AFRICA

Kilimanjaro, Western Breach. On September 16, Harold Knutson and I ascended and descended this route next to the Arrow Glacier. Beginning at the rarely used 12,500-foot roadhead on the Shira Plateau (only four parties signed in at the national park gate in the previous six months), we reached the main summit of the mountain, 19,340-foot Uhuru Point, in seven hours, then regained the roadhead in four-and-a-half hours. Local climbers later told us that this was the first one-day round-trip up and down Kilimanjaro. A major contributing factor was our footgear. The use of new Nike trail shoes enabled us to wear the same footgear for crossing glaciers up high and for running trails down low. Also, neither of us had the slightest sign of headache or altitude sickness, which we attribute to rapid descent and minimal time up high. We left Moshe at 3500 feet one afternoon, slept at 12,500 feet, and returned to 3500 feet just 15 hours after the start of the climb.

GALEN A. ROWELL

Batian, Mount Kenya. Our group consisted of Juan Carlos Robla, Pilar Fernández, Teresa Marchán, Luis Suárez, Nando Marné, Luisa Alonso, César de Prado, Angeles García, Angeles Navarro, Paco Gómiz and me. After several ascents of Lenana by the normal route and Point Peter by the difficult east face, on July 12 Suárez, de Prado, Marné and I made a new route on Batian on the north face. Our route was between the west ridge and the north glacier. On July 14 Marné, de Prado, Gómiz and I climbed the Firmin-Hicks route on Batian.

ISIDRO RODRÍGUEZ CUBILLAS, León, Spain

ASIA

India-Sikkim

Kabru Dome, Sikkim. The Indian Mountaineering Foundation sponsored an expedition to Kabru Dome (6600 meters, 21,654 feet) through the Himalayan Mountaineering Institute of Darjeeling. It was one of the selection camps for the members, both men and women, to be chosen for the Indian Everest Expedition in 1984. Kabru Dome had been attempted three times in the past: by two British expeditions, the first led by N.A. Tombazi in 1925 from the Alukthang Glacier and the second led by C.R. Cooke in 1935; and by an Indian expedition led by B. Biswas in 1964 whose claim of ascent is not accepted as valid. The 30-member IMF expedition, under the leadership of Colonel D.K. Khullar, Principal of the HMI, set up Base Camp near the snout of the East Rathong Glacier on September 14 at 14,500 feet. Advance Base was established on the true left medial moraine, where the Kabru Dome icefall meets the glacier at 15,800 feet. The icefall was the biggest obstacle. Up to Camp I at 18,000 feet, we skirted the icefall mostly via a rock gully to the true right of

it. Three days were spent finding a route through the upper icefall above Camp I. We were finally divided into three groups. The first group worked on the route while the other two stocked Advance Base and Camp I. The first group occupied Camp II at 20,000 feet above the icefall on September 20. Unfortunately due to whiteout and weather, they were unable the following day to make the summit. The second group occupied Camp II on September 23. Climbing on the southwestern flanks and finally gaining the south ridge, Mahabir Thakur, T. Lobsang, K.N. Singh, Gautam Dutta, Umeshwari Devi (the only woman) and P. Bhotia reached the summit at 12:30 on September 24. The third summit party managed to put Captains R.S. Sandhu and B.S. Rai, Manik Banerjee, P.P. Gautam and Ki Kami Sherpa on the peak on September 26.

YOUSUF ZAHEER, St. Stephen's College, Delhi, India

Nepal

Kanchenjunga. Reinhold Messner, Friedl Mutschlechner and Sherpa Ang Dorje reached the summit of Kanchenjunga on May 6 without the use of artificial oxygen. They climbed the north face and north ridge, partially on the Japanese route, partially new. They had two camps and above them, two bivouacs. In making this ascent, Messner reached the summit on his seventh different 8000er. On the descent, Mutschlechner suffered a frozen right hand and left foot and had to be flown back to Austria for treatment.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Kanchenjunga, Normal Route. Our expedition was composed of Franco Garda, climbing leader, Lelio Granier, Oscar Tayola, Riccardo Borney, Abele Blanc, Giuliano Sciandra, Oreste and Arturo Squinobal, Pietro Ferraris, Vittorio Mangili, Sergio Mezzanzanica, Giuliano Trucco, Luigi Pession, Innocenzo Menabreaz, Eliseo Cheney and me as expedition leader. We had hoped to climb the main peak by the previously unattempted southwest face, along the center buttress starting at the end of the great sickle. Unfortunately heavy snowfall and bad weather during the first part of the ascent prevented this. We therefore decided to repeat the normal route, first climbed by the English in 1955. We left Dharan with 300 porters on March 10 for the 17-day approach march to Ramser. After some days in Ramser because of heavy snowfalls, we started up to the Yalung Glacier, placing three intermediate camps: Glacier Camp at 15,750 feet, Kuna Camp at 15,825 feet and Intermediate Base Camp at 17,050 feet. We set up Base Camp on April 2 at the foot of Kanchenjunga's south face. For the first few days we explored the area and then followed the route of previous expeditions. Camp I was installed at 20,850 feet at the top of the first ridge on April 8. The approach to Camp II was more complicated; we had to descend for 650 feet into a very steep and dangerous gully, then

cross a crevassed glacier and ascend a second ice wall. Camp II was made at 22,650 feet on April 20. Camp III was placed at the beginning of the sickle at 23,950 feet on April 26. Camp IV at 24,950 feet at the end of the long snow ramp was composed of three small bivouac tents, set up on April 28. Cheney, Menabreaz, O. Squinobal, Ang Chopal and Nga Temba set out for the summit on May 2. At 26,900 feet Cheney and Ang Chopal gave up, while the other three reached the summit (8598 meters, 28,208 feet) at four P.M. Nga Temba and Squinobal did not use artificial oxygen. They were back in Camp IV at nine P.M., while the other two descended to Camp II. Two days later the weather turned bad with heavy snowfalls and we gave up all further attempts.

RENATO MORO, Club Alpino Italiano

Omi Kangri. Our joint Japanese-Nepalese expedition was composed of Kotaro Nakajima, Yoshinori Suzuki, Shinichi Kohara, Michio Maki, Jun Goto, Ms. Michiko Suzuki, Hideichi Gomi, Dr. Junichi Shioda and me as leader, Japanese, and Nawang Khroklang, Ang Temba and Ang Kalden, Nepalese. Omi Kangri is located on the border between Nepal and Tibet, northwest of Kanchenjunga, at the head of the Yangma Khola, from which the Tamur River springs. One finds no report of climbing there. There are many virgin peaks over 6500 meters in the Yangma Khola. On April 3 we set up Base Camp at 16,400 feet on the right bank of the Pandra Glacier after 17 days of approach from Dharan Bazar. Since it was impossible to climb the glaciers on either side of the south ridge because of 1000-foot icefalls in the lower parts and crevasses higher, we climbed the south ridge itself. There were slabby rock cliffs low and bad snow conditions higher. On April 9 we set up Camp I at 18,875 feet on the south ridge. Above Camp I we fixed 1500 feet of rope on the steep ice face and narrow snow ridge to reach the foot of the buttress. We traversed around the foot of the buttress and climbed a snow gully to set up Camp II at 20,000 feet on the snow ridge on April 18. Camp III at 20,850 feet was placed on April 27 on the snow plateau after climbing past crevasses and a snow wall. The ridge continued to the summits. There are three summits: east, central and west. The central summit is 100 feet higher than the other two. On April 29 Nakajima, Gomi, Nawang Khroklang and I reached the east peak as the first summit party. However, fierce winds and snow prevented our going to the central summit. On May 1 the second bid was made by Y. Suzuki, Kohara and Ang Temba. They reached the central peak in four hours from the east peak. The Nepalese Ministry of Tourism reports Omi Kangri as being 7922 meters (25,991 feet) high. Other maps give it as 7028 (23,059 feet). Our altimeter broke before we got to Camp III (and we feel that Camp III may be higher than we recorded it). We can infer the height of Omi Kangri by comparisons with other peaks. It is lower than Jannu (7710 meters). It seems as high or a little higher than the Twins (7380 meters). It is nearly as high as Jongsang Peak (7473 meters). It is much higher than the Outlier (7090 meters). Our opinion is that Omi Kangri is about 7400 meters (24,279 feet).

TOSHIO KANEKO, Tokyo Metropolitan Government Alpine Club

Jannu, North Face Attempt. Unfortunately we did not succeed on the north face of Jannu (Kumbhakarna) in spite of eight weeks on the mountain. We stopped at 23,300 feet, still three days from the summit as we calculate it. It was the most moving experience I have ever had in the Himalaya because of the harshness of the wall. None of us had ever seen such a cold, steep face. In October there was no sun at all except for three to four hours a day at Camp I. The last 3000 feet were like the Cima Ovest's north face in the Dolomites with much overhanging in the last 1500 feet. When we discovered how smooth this part of the face was, we headed for the northeast ridge, which we would have reached at 24,000 feet. We were unlucky. First, Patrick Benhault left us at the beginning, judging the face too harsh. Our two Sherpas couldn't carry beyond 21,000 feet and we five remaining climbers had to carry everything. This year the weather in October was very bad. A meter of snow fell on Camp I on October 20. All camps were destroyed. I tried to solo to the ridge on October 26. Because there were no more camps on the mountain at that time, the liaison officer forbade the expedition to continue and I had to come down.

PIERRE BEGHIN, Groupe de Haute Montagne

Makalu, Solo Winter Attempt. Frenchman Ivan Ghirardini attempted first the very difficult west buttress of Makalu in winter. After a first sortie, on January 7 he bivouacked at 19,350 feet and on January 8 at 22,000 feet. On January 9 he reached 23,000 feet, but the wind and cold were so severe that he had to give up, despite good climbing conditions. He estimated winds to be up to 125 mph and temperatures down to -50° . He then turned to the normal route before being turned back again at 23,000 feet by the severity of the weather.

Makalu, Southeast Ridge to East Face. Our sixteen-member expedition, which included scientists and three reporters, made a new route variation on Makalu. The leader was Ham Tak-Young. Because of customs delays in Calcutta, we did not set out from Tumlingtar until March 16. The advance party reached Base Camp on March 30. On April 2 they set off preparing the route up the icefall and established Camp I at 17,725 feet on the 5th and Camp II at 19,350 feet on the 8th. The main party got to Base Camp on April 10. Camp III was established at 21,925 feet on April 15. We pitched Camp IV at 23,625 feet. Just below the Black Gendarme was a steep, avalanche-prone slope but we managed to set up Camp V at 24,275 feet there. We left the Japanese route there and went out onto the east face. On May 19 we established Camp VI at 25,250 feet on the upper part of the east glacier, chiseled out of the steep ice. Young Ho-Huh and Sherpas Pasang Norbu and Ang Phurba set out at 4:30

A.M. on May 20 and reached the summit (8481 meters, 27,825 feet) at two P.M. They found a plastic toy on top which had been left there in October 1981 by the solo Polish climber Kukuczka. They had climbed the very steep east face directly toward the summit onto mixed terrain and then onto the sharp rocky east ridge. There was a needlelike summit just before the real summit. Young and Ang Phurba used artificial oxygen on the ascent only. On the descent one of the Sherpas slipped and they all fell 350 feet but fortunately no one was injured. Our route was shorter and quicker than the Japanese route. A second summit attempt had to be called off because of bad weather.

SEUNG MO SHIN, Korean Alpine Club

Makalu, West Face. A Polish-Brazilian expedition climbed the 8000-foothigh virgin west face of Makalu. Since Wojciech Kurtyka and Alex MacIntyre had twice attempted it, all eyes have been on this face. The team, led by Adam Bilczewski, consisted of 17 Poles and three Brazilians. The only Sherpa was sirdar Ang Kami. The team climbed the prominent left buttress of the face, which was difficult but free from rockfall and avalanches. Base Camp was established from August 28 to 31 at 17,700 feet. On September 2 Camp I was placed at 19,700 feet above the dangerous icefall. There the steep face began, involving mixed ice-and-rock climbing. Two camps were set up on the buttress: Camps II and III at 21,650 and 23,300 feet on September 11 and 19. The section above Camp III was very hard (UIAA V+, AO), but the crux of the route was at 24,600 feet. A vertical, and in places overhanging, rock band of some 350 feet was most difficult. Tragedy struck when Tadeusz Szulz was fixing ropes and suddenly died of a heart attack. Having completed the greatest difficulties, the members decided to continue. On October 7 Janusz Skorek and Andrzej Czok reached the north ridge, on which the Polish route had been pioneered in 1981 by Jerzy Kukuczka solo. Camp IV at 26,250 feet was established. They slept using artificial oxygen. The following day this pair made the first summit attempt, but extreme cold and winds made the climbing impossible. Skorek's fingers were frozen and the next day he descended with Andrzej Machnik in doubtful weather. Czok remained at Camp IV waiting for better weather. He was without artificial oxygen. Base Camp tried to persuade him to turn back, but he insisted on a summit try. He spent the day and a third night at Camp IV. On October 10 the weather was suitable and Czok set out alone and, without oxygen, followed Kukuczka's north ridge route. At 12:45 P.M. he reached the highest point of Makalu (8481 meters, 27,825 feet). The weather was fine and he sat for 40 minutes on top. He returned that same day to Camp III, having been over 8000 meters for three days and nights, using supplemental oxygen only during the first night. The weather was now favorable, but Bilczewski did not agree to further ascents because of the difficulty of the route. Ang Kami reached Camp I and the three Brazilians Camp II. This was the 19th ascent of Makalu and the second Polish one. The west face *direttissima*, pioneered by Kurtyka and MacIntyre remains for future expeditions, but the Polish climbers consider the route possible.

JÓZEF NYKA, Editor, Taternik, Poland

Makalu Attempt and Baruntse. Our expedition reached Base Camp at 16,075 feet on September 8 after a 10-day approach. We placed Advance Base at 17,400 feet on September 17. The Makalu group, Jean Troillet, Yves Rausis and I, had hoped to climb the difficult west-buttress route of the French in alpine style, while Claudio Righeschi, Rudolf Homberger, Marie Hiroz, Patrizia Barbuiani, Patrizia Riva and Vreni Kull climbed Baruntse. We worked our route on Makalu's west buttress up to 24,275 feet, where the greatest difficulties begin. On October 4 we three set out from Base Camp for a final push on the route, but on the 6th Rausis' health made him decide to give up the attempt. With only two climbers, one leading without a pack and the other hauling everything, it was obvious that we could not continue. Troillet and I decided to try a new route on Makalu's west face on the left edge, both being well acclimatized. On October 13 we left Base Camp for Advance Base. From there, with three bivouacs, we reached the north ridge where we bivouacked at 25,425 feet on the night of October 16. On the 17th we continued along the north ridge in bad weather to 26,250 feet, where we joined Kukuczka's route. Troillet waited there while I kept on alone to 26,900 feet, some 900 feet below the summit. We descended to 25,250 feet to biyouac. The weather on October 18 was worse and we descended Kukuczka's route to 21,000 feet. We reached Base Camp on the 19th. Meanwhile the group on Baruntse had been successful. Homberger reached the summit (7220 meters, 23,688 feet) on October 2 alpine style. The route on the south ridge was mostly without notable difficulties except for a traverse of 650 feet at 22,650 feet, which had 60° ice. On October 9 Marie Hiroz and Claudio Righeschi also reached the summit.

ROMOLO NOTTARIS, Club Alpino Svizzero

Makalu. Japanese climbed Makalu from the north with four high camps. The route was more direct to the northwest ridge than the standard route. On September 30 leader Kazuo Yuda, Makoto Ishibashi and Dr. Yukihiro Michikawa climbed to the summit without artificial oxygen.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Kangchungtse (Makalu II) Attempt. A Spanish Basque expedition was led by Carlos Ochoa and composed of Iñigo Barandiaran, Imanol Ollaguindía, Juan Oyárzabal and Atxo Apellaniz. They attempted the south ridge of Kangchungtse (7640 meters, 25,066 feet), placing two camps at 17,400 and 20,350 feet above Base Camp before continuing alpine-style with two more bivouacs

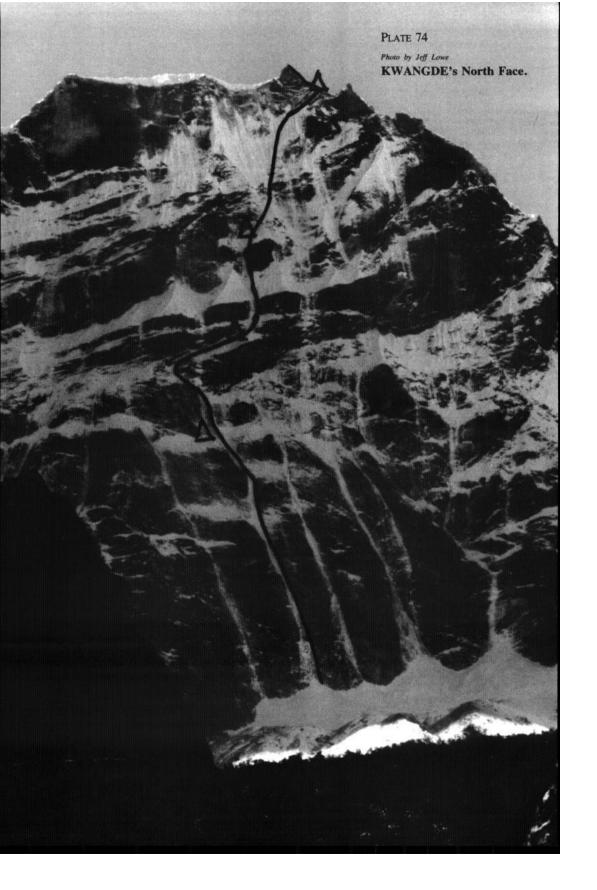
at 21,650 and 23,000 feet. They reached 24,125 feet on April 21 but quit because of snowfall, wind and exhausted food supplies. They brought too little money and bought insufficient food in Nepal because of a shortage of funds.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Ama Dablam, Winter Attempt. Our expedition sought to make an alpinestyle winter ascent of Ama Dablam. We were Kurt Krueger, Steve Risse, Steve Jorgenson, Dan Murphy and me with Mark Knaebe as Base Camp manager. After troubles recruiting enough porters for the approach, we finally on December 3 established Base Camp at 15,800 feet. Relatively easy ground led to Camp I at 19,000 feet on the south ridge. Without Sherpa support, each team member had to make several carries before Camp I was occupied on December 9. Unexpectedly Murphy left the expedition on the 11th. Above Camp I interesting and varied rock climbing up to 5.7 along the ridge led to Camp II, established on top of the Red Tower at 19,700 feet on December 15. A mixture of rock (up to 5.8) and snow (50° to 60°) took us to Camp III at 20,700 feet. On December 22, Camp III was made on a snow plateau near the base of the summit pyramid, but because of high winds it was moved the next day 200 feet lower. The first summit bid was made on December 24 by Risse, Jorgenson, Krueger and me. Low temperatures and high winds made the 60° snow climbing miserably exciting. We continued to 21,500 feet before retreating to Camp III. Krueger and I made a second summit try on December 26 but were again turned back by cold and high winds.

ROBERT SIEGRIST, Wisconsin Hoofers

Kwangde, North Face Winter Ascent. From November 28 to December 3 David Breashears and I made the first ascent of the north face of Kwangde (6194 meters, 20,323 feet) above the village of Hungo. The face is 4500 feet high and comprised of tongues and smears of thin white ice over boiler-plate granite slabs. The average angle (taken from the Schneider map) is 65°, exceptionally steep for an ice route. In the morning we'd peek out of our Bat tents to see the sun rise over Makalu's pink granite. During the day we could trace the trade route over the Nangpa La into Tibet. In the afternoon fingers of clouds crept up the valleys toward Cho Oyu, Everest and Lhotse. Supper was accompanied by alpine glow on the tip of Ama Dablam. We spent the fourth night hacking a cave from hard ice of an old cornice just below the summit. Inside the coffin-sized hole, we wondered if the wind would rip our home off the mountain, but we arrived on the summit early the next morning, convinced that we had completed what will become a hard modern classic climb. We descended in two days via the south face, over a notch in the southeast ridge, down its east face and finally around the toe of the northeast ridge to Hungo.



The weather was good during the climb with daytime temperatures of $15^{\circ}F$ and nighttime ones of -5° to $-10^{\circ}F$. Moderately high winds and spindrift early in the climb made us feel like salmon swimming upstream.

JEFF LOWE

Lhotse Shar Attempt. In the pre-monsoon period Hans Berger led a Swiss expedition that attempted Lhotse Shar (8383 meters, 27,504 feet) by its southeast ridge, the Swiss route of the autumn of 1981. Only the four-man team carried loads above Camp II (21,825 feet) since the Sherpas were unwilling to carry higher. They could get only to Camp III (24,450 feet) because of continuous deep snow and avalanche danger.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Lhotse Attempt. Peter Hillary (New Zealand), Fred From (Australia), Paul Moores (U.K.) and I attempted Lhotse by the normal west-face route. We were sharing the route through the Khumbu Icefall with a large Canadian expedition intent on climbing the South Pillar of Everest. The Canadians fixed the route through the icefall and we were under contract not to enter this section until they had reached Camp I at 19,200 feet. On August 31 and September 2, two separate accidents took the lives of three Sherpas and one Canadian. This threw them into turmoil and they asked permission to change to the South-Col route. Our routes were to be common until 25,600 feet. Our light-weight expedition was to be swamped beneath fixed ropes and Sherpas. Continuing bad weather in early September prevented any progress. On September 16 Camp I was established and Camp II was placed in the Western Cwm at 21,500 feet on the 20th. Camp III was lower than normal at 23,300 feet but we used it rarely because we usually went from Camp II onto the Lhotse Face in order to fix rope. On October 7 we moved up to 26,000 feet and established Camp IV. Our summit try was on October 8. A long traverse rightwards led to the summit gully. At 27,000 feet we were hit by a sudden snowstorm and strong winds. The increasing bad weather forced us to stop and descend. Our expedition did not use oxygen and cost \$15,000.

ADRIAN BURGESS, Alpine Climbing Group

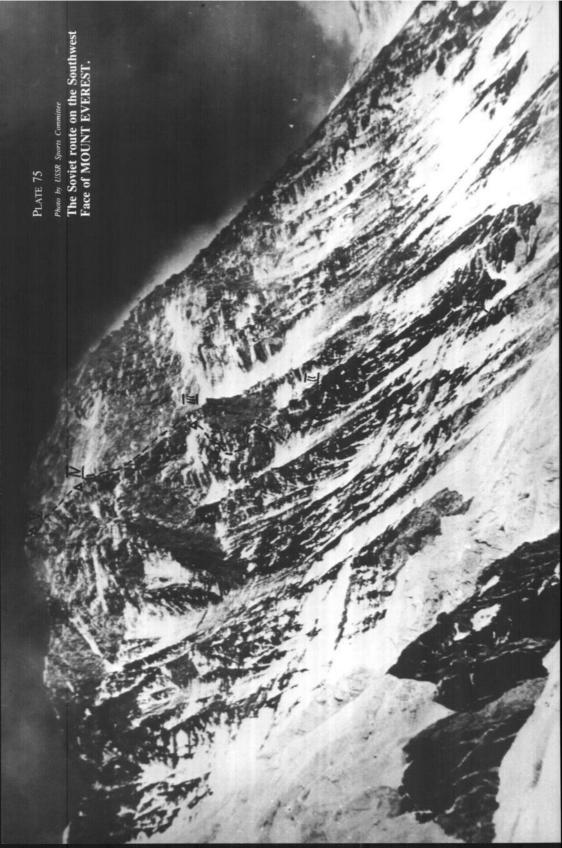
Nuptse and Thamserku Attempts. Three Scots led by Malcolm Duff attempted the west ridges of both of these peaks in the post-monsoon but reached only 20,175 feet on Thamserku and 22,000 feet on Nuptse. One climber failed to acclimatize and technical difficulties on both peaks meant slow progress for the other two.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Nuptse Attempt. Hans-Burkhard Nix led an unsuccessful German attempt on the north face of Nuptse; they had hoped to repeat the Doug Scott route. They arrived late in the post-monsoon season and gave up after twelve days at 21,325 feet before reaching the face because of worsening conditions in the Khumbu Icefall.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Mount Everest, New Route on Southwest Face. The objective of the expedition was to climb Mount Everest by a new route on the southwest face to the left of the Bonington Couloir. The expedition consisted of 25 members: 17 climbers, camera crew, a doctor, a radio man. The leader was the well known Soviet climber, Evgeny Tamm. Base Camp was established by an advance group on March 16 at the traditional place, the Khumbu Glacier. By March 21 when the main party arrived at Base Camp, the route through the Khumbu Icefall had been prepared by the same group of five members led by the senior coach of the expedition, A. Ovchinnikov. Camps I (at the foot of the face), II, III, and IV were established at 21,325, 23,800, 25,750 and 27,050 feet on March 25, April 1, 10 and 22 respectively. Placing camps and preparing the route were carried out by the climbers. Ten high-altitude Sherpas led by Sirdar Pemba Norbu managed to carry loads to Camp II. Camp III was reached by only two of them. The strongest, Nawang, made an attempt to join the advanced group of climbers but had to give up because of the technical complications of the route. The route between Camps II and V is rated at 5 difficulty (Soviet classification). The most difficult stretch was the approach to Camp IV. Having established Camp IV, all climbers descended for rest to the Thyangboche Monastery. On April 27 Eduard Myslovsky and Vladimir Balyberdin set out from Base Camp to prepare the route above Camp IV. On May 3 they placed Camp V at 27,900 feet, 150 feet below the west ridge. On May 4 these two set out from Camp V and reached the summit at 2:35 P.M. Balyberdin did not use oxygen while climbing. While descending from the top, they were met by Sergei Bershov and Mikhail Turkevich, who were waiting for them with spare oxygen cylinders. Having left the oxygen, Bershov and Turkevich went on and reached the summit at 10:25 P.M. As they descended, they caught up with Myslovsky and Balyberdin and helped them to reach Camp V, which they all reached at six A.M. on May 5. On May 5 Valentin Ivanov and Sergei Ephimov got to the summit. On May 7 Kazbek Valiev and V. Khrishchaty attempted to reach the top from Camp V but were turned back by violent wind. Their second attempt was made in the evening when the weather seemed to be improving. They reached the summit on May 8 at 1:45 A.M. The last group of climbers consisted of Yuri Golodov, Vladimir



Puchkov and Valery Khomutov, who got to the summit on May 9 at 11:30 A.M. Thus a total of eleven Soviet mountaineers climbed Mount Everest by the most difficult route ever ascended by Everest climbers.

USSR Sports Committee

Mount Everest. Our team members were Lloyd Gallagher, John Amatt, Tim Auger, Robert Baillie, Alan Burgess, James Blench, Dwayne Congdon, Jim Elzinga, Roger Marshall, Dave McNab, Pat Morrow, Dave Read, Gordon Smith, Laurie Skreslet, Don Serl and I as leader, supported by Dr. Steve Bezruchka, Dr. David Jones, Kurt Fuhrlich, Blair Griffiths, Bruce Patterson and Peter Spear. We left on July 26 for the walk to Base Camp. Most of the food and equipment had been sent in ahead in the pre-monsoon and was stored at Namche and Periche. Two members went ahead to set up Base Camp and by August 15 the team arrived at a fully established Base Camp. The Nepalese authorities had given permission to prepare the icefall and to carry to Camp I between August 20 and the start of the official season on September 1. We used the time well and by August 30 we had 120 loads at the site of Camp I. At 5:30 A.M. on August 31 an avalanche from the west shoulder swept away three Sherpas and four members. The Sherpas were buried and killed whilst the members survived with minor bruises apart from Spear who was completely buried and was dug out suffering from a wrenched back. Two days later tragedy struck again. Griffiths, the cameraman, was killed by a falling sérac in the icefall. The expedition reeled under these heavy blows and it was decided that everyone reconsider his commitment to the climb in view of the high level of danger in the icefall. Auger, Baillie, Blench, McNab, Elzinga and Serl decided to leave. Dave Jones also left as he was not acclimatizing. The remaining climbers were held up by bad weather for a week. Permission was granted to change from the South Pillar to the South Col and the New Zealand expedition on the Lhotse face agreed to cooperate with us between Camps II and IV. On September 16 Camp I was reoccupied at 19,600 feet. Conditions were good and progress was rapid, with Camp II occupied at 21,400 feet on September 22 and Camp III at 23,400 feet on the 28th. On October 4 Skreslet, Read and Sherpas Sundare and Lakpa Dorje occupied Camp IV on the South Col. The following day Skreslet and the two Sherpas climbed to the summit, returning to Camp II the same day. Two days later, Morrow, Pema Dorje and Lakpa Tsering also made the summit. Two climbers, Gallagher on the first attempt and Burgess on the second, were thwarted by faulty oxygen; the latter reached 27,500 feet without artificial oxygen. All climbers returned to Base Camp by October 8.

WILLIAM MARCH, University of Calgary Outdoor Pursuits

Everest West Ridge Attempt. Our expedition was composed of Lluis Belvis, leader, Emili Civis, Manuel Mateu, Jordi Pons, Jaume Altadill, Oscar Cadiach, Narcis Serrat, Alfons Valls, Jordi Sugranyes, Xáxier Pérez Gil, Lluis Hortala, Josep Vidal Ponce, Antoni Llasera, Josep Casanovas, Francesc Sabat, Joan Ribas and me. The first group got to Base Camp on August 11. We reconnoitered and fixed ropes up the spur leading to the Lho La, following the Yugoslav route of 1979. We built an aerial tramway with a 5mm carrying cable, a 4mm traction cable, a 3-meter tower and a winch. This served between 19,000 feet and the Lho La at 19,850 feet and raised in all five tons to the Lho La. Early on September 7 we heard a terrific avalanche. A huge rock tower had crumbled and destroyed the final 650 feet of ropes and ladders of the route to the Lho La. The aerial tramway was not damaged. We found a new and easier route right of the Yugoslav one. On September 17 we established Camp II at 22,150 feet. The beginning of the route above Camp I was steep and we fixed ladders on an iced wall. On September 21 we placed Camp III at 23,450 feet near the top of the west shoulder. On September 27 we received word that Sherpa Lhakpa Tsering had died from a stomach perforation. This stopped progress while his body was evacuated and cremated. Camp IV was 11/2 miles from, but only 1150 feet above, Camp III. Finally on October 6 four members slept there at 24,600 feet. Camp V was occupied at 26,575 feet on October 13 by Cadiach, Gil and Sherpa Nima Dorje. It was so cold (-45°C) that on the 14th their headlamps would not work and they had to wait until four A.M. to set out with oxygen in a cruel wind. At midday they reached 27,900 feet but realized they could not reach the summit that day. While Cadiach and Gil made a snow hole to leave their oxygen cylinders, Nima Dorje started the descent. While out of sight of our two top climbers but in the sight of members in Camp I, Nima Dorje slipped and fell down the north side to his death on the Rongbuk Glacier. With continuing strong winds, it was decided to abandon the attempt.

JOSEP MANUEL ANGLADA, Centre Excursionista de Catalunya, Spain

Mount Everest, Winter Attempt. Our expedition was led by Michel Metzger and composed of Marc Batard, Alain de Blanchaud, René Ghilini, Yves Laulan, Michel Mabilon, Michel Piola, Jean Bourgeois, Pierre-Alain Steiner, Emmanuel Schmutz and me. We got to Base Camp on November 21 and acclimatized until December 1. After eight days' work in the Khumbu Icefall, we got to 21,325 feet in the Western Cwm, but the icefall was in such bad shape that we asked for and were granted permission to change to the west ridge. Following the Yugoslavian route, we climbed to the Lho La in one day. We hauled loads with the Catalan winch, which was still in place. Camp I was in the col at 19,500 feet and Camp II at 23,000 feet. The winds were so strong that Batard and I could not get over 25,000 feet. Others wanted to make a final attempt. The Belgian Jean Bourgeois was accompanying four climbers on December 27 from the Lho La to Camp II. Fearing a headache and dizziness

were signs of an oncoming cerebral edema, he chose to descend alone. Wanting to lose altitude as quickly as possible and not daring to rappel from the Lho La, he descended on the Tibetan side, reaching finally the deserted, ruined Rongbuk Monastery and after several days the first village. Eventually he was taken to Shigatse, where he was interrogated. The authorities allowed him to proceed on January 11 and drove him to the Tibetan-Nepalese frontier at Kodari. Although winter floods had washed out a part of the road, he walked across this and caught a bus for Kathmandu. My companions had feared him dead in a crevasse and searched six days for him. After they had returned to Kathmandu, he finally turned up "from the dead."

LOUIS AUDOUBERT, Club Alpine Français

Everest Winter Ascent and Tragedy. Yasuo Kato, 33, was lost on Everest after becoming the first climber to reach the summit in a winter, solo attempt. His partner, Toshiaki Kobayashi, 34, who was following with bivouac supplies and met Kato just below the South Summit, also failed to return. This was Kato's third ascent of Everest. Kobayashi had been on expeditions to Dhaulagiri, K2 and Everest. The 7-man Japanese expedition accomplished its ascent in a very rapid 25 days. After establishing Base Camp on December 2, Kato reached the base of the South Col on December 22. In winter the main enemy is the frigid high-altitude jet stream which drops down to blast the mountain with force enough to send loose rocks sailing. Kato counted on the belief that the jet stream rises clear of the mountain every few weeks for two or three days. His plan was to launch an alpine-style attempt in that brief, calm period, with Kobayashi following in support. His first attempt on December 23 took him to 8100 meters before he was turned back by 50 to 60 kph wind and -40°C temperature. Kato could hardly keep upright, and the batteries of his radio froze within 15 minutes. Kato's next chance came on the 27th. Using oxygen, Kato and Kobayashi left Camp IV at five A.M. At ten A.M. climber Yoshimasa Sasaki caught Kato's transmission reporting they had reached 8400 meters and discovered the body of a climber (Frau Schmatz?). At 7:30 P.M. Kato reported the following: He had reached the South Summit at 1:50 P.M. and the summit at 3:55 P.M., at which time it was almost dark. On his descent he had met Kobayashi, who carried 27 kilos (60 pounds) of bivouac supplies to the agreed upon campsite just below the south summit. By then it was already pitch dark and very cold. Kobayashi was slightly frostbitten. Sasaki asked if Sherpas should be sent up to the South Col in preparation for a possible rescue. "No, that won't be necessary," Kato replied. "Both of us are well, and we've got a good bivouac. I'll call you tomorrow at seven A.M." Kato's voice sounded confident and in good spirits. In each of his other two Everest ascents he had bivouacked above 8000 meters without equipment. Now being fully prepared, he expected no difficulties. That night a terrific storm and cold wave blew in. The Indian Mountaineering Foundation forecast winds of 150 to 200 kph (!) at Everest altitude, and a temperature of -43° C. The resulting cold

wave caused the deaths of over 200 people in northern India. The jet stream dipped down enough to strip Camp II at 6600 meters off the mountain. The next day, in spite of terrific wind, Sherpa Noan Yonden was able to climb to the South Col in hope of helping the stranded climbers to descend. He saw no sign of them, nor any the following day. On December 30 the search was abandoned. Dr. Yasuo Sasa, the President of the Japanese Alpine Club, flew to Kathmandu with Kato's sister to attend the funeral of the two lost climbers. The Japanese speculate that because there was too little snow on the southeast ridge to dig a snow cave, the climbers were probably forced to seek shelter in the tent carried up by Kobayashi. The extreme force of the jet stream wind, they believe, had blown the tent and occupants down the mountain. Other Japanese Everesters expressed the opinion that no one would be able to climb the southeast ridge in the wind storms typical of the post-Christmas season. (This information was sent by the Japanese Alpine Club.)

THOMAS HOLZEL

Articles Resulting from the American Medical Research Expedition to Everest. Only two scientific articles have so far (February 1983) been published. They are:

West, J.B. "Man at Extreme Altitude." *Journal of Applied Physiology*, 52: 1393-1399, 1982.

West, J.B. "American Medical Research Expedition to Everest, 1981." The Physiologist, 25: 36-38, 1982.

Many articles are in the process of publication and the book *High Altitude and Men* edited by J.B. West and S. Lahiri should be published late this year or early next. An update will appear in the *American Alpine Journal*, 1984.

JOHN B. WEST, M.D.

Pumori. The four members of our expedition were Pierre Faivre, Jean-François Lemoine, Guy Mevellec and I, all mountain guides. We made an alpine-style ascent of the south ridge (French route of 1972) and descended the east ridge, the normal route. We left Kathmandu on September 14 and with 17 porters arrived at Base Camp after a 14-day walk from Kirantichhap. We spent eight days acclimatizing and reconnoitering the lower section of the normal route. On October 5 we placed a camp on the south ridge at 20,350 feet and then waited a full week for good weather. We all left Base Camp on October 14 and camped at 23,000 feet on October 17 at the head of the south ridge, which had been mainly a mixed climb with very sustained difficulties. We fixed the rock sections. On October 18 Lemoine and I reached the summit in a storm. Bad weather obliged us to spend another night at 23,000 feet. On the 19th the weather cleared and Faivre and I got to the top. All four of us descended the normal route in one day to Base Camp.

ERIK DECAMP, Club Alpin Français

Pumori, Winter Ascent. A three-man South Korean expedition made the second winter ascent of Pumori via the south ridge. The expedition leader Nam Sun-Woo and Sherpa Lhakpa Gyalgen left Camp II at 21,150 feet, bivouacked at 22,300 feet and reached the summit on December 11.

Cholatse Ascent, Taboche Attempt. A Swiss expedition was led by Dr. Heidi Lüdi. They climbed a new route, the southeast ridge, on Cholatse (6440 meters, 21,130 feet). They established three high camps. They reached the summit twice: on October 18 by Heidi Lüdi, Niklaus Alpiger and Kancha Tamang and on October 29 by Alpiger again and Werner Zäher. For the attempt on Taboche (6542 meters, 21,463 feet), they used the first two Cholatse camps and had no fixed camp higher. They reached 19,350 feet but then were forced to retreat because of deep snow.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Numbur. A New Zealand expedition led by Peter McInally climbed Numbur (6954 meters, 22,815 feet) via the southwest ridge, the route of the French in 1981. They had an advance base and two high camps. On March 29 McInally, Rob Hall, Bill King, Steve Lassche and Gavin Tweedie reached the summit.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Karyolung. A joint Nepalese Police-Japanese expedition was led by Yoshiyuki Inoue and Yogendra Thapa. After a brief try at the west ridge, they climbed the northeast face, where they placed two camps. On October 31 Inoue, Hiroshi Nishi, Masatoshi Isawa, Japanese, and Thapa and Baburam Tan, Nepalese, reached the summit (6681 meters, 21,920 feet). Later in the same day two Japanese and Nepalese Gorey Tamang, Gita Bahadur Joshi and Sherpa Pemba Tsering got to the top. On November 1, a third group including two Japanese women summited: Sohei Fuji, Yasuhiko Nakao, Kozuko Mainasaki, Makao Nishimara, Makio Nakahara and a Nepalese. This previously unclimbed peak is now open to foreign expeditions.

KAMAL K. GUHA, Himalayan Club

Karyolung, Winter Ascent. Another Japanese-Nepalese expedition climbed Karyolung, also by the northeast face, but this was done in the winter. Two Japanese, Akira Yamada and Katsuichi Tanaka, and two Nepalese members, Sherpas Ang Kami and Pemba Tshering, reached the summit on December 24. The leader was Hajime Nagatoshi.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Ngozumba Kang Attempt. A joint expedition of four Frenchmen, two Belgians and three Sherpas led by Guy Cousteix attempted the south face of Ngozumba Kang (7806 meters, 25,610 feet). After establishing three camps, they abandoned the climb because of deep snow, reaching 23,000 feet on October 13.

MICHAEL J. CHENEY, Himalayan Club, and ELIZABETH HAWLEY

Ngozumba Kang. A South Korean-Nepalese expedition led by Park Dong-Gyo made the first ascent of Ngozumba Kang (7806 meters, 25,610 feet). They climbed the south face direct with four high camps. On November 2 Sherpas Ang Tsering and Dorje and South Korean Kim Yong-Han got to the summit.

MICHAEL J. CHENEY, Himalayan Club and ELIZABETH HAWLEY

Cho Oyu, South Face Attempt. Our expedition intended to climb the south face of Cho Oyu (8153 meters, 26,750 feet) which had first been climbed by Koblmüller's party in 1978. We had four members, the Austrians Wolfgang Nairz, leader, Rudi Mayr and me, and our German friend Reinhard Karl. We also had three Sherpa members and three high-altitude Sherpas. We flew to Lukla on April 12, and established Base Camp at 16,575 feet on April 18. On the following day I suffered from a slight form of pulmonary edema and tried an experimental treatment (nitroglycerin and positive end expiratory pressure). Subsequently my lungs cleared, but I fell into deep unconsciousness due to high-altitude cerebral edema. I was brought down by my friends and evacuated by helicopter to Kathmandu. Due to a subsequent pulmonary embolus I had to return to Europe. Between April 24 and May 6 Karl, Mayr and Nairz established Camp I at 19,350 feet and Camp II at 21,325 feet in the lower part of the face. It was very difficult to find a more-or-less secure route and the climbing involved long pitches of steep and sometimes vertical ice. Progress was slowed by repeated snowfall. The final summit attempt was started on May 17. Nairz and Karl spent the night of May 18 in Camp II, which was located underneath an almost vertical ice face with no séracs. The Sherpas occupied a tent 10 meters apart from my friends. On May 19 at five A.M. an ice avalanche, which originated roughly 2000 feet above the camp, buried the tent of Nairz and Karl. The Sherpas' tent was spared. The Sherpas started to dig immediately and found Reinhard Karl after 20 minutes. He was dead due to head injuries. Subsequently they found Nairz who was unconscious and had a broken leg. He regained consciousness within an hour and managed to climb down the face with the help of Rudi Mayr and the Sherpas. Reinhard Karl was an outstanding mountaineer (both physically and mentally) and a very close friend. He certainly was the most successful German all-round climber of recent years. He had climbed many of the most difficult routes in the Alps and he had done some big walls in Yosemite and elsewhere. We had climbed Mount Everest together in May 1978 and he had subsequently reached the summit of Gasherbrum II. Just before our start to Cho Oyu he had climbed Cerro Fitz Roy.

OSWALD ÖLZ, Österreichischer Alpenverein

Cho Oyu, South Face Winter Attempt. Reinhold Messner, Friedl Mutschlechner, Paul Hanny, Hans Kammerlander and Peter Eisendle, South Tirolean Italians, Wojciech Kurtyka, Polish, and I, Austrian, were accompanied to Base Camp by four women, a writer and a painter. We flew to Lukla on November 8 and acclimatized on trekking peaks. On November 27 we set up Base Camp at 16,750 feet above Gokyo. We had four experienced Sherpas. We started up Cho Oyu's south face on December 1, the official opening of the winter season. From 17,400 to 19,700 feet, we climbed the broken icefall on the right of the face. We were helped by the Korean fixed ropes, which they had used to climb Ngozumba Kang. We placed Camp I at 20,000 feet at the top of the icefall on December 2. Camp II was established on December 6 at 21,825 feet at the beginning of the second upswing. Between Camps I and II was a wind-swept, crevassed ice plateau. From December 10 to 18 we climbed the often dangerous and extremely difficult ice face, which rises from Camp II to 24,600 feet. The chief problem was a 70° to 80° ice buttress in the last 1000 feet. We found fixed ropes from the Koblmüller-Furtner first ascent of the face in 1978. The ice was extraordinarily hard, making the placement of ice screws difficult; it was covered by rotten snow. Messner, Kammerlander and Sherpa Ang Dorje on December 18 reached the top of this ice pillar. The plateau would have been easy up to the final 250 feet, but it was covered by hip- and chest-deep powder snow. They could not advance and also feared avalanches. By December 21 all climbers and equipment were back in Base Camp.

OSWALD ÖLZ, Österreichischer Alpenverein

Khatang, Rolwaling Himal. This mountain was opened to climbers only in 1981 and we were the first to try it. We climbed the northeast ridge. We established the following camps: Base Camp at 15,700 feet on October 8 and Camps I, II and III at 17,825, 19,325 and 20,700 feet on October 12, 26 and 30 respectively. The northeast ridge is very steep, knife-edged and with unstable snow. The most difficult climbing was between Camps II and III. The following reached the summit (6853 meters, 22,484 feet): Tastumi Kawamura, Yoshimi Kitayama, Dorje Sherpa on November 1; Koji Kimura, Hideaki Sato, Chiharu Watanabe on November 2; and Kenji Koyama, Shigenori Sawada, Takehiko Ono on November 2 from Camp II.

MASARU OTANI, Japan Workers' Federation Hokkaido