

## DENALI NATIONAL PARK AND PRESERVE

### 1986 MOUNTAINEERING SUMMARY

Record numbers of mountaineers, unusual weather patterns, light winter snow pack and volcanic eruptions set the scene for an interesting mountaineering season in the Alaska Range. The 1985-86 winter was extremely mild with many sunny days and few major winter storms. As a result, snow accumulation was far below normal for both Talkeetna and the entire Alaska Range. During the spring, Mount Augustine volcano, located in the Cook Inlet approximately 125 miles southwest of Anchorage, erupted. Ash from the eruption was carried by prevailing winds and deposited throughout much of southcentral Alaska - including parts of the Alaska Range. As the already reduced snowpack melted during the spring, the grey ash layer was eventually exposed. The ash absorbed more heat from the sun which further accelerated the snow melt. The surface of the glaciers melted with an exaggerated cup shaped surface pattern, making ski-quipped aircraft landings difficult. By early July, the 7,200' base camp airstrip was unusable. Since a number of expeditions were still on the mountain, special authorization was given for the air taxi operators to land at 9,700' on the Kahiltna Glacier to pick up those remaining expeditions. No drop-offs were permitted.

There was one winter ascent attempted in 1986. Dave Johnston, a member of the first successful group winter ascent in 1967, made a solo attempt on the West Buttress which included a ski approach from his cabin in the Trapper Creek area. Dave reached Windy Corner (13,200') before he frostbit the toes he froze during his first winter ascent. He skied all the way back to his cabin without assistance.

The High Latitude Research Project was not funded this season, but a short research project was conducted by several of the project's medical personnel in conjunction with the U.S. Army's Northern Warfare Training Center. A group of military volunteers were flown directly to 14,200' where the medical personnel studied the effect of the drug Decadron upon the unacclimatized men. The project lasted approximately 1-1/2 weeks. Afterward, the Mountaineering Rangers staffed the camp for the remainder of the season. Once again, the transportation of the camp to and from the mountain was provided by the U.S. Army, 242nd Aviation Company, Ft Wainwright, Alaska.

The National Park Service conducted three, three-week expeditions on Mount McKinley. All were on the West Buttress route. We continue to emphasize environmentally sound expeditionary climbing and sanitation practices. In addition, mountaineers are encouraged to conduct their own evacuations when ever possible. During emergencies, the 14,200' medical/rescue camp provides an excellent base from which rescue operations can be staged. Possibly the greatest operational benefit derived from the camp is the improved communications with other mountaineering expeditions and the Talkeetna Ranger Station. We are more reliably able to determine if a rescue is really needed, and if so, the urgency and the appropriate level of the response.

Two Americans and one New Zealander were issued citations for guiding without a permit.

In 1986, new all time records were set for the number of persons attempting to climb Mount McKinley:

1978	=	539
1979	=	533
1980	=	659
1981	=	612
1982	=	696
1983	=	709
1984	=	695
1985	=	645
1986	=	755

## Interesting Statistics:

### Success Rate:

- \* 406 (54%) of those attempting the summit of Mount McKinley were successful.
- \* 7 (33%) of those attempting the summit of Mount Foraker were successful.

### Acute Mountain Sickness: 105 (14%) had symptoms, of these:

- \* 58 (8%) were mild
- \* 30 (4%) were moderate
- \* 16 (2%) were severe

Frostbite: 41 (5%) reported some degree of frostbite; nine of these required hospitalization.

West Buttress Route: 597 (79%) of the climbers on Mount McKinley were on the popular West Buttress route.

Mountain Guiding: More of the climbers were guided on Mount McKinley than ever before. 319 (42%) of the climbers traveled with one of the authorized guiding companies. The overall success rate of these-groups was 61%. The majority of these trips occurred on the West Buttress route, but other guided trips were attempted on the Muldrow, Cassin and South Buttress.

Foreign Climbers: 187 (25%) of the climbers were from foreign countries. 23 nationalities were represented:

- Australia - 2
- Austria - 16
- Brazil - 2
- Canada - 14
- Chile - 1
- Czechoslovakia - 6
- Finland - 1
- France - 9
- Great Britain - 14
- Iceland - 5
- Italy - 9
- Japan - 24
- Korea - 10
- Liechtenstein - 6
- Netherlands - 4
- New Zealand - 1
- Norway - 2
- Romania - 1
- South Vietnam - 1
- Soviet Union - 9
- Spain - 4
- Switzerland - 12
- West Germany - 33

Temperature: On July 10th, a party reported the summit temperature to be 30 F.! For the second year, a minimum recording thermometer was left at 17,200' along the West Buttress route. It recorded a low reading of -58<sup>0</sup>F for the previous winter. This is the exact reading recorded last winter. During the 1987 season, the Mountaineering Rangers will place a second minimum recording thermometer to check the

accuracy of these readings.

Record number of climbers on Mount McKinley during a given week: A new all time high of 308 climbers were on the slopes of Mount McKinley for the week ending May 20th.

### **New Routes and Interesting Ascents:**

Mount McKinley: No new routes were completed during 1986, however four Canadians completed the third circumnavigation of the mountain. The East Buttress was climbed. There were two noteworthy speed ascents made this season. In the first, a well acclimatized Austrian, Rudi Mayr, left the Kahiltna Base Camp at 7,200' and climbed to the summit ridge in 30 hours. He returned to Base Camp 52 hours after his departure. In the second rapid ascent, Australian Gary Scott, who was serving as the volunteer 14,200' rescue/medical camp manager, made an 18-1/2 hour ascent from the 7,200' Base Camp to the summit. Gary had spent nearly a month at 14,200' prior to this record ascent, so he was very well acclimatized. A French climber completed a ski descent from the summit ridge to the 7,000' Base Camp. He skied the Rescue Gully between 17,000' and 14,200'. A group of Soviet climbers completed a climb of the Wickwire variation of the West Rib. This team was part of a Soviet/American climbing exchange program.

Mount Foraker: Two Czechoslovakians, Jaroslav Orsula and Dusan Becik climbed a new line on the East Face. This route is just right of the Pink Panther route. There was a second ascent of the Talkeetna Ridge by a two person American team which then descended the Southeast Ridge. There was also a second ascent of the 1934 route up the West Northwest Ridge (sometimes called the West Ridge) which was the original ascent route of Mount Foraker.

### **Accidents:**

The season began on a tragic note when one of the first expeditions lost two members in a crevasse fall on April 20th. A four person French team was ascending the Kahiltna Glacier at about the 9,000' level. The team was traveling up the west side of the glacier (the "normal" route was further to the east). The two members involved in the accident had decided to travel side-by-side with their ropes attached to a single sled so they could both pull the sled. A large snowbridge collapsed under them. Both were killed in the resulting 75' fall. During the investigation, it was determined that the two had used standard glacier travel techniques during the first two days of travel, but had decided to forego the safety of roped travel for the convenience of pulling the sled. The survivors said the safety aspect of the decision was discussed, but the victims felt there was no crevasse hazard. One of the victims was a professional mountain guide in his homeland.

In the middle of May, a four-person expedition began a descent of the South Buttress from their high point of 15,000'. Conditions were icy and one person would belay from above while the others descended. At the end of one of these belays, the rope became tangled in the belayer's ice tools. He unclipped from his anchors to clear the rope. While he was unprotected, the ice knob he was standing on sheared off. He sustained a tumbling fall for the entire rope length and then another 150' until the rope stopped the fall. No intermediate anchors were placed by those descending. During the fall, his crampons caught in the ice severely injuring his ankle. The party lowered the victim to a saddle at 12,500' but felt they could not safely proceed further and requested, via CB radio, a rescue. The victim was flown off the mountain via helicopter.

In mid May a member of a large German party was skiing from 15,000' to the 14,200' basin on the West Buttress route. During the descent he fell and severely twisted his knee. He was flown from 14,200' via fixed wing aircraft at his own expense.

In mid-June, four members of a Swiss team were camped at the 14,200' basin on the West Buttress. They

had just completed a carry to 17,200'. Weather was deteriorating, everyone was tired from their long day's carry, so they retired to their tents (two men to each of two tents) to cook dinner. The storm continued throughout the night and into the next day. It broke later that afternoon. The two survivors left their tent and noticed the other tent was sagging. There was no response from within the tent. When they opened the tent to investigate, they discovered the two young men dead. Investigation showed the two died from carbon monoxide poisoning from their butane cook stove. Their tent was made in Europe of a coated nylon with a full coverage rainfly (including a complete vestibule). The roof vents were closed and snow had either been packed around the bottom of the fly or had slid off the tent during the storm. Thus, there had been no allowance made for fresh air exchange. It appears the two had prepared and eaten dinner the first night, then were in the process of cooking soup when they were overcome by carbon monoxide. The survivors stated the group had discussed the importance of providing ventilation while operating the stoves prior to the accident.

Also in the middle of June, two members of a seven member Korean team began a rapid ascent of the Cassin Ridge. One of the team members began to develop a headache at 16,500' but decided to continue on to their high camp at 19,700' which they reached on day four. Here, the headache became severe, so they decided to rest the following day (day 5). On day 6, they broke camp but discovered both were too weak to ascend and one was showing definite signs of cerebral edema. They felt descent was impossible because they carried only a single rope. On the 7th day they began broadcasting for help, but the language barrier prevented their message from being understood until day 9. What followed was three days of one of the most logistically complex rescues to be conducted during the past five years. Volunteers were selected from climbers already acclimatized who were either on the mountain or who had just come off. The team was flown to 14,200' (weather prohibited the planned drop off at 17,200'). Of the four members in the advance team, two contracted altitude illness by the time they reached 17,200'. The remaining two were able to reach the summit ridge, descend the upper Cassin and assist the two Koreans back to the summit ridge. Fortunately, the Koreans were able to make the ascent with minimal assistance. Once at the ridge, the Korean suffering from CE collapsed, became comatose and did not regain consciousness for the remainder of the rescue. The team descended to 18,000, where they spent the night with a large guided party. The following day, they met the support rescue team that lowered the comatose Korean down Denali Pass to 17,200' where he was eventually helicoptered to a hospital. The remaining Korean and the rescuers descended to 14,200' and were flown back to Talkeetna. The entire rescue took only three days. No one was injured and both Koreans recovered from their ordeal. The success of this mission must be attributed to a supreme effort on the part of the rescuers and a great deal of good luck.

### **Trends and its of special concern:**

**Percentage of foreigners requiring rescues:** Ten persons required some sort of organized rescue effort during 1986. Four of the evacuations were body recoveries. Nine of the ten (90%) were mountaineers from foreign countries. Even though foreign mountaineers comprised only 25% of all climbers, they accounted for 90% of all SAR incidents. All four of the fatalities were foreigners. In 1985, foreigners accounted for 19% of the climbers, but 50% of the fatalities (there were two) and 40% of the SAR incidents. In 1984, foreigners accounted for 28% of the climbers, but 100% (there were two) of the fatalities and 57% of the SAR incidents.

For 1987, we are planning to expand the slide/tape mountaineering orientation to include French and Spanish in addition to the German, Japanese and English versions which are currently available. The information brochure Mountaineering will also be available soon in the same languages. It is difficult to state the exact causes of the disparity in SAR incidents between the foreign and American climbers. I believe that the majority of foreign mountaineers are leaving Talkeetna for their climb with a fairly good grasp on what the National Park Service recommends pertaining to high altitude, cold and crevasse related hazards. It seems more likely the higher accident rate is a result of many of the foreigner's seeming willingness to accept a higher level of risk in their mountaineering. Year after year, we see

foreign parties traveling unroped on the lower glaciers or traveling Denali Pass without ropes and ice axes, or making rapid ascents which result in altitude illness. Clearly, for the majority of these groups, they have made a conscious decision to adopt specific techniques even after extended discussions with the mountaineering rangers in Talkeetna.

**Solo ascents:** We have been seeing increased interest in solo ascents. During 1986, there were approximately six different solo ascents attempted. A number of other climbers arrived in Talkeetna with the intention of climbing solo but were convinced otherwise by the mountaineering rangers. It is clear that the majority of the persons attempting solo climbs have made no allowance for nor have given much thought to their safety while traveling the heavily crevassed lower glaciers.

**Carbon monoxide poisoning:** In 1985, cooking in poorly ventilated areas such as tents with all doors and vents closed, or old ice-glazed igloos and snowcaves caused two serious cases of CO poisoning. In 1986, two young Swiss mountaineers died of CO poisoning while cooking in a tent. It is very likely that mild cases of CO poisoning are a contributing factor to Acute Mountain Sickness, especially pulmonary edema. CO poisoning might very well be a greater threat to mountaineers using the new tents with full coverage waterproof rain flies, especially those with vestibules which encourage cooking in the tent while the coated vestibule can be kept closed. It is imperative for personal health and safety to allow adequate ventilation when cooking with stoves in enclosed areas.

For more information, or to request mountaineering information or registration forms, please contact me.

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<u>MOUNT MCKINLEY</u>	<u>EXPEDITIONS</u>	<u>CLIMBERS</u>	<u>SUCCESSFUL CLIMBERS</u>
West Buttress	111	361	181
West Buttress (Guided)	30	236	152
Muldrow	3	9	4
Muldrow (Guided)	3	40	22
West Rib	12	38	27
Cassin	10	28	15
Cassin (Guided)	2	9	3
South Buttress	3	9	0
South Buttress (Guided)	2	18	0
East Buttress	1	3	2
Messner Couloir	<u>2</u>	<u>4</u>	<u>0</u>
	<b>179</b>	<b>755</b>	<b>406 (54%)</b>
MOUNT FORAKER	5	21	7
MOUNT HUNTER	10	27	2
MOUNT HUNTINGTON	1	2	0
LITTLE SWITZERLAND	4	13	N/A
MOUNT DICKEY	2	7	7
MOUNT BARRILLE	5	16	15
MOUNT DAN BEARD	3	9	N/A
MOOSE TOOTH	11	34	14
BROKEN TOOTH	1	2	N/A
KITCHATNA SPIRES	1	2	2
MISCELLANEOUS SKI TRIPS	<u>15</u>	<u>70</u>	N/A
	<b>58</b>	<b>173</b>	<b>N/A</b>

NOTE: Since registration is required only for Mount McKinley and Mount Foraker climbs, statistics for other climbs represent those climbers who voluntarily checked in with the Mountaineering Rangers. Other climbs, especially in the area of the Ruth Glacier, are likely to have occurred.

