

Denali

Search and Rescue Operations

National Park Service

Denali National Park

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- This summary contains the information to be presented at the 2012 Congres International de Medecine de Montagne
- The actual presentation consists of many photographs

Denali

- 6194m (20320ft)
- Tallest mountain in North America
- Officially Mount McKinley, called Denali by most

- Ranger patrols operate from Mid- April to Mid-July
- “14 patrol” – base at the 14,200’ (4300m) camp
- Base camp patrols stay in the 2200m base camp
- Promote climber safety through education
- Provide care and rescue of ill and injured climbers

- First Climbing Ranger in 1973
- First mountain patrol in 1976
- Medical research camp at 4300m 1982-1989
- NO medical camp / clinic on the mountain now.
- Minimal medical supplies present at 4300m

Annual averages

- 1100-1300 climbers
- 50% summit success
- 45-90 seem NPS medical assistance
- 16-20 require extensive search and rescue
- 5 will die

High Mountain Patrol

- 28-30 days
- Begin at 2200m – possible summit
- One Ranger, 4-5 volunteers
- One medical provider
 - Advanced level provider (nurse, paramedic, doctor)

High Mountain Patrol

- Fly into 2200m
- 2-3 days crevasse rescue refresher
- Advance to 4300m over 4 – 5 days
- Single carry
- Frequently spend 2-3 nights at 3400m (11200')

Route to 4300m

- Camps at 2286m, 2900m, 3400m
- Motorcycle Hill (3840) –
- Squirrel Hill
- Windy Corner

14 Camp

- Called 14 Camp, Basin camp, advanced base camp
- Community and kitchen tent, medical supply tent, personal tents
- Patrols spend 7-10 days here

14 Camp

- Each patrol inspects the rescue gear and medical supplies
- Camp maintenance chores
- Acclimatization hikes / skiing
- Rescue response

Ascent to 5240m

- 2.8 km (1.75 miles)
- 245m (vertical) on fixed lines
- Final ridge is the site of many falls

SAR – 1992-2011

- 24079 total climbers
- 832 required major SAR assistance
 - Male 82.9%
 - Medical 60.3%
 - Trauma 38.2%
 - Helicopter evacuation 11.5%

Major SAR (data to 2008)

- West Buttress 70.5%
- Average Elevation 4844m
- Climber on ascent – 55.2%
- Falls: 77% on descent

Traumatic Causes for Major SAR

- Fall – 76.2%
- Miscellaneous Trauma – 10.9%
- Avalanche – 7.9%
- Rockfall – 3%
- Burn – 2%
- (data to 2008)

Medical Cause for SAR (up to 2008)

- Altitude illness 33.1%
- Environmental Illness or Injury 28.1%
- Other causes – fatigue, abdominal pain, cardiac, gastrointestinal, respiratory, seizure, eye pain, DVT, stroke

Fatalites

- 31 from 1992-2008
 - 74.2% trauma
- 19 since then

Climber Falls from 5060m

- Notification via satellite phone
- Team descends from 5240
- Hasty team finds climber 610 down meters from site of fall
- Team ascends from 4300
- 10+ volunteers in addition to NPS patrols

Climber Falls

- Raise from 4270 – 4935
- Lower to 4755
- Ski to 4300

- Survives with minimal injuries
- 11 hours total from call to arrival at 4300m camp.