

Climbs from the Klutlan, 1951

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THE Stanford Klutlan Expedition represented an extension to Alaskan terrain of mountaineering doctrine and practice developed on the Sierra Club Expeditions to the Coast Range of British Columbia in 1947 and 1950 and of extensive ski-mountaineering in the Sierra Nevada over the years. The packaging experience gained in the Tiedemann and Tellot air drops was particularly valuable.

Our original party of six was reduced to four climbers by last-minute defections. On 21 June 1951 Fritz Lippmann, Jon Lindbergh, Rupert Gates and Alfred Baxter left San Francisco in a three-quarter ton Ford truck. In Dawson Creek, B.C., Lippmann underwent an emergency operation for appendicitis. Confident that he could find another climber from the States to accompany him later, the remaining three of us finished the trip to Whitehorse, where we loaded our 1800 pounds of supplies into a C-47 from the Tenth Search and Rescue Squadron in Fairbanks.

On July 5th we had the magnificent experience of flying roughly parallel to the main crest of the northern St. Elias Range, past Steele, Lucania, Wood and the rest, before our plane turned south to follow the course of the Klutlan Glacier. From Air Force trimetragon photographs and from the Boundary Commission maps, we could identify summits in the beautiful Natazhat Range, Mount Wood, and the unknown welter of peaks between Mount Bear (14,850 ft.) and Mount Bona (16,420 ft.) Our pilot dropped down through sparse clouds, and in less than a half-hour our air drop had been made, parallel to a medial moraine on the Klutlan Glacier, at the spot where the surveyed area ends and where the glacier divides into three large branches.

Later that afternoon we landed at Snag, an RCAF emergency air strip and weather station. Here we enjoyed more of the magnificent hospitality and kindness that were our lot while we were in Canada. A huge high tea followed by an even higher dinner prepared us for the truck ride back to the Alcan Highway and down to the White River Bridge. At this point, at 7.15 P.M. on

NATAZHAT RANGE FROM HIGH CAMP ON MOUNT BEAR

Directly in front of Mount Natazhat rises Mount Riggs, named for the late Thomas Riggs, Chief of the U.S. Section of the International Boundary Survey and Honorary Member of the A.A.C.

MOUNTS JOHN HOOD, PUNDT AND NATAZHAT FROM BASE CAMP

July 5th, we started our backpacking journey into the Klutlan to recover our air drop.

The Yukon-Alaska bush was all we had anticipated and more. We could appreciate the work of Bates and Washburn on their trek from Mount Steele to Burwash Landing. Our route followed the east bank of the White River, sometimes on easy gravel bars but more often on the cut banks, muskeg swamps and dead falls well above the river itself. Since we could not cross the White or its principal tributary, the short Klutlan, we were forced to move up and across the vast moraine until we could gain the west bank of the Klutlan Glacier and join the route used by the survey parties in 1914.

After a hot, hard day getting over a steep pass to shortcut the right-angle bend in the glacier, we reached a series of terraces formed by old ablation valleys left high and dry by the shrinking ice stream. Three days of this kind of going brought us to the relatively smooth ice of the upper Klutlan. We reached our drop zone in a light rain on the tenth day after our departure from the highway. The boxes of food were rather welcome, since we had been on lean rations for three days and had finished the last oat-meal that morning.

July 14th and 15th we spent in setting up base camp, sorting our equipment and gorging ourselves. Our headquarters at 7000 feet was idyllic. Near-by moraine and surface streams provided sanitary plumbing facilities. The serrated Natazhat Range formed a wall to our northwest; and the three peaks of Bear, Jordan and Bona filled the heads of the three glaciers that joined beneath us to form the main Klutlan.

Our first trip was up the Bear Glacier, about one and one-half miles wide and 20 miles long, that led southeast to the Bear massif. Our experiment with man-hauling of equipment on a small toboggan was a failure, so we ended up with good-sized packs in establishing our series of four camps toward the summit of Bear. Our route followed the Bear Glacier to a point some nine miles and 1500 feet above our 7000-foot base camp. At this point we established an advance base camp (Camp II), well-stocked with food and gear against the possibility of one of the famous St. Elias storms. The weather, however, held warm and bright; and we pushed a third camp up to a small, flat area below a huge icefall on Gateway

Glacier. The next day we gained some more cheap altitude by a long detour up the eastern branch of Gateway Glacier. This route led eventually to a terrace between two icefalls, at about 13,000 feet on the vast northern slopes of Mount Bear.

Our summit climb was strenuous rather than technically difficult—a very satisfactory condition for a party of three. We gained the long summit ridge at about 14,200 feet and had a truly awesome view of St. Elias, Logan, Bona, Lucania, Wood and the vast tangle of great peaks to our east, south and west. The air was still; only a few clouds below us, at 11,000 feet, marred a perfect day. The tarp provided more than two quarts of melt-water lemonade to wash down lunch, and the sun's warmth allowed us to climb bare-handed and without parkas along the three-mile ridge to the series of bumps that form the summit. On the most southwesterly mound, which we judged to be the highest point, we spent a fine hour taking pictures, eating raw smoked fish and generally congratulating ourselves. Then, at 5.00 P.M., we waded down the soft snow to our high camp. That night we enjoyed the prolonged alpine glow that is such a wonderful feature of the sub-arctic twilight.

Four days and an abortive side trip later, we were back in base camp in time to light flares and wave at the USAF B-17 that buzzed our camp in the course of a search mission. Our ground-air panel signal of "All's well" was received and forwarded to Whitehorse, where Lippmann was sweating out the arrival of Richard McGowan, of the Seattle Mountaineers, who planned to join Fritz for a trip in to our base camp.

After four days of repairing equipment and feeding, we undertook our next trip—up the southwestern branch of the Klutlan toward the eastern icefalls of Mount Bona. As on the Bear trip, the glacier surface between 7500 and 11,000 feet was wet, soft and almost bottomless.¹ Even with bear-paw snowshoes, we sank in to the hips through the rotten surface. The prolonged good weather never allowed the melting snow cover to crust over at night. Again, we established three camps.

¹Below 7500 feet the glacier was bare, water-channeled ice. Between 7500 and 11,000 feet the snow cover was wet, soft and deep. Above 11,000 feet the snow was dry, soft and deep. Such is the generalization on snow conditions during the summer. The weather was almost incredible. We had only six days of snow or rain out of the 53 days we were away from the highway. The temperatures were always mild, and the wind never a problem.

Our second camp on Mount Bona was about two miles below Klutlan Col and directly below our route on the great east face. The only problems we met in establishing our high camp at 14,000 feet were soft snow and a few unwholesome snow bridges. On the first night at high camp, we had one of the finest views of our lives. Our four-man GI mountain tent faced northeast. From our sleeping bags we could see again the array of peaks from Natazhat past Wood and Lucania to Logan and St. Elias. With a perfectly clear sky, the drawn-out alpine glow on these great summits made all the effort of the preceding weeks a small price for the glory that was then ours.

The summit climb was somewhat more interesting than the one of Bear. We all broke our previous altitude records in crossing the two-mile plateau that separates the true 16,420-foot south summit from the smaller 15,600-foot north summit. The steep, wind-slab conditions between 15,300 and 16,000 feet required care and crampons both up and down. The actual summit, visited from the northwest by Moore and Carpe in 1931, was sunk in two feet of unconsolidated snow and poised above a south face that must rise at least 10,000 feet above an unnamed tributary of the Barnard Glacier flowing to the Chitina Valley to the south.²

Again our summit weather was perfect for photography and lunching. We spent an hour eating and looking at the amazing summits to the south and southwest of Bona. The southernmost satellite of Bona appears on the Boundary Commission map as Peak 15,100. This is probably one of the most beautiful and inaccessible peaks in North America. It is separated from the main mass of Bona by a deep col, a 14,800-foot knife-edged peak, another sharp dip in the ridge, and a final steep ice ridge, corniced and fluted. We tentatively named this peak Mount Carpe; but subsequent communications with Terris Moore revealed that he had named the mountain University Peak, after the University of Alaska. The southwestern satellite peak of Bona put us in mind of the Twa Harpies. The peak must rise to about 15,500 feet. It has two sharp, ice-sheathed summits separated by the small catchment field for a steep hanging glacier that drops off northeast toward Bona. Dr. Moore plans to name these twin summits after the first president of the University

² See the photograph by Bradford Washburn, "Mt. Bona across Barnard Glacier," *A.A.J.*, V (1944), following p. 202.

of Alaska. These two members of the Bona family will provide significant mountaineering for a party willing to approach their bases from the McCarthy-Chitina or McCarthy-Russell Glacier routes.

After a plod back down to our high camp and a night's rest, Lindbergh and Gates went back up the snowshoe tracks to the plateau and climbed the twin summits of the north peak of Mount Bona by the steep east ridge. This trip provided another first ascent, some good Kodachromes, and a pre-lunch warm-up. When this excursion was over, we hurried back down to the site of our second camp at 11,000 feet.

The next day we walked up the Klutlan Col between Mounts Bona and Tressider. This corniced col divides the Yukon from the Chitina River systems and forms the head of the Klutlan Glacier. The nomenclature is somewhat arbitrary, since the main stream of the Klutlan divides into three branches of which any one could be considered the continuation of the main glacier. Since none of the upper reaches of the Klutlan system is mapped, our nomenclature seems to have at least the merit of simplicity. The branch of the Klutlan that flows northwest from Mount Bear, we named the Bear Glacier. The central branch, flowing north-northeast, we named the Jordan Glacier, from the highest peak at its head. The branch descending from the southwest, fed principally from the north and east faces of Bona, we regard as the upper Klutlan. This would give the Klutlan a length of approximately 55 miles from moraine to Klutlan Col.

From the crest of Klutlan Col, we had views of the huge drop-off so characteristic of the Chitina side of the watershed. Whereas gradual glaciers flow to the north, the south face of the Col is sheer for at least 4000 feet. The peaks that fringe this impressive cirque drop off as much as 8000 feet. Peak 15,100, its neighbor, Peak 14,800, and Mount Tressider, which forms the eastern wall above the saddle, all have spectacular cliffs that drop at very high angles into the unnamed glacier that soon joins the Barnard.³

Leaving the col at midday, we returned to Camp II, struck the tent, and moved on back to the fleshpots of base camp. After nine miles of soft snow, Baxter's blisters demanded respite. Gates and

³ Upper left-hand corner of photograph cited in n. 2.

Lindbergh pushed restlessly on, arriving at base camp about midnight. Baxter got back to the bacon and hot cakes the next morning, after a restful night below the avalanching slopes of Mount Jordan. Since we had planned our food supply for four men, we still had lots of curry powder, Demerara rum, instant potatoes and Jello in our base camp larder.

After a day's rest, Lindbergh and Gates loaded up and spent three days climbing Mount Jordan (about 13,600 ft.). Just before and during the first real snowstorm of the summer, they got the peak, via a rather complicated series of icefalls leading to the steep 1000-foot east ridge. This peak was undoubtedly the most difficult of the four climbed during the trip. Many of the lesser peaks in the area would be first-rate objectives if they were anywhere else. Dwarfed as they are by such huge snow heaps as Bona, Bear, Wood and Lucania, their stature is insignificant and their attraction somewhat dulled.

Our cumulative enthusiasm was great enough to make us plan one more ascent. The beautiful twin summit of Natazhat, claimed by members of the 1914 survey party, had long fascinated us. Beautiful from all angles and set at the culmination of a long ridge of shapely summits, it would have been a fine climax for the summer. As it turned out, Gates and Baxter started down the glacier with a loaded toboggan, while Lindbergh was indisposed in camp. In getting a load across an ice bridge, Baxter put a leg through, sprawled flat, dropped the hauling line, and watched the sled rip from Gates' grasp and drop into the depths of the crevasse. It was well below the reach of our nylon rope and for practical purposes gone forever. This loss of equipment, together with disintegrating weather, made the delights of Whitehorse seem irresistible.

At 10.30 A.M. on August 18th, just 35 days after our arrival on the glacier, we loaded up, Lindbergh with nearly 100 pounds, and started off for the White River, via Giffin Pass and the Giffin Glacier. This route was used by the 1914 survey party, so we knew that it would go. The south side of Giffin Pass is gradual ice, covered with marble-like bits of pumice stone. Walking up through such a cover is much like wading through minute ball bearings piled on an inclined sheet of glass. The north side of the pass drops quite abruptly for 1500 feet to the head of the eastern bay of the Giffin Glacier. The bare ice made good going for a while, but then gave way to the more

usual loose moraine threaded with many surface streams of considerable size. Along an ablation shelf above the east side of the glacier, we found evidence of the pack-train used by the survey party. We were continually impressed by the deeds of the men of old in getting horses in to such places.

That night brought us to the first low scrub we had seen for five weeks. A cooking fire and a larger "cheerful" fire were set going, and the backpack dinner of chipped beef and quick rice was soon ready. On August 19th we covered the remaining eleven miles to the White River, following the flat boulder bars along Holmes Creek. At the river we spent a day gathering drift logs and lashing them twelve wide into a raft. Blisters, bushes and packs made water transport seem highly desirable. Lindbergh's experiences in rafting the Colorado and San Juan Rivers qualified him to captain the raft *Bona*. We thought it not inappropriate to name our craft after a mountain which had been named by the Duke of the Abruzzi for his private yacht, the *Bona*.

After escaping submerged rocks, whirlpools, cliffs and rapids for seven hours, we were defeated by a large whirlpool in the upper canyon of the White River. None of our efforts could return us to the main channel, so we made the rocky beach, camped in wet sleeping bags, and next morning dismantled the raft and relayed our supplies and ropes around the gorge to Canyon City. This collection of six crumbling cabins was the headquarters of the International Boundary Commission survey party in their 1914 operations. We made use of rusted saws and axes to fashion a new raft, the *Rose*. After pausing to wonder at the skill of our predecessors in cabin-building and horse-packing, we continued our voyage by raft down the White River. Rain and a high wind made the next day unpleasant. We all succumbed to "rafter's foot," a peculiar numbness from the shins down, caused by prolonged immersion in cold water. Its most distressing symptoms can be averted by the riveting of attention on the bushes along the river bank, which pass by at about nine miles an hour.

The second day below Canyon City, the seventh since our departure from base camp, we spent floating down the now uneventful channel, past the bushy scenes of our earlier struggles. We grounded the *Rose* below the steel span of the White River Bridge and got rides from passing tourists. During the rest of the day, we caught

up on recent developments in the world outside. Our often-broken watches, we found, were within 16 minutes of the correct time.

SUPPLEMENTS

1. *Air-drop packing*

Our food and equipment were packed in dry-ice containers. These cubic-foot boxes are of three concentric layers of corrugated cardboard, well-stapled at the flaps. After loading, we banded each box with steel banding tape. Of 30 such boxes, loaded with between 14 and 43 pounds, only two broke open on impact. We decided that this breakage on impact after the free drop was the result not of weight but of landing on a corner. We lost only five pounds of sugar and a few sacks of peanuts from water soakage. The food remained on the soggy glacier surface for ten days; and what small damage occurred was due to water soakage, not to damage or loss.

Our gasoline was packed in two ways:

- (a) Three and one-half gallons in a large (14" x 36") vinyl plastic water bag. The bag was enclosed in three concentric cardboard boxes, with layers of crushed newspaper between them. The whole load was dropped on a 12-foot cargo chute from about 400 feet and came through without leakage.
- (b) Quantities between one pint and half a gallon in smaller plastic water bags carefully sealed. These were packed in separate boxes padded with newspaper. Of eleven such bags, only three were unbroken when we arrived. We were satisfied with our tests of these bags—both for their characteristics on impact and for the physical changes due to contact with gasoline. But apparently gasoline loosened the glue along the seams of the eight broken bags. Why this did not occur in our tests or with the other three bags, we do not know.

The skill and enthusiasm of the members of the crew of the C-47 were of inestimable value to our expedition. The free drop from 100 feet in five passes left 52 boxes and sacks in a pattern 30 yards wide and only 150 yards long. Such a small pattern made location and collection of the loads an easy task.

2. *Willow wands*

Rather than carry the heavy dowels used by other climbing parties in Alaska, we experimented with three- and four-foot bamboo garden

stakes. These are cheap (\$3.00 a hundred) and light in weight, and they come already stained a dark green that is quite visible against the snow. We followed the usual procedure of placing the wands a rope-length apart, with two on the upper and one on the lower lip of a crevasse or snow bridge. The unusually good weather made them unnecessary, but such good fortune can not be assumed in advance.

3. *Nomenclature**

Mounts Jordan, Tressider, Wilbur and Branner are named after past presidents of Stanford University. Mount John Hood is named after a Stanford mountaineer killed on a practice climb in 1947. Mount Pundt is named after Rolf Pundt, killed on Bugaboo Spire in the lightning accident of 1948.

Survey Pass we named after the men of the survey party of 1914. Giffin Pass is of course named after the glacier at its northern base.

Gateway Glacier is a branch of the Bear Glacier leading up to the north face of Mount Bear. Divide Glacier is the southern branch of the Bear Glacier and leads to a broad col on the divide between the Bear and Barnard Glaciers. Jordan Glacier flows north from Mount Jordan and the peaks of the watershed east of that peak. It is the central branch of the dividing Klutlan.

4. *Acknowledgments*

We wish to express our thanks to the many people who contributed to the success of the trip. In particular, we are grateful to Fritz Lippmann, who was responsible for most of the food planning; to Edward Shapiro, whose help and advice on trucks smoothed out many of our transport problems; to Einar Nilsson, who placed his Alaskan mountaineering experience at our disposal; to the officers and men of the Royal Canadian Air Force Base at Whitehorse, for their hospitality and help; and to the members of the Tenth Search and Rescue Squadron, USAF, for their skillful cooperation in our supply drop.

* The following place-name designations are unofficial—*Ed.*