At 0615 on May 9, the NPS rescue helicopter landed at 17,200 feet after six attempts earlier in high winds. The helicopter with pilot Doug Drury and South District Ranger J. D. Swed landed several hundred feet east of Angove's location. Swed departed from the helicopter and assisted Angove to the ship.

They immediately departed to the 7,200 foot base camp and transferred Angove to a 210th rescue Pavehawk Helicopter. Angove was flown to the Elmendorf Air Force Base Hospital and diagnosed with HAPE, HACE, and intercostal damage to his muscles and cartilage. Brian McKinley's body was removed by the NPS rescue helicopter on May 18.

#### **Analysis**

Denali Pass has been the location of many mountaineering accidents since the early 1960s. All climbers are cautioned and briefed by mountaineering rangers about the risk factors found when descending Denali Pass. The National Park Service recommends carrying either pickets, ice screws, and/or flukes on Denali Pass in case protection is needed on the descent. Many expeditions carry protection to the 17,200 foot camp, but choose not to bring anchors higher due to extra weight. This is often a fatal mistake. Some expeditions ascend and descend Denali Pass with ski poles without technical difficulties, but have no way of either self-arresting or stopping another person if a fall occurs. Expeditions climbing Mount McKinley for the first time frequently underestimate Denali Pass. The angle of the slope is 40 to 45 degrees at the steepest, but due to the hard ice conditions in early season, it can be extremely difficult to self-arrest. Few expeditions have problems ascending Denali Pass, but many have epics descending it. This is due to extreme Arctic conditions—cold temperatures, blue ice, flat light, and high winds. Many climbers, after attempting to summit, are at their limits both physically and mentally during the descent to the 17,200 foot camp. Reaction time to falls can be severely impaired and delayed from hypoxia due to high altitude. The "Angove-McKinley Expedition" made a decision not to use or take protection descending Denali Pass. It is unclear what caused Brian McKinley to fall or why he failed to self-arrest. In this specific accident, the use of running protection may have prevented the 300 to 400 foot fall. (Source: Daryl Miller, Mountaineering Ranger, Denali National Park)

# WEATHER, PROBABLY HYPOTHERMIA, combined with SNOW BRIDGE COLLAPSE

# Alaska, Mount McKinley, West Buttress

On May 26, the "Free at Last" expedition discovered three deceased climbers—Thomas Downey (52), Scott Hall (34), and Jimmy Hinkhouse (52)—at Windy Corner (13,300 feet). On May 23, the OSAT expedition, along with 12 other climbers, decided to abandon their climb and descend. At Windy Corner, the combined groups encountered unexpected gale force winds. All the groups, except the OSAT expedition, fully negotiated Windy Corner and bivouacked near the pass. The OSAT expedition chose to bivouac in a crevasse at Windy Corner. Since there were no survivors, the precise cause of death is unknown. There is evidence a snow bridge may have collapsed and struck the climbers, but there was no major trauma according to the medical examiner. Hypothermia is another possibility.

## **Analysis**

One thing for sure is that the weather on May 23 was not good at 14,200 feet, and even worse at Windy Corner. Ultimately, the OSAT expedition made the decision to descend, unaware of the intense venturi effect at Windy Corner.

One scenario involves the snow bridge collapsing on the climbers. A small amount of blood was evident in the snow. Other evidence included snow blocks, and obvious instability of the bridge. One climber was wedged in the bridge. The medical examiner found no major trauma to any of the victims to support this theory.

Another theory is the climbers succumbed to hypothermia. The post mortem examination showed their testicles had drawn up into the inguinal cavity, a possible sign of hypothermia according the examiner. The weather is a strong factor in this theory. (Source: Kevin Moore, Mountaineering Ranger, Denali National Park)

#### ATRIAL FIBRILLATION

## Alaska, Mount McKinley, West Buttress

On May 26, at 2100, old Swiss climber Dr. Paul Robadey (55) was flown from the 14,200 foot Ranger camp by the NPS helicopter to the 7,200 foot base camp. Robadey was diagnosed with atrial fibrillation by NPS VIP doctors and a cardiologist from the Alaska Regional Hospital via a phone consultation. Robadey was transferred to a fixed wing aircraft and flown to Talkeetna. (Source: Daryl Miller, Mountaineering Ranger, Denali National Park)

# **DEHYDRATION, HEAT EXHAUSTION**

## Alaska, Mount McKinley, West Buttress

On June 1, around 2330, Robert Paige (28) called 7,200 foot base camp, saying he was sick and could not stop vomiting. Base camp manager Anne Duquette told him that he should take fluids, if he could keep them down, and call back in the morning. The expedition called back in the morning and said that Paige was still vomiting and they would attempt to link up with an Army team that was at the 8,000 foot camp. On June 2 at 1200, NPS members Eric Martin and Amy Eilertsen were notified by Anne Duquette, and began skiing from the 7,200 camp to the 8,000 foot level. Ranger/medic Martin made contact with Paige at 7,800 feet at 1530 and began treatment for dehydration. He called for helicopter evacuation. Paige was evacuated to Anchorage, where he was found to be suffering from dehydration and heat exhaustion. It is believed this climber's condition was caused by lack of adequate fluids and hot weather. (Source: Daryl Miller, Mountaineering Ranger, Denali National Park)

#### **ACUTE ABDOMEN**

# Alaska, Mount McKinley, West Buttress

On June 2, at 2100, Tom Bohanon of the "Three Guys on Denali" expedition came to the ranger camp at 14,200 feet complaining of hematemesis (vomiting blood). Bohanon was examined and diagnosed as having an acute upper gastrointestinal bleed. VIP's Dr. Colin Grissom and Dr. Lada Kokan assessed Bohanon's medical condition and felt it was life threatening. Bohanon was evacuated at 2315 with the NPS helicopter to Talkeetna, and was transferred to a "Flight for Life" fixed wing aircraft and flown to an Anchorage Hospital. (Source: Daryl Miller, Mountaineering Ranger, Denali National Park)

### **Analyses**

These three illnesses reported above, all of which required costly evacuation, demonstrate the spectrum that runs from preventable to unpredictable. The dehydration and