DENALI NATIONAL PARK AND PRESERVE

1990 MOUNTAINEERING SUMMARY

Heavy winter snows, volcanic ash deposits, near record numbers of climbers, few accidents and generally good weather summarizes the 1990 mountaineering season in the Alaska Range.

Record snows fell at the lower elevations during the winter of 1989-90. There was one winter attempt made by a Japanese team of four on the West Buttress. They encountered extended periods of poor weather and spent nearly 20 days between the 11,000' and 14,300' camps. The 14,300' basin was their highest camp. No other winter attempts were made on any other major peak within Denali National Park and Preserve. Throughout most of the winter, Mount Redoubt volcano, located approximately 150 miles south of the Alaska Range, repeatedly erupted, lightly dusting the Alaska Range with multiple layers of volcanic ash. A similar scenario occurred in 1986 when Mount Augustine erupted. The dark ash layers, once exposed to radiant heat from the sun, caused greatly accelerated melting of the snow pack as well as uneven melting of the snow surface. This resulted in an early closure of aircraft landing strips on the glaciers. Concern over a repeat of the 1986 early closures was well publicized and a number of groups planning late expeditions to the Alaska Range either moved their trips ahead or cancelled altogether. Late June snows extended the season longer than was expected, nevertheless, flights into the southeast fork stopped after the first several days of July. In an effort to cope with the number of people still on the mountain, landings to pick up parties were authorized at the 9,500' level on the Kahiltna Glacier. No dropoffs were permitted at this location.

The Denali Medical Research Project did not operate during the 1990 season. In its place, the Park Service mountaineering staff established a camp at the traditional site at 14,300' on the West Buttress. From that medical/rescue camp, the mountaineering rangers contacted mountaineers and coordinated search and rescue activities.

Despite the near record number of climbers on the mountain, there were only three search and rescue incidents on Mount McKinley in which the National Park Service was involved. This is the lowest number of search and rescue incidents since 1975 when 362 persons registered to climb Mount McKinley.

The National Park Service conducted four 24-day patrols on Mount McKinley, as well as numerous patrols into other areas of the Alaska Range. We continue to staff a ranger station in the town of Talkeetna where mountaineers register for their expeditions. A strong emphasis is placed upon the importance of environmentally sound expeditionary climbing and sanitation techniques. Additionally, mountaineers are encouraged to remain self-sufficient and conduct their own evacuations whenever possible.

All statistics in this report are for portions of the Alaska Range within the boundaries of Denali National Park and Preserve. Where specifically noted, statistics apply only for Mount McKinley

INTERESTING STATISTICS:

Near Record Number Of Climbers On Mount McKinley: In 1990, 1002 persons attempted a climb of Mount McKinley. This was only seven people short of the record of 1009 set in 1989. Had the volcanic ash situation not forced a number of parties to cancel their expedition, 1990 would probably have continued the four-year trend of increasing use:

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1979
                  533
1980
                  659
1981
                  612
1982
                  696
1983
            =
                  709
1984
                  695
1985
                  645
            =
1986
                  755
1987
            =
                  817
1988
                  916
1989
                  1,009
1990
                  1,002
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Success Rate:

- * 573 (57%) of those attempting the summit of Mount McKinley were successful.
- * This season saw a flurry of activity on Mount Foraker. A total of 11 expeditions attempted seven different routes. One new route was established. Six out of 28 climbers (21%) attempting Mount Foraker reached the summit.
- * 13 expeditions attempted four routes on Mount Hunter. Eight out of the 44 climbers (18%) attempting Mount Hunter reached the summit.

Record Number of Climbers on Mount McKinley During A Given Week: A new all time high of 383 climbers were on the slopes of Mount McKinley for the week of May 20. 1990.

New Altitude For Mount McKinley?: On June 21, 1989, a team of researchers and support climbers reached the summit of Mount McKinley. They carried a Global Positioning System receiver that when used in conjunction with a Global Positioning Satellite, can measure geographical heights. Preliminary indications show the elevation of Mount McKinley to be 14' lower than the height previously measured by more traditional survey methods. The newly computed height of 20,306' is still not yet official, so at least for the time being, the previous height of 20,320' remains the official height of Mount McKinley.

Acute Mountain Sickness: 143 (14%) had symptoms, of these:

- * 105 (73%) were mild
- * 31 (22%) were moderate
- * 7(5%) were severe

Frostbite: 30 (3%) reported some degree of frostbite. Of these:

- * 22 (73%) were mild
- * 5 (16%) required doctors care
- * 3 (10%) required hospitalization

West Buttress Route: 711 (71%) of the climbers on Mount McKinley were on the popular West Buttress route. This is a significant decrease from the past several years where approximately 85% of the climbers were on the West Buttress.

Soloists: 15 (1.5%) persons registered for solo climbs this season. Seven reported successfully reaching the summit. One of the soloists miraculously survived and was able to extricate himself following a 40' crevasse fall.

Mountain Guiding: 342 (34%) of the climbers on Mount McKinley traveled with one of the authorized guiding companies. The overall success rate of the guided groups was 54%. The majority of these trips occurred on the West Buttress route, but other guided trips attempted the West Buttress-Muldrow Glacier Traverse, Muldrow Glacier, West Rib, South Buttress and Cassin Ridge.

Foreign Climbers: 337 (34%) of the climbers on Mount McKinley were from foreign countries. 29 nationalities were represented:

inties were represented.		
Austria- 7	Australia-12	Canada- 33
Chile- 1	France- 41	Germany- 51
Pakistan- 2	Afghanistan- 1	Denmark- 1
Italy- 3	Japan- 34	Korea- 3
Mexico- 3	Czechoslovakia-3	New Zealand- 7
Norway- 4	Russia- 7	Spain- 12
Sweden- 3	Switzerland- 15	Great Britain- 72
Bulgaria- 4	Nepal- 1	Romania- 1
Greece-1	Taiwan- 4	Northern Ireland- 1
Netherlands-8	Yugoslavia- 2	

New low temperature reading: The National Park Service maintains a minimum recording thermometer, supplied by the National Weather Service, at the 17,200' level on the West Buttress Route. The winter of 1989-90's coldest recorded temperature was -57 degrees F.

New Routes and Interesting Activities:

Mount McKinley:

In May, Canadians Timo Saukko and Peter Mattson climbed a new variation of the West Buttress Direct. The route lies just south of Thunder Ridge.

Also in May, Canadians Ross Clouthier, Mario Bilodoau and Mike Kurth climbed another variation of the West Buttress Direct. Their route was just north of the southwest ridge.

In May, a French team parasailed from the 15,000' level on the West Buttress to within one hour walk of the Southeast Fork base camp (7,000').

In May, a guided group led by Michael Covington traversed off the upper Cassin Ridge and crossed over the connecting snow/ice slopes to the West Rib.

On May 23, a strong and well-acclimatized Russian climber, Anatoyla Burkreuv, climbed the West Rib from its beginning at 11,000' on the Northeast Fork to the south summit in 10 1/2 hours.

In June, Alaskan Norma Jean Saunders became the first woman to officially document a solo ascent of Mount McKinley. She climbed the West Buttress.

In July, British climbers Simon Abrahams and James Hall completed the first alpine style ascent of the complete South Buttress. They continued down the Muldrow Glacier and out to Wonder Lake.

Mount Foraker:

In May, Americans John Phelan and Dave Charman climbed a new route on the southeast face. They named the route "False Dawn".

- Also in May, Dave Harries and Chris Smith completed the second ascent of the "Pink Panther" route.
- Mount Wake, Ruth Gorge: In May, Canadians Chris Atkinson and Bruce Kay climbed a new route they named the "Screaming Blue Messiah" on the east spur.
- <u>Peak 6800' "Werewolf"</u>, <u>Ruth Gorge</u>: On July 14, Austrians Andi Orgler and Michael Rutter climbed a new route on the west pillar. It was reported to consist of 20 pitches of 5.10+ Al.
- <u>Peak 7500' "London"</u>, <u>Ruth Gorge</u>: On July 18, Austrians Hannes Arch and Helmut Neswadba climbed a new route on the west pillar called "Big Time". It was reported to consist of 20 pitches of 5.11+ A2.
- <u>Peak 7979' "Balrock", Ruth Gorge</u>: On July 14, Arch and Neswadba climbed a new route on the Southwest Ridge. It consisted of four pitches of 5.7.
- Mount Dan Beard, Ruth Amphitheater: In May, two Alaskan women, Carol Snetsinger and Don McDonald climbed a new route in the west face couloir.

Accidents/Incidents: The following incidents are the more significant accidents or incidents that occurred in 1990:

Fall With Injuries; Helicopter Evacuation: On April 9th, two Alaskan mountaineers were ascending the southeast spur of Mount Deception. The two had just completed a rest stop. The lead climber, Gary Donofrio, started up the ridge while the second, Jim Bouchard, completed packing his pack. They were roped together with a 50 meter rope. Before a belay was provided to Donofrio, a huge section of cornice broke from beneath him. Donofrio began a tumbling fall down a 75 degree slope. The fracture line had extended back to within two feet of Bouchard. Both men's ice axes were lost. The only option left to Bouchard to arrest the fall and prevent being pulled off the ridge himself, was to jump off the opposite side of the ridge. This he did and was able to stop Donofrio's fall. Bouchard was able to eventually haul Donofrio back up to the ridge. During the fall Donofrio had suffered internal injuries and had lost his pack. During the next 10 hours, the pair slowly made their way back to their base camp at the 5700' level on the Eldridge Glacier. The following day, Bouchard skied approximately 28 miles to the Parks Highway to report the accident. Donofrio was evacuated by the mountaineering rangers and an US Army Chinook Helicopter later that evening.

Injury From Falling Rock; Helicopter Evacuation: On May 26, Dwight Percy and other members of the expedition called "The Fine Young Idiots" were traversing around Windy Corner at the 12,500' level on the West Buttress of Mount McKinley when Percy was struck by a football sized rock which fell from the West Buttress. While the other members of the expedition carried his gear, Percy was able to continue to ascend to the 14,300' medical/rescue camp. There the group camped for four days while Percy attempted to recuperate in hopes he could recover enough to descend under his own power. During those four days, Percy remained stable but did not improve. On May 31st, Percy was evacuated by helicopter. X-rays revealed he had sustained fractures of the left illium and the pelvic ramis bone.

<u>Falls</u>; Fatalities: On May 24th, the American two person "Washington Square" expedition left the Southeast Fork base camp for an ascent of the Cassin Ridge. The men, Michael Koshuta and Stuart Jones, were last seen on the Cassin Ridge at the 15,700' level on June 1st. They were listed as overdue on June 9th. Air searches began on the 10th. Their bodies were located by air search teams on June 12th. It appears the men attempted to traverse from the upper Cassin to the West

Rib when one or both slipped. The men died in the resulting fall. There had been severe weather shortly after they were last seen on June 1st. It is thought that the men attempted to reach the 16,200' level on the West Rib via a long and tedious, moderate angle, mixed snow/ice traverse from the upper Cassin. From this point, the safety of the 14,300' basin and medical/rescue camp on the West Buttress can generally be reached.

Open Bivouac; HAPE Fatality; Frostbite; Helicopter Evacuation: On May 25th, the seven person Japanese "KTK" expedition flew onto the Southeast Fork base camp for a climb of the West Rib of Mount McKinley. On June 9th, the team was at their high camp at 18,000' on the West Rib. They departed that camp intending to push for the summit with minimal gear and return to their camp later in the day. By the time the team reached the junction of the West Buttress at 19,500', expedition member Hiroaki Ito was suffering from a bad cough, shortness of breath and difficulty in walking. By mutual consent, Ito was left at 19,500' while the rest of the expedition continued on to the summit. Once the team reached the summit, the weather rapidly deteriorated to whiteout conditions. During the descent, two of the summit team became disoriented and continued down the West Buttress past the junction of the West Rib and Ito. The rest of the team located Ito, whose condition had significantly deteriorated. Unfortunately, these team members with Ito thought that the two missing team members were still lost on the upper mountain. The decision was made to remain at the junction, making noise, attempting to attract the missing climbers. Meanwhile, the two 'missing" team members had joined an American party and had begun a descent of the West Buttress. These two Japanese continued their descent and reached the 14.300' medical rescue camp late that night. Higher on the mountain, the weather, Ito's and the remaining team members' conditions all gradually deteriorated until further descent was impossible. Rescue teams began moving upward the next morning. Even though weather had somewhat improved, the Japanese were unable to drag Ito. Their leader remained with Ito while the others, badly frostbitten, began to descend the West Buttress. By the afternoon, weather had improved enough that the NPS attempted air drops of oxygen and equipment. As the leader was retrieving the supplies, Mr. Ito died from advanced pulmonary edema. The rescue team arrived shortly thereafter. The three Japanese who bivouacked with Ito suffered severe frostbite, were evacuated by helicopter and eventually lost nearly all their toes.

There were other incidents of altitude illness and frostbite this season. Most of these were treated at the medical/rescue camp at the 14,300' basin on the West Buttress.

Trends and items of special concern:

Solo ascents: This year 15 persons registered solo.... two fewer than in 1989. Some of these were able to team with other expeditions at least to traverse the heavily crevassed portions of the lower glaciers. One soloist miraculously survived an unprotected 40' crevasse fall.

Increasing use: For the previous four years we have had new records set for the number of climbers attempting to climb Mount McKinley. It is likely 1990 would have continued this trend had the volcanic ash not forced the cancellation of certain expeditions. In 1990, climbers spent a total of more than 18,865 user days on Mount McKinley alone! Over 12,823 of them were on the West Buttress. The use on the West Buttress is even higher when considering many other routes are accessed via the lower West Buttress route. For example, an additional 3,262 user days were spent by mountaineers completing either the West Buttress to the Muldrow Glacier traverse or from the Muldrow Glacier to the Kahiltna Glacier.

Sanitation: With the increasing use, it is more important than ever for mountaineers to properly dispose of their human waste to prevent the contamination of snow that might be melted and used for drinking or cooking water by future expeditions. We are still suggesting the use of plastic bags as latrines. When moving camp, tie the bags off and toss into a deep crevasse. The use of biodegradable plastic bags is recommended. Use the latrines in the camps where they are provided.

Trash: Many expeditions are hauling their trash to base camp where it is flown off the mountain. Still others continue to crevasse their trash. Trash accumulation on other popular mountains of the world has recently received considerable publicity. Trash dumps and appalling sanitation conditions at the more popular campsites in the Himalayas, Europe, South America and elsewhere threaten human health, degrade the mountaineering experience and threaten the mountain environment. Mountaineers from all nationalities must take the responsibility for, and the initiative in, preserving the quality of the world's mountain environments. A combination of education, leading by example, and peer pressure are probably the most effective tools that can be brought to bear against less considerate mountaineers.

Administrative notes for 1990:

* The 1990 South District staff consisted of:

South District Ranger: Bob Seibert Mountaineering Rangers: Scott Gill

Renny Jackson Ron Johnson Roger Robinson Kevin Moore

Student Conservation Aid:

- * A portable radio repeater was installed in the Ramparts, the rugged mountains west of the lower Kahiltna Glacier. It proved extremely successful in improving communications between the Talkeetna Ranger Station and the mountaineering patrols. The repeater was removed later during the summer.
- * The National Park Service, in cooperation with the U.S. Forest Service, conducted a survey of approximately one third of the mountaineers registering for Alaska Range climbs within Denali National Park. The purpose of the survey was to determine users' perceptions of sanitation, trash and crowding issues on Mount McKinley. The results of the survey will be published in the 1991 American Alpine Journal.
- For the first time, mountaineering registrations were entered into a data base to allow better investigation of trends and more efficient daily management of the registration process.
- * In July, construction began on a building to replace the house trailer that for years served as ranger station, quarters for the seasonal mountaineering staff, and search and rescue coordination center. The new building, which is now complete, will serve as seasonal quarters, winter office for the South District, and the search and rescue coordination center.
- * Property has been purchased in Talkeetna upon which a mountaineering contact center will eventually be constructed. This building will replace the current log cabin which the NPS is renting in downtown Talkeetna.
- * The war in the Persian Gulf will likely affect the 1991 mountaineering operation on Mount McKinley. In the past, the Denali Medical Research Project and the NPS have relied upon the

US Army High Altitude Rescue Team from Ft. Wainwright, Alaska, to insert and extract the medical/rescue/research camp at the 14,300' level on the West Buttress. Front this camp, high altitude physiological research has been conducted under the direction of Dr. Peter Hackett and his capable staff and rescues have been coordinated that have saved many lives. Initially, it appears that flight crew and equipment commitments to the war effort will preclude the Army's ability to support either the medical/rescue camp or their ability to conduct high altitude rescue missions during the 1991climbing season. The National Park Service is planning to staff a small Weather Port at the 14,000' basin on the West Buttress. This camp will primarily serve as a communication and coordination base for rescue incidents.

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

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MOUNTAINEERING SUMMARY

MOUNT McKINLEY	EXPEDITIONS	CLIMBERS	SUCCESSFUL CLIMBERS
West Buttress	132	479	257
West Buttress (guided)	29	236	162
W. Butt. to Muldrow	7	31	9
W. Butt. to Muldrow (guide)	4	40	32
Muldrow	6	22	8
Muldrow (guided)	1	15	12
Muldrow to W. Buttress	3	13	7
West Rib	18	51	26
	5	29	6
West Rib (guided) West Rib from 14k W.Butt.	4	29 22	20
Messner Couloir			
	0	0	0
Cassin	17	42	24
Cassin (guided)	1	6	6
South Buttress	3	8	4
South Buttress (guided)	0	0	0
South East Spur	1	2	0
American Direct	0	0	0
Reality Ridge	0	0	0
Northwest Buttress	2	5	0
Pioneer Ridge	1	3	0
Wickersham Wall	0	0	0
	234	1002	573
MOUNT FORAKER			
Talkeetna Ridge	2	5	2
Southeast Spur	1	4	0
Northeast Ridge	3	9	0
Pink Panther	1	2	2
Infinite Spur	1	2	0
French Ridge	2	4	0
False Dawn (new route)	1	2	2
MOUNT HUNTER			
Northwest Buttress	3	8	0
Southwest Face	3	6	2
West Ridge	5	25	3
North Face	5	5	3

MOUNT HUNTINGTON			
Western routes	4	11	0
KAHILTNA DOME	0	0	0
KAHILTNA DOME (guided)	0	0	0
E. KAHILTNA PEAK	0	0	0
MOUNT RUSSELL	0	0	0
MOUNT RUSSELL (guided)	0	0	0
MOUNT BROOKS	0	0	0
MOUNT BROOKS (guided)	0	0	0
MOUNT SILVERTHRONE	2	18	16
LITTLE SWITZERLAND	1	2	2
LITTLE SWITZERLAND (guided)	0	0	0
GORGE PEAKS	14	47	14
MOOSES TOOTH			
West summit	9	23	23
East summit	2	4	4
MOOSES TOOTH (guided, west pk.)	1	4	4
MOUNT DAN BEARD	3	9	4
PEAK 11,300	3	9	7
MOUNT FRANCIS	0	0	0
ROOSTER COMB	0	0	0
MOUNT DECEPTION	1	2	0

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 Ruth Glacier area, are likely to have occurred.