium) in this type of diet)
 Molybdenum)
 Chromium)

28. Vitamins present in the Diet were:

- a. Vitamin A canned fish, margarine, milk.
- b. Vitamin D canned fish, margarine, milk.
- c. Vitamin E margarine.
- d. Vitamin K small trace in vegetables.
- e. Vitamin B₁ B₂ B₆ B₁₂ : cereal, biscuit, tinned beef, milk.

General Comments

29. Everyone though that a higher proportion of fresh food should be used for the walk-in and at Base Camp. Vegetables flown from Kathmandu and Sangboche and then carried to Base Camp did not travel well. They took a minimum of 2 days portering to arrive, usually three. The variety was also poor. Fresh potatoes were available but on the walk-in it would have been worth taking more biscuit and some egg powder for the days when no local purchase was available. Crunchie bars would have been worth carrying for a snack item.

30. The cooking equipment at Base Camp was somewhat sparse.

31. For all the criticisms of the HA ration it was considered the best that any of the experienced Expeditioners had eaten in similar conditions. The weight was the limiting factor for total praise.

32. A personal luxury pack at Base Camp for Climbers returning for a rest was suggested and welcomed enthusiastically for the future.

Rations for Everest 1976

33. It is intended to use the same rationing principals for Everest as were applied

to the Nuptse Expedition. However, six menus of HA ration will be used with an optional 2 menu supplement of attractive items. It is not proposed to have an ultra high altitude ration for use over 26,000 ft. Climbers will select their own meal and snack items from the high altitude ration. The proposed ration for use from Base Camp onwards is shown at Appx 1 and the supplements at Appx 2.

34. A CILOR rate for British Troops will enable the purchase of fresh food in large and more varied quantities and the use of the Artic cash supplement has been agreed for part of the Expedition's time in Nepal.

35. Extra pre-cooked rice will be taken for the Ghurkas, Nepalese and Sherpas. There will also be a special rice pack for Thyangboche Monastery to bless for the Sherpas in keeping with local customs.

36. Ice fall Sherpas will feed on Ghurka 24-hour ration packs produced in Hong Kong. Luxury packs are being provided by Tesco Limited, and it is planned that a Climber will have a pack allocated to him once every seven days. The finalisation of this pack is at present in progress.

TWO MEN X 1 DAY RATION : HIGH ALTITUDE RATION PROPOSED FOR EVEREST 1976

NO	ITEM	SCALE PACK IN OZ-ING		A	B	C	D	E	F
<u>Breakfast</u>									
1.	Alpen/Muesli	1½	Sachet	-	4	-	4	-	4
2.	Rolled Oats	6	Sachet	1	-	1	-	1	-
3.	Oatmeal Block	1	Sachet	2	2	2	2	2	2
<u>Snack</u>									
4.	Biscuits SP	3	Packet	1	1	1	1	1	1
5.	Chocolate FC	1½	Bar	1	-	1	-	1	-
6.	Choc. biscuit & fruit	1½	Bar	-	1	-	1	-	1
7.	Rolo Toffee tube	2	Packets	2	-	-	-	-	-
8.	Mars bar	2	Bar	-	2	-	-	-	-
9.	Marathon bar	2	Bar	-	-	2	-	-	-
10.	Smarties	2	Packets	-	-	-	2	-	-
11.	Fudge bar	3	Bars	-	-	-	-	2	-
12.	Toffo	1½	Tube	-	-	-	-	-	2
13.	Polo fruit	1	Packet	2	2	2	2	2	2
14.	Soft cheese	1½	Portion	-	4	-	2	-	4
15.	Raspberry jam	1	Tube	1	-	-	-	-	-
16.	Apricot jam	1	Tube	-	-	1	-	-	-
17.	Plum jam	1	Tube	-	-	-	-	1	-
18.	Chicken spread	2	EO Tube	-	-	-	1	-	-
19.	Sardines in tomato	4	Can	1	-	-	-	-	-
20.	Brisling in oil	4	Can	-	1	-	-	-	-
21.	Kipper fillets	1	Can	-	-	-	-	-	1
22.	Tuna fish steak	3½	Can	-	-	-	1	-	-
23.	Dressed crab	1	Can	-	-	1	-	-	-
24.	Mackerel in oil	3	Can	-	-	-	-	1	-
25.	Nuts and raisins	1½	Packet	2	-	2	-	-	2
26.	Dried apricots	3	Packet/bar	-	2	-	1	-	-
27.	Dried bananas	3	Packet/bar	-	-	-	-	1	-
28.	Biscuits sweet	3	Packet	1	1	1	1	1	1
<u>Main Meal</u>									
29.	Soup Instant	1	Sachet	4	4	4	4	4	4
30.	Beef granules	2½	Sachet	2	-	-	-	-	-
31.	Mutton granules	2½	Sachet	-	2	-	-	-	-
32.	Steak and Kidney	5¼	Can	-	-	2	-	-	-
33.	Minced beef	5	Can	-	-	-	2	-	-
34.	Curried chicken	2½	Sachet	-	-	-	-	2	-
35.	Curry granules	2½	Sachet	-	-	-	-	-	2
36.	Potato powder	2¼	Sachet	1	1	1	-	-	-
37.	Pre cooked rice	4½	Sachet	-	-	-	-	1	1
38.	Savoury rice	4½	Sachet	-	-	-	1	-	-
39.	Peas dehydrated	2/3	Packet	1	-	1	-	1	-
40.	Beans dehydrated	2/3	Packet	-	1	-	1	-	1
41.	Oxo beef cube	1	Packet	2	-	2	-	-	-
42.	Oxo chicken cube	1	Packet	-	-	-	-	-	2
43.	Bouquet garni	1/3	Sachet	-	2	-	2	2	-
44.	Apple flakes	1	Sachet	-	-	2	-	-	-
45.	Instant whip	3¼	Packet	2	-	-	2	-	-
46.	Kousa	2	Packet	-	2	-	-	2	2

NO	ITEM	SCALE	PACK	A	D	C	D	E	F
			IN OZ-ING						
<u>Drinks</u>									
47.	Tea Bags	$\frac{1}{2}$	Sachet	12	12	12	12	12	12
48.	Coffee Instant	3/16	Sachet	2	2	2	2	2	2
49.	Drinking Chocolate	$2\frac{1}{2}$	Sachet	1	1	1	1	1	1
50.	Rish & Shine	$2\frac{5}{8}$	Sachet	1	1	1	1	1	1
51.	Milk powder	$\frac{1}{2}$	Sachet	8	8	8	8	8	8
52.	Sugar	$\frac{1}{4}$	Sachet	48	48	48	48	48	48
<u>Sundries</u>									
53.	Salt	0.2	Dispenser	1	1	1	1	1	1
54.	Matches	No1	Box	1	1	1	1	1	1
55.	Handy Andy	1oz	Packet	1	-	1	-	1	-
56.	Toilet Paper	20	Sheets	1	1	1	1	1	1
57.	Multivite Tablet	No1	Sachet	2	2	2	2	2	2

HIGH ALTITUDE RATION SUPPLEMENT FOR EVEREST 1976

				<u>X MENU</u>	<u>Y MENU</u>
1.	Egg Preparation	2	Packet	1	1
2.	Crisp Bread	1	Packet	1	-
3.	Rye King	1	Packet	-	1
4.	Toffo	1½	Packet/tube	1	1
5.	Glucose tablets	1	Packet/tube	2	-
6.	Marathon (mini bars)	2	mini bar	2	2
7.	Mars bar (mini bars)	2	mini bar	2	2
8.	Chewing gum	1	Packet	-	2
9.	Sauce tomato	1	Packet/Sachet	2	-
10.	Sauce brown	1	Packet/Sachet	-	2
11.	Kipper fillets	7	Can	1	-
12.	Pork shoulder steak	7	Can	-	1
13.	Marmalade	1	Plastic tube	2	-
14.	Honey	1	Plastic tube	-	2
15.	Pepper	0.2	Packet	2	2
16.	Fruit tea	2	Packet	1	-
17.	Mint tea	2	Packet	-	1
18.	Margarine	1¾	Tube	1	1
19.	Sugar	¼	Sachet	8	8
20.	Synthetic creamers	¼	Sachet	1	1

NEPAL REPORT

by

CAPTAIN M H KEFFORD 7 GR

General

1. This report is written with two aims in mind: to recount how the Nuptse expedition coped with the various administrative problems in Nepal and to give as much as possible of the information future expeditions might require.
2. We were extremely fortunate in that I, as a member of the expedition, was stationed in Nepal and that the resources of Headquarters British Gurkhas Nepal and the Gurkha Movements Detachment Kathmandu were placed at our disposal. For this co-operation we owe a great deal of thanks to Brigadier A A Dacre OBE, Commander British Gurkhas Nepal.
3. Similarly the Defence Attache, Lt Col J A Lys MC 6 GR and his Staff were most helpful as was Major H D Subba MBE 2 GR and his Staff at the British Gurkha Transit Camp in Kathmandu. All these people helped to make my part of the expedition much easier.

Introduction

4. An expedition to a foreign country is faced with the intricate problems of importing and subsequently re-exporting its food and equipment, radio communications, insurance, transportation, mail, porters, High Altitude Sherpas and re-supplies of local fresh food.
5. In Nepal this is made easier by the Ministry of Foreign Affairs (MFA) having a Mountaineering Section, the head of which becomes the expeditions' adviser, co-ordinator and friend. In addition as a Joint Expedition with the Royal Nepalese Army we were able to obtain access to various other departments more easily.
6. Throughout the negotiations the Nepalese Government Officials were always helpful and understanding. They are aware of the benefits mountaineering brings the country and their system for dealing with expeditions is sophisticated and well tried. They understand the problems facing foreigners entering their country and are alive to the needs of big expeditions. The rules are straightforward but there are no short cuts. A straightforward adherence to these rules is usually met with patience and charm and considerable efforts to help.

Customs

7. Eight copies of the complete contents lists of the expedition stores are required by the MFA. If possible before the stores arrive in the country; if not, immediately they are placed in the Customs Godown. The lists need to be in two separate parts clearly detailing consumable and re-exportable items.
8. We were fortunate in being able to place our stores directly into the British Gurkha Godown at the airport.

9. Consumable items include food, fuel (gas/kerosene), medical supplies, alcohol and cigarettes. Climbing equipment, tentage, radios and oxygen are generally considered to be re-exportable. The lists should be made out by boxes or packages and must clearly show the quantity, correct nomenclature of each item and its cost to the expedition.

10. On receipt of the lists the MFA will issue a letter of authority clearing the expedition to bring their stores into the country. The lists and MFA letter are then presented to the Department of Commerce in order to obtain an Import Licence. The Contents lists and Import Licence are then given to the Customs who will assess the duty and release the stores.

11. The amount of duty is approximately 10% of the total value of the stores. This is a deposit placed against eventual re-exportation. The deposit on any items re-exported is refundable.

12. The duty on alcohol and cigarettes can be as much as 200%.

Radios

13. The Government of Nepal is most concerned with foreigners importing radio transmitters into the country. The geographical position and political climate of the area are too sensitive for this subject to be taken lightly.

14. An expedition may import up to two HF sets with a range of 35-70 Kms and sufficient numbers of short range walkie-talkies to allow communications between camps on the mountain. Two spare walkie-talkies as a reserve may also be allowed. It is illegal to import radio transmitters into Nepal without the MFA's clearance. Any expedition attempting to do so could find, at best, its radios impounded or, at worst, its permission to climb cancelled and a heavy fine imposed.

15. The radios will be impounded by Customs until the MFA have been given detailed specifications and have issued a letter of authority for the expedition to bring them into Nepal.

16. Details of the operating frequencies required should be given to the MFA along with the radio specifications. These will be cleared with the Ministry of Communications and the Ministry of Defence. This may take up to 2 weeks to finalise before the Ministry of Communications will issue the expedition with the required radio operating licence.

Transportation

17. Transportation of expedition members and stores to the mountain is the biggest logistic problem. It is better attempted through one of the agencies already in business in Kathmandu. We used The Khumbu Valley Co-operative which is a subsidiary of Mountain Travel Ltd. If the expedition stores arrive before the members they can be cleared through Customs by the agency and moved to Lukla ahead of the team thereby taking a great part of the administrative load off the climbing members. In our case I cleared the equipment through Customs and then worked in conjunction with our agency.

18. The Co-operative in conjunction with our Sardar (hired through Mountain Travel) arranged the charter flights to Lukla, the porters to Base Camp, the re-supply of fresh vegetables from Kathmandu and the fly-in of certain personnel, such as the signallers. The advantage of using one of these agencies is that they arrange the charter flights around their own requirements and keep the cost down to a one way trip. If the charter was done direct with Royal Nepal Airlines (RNAC) the expedition would have to pay for the empty return leg as RNAC do not run schedule flights into Lukla.

19. The rate for air freight from Kathmandu to Lukla is approximately NCR 3.00 per kilo and the portorage thereafter NCR 15.00 per porter per day. A porter will carry up to 70 lbs and there is usually no charge for the porter's unladen return to his start point.

20. The number of days to principal Base Camps are already laid down and although this may appear excessive it is still relatively cheap. Attempts to short cut, under-pay or rush the stages usually ends in the expedition being abandoned. The Sherpas of the Khumbu area are extremely well organised and to try and mount an expedition in the area without their active co-operation would be almost impossible.

21. Porter stages in the Khumbu are as follows:

Lukla to Namche Bazar	-	2 days
Namche Bazar to Dingboche	-	2 days
Dingboche to Nuptse Base Camp	-	2 days
Namche Bazar to Everest Base Camp	-	5 days

22. It is of considerable advantage if the expedition stores can be easily broken down at Lukla into single loads each of the correct weight and size for portering. Too many small packages which have to be put together into porter loads makes keeping a tally of loads/packages difficult and requires the expedition to produce vast quantities of string and rope to secure them. Cardboard Boxes or canvas sacks each containing 60-70 lbs are ideal. If Colour coded and serial numbered for camps the sardar's job will be less complicated.

23. Fresh vegetables were flown in from Kathmandu to Lukla once a week and portered to Base Camp. The airfreight was again NCR 3.00 per kilo and the portorage NCR 15.00 per day for six days. The benefits of fresh vegetables and fruit at Base Camp far outweigh the expense. We suffered from damage to the fruits and tomatoes during portering. This could be overcome by the expedition supplying the agency in Kathmandu with strong partitioned cardboard or plastic containers.

24. The transportation of any items of food, firewood or equipment from Kathmandu or locally has to be done by porters. The portorage charge (jela) can double the actual cost of the item by the time it reaches Base Camp. This should be catered for in the budget.

The Sherpas

25. Much has been written elsewhere about the relative merits of Sherpas. We were extremely fortunate in having an excellent and experienced sardar in Sona Girmi. He was responsible for meeting all the loads at Lukla and moving them to Base Camp. This was done smoothly and efficiently so that the equipment was complete in the Acclimatisation Camp at Dingboche before the main body of the Team arrived; having walked from Kathmandu. The move to Base Camp was completed in 6 days from Dingboche using 120 porters taking 2 days for each of three trips.

26. The Sardar was also responsible for local resupply of vegetables, firewood and all the little items of equipment the expedition forgot! He works with the expedition Liaison Officer over local liaison with village heads and generally helps to keep the expedition out of trouble. Perhaps most importantly he is responsible for the discipline and control of the High Altitude Sherpas. It is of considerable advantage if he can deal with one member of the Team executive to co-ordinate and settle their tasking and any other minor problems, as they arise. This should not be the leader as many of the problems are minor and their frequency may take too much of his already crowded time.

27. Cook boys, mail runners and any other odd helpers are usually arranged by the Sardar as the expedition requires them. They also require a complete set of clothing and equipment in order to live at Base Camp.

28. The Himalayan Society, which is the Governing Body for High Altitude Sherpas, lays down what items of clothing and equipment the Sherpas automatically receive from the expedition. These items become their property and should not be considered as a loan from the expedition. If the expedition wishes the Sherpa to supply his own clothing the present rate of compensation is NCR 3000.00 (£115.25). It is wise to check with an agency in Kathmandu as to what is the current requirement since, despite the Himalayan Society rules, the Sherpas tend to regard their scale of clothing and equipment by what the last expedition gave them.

29. All the Sherpas need insurance cover of NCR 150,000.00 (£5762.51). This can be arranged in Nepal with the National Insurance Corporation, The Rastriya Beema Shansthan. We paid a premium of 2% and insured all the Sherpas and the Liaison Officer with this company. The advantages of dealing with this company are that its executives fully understand expedition requirements and terminology and the MFA will accept their Policy without suspicion. Expeditions have been known to produce fake insurance policies with the resulting law suits when an accident occurred.

30. Gifts and a bonus at the end of the expedition are considered normal. We found that packets of vegetables seeds (the less exotic varieties) and Parker pens were well received. From larger more expensive expeditions a wrist watch is the ideal gift. We also paid each Sherpa a bonus of 15% of his basic wage.

Permits

31. The mountaineering permit requires the names and qualifications of the team members to be submitted to the MFA well before the expedition arrives. On receipt of this the MFA can keep a check on the competence of people climbing in the Himalaya and arrange visa clearance.

32. The Trekking Permit is separate from the mountaineering permit. Individual applications are required and the permits, when issued, allow the team to leave Kathmandu Valley to approach the mountain. This permit is required to be produced at any police check post along the route, particularly at Namche Bazar.

Mail

33. We were fortunate in making friends with the Reuters Correspondent in Kathmandu Miss Elizabeth Hawley. She acted as our Post Box for mail in Kathmandu and arranged for our mail to be flown twice a week to Shyangboche in the Kunde Hospital Mail Bag. Our mail runners collected incoming mail from Kunde and handed them our outgoing mail. This system worked extremely well and ensured a regular supply of mail.

34. Miss Hawley also handled some of our press releases and forwarded a lot of material to other newspapers for which members had contracted to write.

Kunde Hospital

35. Because of our mail system we made contact with the Hospital at Kunde. This hospital is run by The New Zealand Himalayan Trust under Sir Edmund Hillary. The resident Doctor, Paul Silvester, and his wife Glen became great friends of the expedition and provided a useful back up for our Doctor and looked after one of our frost bite cases for a week.

Helicopter Rescue

36. As a joint expedition with the Royal Nepalese Army we were fortunate in being granted use of their Alouette Helicopter when we needed it. Otherwise Helicopter Rescue Services, a subsidiary of Royal Nepal Airlines, operate a fast and efficient rescue service to the remote mountain areas. It is worth making contact with them before leaving Kathmandu to give them details of the expedition's location and to find out the information they require in the event of an emergency.

Oxygen

37. Due to restrictions in carrying full oxygen bottles on RAF passenger aircraft the expedition's cylinders were flown into Kathmandu by the RAF empty. Luckily there were only 15 cylinders for experimental use on the mountain.

38. The empty cylinders were moved to HQ British Gurkhas Nepal at Dharan and then onto Calcutta by the local contractor. They were filled by Indian Oxygen Ltd and returned to Dharan.

39. Indian Oxygen Ltd require the safety certificates for the cylinders and a certificate to the effect that the cylinders, once filled, are for use outside India. Although the cylinders arrived back at Base Camp too late to be of any real use the total turn round time of 6 weeks was extremely good and proved what is possible. For this we have to thank Mr Chirinjalal Poddar (Dharan's contractor), Captain D E Jessop RE who kept an overall eye on the operation from Dharan and Mr Dawa Norbu Sherpa of the Khumbu Valley Co-operative.

40. At the time of writing this report we are operating the same system to replace some of the British Everest Expedition 1975 cylinders which leaked on the outward road journey.

Storage and Transport in Kathmandu

41. We were fortunate in being able to assemble and sort all our equipment at the British Gurkha Transit Camp in Kathmandu. They also provided us with storage space and a great deal of their already overworked transport. When they could not cope we were able to use transport provided by the Royal Nepalese Army thanks to their Director of Military Training Colonel Bharat Kesar Sima.

Banks

42. There are very few banks in the hills of Nepal and certainly none in the more remote mountain areas. The expedition is, therefore, required to carry all its cash requirement. This should always be in small notes of NCR 10, 5 or 1 as it is impossible for the local people to change larger notes in the hills.

Kathmandu

43. Accommodation and eating out in Kathmandu is cheap. We were fortunate in being able to use a Private House for some of the time and then moved into The Nook Hotel. They arranged to put three people in a large room for NCR 90.00 (£3.46) per room, per night for bed and breakfast. The leader was given a single room free of charge.

44. A bicycle is the most economic way to travel around Kathmandu. The weekly hire rates make it extremely cheap, unless you have your bicycle stolen! Crispin Agnew can give further details on this subject.

Acknowledgement

45. Lastly I would like to record my personal gratitude and thanks to Mr Madhav Prasad Khanal of the Mountaineering Section of the Ministry of Foreign Affairs. Without his advice, kindness and complete co-operation we would never have reached Base Camp.

ORNITHOLOGICAL REPORT

by

Major A J MUSTON RAOC

This report has been drawn from the observations of three members of the expedition, the late Major GF Owens, Chief Tech Armstrong and the writer, with an interesting comment by Lt Col J D C Peacock. The field guides used were "The Book of Indian Birds" by Salim Ali, "Indian Hill Birds" by the same author. In addition Major Owens had a copy of "Birds of Thailand". For all of us this was the second or third trip to the Himalayas and each successive trip has made us more dissatisfied with the guides quoted above. It is to be hoped that "Birds of Nepal" by Drs Fleming Snr and Jnr will rectify this unsatisfactory situation. This book is due for publication in the autumn of 1975.

A complete list of birds seen is at Appendix 1. A question mark (?) after the surname initial letter indicates an unconfirmed sighting. The majority of the birds in the list were seen by Owens whose keen eye and computer-like knowledge could recognise a bird from the flash of a feather or a glimpse of a tail. He will be sorely missed in ornithological circles. The deciphering of his notes has meant that in some cases his abbreviations could not be fully expanded and this accounts for some of the attenuated bird names in the Appendix.

Members of the expedition were in Nepal from 22 February to 4 June and observations were made during this period. Until early March all the observations were in the Kathmandu valley either in the city or nearby surrounding country. The Chobar Gorge and the Royal Game Reserve, both 3-4 miles out provided most of the sightings. These are worth visiting by any ornithologist in Kathmandu. In early March Owens left to walk in to the expedition Base Camp. Armstrong and Muston followed with the main body in mid-March. The route was by vehicle to Lamasangu then the traditional Everest trek route. All were at or above the Base Camp from early April until 20 May when the expedition members moved to Lukla to fly to Kathmandu. The writer paid a two day visit to Tiger Tops Jungle Camp at the end of May. This was well worth while from a bird point of view since the habitat is totally different to both Kathmandu and the mountains.

Kathmandu is at 4300 feet and has a pleasantly sub-tropical climate. The trek route varied from terraced fields of rice, wheat etc through coniferous forest to high mountain alps above the tree line. Above Base Camp vegetation, other than lichens did not exist. Tiger Tops provides a river habitat at the camp, primary jungle of a fairly open type around it and a wooded ridge nearby. Additionally there are large areas of elephant grass. Formerly the whole area was malarial but this has now been eradicated.

Conservation is in its infancy in Nepal but it is realised that wildlife as a whole can be one of the major tourist attractions and it is on tourism that the country relies for much of its foreign exchange. National Parks are being established - Tiger Tops is in the Chitwan National Park, and education should help to give the Nepalese an awareness of their rich store of scenic and wildlife attractions.

No attempt has been made in the notes that follow to comment on every species seen.

Tibetan Tern. When walking out to Lukla Col Peacock saw two birds near Thangboche which appeared to be terns. However since his previous experience of terns had always been within a very short distance of the sea he dismissed the idea as impossible since the nearest sea was some 500 miles away. However on mentioning it to Dr Bob Fleming in Kathmandu he identified them as Tibetan Terns which migrate between the large lakes in Tibet and the Indian coast. While they have been seen in both localities Dr Fleming thought that this might be the first record of the terns during the migration.

Pale Harrier. This was seen at 9,000 feet on the walk in which is probably higher than expected.

Chough (red billed). These were seen by the writer up to 21,000 feet and in numbers that indicated that they were still some way from their ceiling. The yellow billed Alpine Chough has been reported at 27,000 feet.

Himalayan Griffon Vulture. Salim Ali reports this between 4,000 feet and 8,000 feet but several were seen at 14,000 feet at Thangboche.

Kestrel. This was seen at 14,000 feet also which is higher than had been expected.

Tibetan Snowcock. This is very similar to the Himalayan Snowcock but differs in its markings. The Himalayan variety is found in the Western Himalayas, and the Tibetan in the East.

Swallow. A lone swallow was seen at 21,000 feet on 16 May flying in a southerly direction.

Paradise Flycatcher. Probably the most eye catching bird seen during the expedition it took the trip to Tiger Tops to find it. Both male and female were seen there.

Lammergeir. Seen almost daily over Base Camp and a joy to watch as they glided over the ground looking for food.

Laughing Thrushes. These provided some of the most difficult identification problems. Many different species were seen and the movement of a flock in what is known as a "sisterhood" was a new phenomena to British eyes.

Sunbirds. These are equally difficult to identify with many varieties possible. The majority are magnificent in their colours and a delight to see as they flit through the bushes.

Brainfever Bird. For the weirdness of its call this bird probably has no equal. Heard in the jungle at Tiger Tops the nervous might have nightmares!!

LIST OF BIRDS SEEN

This list is a combination of the notes of the late Major G F Owens, Major A J Muston and Chief Technician G P Armstrong. Each bird is annotated to indicate who saw it by the use of the surname initial letter, eg, 'O' for Owens. No attempt has been made to place the list in the accepted order of species.

Indian Myne (M,O)	Snow Pigeon (A,M,O)
Parish Kite (M)	Large Crowned Willow Warbler (A,M,O)
White Backed Vulture (M,O)	Black Headed Sibia (A,M,O)
House Crow (A,M,O)	White Throated Laughing Thrush (M)
House Sparrow (A,M)	Yellow Backed Sunbird (A,M)
Pied Myna (M)	Dark Grey Bush Chat (A,M,O)
Rufous Turtle Dove (M,O)	Rufous Bellied Niltava (A,M,O)
White Wagtail (M,O(?))	Yellow Bellied Fantail Flycatcher (M,O)
Red Rumped Swallow (M,O)	Blackbird (M)
Scarlet Minivet (A,M,O)	Himalayan Whistling Thrush (A,M,O)
Wood Sandpiper (M,O)	Grey Headed Flycatcher (A,M,O)
Long Billed Vulture (M,O)	Alpine Chough (M,O)
Common Sandpiper (M,O)	Chough (red billed) (M,O)
Little Bunting (M,O)	Himalayan Rubythroat (M)
Pond Heron (M,O)	Crag Martin (M,O)
Verditer Flycatcher (A,M,O)	Rufous Breasted Hedge Sparrow (M,O)
Black Headed Shrike (A,M,O)	Streaked Laughing Thrush (A,M)
Red Vented Bulbul (A,M,O)	Small Skylark (M)
Jungle Myna (A,M,O)	Red Headed Tit (A,M,O)
Black Drongo (A,M,O)	Himalayan Griffon Vultures (M,O)
Hoopoe (M,O)	Indian Rosefinch (A,M)
White Capped Redstart (A,M,O)	Lammergeir (M,O)
Pale Harrier (A,M,O)	Tibetan Snowcock (M)
Yellow Cheeked Tit (A,M,O)	Raven (M,O)
Yellow Bellied Willow Warbler (A,M)	Hodgsons Pipit (M)
Collared Bush Chat (M,O)	Cuckoo (M)
Rufous Backed Shrike (M)	Flanked Bush Robin (M,O)
House Swift (M,O)	Fire Tailed Sunbird (M)
Common Swallow (M,O)	Red Jungle Fowl (M)
Common Peafowl (M)	Red Wattled Lapwing (M)
Cattle Egret (M,O)	Indian Tern (M)
Little Egret (M,O)	River Tern (M)
Redstart (M,O)	Coucal (M)
Tree Sparrow (M)	Large Indian Parakeet (M)
Steppe Eagle (M,O)	Indian Roller (M,O)
Jungle Crow (A,M,O)	Blue Tailed Bee-eater (M)
Indian Pipit (M,O)	Small Blue Kingfisher (M)
Pied Bush Chat (M,O)	Pigmy Woodpecker (M)
Kestrel (A,M,O)	Bank Myna (M)
Crimson Breasted Barbet (M,O)	Moorhen (M)
White Breasted Kingfisher (M,O)	Spotted Dove (M)
White Cheeked Bulbul (A,M,O)	Rose Ringed Parakeet (M)
Red Billed Blue Magpie (A,M,O)	Alpine Swift (M)
Green Backed Tit (A,M,O)	Chestnut Headed Bee-eater (M)
Plumbeous Redstart (A,M,O)	Pied Kingfisher (M,O)
Grey Tit (M,O)	Black Headed Oriole (M)
Crested Bunting (A,M,O)	Magpie Robin (A,M,O)
Chestnut Bellied Nuthatch (M,O)	Large Pied Wagtail (A,M,O)
Blue Headed Rock Thrush (A,M,O)	Purple Sunbird (A,(?) M)
Yellow Wagtail (M)	Night Heron (M)
White Crested Laughing Thrush (M)	White Stork (M,O)
White Collared Blackbird (M)	Black Ibis (M)
Black Tit (A,M,O)	Brainfever Bird (M)
Blue Rock Pigeon (M,O)	Goldenbacked Woodpecker (M)

Brown Flycatcher (M)
 Yellow Fronted Pied Woodpecker (M)
 Spotted Babbler (M)
 Hill Myna (A)
 Common Green Pigeon (A)
 Red Winged Shrike Babbler (A,O)
 White Tailed Nuthatch (A,O)
 White Browed Blue Flycatcher (A)
 Grey Wagtail (A,O)
 Velvet Fronted Nuthatch (A)
 Indian Long Tailed Nightjar (A)
 Cinnamon Tree Sparrow (A)
 Black Bulbul (A,O)
 Wallcreeper (O)
 Upland Buzzard (O)
 Hen Harrier (O)
 Greenshank (O)
 Himalayan Greenfinch (O)
 White Eye (O)
 Orange Gorgeted Flycatcher (O)
 Spotted Owlet (O(?))
 Tailorbird (O)
 Spotted Piculet (O)
 Emerald Dove (O)
 Tibetan Shrike (O)
 Nepal Sunbird (O)
 C Kingfisher (O)
 Himalayan Nutcracker (O)
 B Mountain Finch (O)
 Tickell's Thrush (O)
 Mrs Gould's Sunbird (O)
 Scarlet Backed Flowerpecker (O)
 Wren (O)
 Simla Black Tit (O)
 Hoary Barwing (O)
 Ring Ouzel (O)
 Mountain Lark (O)
 Indian Griffon Vulture (O)

Indian Pitta (M)
 Paradise Flycatcher (M)
 Black Eagle (A(?))
 Fulvous Breasted Pied Woodpecker (A)
 Yellow Backed Sunbird (A(?))
 Himalayan Treecreeper (A,O)
 Southern Blackbird (A)
 Nilgiri House Swallow (A)
 Red Headed Fantail Warbler (A)
 Spotted Forktail (A,O)
 Orange Minivet (A)
 L Kestrel (O)
 Merganser (O)
 Brown Dipper (O)
 Cormorant (O)
 Little Ringed Plover (O)
 Slaty B Redstart (O(?))
 C Buzzard (O)
 Shahin Falcon (O)
 Shikra (O)
 Upland Pipit (O)
 PLW Warbler (O)
 Brown Crested Tit (O)
 BF Laughing Thrush (O)
 G Pied Kingfisher (O)
 Blue Fronted Redstart (O)
 Golden Eagle (O)
 Brown Shrike (O)
 Darwin (?) Redstart (O)
 Richard's Pipit (O)
 PB Rosefinch (O)
 E Alpine Acceptor (O)
 Indian Pheasant (O)
 Scaly Bellied Woodpecker (O)
 D Redstart (O)
 Plain S Martin (O)
 G Rosefinch (O)
 Alpine Accentor (O)

DATED 30 August 1976FINANCIAL REPORTGENERAL

1. The Expedition was financed in the main by grants and donations from non public funds and members' subscriptions. These monies were paid into the Army Mountaineering Association's account with Williams and Glyns Bank Ltd.
2. All expenditure incurred in the United Kingdom was made through Williams and Glyns account for which a balance sheet is at Appendix 1.
3. Money to cover expenses in Nepal was telegraphed by Williams and Glyns to the Nepal Bank Ltd, Kathmandu. Some money was also contributed by individuals in Nepal and a substantial adventure training grant received from the Brigade of Gurkhas.
4. Expenditure in Nepal was recorded in an AB 397 as nearly as possibly against the sub divisions used for budgetting and is shown at Appendix 2.
5. Part of the balance remaining in the Nepal Bank at the end of the expedition was left there, for use on the AMA's behalf by Captain M H Kefford, who was made a signator for the account. The other part of the balance was returned by draft to Williams and Glyns because if it was retained in the Nepal Bank it would either earn no interest or have to be changed from a convertible account into a savings account. This was thought inadvisable as under Nepalese exchange control, savings accounts cannot be converted into foreign currency so that money could not be retrieved if the AMA did not wish to use it in Nepal.

NEPAL BANK ACCOUNT

6. This was opened on 28 Feb 75 by Major E A N Winship with Lt Col J D C Peacock as a joint signator. As they were instructed by the bank to make the account in their names, the bank was reluctant to credit that account with the remittance telegraphed from Williams and Glyns via the Chartered Bank, London, because it was addressed to the AMA Himalayan Venture. A testimonial from the British Embassy, Kathmandu, overcame this snag but it is recommended that next time money is transferred from London by a draft in the hand of the expedition treasurer.
7. The account was No. 15796 in the Main Road Branch of the Nepal Bank Ltd. After the expedition Captain M J Kefford was enabled to sign cheques on this account and left with the cheque book and pass book.

CASH

8. Much expenditure was in cash as there is no bank in the Khumbu region. Therefore sufficient cash had to be taken with the 'march-in' party, to avoid having to send for more later via the expedition's agent in Kathmandu, which would have been risky. This cash (about 15 pounds weight) was carried by individuals in their rucksacks and then drawn in at Base Camp to be kept in a strong box.
9. Torn notes are generally not accepted by the Nepalese and dogeared ones are unpopular. Therefore the old notes issued by the Nepal Bank were exchanged for new at the Nepal Rastra Bank - the National Bank.

EXCHANGE RATES

10. The Nepal Bank uses the existing exchange rates which for the pound dropped from 25.14 to 24.81 during the expedition. As individual servicemen on duty may cash UK cheques with the British Embassy or Gurkha Transit Camp Imprest Holders at the Forces Fixed Rate which was then 26.03 this course is recommended in preference to travellers cheques for obtaining personal spending money in Nepal.

11. Since Nepalese Rupees may not be taken out of Nepal and cannot be exchanged in UK, personal cash remaining on departure from Nepal may be converted back to Sterling either through the expedition's convertible account or via imprest at the appropriate rates. Both methods were used.

CILOR

12. CILOR was authorised for the Gurkha Support Party but is not shown on the balance sheet as it could not be paid until after the expedition.

GURKHA ADVENTURE TRAINING GRANT

13. Captain M H Kefford has the original vouchers/bills needed to prove the expenditure of this grant of £500. He is expected to return these vouchers to Major Winship after photocopying.

CUSTOMS

14. Captain M H Kefford has the customs receipts in order to reclaim as much as possible of the deposit paid on re-exportables.

15. Rupees 12702.92 (£505.28) had to be paid to import the Compo and High Altitude Rations. It is understood that other British troops on adventure training in Nepal often manage to import theirs via the Gurkha Depot, Dahrán. It is suggested this course is followed in future by the AMA when possible. Kindly the Gurkha Depot Dahrán agreed to the expedition's liquor and tobacco being imported against their quota but it is recommended in future they should be asked to do this well in advance.

BALANCE SHEET FOR UK

Source	Amount	Expenditure	
Army Central Fund	£7500.00	Equipment	£7,346.66
Nuffield Trust	£2000.00	Transfer to Nepal including Commission	£10,017.00
Expedition Members Contributions	3319.14	Travel	£969.08
Mount Everest Foundation	£200.00	Miscellaneous:-	
Adventure Training Grant	£1000.00	1. Alphine Roundabout	£1,866.15
UKLF Grant	£750.00	2. Insurance Premium	£570.00
Army Mountaineering Association	£500.00	3. Refund Contribution	
Joint Services Mountaineering Club	£10.00	Major Swanston RAMC	£200.00
Royal Navy Mountaineering Club	£20.00	4. Money of deceased to N.O.K.	£166.14
Royal Airforce Mountaineering Association	£50.00	5. N.A.A.F.I.	£100.94
Royal Air Force	£245.00	6. Wall Plaques	£86.35
RAC Regiments	£528.60	7. Bill in Nepal	£39.46
Royal Artillery	£250.00	8. Photographs Royal	
RA Alpine Club	£50.00	Geographical Society	£16.20
Royal Engineers	£202.00	9. Cost of Films to Nepal	£15.75
Infantry Regiments	£2159.00	10. Special Printed Labels	
Army Air Corps	£453.13	R.A.F. Freight	£9.61
Royal Corps of Transport	£711.97	11. Infantry Mess Warminster	£6.39
British Military Hospitals	£37.84		<u>£3,076.99</u>
Queen Alexandra's Royal Army Nursing Corps	£54.70	Excess of Income over Expenditure	
Royal Army Dental Corps	£35.66	and Closing Balance 17.7.75	<u>£7,062.80</u>
Royal Army Ordnance Corps	£104.10		<u>£28,472.53</u>
Royal Electrical and Mechanical Engineers	£363.00		
Royal Army Pay Corps	£101.00		
Royal Military Police	£28.00		

Source	Amount	Expenditure
Intelligence Corps	£157.00	
Army Catering Corps	£150.00	
Royal Army Education Corps	£2.50	
Royal Army Veterinary Corps	£10.00	
Staff College	£75.00	
Royal Military Academy Sandhurst	£50.00	
Royal Military College of Science	£50.00	
HQ South West District	£25.00	
Balance from AMA Expedition to Himathal Pradesh	£24.54	
Balance from AMA Expedition to Axel Heiberg	£87.35	
Balance from AMA Exercise Alpine Roundabout	£2069.40	
Interest	£226.90	
Miscellaneous Grants and Donations	£2871.70	
Loan from Army Sports Control Board	£500.00	
Funds Returned from Nepal	<u>£1500.00</u>	
	<u>£28,472.53</u>	

BALANCE SHEET FOR NEPALINCOME

ITEM	REMARKS	AMOUNT IN RUPEES	AMOUNT IN STERLING
Remittance from Williams and Glyns (UK Bank)	Exchange rate on 28 Feb 75 £1.00 = Rupees 25.14	251400:00	10000:00
Contributions from Individuals paid in Nepal	See Appendix 1. Exchange rate used £1.00 = R 26.03 which was Forces Fixed Rate.	20512:59	788:04
TOTAL INCOME		271912:59	10788:04
Outstanding Creditors on leaving Nepal	Exchange rate used £1.00 = R 24.81 as at 4 Jun 75	4240:23	170:91
TOTAL	Effective Exchange Rate	276152:82	10958:95

EXPENDITURE

ITEM	REMARKS	AMOUNT IN RUPEES	AMOUNT IN STERLING
Land Transport	Included Taxis in Kathmandu and hire of transport to Lamusangu	1828.85	72.80
Air Transport	Includes air fares in Nepal and freight charges by Thai Air to Singapore	57274.90	2280.05
Gurkhas	Includes food, accommodation and air fares attributable to Gurkha support party and subsistence for Gurkha mail runners.	8470.00	337.18
Food	Includes daily allowance paid to team while in Kathmandu, local food purchased and some cooked meals where not part of entertainment	19961.38	794.64
Accommodation	Includes Dehli, Kathmandu and Nanche Bazar hotel bills and rent at Dingboche. Also Everest View Hotel bill for helicopter pilot.	4502.00	179.22
Porters and Porterage (Jella)	Includes March In and Out porters equipment porters and airport coolies.	60315.50	2401.09
Sherpas	Wages and insurance	21377.00	851.00
Firewood	Includes Jella, ie, delivered price	2131.00	84.83
Purchases	Radio, porters baskets, butane etc	4740.58	188.72
Customs	Dues paid but not deposit on re-exportables.	12934.80	514.92
Entertainments	Includes party costs and meals	3982.46	158.54
TOTAL EXPENDITURE		197518.47	7862.99

EXPENDITURE (CONTINUED)

ITEM	REMARKS	AMOUNT IN RUPEES	AMOUNT IN STERLING
Outstanding Debtors on leaving Nepal	Exchange rate used £1.00 = R 24.81 as at 4 Jun 75	19531.58	787.26
Nepal Bank	Balance remaining at 4 Jun 75 for use by Captain M Kefford on behalf of Himalayan Venture	21887.78	882.22
Draft returned to UK Bank	Rate as at 3 Jun 75 £1.00 = R 24.81	37215.00	1500.00
TOTAL	Note: 1. Sterling amounts do not balance due to exchange rate fluctuations. Amounts reflect rate in use at time of expenditure. 2. The extra one piasa expenditure is unexplained!	276152.83	11032.47

