

Mike Farris Everest Injury Report

The latest version of this report is available at the address above. More details about the South Col climbing route can be found at www.alanarnette.com. Please send any comments or corrections to info@TheAltitudeExperience.com.

The *Narrative* presents my story as I perceived events at the moment and as events have been described to me by other individuals. I will comment on a number of issues in the *Analysis*. A *Timeline* can be found at the end which describes additional activity concerning this incident. A list of individuals who helped me can be found after the *Analysis*; many thanks to all.

Original report: September 2009

Addendum: March 2014

Background

I am a (as of 2009) 53-year-old climber from the USA. I began rock climbing in 1975, ice climbing in 1977, alpine climbing in 1977, and my 2009 Everest attempt was my sixth expedition to an 8000m peak. In 2008 my book *The Altitude Experience: Successful Trekking and Climbing Above 8,000 Feet* was published.

My goal was to climb the 1953 South Col route (Nepal side) without guides, without teammates, and without Sherpa support. I would use bottled oxygen on summit day only. I used both Base Camp and Advance Base Camp facilities provided by Altitude Junkies. I used the fixed ropes on the mountain (and paid my share of the costs).

Narrative

On May 19, 2009 I arrived at upper Camp 3 (~7200m) and chopped a tent site. On May 20 I packed up my entire camp and left about 8:30 AM. I had to wait well over one hour to ascend the steep pitch on the Yellow Band due to heavy traffic coming down the fixed ropes. I moved very slowly up to and across the Geneva Spur and arrived at Camp 4 (South Col, 7900m) just after dark. This meant that I needed to spend a rest day at Camp 4, which I did on May 21. My original plan was to summit on the 21st.

I used no oxygen below C4. I went on oxygen at a rate of 1L/min at 5PM on May 21 to practice with the equipment before the ascent. I continued this until departure that night. This oxygen bottle was left at C4 for use after the climb as necessary.

I left Camp 4 at 10 PM on May 21. I was carrying two bottles of oxygen and was using oxygen at a flow rate of 2 L per minute using a Topout mask. I initially made good progress and appear to be catching the people in front of me (part of the guided IMG group). But after two hours I began to slow down, and at 1 AM I was overtaken by two climbers from the IMG group. One of them (Justin Merle or Jon Shea; to be determined) looked at my regulator and I had used about a third of a bottle of oxygen, which matched my expectations. After this I felt like I was climbing more and more slowly, and the group above pulled away from me. It took me five more hours to reach the Balcony (~8400m). At this point, my first bottle of oxygen should have been empty (or nearly so). The regulator indicated somewhere between one third and one half of the oxygen still remained (my memory is fuzzy on the exact amount). I switched bottles and proceeded to ascend. This occurred at 6 AM on May 22.

After changing bottles I felt like I was moving faster again. The ridge up to the South Summit is snow, except for a short rocky section. I met the descending IMG group as the last members were descending the ropes that led to the bottom of this rocky stretch. We chatted and they pointed out which rope to use. This must have occurred about 9 AM or slightly after. Since there were no other teams summiting that day, these were the last people I was to see until after midnight.

I arrived at the South Summit at 10:45 AM. As I was climbing the ridge below I had established a turnaround time of 11 AM for the South Summit. While this is still late by modern guiding standards, the continuous fixed ropes and good weather meant that there was little chance of an accident on descent. I

stashed some gear I didn't need in the alcove below the South Summit and proceeded up the Hillary Step. The stretch to the summit above the Hillary Step seemed very long and I arrived at 1:39 PM. It was very windy and I stayed only a short time on the true summit. I moved down 30 m and shot a few seconds of video, then descended slowly but without incident to the South Summit. I gathered my gear and began descending the ridge.

I descended the steeper slopes below the South Summit and crossed over the rocky stretch indicated above. As I descended further I looked upward and was surprised to see the South Summit so far away. I wondered if somehow I had descended past the Balcony. Windblown snow had covered the ropes and filled in the tracks of the previous group. However, it was clear that I could not climb back up even if I had gone off route and I was following ropes that were clearly new, so my only choice was to keep on going down.

At some point in the late afternoon I made radio contact with two friends who had climbed Makalu and descended to their Camp 1. Roland Hunter and Mick Parker talked to me but I have no memory of the conversation. While I spoke more or less normally, Mick remarked to Roland that I wasn't quite right. At approximately 5 or 5:30 PM I felt like I was suffocating, and I assumed that I had run out of oxygen so I took off the mask. I radioed the Altitude Junkies base camp but received no reply.

From 5 PM until sometime around midnight I only have a couple of clear memories. I decided that my pack was too heavy and that I would leave it behind and come back the next day to pick it up. I believe that I did not remove the oxygen cylinder before making this decision, and I left my pack slightly above the Balcony. I also remember being cold and shivering. During this period I continued to descend past the Balcony. I put on my headlamp at some point. That evening it was determined by IMG that I had not arrived back at Camp 4 (see Timeline). I apparently was in radio contact with my BC via relay through IMG in the evening.

At midnight or shortly afterwards I was found by Bernice Notenboom and Walter Laserer. I was clipped into the rope with my descender, but I had taken off my Feathered Friends down jacket, Black Diamond Guide gloves, and my wool hat. I still had a thin Smartwool balaclava on my head and thin poly liner gloves on my hands. They immediately roused me, put my clothes back on, gave me oxygen, and gave me a hot drink. Bernice gave me the chemical heat packs she was using for use in my gloves. They asked some obvious questions: who was I, where was my team, and so on. They tried to reach their base camp by radio but were unsuccessful. The only other frequency they could remember was that of Himalayan Experience. They talked to Russell Brice at 1:21 AM. I then spoke to Russell and told him that I had a tent and spare oxygen at Camp 4. I told him that I could move on my own, and Russell, Bernice, and Walter agreed. The Himalayan Experience team that was climbing up from below would help me as needed. I remember none of these conversations. Walter and Bernice continued on their summit bid and I continued to descend.

I met at least three other parties as I descended from the Balcony to Camp 4. I passed the First Ascent team led by Dave Hahn. He later told Walter and Bernice that I was descending fine under my own power. I passed the Alpine Ascents International team led by Vern Tejas. I recall saying hello but not much else. At 3:14 AM I encountered the Himalayan Experience team. Guide David McKinley gave me some oxygen and I continued on my descent.

I have a very clear memory of falling about 15 m (50 feet) at some point while it was dark. It may have been before I met Walter and Bernice or afterwards. At the time I felt that a rope had broken, though it is equally likely that I failed to clip in properly. I recall sliding down the snow, trying to stop, realizing that I wasn't stopping, and then coming to rest on the snow next to some rocks. I did all of this on my stomach and did not tumble. I had no obvious injuries to indicate that I actually did fall, but the memory is very clear. I had no hallucinations that I can recall.

After passing the last team, I was monitored by Phurba Tashi, Sirdar for Himalayan Experience. Phurba Tashi was directing his team from the South Col (C4); both the route and the light from my headlamp were visible from Camp 4. At about 5 AM I stopped moving so Phurba Tashi came to collect me. At that point I was very close to the tents and was asleep, in the middle of a very vivid dream. He woke me up and walked me to the tents in less than 10 minutes.

It was clear that I had frostbitten my fingers and nose. I had probably frostbitten my feet as well but we didn't remove my boots so that I could descend. The only other issue that I had was a slight cloudiness in my vision which prevented me from resolving things like written text. This visual impairment went away after a couple of hours. Phurba Tashi gave me oxygen, hot fluids, and food.

Phil Crampton, leader of Altitude Junkies, organized aid for my descent. Soon after I arrived in C4, two Sherpas departed Camp 2 on oxygen for Camp 4. Tawa Sherpa (Altitude Junkies) and Da Dendi Sherpa (Japanese team) arrived at Camp 4 around midday. They collected my gear and the three of us descended, with me using oxygen. I was able to walk down on my own, though the Sherpas needed to sometimes clip and unclip carabiners to speed things up. I spent the night of May 23 at Camp 2. The next day we descended to Base Camp in 4 1/2 hours, with the Sherpas carrying my Camp 2 and Camp 4 gear.

I went to the Himalayan Rescue Association medical tent where I was seen by Dr. Eric Johnson. He immediately authorized a helicopter evacuation and then examined me and gave me medication. Unfortunately, weather in the lower valleys prevented the helicopter from flying that day. I was carried back to our base camp where I spent the night on oxygen.

On May 25 it was snowing and the weather forecast was poor. We decided that I should ride out on a horse and have a helicopter pick me up at a lower elevation. The horse was supposed to arrive at 10 AM but I didn't leave until 2:30 PM. It had now snowed several inches and was still snowing heavily. My horse was actually a small pony which I rode for three hours through the boulder fields. In Loboche I switched to a larger horse and descended three more hours before reaching Pheriche. The hair-raising descent below the Everest memorials was done in the dark, in the snow, with the terrified horse and rider being dragged down the hill by Chewang Palden Sherpa. We arrived in Pheriche at 9 PM. That night I experienced severe 'boiling oil' pain that was so disabling that I could not pick my blankets up off the floor. I laid there whimpering and crying for hours until the pain finally subsided near dawn.

The weather on May 26 would not allow a helicopter flight. I slept much of the day and awoke at the arrival of Phil Crampton and his Sherpas. They reported massive amounts of snow in Base Camp, broken tents, and general destruction. I was lucky that I left the day before even though the horse ride was miserable and dangerous. That night I experienced pain that was slightly less severe as that experienced the night before. We had no pain medication and the Pheriche HRA clinic was closed for the season.

We awoke to excellent weather on May 27 and I expected an early helicopter. We ran to the landing area when we heard a helicopter at 8:30 AM, but it turned out that the helicopter was for uninjured members of another expedition. That helicopter returned two more times to pick up more members, and another helicopter landed to pick up other trekkers. Finally at 2:30 PM a helicopter arrived to pick me up. Chewang Palden Sherpa and I were flown to Lukla where Chewang disembarked and four other members from our base camp got on. We then flew to an Army base where we waited for 90 minutes while our helicopter delivered parts to fix another helicopter involved in a rescue on Kangchenjunga. We finally arrived in Kathmandu around 6 PM. Jamie McGuinness (Project Himalaya) took me to the CIWEC clinic where my hands and feet were cleaned and dressed. Since I was otherwise fine, I went to my hotel. My travel insurance company arranged my flight to the USA and with the aid of Scott Woolums (Adventures International) I departed a couple of days later in the midst of a general strike. We had to use the CIWEC ambulance to get to the airport.

On August 11 I had surgery to remove portions of seven fingers, both big toes, and portions of six smaller toes.

Analysis

Medical issues. Hypoxia and hypothermia directly contributed to my frostbite, though neither is necessary for frostbite to occur. Dehydration also played a part, as I was carrying only a 16 ounce Thermos of hot lemon drink. My other water container, an MSR bladder which I had used for years, decided to start leaking at Camp 2 so I didn't take it to the summit. I had no symptoms of acute mountain sickness (AMS), high

altitude cerebral edema (HACE), or high altitude pulmonary edema (HAPE). My cloudy vision was transitory and of unknown origin. While I carried medications for altitude illness, I used none on my summit day.

Removal of one's clothes when hypothermic is known as *paradoxical undressing*. According to Auerbach's *Wilderness Medicine* (5th edition) this occurs at a core body temperature of about 83°F/28°C. Between 30 and 50% of individuals with severe hypothermia engage in paradoxical undressing. It's very unlikely that my core temperature was that low given the relative speed at which I revived when found by Walter and Bernice.

I theorize that after removing my oxygen system, increasing hypoxia led to a slower descent and decreased heat output by my body. This led to hypothermia which further slowed me down. At some point I just stopped and became unable to move further. It is more difficult to understand why a few minutes of oxygen and a few sips of hot lemon drink (supplied by Walter and Bernice) were enough to 'restart my engine' and allow me to continue on down. I did get a few minutes of oxygen from the Himalayan Experience team about 2-3 hours later. However, the effects of this supplemental oxygen should be rather transitory and should not provide long-term benefits.

My oxygen system. I was using the Poisk system with a Topout mask. I was carrying two bottles of oxygen; one was a new bottle and one was a refill. At a flow rate of 2 L per minute each bottle should last approximately 8 hours under normal conditions and possibly nine hours with the Topout mask. However after my first eight hours of climbing (when I reached the Balcony) my first bottle was nearly half-full. The second bottle may have lasted 11 hours or longer. There was clearly some malfunction with the oxygen system. The only two components that could cause this problem were the regulator and mask.

The mask was serviced this spring and I received instructions on its use from Ted Atkins, developer of the mask. There was no visible ice on the outside of the mask in my videos and the oxygen reservoir seem to be inflating and deflating properly. I obtained the regulator at Camp 4 from an Altitude Junkies tent as per a prior arrangement. However, there were two or three faulty regulators at Camp 4 and it is quite possible that I mistakenly received one of those. I was hoping to bring my regulator back to the USA for testing, but I lost track of it on the descent to Kathmandu.

My subjective impression at the time was that I was receiving a reasonable flow when a new bottle was installed and that the amount of oxygen delivered seem to decrease over time. I did experiment with changing the flow rate with no real results. I was also afraid to increase the flow rate substantially as I was counting on the bottles lasting 8+ hours. I noticed no difference between the new bottle and the bottle which had been refilled.

As I ascended from the Balcony towards the South Summit I considered descending due to the uncertain performance of my oxygen supply. I decided to turn around at 11 AM unless I reached the South Summit by then. Though I was moving slowly I felt mentally alert and aware of my situation.

As I descended below the South Summit it is quite possible that my bottle was actually not empty when I removed my mask. The suffocating feeling that I felt was likely due to icing of the fresh air intake valve on the mask. It seems clear that the oxygen I was receiving from the system was sufficient to allow me to maintain my memory and decision-making ability, even though I was moving very slowly. It was only after I removed my oxygen mask that I lost my memory.

Route finding issues. On the surface it may seem astounding that I was concerned about the descent route. After all there was a continuous line of fixed ropes from the summit, so how could I lose the route? First, strong winds had covered all of the ropes with snow and filled in all of the footprints. Second, the original Hillary-Tenzing route actually ascends a gully well to the right (when viewed from the South Col) of the route used today. Third, there was a group attempting to traverse from Lhotse to Everest and it was possible that they had fixed the 1953 route. Finally, the ropes I had been following were red and now I was using an orange rope. So my initial thought was that a different route may have been fixed by another team. In retrospect my original observation that I appeared to be too far below the South Summit was skewed by

hypoxia. Upon my return I saw the dust jacket photo for the US edition of Boukreev's book *The Climb*. That photo was taken exactly where I became concerned about the route. Unfortunately on my ascent I had not followed my standard practice of looking behind me to memorize the route for the descent. Otherwise I would have recognized the Balcony even though the ropes and oxygen bottles there were covered by snow. And my video showed that I had used the orange rope on the ascent. In any event, this issue only required a few minutes of my time. I mention it primarily because it was noted on my blog.

Should I have attempted the mountain in this style? I wasn't concerned about being alone, having previously traveled alone high on Broad Peak, Gasherbrum II, and Kangchenjunga. While it was very cloudy down low the weather on the summit ridge was good; the wind only started to blow in earnest after I passed the South Summit. Even that was not a serious concern, given the high quality of the fixed ropes. Plus, few climbers these days find themselves alone on summit day so I assumed that I would be 'alone in a crowd.'

Why didn't I leave earlier for the summit? Below 7600 m my ascent rates were quite reasonable (3:30 BC to C1 w/17kg, same from C2 to lower C3). With supplemental oxygen I assumed that I could ascend at the rate of 100 m/h and thus take nine hours to reach the summit. A 10 PM start would place me on the summit at 7 AM. Unfortunately, after the first two hours, my ascent rate was much slower.

When I examine my previous experiences above 7500m (Kangchenjunga North Face, Broad Peak, Gasherbrum II) it seems clear that my personal upper limit for normal performance is about 7700m. Above that I move much more slowly than expected based on my performance at ~7000m. I had no experience above 8100m prior to this Everest expedition. This innate physiological performance limitation, coupled with a faulty oxygen system, most likely explains my inability to move more quickly on both ascent and descent.

Mental state. I have never had an overwhelming desire to climb Everest. I note this because extreme passion has led to many accidents in the mountains (see my book). I was more interested in summiting to improve my record on 8000m peaks; I had one summit in five prior expeditions. In over 30 years of climbing I had never needed to be rescued, and in 2004, 2005, 2006, and 2008 I helped rescue others on 8000m peaks. My #1 rule is to come back safely and my livelihood does not depend on my summit percentage as I have no sponsors.

The apparent ease with which I went from an alert state of consciousness to a state of unconsciousness is truly frightening. However, there was an intermediate stage—a stage in which I lost the urgency necessary to push on quickly on the descent. A feeling of complacency. This quote from Peter Habeler's account of the first ascent without oxygen sums it up (though you can substitute 'complacency' for 'euphoria' in my case):

The feeling of this being a deadly and threatening adventure had disappeared. I was now feeling the complete opposite. I had been seized by a real sense of euphoria. I felt somehow light and relaxed, and believed that nothing could happen to me. Undoubtedly many of the men who have disappeared forever in the summit region of Everest had also fallen victim to this treacherous euphoria... At this altitude the boundaries between life and death are fluid. I wandered along this narrow ridge, and perhaps for a few seconds I had indeed gone beyond the frontier that divides life from death. By a piece of good fortune I was allowed to return. (Lonely Victory, pp.183-4)

Summary

A faulty regulator is likely the proximate cause of my slow times on summit day. Given the fact that I was traveling alone, it was bad judgment on my part to continue upwards to the summit. The situation demanded a more conservative decision-making approach than I used. Other parties on the mountain provided appropriate aid, and I'm thankful that no other climber or Sherpa needed to abandon his/her summit attempt to help me. There would have been no change in the final outcome had they done so.

Thanks

I sincerely thank all of those people who had a direct hand in my descent and evacuation. If I've omitted anyone, please let me know.

Bernice Notenboom and **Walter Laserer** stopped to aid a fellow climber in distress and are responsible for my being here today. Their care minimized my frostbite injuries and I will be forever in their debt. Thanks.

Russell Brice, leader of Himalayan Experience and **Phurba Tashi**, Sirdar for Himalayan Experience both have a long history of helping any climber in need. Though I didn't realize it at the time, they 'had my back' during my slow descent after midnight. Phurba Tashi provided excellent care at Camp 4.

David McKinley, guide for Himalayan Experience gave me oxygen during my descent.

Tawa Sherpa (Altitude Junkies) and **Da Dendi Sherpa** (Japanese team) carried my gear and escorted me to Base Camp.

Dr. Eric Johnson (Himalayan Rescue Association physician) provided excellent care for my frostbite at Base Camp.

Dr. Torrey Goodman (HRA physician) cured my Khumbu cough prior to my summit attempt.

Chewang Palden Sherpa (Altitude Junkies) escorted me down from Base Camp and cared for me in Pheriche. He dragged my horse downhill in the dark and snow for hours as I whimpered and moaned.

Justin Merle and/or **Jon Shea** (IMG guide and independent guide) offered advice during my ascent.

Eric Simonson, leader of IMG helped with radio communications via the IMG team at the South Col.

American Alpine Institute offered Sherpa help if needed.

Phil Crampton, leader of Altitude Junkies orchestrated support for my descent to Base Camp and on to Pheriche.

Jamie McGuinness (Project Himalaya) for weather forecasts and managing my evacuation to Kathmandu.

Both Jamie and Phil deserve kudos for running a high-quality expedition at a reasonable price. Neither they nor their companies bear any responsibility for my injuries.

Pam Westgate and **Scott Wollums** (Adventures International) both helped care for me while I was in Kathmandu. Scott helped me get through the Kathmandu Airport as well.

Kedar Khadka from Explore Himalaya took great care of me while I was in Kathmandu, helping with everything, every day.

The **staff** and **climbers** in the **Altitude Junkies Base Camp** made this a most pleasurable expedition.

Roland Hunter (The Mountain Company) and **Mick Parker** for general support and friendship. Mick died in Kathmandu just days after my departure.

Addendum (March 2014)

Since my initial surgeries in August 2009 I have had an additional surgery on both the fingers and toes to remove bone spurs and to contour the tips of the fingers. The balls of my feet are intact and I have been surprised at the lack of problems with balance and movement. My finger amputations only affected the last joint on most fingers so my dexterity is not too bad.

Exactly one year after my Everest summit I completed a two day rim-to-rim-to-rim run across the Grand Canyon. I've run two 100 mile trail races and a couple of shorter ultramarathons. I rock climb both indoors and outside, and can top rope or second up to easy 5.10, though it really depends on the climb; certain holds can make an easy climb very difficult. I went to the Gunks in 2013 and led some very easy rock climbs, and have led some local rock routes too. I finally got some ice boots modified and have been enjoying a little ice this winter.

I make note of these things not to brag but to demonstrate that my injuries haven't prevented me from doing much. Getting older is a reality, and my hearing loss is a much greater day-to-day challenge than the frostbite injuries.

Since returning from Nepal in 2009 I have been supported by family and friends; you know who you are and I thank you very much.