MOUNT LOGAN (EAST PEAK)

By KERMITH F. ROSS

THE summit of the East peak of Mt. Logan was attained *via* the East ridge of the mountain by all five members of the 1957 Mt. Logan Expedition on July 19, 1957. The mountain (central summit) had been previously climbed three times from the west approach, once in 1925 and twice in 1950. The first activity on the East ridge was in 1953, when the Logan–Cook expedition conducted a reconnaissance survey of the ridge up to about 10,000 ft. We were aided materially in our climb by the information they obtained. The members of the 1957 expedition were Dave Collins, Cecil Ouellette, Gil Roberts, Don Monk and Kermith Ross. That the mountain climbing virus is not restricted to any one avocation is illustrated by a survey of the callings of this group. Collins is an engineer, Ouellette is a writer, Roberts is soon to be a doctor, Monk is a mathematician and Ross is a lawyer.

Mt. Logan, 19,850 ft. in elevation, the second highest mountain in North America, is located in the south-western corner of Yukon Territory, about twenty miles from the Alaskan border and about 60 miles from the Pacific Ocean at the closest point. The eastern approach, which was used on this climb, is via the town of Yakutat, which is located on Yakutat Bay about 80 or 90 miles south-east of the mountain. The route traverses three large glaciers, the Malaspina, Seward and Hubbard in that order from the ocean. Hauling freight across this highly crevassed area was avoided by use of a Cessna aircraft to drop the bulk of supplies and equipment at the base of the East ridge. The contribution of the aeroplane to mountaineering is illustrated by the fact that only two trips, consuming a total of about two hours, were required to do this, while several months of arduous labour, with the help of horses and dog teams, were required to perform the same task for the 1925 expedition, using the western approach.

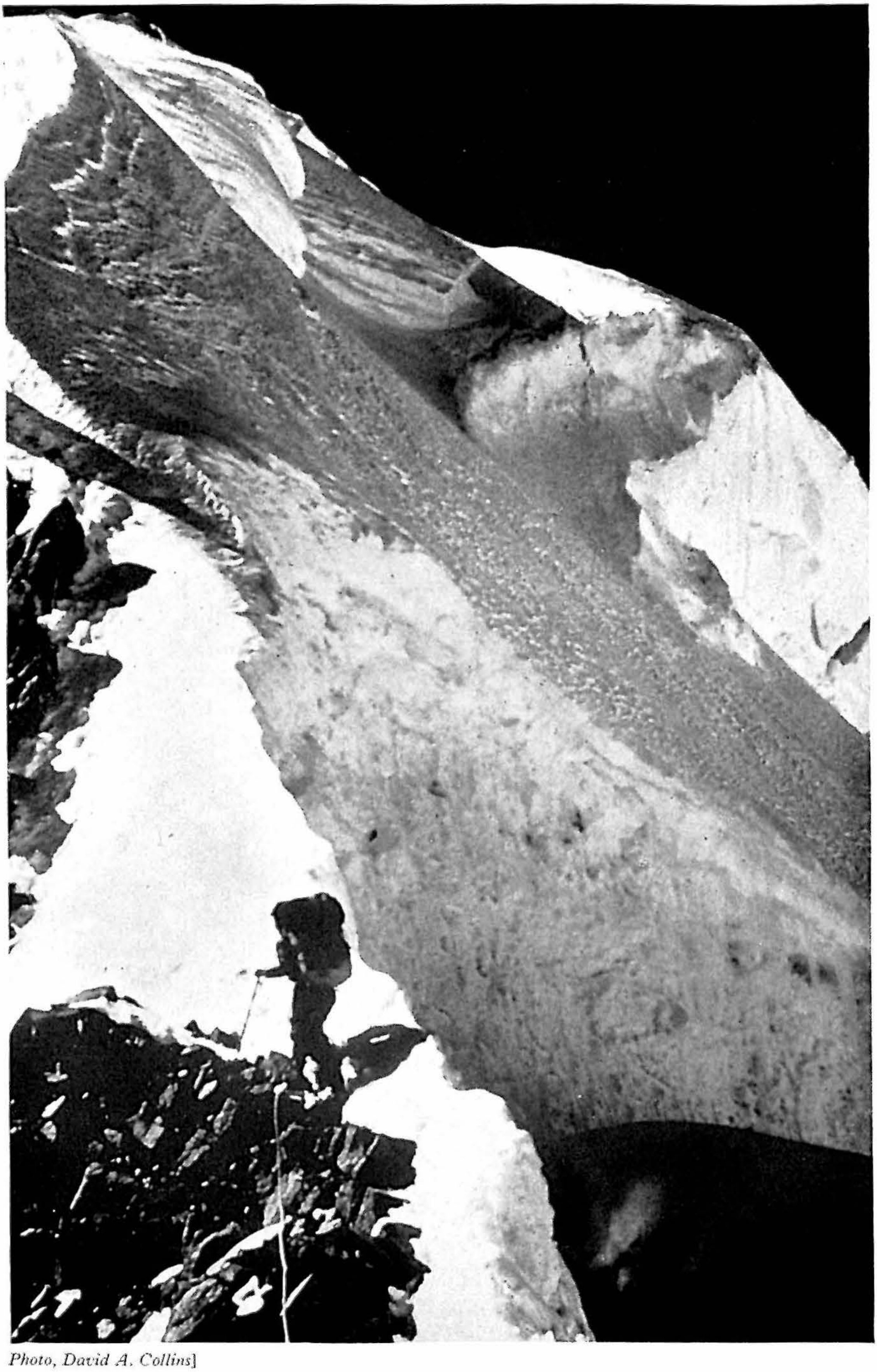
Weather must always be a major consideration in planning a climb in this area and it is a prime factor in assessing the difficulty of the climb. We found, for instance, that a slope which on one day required several hours of step-cutting would be reduced on the following day to a simple step-kicking exercise by a sudden change in the weather, accompanied, of course, by increased danger of avalanche. Because of the nearness of this area to the ocean, the weather is generally agreed to be more inclement than that in the McKinley area. The entire eastern approach is particularly vulnerable to storms from the ocean. The

unpredictability of the weather in this area is appreciated by a comparison of that encountered by the 1925 and 1950 parties on the climbs from the west. We did not experience the severe blizzards and extreme temperatures encountered by the 1925 party. This may have been due partly to the fact that the climb was planned to put us at the summit in late July rather than in June. Opinion is still divided as to which month is the best for climbing in this area. The residents of Yakutat informed us that the 1957 season was an exceptional one for good weather in the Logan area.

Another prime factor is the matter of communication with the outside world in case of emergency. We did not have a short-wave radio, but one is advisable if the finances of the party will permit it. Arrangements can be made for a pilot to fly in and check at intervals but this too is expensive. The alternative is to walk out for help and this trip requires from a week to ten days and is somewhat of a hazard in itself.

The party of five assembled at Yakutat on June 25 with supplies and equipment. Two days of non-flying weather were utilised to get the equipment in shape and put the food in large plastic bags, each holding one day's supply for five and weighing about 17 lbs. These were packed in pasteboard cartons, hastily scrounged in Yakutat for dropping from the Cessna. The use of a small plane capable of dropping from low altitude at low speeds prevented the loss of any supplies, even though they were lightly packed. On June 27 the supplies were dropped in the area at the base of the East ridge and the party was landed by ski-equipped Super-cub about 10 miles below the ridge on the Hubbard glacier. A demountable ski-runner sled with an aluminium frame was sent in on the first trip with one member of the party to assemble it. Such a sled is a 'must' in this area as it is the best expedient for transporting heavy loads over the glacier. We regularly hauled up to 400 lb. on this sled and used it on the 10-mile trip from the landing area up to the East ridge and on the 80-mile trip over the glaciers to the ocean after the climb.

We spent the night of the 27th hauling supplies 10 miles up to Base Camp, about $1\frac{1}{2}$ miles from the end of the East ridge. The almost twenty-four hours of daylight which prevails in this area at this time of year was used to advantage here as it was many times on the climb. Following a day's rest at Base Camp and the arrival of the last load of supplies by ski-plane, the party on June 27 gathered up the practically undamaged air-dropped supplies and moved camp on the sled to Camp I at a point about 300 yards north of the ridge, this being the only safe point for a camp site near the ridge. Care had to be exercised in locating this camp, as the area between the Logan ridge on the south and the MacArthur ridge on the north is swept by avalanches.



Photo, David A. Collins]

EAST RIDGE OF MT. LOGAN NEAR THE LOGAN DOME.

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The East ridge begins with a rather level section, about a mile long, sloping gradually upward to the west from an elevation of about 8,000 ft. at its east extremity to the beginning of the steep section of the ridge at about 9,500 ft. (all elevations are approximate, as we did not carry an altimeter). From this point the ridge rises steeply to the Logan Dome (about 15,500 ft.), where a high plateau extends gradually upward about 4 miles westward to the base of the East peak. The East peak from this direction is actually the east end of the east-west summit plateau of Logan. It is quite steep on its east face but has gradually sloping sides to the north and south. The lower mile-long initial section of the East ridge referred to above rarely attains a width of more than 10 or 15 ft. and terminates on the east in a steep end-face which rises about 800 ft. above the glacier. The first climbing task which faced us was to get our supplies and equipment on top of this narrow eastern section of the ridge.

On June 28 Monk and Ouellette climbed the east end of the ridge roped together and mounted a pulley on the ridge threaded with about 1000 ft. of manila rope for hauling supplies up the north side of the ridge, a 60° ice-slope. After about two days of hauling supplies up to the top of the ridge from a point below to which they could be carried, the party was assembled at Camp II on the ridge (8,200 ft.) on June 29, with all equipment and 38 days' supply of food. On June 30 Camp III was established about 1 mile up the ridge at 9,000 ft. The cache left by the 1953 party was found to be in good condition a short distance from the end of the ridge and was left largely intact.

From this point we established seven more camps, the final camp being located at about 17,000 ft. At least two trips per man with 40–50-lb. loads were required between camps. Twenty days were spent on the mountain, thirteen of which were suitable for climbing and seven of which were spent in tents waiting out storms. Up to about 12,000 ft. the climbing is largely over exposed rocks with some long snow traverses. The accumulation of snow and ice on the rocks, which was constantly changing, made climbing with packs difficult. Under ordinary conditions the climbing would have been comparatively easy. We climbed roped at all times in two parties, one rope of two and one of three. Crampons were worn most of the time even on rocks because of the snow and ice on them. Almost 2,000 ft. of fixed ropes were used. From the 12,000-ft. point the ridge presents a complicated series of steep snow slopes, narrow snow arêtes and deeply crevassed areas, all of which provide opportunity for almost every type of snow and ice technique. The chief hazards of the East ridge climb are snow and rock avalanches, crevasses, a couple of 100-yard-long knife-edge ridges, and isolation from any help in case of injury. The frequent snow avalanches on both sides of the ridge

required the climbing party to stick close to the ridge. Temperatures at times dropped below 0° F., the lowest being about 15° F. below zero on the summit.

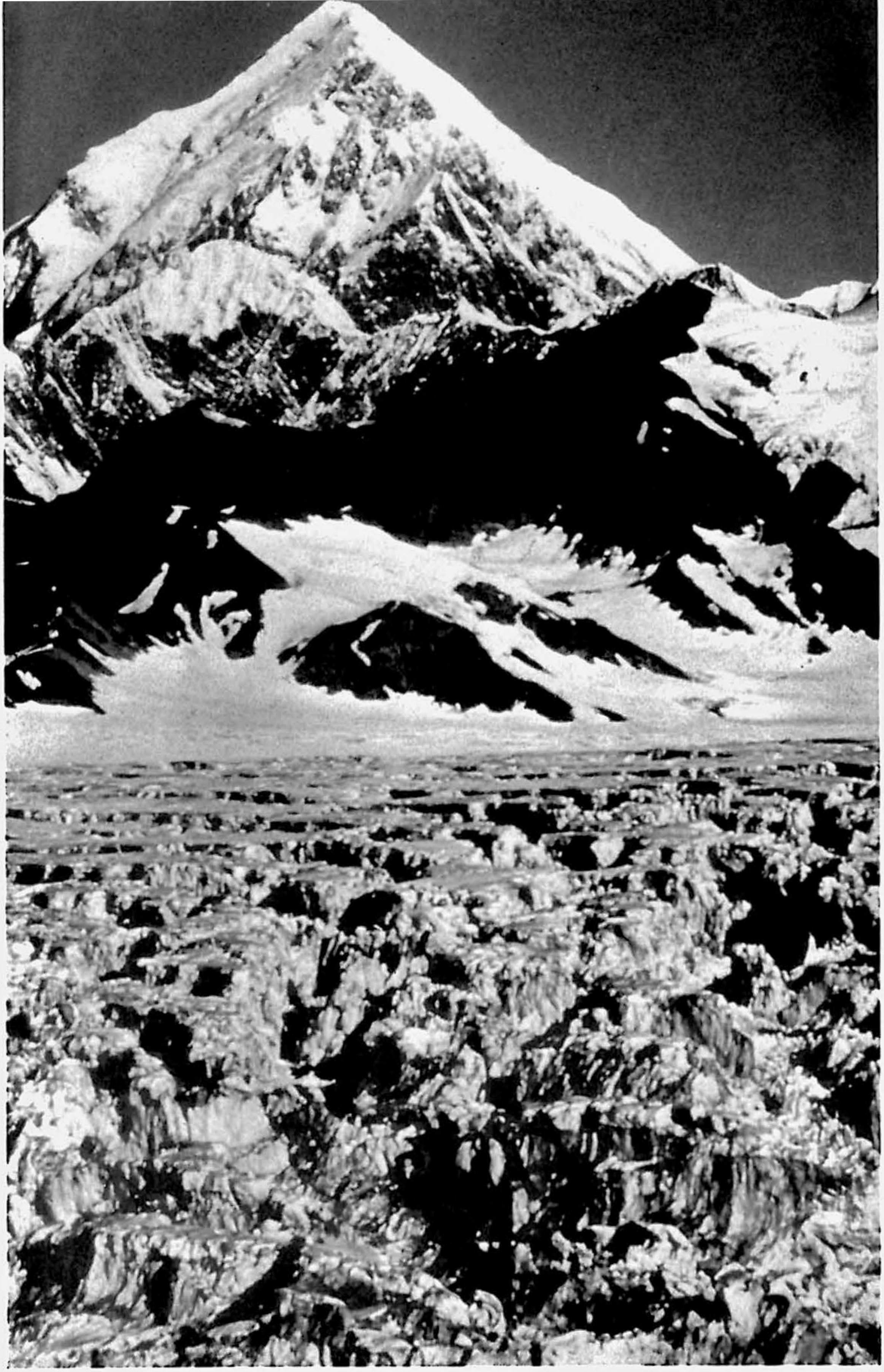
On July 1 Collins and Ouellette established Camp IV at about 11,000 ft., encountering a long, narrow snow-ridge shortly above Camp III and loose rock on the ridge. The days of July 2 and 3 were spent relaying loads up to Camp IV. On July 4 a storm kept three members of the party in Camp III and Collins and myself in Camp IV. The storm prevented the members of the party in Camp III from coming up to Camp IV until July 7. In the meantime Collins and I had taken two small loads each up to about 12,000 ft., where we were forced to cache them just below a knife-edge ice-ridge which we did not want to attempt in the bad weather without support. July 8 was a day of storm spent in camp. On July 9 two members of the party cut out the 150-yard-long ice-ridge above the cache and Camp V was established at about 12,500 ft. Carrying 50-lb. loads across this ridge was a precise balancing act and it became known as 'horror' ridge. Ice pitons were used here in belaying. On July 11, Collins, Ouellette and myself left Camp V to establish Camp VI and found this section to be the most difficult of the climb. Collins led and cut out another of the long knife-edge ice-ridges, with sheer drops on both sides extending to the glacier below. Above this ridge we encountered steep ice-slopes where it was necessary to cut steps even though we wore crampons. We were stopped at about 13,000 ft. by a large crevasse which extended transversely all the way across the route. We established Camp VI at about 13,500 ft. and returned to Camp V. The party was kept in Camp V by a snow-storm until July 15, when Camp VI was occupied with 11 days' supply of food. From here on we were to have comparatively good weather to the summit. Leading out of Camp VI on July 16, Roberts went up a steep ice-slope and crossed the giant crevasse at a point below where it had proved impassable the day before. Camp VII was set up at about 14,000 ft. and everything was moved up from Camp VI that day. On the return to Camp VI we had our closest shave with an avalanche, as Collins, Monk and Ouellette on one rope were almost swept off when the 3-ft.-deep snow parted along the trail they were in, the lower section taking off for the glacier, 8,000 ft. below. With all members alternating leads, Camp VIII was established on July 17, immediately above the Logan Dome on the plateau leading to the summit. The route this day was altered frequently to avoid potential avalanche area, as this area was the most dangerous encountered, so far as this hazard is concerned. On July 18 the party travelled about 3 miles westward over the plateau towards the base of the East peak and established Camp IX at about 17,000 ft. in a heavy snow-storm. Soft snow was encountered and

the two pairs of bear-paw snow-shoes carried to this point were not very effective for breaking trail; hip-deep snow was encountered. We reached Camp IX with about 6 days' supply of food and were prepared to stay this long if necessary for a summit attempt as there was food in all of the camps below. The morning of July 19 was stormy, but at 9 a.m. we decided to make a try for the summit, gambling on the weather clearing, which it did. The temperature was 8° F. below zero when we left camp. By climbing up the South ridge of the East peak, the entire party reached its goal—the summit of the previously unclimbed East peak—at 4 p.m. that day. Thirty minutes were spent on the summit taking panoramic and other pictures in a howling wind and estimated 15° F. below zero weather. It was clear and a series of pictures were obtained by Collins showing, from south in a counter-clockwise direction, St. Elias, Augusta, Cook, Vancouver, MacArthur, Walsh, Lucania, the Logan glacier, and finally the Logan summit plateau, looking west. Some consideration was given for a try for the central summit, but it was decided we were already too extended for this attempt. We arrived back in Camp IX at 7 p.m. Only two days, July 20 and 21, were required to get off the ridge, the wands we had used between Camps VI and VIII serving to guide us through a moderate snow-storm. Some unneeded supplies and equipment were left in the high camps.

The 100-mile walk-out over the Hubbard, Seward and Malaspina glaciers proved almost as formidable as the climb.

We were held in Camp I on July 22 by storm. The visibility was so bad on July 23 that it took us almost all day to traverse the $1\frac{1}{2}$ mile of heavily crevassed area to Base Camp.

We left Base Camp on July 24 for Water Pass, carrying supplies on the sled for the trip out, and travelled the entire day by compass because of snow and fog. Transferring loads from the sled to our backs we climbed up through Water Pass and traversed down on to the Seward glacier. Because of the foggy weather we travelled nearly all of the way from Water Pass to Cook Nunatak and the Seward Trough by compass. We were able to use the sled from Base Camp to the moraine on the Malaspina, about 90 miles, with the exception of areas in which the crevasses extended entirely across the glacier, where we were forced to unload and climb around the glacier on the adjacent slopes. We travelled via Pt. Glorious and Seward Rock on to the Malaspina glacier. At Pt. Glorious we found the metal shoe-last left by the Duke of the Abruzzi when he climbed Mt. St. Elias in 1897. This shoe-last had been reported by previous parties. We found that caches reportedly left by previous parties on the way out had been robbed. Perhaps it is a good rule never to rely on old caches in this area. At Pt. Glorious we were sighted by a



Photo, David A. Collins]

MT. ST. ELIAS (EAST FACE) ACROSS THE SEWARD GLACIER TAKEN ON RETURN ROUTE TO THE OCEAN.

private pilot, from Yakutat, who had flown to look for us on his own initiative when he became concerned because we were overdue. The people of Yakutat were quite helpful to us in every way possible. Our final obstacle was a string of interconnected moraine lakes about five miles from the ocean, which we reached on July 31. Although the poorly defined route through them had been scouted from the air by members of the party before leaving Yakutat, we had a great deal of difficulty now in locating it. We finally reached the route by crossing a river on air mattresses and floating ice-blocks, everybody getting drenched in the ice-cold water. We reached the north-west beach of Yakutat Bay on August 2 and were flown to Yakutat, thus ending 39 days' separation from civilisation.