



## Denali National Park & Preserve Alaska

### Annual Mountaineering Summary: 2020

For the first time in the modern history of the mountaineering program at Denali National Park and Preserve, there were no permits issued for climbing Denali or Mount Foraker due to the COVID-19 pandemic.

### Annual Mountaineering Summary: 2021

A special thank you to the 22 [mountaineering Volunteers-in-Parks \(https://cms.nps.gov/dena/planyourvisit/mountaineeringvips.htm\)](https://cms.nps.gov/dena/planyourvisit/mountaineeringvips.htm) (VIP's) who teamed up with Denali rangers to staff the mountain camps in 2021. It was a heavy lift, both literally and figuratively, as the park hosted a significantly smaller VIP crew overall due to COVID-related precautions.

#### 2021 Quick Facts

- **Climbers from the USA: 947 (92% of total)**

COVID-19 and its related travel restrictions changed the international flavor of the Alaska Range in 2021. While a

typical ratio of US to International climbers averages 3:2, in 2021 that ratio was 9:1, with over 92% of the mountaineers coming from the United States. Those US climbers on both Denali and Foraker hailed from 48 of the 50 states, plus the District of Columbia. Only Mississippi and South Dakota were not represented. Although there are some holes in the data for states (the homestate of mountain guides was not collected this year due to a change in forms), the data we did collect was consistent with previous years, with most US climbers coming from Colorado, trailed closely behind by Alaska, California, and Washington State.

- **International climbers: 77 (8% of total)**

In light of -- or perhaps despite -- the many and varied international travel restrictions in place during the spring of 2021, climbers from 29 foreign nations made it to Alaska to attempt a climb of Denali. (No foreign climbers attempted Mount Foraker.) Canada and Russia each fielded 11 climbers, followed by Argentina with 10.

Uncharacteristically, very few European climbers were able to travel to the US, specifically 7 came from the Netherlands, and one each came from France, Italy, Switzerland, and the United Kingdom. Only 1 climber came from Japan, one from Hong Kong, and two from China.

- **Average trip length**

The average trip length on Denali was 19 days for guided teams, while non-guided parties averaged 17 days. Climbs of Mount Foraker averaged 15 days.

- **Average age**

The average age of male climbers in 2021 was 37 years old, while women averaged 34 years of age. The age range of climbers attempting the climb was 12 to 69 years old, with the age range of those summitting Denali tightened only slightly, from age 16 to 63.

- **Women climbers**

Women comprised 14% of climbers on Denali, or a total of 136 individuals, with 43% of women reaching the summit of Denali. Four women attempted Mount Foraker, with no summits recorded.

*Statistics compiled by Registration Supervisor Debbie Reiswig*

## 2021 Search and Rescue Summary

### **Stranded Aviators**

(April 2) Three private planes landed on the Ruth Glacier below Mount Dickey, but were unable to depart due to a quickly advancing snowstorm. A ground rescue team originating from the Sheldon Mountain House descended the glacier, retrieved all five aviators and passengers, and guided them back to the Mountain House on skis. When the storm subsided three days later, all flew out to Talkeetna on an air taxi flight. There was no damage to any of the grounded aircraft and all three were eventually flown out of the Alaska Range with no further incident.

### **HAPE**

(May 1) An independent climber on the East Buttress of Denali began suffering symptoms of high altitude pulmonary edema (HAPE) and was only ambulatory with assistance from teammates. After 36 hours with no improvement and no available medications for treatment, the team activated the SOS function on their InReach device. The sick climber was evacuated by helicopter from near the team's camp at

approximately 14,200 feet on the East Buttress.

### **Fatal Crevasse Fall**

(May 3) One member of two-person, unroped ski mountaineering team on the South Spur of the Eldridge Glacier skied over a crevasse hidden by a large snow bridge. The snow bridge collapsed, resulting in a 100-foot fall. The uninjured teammate requested rescue assistance via an InReach device. Mountaineering rangers flew to the accident site and determined that the skier had died in the crevasse fall. After the surviving teammate was flown to Talkeetna via the park helicopter, the mountaineering rangers recovered the deceased skier's remains.

### **Fatal Ice Fall**

(May 13) One climber was killed and another injured by an ice fall avalanche on the approach to a climb of the West Face of Reality Ridge. After confirming the status of his partner, the surviving climber used his InReach device to initiate a helicopter rescue. Once the survivor was treated for injuries and evacuated, rangers returned to accident site. The deceased climber was excavated from the debris by a mountaineering ranger clipped to a helicopter short-haul line due to overhead serac hazard.

### **Frostbite**

(May 17) An independent climber suffered frostbite on summit day and subsequently requested medical assistance at the 14,200-foot camp on Denali's West Buttress. Rangers assessed and treated three fingers and three toes with frostbite. The patient was unable to get the cold-injured foot back into a ski boot, necessitating a helicopter evacuation from 14,200-foot camp to Talkeetna.

### **Frostbite**

(May 22) Two independent climbers ascended the West Buttress fixed lines in windy conditions with the intent of reaching High Camp at 17,200 feet. After seven hours of climbing in high winds, they decided to set up camp on the ridge at 16,200 feet. The team lost their tent and unsecured packs in the windstorm and returned to the 14,200-foot camp seeking ranger assistance. One of the team members was treated for frostbite to four fingers. Due to the team's inability to safely descend the mountain without the requisite equipment, they were evacuated by the park helicopter to Basecamp. The packs were later recovered by NPS patrol volunteers.

### **Climbing Fall**

(May 24) An unroped, independent climber fell over 1,000 vertical feet down the slope from Denali Pass into the basin below. The fall was witnessed by a guide at High Camp, who notified rangers at 14,200 feet, initiating a rescue. The climber was evacuated to Talkeetna by helicopter with immediate and life-threatening injuries, then transferred to an air ambulance. After the incident, the three climbers that were travelling with the fallen climber requested rescue assistance for themselves, however they were able to descend from to High Camp on their own.

## **HAPE**

(May 25) A client on a guided expedition was evacuated via helicopter from the 17,200-foot High Camp on the West Buttress of Denali after developing HAPE on ascent.

## **Accidental InReach Activation**

(May 29) Rangers were notified of an SOS activation in the vicinity of the 11,000-foot camp on Denali's West Buttress. Ranger patrols at three separate locations (14,200 feet, 7,800 feet, and 7,200 feet) were notified and each attempted to reach the owner of the device on FRS radio with no response. Subsequent contact with the InReach owner's spouse indicated the device owner was on a guided expedition camped at 11,000 feet. Further attempts were made to raise the team on their private FRS channel, again with no response. At approximately 2:00 AM, the InReach owner responded to the Alaska Regional Communication Center stating that there was no emergency, and that the unit was unintentionally activated.

## **HAPE**

(May 29) An independent climber was evacuated from the 14,200-foot camp on Denali after displaying signs and symptoms of HAPE following a rapid (3 day) ascent up the mountain.

## **Back Injury**

(May 29) A client on a guided expedition injured their back while putting on mountaineering boots at the 14,200-foot camp. The injured climber was evacuated via helicopter to prevent further back injury and due to the patient's inability to self-arrest, stop a crevasse fall, or safely descend.

## **Frostbite**

(May 31) An independent climber at the 14,200-foot camp on the West Buttress requested medical assistance from rangers due to frostbite on two toes and three fingers suffered while moving up from the 11,000-foot camp. After receiving medical treatment for the cold injuries, the climber descended to Basecamp on his own.

## **Climbing Fall**

(May 31) An independent climber fell 150 to 200 meters at approximately 17,400 feet on the traverse from Denali Pass to High Camp. Mountain guides who observed the fall assisted the disoriented climber back to camp, providing food and water. The climber's condition improved overnight, and he was able to descend safely under his own power.

## **HAPE**

(June 3) A client on a guided expedition was reported to have HAPE at the 17,200-foot High Camp. The climber was administered oxygen and medication, however they remained non-ambulatory. When weather

allowed, the patient was evacuated by the park helicopter and transferred to a ground ambulance in Talkeetna.

### **Rib Injuries**

(June 7) An independent climber suffered a fall resulting in a chest injury while descending the fixed lines on the West Buttress. Rangers responded to the scene and assisted the climber back to the 14,200-foot ranger camp, where he remained in the medical tent until weather allowed for a helicopter evacuation on June 12.

### **HACE/HAPE**

(June 12) A climber on a private expedition was evacuated via short-haul basket from 19,500 feet on Denali after developing high altitude cerebral and pulmonary edema (HACE/HAPE) while ascending the Upper West Rib route with five teammates. Upon air evacuation to Talkeetna, the patient was transferred to a ground ambulance for further care.

### **Frostbite**

(June 11) A guide reported that a client exposed his hands during a summit attempt resulting in frostbite on nine digits. The cold injuries ranged from superficial to deep; blebs were drained, bandaged, and re-warmed in the field with assistance from medics on a military team camped at 17,200 feet. As the injuries inhibiting a safe descent, the guide requested a helicopter evacuation from High Camp to Talkeetna.

### **HACE/HAPE/Cardiac**

(June 13) On summit day, a client on a guided expedition experienced signs and symptoms of HACE, HAPE, and chest pain at 19,500 feet. One of the guides returned to High Camp with the deteriorating climber, who was subsequently evacuated from 17,200 feet by helicopter and transferred to ground ambulance for further care.

### **HAPE**

(June 23) A client of a guided expedition was evacuated from the 14,200-foot camp on Denali via park helicopter after developing HAPE while on ascent.

### **Back Injury**

(June 25) A guided team located at 11,200-foot camp requested ranger assistance when one of the guides sustained a back injury while shoveling, rendering him non-ambulatory. After fellow guides monitored the injury and treated it with pain medication for multiple days, the injury did not improve. The guide was evacuated via park helicopter from the 11,200-foot camp.

### **Acute Abdominal Pain**

(June 28) A guide experienced persistent abdominal pain for over three days while at High Camp,

including an inability to eat or drink. As the patient was very unsteady on his feet, the decision was made to evacuate him from high camp via the park helicopter.

### **HACE/HAPE; Knee Injury**

(June 30) Two separate guided groups requested assistance from NPS rangers on June 30. A guided group at High Camp had a client present with signs and symptoms of HACE/HAPE, while the second guided group had a client with a knee injury sustained while punching through snow while ascending to the fixed lines. The park helicopter pilot and ranger attendant first flew to High Camp to evacuate the first patient, then down to the 14,200-foot camp for the second patient; after refueling at Basecamp, the patients were flown to Talkeetna.

### **Back Injury**

(June 30) An independent climber requested assistance from rangers at the 17,200-foot High Camp due to a back injury sustained while attempting to put on crampons. A ranger assessment in camp confirmed the disability would make self-evacuation unsafe, so a helicopter evacuation was initiated. The patient's climbing partner, his 12-year-old son, accompanied the patient on the helicopter due to his young age.

## **2021 Medical Summary**

During the 2021 climbing season, Denali mountaineering rangers and patrol volunteers treated a total of 25 patients that met our life, limb or eyesight-threatened threshold. Patients not meeting this treatment guideline are advised to self-treat and evacuate. The following list provides a breakdown of the field diagnoses from this past rescue season:

- Traumatic Injury – 10 cases (includes 2 fatalities, 3 back injuries caused by non-traumatic events, and 1 knee injury while ascending)
- Frostbite – 5 cases
- High Altitude Cerebral Edema – 1 case
- High Altitude Pulmonary Edema – 8 cases
- Other Medical – 2 cases (includes one COVID and one abdominal)

*\*Some patients had multiple diagnoses resulting in a higher number of diagnoses than the total number of patients.*

Of the patients treated, 14 were independent climbers or park visitors. Ten patients were members of guided expeditions, including both guides and clients. One was an agency assist for Alaska State Troopers in Denali State Park. The patients treated by our teams exhibited a total of 15 traumatic injuries (including 5 cases of frostbite) and 11 medical complaints. Nine of these patients were treated at 14,200-foot camp on the West Buttress route, 8 were treated at 17,200-foot base camp, 1 was treated at 19,500 feet, 1 was treated at 11,200-foot camp, and 4 were treated in other areas of the Alaska Range. In total, 23