DENALI TRAVERSE EXPEDITION

20,310 ft / 6,190 m

Alaska Grade II Experience level: Advanced + 13,110 ft elevation gain 76 miles, 24 days Group limit: 8 expedition members, 3 guides AMS

Denali is America's tallest mountain and unsurpassed in challenge and scenic beauty. Located 130 miles north of the port city of Anchorage, Alaska, it rises out of a sea of glaciers and other peaks that comprise the Alaska Range. The Traverse expedition has the unique and noteworthy challenge of climbing the highest peak in North America while traveling over the crest of the Alaska Range. Climbing with fixed lines on Karstens Ridge, route-finding the crevassed lower icefall, crossing the McKinley River, and swatting mosquitoes make this the ultimate Alaska mountaineering experience, well suited to those who enjoy the rigors of expedition life.

COST

Deposit: \$2,000

Balance due: 120 days prior to the starting date

Includes: AMS professional mountain guides; National Park Service mountaineering special use and entrance fees; base camp fee; one-way glacier flight to the mountain; shuttle bus and private van pickup in Denali National Park; field food and fuel; group camping and climbing equipment (tents ropes, snow/ice protection, kitchens); emergency supplies (maps/GPS, radios, satellite phone; repair, trauma, and drug kits); pre-rigged custom sleds; 24/7 support during the expedition from AMS headquarters; knowledgeable advice for training, equipment and travel; camp area at AMS in Talkeetna; regular updates on social media during the expedition; and a copy of the book *Denali's West Buttress: A Climber's Guide* by Colby Coombs.

You are responsible for: Arriving in excellent physical and mental fitness, transportation to and from Talkeetna, lodging (AMS campground is free, tents not provided), travelers cancellation insurance (highly recommended), personal equipment and clothing, rental items from AMS, and guide gratuities.

HISTORY & DESCRIPTION

In 1913, Archdeacon Hudson Stuck's team climbed the Muldrow/Karstens Ridge route. The team consisted of Walter Harper, Harry Karstens, Hudson Stuck, and Robert Tatum. They reached the higher south summit via this northern route on the Muldrow Glacier and Northeastern ridges of Denali. Notably, Walter Harper was the first Native Alaskan to reach the summit. The team followed the approach paths of several earlier explorers and gold miners who unraveled intricate and formidable approaches to find a northern route to the summit. We will be using the same ridges, glaciers, and tundra for our descent. The remoteness and extreme nature of this route is unique and gives climbers a true wilderness test of strength and old-school fortitude.

GRADE/DIFFICULTY

The Denali Traverse is rated an Alaska Grade II, but it is more challenging than the similarly rated West Buttress. This route is a tremendous physical and mental challenge for any mountaineer. Climbing over Denali Pass with a loaded pack and descending Karstens Ridge are feats in themselves. Denali is not easy, and the Traverse is no exception. This expedition carries serious consequences and rewards. High altitude, extreme weather, active glaciers, river crossings, and mosquitoes combine to make the Traverse the grand tour of North American mountaineering.

WILDERNESS

Preserving the wilderness character of Denali National Park and Denali's Traverse route is a long-standing priority at AMS. We have climbed on all continents, and Denali remains one of the world's cleanest big mountains--and we strive to keep it that way. The Denali Traverse truly climbs in deep wilderness where few people visit, so it remains a pristine landscape. Our expeditions practice Leave No Trace camping and climbing techniques and follow current and progressive human waste and trash removal management techniques. To enhance the wilderness experience and take advantage of better climbing conditions, we travel in the cooler temperatures of the night and early mornings; this allows us to see and climb with less people and avoid any possible congestion of narrow areas on the route. To be considerate of other climbers we avoid broadcasting of music and are strategic in our choice of campsite locations. Our expedition guides work closely with NPS mountaineering rangers on the mountains to identify current mountain hazards and document and report unethical camping and climbing teams. We believe that our national park lands are treasures of North America and we practice clean visitation practices and wilderness preservation education through the duration of all our climbs and programs.

THE CLIMB

The Traverse starts with climbing 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 are up the Kahiltna Glacier to 11,000 ft. We place 2-3 camps on this section of the route. Above 11,000 ft, the terrain is steeper, and we switch to crampons. Our next camp is 14,200 ft and located in a large basin relatively sheltered from high winds. We often arrive at 14,200 ft on the eighth 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 ft, we depart for the upper mountain. Between 15,500 ft and 16,200 ft are 40-45° slopes, so we climb clipped to a fixed rope to safeguard our movements. We often place a camp at the top of the fixed ropes at 16,200 ft to break up the climb or as needed to wait for better weather. The stretch to high camp at 17,200 ft is a scenic part of the route and climbs a narrow ridge to 17,200 ft. Here, when the weather is suitable, we will begin our move up and over the mountain via Denali Pass to 18,000 ft on the Harper Glacier, where we plan to camp for two nights. From 18,000 ft we climb to the summit and have a distinct advantage of other climbers on the mountain due to this camp elevation and location. Summit day is somewhere between

the fifteenth and twentieth day of climbing and takes approximately 8 hours.

After summit day, we spend the night at camp 18,000 ft before descending the Harper Glacier to Browne Tower (14,600 ft) on the northeast side of Denali. From Browne Tower, we descend the elegant snow crest of Karstens Ridge for 3,500 ft down to the Muldrow Glacier. Down climbing this exposed, steep ridge with heavy packs is one of the most challenging aspects of the climb. The broken ice of the Muldrow Glacier begins at 11,000 ft, and we will follow its crevassed course for ten miles to McGonagall Pass (5,720 ft). At the pass, we will unrope, leave the ice behind, and enter the green of summer. This is a great moment for everyone. We will walk across nineteen miles of tundra and wade across several rivers, including the McKinley River, which depending on levels may be a formidable obstacle that we take seriously. Finally, we reach the Denali National Park Road at Wonder Lake. Your pack can weigh 80-100 pounds on this part of the expedition. You must be physically capable of carrying this pack weight. Denali's summit, 25 miles away and more than 18,000 ft above us, dominates the southern horizon. We will take the park shuttle bus to headquarters and then return to Talkeetna by private van.

AMS's 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 skills and performance. The mountain provides an excellent stage to practice good mountaineering. We expect everyone to share a goal of becoming better climbers on our expeditions.

PRIOR EXPERIENCE

Denali's Traverse is a mountaineering achievement of a lifetime for people with the experience and attitude to enjoy the rigors of expedition life. As an advanced-plus climb, the Denali Traverse requires a significant amount of prior climbing, winter camping, and training regime. Simply dealing with the cold on Denali is a day-to-day challenge. For the best chance of success, applicants should be in excellent physical condition and have several years of experience in roped glacier travel using ice axe and crampons whilst carrying a 60-pound backpack. Prior winter camping and long expedition travel is essential training. 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 steep snow is paramount to your safety and the safety of your rope team. Above 16,000 feet, you will travel wearing crampons with a 60-plus pound pack on slopes up to 30–35 degrees. Most of the route we double carry, but the move to high camp is often a single load. Many sections of the upper elevations of the route require you to clip through running belays efficiently.

The mountain is too severe to be learning these skills for the first time. Climbing smaller peaks in the Alaska Range, Colorado 14'ers, Mount Rainier, the Tetons, and Mount Blanc as well as winter climbs of Mount Washington are suitable training grounds for Denali. A non-technical, mid-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 one year before joining an expedition.

WEATHER

It is often said that the greatest challenge of Denali is the weather. While most of the world's highest mountains are near the equator, Denali is closer to the Arctic Circle. Its location in the southern Alaskan mainland is 200 miles south of the Arctic Circle at 63 degrees latitude. This is 30 degrees further north than Everest, and the same latitude as northern Hudson Bay and central Scandinavia. The mountain's summit climate makes Denali one of the most severe of any spots on earth. The weather dictates our every move on the expedition; the weather is fickle and unpredictable. It will force us to be flexible, patient, and sometimes spontaneous. The weather is the one thing we cannot change, but we do have control over our attitude, and we will maintain a state of positive readiness throughout our climb.

UNFLYABLE WEATHER

Be aware that Alaska has unpredictable weather, which can prevent flying into 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, we will base out of AMS's Talkeetna facilities, which consist of the office, staging area, AMS Mountain Shop, and indoor climbing wall. These facilities allow expedition members to view slideshows and additional educational media and practice fixed line ascension and other climbing techniques. Bad weather usually persists for only for a day or two. We will do our best to ensure that your expedition ends on schedule and most expeditions do. Still, we recommend allowing 2-3 days on the return end of your travel plans (or purchasing flexible airline tickets) in the event that weather keeps you from flying to or from the glacier on time.

ACCLIMATIZATION

Our 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 sleeping at 14,200 ft 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 medications to treat life-threatening conditions in emergencies. Advanced signs or symptoms of pulmonary and/or cerebral edema are 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 advancements in the research, prevention, and treatment of altitude-related illnesses. Our training supervisor, Lance Taysom, chief life-flight RN and Mountaineering Ranger for the Denali National Park, also keeps us trained and up to date. Together they wrote our medical protocols and standing orders, which allow our guides and instructors to evaluate and treat within the scope of their Wilderness First Responder training. Communication with your guides is paramount to your own and your teammates' health and well-being on the mountain. For those suffering from acute mountain sickness, we use 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. Note: Please read the Expedition Cold Injury and Altitude Illness Prevention document for more information.

LEADERSHIP & TEAM WORK

Successful expeditions are properly equipped and have the necessary skills but most importantly they learn to become strong teams. Good leadership reflects the art of effective team-building. From base camp to 14.2 Camp, your guides teach classes, hold discussions, and initiate you into the world of expedition life. Above 14.2 Camp 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 for the expedition to be successful every member must be a safety-minded and efficient climber, a regular contributor, and help with camp chores. Not participating, climbing unsafely, or failing to meet the day-today demands will lead to your departure from the expedition. We expect you to maintain good expedition behavior: taking initiative and being supportive, solution-oriented, hardworking, and patient. In return, you will be rewarded with the climb of a lifetime.

REFERENCES

Alaska Mountaineering School is a small and professionally run operation committed to high standards at all levels. The Alaska Range within 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. We urge you to carefully research 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 (907-733-2231). Call your local climbing store and ask if they have heard of us. AMS is small, but our word-ofmouth reputation extends far. Our guides and instructors represent a tight group of educators and mountain guides with varied professional affiliations.

A Note on Certification: Other than our own Mountain Guides Course, there is no available certification in the U.S. or Europe that takes into account the expedition skills necessary to guide in the varied terrain and scope of the Alaska Range. AMS has developed a training program for our guides that includes a time-tested apprenticeship program, technical training, and evaluation system. This results in mountain guides with a depth of Alaska Range knowledge found only at AMS.

GUIDES

AMS guides are professional climbers with extensive climbing resumes who love the mountains and have a gift for guiding, teaching, and leadership. Lead guides have a wealth of experience from multiple years of working on Denali, as well as the surrounding technical peaks. Traverse expedition guides are senior AMS staff who have climbed the route and know it well. All AMS staff are trained in mountain rescue, avalanche safety, extreme mountain weather, Leave No Trace, and wilderness medicine and ethics. They know how to set the pace for a successful expedition. Their knowledge of the area's natural history and climbing history and stories from their own climbing experiences add immensely to the climb. Their strength, stamina, and leadership are paramount for a Denali climb.

TRAINING

Denali applicants must adopt a goal of being in excellent physical and mental condition at the start of the expedition. Please don't show up sick, injured, or unprepared. On any mountaineering expedition, there are factors completely out of anyone's control, namely weather and 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 mental preparedness, physical fitness, and climbing ability. The better condition you are in when you arrive, the more you will enjoy the climb, the safer it will be for you, and the better your chance of summiting. The more climbing experience that you have, the better prepared you will be to climb Denali. The amount of time needed for training depends on a person's level of fitness at the start. Climbers make it a priority to be in good shape. Those who can, get out and climb on vacation time and weekends. Others lift weights, run, bike, swim, master the stair master, or practice martial arts. Athletes may need only to adjust their training habits to include Denalispecific routines; others may have to spend a year or more of advance serious training.

It's important to develop physical and mental stamina over simple brute strength. Upper body and core strength are necessary for lifting your pack, shoveling snow, and building camp; aerobic stamina is key for long, hard days breaking trail and moving camp. When training, maintain a pulse rate 80% of maximum for a half hour during the workout. Vary your routine to prevent injuries. Think about how much stronger you will be in a blizzard carrying your 65-pound pack while hauling a 40-pound sled! Exposing yourself beforehand to similar activities will condition your body and mind. Make sure to train on irregular terrain in poor conditions. Scramble up peaks, climb snow and ice, embark on a rigorous multiday winter backpacking trip, ski uphill as well as downhill, go snowshoeing.

Pushing yourself in uncomfortable environments outdoors while staying focused and alert is great mental training. You cannot successfully prepare for an expedition by training solely indoors. The more familiar the environmental stress of

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Denali is for you, the better you will be able to pace yourself on the expedition and be a team player. *Note: Please carefully read* Training and Fitness guidelines we have written for this expedition.

EQUIPMENT

Please carefully read the Denali Traverse Personal Equipment checklist for this expedition. Denali is not the mountain to "just get by" using mediocre equipment. Your gear will be put to the ultimate test. A carefully planned layering system is comfortable, efficient, lightweight, and holds up. "Quality" does not necessarily mean expensive, and a trip to the Army Surplus store or second-hand backcountry outfitter often turns up many of the basics. The equipment list gives recommendations for particular items. You can get your equipment questions answered by a knowledgeable staff member at AMS or senior sales staff at a local climbing store; they are often most informed about the pros and cons of a particular brand or style. The equipment section of the book Denali's West Buttress: A Climber's Guide by Colby Coombs also provides tips and suggestions. Your guides will ensure you are properly outfitted, checking 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 equipment at the AMS Mountain Shop. Note: If you arrive in Talkeetna early, please wait to check gear with us on the first day of the expedition, not earlier, as we are busy preparing for the expedition a full three days before.

FOOD

AMS provides hearty, nutritious, and balanced meals on its expeditions. An Excel spreadsheet rations program as well as faithful recipes together balance calories, carbohydrates, fats, proteins, and weight to create tasty and creative meals that build strength and maintain health. Demands on your body will be high, and despite a 4,000- to 5,000-calorie per day diet some people still lose weight over the course of the expedition. We avoid freeze-dried, meals-in-a-bag as their portions are typically inadequate and lack palatability. Our rations come from specialty companies, organic wholesalers from Washington, and supermarkets in Anchorage. All our meals can easily accommodate vegetarians and other dietary needs; please contact us if you need more specifics. AMS provides all the food for this expedition; but to ensure satisfaction we encourage you to bring 5 pounds (2.25 kilos) of your favorite snacks and cold drink additives to supplement what we provide for you. *Note: Please carefully read the* Expedition Food *document, which provides more detailed information. Make sure to contact us if you have any dietary restrictions or allergies.*

TALKEETNA FACILITIES

AMS is the oldest and only outdoor school and guiding company based in Talkeetna and we live here, year-round. Our headquarters—consisting of our office, equipment rooms, food rooms, staging areas, climbing wall, and staff housing are located at the end of a narrow dirt dead-end street, adjacent to the local historic airstrip. We have an excellent location and facilities to outfit expeditions and serve our expedition members. A large staging area allows us to check gear and practice fixed line ascension. Our secondary Talkeetna facility, near the Talkeetna State Airport on F Street, is home to our retail store, the AMS Mountain Shop, staff housing, and transitional theater/classroom space. In the event of unflyable weather, our facilities are a comfortable place to teach classes, show slide shows and videos, and be productive during the "Talkeetna hang."

TRAVEL & LOGISTICS

After flying into Anchorage, Alaska, catch a van shuttle or train to Talkeetna. For more details, including transportation options, please read the Travel and Logistics document. Plan to arrive in Talkeetna by 11:00 a.m. on the first day of your expedition. This gives you time to get settled and be ready at 1:00 p.m. on the starting day. If you arrive earlier you can relax and walk around town, check out the river, the ranger station, and the climbers exhibit in Talkeetna's museum. Expect to leave Talkeetna the morning following the last day of your expedition.

ARRIVAL

Please arrive at AMS at 1:00 p.m. the first day of your expedition. Your guides will provide an expedition and safety orientation. Next, you will pack your mountain lunches and perform a thorough gear check with time to rent or purchase equipment. At 3:30 p.m. your team will go to the Walter Harper Talkeetna Ranger Station for the required check-in and briefing. You'll be free at 6:00 p.m. to enjoy the evening in Talkeetna.

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On your second expedition day, the team meets at 8:00 a.m. at our Talkeetna headquarters. 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 AMS headquarters we review technical skills for the climb, including roped glacier travel, sled rigging, and fixed line ascension; ensure packs are rigged for glacier travel; and double check that you have all the necessary hardware for your glacier set-up. At midday, a tasty lunch is provided for you and your team at AMS. After lunch you'll dress for the mountains, finish packing, and fly with your team onto the glacier in a ski-equipped fixed-wing Cessna 185 or DeHaviland Beaver or Otter. This 40-minute flight into Denali National Park and Reserve is the fastest way to access the 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 afternoon consists of selecting a campsite, setting up personal and group kitchen tents, receiving guides' advice on how to sleep warm, and settling down to a hot dinner.

RETURN TO TALKEETNA

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 will provide a current list of options for transportation and lodging upon your return; it is often most convenient to arrange this transport upon return to Talkeetna. Many climbers feel that extra time spent in Talkeetna after their expedition helps them transition from the quiet of the mountains back to their busy lives by attending to practical things, like sorting gear, dealing with travel details, and taking a shower. A night of sleep before traveling is recommended. Some climbers plan extra time at the end of their expeditions for sightseeing while they are in Alaska. In addition to attracting climbers from all over the world, Talkeetna boasts world-class salmon fishing and other activities. Note: The Travel and Logistics sheet offers helpful information.

DENALI TRAVERSE ITINERARY

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 basis depending on conditions. With lucky weather, most expeditions return a day or two early. On the other hand, delays at the start, with unflyable weather and storms at high camp, may result in the expedition being extended by a few days.

Day 1

1:00 p.m., Orientation and gear check at AMS, with time to rent or purchase gear from the AMS Mountain Shop and select and pack lunches. 4:00 p.m. team NPS registration and orientation. You are free at 6:00 p.m. to enjoy the evening in Talkeetna.

Day 2

8:00 a.m. Denali skills review at AMS, then lunch; final packing, weighing, and loading gear for a 2:00 p.m. flight to 7,200-ft base camp. Distance: 60 miles. Elevation gain: 6,850 ft.

Day 3

Base camp to 7,800 ft: glacier travel and crevasse rescue drill, pack and single to 7,800 ft, Camp 1. Distance: 5.5 miles. Elevation gain: 600 ft.

Day 4

Carry to 9,700 ft, Kahiltna Pass. Distance: 5 miles (RT). Elevation gain: 1,900 ft.

Day 5

Move to 11,000 ft, Camp 2. Distance: 4 miles. Elevation gain: 3,200 ft.

Day 6

Back carry to 9,700 ft. Distance: 2 miles (RT). Acclimatization/weather contingency day at 11,000 ft, Camp 2.

Day 7

Carry to 13,500 ft around Windy Corner. Distance: 3.5 miles (RT). Elevation gain: 2,500 ft.

Day 8

Move to 14,200 ft, Camp 3. Distance: 2.75 miles. Elevation gain: 3,200 ft.

Day 9

Back carry 13,500 ft cache. Distance: 2 miles (RT). Elevation gain: 700 ft.

Day 10

Carry to 16,200 ft. Distance: 2 miles (RT). Elevation gain: 2,000 ft.

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Day 11

Acclimatization/weather contingency day at 14,200-ft camp, Camp 3.

Day 12

Move to 17,200 ft, Camp 4. Distance: 1.75 miles. Elevation gain: 3,000 ft.

Day 13

Carry to 18,000 ft. Distance: 2 miles (RT). Elevation gain: 1,000 ft up and over Denali Pass, 18,200 ft.

Day 14

Move to 18,000 ft, Camp 5. Distance 1 mile. Elevation gain: 1,000 ft. Option to summit.

Days 15, 16, 17, 18, 19

Summit day/weather contingency days, 20,310 ft. Distance: 3.5 miles (RT). Elevation gain: 2,120 ft. Descent to Upper Harper, 18,000 ft.

Day 20 Descend to Browne Tower. Distance: 3 miles.

Day 21

Descend Karstens Ridge and Muldrow Glacier. Distance: 6 miles.

Day 22 Hike out via McGonagall Pass. Distance: 12 miles.

Day 23

Hike across the tundra and cross the McKinley River. Distance: 15 miles.

Day 24 Take NPS bus to park entrance, 70 miles. AMS van pickup to return to Talkeetna.