necessary on some pitches where it would not be required under other conditions. The route ascended onto the large ledge which runs diagonally to the west ridge, but it continued above on 5th and 6th class rock to below the summit where a scramble led to the final pyramid and a magnificent view down the ice-and-snow-covered north wall. The climb required 12 hours up, and then two hours glissading down Ulrich couloir to Base Camp. This was an interesting route on excellent granite and an enjoyable climb under near winter conditions.

PAUL MYHRE, unattached

Mount Index, South Norwegian Buttress. Mount Index is an impressive three-summited rock peak in Washington's west central Cascades. It rises sharply 3000 feet above heavily timbered and bushy glacial valleys. The Index massif was formed by a large granitic intrusion. The rock is dark volcanic lava cut by dikes, and altered by heat which has made it hard and brittle. It has been an enjoyable climbing area for many years, easily reached in an hour's drive from Seattle. Although bushwacking and route-finding are major problems, there are nearly a dozen climbing routes on the mountain. The giant Norwegian-like buttresses on the east face, however, had long been considered unclimbable; they soar vertically nearly 2000 feet above their base at Lake Serene. After the ascent of the nearby east face of the middle peak with Ed Cooper, I found myself intrigued by the possibility of a route up the "unclimbable" south Norwegian buttress. Pat Callis and I made preliminary reconnaissance both together and on separate occasions and, soon after, found that other climbers were discussing the possibilities of an ascent. After returning from the Bugaboos, the Lithuanian climber, Alex Bertulis and I decided that the south Norwegian Buttress would probably not remain unclimbed another season and that we should have our try at it. Essentially, our equipment consisted of one 160-foot, 11mm Perlon rope, one 160-foot, 3/8-inch Goldline, 40 carabiners, a wide variety of 30 pitons, a bolt kit, a gallon of water and bivouac gear. We found the morning of September 3, 1964, to be cold and clear; the day was sure to be hot and dry. One hour from the car, we were circling around Lake Serene beneath our objective. We paused to saturate ourselves with the last fresh water we were to find for some time, and then turned to the task we had set for ourselves. The first few hundred feet were climbed via a steep snow chute between the south buttress and the walls of the main peak. With a little effort we managed to cross the moat and gain the rock on the other side. The following lead took us up high-angle slabs through patches of vertical

brush and onto the overhanging left portion of the east wall. For the next several leads we would have to depend upon our memory for the details of the face as seen from below. Alex anchored in and belayed as I first worked left, and then on aid around a detached flake and up an overhanging dièdre. A hundred and fifty feet beyond Alex, I found myself uncomfortably in stirrups and out of rope. Alex was belayed beyond into an awkward, poorly protected, overhanging jam-crack, and he eventually gained a better belay stance. The next five leads took us past more overhanging brush. Dusk came sooner than expected in the shadows of the east face and we were forced into bivouac only a couple of leads below a system of roomy ledges. Early the following morning we climbed on. We had reached the upper left portion of the wall; from there, we followed a complicated maze of gullies and ledges. The climbing was pleasant, the exposure enjoyable. Lake Serene became dotted with small life rafts filled with fishermen. We reached the summit by mid-afternoon and amused ourselves by dropping stones in a free fall to the lake below. By dusk we were again on difficult ground. Having made prior commitments in the city, we continued the descent into the night. A hasty decision in routefinding ended in a long rappel into a deep, nearly vertical couloir. It was then necessary to make a 150-foot free rappel down the center of a small waterfall and deep into a moat. With our piton hammers we laboriously chopped steps in the hard snow, worked our way out of the moat, and slowly descended to the safety of the lake, 500 feet below. At four o'clock the following morning we were changing into warm dry clothing and cursing ourselves for not having bivouacked, but at the same time happy to have completed a splendid climb.

ERIC BJORNSTAD, unattached

Winter Ascents. The first winter ascents of Monte Cristo Peak and Mount Silver Star were made in March by Mike Borghoff and me on two separate treks. Touring skis were used on long approach routes to both peaks; crampons were needed on hard wind-pack that completely covered what in summer is moderate rock climbing. Both ascents were done in perfect, though bitterly cold weather.

FRED BECKEY

Columbia Peak, South Ridge. This often-climbed peak in the famous Monte Cristo area has a spectacular mile-long, steep-walled South Ridge that is probably photographed by nearly every party to climb the mountain. On September 12, from a high camp 1½ miles south of Poodle Dog