

NARRATIVE OF EVENTS 05-06-2016 SKAGWAY, ALASKA
BY: KELLY HEALY, BASE MANAGER, TEMSCO HELICOPTERS, INC

Pilot Chris Maggio was scheduled in N94TH to complete the flying of dogs and crew to Alaska Icefield Expeditions' dog camp on the Denver Glacier near Skagway. The previous day, Chris had flown about 12 trips to the Denver with dogs and crew also in N94TH. 7 trips remained for May 6.

Chris was ready to fly at 8am, but the weather prevented the flight from commencing. Dog camp reported to us they were in the clouds, and there were low ceilings around Skagway.

We decided to postpone until the afternoon. The forecast was calling for improving ceilings with strong winds around the Taiya Inlet. The winds were forecasted to subside in the late afternoon.

Our employee orientation was scheduled for 9am. All employees including Chris attended. Chris was scheduled to conduct a new employee helicopter orientation briefing at 1pm.

Chris performed the helicopter briefing with the new employees and was done around 15:30. In the time he was in the briefing, the wind had risen considerably. Myself and another pilot had tied N94TH down on the ramp and told dog camp personnel to stand down until the wind subsided.

When Chris returned from the briefing, I informed him of our decision to wait for the wind to subside. He said that he was around and ready, and that he was available "all evening."

At approximately 16:00, dog camp personnel asked me if there was still a chance of flying dogs that day. The wind had been decreasing and I said, yes, and to check back with me in an hour.

At about 16:45, the same personnel asked me again about flying. I was in a meeting, and told him that the winds seemed acceptable but that he should talk to Chris. Chris came into my office, and after a short discussion about the weather, he decided he was comfortable with the current conditions. I told him to coordinate with dog camp personnel and to launch if he was comfortable.

At 17:10 Chris departed on his first of seven trips scheduled. He returned from that trip and launched on his second trip at 17:28.

During his second trip, I heard him talking to the dog camp manager (Peter Bartlett) about the winds being changeable and turbulent. I had a flight scheduled for myself as well, a sling load of cargo to dog camp. After hearing Chris talk about the turbulence, I asked him on the radio about it. He reported to me that the winds around the toe of the Denver Glacier were strong and that he was reducing his airspeed as he descended down the mountain to not get bumped around too much.

Based on Chris' report, I elected not to do a sling load, but to take only essential items that would fit internally in the helicopter.

Chris took off for his third trip at 17:47. On his third flight, Chris reported to me that he was experiencing a small amount of icing around 3000' MSL. I asked what kind of precipitation he was experiencing and he said wet snow. He said it stuck to the windscreen momentarily, and then it would

NARRATIVE OF EVENTS 05-06-2016 SKAGWAY, ALASKA
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be gone. I told him to do what he thought was best. He said he would evaluate the conditions as he flew on subsequent trips.

He departed again at 18:03 for his fourth trip. After he departed, I sent our dispatcher home for the evening. I took over dispatch duties. In the building were myself, our director of safety Joel Kain, and our lead mechanic Rob Vuille. I was confident one of those two could dispatch for me if I did my cargo trip, and our lead pilot Jesse Dominick was standing by on the radio if anything came up while I was flying.

The discussions Chris had on his fourth and fifth trips were indicating improving weather conditions.

At 18:32 Chris called inbound from the Denver. After he indicated an improvement in the weather I was confident I would be able to do my cargo run. While Chris was inbound, dog camp personnel were readying the cargo for me to take up.

At 18:40, Chris departed on his sixth trip. Dog camp personnel began to put cargo in my helicopter on pad 3.

On his way to the glacier, I heard Chris tell camp manager Peter that he would "have to say no to this one." Peter's reply came in broken, but it sounded like he said there was a snow squall over camp at that time. Chris replied that he would set down lower on the glacier to wait for the squall to pass. He said "don't count me out just yet."

At this point, the ground crew personnel were at a point in the cargo loading at base that I needed to assist them. I gave my duties as dispatcher to Rob Vuille and went outside to help.

The cargo loading took a few minutes, but I noticed I hadn't heard any radio chatter on the hand-held radio I was carrying. I returned to the building at about 19:00. I was curious if Chris had made it to camp or not and asked Rob what he has heard out of Chris. "Not a peep" Rob replied.

I looked at our flight tracking computer. It appeared at first glance that the helicopter was idling at dog camp. However, I looked a little closer and realized the last position on the screen was not at dog camp, but actually to the north of camp at an altitude of roughly 6000' MSL and a ground speed of 15 knots. Dog camp is at about 4200' MSL.

I immediately tried to raise N94TH on the radio. With no reply, I contacted Peter at dog camp and asked if they would try to call him. They attempted to reach him with no success. I asked Peter if N94TH had made it to camp and unloaded, and where he last saw the helicopter. Peter said that the helicopter had landed, unloaded, and taken off again. Peter said the last he saw, the helicopter was "climbing over the West wall." Seeing the flight tracker location and hearing that report, it was clear that Chris had taken a different route than our usual departure from camp.

I continued to call N94TH with no luck. I looked at the clock at 19:03 and told myself that if by 19:05 we did not reach him, I would have dog camp unload the cargo in my helicopter.

NARRATIVE OF EVENTS 05-06-2016 SKAGWAY, ALASKA
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19:05 came and I told Rob to have dog camp unload the cargo. At 19:10 all the cargo was offloaded and I made the decision to launch as a search aircraft. Our lead pilot Jesse Dominick heard all the radio chatter and called me on the phone to ask if he should come down to base. I told him yes.

Joel Kain asked me if I wanted an observer to go onboard. I said yes, and asked Rob Vuille if he would come with me. He said yes. Joel remained in dispatch. Joel also asked if he should activate the TEMSCO emergency response plan. I said yes.

I fueled the helicopter as Jesse Dominick arrived. He and I briefly discussed who would fly the search aircraft and I told him to stay in dispatch and I would go flying. He was just returning from home, and I was ready to go. I also had a better understanding of what had been going on and where Chris probably was.

Jesse was in operational control and Joel Kain was assisting with dispatch and operation of the Emergency Response Plan. I departed in N970TH with Rob Vuille on board at 19:14.

I departed Skagway and flew directly up the Paradise Valley (our normal route to the Denver Glacier). While I was en-route, Jesse gave me the last known GPS coordinates of N94TH over the radio. I programmed them in to the aircraft GPS.

We arrived at the Denver glacier and began attempting to navigate toward the coordinates. I talked to Peter about the weather, and he said it was better than when Chris was up there.

The winds were high, but the ceiling and visibility over the Denver were not bad. I could have flown directly to dog camp. The ceiling however, deteriorated to the north of dog camp. The tops of the mountains around camp were partially visible but mostly obscured by clouds, falling snow, and blowing snow.

I climbed to roughly 4500' MSL and determined I would not be able to cross the ridgelines to navigate toward N94TH's last location. I went back down the Paradise valley and over Skagway in an attempt to reach N94TH from the north and/or west.

I flew north over Skagway and up the Reid Creek valley. I was to the west of the mountains now and would still have to cross the ridgeline to reach the waypoint. I looked up the Reid Creek valley and determined quickly that I would not be able to get over the ridgeline.

The ceiling was lower on the North and West side of the mountains and the winds were strong. I flew a quick pass as high as I could safely get, and could only reach ~4200' MSL. The light was extremely flat with falling snow and the ridgeline was in the clouds.

I then flew around the mountain to the north of Reid Creek and into the East Fork valley. The East Fork valley put me on the correct side of the mountains, but I was still unable to climb as high as I needed to.

The conditions in the East Fork were slightly worse than in Reid Creek. The highest I could safely get was ~4000' MSL. The winds were stronger and more turbulent. Being on the leeward side of the highest

NARRATIVE OF EVENTS 05-06-2016 SKAGWAY, ALASKA
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terrain, there were lots of downdrafts and turbulence. I could see the bottom of the North Denver Icefall and I could see as high as a rock bench that I knew was at the bottom of the valley where the GPS point was in. I knew where I needed to go, but there was no way of getting higher than that rock bench.

I circled in the East Fork valley and continued to call out on the radio for Chris in N94TH. The wind remained strong and the ceiling remained the same.

Rob and I noticed a slight improvement toward Reid Creek, and Jesse told me from base he was seeing the peaks there a little better. At 19:43 I reported we were moving from the East Fork to Reid Creek.

The ceiling did look slightly better in Reid Creek. Still unable to get much higher than 4000' MSL, I kept circling. I was feeling the winds and testing them out. On each pass I was able to safely get a little higher up the valley. The wind was turbulent, but the downdrafts were not as prevalent as in the East Fork.

As I circled, the ceiling and visibility continued to improve. At 19:48 I reported I was able to climb up to 5000' MSL. As the visibility improved, more definition was visible in the terrain. I was able to make out the ridgeline between us and the spot on the GPS. Rob and I searched the ridgeline for the helicopter.

The winds were still high. There were large plumes of snow blowing off the ridges and cliff faces.

We searched the ridgeline with no luck. The ceiling kept improving, and I was eventually able to get some visibility over the ridge. I was then looking at the valley that lies directly above the rock ledge I was unable to climb over earlier from the East Fork. I slowly worked my way toward the ridge, and eventually was able to cross the ridgeline into that next valley.

We knew we were close. We were near the GPS spot and had much better visibility. I circled and we scanned the terrain for N94TH.

Eventually we located the wreckage. I reported to our base at 20:09 that we had located the wreckage on the ground at an elevation of approximately 4000' MSL. I reported the aircraft as destroyed and no occupants visible.

The first thing I noticed was the yellow float bag that had inflated. I saw that it was lying next to the helicopter meaning that skid was broken off. The tail boom was separated from the fuselage, and was lying at an angle directly next to it. I noticed at least two of the main rotors stacked on each other and I could not tell the orientation of the fuselage. I couldn't figure out if it was on its side or upside down. I could not see any occupants or any footprints.

I noticed a large impact crater in the snow directly adjacent the wreckage. It looked to me that the helicopter suffered a fairly vertical impact with not much wreckage spread out. It looked as if it hit hard and rolled over once or just on to one side.

Having found the wreckage, I worked on rendering aid. I made passes over the wreckage looking for landing sites. I noticed some potential sites within a short walk from the wreckage.

NARRATIVE OF EVENTS 05-06-2016 SKAGWAY, ALASKA
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I could see snow blowing across the ground and had little visibility of the terrain around the site. The ceilings had improved, but the light was still flat. The wind was my main difficulty. The terrain rises up the valley past the wreckage. It rises up a glacier to a pass. The winds were coming from the direction of that pass (south). They were strong and down flowing. As I did recons I was pushed around substantially above the wreckage. I would then turn downwind to avoid the rising terrain. As I was downwind, I was pushed downwards towards the terrain. I felt I could not safely fly under 300' AGL with the winds the way they were.

I made the determination I could not land to render aid in the given conditions. I reported this to our base at 20:14.

I remained on scene and made repeated passes to see if the conditions were improving. They were not. I was in constant radio communication with our base. We discussed options for rescue. We decided to call search and rescue, and base also informed me the coast guard was aware of the situation. I was also in radio contact with Peter at dog camp. They were sending a group out on snowmobiles to attempt to reach the site.

At 20:32, I returned to TEMSCO to refuel. After refueling, Rob and I departed back to the wreckage at 20:38.

Once back on scene, I continued to perform recons to attempt a landing. The winds were still too strong.

Shortly after arriving back on scene, I saw the headlights of the dog camp snowmobiles. They had reached the pass above the wreckage. They were able to see me flying over the wreckage, and I gave them guidance over the radio on how to travel down the slope in front of them.

We were very sure to tell the dog camp people not to do anything unsafe as we did not know the snow conditions on the slope. They quickly determined they would not be able to get through the pass due to large cornices, reduced visibility, and high winds.

I continued to circle over the crash with no improvement in the conditions.

At 20:55 I called inbound to base. They had arranged for Search and Rescue to be transported via helicopter to dog camp to attempt a rescue. I landed at TEMSCO and idled as the SAR team prepared. They were loaded in the helicopter and we departed for dog camp at 21:20. I dropped them off at dog camp without incident and returned to TEMSCO and shut the aircraft down for the night.

Once I was back at base, I was informed the Coast Guard was on their way from Sitka in a Jayhawk helicopter.

At about 22:00, the USCG helicopter arrived in the area. We had gotten our hangar ramp ready for them in case they needed fuel. We also provided their pilots with the best directions we could over the radio.

NARRATIVE OF EVENTS 05-06-2016 SKAGWAY, ALASKA
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The helicopter made two attempts at a rescue. We were in communication with the pilots and with USCG sector Juneau via telephone.

The helicopter told us they would have to dump some fuel because of the conditions. After their second attempt at a rescue, the coast guard informed us to expect an update via telephone.

A few minutes later we received that update via Alaska State Trooper Anderson. He called and told us that the USCG had gotten a rescue swimmer down to the wreckage. The swimmer determined there were no survivors. The crew did not feel comfortable doing a basket hoist operation in those conditions, so they got their swimmer back on board and departed for Juneau.

We began recovery operations the following day 5-7-2016. TEMSCO sent up a helicopter from Juneau with Eric Main, the Juneau base manager and an additional pilot, Tighe Daugherty. I travelled with them to the scene that morning to show Eric where it was and to establish an LZ for their recovery operation with SAR. We landed a short walk from the wreckage. They later returned with SAR and completed the recovery.

Kelly Healy
Skagway Base Manager
TEMSCO Helicopters