2017 Statistical Year in Review

Each season’s mountaineering route statistics, including total attempts and total summits for Denali and Foraker, are now compiled into one spreadsheet spanning from 1979 to 2017. The Denali Dispatches blog can provide a more detailed perspective of the 2017 season, including daily statistics, weather, conditions reports, photos, and random climbing news. Visit our VIP page for a list of all 2017 mountaineering volunteers. Read about the efforts of the 2017 recipients of the Mislow-Swanson Denali Pro Award.

Quick Facts - Denali

- Climbers from the USA: 768 (65% of total)
The percentage of US climbers was higher than average in 2017, a number which more typically hovers closer to 60%. For the first time in many years, there were fewer Alaskans on Denali than other states. Colorado showed the highest turnout in 2017 with 121 climbers, followed by Washington (108), Alaska (101), and California (69).

• **International climbers: 421 (35% of total)**
  Fewer foreigners than usual attempted Denali in 2017. Of those that did, the highest number came from right next door in Canada, with 61 climbers. Next in line was Japan with 46 climbers, followed by Germany and Russia, each of which were represented by 30 climbers.

• **Average trip length**
  Most expeditions took about one day longer than last year, with an overall average trip length of 17.4 days, start to finish.

• **Average age**
  The average age was 39 years old. The youngest climber to attempt Denali this year was 11 years old, the oldest was 73.

• **Women climbers**
  Women comprised 15% of total (175 women), the highest percentage in history. The summit rate specific to women was 37%.

• **Summits by month**
  - April: 5 (the first summit of the season occurred on April 16)
  - May: 88
  - June: 311
  - July: 91

• **Busiest Summit Days**
  - May 31: 54 summits
  - June 1: 49 summits
  - June 14: 48 summits
  - June 20: 37 summits

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**2017 Search and Rescue Summary**

**Cardiac Emergency**
West Buttress, Denali

(May 16) NPS mountaineering rangers were notified of a guided climber experiencing chest pain at the 14,200-foot camp. The patient complained of sudden onset chest and left shoulder pain. The patient reported no personal or family history of cardiac issues. Following a complete patient assessment and evaluation with a cardiac monitor, the patient was treated for acute coronary syndrome with oxygen, aspirin and morphine. Due to the cardiac field diagnosis, the decision was made to evacuate the patient by air. The patient was flown back to Talkeetna airport and transferred to local ambulance providers without incident.

Crevasse Fall
West Buttress, Denali

(May 26) NPS rangers received a radio call at 14,200-foot camp that a climber on an independent team had fallen into a crevasse while traveling un-roped at 8,300 feet on Denali’s West Buttress. Two mountain guides on scene extracted the verbally-responsive climber from 20 meters below the glacier surface within 30 minutes. Further NPS assistance was requested due to severe flank pain and a concern about hypothermia. When NPS personnel arrived on scene, they determined the potential for a lower back injury necessitated an air evacuation in full spinal motion restriction. Once the weather cleared the following morning, the patient was evacuated via helicopter to Talkeetna in a vacuum mattress and cervical collar and transferred to ground ambulance.

Frostbite
West Buttress, Denali

(May 27) Mountaineering rangers in Talkeetna received a satellite phone call indicating that a climber sustained frostbite injuries to all ten fingers while descending the West Buttress route on Denali and was in need of rescue. Subsequently, a climbing party contacted mountaineering rangers at 14,200 feet via FRS radio to report a non-ambulatory climber with frostbitten fingers lying in a sleeping bag at 16,800 feet during their ascent. While the NPS patrol began ascending to the injured patient’s location, they learned that two independent climbers had begun to lower the patient from Washburn’s Thumb. Three additional mountain guides assisted with the lowering operation until they rendezvoused with the NPS team at 14,800 feet, who then lowered the patient to 14,200-foot camp for assessment and treatment for frostbite. While waiting for weather to clear for a helicopter evacuation, rangers consulted with frostbite experts at the University of Utah who recommended prompt thrombolytic therapy. That evening, the patient was flown from 14,200-foot camp direct to the airport in Palmer, Alaska and transferred to the regional hospital by ambulance.

Airplane Crash
Upper Airstrip, Ruth Gorge

(May 28) An airplane flipped during an aborted take-off at the upper Ruth Gorge airstrip beneath Mount Dickey. While turning at the bottom of the runway to make a second attempt, the right ski dug into the deep snow and caused the plane to flip over the nose and onto its roof. When the plane came to rest, the pilot assisted all six passengers to exit the plane and performed cursory patient assessments on each. The pilot was able to report this incident to other planes in the vicinity. All six passengers and pilot were flown back to Talkeetna in another aircraft, four of whom were transported to the
Appendicitis
West Buttress, Denali

(June 4) An NPS patrol responded to a climber suffering acute stomach pain at 6,700 feet on the Kahltna Glacier. Earlier that day, the same patrol had assessed the patient for stomach pain at 14,200-foot camp, however at that time, both the climber and NPS medical providers determined self-evacuation was possible. As that climber descended throughout the day, symptoms of appendicitis appeared. The patient was transported via toboggan to basecamp due to the increased pain and difficulty walking. NPS rangers treated the patient with pain medication and antibiotics until he could be evacuated by air the following morning. At the airport, he was transferred to local EMS for transport to the regional hospital for surgery.

Crevasse Fall
West Buttress, Denali

(June 4) While descending the West Buttress, two un-roped climbers on snowshoes encountered a 4-foot wide crevasse just below 7,800-foot camp. As the first climber began to cross the snow bridge covering this crevasse, the bridge collapsed and the climber fell roughly 60 feet into the crevasse, only stopping when he became wedged in the narrowing fissure. His partner could not see him and returned to 7,800-foot camp to get help.

Multiple guides camped at 7,800 feet responded to the calls for help and notified NPS mountaineering rangers. The guides arrived on scene shortly after midnight and were able to communicate with the patient. These guides took turns descending into the crevasse multiple times to attempt extrication. The patient was wedged in such a way that simply hauling on his climbing harness would have resulted in further injury. The guides were able to clip into the patient’s harness in hopes of keeping him in place and remove items from his backpack to allow additional room for him to breathe.

When the weather cleared several hours later, the NPS helicopter flew additional mountaineering rangers and volunteers to the accident scene to relieve the guides that had been working continuously for almost four hours. The rescue crews found the working conditions inside the crevasse to be extremely challenging. Each rescuer was lowered to the point where she/he became stuck themselves and began chipping away at the ice with an ice axe to create room to extricate the patient. Around 5:00 am, one of the rangers was able to free the patient from his backpack and alleviate continued breathing issues. Additional personnel, including guides, independent climbers, and another mountaineering ranger arrived throughout the morning hours to assist in the rescue. The rescuers all took turns chipping away ice in the crevasse with various implements (ice axes, chainsaws, pneumatic chisel, blowtorch) until the patient was finally freed at 3:20 pm, after approximately 15 hours of tedious extrication work.

Once freed, the patient was raised from the crevasse with a rope mechanical advantage system, and then transferred to a vacuum mattress for spinal injury precautions. During the rescue, the patient’s mental status steadily declined to responsive only to pain stimuli. The patient was transported via NPS helicopter direct to Fairbanks Memorial Hospital due to inclement weather to the south of the mountain range. The patient was treated primarily for severe hypothermia in the ICU for several days before being discharged to return home.
Snow Blindness
Cassin Ridge, Denali

(June 11) Mountaineering rangers responded to a climber suffering from snow blindness at 14,200-foot camp after summiting Denali via the Cassin Ridge one day prior. The climb of the Cassin was completed in poor weather with high winds, during which the team lost multiple pieces of equipment included the patient’s goggles. This loss proved problematic on summit day when glacier glasses did not provide adequate protection from the high winds and sunlight. NPS volunteer paramedics provided continual treatment over a 24-hour period, however these efforts yielded no improvement. The decision was made to evacuate the patient by helicopter for further assessment and treatment.

Frostbite
West Buttress, Denali

(June 12) Mountaineering rangers initiated treatment on a patient for both frostbite and severe dehydration. The climber was first injured while bivouacking during a storm on Denali’s summit on June 11 and sustained deep frostbite injuries to multiple fingers and toes. The patient was flown to Talkeetna on June 13 for further treatment in a regional hospital.

Frostbite
West Buttress, Denali

(June 15) Mountaineering ranger patrol responded to two climbers from the same expedition team suffering from deep frostbite injuries to their hands. These climbers descended to 14,200-foot camp following a summit attempt the day prior. The climbers reported that they initially frostbit their hands while traversing below Denali Pass. During the medical assessment, the ranger and volunteer discovered that one of the two patients was also exhibiting signs and symptoms of snow blindness. Both climbers were treated overnight, and the following day they were evacuated via helicopter and transferred to the local ambulance and hospital.

HACE
West Buttress, Denali

(June 16) A climber died from suspected high altitude pulmonary and cerebral edema (HAPE and HACE) at 17,500 feet while descending the West Buttress route. The team of three had departed for the summit on June 15, the ninth day of their expedition. The patient struggled to keep up throughout the day and requested to remain at the Football Field (19,500 feet) while his partners continued to the summit. His teammates reported that when they reunited on the Football Field after summiting, the patient was moving slowly and unsteadily on his feet. His teammates began short roping the climber below Denali Pass while traversing to high camp. The patient became non-ambulatory about thirty minutes above camp and his teammates secured him to an ice axe before descending to camp to summon help. Another party on the climbing route encountered this team and used their satellite device to initiate a rescue.

The NPS patrol at high camp, along with five guides, responded to the scene. At the time of their callout, rangers reported
that the weather conditions were challenging with extreme wind chills and near zero visibility. The two NPS volunteers who were the first rescuers on scene radioed that the patient was non-ambulatory and had a reduced mental status. While they began constructing anchors for a traversing lowering operation, the patient began removing his gloves and other attire often characteristic of hypothermia and his mental status continued to deteriorate toward unresponsiveness. While the rescue team completed a 120-meter lowering operation to get the patient to 17,200-foot camp, the patient deteriorated to both respiratory and cardiac arrest. The team attempted airway and breathing maneuvers which were unsuccessful at reviving the patient. The patient was declared deceased. When the storm finally cleared on June 18, the patient’s remains were flown in the NPS helicopter to Talkeetna and transferred to the state medical examiner.

Knee Injury
Rescue Gully, West Buttress, Denali

(June 16) An NPS mountaineering patrol treated a patient that had been involved in an avalanche in Rescue Gully below 17,200-foot camp. The mountaineer had triggered, and was subsequently caught in, a slide while skiing the couloir. During the approximate 200-foot tumbling fall, the skier came to a rest atop the avalanche debris. However, the skier had lost his skis, various pieces of mountaineering equipment and his prescription eyewear during the avalanche. Due to the high avalanche hazard and poor visibility, NPS rescue response was deemed unfeasible for scene safety concerns. The skier’s team was able to evacuate him to 14,200-foot camp where he was assessed and treated by NPS personnel. The skier was evacuated in the NPS helicopter on June 17 with a knee injury.
2017 Medical Summary

Denali mountaineering rangers and rescue patrol volunteers treated 19 patients that met our 'life, limb or eyesight-threatened' threshold. Patients not meeting this treatment guideline are advised to self-treat and evacuate as needed. Here is the breakdown of field diagnoses, and note that some patients were treated for multiple issues, resulting in a higher number of diagnoses than patients:

- Traumatic Injury – 7 cases
- Frostbite – 5 cases
- Medical (cardiac) – 2 cases
- Medical (abdominal) – 2 cases
- Hypothermia – 2 cases
- High Altitude Cerebral Edema – 1 case
- High Altitude Pulmonary Edema – 1 case
- Snow Blindness – 1 case

Of the patients treated, 12 were independent climbers, 5 were guides or their clients, and 2 were NPS volunteers. The patients treated by our teams exhibited 13 traumatic injuries (including 5 cases of frostbite) and 7 medical complaints. Fourteen of the patients were treated at 14,200-foot camp on the West Buttress; three patients were treated at 7,200-foot basecamp; one was treated at 17,200-foot high camp; and one was treated at 11,200-foot camp.

Unfortunately, there was one fatality in the Alaska Range this season. This fatality likely resulted from high altitude cerebral edema (HACE) and hypothermia based on reports from expedition teammates and rescuers on scene at high camp. Ultimately, fourteen patients required helicopter evacuation from the mountain, while five were able to self-evacuate after stabilization by our medical providers.

The patient care reports from our last climbing season describe ailments and injuries often associated with

NPS Photo (Coady)
mountaineering and alpine climbing in the Alaska Range.

Many of these medical and traumatic issues are preventable with prudent decision-making and a reasonable ascent profile during climbing expeditions. Additional information on the prevention, recognition, and treatment of common mountain medicine maladies can be found online in our Denali mountaineering planning tools.

New Routes and Significant Repeat Ascents of 2017

(Better late than never, this next section was posted 12/3/18. Thank you to Ranger Mark Westman for helping maintain the historical record!)

A combination of poor weather, low snowpack, and lack of ice in many areas of the Alaska Range yielded a relatively quiet season with respect to new routing and significant repeat ascents. Nonetheless, several teams managed to take advantage of a long spell of good weather in April, in most cases embracing objectives which were likely safer and more feasible during lower snow years such as this one.

Mount Huntington—Gauntlet Ridge

From April 18 to April 25, Jess Roskelley and Clint Helander made the first integral ascent of Mount Huntington's long, turreted south ridge. In making this enchainment, they completed one of the longest new routes in recent years in the Alaska Range. This was a massive and committing undertaking, beginning with a lengthy and dangerous approach from the normal landing site on the Tokositna Glacier, beneath Mount Huntington’s west face. The ridge itself consists of four separate, increasingly higher sub-summits, followed by Mount Huntington’s much higher primary massif. At least two of these sub-summits - the second and fourth towers - had been reached before, and several sections of the ridge had been traversed previously.

In 1978, a Japanese expedition came to Alaska with intentions of completing the entire ridge. This is the only known prior attempt of the full enchainment of the ridge. The finer details of this expedition’s efforts are largely unknown, but this year’s team determined that the Japanese succeeded in reaching the summit of the second tower, and likely went no further. Helander and Roskelley did not find any traces of prior attempts while climbing the first tower on the ridge. After making a very difficult and committing rappel into the jagged notch between the first and second towers, Helander and Roskelley started climbing the second tower. Almost immediately, they began encountering rappel anchors and also an old cache left by the Japanese. The final anchor they discovered was located just beneath the summit of the second tower, separated from it by very easy snow terrain. Beyond here, they found no further traces of the Japanese team’s - or any other teams - passage. In retrospect, Helander felt that the Japanese had likely avoided the first tower altogether by ascending an east facing weakness that led to the south ridge of the second tower. In 1978, an American team consisting of Angus Thuemer, Glenn Randall, Kent Meneghin, and Joseph Kaelin would encounter the Japanese in their Tokositna Glacier basecamp. Through a significant language barrier, they deciphered that the Japanese had been defeated by poor snow conditions, and that they had not made it very far along the ridge. The American team went on to make the first ascent of Huntington’s southeast spur route.
A year later, Jay Kerr, Scott Woolums, Dave Jay, and Jeff Thomas made the first ascent of the upper south ridge of Huntington, completing another piece of the puzzle. The team approached from the Ruth Glacier's west fork, by climbing over the dangerous Rooster Comb-Huntington col, descending into the basin east of Huntington, and then ascending east facing snow and ice slopes to the col between Huntington and the fourth tower on the south ridge. They continued straight up the south ridge and upper face to reach the summit of Huntington, finding generally moderate difficulties.

The fourth tower on the ridge, closest to Huntington, had been climbed previously by two parties. The first team was Will Mayo and Chris Thomas in 2005, who dubbed the mountain “Idiot Peak”. The second team was Scott Adamson, Aaron Child, and Andy Knight in 2014. Both of these ascents climbed the peak from the west, each by a new route.

The third tower, and also Idiot Peak, had each been attempted from the east to points some distance below their summits by Jack Tackle and Jay Smith in 2009. Tackle and Smith had been landed by a ski wheel airplane in a small glacial cirque to the east, an unlikely landing site that had not been used before, and has not been used since. Otherwise, as detailed in the ascents of the upper south ridge, southeast spur, and the 1980 and 1983 east face routes, overland approach options to the east faces of Huntington and its southern satellite summits are both lengthy and hazardous.

Helander and Roskelley waited patiently at home for a spell of good weather, and flew into the mountains after the weather had been fair for more than a week, which was crucial for developing settled snow conditions. On April 18, the pair descended through dangerous icefalls and heavily crevassed glaciers, exposed to considerable objective hazards, to reach the ridge’s base. They began climbing the next day and reached the summit of Mount Huntington on April 23rd. On the route, they encountered spectacular knife edged ridges, large cornices, tenuous snow climbing, and excellent quality mixed climbing on solid granite. There were sections of mandatory downclimbing on unstable snow along with many rappels, the latter of which were made easier by using a large supply of pitons they discovered in the above-noted Japanese cache. Although the total elevation change from the foot of the ridge to the summit of Huntington is about 6,000 vertical feet, the pair estimated the amount of vertical gain along the entire route to be about 8,500 vertical feet due to the considerable descents between each tower. The commitment level, as is the case with many Alaskan “old school” ridge climbs, was very high, as many points along the ridge - particularly early on - were situated above extremely dangerous terrain that would be very difficult and hazardous to descend.

The pair considered themselves very fortunate to have enjoyed excellent weather throughout their time on the ridge, however, the weather turned poor as they approached the summit. For the final ascent of Huntington proper, the pair initially followed the 1979 south ridge route. High on the face, they deviated from the original route by passing to the right of a large serac. Here they found easy mixed ground that Helander felt was probably less difficult than the 1979 route, which passed left of the serac on steeper ice. Helander and Roskelley were forced to bivouac on the summit of Huntington for two days to await better visibility and conditions before descending. On April 25, the storm broke and they were able to rappel the west face couloir route and return to their basecamp, seven days after having left it.

In retrospect, Helander stressed that the combination of a prolonged, strong high pressure, and an extraordinarily low snowpack- which was also well-consolidated- were absolutely essential to their safety as well as their ability to complete the route. The combination of all of these conditions occurring at once in the Alaska Range is indeed a rare event, and there are undoubtedly many routes in the Alaska Range where timing- and patience- is simply everything. Helander had spent many years studying, researching, and photographing this route, and waiting patiently for the right conditions to
come together. Aspiring Alaska Range climbers would do well to apply these sorts of principles to their endeavors throughout the range, for everything from the trade routes, to first ascents of grade 6 test pieces, to everything in between.

In concluding this account it is worth noting that Alaskan ridge climbing has fallen out of vogue in these modern times which tend to focus on sheer technical difficulties. Ridge climbs in Alaska - popular in the 1960’s and 1970’s - often involve significant unstable cornices which may overhang both sides of the ridge, knife edged sections, exposed and poorly protected climbing, and in many cases, an extreme level of commitment. The technical difficulties of such terrain are often hard to assign a grade, and are sometimes dismissed by modern climbers as merely “snow climbing”. However, these routes usually prove daunting and intimidating to even very skilled technical climbers. In reality, many of the more severe Alaskan ridge climbs present a ‘grand course’ in the myriad of challenges found in alpinism.

Helander and Roskelley appropriately named their route the “Gauntlet Ridge”, and it is graded VI, M6, A0, 95 degree snow, 8,500’.

**Bear’s Tooth—Bestiality**

From April 12-April 14, Will Sim of Great Britain and Greg Boswell of Scotland completed a very difficult route on the east face of the Bear’s Tooth. After bypassing an initial icefall by way of a couloir to its left, the route follows a primary chimney system, occasionally exiting onto the right wall when encountering poor rock or snow mushrooms. Sim and Boswell declined to qualify the 1400 meter route’s technical difficulties, giving it only “ice, rock, mixed…”, but it is presumed to be of significant difficulty.

**Shark’s Tooth—Shark Fishing**

On April 19 and 20, Will Sim of Great Britain and Greg Boswell of Scotland completed another new route out of the Buckskin Glacier’s upper cirque. They climbed a peak immediately north of Broken Tooth, which they believed to be unclimbed, and dubbed it the “Shark’s Tooth”. Their route, which they named “Shark Fishing”, climbs the west face and is described as follows:

“Climb the obvious s’nice fault line, continuing until the obvious right branch after 10 pitches. Then bivi by the large fish-shaped boulder. Continue for 3 more pitches to the summit ridge, then about 150m to the summit”. As with their route on the Bear’s Tooth, they declined to provide the 650 meter route a technical grade, categorizing it only as “ice/rock/mixed (adventurous!)”. Presumably, it is highly technical.

**Mount Russell—South Ridge Integrale**

From April 6 to April 10, Freddie Wilkinson and Dana “Mad Dog” Drummond completed the first integrale ascent of Mount Russell’s south face and ridge. The upper, ridge portion of this route was used as the mountain’s first ascent in 1962, by a German party. This party had begun their expedition from the Chedotlothna Glacier on the mountain’s northwest flank. This team was landed by ski-wheel airplane on the Chedotlothna Glacier, but glacial changes have made this landing no longer feasible today. A long overland approach from the Purkeypile or Tonzona River landing strips would now be required in order to follow this original line. The Germans followed an icefall and glacier terrain up beneath the west face of
Russell and then climbed to a col to the southwest of the main peak. From here, they climbed an ice slope to attain the south ridge, then followed the gargoyle and heavily rime-iced ridge to the summit.

Wilkinson and Drummond had studied aerial photos of Russell from the south and noted an attractive south facing wall that provided safe access to the upper south ridge from the Dall Glacier. They were landed on the Dall Glacier at approximately 6,000 feet elevation. An easy 45 minute ski led to the base of the wall. They followed a principle gully system (there are several choices) in the back of the cirque, on the left side of the face, for about 1,500 feet up and left to gain the southwest spur of the face. From here, easy snow and ice slopes and easy mixed climbing up the moderately angled buttress led through a surprise band of excellent golden granite of comparable quality to that found on Denali’s Cassin Ridge. Mount Russell is otherwise known for being composed of an extremely poor black shale rock. Atop the face, the pair encountered a short section of corniced and knife edged ridge that led to the junction with the 1962 route. The pair dug a snowcave and bivied here. From here it was a mountaineering classic, with moderate snow and ice slopes and occasional steeper sections passing around and over rime-iced gargoyles. The pair was caught in a storm on the descent and spent another night in the same snowcave, before returning to basecamp.

Wilkinson said of the route: “A total Alaskan classic, should have been climbed 40 years ago. Worthy of being the ‘route normale’ on Mount Russell”. Indeed, Mount Russell’s ‘normal’ route, the northwest ridge, has seen very few ascents (estimated less than 10). Part of this is because the peak is remote and has never been popular, but also that the northwest ridge has considerable problems with huge bergschrunds, overhanging rime ice walls, avalanche danger, and seems to change radically from year to year. Added to this is the area’s penchant for poorer weather than other parts of the Alaska Range.

Mount Russell is in an area of the Alaska Range notorious for localized high winds and extremely heavy snowfalls. It can be presumed that the South Ridge’s lower face conditions are a key to the route- avalanche danger in the lower couloirs and the face should be a major consideration for every team. The upper ridge, also, is likely to change in difficulty and character from year to year, much as the northwest ridge seems to do. But the Dall Glacier landing strip, being 2000 feet lower than the traditional landing for the northwest ridge on the Yentna Glacier at 8,000 feet, may prove to be an easier access for airplanes during inclement weather. Nonetheless, parties venturing to this area should be prepared for long delays getting both in and out of the area, or otherwise plan to complete the trip within a solid weather window.

Wilkinson and Drummond described the difficulties of the route as “Grade 4, 60 degree ice, easy mixed”. As noted, expect variable conditions - and difficulties - from one year to the next.

Other Notable Ascents

Mount Hunter—Solo Ascent of North Buttress

In May, American alpinist Colin Haley made the first complete solo ascent of Mount Hunter’s north buttress to the summit of Mount Hunter. Haley connected parts of the Deprivation and the Bjomberg-Ireland routes on the right side of the buttress, possibly including some previously unclimbed terrain low on the wall to bypass the difficult and insecure crux pitch of Deprivation. Haley used a self-belay on the more difficult sections but otherwise climbed ropeless, as much of the
terrain consisted of moderately steep ice. Haley descended the Bibler-Klewin route.

**Denali—West Buttress Speed Ascent**

On Denali, Katie Bono accomplished a speed ascent of the mountain’s West Buttress route on June 14. Bono left Kahitna Basecamp at 6 AM that morning and reached the summit of the mountain at 8:46 PM. She returned to Kahitna Basecamp in a round trip time of 21 hours, 6 minutes. This was the first recorded women’s speed record for the mountain, and was the third fastest round trip time on Denali’s West Buttress. Bono spent over three weeks acclimatizing on the mountain prior to the ascent.