

After the descent, Dave Dornan and I made the third ascent of Peak Z (12,525 feet), although an attempt on unclimbed Mt. Crosson (12,800 feet) by the connecting ridge with Peak Z was foiled by an oncoming storm. (The second ascent was apparently made by Breitenbach, Blanchard, Dingman, and Hackett on June 27. *Editor.*)

As previously planned, we made use of snow caves at our 9800- and 16,100-foot camps and igloos at 13,200 and 17,200 feet. The snow caves were very satisfactory in the two-day blizzard at 9800 feet and in the three-day storm at 16,100 feet. Gas stoves can be a danger since several of us felt ill from them.

F. EDWARD COOPER, *Mountaineers*

*1957 Advance of Muldrow Glacier.* Muldrow Glacier on the north flank of Mount McKinley in the Alaska Range advanced vigorously in 1957. The lower 20 miles of the 35-mile long glacier had been wasting downward for the last 100 years. In January 1957, personnel of the U. S. National Park Service at Mount McKinley National Park noticed that the lower part of the glacier was thicker and more crevassed than it had been the preceding year; this unusual condition was not reported to a geologist until June 1957. The front moved 700 to 1100 feet between June 20 and July 27, or about 20 to 30 feet per day. By July 27, 1957 the glacier front had advanced at least 3.8 miles from its position in the fall of 1956. The lower half of the glacier has greatly thickened and the surface is very rough and jagged because of crevasses and 50-foot high pinnacles of ice. Much of the 100-year-old ice-covered moraine has been broken into jagged blocks and incorporated into the moving ice. Below Gunsight Pass, for a distance of 10 to 15 miles, Muldrow Glacier has subsided about 100 feet, leaving an ice ridge clinging to the north valley wall. The surfaces of the upper Muldrow and lower Traleika glaciers have broad wavelike configurations. Other major glaciers in this part of the range show no new activity. Climatic data from several low-altitude stations north and south of the range indicate no long-term increase in precipitation. Mountain climbers state that the surface of the upper Muldrow has become increasingly more crevassed in the last six years. Much of the Muldrow glacial trough lies along a major fault. (Measurements made in 1958 indicate that the forward movement of the terminus has stopped and the jagged, rough surface of the glacier has been considerably subdued. Glaciologists do not seem to have reached any agreement on the possible causes of this phenomenon. *Editor.*)

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