

# DENALI: WB EXPEDITION, 20,310 FEET / 6,190 METERS



View of the West Buttress from 22,000 feet. Photo by Bradford Washburn, no. 7265

ROUTE: WEST BUTTRESS, ALASKA GRADE 2, 13,000 FEET ELEVATION GAIN, 41 MILES, 22 DAYS

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Deposit: \$2000      Balance Due: 120 days prior to the starting date      Group Limit: 6 expedition members, 2-3 guides

*Cost Includes:* AMS professional mountain guides, National Park Service Mountaineering Special Use and entrance fees, base camp fee, round trip glacier flight, field food and fuel, group camping and climbing equipment (tents ropes, snow/ice protection, kitchens) emergency supplies (maps/GPS, radios, satellite phone, and repair, trauma and drug kits), pre-rigged sleds, 24/7 support during the expedition from AMS HQ, knowledgeable advice for training, equipment and travel, camp area at AMS in Talkeetna, regular updates on social media during the expedition.

*You are responsible for:* Arriving with excellent physical and mental fitness, transportation to and from Talkeetna, lodging (AMS campground is free, tents are not provided), 2-4 lbs of lunch/snack food, travelers cancellation insurance (highly recommended), personal equipment and clothing, rental items from AMS, guide gratuities.

## THE MOUNTAIN

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Denali, formerly Mt. McKinley, is America's tallest mountain and un-surpassed in challenge or scenic beauty. At 20,310 feet, it rises out of a sea of glaciers and other peaks that compose the Alaska Range. From our start at base camp, we climb 13,000 vertical feet to the summit—the greatest elevation gain of any mountain in the world. 150 miles north of the port city of Anchorage, Denali is the largest massif in Alaska's Denali National Park and Preserve.

A guidebook description of the West Buttress route can be found in "Denali's West Buttress: A Climber's Guide" by Colby Coombs, The Mountaineers Books, 1997.

## HISTORY

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The early pioneers in Denali's climbing history were explorers and gold miners who unraveled intricate and formidable approaches to find a northern route to the summit. In 1910, a group of Sourdough miners struck out from Fairbanks and climbed the slightly lower North Peak, 19,470 feet. In 1913, Archdeacon Hudson Stuck's team climbed the same route via Karsten's Ridge, making the first ascent of the higher South Peak, 20,320 feet. Flying from the south and landing on the Kahiltna Glacier, the West Buttress route was pioneered by Bradford Washburn's team in 1951 and is now the most popular route to the summit.

## GRADE/DIFFICULTY

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Given a Grade II, the West Buttress shares with the Muldrow route the status of having the lowest grade on Denali. This implies it is the "easiest and safest route" to the summit. "You camp up Denali, not climb it." Relative to other climbs on Denali, it is easier and the terrain is safer. However, be warned, it is never easy on Denali! Unique to Denali's rating system is an implied severity grade that makes any route a serious undertaking. High altitude, extreme weather, and active glaciation combine to make Denali one of the most difficult and severe mountains in the world to climb. AMS' attitude takes Denali very seriously and does not under-estimate the severity of conditions or the effects high altitude has on people's health. To reach the summit of Denali is a worthy achievement that does not come easily and must be sought after with the highest degree of attention to detail and expedition climbing strategy.

## PRIOR EXPERIENCE

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Denali is a tremendous challenge for people with the experience and attitude to enjoy the rigors of expedition life. As an advanced climb, Denali requires a significant amount of prior climbing experience and training beforehand. For the best chance of success, applicants should be in excellent physical condition and have climbed mountaineering routes that require roped glacier travel, winter snow camping, and the use of an ice axe and crampons. Prior winter camping and travel experience for extended periods of time is essential training. Dealing with the cold on Denali is a day-to-day challenge. The figure eight knot series, rope coiling, and belaying in and out of a wanded perimeter should be familiar. The ability to stop a fall with an ice axe on a steep snow slope with a pack is paramount to your safety and the safety of your rope team. Above 16,000 feet, expect to crampon with a 60-plus pound pack on slopes up to 30-35°. Some sections of the route require you to bend down and clip through running belays. The mountain is too severe to be learning these skills for the first time. Smaller peaks in the Alaska Range, winter climbs of Mt. Washington, Colorado 14'ers, Mt. Rainier, the Tetons, Mount Blanc are suitable training grounds for Denali. A non-technical, high altitude climb is a great way to train for the altitude. Our best prepared expedition members have taken a mountaineering course and trained for at least a year before joining an expedition.

## WEATHER

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It is often said that the greatest challenge of Denali is not the climbing, but the weather. While most of the world's highest mountains are near the equator, Denali is closer to the North Pole. Its location in the southern Alaskan mainland is 200 miles south of the Arctic Circle at 63°. This is 35° further north than Everest, and the same latitude as northern Hudson Bay and central Scandinavia. Denali's climate around its summit is one of the most severe year-round averages of any spot on earth. The weather dictates our every move; it is fickle and un-predictable. It will force us to be flexible and patient and sometimes spontaneous. It is the one thing we cannot change; only our attitude toward it.

## UN-FLYABLE WEATHER

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Be aware, Alaska has unpredictable weather which can prevent flying into or out of the mountains on schedule. Bush planes can only fly if the weather is suitable. In the event that expeditions are unable to fly to the glacier at the scheduled time they will base out of the AMS Talkeetna Facilities which consist of the office and staging area, Schoolhouse, and Matt Porter Rock Gym. This allows expedition members to view slideshows and additional educational media, practice fixed line ascension and other climbing techniques. Usually un-flyable weather persists only for a day or two and then are able to fly into the Alaska Range. Sometimes expeditions can be weathered in the Alaska Range beyond their end date. We will do our best to ensure that your expedition ends on schedule and most do. However, we recommend allowing 2-3 days on the return end of your travel plans (or purchasing flexible airline tickets) in the event that weather inhibits you from flying off the glacier on time.

## WHEN TO CLIMB

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The most common question asked by climbers is "which is the best month to climb?" There is no right answer as every year is different than the previous year as far as weather and conditions. It is generally agreed that the popular climbing season on Denali begins late April and lasts through most of July, shrinking the acceptable window down to 90 days. In March and early April, cold temperatures and strong winds at higher elevations make conditions too severe. The month of May shows less precipitation on average than June or July, but it is colder and requires more aggressive cold-injury prevention. Statistically, there are more people on the mountain in June and therefore more people summit then. Once you start getting into late July, the snow conditions on the lower half of the mountain

can deteriorate so badly that crevasse hazard becomes extreme and landing conditions impossible. Choices for “best time” within the season vary with personal preference.

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## ACCLIMATIZATION

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AMS' expedition-style climbing strategy reflects a concern for giving everyone the best chance to acclimate to a lower oxygen environment. Double carries, rest days, and 4-5 nights at 14,200' before moving higher allow most people the time for their bodies to adjust. Expeditions carry a pulse oximeter to measure blood oxygen saturation levels and heart rate, and prescription drugs to treat life-threatening conditions. Advanced signs or symptoms of pulmonary and/or cerebral edema are serious, life threatening conditions that require immediate descent. Each year AMS is briefed by our medical director, Dr. Peter Hackett, who pioneered high altitude medical research on Denali, on any advancements in the research, prevention, and treatment of altitude-related illnesses. Our training supervisor, Lance Taysom, chief life-flight RN and NPS Mountaineering Ranger also keeps us informed. Together they wrote our medical protocols and standing orders which allow AMS instructors to evaluate and treat within the scope of their Wilderness First Responder training. A class on altitude-related injuries is taught with discussion and touching base with each individual is made a priority. For those suffering from acute mountain sickness, we condone the use of Diamox (Acetazolamide) in conjunction with rest and hydration. Anyone showing signs of severe acute mountain sickness will not climb to higher elevations until those signs and symptoms go away.

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## LEADERSHIP AND TEAM WORK

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Successful expeditions are properly equipped and have the necessary skills, but most importantly they learn to become a strong team. Good leadership reflects the art of effective team building. From base camp to advanced base camp (ABC) your guides teach classes, hold discussions, and initiate you into the world of expedition life. Above ABC and all the way to the summit your expedition will show signs of strength: tight camps, efficient travel techniques, and strong teamwork. We expect you to stay organized, participate all the way, and have fun while supporting the goals of the expedition. Of primary importance is taking responsibility for monitoring yourself; you know best how you feel, how you sleep, how you recover each day. As a team, we are able to help if someone is having a bad day, but ultimately every member must be a regular contributor for the expedition to be successful. Not participating, or failing to meet the day-to-day demands may lead to your departure from the expedition. We expect you to maintain good expedition behavior (EB): be supportive, solution-oriented, hard working, patient, take initiative and in return you will be rewarded with the climb of a lifetime.

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## GUIDES

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AMS guides are professional climbers who love the mountains and have a gift for climbing, teaching, as well as mountain guiding. Just being a good guide is not enough to guarantee effective leadership. Our staff are talented climbers with extensive personal climbing resumes to draw upon. Lead guides have a wealth of experience on Denali as well as teaching mountaineering courses in the surrounding peaks. All our staff are familiar with altitude-related problems, extreme weather, and know how to set the pace for a successful expedition. AMS staff have mountain rescue, avalanche safety, and wilderness medical training. Their knowledge of the natural and climbing history and personal Alaska climbing stories add immensely to the climb. Their strength, stamina, and leadership are paramount for a climb like Denali.

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## TRAINING

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Denali applicants must adopt a goal of being in excellent physical condition by the start of the expedition. On any mountaineering expedition there are factors that are completely out of the control of anyone, namely weather and individual acclimatization rates. By joining a professionally run expedition, you leave expedition logistics, food, equipment and leadership to us. You are responsible for and have control over your physical fitness and climbing ability. It is imperative that everyone joining our expeditions be physically fit when the expedition begins. The better condition you are in, the more you will enjoy the climb, the safer it will be for you, and the better chance for summiting. The more climbing experience you have prior to the climb, the better prepared you will be for Denali.

The amount of time needed for training depends on the level of fitness at the start. Climbers make it a priority of being in good shape. Those that are able get out and climb. Climbers with less time to climb exercise to stay in shape: lift weights, run, bike, swim, martial arts, and stair master. Athletes need only to adjust their training habits to include Denali-specific routines. Others may have to plan a year or more of serious training in advance to ensure success.

Focus on developing stamina over brute strength. Upper body strength is necessary for lifting your pack, shoveling snow, and building camp, but most strength should be aerobic for the long hard days breaking trail and moving camp. Train on irregular terrain in poor conditions. Maintain a pulse rate 80% of maximum for a half hour during the workout. Vary your routine to prevent overuse injuries and push yourself without injuring yourself. Think about how much stronger you will be in a blizzard with that 65 pound pack while attached to a 40 lb sled. Exposing yourself beforehand to similar activities will condition your body. Scramble up peaks, climb snow and ice, embark on a rigorous multi-day winter backpacking trip, ski uphill as well as downhill, go snowshoeing. Pushing yourself in

uncomfortable environments while staying focused and alert is good training. You cannot successfully prepare for this expedition in your office or solely by training indoors. The more familiar the environmental stress of Denali is for you, the better you can pace, acclimate, and be a team player.

## EQUIPMENT

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Denali is not the mountain to “just get by” with mediocre equipment. Your gear will be put to the ultimate test. A carefully planned layering system will be more comfortable, efficient, lightweight, and hold up. “Quality” does not necessarily mean “expensive” and a trip to the Army surplus store often turns up many of the basics. Carefully read the equipment list written for this expedition; it answers many questions and gives recommendations for particular items. Try to have equipment questions answered by a knowledgeable sales person in a local climbing store; they are often the most informed about the pros and cons of a particular brand or style. The equipment section of ‘Denali’s West Buttress’, by Colby Coombs; also provides tips and suggestions, or contact the AMS office. Your guides will ensure you are properly outfitted before you go. Your guides will check equipment with you on your first day at AMS. They will issue any rental gear you need and you will have the opportunity to purchase items at the AMS retail store. If you arrive in Talkeetna early, please wait to check gear with us until then, as we are busy preparing for the expedition a full three days before.

## FOOD

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AMS provides hearty, nutritious, and balanced meals on its expeditions. Do not be surprised if you gain weight on the expedition! A spreadsheet rations program and faithful recipes balance calories, carbohydrates, fats, proteins, and weight to create a variety of tasty and creative meals that build strength and maintain health. Up to 14,200 feet typical meals are pasta, rice and bean burritos, English muffins, bagels, and pizzas. As we gain altitude, lighter and more easily digested foods are cooked. Examples include: hashbrowns, noodles, rice, mashed potatoes, ramen, couscous, soups, tortellini, dried vegetables. We avoid freeze dried meal-in-a-bags as they are typically inadequate portions and lack flavor. Our rations come from organic wholesalers from Washington and Oregon and supermarkets in Anchorage. All of our meals can accommodate vegetarians; please call if you need more specifics. AMS provides almost all of the food for this expedition. Our Expedition Food document provides more detailed information. Please contact us if you have any dietary restrictions or allergies.

## TRAVEL & LOGISTICS

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Fly to Anchorage, Alaska. Catch a van shuttle or train to Talkeetna. Plan to arrive in Talkeetna by noon on the first day of your expedition. This gives you time to get settled and be ready to go at 2:00 p.m. on the starting day. If you arrive earlier you can relax and walk around town; check out the river, ranger station, and the climbing museum. Expect to leave Talkeetna the morning following the last day of your expedition. Please read the Travel and Logistics form for more information

## TALKEETNA FACILITIES

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AMS is the oldest and only outdoor school & guiding company based in Talkeetna. We are not seasonal visitors; we live here. Our office in downtown Talkeetna is staffed year-round. Denali National Park is where we do the majority of our climbing and we consider it our backyard. Our history guiding in the Alaska Range and on Denali, reaches back to 1983, and everything we do today is built from hands-on experience. Our office and staging area is at the end of 3<sup>rd</sup> street, adjacent to the local airstrip. We have an excellent location and proper facilities to outfit expeditions and serve our expedition members. A large staging area allows us to check gear and practice fixed line ascension. In the event of un-flyable weather, our facilities are a comfortable area to teach classes, show slide shows & videos, and be productive during a “Talkeetna hang.”

## REFERENCES

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AMS is a professionally run operation committed to high standards at all levels. We urge you to carefully research and look into climbing with us. Search for Alaska Mountaineering School and our directors; Caitlin Palmer and Colby Coombs on the Internet. Talk to climbing rangers at the Talkeetna Ranger Station ph. 907-733-2231. Try calling your local climbing store and ask if they have heard of us. We are small, but our word of mouth reputation extends far. Our guides and instructors represent a tight group of over 50 educators and mountain guides with varied professional affiliations. A note on certification: other than AMS’ Mountain Guides Course, there is not an available certification in the US or Europe that takes into account the expedition skills necessary to guide in the Alaska Range. AMS has spear-headed an initiative to develop an expedition component to the AMGA Alpine certification, but it is a slow and political process involving Europe’s UIAGM.

## THE CLIMB

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We climb the West Buttress in traditional expedition style, relaying loads, establishing camps, and climbing slowly enough for proper acclimatization. The first nine miles of the route is up the Kahiltna Glacier to 11,000 feet. We typically place three camps on this section of the route. Above 11,000 feet, the terrain steepens and we switch to crampons. Advanced Base Camp (ABC) is 14,200 feet and located in a large basin relatively sheltered from high winds. We often arrive at 14,200 feet on the 9th day. The views of Mt. Hunter and Mt.

Foraker from here are amazing. After 4-5 days acclimatizing, resting, and making a carry to 16,200 feet, we depart for the upper mountain. Between 15,500 feet and 16,200 feet are 40-45° slopes so we climb clipped to a fixed rope to safeguard our movements. We may place a camp at the top of the fixed ropes at 16,200 feet to break up the climb or wait for better weather. The stretch to high camp at 17,200 feet is the most scenic part of the route and climbs a narrow ridge to 17,200 feet. When rested and in suitable weather, we will go for the summit. Summit day usually takes 10-14 hours. We cannot guarantee it, but we give it our best shot. Be prepared to wait. After summiting, it usually takes 2 days from high camp to return to base camp.

AMS' approach to Denali falls in line with our mission as a school of mountaineering. Denali's summit is a means, not an end, and we will be pushing every day to increase our performance. The mountain provides an excellent stage to practice good mountaineering. We expect all members to share a goal of becoming better climbers on our expeditions.

## RETURN TO TALKEETNA

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We strongly suggest you plan to spend the night in Talkeetna once you have returned from your expedition. Transportation schedules may require that you catch your shuttle to Anchorage the following day. AMS staff can provide a current list of options for transportation and lodging upon your return; it is not necessary to book that leg of your trip in advance. Many climbers feel that any extra time spent in Talkeetna after their expedition helps them to transition, from the quiet of the mountains to their busy lives. Time is needed for practical things, like sorting gear and travel details, a shower, food and beverage as well as the mental transition. A night of sleep before traveling is recommended. Some climbers plan extra time at the end of their expeditions for sight-seeing while they are in Alaska. In addition to attracting climbers from all over the world, Talkeetna boasts world-class fishing and other activities. The Travel and Logistics form offers helpful information.

## THE FIRST DAY

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Please arrive at AMS at 2:00 PM the first day of your scheduled expedition. Your guides will provide an expedition and safety orientation. Next you will pack your mountain lunches and have a thorough gear check with time to rent gear and purchase anything from the AMS store. You'll be free at 6:00 PM to enjoy the evening in Talkeetna.

On your second expedition day, the team will meet at 8:00 AM at the AMS headquarters in Talkeetna. This is a busy day that ends at base camp on the Kahiltna glacier, so please be on time and take care of all personal business beforehand. You may wish to start your day with a hearty breakfast at one of the local restaurants. We'll have hot drinks and fresh baked goods available all morning, at HQ. At 8:30 am your team will go to the Walter Harper Talkeetna Ranger Station for the required check-in and briefing. After, you will return to AMS HQ and review technical skills for the climb: roped glacier travel, sled rigging, fixed line ascension, ensure packs are rigged for glacier travel, double check that you have all the necessary hardware for your glacier set-up. At midday, a tasty lunch is provided for your team at AMS. After lunch you will finalize any equipment needs, dress for the mountains, finish packing and fly onto the glacier in a ski-equipped fixed wing Cessna 185, DeHaviland Beaver or Otter. This 40-minute flight into Denali National Park is the fastest way to access the snowy glaciated peaks of the Alaska Range, and is a spectacular and memorable highlight of the trip. Once you arrive at the Kahiltna glacier base camp, the rest of the evening will consist of campsite selection, tent set up, group kitchen set up, guide's advice for sleeping warm and a hot dinner.

## ITINERARY

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Weather and snow conditions will ultimately determine our progress on the mountain. This itinerary is a rough guide and outlines a possible schedule. Our style on the mountain is flexible and will fluctuate on a 24-hour clock depending on conditions. With lucky weather, most expeditions return a day or two early. On the other hand, delays at the start with un-flyable weather and storms at high camp may result in running out of time. It is possible at high camp for us to extend the length of the expedition and allow those who wish to tough it out and have a flexible schedule more time. There is a cost associated with this to compensate the guides.

Day 1  
2:00 pm meet at AMS: Orientation, gear check with time to rent gear and purchase anything from the AMS store, pack mountain lunches. You are free at 6:00 PM to enjoy the evening in Talkeetna.

Day 2  
8:00 am meet at AMS: NPS registration, Denali Skills Review, lunch at AMS, final pack, weigh and load gear for a 4:00 pm flight to Base Camp, 7200'; distance: 60 miles, elevation gain: 6850'.

Day 3  
Base Camp: organize, acclimate, review glacier travel and crevasse rescue.

Day 4  
Single to Ski Hill, Camp 1, 7,800'; distance: 5.5 miles, elevation gain: 600'.

Day 5  
Carry to Kahiltna Pass, 9,700'; distance: 5 miles, elevation gain: 1900'.

Day 6

Move to Kahiltna Pass, Camp 2, 9,700'; distance: 5 miles, elevation gain: 1900'.

Day 7/Day 8

Single to 11,000', Camp 3; distance: 1.5 miles, elevation gain: 1300'./Rest day

Day 9

Carry to 13,500' around Windy Corner; distance: 1.75 miles, elevation gain: 2500'.

Day 10

Move to 14,200', Camp IV; distance: 2.75 miles, elevation gain: 3200'.

Day 11

Back carry 13,500' cache; distance: 1 mile, elevation gain: 700'.

Day 12/Day 13

Carry to 16,200'; distance: 1 mile, elevation gain: 2000'./Rest at 14,200'

Day 14

Move to 16,200 feet or 17,200', Camp V; distance: 1.75 miles, elevation gain: 3000'.

Day 15

Rest day or move to 17,200 feet, Camp VI; distance: 1.75 miles, elevation gain: 3000'.

Day 16, 17, 18, 19 Summit days; distance: 4 miles, elevation gain: 3120'.

Day 20

Return to 14,200 feet or 11,000'; distance: 2.25 miles.

Day 21

Return to Base Camp, 7,200'; distance: 11.25 miles.

Day 22

Fly back to Talkeetna.