

*World's Record Mountain Landing by Air on Mount Sanford, Wrangell Range.* (This also appears in *Appalachia*, December, 1959.) Your correspondent well remembers reading of the Mallory-Irvine Everest climb in 1924, and the accompanying speculation in popular publications to the effect that before long we might expect men to land by parachute, or otherwise by air, thus "conquering" the summit of Mount Everest. And he agreed very strongly with the mountaineering fraternity of the day that this would be a very *un*sporting thing indeed. But prospects, and one's views of things, change. Now, some 35 years and a millennium of scientific "progress" later, it seems that landings by men on the moon are a much more imminent prospect than flights by men to landings on the summit of Mount Everest. And, on the other hand, airborne landings and take-offs among lesser peaks have come to seem quite a sporting thing indeed.

These were the thoughts coming to mind during the writer's participation, as pilot-owner of the Supercub ski-plane, in the flights which on June 9 of this year unofficially set what is apparently a world's altitude record to date for landings and take-offs by aircraft of any type. They were carried out at increasing altitudes upon the sides, and finally the summit, of Mount Sanford (16,200 feet), highest peak of the Wrangell Range in Alaska. Activated as Project Sanford by Maj. Gen. G. C. Mudgett, C.G., U. S. Army, Alaska, the 80th Trans. Co. (Light Helicopters) was assigned the carrying out of operations under Major Wm. D. Usher, company commander. With three H-21 (twin-rotor) helicopters and a total complement of some 30 men, seven of whom were helicopter pilots, the expedition departed from Fort Richardson, near Anchorage, toward the end of May, the base-camp party and mountain ground party going by truck, and the air party flying, to the F.A.A. airfield at Gulkana. Here expedition headquarters were set up at the edge of the airfield, near the aircraft. The military purpose of the project was to explore the capabilities of the new twin-rotor helicopters in logistic support of mountain ground forces, and also possible high-altitude rescue of stranded mountain climbers and downed airmen.

The expedition pilots and mountain ground party were volunteers among whom personal interest and enthusiasm ran high, especially to better the prior helicopter record of landings on Pikes Peak. Highest prior landings and take-offs by any type aircraft, fixed wing or rotary, appear to have been those made by Hermann Geiger in the Alps at around 14,300 feet on Monte Rosa, in a similar type Supercub ski-plane.

Between intermittent spells of impossible flying weather, a mountaineering ground party of six under Hans Wagner, USARAL civilian mountaineering instructor, and also a communications party of three, were carried by

the H-21's across the 42 miles of wilderness tundra to 7300 feet on the north slopes of Mount Sanford. Here the communications unit was established at the highest point of suitable "dry ground" short of the mountain's glacial mantle.

In part by climbing on foot, and in part—especially as to tents, equipage and rations—airlifted by the H-21's, the mountaineering ground party successively occupied camps at 10,800 feet and at 13,200 feet, the latter in the saddle immediately northwest of the summit. Several days were allowed at each of these steps to permit reasonably comfortable acclimatization.

Your correspondent had the honor, which he greatly appreciated from the sporting point of view, of being the pilot invited to make all the first aircraft landings with his small ski-plane, the helicopters to follow. To enhance overall safety it was decided that immediately prior to the attempted high landings at least three of the mountaineering ground party should occupy the summit by climbing from the well-established 13,200-foot camp. Their presence assisted pilot depth-perception on this otherwise rather featureless snow surface, and also a pennant streamer they carried provided unmistakable wind directions for the summit landings. These last proved not difficult and, in the case of your correspondent's ski-plane, easier than some of the landings lower on the mountain slopes. Reason: a dome, in fact a summit dome, is an ideal shape upon which to land a ski-plane, since it is possible to land into the wind going uphill and thus slow down quickly; and then for the take-off, and even without turning the ship around, it is possible (if one has contrived to come to rest right on the top) to take off still into the wind, but now going downhill, which makes for a more buoyant take-off.

Two of the three H-21's carried out summit landings (the third was plagued by mechanical difficulties at the wrong time), the pilots being Lieutenants D. A. Ruskauff and E. A. Spencer, and Chief Warrant Officers J. A. Williams and H. A. Bunnell. The two helicopters landed empty, with only the two pilots aboard; then each lifted off one of the ground party, finally leaving Hans Wagner, leader of the ground party, to descend alone to the 13,200-foot camp. From this, following two days of immediately ensuing storm, all were subsequently removed by helicopter on June 11.

This account would be incomplete without adding that, because of the happy informal spirit of the pilots, this military project had more of the oldtime lighthearted atmosphere of expeditions undertaken with simplicity and for pleasure—instead of being just another mechanical manifestation of the guided-missile age in the name of the great god Science (which, from a bare recitation of the facts only, it might appear to be). With a ski-plane small enough so that the flyer himself can start it by hand-turning the pro-

pellor; light enough so that he can step back to the tail, pick this up in his hands, and by walking turn the whole little aircraft around to set down into the direction of take-off; and, when airborne, sufficiently uncomplicated so that with his fingers he can directly feel the air pressures of flight on his elevator and aileron control surfaces—this, your correspondent submits, is the least organized, least recognized, least spoiled sport, and the most sublime of them all! It might belong to aviation or to mountaineering, and it could at least be known to literature. But look in vain—even in Bartlett—for these lines of Tennyson which most perfectly express the feeling of the thing:

He clasps the crag with crooked hands,  
Close to the sun in lonely lands,  
Ringed with the azure world he stands.

The wrinkled sea beneath him crawls,  
He watches from his mountain walls,  
And like a thunderbolt he falls.

TERRIS MOORE

*Mount Kimball, Alaska Range.* In June a party from the Alaska Alpine Club, consisting of Charles Deehr, Finley Kennel, and me, attempted unclimbed Mount Kimball (9680 feet), which is located on the Mount Hayes A-2 quadrangle. We were flown into the Slate Creek mining camp near the Chistochina Glacier after an unsuccessful attempt to walk in 30 miles through brush and snow. A day of snowshoeing up the glacier gave the first view of the mountain and the proposed routes. From the south the peak shows a steep pyramid covered with broken-up ice and rime which overhangs 200 feet on the west ridge. The southeast ridge leads up to a face and must be approached either up a spectacular icefall, or by a four-mile traverse along a ridge with four peaks over 9000 feet high. A steep rock and snow ridge which leads up from the south glacier field seemed to offer the only hope, although it had several gendarmes and led steeply into the ice and rime near the top. The summit itself, a steep horn, could not be seen from below at this distance. We took a day moving up to Base Camp at 6500 feet on the glacier below the peak and reconnoitering the south ridge. Three days were spent waiting for weather and for 10 inches of new snow to settle and stop avalanching. A summit attempt was begun at 2:00 A.M. in the Alaskan summer twilight. A large gendarme at 8000 feet on the south ridge proved very difficult to traverse. Two leads on the east side took about an hour and a half. We decided that it was unsafe to continue, as the