The Kangchenjunga ascent viewed from Darjeeling

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SELDOM in mountaineering history have such favorable conditions been granted for observing a large-scale expedition on a major Himalayan peak as that on Kangchenjunga in 1955. Not only does Kangchenjunga arise within full view of a well-known hill station but the upper section of the proposed route stands clear and unobstructed across 45 miles of intervening hills and valleys.

Realizing the possibilities, Father Maurice Stanford, S.J., Rector of St. Joseph's College, at North Point, Darjeeling, made preparations well in advance. The loan of the nine-inch Newtonion-type reflector telescope was requested from the observatory at St. Xavier's College, Calcutta, also in the charge of the Jesuit Fathers, and this was immediately sent up. Because of the re-routing of rail traffic since the partition of India, and the possible danger of damage in transshipment at the Ganges Ferry, it was thought safer to send the instrument by air from Calcutta to Baghdogra Airport, near Siliguri, whence it could be transported by lorry to St. Joseph's College. The mirror was accordingly removed to be carried personally, and the six-foot instrument carefully crated and sent by air transport. When I arrived on April 27, the telescope had been mounted in a small room on the top floor of the University Department, and final adjustments had been made by Father Polet, S.J., of St. Mary's College, Kurseong. Dr. Evans' party was on its way, so we had only to wait until the climbers should appear on the snow shelf visible above the Talung Saddle (21,402 feet).

Durga Das, of Darjeeling, had supplied an enlargement of an excellent telephoto of Kangchenjunga taken from Jalapahar above Darjeeling. On this the proposed route was drawn and put up to guide telescopic observation. This was very necessary, as the eyepieces of higher magnification gave such a small field of view that it was disconcertingly easy to get "lost" on the vast slopes. This difficulty was enhanced by the fact that the telescope's mounting, although excellent, was a temporary affair and was therefore not capable of delicate adjustment.

The difference between theoretical considerations and practical application was found to be considerable. Mathematical calculations giving magnifying power and resolving power were quoted by the pundits. But these, of course, were in the ideal order, which in astronomical work could be more nearly approximated by directing the telescope at an angle of 45°, or more, to the horizontal, in order to traverse as little as possible of the enveloping blanket of the atmosphere in observing celestial objects. When the instrument was directed along a plane inclined only slightly above the horizontal, through 45 miles of atmosphere constantly agitated by valley winds and eddies, already heavily charged with pre-monsoon moisture in late May, the situation was different.

In addition, there were other factors. The telephoto by Mr. Das had been taken in November with a J. H. Dallmeyer variable lens at maximum 52-inch extension. It is an afternoon photograph, with the shadow from the ridge extending from the Talung Saddle to the Southeast Peak of Kangchenjunga being cast to the east and obscuring details on the south wall below this summit. Towards sunset the shadow cast by the ridge rises, so that a photograph taken later in the day would show the whole south wall east of the South Ridge of Kangchenjunga in shadow. In May, when the sun is at a higher latitude, the condition is aggravated and the shadow is cast to the west at sunrise, completely obscuring the route from above the snow shelf to the West Col and on to the true summit. This occurs just at the time when atmospheric conditions are best for observation. As the sun rises, and the shadow recedes to reveal the route, towards 0800 o'clock heavy clouds begin to rise from the intervening valleys, until by 0830 the view generally becomes obscured. At this time of year, of course, the mountain is usually shrouded in cloud for the remainder of the day. There was thus only a very brief period allotted for daily observation. From mid-May onwards, though careful watch was kept, conditions steadily deteriorated.

Given the conditions under which the observations had to be made, the next question was what one might expect to see. The first thing, obviously, was the tents. If these could somehow be located, the problem of finding the men and following their subsequent movements would be simplified. Here again the problem was complicated. In the late pre-monsoon season snowfall at altitudes within the range under observation was to be expected. This should normally occur during the night, covering the tents and keeping them concealed until sometime after the recession of the shadow cast by the South Ridge. By this time (about 0830) the view would be obscured by clouds.

In spite of these difficulties constant watch was kept. Father L'hoir was frequently at the telescope by 0530; later on he was replaced by others. On several occasions the students were brought in for a look. Among them was Tensing, Angtharkay's young son, now studying at St. Joseph's. The ordinary procedure was to follow the proposed route from the snow shelf upwards with the eyepiece giving the greatest field of vision. Likely objects were then examined with the eyepiece, giving greater magnification but a correspondingly smaller field of vision. This routine was carried out on all possible days.

On May 23, Father Gales, Principal of the University Department, and I were watching together. At about 0815 I picked up four objects that had not been seen on previous occasions. These were located along the projected route between the snow shelf and the summit at an altitude of about 25,000 feet. They were situated just to the east of what has come to be called "Sickle Rock" from its likeness to that object as seen from Darjeeling. The instrument was kept in position, and eyepieces (up to No. 6), giving more powerful magnification, were tried. These, of course, magnified the atmospheric irregularities, which at that time had begun to increase, so that conditions for observation were not of the best. Despite the most optimistic hope, I could not then rule out absolutely the possibility of the four objects being blocks of ice or rocks brought down in an avalanche, the track of which had been obscured by a subsequent fall of snow. Little distinct color contrast with the snow appeared, so that if they were tents, they had recently been covered, and the morning snow had not had time to melt. Their position along the route, the fact that there were four objects, and their altitude on the mountain at the time of observation were all in favor of their being the objects we sought. However, it seemed prudent to withhold comment until further observations could be made.

For us this chance never came. But that same day I had occasion to see Mrs. Henderson, Darjeeling Secretary of the Himalayan Club, and from a sketch sent in by Dr. Evans' runner I was able to identify the objects as having been Camp V. Naturally, this was a source of great rejoicing on our part, not only because at the time we realized that the team was well on its way toward the goal, but because our own instrumental work had been successful. No mention of this was made at the time because the results had been confirmed from information deemed confidential, which was not to be divulged until the conclusion of the attempt on the mountain, which took place two days later.