Promech Air Ketchikan, AK June 25, 2015 ANC15MA041

NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ATTACHMENT 1

<u>Interviews</u>

337 Pages

Interview Records

- 1. June 27, 2015, 1600, Shannon Franklin, Pilot, Promech Air
- 2. June 27, 2015, 1915, Tony Turiano, Pilot, Promech Air
- 3. June 28, 2015, 1130, Leah Shockley, Flight Follower, Promech Air
- 4. June 28, 2015, 1300, Marcus Sessoms, President, Promech Air
- 5. June 29, 2015, 0800, Chuck Perkins, Pilot, Promech Air
- 6. June 29, 2015, 1345, Clark Hassell, Director of Operations, Promech Air
- 7. June 30, 2015, 0800, Next of Kin for Brian Krill, Pilot, Promech Air
- 8. July 1, 2015, 0800, Carl Zink, Assistant Chief Pilot, Promech Air
- 9. July 9, 2015, 1530, Mike Falconeri, Pilot, Seawind Aviation
- 10. October 2, 2015, 0800, Kevin Roof, Pilot and Director of Operations, Taquan Air
- 11. October 2, 2015, 1500, Michelle Masden, Pilot and Owner, Island Wings
- 12. October 27, 2015, 1045, Dan McCrea, Former Pilot, Promech Air
- 13. October 5, 2015, 1330, Brad Sapp, Front Line Manager, Juneau FSDO, FAA
- 14. October 5, 2015, 1500, Gregory Horrell, Principal Maintenance Inspector, Juneau FSDO, FAA
- 15. October 5, 2015, 1530, Richard Bochynski, Principal Avionics Inspector, Juneau FSDO, FAA
- 16. October 5, 2015, 0830, Jon Percy, Principal Operations Inspector, Juneau FSDO, FAA
- 17. December 9, 2015, 1525, Dale Carlson, Passenger, Franklin's Flight, Promech Air
- 18. December 10, 2015 1000, Jacalyn Slingsby, Passenger, Krill's first flight of the day, Promech Air
- 19. December 15, 2015, 1100, Jeff Slingsby, Passenger, Krill's first flight of the day, Promech Air
- 20. December 10, 2015, 1100, Joan Lafon, Passenger, Krill's first flight of the day, Promech Air
- 21. December 10, 2015, 1500, Calley Lafon, Passenger, Krill's first flight of the day, Promech Air
- 22. March 2, 2016, 1000, Rik Luytjes, Former Pilot, Promech Air

Interview: Shannon Franklin, Pilot, Promech Air

Representative: Dan Quinn (Attorney)

Location: Promech Offices, Ketchikan, Alaska

Time/Date: 1600 adt / June 27, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen

(FAA), Duane Edwards (FAA)

During the interview, Mr. Franklin stated the following information.

He stated that he was 34 years old.

He held and ATP certificate with multi-engine land and sea ratings, and single engine land and sea ratings, and he held a commercial rotorcraft certificate, and CFII and MEII certificates. He also held a Lear 60 and Raytheon RA-390 type rating. He had 6,000 hours total time and he had acquired 2,000 of his hours flying in Alaska. He had grown up in St. Louis and obtained his ratings at Part 91flight schools. He had obtained his single engine sea rating in Florida. He became a CFI and moved to Southeast Alaska, working a summer for Pac Air on the Ketchikan waterfront. After that, he moved to southern California to work for Ameriflight, and then for Spirit Aviation in Van Nuys, California where he flew charters in the King Air 350. After that he moved to Juneau, Alaska to fly Beavers on floats for Pac Air, and then for Alaska Seaplanes. After that, he flew charters in Beavers on floats for Larson Bay lodge near Kodiak. Subsequently, he returned to St. Louis to work for an aircraft management company flying the Kingair 350. After that he flew the Lear 60 and Raytheon Premiere for Spirit Jets. In early 2015 he moved to Ketchikan and started working for Promech. His start date was May 1, 2015. He had previously flown in Ketchikan for Pac Air. The work in Kodiak had been similar as well, although it was not Part 135. He currently worked for Promech as a pilot. His duties and responsibilities were standard for a Part 135 job.

Mr. Franklin was asked to describe events he had witnessed on the morning of the accident. He said it was a typical morning. His show time was 0830 for an 0930 flight. He came in, made sure the schedule had not been changed, and it was fine. He went down and preflighted his airplane and then came back and checked the weather. One group of Promech airplanes had already gone out and was returning from a tour in Misty Fjords. One pilot had gone out the short way and another had taken the longer blue route. Mr. Franklin looked at the weather cams, but they did not indicate what was in between the camera locations. He departed on his first tour with the second round of Promech aircraft.

Outbound, the pilots decided as a group that they would take the blue route out. It was a typical Southeast Alaska day. Ceilings were variable, and they were anywhere from 700 feet to above 1,000 feet. There was a little rain and mist but nothing out of the ordinary. As soon as they got to Short Pass they could see a lot – snowcapped peaks and Misties – so they started climbing up. They went into Nooya Lake. Knowing the weather, the preferred route on the way back was the blue route. The weather remained the same. The trip back was pretty uneventful. They arrived in the harbor, swapped out passengers, and

headed out again around 1100. The Eddystone weather cameras did not show any change, so they went the blue route again. This time south of Bold Island everything got dramatically better. Wind was pushing the weather out of the southeast corner of the tour area. As they continued, they had well over a 2,000-foot ceiling. Looking towards Point Alava, he could see it was dramatically better. Mr. Franklin was thinking about the possibility of flying above Thorne Arm and through Ella Lake, but the dividing line between the good weather and the poorer weather was right about there, and he did not want to go that route and have to turn around so he just continued around Point Alava and up to the Misties.

The company was doing the boat rides at the time, so he gave a yellow route tour to his passengers and then landed at the boat dock in Rudyerd Bay and exchanged passengers with the boat. Returning to Ketchikan he knew that the weather was improving, so he thought about going through Ella Lake. After takeoff, he encountered Mike Falconeri in a Beaver. As Mr. Franklin was coming up on Point Louise Mr. Falconeri was between Point Louis and Eddystone. Mr. Falconeri was heading for Ella bay. He had just come through there and was now headed back, so Mr. Franklin asked how it was there and Mr. Falconeri said it was good. Mr. Franklin saw that the weather around Ella Bay was good. There were a couple of clouds but no raggedy bottoms and it was more scenic that way, so Mr. Franklin went the short way.

Mr. Franklin was behind Mr. Falconeri and catching up with him. Mr. Falconeri flew a circle looking for bears and then continued southbound on east side of Ella lake. Knowing Mr. Franklin was catching up to him, Mr. Falconeri went to the right and flew down the west side of Ella Lake and Mr. Franklin flew down the east side. The weather was high, but near the south end of Ella Lake the celling went down 100-200 feet lower and it was around 1,500 or 1,600 feet. Mr. Franklin was a little distance below the clouds. He could see a little rain shower and some misty rain there. He was slowly passing Mr. Falconeri. Mr. Falconeri stayed on the west side of the lake and cut through a hill on the west side because he was going to go through Big Lake and Mr. Franklin was going to pop through at Fish Creek and skirt Thorne Arm. Mr. Franklin stayed left over a muskeg patch for separation. When Mr. Franklin reached the south end of Ella Lake he could see Thorne Arm, and he saw Mr. Falconeri when they each came out of the Ella Lake area. There was some misty rain but nothing that would restrict visibility. They proceeded to Thorne Arm and the weather opened up. It was blowing a little bit and it was a little turbulent. There was some light turbulence with pockets of moderate. The wind was coming from the southeast over the ridges as Mr. Franklin went around the dogleg in Carroll Inlet. That was where the majority of the wind was.

Asked to explain in more detail how he exited the south Ella Lake area, Mr. Franklin said that when one turned west from the Gokachin Lakes area, there was a little hill that was not significant, but there was another hill beyond it that was more significant. He and Mr. Falconeri chose different routes in that area. Mr. Franklin came around and went over by Jim Cove because of the winds. The rest of Mr. Franklin's flight back to Ketchikan was uneventful. Mr. Franklin said that he was communicating with Mr. Falconeri on the radio frequency 122.75. He heard Brian Krill in tail number 270 calling the Y outbound and

then Point Louise outbound, but he did not know where Mr. Krill was after that. After returning to Ketchikan, Mr. Franklin got ready for the next tour. By the time there was any concern about the whereabouts of Mr. Krill's airplane, Mr. Franklin was already dispatched on the next tour. On that tour, Mr. Franklin went the short route through Ella Lake. He could hear an ELT on the emergency frequency 121.5. It was faint, but by the time he got close to the dogleg in Carroll Inlet and into the Ella Lake area it was very prominent. During this flight, the weather was better. The visibility was clear. There were no rain showers. The weather had pushed past Mirror Lake and was all west of Ella Lake. It was a little bumpy.

Asked whether he typically called Ketchikan flight service before takeoff, he said yes. He would tell them where he was, and flight service used that information to communicate traffic advisories. Asked if flight service provided weather information, he said no. They would report the harbor winds or say what the routes were. Asked whether Promech provided weather information or if it was entirely up to the pilot to collect weather information, Mr. Franklin said it was not entirely up to the pilot. They had great resources. Their flight coordinator Leah was very well versed in the weather. The weather cameras were great. Mr. Franklin would also look out the window and reference the surface chart. He took responsibility for obtaining appropriate weather information. He would look at the forecast, the web cams, and figure out what was likely to happen weather-wise.

Asked about radio frequencies used during tours, he said that they used 122.75 from Ketchikan to Eddystone and 122.85 east of Eddystone in the Misty Fjords tour area. Asked to confirm whether he heard Mr. Krill transmit during the accident flight, Mr. Franklin said yes, he heard Mr. Krill at Eddystone when he was switching over to 122.75.

Asked again to describe the weather conditions during his return to Ketchikan ahead of Mr. Krill, he said the weather was good. The cloud ceiling was around 1,600 to 1,700 feet and it dropped 100 or 200 feet lower toward the south end of Ella Lake.

Mr. Franklin was asked to describe the position of weather cameras in the vicinity of the tour route. He said there was a camera at Eddystone Rock. There was a view toward Point Louise, a southwest view toward Ella Bay, and a south view toward Smeaton Island. These views provided a synopsis of the entrance to the Misties and Ella bay, south, abeam and further north. There was also a camera in Ketchikan looking up and down the narrows, and another one on a hillside there.

The first transmission from Mr. Krill indicated that he was located where the north and south arm of Rudyerd Bay meet. In the second transmission, somebody called out Louise or Eddystone and Mr. Franklin thought it was Mr. Krill. Mr. Franklin estimated that Mr. Krill was 5 or 10 minutes behind him during the accident flight. When Mr. Franklin was taxiing away from the boat dock, Mr. Krill was taxiing up to it. It was a pretty quick turn at the dock, only 5 or 10 minutes.

Asked to describe how the weather was changing during the trip, Mr. Franklin said that during his outbound flight there was weather over the southeastern portion of Revillagigedo Island, but southeast of that the weather was unlimited visibility and the ceilings were a couple thousand feet or higher. During his return flight, the wind had blown that weather to the northwest and that allowed Ella Bay and Ella Lake to have unlimited visibility. There were little wispy rain clouds hanging on the side of the hill, but in Ella Lake there were no scattered clouds and no clouds hanging down the side of the hills. All the way down Ella Lake one could see Thorne Arm perfectly. The dividing line for the weather was off to the north near the company's yellow tour route or north of it. That weather was located a couple miles north of the northern end of Ella Lake and it stretched over the north end of Mirror Lake to Shell Cove and George Inlet.

Asked to provide more details about the tour routes, altitudes, contingencies, decision points, turnaround points, and "gotcha" areas to avoid if the weather was bad, Mr. Franklin said that on an outbound flight they would head down the channel and near Mountain Point they would look and evaluate. From the weather cameras and looking out the window in Ketchikan they would already have a good understanding of whether they were going the long blue route or the red route, but when they got to Mountain Point they would evaluate conditions decide whether to fly the long or the short route. Mr. Franklin would look through Carroll Inlet to where the hills were and assess the cloud deck and visibility. He would not fly in there if the conditions were not adequate.

If the celling was very high and the visibility was good however, he would just climb to 2,000 or 3,000 feet and fly straight to the head of Rudyerd Bay at Point Louise. If, on the other hand, the cloud ceiling was a couple thousand feet he would look at the water and see if there was any wind. Bad weather usually came from a southeast direction and he could always dive left to Carroll Inlet or make a precautionary landing in Thorne Arm if needed. Approaching Thorne Arm, he would evaluate the weather in the vicinity of south Ella Lake and decide whether he should proceed into that area. If that route looked questionable, he would evaluate the Sea Level route east of Thorne Arm. It was quite a bit lower with very wide open areas. If the cloud ceiling was at 1,500 or 1,600 feet and he could see all the way through to the Behm canal, he could fly to the northeast portion of Thorne Arm and look into Ella Lake and see if he could go in there.

In general, he approached his decision making process with a building block mentality. He would ask himself whether he had the necessary visual references and whether he could turn around if necessary. After entering the south Ella Lake area there were plenty of areas where one could fly out. From south Ella into Ella Lake, one could stay to the west side of the lake going outbound toward Rudyerd Bay and see if it was good to make the right turn or they could do a 180 and go via Sea Level or Muskeg. There were ample opportunities for contingencies in there. It worked the same way in reverse coming back to Ketchikan. Looking down south Behm, a pilot could see if there was bad weather along Behm canal. If the entrance to Ella Bay looked bad, they would proceed southbound. In the Sea Level area, they could pick up Thorne Arm and fly through the dogleg in Carroll Inlet back home. If the weather was good they could work their way

into Ella Bay. If they had good visibility and could see good references into Thorne Arm, they could proceed on down.

Mr. Franklin was asked at what point along the short route he might decide he was not going to continue along the short route, he said that if the weather in the dogleg area looked bad he would not even fly into Carroll Inlet. They were not there to poke around and be adventurous. Asked whether there was a minimum cloud ceiling for the short route, he said that if one could only see up the hillside a couple hundred feet on either side of Carroll Inlet, he was not going there. He was not sure of the actual altitude; he just knew the visual picture because he had seen it many times. Asked about weather minimums for the long route, he said that if the clouds were less than 500 feet above the water or there was not adequate visibility they should turn around. That was the minimum. Mr. Franklin said they had done a weather check out to Bold Island a couple weeks before the accident and the weather was bad so they had turned around. The weather dictated all, and poor weather did not make for a good tour anyway. Asked to describe the most challenging spots along the tour to judge the weather, he cited as an example the choice about whether to go into Ella Bay on the return flight.

Asked if he could recall the height of the cloud ceiling in the Ella Lake area, he said he was not sure. He looked at Mr. Falconeri who was over on the west side. As Mr. Franklin proceeded over the muskeg patch, he was looking at Mr. Falconeri and Thorne Arm. He recalled that there was a nice, identifiable layer. Asked if the mountaintops around Ella Lake were obscured, he said maybe at the very top. It was getting better but he thought the cloud deck was at the very top of the mountains when he came through that area. The weather in that area varied from the mouth of Ella Bay. There were clouds and a little bit of rain in Ella Lake, but he did not purposely look up to see where the layer was. He normally evaluated what was a few hundred feet above him and out to the sides.

Asked if he had ever experienced any particular challenges flying this tour, he said yes, the weather.

Asked if he used a flight risk assessment form during flight planning or dispatch, he said he used to complete a flight risk assessment form when he was flying jets but they did not do that at Promech. The pilots used weather information resources to manage risk. It was a team effort and they decided collectively what they thought was the best route. The decision incorporated advice from some of the more experienced pilots and they were assisted in their decision making by the chief pilot and director of operations. Each pilot also had the responsibility to volunteer their own input.

Asked about weather-related launch minimums, Mr. Franklin said they would not go if the weather was IFR and the airspace was closed. He had never heard any discussion of a hard limit for the cloud ceiling. Asked if he would make a no-go decision based on what he could see on the web cameras, he said absolutely. There was no point going if the weather was too bad. The weather cameras gave a good idea of the weather so there was no guessing. Asked if he had ever flown a "weather run" to check the weather, he said yes, to check what was in between the cameras sometimes.

Asked if there was a specific computer where the pilots checked the weather in the company office, he said that they had a terminal. It was usually available and the weather was tapped out at the dispatch computer. Asked if they ever called flight service to get full weather briefings, he said he was so used to getting weather for himself that he had never had to do that. He felt that the information he received from the company and the information he obtained on his own were adequate.

Asked if the pilots were trained on what to do in an inadvertent encounter with IMC, he said yes. They trained on that in a simulator. The training was more thorough than anything he had done at any company. It was a well-trained maneuver. Asked if any of the pilots had ever had to execute that maneuver due to an inadvertent IMC encounter he said not to his knowledge. Asked if anyone had gone inadvertent IMC and had to "squawk and talk" in the tour area he said no, not at all. Not that he knew of. He added, however, that they did train on it and it was trained extremely well. He thought the mentality of any pilot in Southeast Alaska was that they should not get to that point. They should make a decision well before it got that close.

Asked to describe the trend in the weather in the Ella Lake area when he was returning to Ketchikan ahead of Mr. Krill during the accident flight, Mr. Franklin said it was rapidly improving. Asked if he had any thoughts at the time that there might be reason for concern for someone coming behind him, he said absolutely not. He added that he was unconcerned enough about the weather in Ella Lake to use that route again later when he headed out from Ketchikan on his next tour.

Asked to clarify at what altitude he was flying when he flew over Ella Lake during the accident flight, he said he started at 1,500 feet and dropped down a couple hundred feet from there near the south end of the lake. The clouds were consistently a couple hundred feet above him. As the cloud deck came down, he dropped down. Asked if the cloud deck was pretty even in that area, he said yes. There were no jagged edges and no "hangers" that came down. It was very consistent with the weather moving further away to the northwest.

Asked if the area of lower cloud ceilings in the southern part of Ella Lake had improved by the time he headed out on his tour after the accident, he said it had improved. There was no rain mist there anymore and visibility was unrestricted from Mountain Point all the way into Ella Lake. Asked to compare that with the visibility he encountered when he flew through that area with Mr. Falconeri during the accident flight, he said that he could see all the way to Thorne Arm from Ella Lake at that time, but there was some rain in the way. The visibility was not unrestricted but it was good.

Asked about the simulator that was used to train the inadvertent IMC maneuver, he said they completed a ground school and simulator training session. The simulator was located at a Taquan facility. The simulator was set up as a Beaver. Asked if they completed checkrides in the simulator he said no, they replicated the maneuver during an actual flight in a Beaver when they did their checkrides. Mr. Hassell gave Mr. Franklin

his checkride and Mr. Franklin was using foggles during the inadvertent IMC maneuver check. Mr. Franklin thought Mr. Hassell had given the majority of the checkrides.

Mr. Franklin had last flown the accident airplane within a week of the accident. Asked whether everything had been operational on the airplane at that time, he said yes, it was a good airplane. He liked it.

Asked if all the Promech airplanes had Capstone equipment, he said most had the Chelton display, except some of the Beavers. All the Otters had the Chelton display. They included a topo terrain screen that turned different colors when you got into terrain proximity and there was an aural advisory to the pilot. The display also showed traffic. Asked whether a pilot could inhibit the terrain aural alerts, he said yes. There was a button the pilot could press to inhibit the alerts. Asked if he ever used the inhibit button, he said if it was a clear day with unlimited visibility he might or if he was flying around in Misty Fjords and trying to land on a lake. It was the pilot's choice. Flying into Nooya Lake the terrain alert would go off all the time so the pilot might decide to inhibit the alert. Asked whether he had inhibited the alert during his flight back to Ketchikan around the time of the accident, he said it was part of his preflight but he could not remember how it was set on that flight. Asked whether the pilots flew into Nooya lake during the accident tour, he said he went in on the first tour, but he flew straight in rather than coming in over Manzoni and circling around in there, so it would not have resulted in terrain alerts. Asked whether he would normally inhibit the alerts when he was going into the "Y" part of Rudyerd Bay, he said yes, a pilot would inhibit it when they were in there. Asked if he used the inhibit switch often, he said not that much. Asked if there was a radar altimeter on the otters, he said he did not think so.

Asked if the Chelton provided any onboard weather information, he said no.

Mr. Franklin stated that when he first started flying in Southeast Alaska he learned the area in an airplane without all the information provided by the Chelton. It was a great tool, but a pilot had to have their eyes outside. Asked if he normally flew with the terrain map showing on the Chelton, he said yes because it provided traffic information. Asked if it was possible to switch off the terrain information and still see the traffic information, he said yes, but if you could see the traffic in the context of the terrain it was easier to spot. Asked if the terrain information was displayed by default, he said yes, it showed terrain and traffic on the MFD after startup. Asked if the terrain warning inhibit switch reset itself during each startup, he said it was a hard switch. He was not sure how it reset.

Asked to describe the inadvertent IMC maneuver in more detail, Mr. Franklin said they would fly toward rising terrain with the MFD on in a Beaver. The pilot would have the foggles on and pretend they were in the clear. The check airman would say they were flying along and everything was good, and then they would say they just went IMC. The examinee would then perform the CFIT maneuver by slowing down and beginning a 180-degree turn. They would maybe pump in a little flap and then look at the MFD. They would hit menu and that would flip the display over to the terrain only. They would then look for areas that were not red or yellow where they could descend. Then they would go

back to the map page, find out where there was water, complete the 180, descend, and exit the simulated IMC conditions. Asked if there was a target speed for the maneuver, he said no, they just tried to slow down enough to decrease the turn radius. Asked to specify the precise order of steps during the maneuver, Mr. Franklin stated that the first thing they did was make a power reduction, note their heading, and figure out what a 180-degree heading would be. They would then initiate the turn. Once stabilized on the heading they desired they would select the terrain page, and then the topo page.

Asked about his schedule the week of the accident, Mr. Franklin said it was not a very heavy day leading up to the accident. They would normally run 4 or 5 tours per day, maybe up to 6 if they were doing Misty tours. It varied depending on the airplane. It was not a very grueling schedule. They flew a handful of hours a day. Some days started earlier than others with 0545 or 0600 departures, but those were for pilots who were flying certain airplanes. He had a couple of those but those days ended early. It was not a very hard schedule. Flights to the Waterfall Lodge were early or late. It was not like running a set schedule. Their typical start time varied every day. Their average show time was between 0700 and 0800. Showtime was an hour before first flight. Typical quit time was early. They rarely worked until 1700. Sometimes they got off at 1500 or 1530. Asked if his schedule the week of the accident had been typical for that time of year, he said the work had been slowly ramping up with some of the lodge turns, but it had been typical.

Asked how much sleep he typically obtained when working this schedule, he said he got at least 7 hours per night if not more. He went to bed early and woke early. He was normally winding down by 2000 to 2100. There was no reason to get up much earlier than 0430 or 0500, so that was 8 hours. His last day off was about 10 days before the accident. Asked if the pilots typically received a day or two off during the high tour season, he said they received more than that but he liked to come up there to work and he liked to work. The company provided adequate days off, but the pilots had some flexibility to use them or give them to someone else. Flight and duty time was tracked using a form in the pilot office that was monitored by the chief pilot and director of operations. Mr. Franklin filled out the form daily when he was done with his flights. Asked what the limit was for Part 135 nonscheduled he said he was not sure, but he was never close to it. There was a minimum number of days off per quarter or something.

Mr. Franklin was asked how well he knew Mr. Krill. He said they had had dinner together almost every day that summer. He got along with Mr. Krill really well for only knowing him two months. He was closer to him than some people he had known his whole life. Asked about his interactions with Mr. Krill in the 72 hours before the accident, he said that on the day of the accident he saw Mr. Krill on the dock by the dispatch office waiting for the passengers for the accident tour. Mr. Krill was on his third tour of the day, so he had likely come in about 0700 for his first tour at 0800.

The night before the accident, on Wednesday, June 25, they had dinner at a local restaurant with a company flight coordinator Leah Shockley and another tour pilot Chuck Perkins. He was not sure exactly what time the group finished dinner, but thought it was maybe 2000-2030. Mr. Krill seemed happy. He and his wife were getting ready to sell a

restaurant in Idaho. He was going to get his own apartment in Ketchikan. The move to the new apartment was no big deal. It was just a bit crowded and Mr. Krill just liked having his own space. Mr. Krill planned to meet the landlady and pay her after he got off work on the day of the accident. Asked whether Mr. Krill had already packed for the move or planned to pack later, Mr. Franklin said Mr. Krill had not yet packed. In general, Mr. Krill was not strapped for cash, he enjoyed flying, and he was good.

During the day on Wednesday, June 24, they just worked. It was a normal workday. It was a typical day. They said hi when exchanging passengers between flights, although he could not recall precisely when. Tuesday, June 23 was the exact same thing. Asked whether the pilot had mentioned anything about having trouble sleeping or getting rest, Mr. Franklin said Mr. Krill had told him he slept like a rock and did not generally have a hard time sleeping. He went to bed early and got up early like Mr. Franklin.

Asked about the most recent opportunity he had had to observe Mr. Krill's flying performance in the cockpit, he said he had gone on a weather check with Mr. Krill one time and observed that Mr. Krill was very competent and relaxed in the airplane. He was relaxed, but not in a lazy way. He was not uptight or nervous either. Compared to other pilots at the company, Mr. Krill's performance was exemplary. Mr. Franklin had not ridden with many other Promech pilots, but he had ridden with a lot of pilots in general, and he put Mr. Krill well above many others in his demeanor. It was just a 15-minute flight for a weather check, but Mr. Krill handled the marginal weather situation very well. It was a great opportunity to see how he composed himself. Asked about the outcome of that weather check, Mr. Franklin said the ride was poor and the ceiling was progressively coming down as they flew down Behm Canal toward Point Alava, so they had decided it was a no-go. Asked to cite the minimum required weather under the federal aviation regulations, he said it was a minimum of 500-foot cloud ceiling and 2 miles visibility.

Asked about Mr. Krill's health, Mr. Franklin said Mr. Krill had once mentioned that he did not need to take any medications. In addition, Mr. Krill had not shown any recent signs of illness. He did not use tobacco. He drank socially but his intake was minimal. He would have one or two drinks and he made sure he did not drink and drive. Mr. Krill wore glasses and Mr. Franklin thought they were transitions lenses. Mr. Krill had reported no significant recent changes in his health, finances, or personal life.

Mr. Franklin was asked if Mr. Krill had experienced any recent interpersonal conflicts in his personal life or at work and he said no. Everybody there loved him there. He was a steady guy, not an emotional roller coaster. He liked living by himself but he had tried out roommates. He was a quiet guy. He had a good life with his wife and she had let him go follow his dream for the summer.

Asked about the pay at Promech, Mr. Franklin said it was good. He had not been on the waterfront for a while, but when he negotiated his pay it had been representative of what he thought he deserved. He had been expecting to fly the Beaver all summer so he was very happy when they transitioned him to the Otter. Pay was not dependent on the aircraft type flown. He was paid a daily rate. There was a weather day option for time spent in the

office before the day was called off as a weather day. However, if a pilot got in at least one flight they received a full day's pay. The weather day decision was a team decision involving pilots and management. It was a company-wide decision.

Pilot staffing at Promech was more than adequate. Asked about workload, he said this was his first tour-only company. His previous experience was with scheduled service, and compared to that Promech felt like a "country club." It was a relaxed, easygoing environment. Asked about pilot morale at Promech before the accident, he said everyone had a different perspective but he was very happy there. The accident had taken the wind out of everyone's sails but leading up to the accident morale had been good. Everyone had gotten along well at work and outside of work. It was a good, fun environment.

Mr. Franklin was asked who was responsible for managing Promech's safety programs. He said he was told during indoctrination training that there was a safety officer. That would probably be either Mr. Hassell, the director of operations, or Mr. Zink, the assistant chief pilot. They had changed the role to some degree and he could not say specifically who was in that role. Asked to describe Promech's approach to managing safety, he said he did not think they had a safety management system implemented, but they had a culture that was focused on safety. They promoted a safety-conscious environment. It was an open environment where the pilots felt free to express any safety concerns, interpersonal or operational with respect to any aspect of the company. If they had a concern they could bring it up, it was acknowledged, and something was done. The company had a safety reporting system. They had resources to make sure the proper people received that information.

Asked if he had ever used the company's safety reporting system, he said he never had a reason to, but he had been told where it was and instructed on how to fill out a report. Asked whether the reports were anonymous, he said he would have to look, but he thought it was. There was a box for submitting reports. Asked if he was aware of any particular hazards the company had recently been highlighting or trying to address, he said CFIT avoidance and inadvertent IMC were being brought up in training. Operationally they focused heavily on adhering to policies and procedures in the traffic pattern. The air traffic control system in Ketchikan was a voluntary system established by mutual agreement between the FSDO and the operators, and they wanted to be a company that adhered to the rules. Promech had recently had a company meeting as the season was spooling up. Issues discussed included the traffic pattern and dock operations. It was a reminder. Asked how often the company held safety meetings, Mr. Franklin said that was the first of the year. It occurred a few weeks after they got spooled up. It seemed to happen at an appropriate time.

Mr. Franklin was asked to describe the level of standardization and SOP adherence among Promech pilots and he responded that it was very good.

Asked how he felt about the safety culture at Promech, he said it was very safety conscious, open to reporting and acknowledging safety concerns, and there was no fear of

punishment or reprimand for bringing up a safety concern. That was his personal feeling and he thought others had similar feelings.

Asked if he felt supported when turning down flights for safety-related reasons, he said he had never had the need to do that, but he did not feel there would be any issue or argument trying to coerce him to go fly. He would not work for a company like that.

Asked whether the weather minimum of 500 feet and 2 miles was the same for departure and enroute, he said he would have to review the guidance materials.

Asked what his top safety concerns were at the company prior to this accident, he said he had no safety concerns. Nothing had ever happened that had resulted in him being in a situation that had created a cause for concern.

Asked whether he had heard about any other Promech pilots experiencing an inadvertent IMC encounter, he said no.

Asked if there was anything he thought investigators should have asked him but did not, he said no. It was just an unfortunate event that had resulted in the loss of his close friend and eight other people. It had affected him. Asked if there was any other information he could provide that might be relevant to understanding the accident, he said no. Mr. Krill was a very conscientious, respectful person. He was a "really good, solid guy." Asked if there was anyone else he felt investigators should interview, he suggested Mr. Falconeri at Seawind Aviation.

This concluded the interview.

Interview: Tony Turiano, Pilot Promech Air

Representative: Dan Quinn (Attorney)

Location: Promech Offices, Ketchikan, Alaska

Time/Date: 1615 / June 27, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen

(FAA), Duane Edwards (FAA)

During the interview, Mr. Turiano stated the following information.

He was 51 years old. He held an ATP with multiple ratings, and an A&P, and IA, and an air traffic controller certificate. He had previously worked for the FAA at Miami Center. He had 3,700 hours total flight time, and 150 hours in Alaska. He had begun his A&P in high school, got his pilot's license, and dropped out of college to become an air traffic controller. He continued working as a controller until October 2014 but he had done some Part 91 contract flying and instructing in gliders to keep his flying proficiency up. Prior to joining Promech, he had not flown for any Part 135 operators for 10 or 12 years. He started working for Promech in late April 2015. He was a line pilot, and it was his first job flying in Alaska.

His normal duties and responsibilities included preflight documentation, determining fuel load, briefing passengers, and bringing them back safe and happy. He was also responsible for bringing the airplane back and doing his share of the paperwork. The company had a good dock crew. They washed the airplanes, brought the gear and fueled the airplanes. He rarely had to fuel it himself. All the pilots had the make sure they put their flight and duty times down on a paper.

Mr. Turiano was asked to describe his recollection about the accident trip. He said that that day the weather was marginal throughout the day but it met their minimums. Most of the Promech pilots and the pilots from other operators went around Point Alava to get to Behm Canal, but some people went through Ella Lake early in the day. There was chatter back and forth early about how it looked in there. During the tour in question, he and Mr. Krill and Chuck Perkins flew a group of people out to the boat dock. Mr. Turiano went around Point Alava on the way out. He could not say for certain who did or did not go that way. He thought they pretty much all did. Mr. Turiano happened to come back empty. The people they were supposed to be bringing back on the return flight had a ship that was leaving and the Otter was 15 minutes faster than the Beaver, so on the way out to Misty Fjords, dispatch radioed the pilots and asked Mr. Perkins, who was ahead of Mr. Turiano already, to fly Mr. Turiano's return passengers back to Ketchikan.

Mr. Turiano's flight out to Misty Fjords was unremarkable. It took only five minutes longer to fly the long route. As Mr. Turiano was landing at the boat dock, Mr. Franklin was taking off and by the time Mr. Turiano had tied up and was unloading, Mr. Krill was boarding his passengers. Because Mr. Turiano was going to come back empty he was ready to cast off before Mr. Krill was, but because Mr. Krill and his passengers were in

front of Mr. Turiano's airplane, Mr. Turiano waited for Mr. Krill to push off first. Mr. Turiano took off seconds behind Mr. Krill.

It was raining over the southeastern third of Revillagigedo Island, but south of the island the visibility was good. That good visibility was moving into their area of operations, although it was difficult to predict what would happen when that air mass hit terrain. Mr. Turiano intended to return to Ketchikan via the long route around Pt. Alava. There were multiple layers. The lowest was a 1,200-foot layer. It was not necessarily a ceiling, but Mr. Turiano was not inclined to climb above a scattered layer in the Beaver. A few minutes later, Mr. Turiano was abeam Eddystone Rock near the Mouth of Rudyerd Bay. He heard a snippet of conversation between Mr. Krill and other operators heading toward Ella Lake. Since Mr. Krill was ahead of Mr. Turiano, Mr. Turiano asked how it looked. Mr. Turiano could see that it looked fine in the mouth of Ella Bay. Mr. Krill could not really see anything further than Mr. Turiano could because he was not far enough in to see beyond the 90-degree course change leading to Ella Lake. Mr. Turiano said he was going to go that way too.

Mr. Turiano could see on his traffic display that Mr. Krill was at 1200 feet. Mr. Turiano did not think one could go through the south end of lake Ella any lower than 1,200 feet and adhere to FARs (>500 feet AGL). The weather looked great over Ella Creek. There were some lower-hanging wisps but they were easy to circumnavigate. Right about the time that Mr. Krill seemed to turn south so he could proceed down the length of Ella lake Mr. Turiano noticed that Mr. Krill's altitude was showing 1,000 feet on the traffic display. After that, Mr. Turiano did not notice Mr. Krill's target on his display. Mr. Turiano generally kept his MX20 display set on a 4 or 5 nautical mile range and because Mr. Krill was traveling 15 knots faster, Mr. Turiano presumed Mr. Krill had proceeded beyond the range of his display. He was not really trying to follow Mr. Krill's target.

As Mr. Turiano turned southbound along Ella Lake, light rain was restricting the visibility, but it was at least 2 miles. Beyond the south shore of Ella Lake the visibility was difficult to estimate because there were no landmarks to reference on the MFD. However, Mr. Turiano could continue to see features ahead. There were still some lower hanging wisps of cloud. In the grey-on-grey 2-mile visibility environment you could not really see them coming, but it was inconsequential. The southern third of Ella Lake got pretty turbulent. The turbulence was not the kind he would want to take passengers through but he was on the smaller Beaver and it was very lightly loaded, so it was hard to tell what it might have been like in an Otter. Mr. Turiano never got above 1,200 or 1,400 feet which did not allow him to comfortably turn west toward town until he reached Gokachin Lakes.

The visibility across Thorne Arm was fabulous. Around the time Mr. Turiano was coming across Thorne Arm he realized that dispatch was calling for Mr. Krill. That was not unusual for the repeater to be out of range, so Mr. Turiano called on the multicom to see if he could reach Mr. Krill. Next, Mr. Turiano scaled down the range on his MX20 to 20 nautical miles and saw that Mr. Krill was nowhere ahead of him on the way to Ketchikan. Mr. Turiano realized something was up. He thought perhaps Mr. Krill had hit

a tower or experienced smoke in the cockpit and landed, or that his avionics had failed. He tried to radio Mr. Krill a few times as he continued. Traveling down Carroll Inlet over the logging camp and in the dogleg Mr. Turiano encountered really rough rotor turbulence. Even though he was at 600 feet AGL there was a rotor. It was not worse than moderate, but he was not monkeying around with the radios any more. The location of that turbulence was just south of the letter "C" (in "Carroll Inlet") in the dogleg on the Ketchikan sectional chart. It was really violent in there.

Mr. Turiano continued to town. He wished he had thought to listen for an ELT. He had been too preoccupied with calling for Mr. Krill on the radio and it did not occur to him to listen for the ELT until he returned to Ketchikan Harbor. Conditions across Ella Lake were marginal but unremarkable and Mr. Turiano could not account for why Mr. Krill ended up where he ended up. He did not know Mr. Krill very well, but he thought he was a good man. Mr. Krill was conscientious and looked out for other people. He never saw Mr. Krill cutting any corners or doing anything that would raise an eyebrow. Mr. Krill was the only pilot among them who had turned around and come back on a recent tour because he felt the weather was not good enough.

The day of the tour where Mr. Krill turned around was a lot like the day of the accident. Mr. Krill had elected to go the short way and Mr. Turiano and another pilot were at 500 or 600 feet going around Pt. Alava where the weather was marginal but alright. Mr. Krill just decided to turn around and come back. Mr. Turiano and the other pilot did not do anything wrong but when they saw Mr. Krill they were proud of him that he stood up for his rights and his authority. They saw him up and flying later that same day.

Mr. Krill had gone across that way a couple hundred times already and he knew where the higher terrain was and Mr. Turiano could not account for why he would have been where he ended up. Mr. Turiano said that the Chelton avionics were not installed in all of the Beavers so although he had received some training in their use in ground school and although they had a Chelton simulator he had not played around with it a lot. He understood, however, that if you got low, it turned all red. If you got to 499 feet AGL you lost all geomap information, which he thought was not very useful and potentially disorienting. There was probably a way to suppress it in 16 steps but it was "like gee, thanks." He suggested checking with some of the Otter pilots about that.

Asked to clarify his altitudes as he was flying over Ella Creek and on to Ella Lake, Mr. Turiano said he was at 1,200 feet and then 1,300 or 1,400 by the time he was over Gokachin Lakes. He never saw Mr. Krill above 1,200 feet. Earlier that day and on the outbound portion of the accident trip he had seen airplanes operating higher. Mr. Turiano said he was disinclined to get above the first cloud layer if he was safe flying below it. It was certainly possible to get above the first layer. The lower layer was breaking up and they knew that a higher ceiling was opening up toward town. Mr. Krill could have climbed above the bottom layer if he had wanted to save time flying to town. Asked to clarify the height of the lowest layer, he said it was at 1,200-1,300 feet, but it did not constitute a ceiling.

Asked what side of Ella Lake he flew on when returning to Ketchikan during the accident tour, he said that he generally stuck to the right-hand side of a confined area for traffic because not every airplane had traffic information on their cockpit displays. He had hugged the right side of Ella Lake and given himself enough room to provide an adequate turn radius to reverse course to the left if he needed to. He was as far to the right (west) as he could comfortably be without getting too close to the terrain. He did not know what Mr. Krill was doing in that regard. He did not understand why the accident site was located where it was. He was three minutes behind Mr. Krill.

Asked if he could recall what the weather looked like to the west as he approached the south end of Ella Lake, he said that that area was where the visibility was down to two miles. He remembered looking out to the west and being able to see beneath the cloud cover toward Carroll Inlet in a couple of spots but the visibility did not look any better. It did not look enticing to turn that way towards terrain. Mr. Turiano did not think he could turn that way and have the terrain clearance he wanted since the visibility was indeterminate. If there was a hard ceiling and the visibility was good one could start turning west at the very north end of Gokachin Lakes and still have a place to set it down on the water even when flying at 1,200 or 1,400 feet, but that route just did not look appealing. Down by Gokachin Creek, however, from the hill labeled 1830 msl on the sectional chart, or from where the national monument ended across the skinny north end of Thorne Arm the weather was comparatively fabulous.

Mr. Turiano stuck to the lowest drainage from water to water to water, with minimum rising terrain and. As he passed west of the location where the letter "I" was in the word "INSET" on a VFR sectional chart, the rain was behind him. When they had been outbound to Rudyerd Bay on the previous flight, the rain had been all the way down by Boca de Quadra. On the way back to Ketchikan when the accident occurred the edge of the rain had moved north 10 or 12 miles. The edge was right across Gokachin Lakes. Asked whether the accident had occurred just north of the edge of that band of rain, he said yes, the accident had occurred in the area where it was raining. Asked to clarify whether the visibility in that area was 2 miles or less than 2 miles, he said that west of Ella Lake it looked worse. He could see the entire lake shore, but there were low clouds and he could not see the tops of the terrain west of Ella Lake. He could see through gaps and lower parts of the terrain, but nothing that enticed him to turn as he cleared the south end of Ella Lake. He continued south 2 or 3 miles beyond Ella Lake before turning west because it was still raining around and south of the peak that was labeled "2540" on the sectional chart. He would have been squeezed in too tight with the terrain if he turned west sooner. If a pilot turned west at Gokachin Lakes at 1,200 feet, they would still be legal, but they would have to dodge every little hill and the visibility just was not good enough to do that.

Mr. Turiano said the Promech pilots studied USGS topo maps of the area which contained more detail than sectional charts. He did not think the terrain alerting system on the airplanes or the USGS maps accounted for the height of the trees in the area, however.

Asked where Mr. Krill's airplane was located when he observed it at 1,000 feet on his traffic display, Mr. Turiano said it was near the cabin in the northeastern arm of Ella Lake that was depicted on the sectional chart. Mr. Turiano thought Mr. Krill might have done that to get around some wispy clouds. Mr. Turiano said he would not want to do that in the Beaver because he would not want to have to configure the airplane for climb. That was the last time Mr. Turiano noticed Mr. Krill's target on his traffic display. Mr. Turiano was 3nm behind Mr. Krill and his display range was set for 3 or 4 or 5 miles, so he did not think anything of it. By the time Mr. Turiano was southbound over Ella Lake, Mr. Krill was not on his display. Mr. Krill might have already impacted the mountain by then. He did not see Mr. Krill's target vanish.

Asked to clarify the height of the lowest cloud layer over Ella Lake, Mr. Turiano said it was a scattered layer at 1,200 - 1,300 feet. There were multiple layers above that. It was raining. It would have been possible to climb above the scattered layer and proceed toward Ketchikan between layers, but from the time of his first solo it had been ingrained in him to not climb above a layer unless he knew he could find a place to get down. It was not something he would want to try in the Beaver. The webcams were 15-20 miles apart. If there were absolutely no clouds visible on the Eddystone Rock webcam but there was a scattered layer when departing Ketchikan Harbor he might feel okay climbing above it, but he generally avoided climbing above a cloud layer unless he was sure he had a place to get down.

Asked to estimate the height of the next cloud layer above the 1,200 to 1,300-foot layer over Ella Lake, he said he could not say. It was still low-level.

Asked if he could recall the direction of the wind in that area, he said it was from the south or southeast. If the wind was from magnetic south there might have been downdrafts near the accident site, but the wind velocity was not very high. He did not think it was 15 knots. It was probably 12 knots because he did not see any whitecaps on the lake. The wind could have been stronger near the tops of the terrain. The first place he encountered any significant turbulence during the flight was in the southern half of Ella Lake. It was moderate turbulence.

Asked to describe his normal tour flight altitudes and any "gotcha" areas or contingencies, he said that when flying the Beaver they would try to give the Beaver pilot their people first because they were slower than the Otters, but they were scheduled to depart the dock at the same time. If the aerodrome was reporting good weather and the webcam pointing east in the narrows showed a low cloud ceiling, they might go out and find that they could not maintain 500 feet above the water. If that was the case, they might call and say they could not maintain sufficient altitude in between and come back. If it looked questionable, they might send someone out early enough that they could cancel a run before the cruise ship passengers were loaded onto buses to come to the departure point. If they did not have a ceiling higher than 1,200 feet he would plan to go around Point Alava because he did not have time to explore up Carroll Inlet and find out the ceiling was low and turn around. He would just take his licks and go around Point

Alava. He did not always follow the exact route. He might modify it to stay safe or stay on schedule.

Asked what altitudes he normally tried to maintain enroute, he said he tried to maintain 2,300 feet into the south arm of Rudyerd Bay. If he could not get to 2,200 by Point Louise or Eddystone, he was not going to take the time to climb up there. He would want to be at 1,200 by the time he reached the dogleg in Carroll Inlet if he was going to go up through Ella Lake.

Some of the operators would say it was "wide open" when it was adequate but not wide open. Mr. Turiano said he trusted reports from Promech's people because he knew them. He did not remember exactly what Mr. Falconeri told Mr. Krill, but he probably did not say "adequate" which is what it was.

When the winds were from the south like they were that day, it could be really violent in the dogleg, but it also depended on other factors and sometimes a pilot was the first one through there.

Asked if, while flying a tour, he had ever found himself in a situation where he ended up not having an "out", he said he had not encountered that with his flying style. He said management told the pilots that if they could not give the passengers a landing, bring them back without a landing. If they could not land on the mainland side, they could land on Ella Lake. There were a lot of options. If trying to service the boat, they could land in the main arm and taxi to the boat dock, or the boat could wait, or the passengers on the boat could go back on the boat without boarding a plane.

Asked if he used a formal risk assessment process when engaged in flight planning and dispatch, he said that he checked the Ketchikan terminal area forecast when he woke up in the morning and he looked at the webcams. Turning around and coming back was plan C if not plan B, so the webcams would show if things looked marginal in Behm Canal or the narrows. If the webcams did show marginal conditions, someone would go out and "sniff the weather." He had only done that twice and both times they had ended up canceling. Other operators had CRABS so Promech might do a weather check and an hour later Taquan might send someone else to check. It saved gas. One day they launched 9 airplanes and followed the leader out and then followed it all the way back. The visibility was good underneath but there was sea fog all the way down to point Alava that was not visible on the camera.

Asked how they handled calculating the weight and balance, he said that the tour group knew the weights and apportioned the payload, which as a pilot he appreciated. He did not have to stand there with a pen and paper. It was taken care of for them. The pilot knew the basic operating weight and the minimum fuel load for the flight and they were given the total and then made sure they were in balance.

Asked if he ever used minimums other than 500 feet and 2 miles for launch, he said no. Asked how he used the webcams, he said that if the camera did not show a high enough ceiling they would discuss.

Asked to describe VHF radio coverage over Ella Lake, he said that if one was at 1,200 feet and over the lake they were shielded from coverage. The higher knobs south of Ella Lake also shielded them and caused their target to disappear in the company office. Asked whether the area of the accident site would be shielded from radio contact, he said pretty much. He added that they could not stay in continuous contact. When flying at minimum altitude, they lost contact halfway out on their tour route. If they flew higher they could maintain contact much longer. The frequencies were 122.75 over the island and 122.85 east of Behm Canal.

Point Alava was located due south of the Boca de Quadra RCO.

Mr. Turiano had not flown the accident airplane.

Mr. Turiano said one of the Beavers had the Chelton display that provided an aural terrain alert but he had only flown it two days. The other Beavers had a Garmin 480 and MX20. They did have terrain information. Asked if he had ever heard the terrain warning from the Chelton display he said no, he did not normally fly that low.

Asked about his recent work schedule, he said his work schedule had varied widely in the two months since he started. One day he had worked almost a 14-hour day, but that was remarkable. The tour to the waterfall fishing lodge was sometimes an 0530 show time. There had been a couple of days he was not done until after 1900 local, but only two days like that in two months. They made an effort to rotate the pilots around. Start time was anywhere from 0530 to 0800 to 1130 on the dock, depending on the day, and wrapping up between 1430 and 1900. The company attempted to project hard days off but he had seen that slide. All the pilots were there with the desire and expectation to work. His attitude was "give me my 13 days off per quarter and let me earn some money." He said he had spoken to Mr. Krill several days before the accident and Mr. Krill said he was interested in picking up another day if Mr. Turiano wanted a day off, which indicated to Mr. Turiano that Mr. Krill was not feeling tired.

Asked to estimate the average number of hours on duty per day, Mr. Turiano said they were typically on the dock before 0900 and done before 1700, so maybe 8 hours. On days where the tours were booked heavily, they might fly 6 tours back to back in 8 hours of duty time. It was compressed and they had no auxiliary duties. Asked if the schedule the week of the accident had been typical for that time of year, he said he did not notice anything different. Asked if he had been able to obtain adequate daily sleep working that schedule, he said, "Oh yeah, absolutely." Even the couple of days he had finished at 1900 he still received 12 hours off. He had not heard comments from anyone that there was not enough time to rest at night. During the day there might be a fast pace, but a pilot could take a break if they needed to use the bathroom and they would carry water with them.

Mr. Turiano's last days off before the accident had been Monday and Tuesday the week of the accident.

Asked to describe his interactions with Mr. Krill in the 72 hours before the accident, he said he saw Mr. Krill on the dock when he pushed off for the accident flight, but he did not talk to him then. A few minutes later when he was over Ella Bay, Mr. Turiano overheard Mr. Krill's conversation with Mr. Falconeri about going in there and even though Mr. Turiano could see that it looked great in Ella Bay and Creek, Mr. Krill was 3 or 4 miles ahead so Mr. Turiano asked him how it looked and Mr. Krill said it looked good. Mr. Turiano supposed he was the last person to speak with Mr. Krill. Mr. Krill sounded okay at that time and the weather was indeed adequate.

Mr. Turiano was asked to confirm that he did not perceive the weather in the Ella Lake area to be hazardous when he flew threw that area, and he said "Correct." He said that based on the extent of the rain area, he would not likely have gone into the Ella Lake area and risked having to turn around and come back out without that radio exchange between Mr. Krill and Mr. Falconeri. It met minima. It was a bit turbulent. It was not clear to them that something was seriously wrong so they did dispatch on the subsequent tour.

On that next tour after the accident flight Mr. Turiano did go around Point Alava because he could see the rain up there and it had been turbulent and the passengers were not going to be able to see Ella Lake, so why would he go. As he came abreast of Thorne Arm he could see that it was still raining at Ella Lake and ceiling and visibility had been minimal before, and in 2 miles and rain they would not see much. By that time he also knew there was an ELT and someone was going out to look for the airplane, so he went around Point Alava so as not to interfere. Weather continued to be an issue in there during the afternoon after they had ceased operations. He added that he found it unbelievable that neither the Port nor the Coast Guard had a portable DF unit.

Asked if he had had the opportunity to observe Mr. Krill's performance as a pilot, he said that he did ride in the back of Mr. Krill's airplane one time. They only had one airplane with dual controls and 5 pilots who needed training and checking and Mr. Krill had prior Beaver experience so he was the first one to get through training and checking so Mr. Turiano rode along with him at least once. Mr. Krill was smooth and conscientious. Mr. Turiano had no negative remarks. He liked Mr. Krill and never saw him do anything that would earn a negative comment. He had only observed him doing the right thing and looking out for other people. Mr. Turiano was baffled by how this had happened. He did not know what to think. Asked if he knew Mr. Krill outside of work, he said he had bought him a couple of beers a couple of times. Mr. Krill was a mentor figure but also humble. There was nothing about Mr. Krill's character that told Mr. Turiano he was an accident waiting to happen. Not in any way.

Mr. Turiano stated that he was the youngest pilot Promech had hired for the season and he thought that was noteworthy. He was 50. Promech was looking for pilots with stiff knees and conservative judgment. Asked to describe the apparent state of Mr. Krill's health, Mr. Turiano said he was not overweight. He did smoke a bit, but was not an

"abuser of anything." He had heard Mr. Krill was not on medication for anything, although he had no way to know if that was true. Mr. Krill had displayed no recent signs of illness. He smoked cigarettes. With respect to alcohol, he had seen Mr. Krill have two or three drinks in a night on a couple of occasions, but that was all Mr. Turiano saw. Mr. Krill wore glasses and he wore them when flying.

Asked about any recent changes in Mr. Krill's finances or personal life in the last year that might have been a source of stress, he said that Mr. Krill's wife was handling the sale of a restaurant they owned. Mr. Turiano did not know if that went through or not. It was about a month before the accident. He had overheard Mr. Krill telling his wife on the phone not to worry about it. Mr. Krill was sharing a house with a couple of other guys and ended up moving out to his own place a day or two before the accident. He did not know how significant that was. The morning of the accident, Mr. Krill did not seem the least bit rattled or out of sorts. Mr. Krill was much closer with Shannon Franklin than he was with Mr. Turiano. Asked to clarify whether Mr. Krill had experienced recent interpersonal conflicts, Mr. Turiano said that the housing thing had gone "mildly sour", but Mr. Krill was sharing a house with two other pilots and their dogs. He did not know the root of the dissatisfaction or who it was with. It might have been a stressor, but as far as Mr. Turiano could see it rolled right off Mr. Krill and he seemed fine on the morning of the accident.

Asked about the pay at Promech, he said it Promech's initial offer was the same he was offered at Taquan. He had talked Promech up a bit and Taquan had not gotten back to him. Those were his only two data points.

He thought Promech had adequate pilot staffing. They had generally been getting one or two days off per week. From mid-July to mid-August things really peaked so they were probably not going to get two days off per week then.

Pilot morale had been pretty good. There had been some grousing about the tour schedules being tight and the bus bringing the passengers 20 minutes late sometimes and putting things behind schedule and after the pilots were able to land in the cove and get back early to make up the time the bus would be late again or the tour folks could not get the manifest turned around fast enough. However, Mr. Krill would shrug his shoulders and say, "Whatever man. It's good." Others would grouse. If the schedule slid so far that the next group could not get back to their ship on time, the company would just cancel the tour. So be it. No gnashing of teeth. No big deal. Mr. Turiano was there on a daily rate, so he got paid the same if he flew one flight or 7 flights in a day. Knowing how the weather could be an issue, that seemed like a reasonable arrangement.

Asked if there was a safety manager responsible for managing Promech's safety programs, Mr. Turiano said he was not aware of anyone with the specific title of safety manager. The company had a safety reporting system. He had used it on only one occasion when he fell off a float at the dock and landed in the water. Asked what happened as a result, he said he sat down with the office manager and she made sure he was positive he was not injured. She was the safety manager as far as he knew. Asked if

there were any particular hazards or risks that the company had been recently highlighting or trying to address in some fashion, he said there had been a reminder on the whiteboard in the company office about docking and not falling off the float based on his minor mishap. There had been another issue that did not involve safety involving a restaurant built on the edge of the jetty in the harbor. Somebody there had complained that the airplanes were getting too close. It was more of a neighborly complaint. The pilots had been asked to avoid flying over the breakwater. Asked how he fell off the float at the dock, he said he was used to having a bow line in his hand and he was holding a rope but it was not a bow line.

Asked how he would describe the level of standardization and SOP adherence among Promech pilots, he said they were running a day VFR operation outside the land of painted centerlines. They had an LOA about operations in the harbor and they were expected to take people out to Rudyerd Bay as weather permitted. Other than that, he was not aware of any standard procedures. Asked about the weather minimums, he said they only had the Part 135 weather minimums. Asked if compliance with those was generally pretty good, he said yes.

Mr. Turiano was asked how he felt about the safety culture at Promech. He said it was generally good. He had seen a couple of things he did not much care for. He did not keep tabs of who was in which airplane or recognize the voices, but he thought he had seen one or two pilots not adhering to the 500 foot agl minimum altitude. However, he did not think that involved any of the management pilots or Mr. Krill or Chuck Perkins. On the first run of the day they all pushed off the dock together, and when the weather was marginal he had seen the leader of the "follow me deal" go somewhere he would not want to go, so he sort of questioned that. If the leader of the pack did not walk the talk, then talk was cheap.

Asked whether Mr. Krill was the leader he was following through Ella Lake, he said yes, and he was surprised Mr. Krill did not stick to the lower terrain. Asked whether he recalled the terrain at 1,000 feet being obscured or whether it was just the higher peaks that were obscured, he said the visibility allowed him to see the face of the 2,540 and 2,724 foot peaks that were labeled on the sectional chart. He was not tempted to start turning southwest because there were some hills sticking up to the 1,000-foot level just south of Gokachin Lakes and he could not see them well enough to maintain a 500-foot clearance above terrain or pick his way among those two or three knobs southwest of Gokachin Lake. At 1,200 feet he was above them, but the clearance would be less than 500 feet.

Asked whether he felt supported when turning down flights for safety-related reasons, he said he had not had to do that. After the couple of weather check flights he had made he had absolutely felt supported, but they had realized that the answer might be no. He had not turned down a flight, but he had taken flights, gone out, said "I don't see it happening guys let's cancel the round" and that was okay. He had had the company ask him to go on up to Thorne Arm and see if it looked any better and he had said "Sure, I'll go out there and see." He would take a little detour if he was flying Part 91. It might be a little higher,

but not 500 by Bolt Island. He did that twice and gave the thumbs down and nobody gave him any lip for it. He had not declined any other flights for weather. On a couple occasions he had taken a misty tour into Smeaton Bay. On one occasion he had declined a flight before he left dock. It was partly about weather, partly about schedule. If he went up around Point Alava in the Beaver he could not make up the time. He would not mess around trying to get to Rudyerd Bay. They were fine with that.

Asked about any special training he had received from the company that was tailored to the risks he faced, such as inadvertent IMC or CFIT avoidance, he said he had received training on both. The training was to slow it down, turn around, make sure you were using the resources in the cockpit to pull up the terrain and find open water. The inadvertent IMC training was pretty standard to him, having flown for a couple other Part 135 operators. Also, they had ridden along to see other places the company serviced like Craig, Waterfall, and Steamboat on the other side of Prince of Wales Island. They all rode along with someone from that side to see those areas because if the weather was marginal and they were making a turn through a pass, they knew the technology could go south any time.

Prior to this accident, his top safety concerns related to the company or operating in the area were just about weather. The company really took care of the equipment. There was no pressure to fly into bad weather. It was just that they were outside the world of painted centerlines. They had to keep their guard up and be prepared to turn around or put it on the water. He had been told, and it had been reinforced, that if all 8 or 9 airplanes were sitting in Smeaton Bay waiting for the weather to improve to come back to town, that was fine Mr. Turiano definitely had his "ears pricked up about weather." If they had the minima they were expected to go. If not, they were expected to turn around or find somewhere else they could go. One day he went to Walker Cove north of Rudyerd Bay because he was already up there.

Asked if he had ever experienced an inadvertent IMC encounter in the tour area, he said yes, but only for two seconds with a ragged cloud ceiling in rain and something he did not see hanging down until he was in it. Sometimes a wisp of cloud would come across his windscreen, but otherwise nothing remarkable had occurred, as of yet. Asked if he had heard of other pilots having scarier encounters, he said that south of Point Alava, if not hugging the shoreline and out over open water, he had heard people say they could see water straight down but have no outside visual references. The problem was it was hard to determine what the visibility was. It was more than four miles across the water from Point Alava. He had had people say on occasion that it was hard to tell in the rain when flying at 500 feet. It made sense to stay closer to the shoreline. Of course, if it was raining heavier there one might lose that benchmark for a minute or two, but he certainly had not heard of anyone toying with that when they were not over water.

Asked if there was anything else that he could think of that investigators should have asked him but did not, he re-emphasized the issue about the Chelton terrain display. He had heard from other pilots that when a pilot really needed it most, the terrain display might let them down. When all one cared about was open water, all they got was open

red. He guaranteed that Mr. Krill's display was completely red in the moments before impact and it was not going to give him any useful information. He could not imagine why Mr. Krill ended up where he did, but that Chelton MFD was of no value to him right before the accident. Mr. Turiano wished he could bring Mr. Krill back.

This concluded the interview.

Interview: Leah Shockley, Promech Flight Follower

Representative: Dan Quinn (Attorney)

Location: In-person interview, Bill Bramble via teleconference

Time/Date: 1130 AKD, June 28, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen

(FAA), Dwayne Edwards (FAA)

During the interview, Ms. Shockley stated the following information.

She had lived in Ketchikan for 6 years and been with Promech for five years. She had started in the tour office as a tour representative, and this was her third summer as a flight follower. She stated that she had no previous formal dispatcher training. She stated that her duties and responsibilities as a flight follower included collecting weather and advising pilots enroute of significant changes, making sure that flights got out, and a "little bit of everything else."

Asked about the flights the day of the accident, Ms. Shockley said that the accident occurred during the third round of flights of the day. When the second round was arriving in Ketchikan, the pilots said the third round was good to go. They said Point Alava was still the preferred route for the third round, but on the way out they radioed that the weather was opening up a lot and they would probably be able to return via the short route.

As the third round of flights began checking in on their return, a few of the pilots indicated that they were returning via the short route. One checked in at Mountain Point and one checked in passing Point Alava. As the airplanes were returning to base she realized she had not heard from the accident pilot, so she started checking around for him. The company had a Beaver enroute, and she tried unsuccessfully to contact the accident pilot via that airplane and other flights in the area but she was unsuccessful.

After a short period of time the company president started preparing another airplane to go out and look for the overdue airplane. The remaining Promech airplanes were being dispatched on a fourth round of tour flights, and while outbound to Misty fjords one of the pilots radioed that he was hearing an emergency locator transmitter on the radio. After that report, the company president took a plane out to search for the missing airplane.

On a normal day airplanes would report outbound via Mountain point or Alava, and inbound they could call Ella Lake, Fish Creek, or Gokachin. Unless they were really high she could not hear them prior to those reporting points when they were returning to Ketchikan. The airplanes called in their reporting points over a Marine band frequency.

She did not remember getting any calls from the accident pilot (270) on his inbound flight. Asked in what order the Promech planes had checked in on the return leg of the third round, she said 959 had called Point Alava inbound, 409 came the short way and called Mountain Point (5 minutes from Ketchikan) and 397 called inbound at Fish Creek

(at the top of Thorne Arm). Those were the only three Promech planes coming in. Asked when she realized that the accident airplane had not checked in, she said she noticed it when 409 checked in at Mountain Point. That was when she realized she had not heard from 270 and tried calling him. Asked if she was certain about the order that the planes checked in, she said no, but she was certain she began calling for 270 after 490 checked in.

Asked who decided to go via Point Alava on the outbound leg of the third round, she said that when the pilots returned from the second round they said it was still an Alava run, but it was breaking up a lot and they would go the short way next.

During the first round of flights, the accident pilot had used the short route outbound and the rest of the group had taken the long route. The report at that point was that the short route was better. During that first round, the pilot of 270 reported about the conditions on the short route and 959 reported on the conditions along the Point Alava route. Asked if she recalled any details the accident pilot might have reported about the weather he encountered along the short route during the first round of flights, she said she would have to look at her notes.

Asked how the company tracked the airplanes from their base, Ms. Shockley said that they had a program that they ran on the computer that allowed them to see the airplane's position and she did monitor it. They could not always see the airplanes depending on where they were in relation to terrain, because it was line-of-sight, but the airplanes were required to check in via radio at least every 30 minutes.

When asked about operational control and her function in the company's operational control procedures, Ms. Shockley stated that she had limited operational control. Mainly she collected pertinent preflight weather data and passed it to the pilots. Ultimately, a manager decided whether they wanted the flight to go out. It was their all. She said, however, that she had partial control with the pilots as to whether a flight left or was canceled, and the pilots had some control also.

Asked to summarize who had overall responsibility for operational control, she stated that the president of the company, the director of operations and the director of maintenance had full operational control. Asked whether they delegated operational control to the flight follower and the pilot jointly for each specific flight, she said yes.

Asked how the flight followers are supervised, she stated that the director of operations was their direct supervisor. Asked if her work was ever sampled by management, she said not formally, but the director of operations was usually around to witness the daily operations.

Ms. Shockley stated that her training consisted of studying the company general operations manual and operations specifications, and on-the-job training. She was already familiar with the company having worked there prior to becoming a flight follower. She

could not recall how long her initial training lasted, and she had not received any recurrent training during her employment.

Asked if she reviewed the flights with pilots before every flight, she said yes, she usually reviewed every flight with the pilots. When they were on their way back she would ask them if it was still good. They would sit down together and make the go / no-go decision. Asked whether she felt that the pilots respected her input and took it into consideration, she said yes. Asked whether they ever had disagreements with her over such decisions, she said she did not think so. She never had any issues with pilots pushing back if she thought the weather was bad.

Asked what weather products she used to evaluate the weather in the morning, she said the weather cameras were a big one. The weather was also faxed to them every day from the National Weather Service. There were some good Canadian websites and the marine forecasts were good tools as well. There was a weather board in the dispatch room that was updated throughout the day if there were any significant changes in the weather. Asked if she had any additional weather training, she said the chief pilot had shown her different things to look at. Asked what pilots relied on most when looking at weather, she said the weather cameras and pilot reports were the most used sources. She stated that she did not print out weather for pilots. Rather, they had discussions throughout the day. They also got weather information from the other tour companies who would sometimes call them.

Asked if she was familiar with the accident pilot, Ms. Shockley stated that she had just met him this year. They had gone to dinners and company social outings together. They were pretty good friends. The night before the accident, she and a group of company pilots (including the accident pilot) met after work for drinks and dinner. They went to dinner about 7 or 8 PM. The accident pilot had water and a salad with salmon for dinner and he had dropped her off at her house afterwards. She received a text message from him at about 9:58 PM saying that he had made it home and was going to bed.

Asked whether he was having any health or other personal issues that might have been on his mind, she said no, he had a business at home. He had no health issues that she was aware of. He was fine. He seemed his normal self on the morning of the accident.

She could not remember the last time she saw him on the morning of the accident. She recalled seeing him pull up at the base of operations and going down to preflight his airplane. She thought it was an 0700 show time, but could not remember for sure. She did not really see him much that morning. He just went from flight to flight. She did not recall having any conversations with him beyond normal greetings. Asked whether she could recall having any conversations with him about the weather that morning, she said she only recalled the weather report when he was outbound on the first round of flights. That was all she could remember coming from him.

Asked what previous jobs she had held with Promech before becoming a flight coordinator, she said she had worked as a tour representative in the tour office on the

dock for two seasons, then as assistant tour manager for a year, and then she had moved into flight following.

Her work in the tour office during her first two years had involved collecting the passengers, preparing the manifests, and organizing the people to put them on the plane. Asked how the weight and balance calculations were performed, she said they would either put each passenger on a scale or ask their weight and add 10 lbs. They had a number that they needed to stay under for each pilot and plane. They made sure they were not over the limit and then they gave the information to the pilot and the pilot would put the passengers where they wanted them in the plane.

Asked if she had any aviation background herself, she said that she had become a pilot in 2012 before she began working as a flight coordinator. She held a private pilot certificate with a single engine land and sea ratings and a tail wheel endorsement. She had done her training in Osceola, Wisconsin. She had received aviation weather training through the private pilot level so she knew how to interpret METARs, TAFs, and FAs.

Asked what weather information she put up on the bulletin board, she said she put the forecast and the depiction of the high and low pressure systems. Sometimes she would include additional information. Asked if she had received any specialized weather training in her role as flight coordinator, she said the former chief pilot had helped out a lot. He had showed her different things to look at and another dispatcher had trained her as well.

Asked whether she recalled any interactions with the accident pilot the day before the accident, she said she only recalled hanging out with him after work. They had had a drink and talked and played music and afterwards they went out to eat at Annabelle's. They went there with Shannon and Chuck. Mr. Krill seemed good. They were all in good spirits, laughing and just enjoying themselves.

Asked about the pilot's reputation within the company, she said he had a good reputation and she considered him one of the go-to people if they had a charter somewhere, like the Waterfall Resort.

Asked if the pilot had ever made any safety decisions that gave her cause for concern, she said that one day he was fine and made a decision to turn around, but that was a good decision. She said the weather that day was okay, with scattered showers, and the accident pilot had turned around and Mountain point. She thought that maybe he got into one of the showers and was not comfortable continuing.

Asked if she knew of any interpersonal conflicts the pilot was having, she said that the only thing she could think of was that he was moving to a new house where he would be living alone instead of with other pilots. She did not know the details, however.

Asked if she was part of the emergency response, she said that she had a red emergency response folder and she just followed the guidelines that were in the folder if an airplane

was 30 minutes overdue. She would call their airplanes and other operators in the area as well as Flight Service. If the airplane was an hour overdue they would have to start initiating other procedures. Those involved contacting main management, the Coast Guard, the hospital, and the Alaska State Troopers. There was a list they went down.

Asked when the 30-minute clock had started ticking for the accident flight to be judged overdue, she said they were actually ahead of the 30-minute timeframe between checkins because the other airplanes had returned from the tour and the accident pilot had not. The beaver (409) had checked in about 12:20 PM and that was when she started to call to see if anyone could find the accident airplane. The group was originally due back between 12 PM and 12:10 PM. She could not recall why things were running slightly behind schedule.

Typically, the tour should take no more than 1 hour 15 minutes, so if an airplane was not back in 1 hour 15 minutes that would be the start of the clock to decide they were overdue. Asked how long after the accident airplane was due back that the ELT was detected, she said the ELT was heard about the time the accident airplane was due back. She thought the accident airplane departed the dock a little late on the third round. It would have departed the boat dock in Rudyerd Bay about 1200, which would have meant a 1230 arrival in Ketchikan.

Asked if that had created any problems as far as getting the passengers back to the ship, she said yes, 1230 was their all-aboard time and the ship was scheduled to leave at 1300. Asked how long it would have taken to transport the passengers to the ship after they arrived, she said 5-7 minutes. Asked whether they could have gotten the passengers to the ship with 20 minutes to spare if the accident flight had returned at 1230, she said they would have gotten them to the ship after their all-aboard time but before the ship departed. Asked how late the passengers would still be able to board the ship, she said the ship would wait for the passengers regardless because they had booked the tour on the ship.

Asked whether the degree of lateness of the accident flight was unusual and whether it would have caused any undue stress on the part of the pilot, she said that they typically had 15 minutes between flights. They were supposed to be back by 1230, but there were ways to cut the time to make it work like going straight to the dock in Rudyerd Bay and spending less time doing the tour in the fjords. Asked whether the extent to which the accident flight was late was typical or unusual, she said it had been a concern for her. When she did not see him on the screen she thought maybe he had tried to go the short way but had turned around and was coming back via Point Alava.

Asked whether the proximity of the accident flight's estimated arrival time to the ship's all-aboard time was typical or unusual, she said it was not very common but it had happened before. There had been times when they had gotten behind. Asked whether that was something the pilot would be concerned about or whether they would not be concerned because the ship would wait if needed, she said probably both. They knew the

ship would wait, but they would still want to get the passengers back at an appropriate time.

Asked if she could recall interacting with Mr. Krill two days before the accident she said no, she had that day off.

Asked what put the third round of flights behind schedule, she said she could not recall. It could have been late for a lot of reasons.

Asked whether her estimate that the accident flight's return time (1230) was based on the time that the accident airplane departed Ketchikan on the third round, she said yes. Asked whether the planes left about 20 minutes late on the third round, she said yes. Asked whether the second round of flights was also late departing, she said she did not believe it was, but she could check.

Asked if she interfaced with the other operators, she said all the companies on the waterfront relied on each other to communicate information. The pilots communicated on a common frequency and she would call the other operators on the phone to get weather reports from them. Asked whether the morning of the accident seemed like it was going to be business as usual or whether there was any indication that it might be a hard day, she said it was business as usual. The reports she was getting were good.

Asked whether they had felt a greater sense of urgency than they did on a typical day, she said she did not think there was any of that. It was really a normal day. Asked to confirm whether, if the accident airplane had showed up late, the ship would not have departed she said that was correct. Asked whether the pilot knew that, she said yes.

This concluded the interview.

Interview: Marcus Sessoms, President and CEO, Promech Air

Representative: Dan Quinn (Attorney)

Location: Promech Offices, Ketchikan, Alaska

Time/Date: 1300 AKD / June 28, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen

(FAA), Dwayne Edwards (FAA)

During the interview, Mr. Sessoms stated the following information.

He was 46 years old. He had obtained his pilot certificate in Miami in 1988 or 1989. His began his first flying job in 1990. He was flying military operations at Ft. Bragg at a very young age. He left there in December 1991. Next, he flew for Miami Air Charter where he operated Beech 18s in the Caribbean for few years. He was called back to Ft. Bragg and did all kinds of work for the 82nd Airborne Division and the 24th SGS doing airborne operations. He went to Alaska in 1997 to fly for Seaborne Aviation (owned by Chuck Slage and Ken Dole) on a summer break from Ft. Bragg. He was a captain on the twin Otter because had a lot of experience in that airplane. It was his first time flying a float plane. Seaborne's office was located in the same building where Promech's was now located. He did that until the Seaborne sold its Ketchikan aviation business to Promech.

Mr. Sessoms spent the winter of 1998 in the Caribbean where Seaborne was operating as a 121 scheduled commuter airline. In 1998 he served as the chief pilot for Seaborne and in 1999 he was the director of operations. He did that until 2005 when Mr. Dole, who owned Waterfall resort, called and said that the Owner of Promech Air was liquidating the business and he was worried about the lack of lift for his resort. Mr. Dole wanted Mr. Sessoms to come back to Alaska and take over as President of Promech Air. Mr. Sessoms initially said no because his family enjoyed living in the Caribbean, but he was working 7 days a week in the Part 121 world and was tired of operations and he wanted to move into aircraft ownership. He called Mr. Dole and found out he had the opportunity to own some planes and lease them back to the company, so he decided to move to Ketchikan.

Promech had been a 135 commuter that transitioned to a Part 121 air carrier. After Seaborne sold their float business to Promech, Promech did some work in the twin Otter. When 9/11 happened it nearly buried Promech. They had twin Otters and Beavers and the new DHS security requirements nearly killed them. They could not make it and they were going to liquidate by 2005. In 2005, Mr. Sessoms came up for the summer and in 2006 he moved to Ketchikan full time. He lived in Ketchikan full time until the fall of 2014 when he returned to the Caribbean to begin establishing Promech operations there. Promech had canceled its scheduled flights in Southeast Alaska and there was no growth model for the company there, so Mr. Sessoms had obtained approvals to operate between Key West and Cuba. He had spent the last several months trying to obtain Cuban permission to operate his float planes there.

Mr. Sessoms was very passionate about floatplanes. He had employed 300 to 400 floatplane pilots over the years and he was very sad to have experienced an accident. He

had come from a Part 121 environment and safety was always the center of the business so he felt he had a different mindset then some of the local operators in Ketchikan. The Part 121 world was "by the book" and this company was based on that because that was his background. Transitioning to a Part 135 operation had been a challenge because it was different, but they went above and beyond the requirements. Mr. Sessoms was proud of his past record in management because in his previous 18 years in the float plane business he had never hurt anybody before this accident.

Asked to describe his normal duties and responsibilities, he said that until a few years ago he had been the director of operations. The winters were very slow and they did not need many layers of management. They only had a couple flights a day in the winter. When he started the Promech operation in Key West he hired Clark Hassell because he believed the manager on duty should be on site. Clark would be there 100% of the time there was a plane in the air. His day-to-day role in Ketchikan had been dialed back considerably as he had become more focused on accounting, buying parts, cruise line agreements, and maintaining relationships. He was doing the big picture stuff rather than the day to day movement of airplanes. He was listed an agent for service in the Promech operations specifications, but he was no longer listed as the director of operations.

Counting the accident airplane, Promech had 4 turbine otters and 5 beavers in Ketchikan and 2 turbine otters in Key West. They had a total of 11 airplanes on their certificate. They employed 12 or 13 pilots and two flight coordinators in Ketchikan. They employed a total of about 40 employees in Ketchikan. Promech managers included Clark Hassell, the director of operations, Bob Grace, the director of maintenance, Mr. Sessoms, Evan Phillips, the chief pilot in Key West, Jill Lindgrin, the office, HR, and scheduling manager, Tony Hancuf, the director of tour operations, Peter Green, the general manager of the Key West operation, and Ken Dole, managing member of the LLC for accounting purposes.

Asked to describe the nature of the company's operations in Ketchikan, Mr. Sessoms said that from 2005 until October 2014 Promech had provided air taxi service and also scheduled service involving passenger flights and mail contracts. They had been the biggest freight operator going into some communities in Southeast Alaska such as Metlakatla, Hollis, Thorn Bay, and Craig. Growth potential was poor, winter service was getting slower, and the US Post Office decided to award the contract for service into Craig to a wheeled operator. Promech was losing \$500,000 each winter so it was not making economic sense. Promech talked with Wings of Alaska about what they were doing exclusively flying air tours, and it made sense, so they had stopped providing scheduled service, although they were still authorized to do so. Currently their business involved tour contracts with the cruise lines and the Waterfall Resort and ad hoc charters, as requested. About 90% of their business was flightseeing tours.

Mr. Sessoms was asked how Promech pilots were paid. He said they were paid a day rate that depended on their experience level. They were guaranteed a 20-day minimum each month in case there was a bad run of weather. Everyone except management was on a day rate. Pay did not involve any penalties or bonuses for performance.

Asked whether there had been any significant changes in the nature of the company's operation in the last year or two, Mr. Sessoms said they had recently hired a new chief pilot (Evan Phillips), they had a relatively new director of operations (Clark Hassell) who had been in place for a couple of years, and Mr. Sessoms had been living in the Florida Keys from October 2014 to April 2015. Before hiring Mr. Hassell as director of operations, Mr. Sessoms had served as director of operations. He needed a director of operations who was more mechanically inclined and Mr. Hassell was an A&P mechanic and a great pilot with a ton of Otter and Beaver hours. He sought Mr. Hassell out in Seattle, brought him on, and paid him top dollar.

Asked if there had been any significant changes in training for pilots or flight coordinators, he said not that he was aware of. Asked if there had been any significant changes in the company's regulatory requirements, he said SMS was ongoing. Promech had been a medallion member for a while and the cue-based training was ongoing, but otherwise there was nothing new.

Asked to review the origins of Promech Air again, he said it was started by Kevin Hack in the late 1970s. Mr. Hack was a mechanic who decided to get an air carrier certificate. He started with a couple of Beavers and the business grew. West Flight was started by Chuck Sagle and Ken Dole. They did flights out to Waterfall Resort. Over the years that fell apart and Seaborne was created in 1992. Chuck Sagle and Ken Dole were friends, so they decided to have Promech and Seaborne share a facility in Ketchikan.

Seaborne was doing tours in Alaska and providing scheduled service in the Caribbean. The Caribbean was a place to send planes in the winter. In 1997 the Part 135 rule had changed and the company's Twin Otters had to go Part 121. Seaborne had gotten a Part 121 certificate and did tours in Alaska and scheduled service and tours in the Caribbean. That business started to grow. During that period, Mr. Sessoms flew in the Caribbean in the winters and in Alaska in the summers. In 1999, the owners of Seaborne wanted to get out of the business and Mr. Sessoms was among a group of people who raised money and purchased Seaborne from Mr. Sagle and Mr. Dole. At the beginning of 1999, Seaborne had all the onboard tour agreements with the cruise lines in Ketchikan and Promech only handled overflow passengers. When Mr. Sessoms and his partners bought Seaborne, Promech bought the name and became the sole tour operator aboard the cruise ships. In late 2004 or early 2005, Mr. Dole made Mr. Sessoms the offer to partner with him and move back to Ketchikan to run Promech.

Asked what had become of Seaborne, Mr. Sessoms said it was still a going concern and they operated 7 Otters, but he had become a minority shareholder in that company. Asked whether Promech was currently operating in the Caribbean, Mr. Sessoms said no. Promech was only operating in Key West. They did unscheduled Part 135 flights to the Dry Tortugas. All current Promech flights were nonscheduled. They had about 12 employees, including three full-time pilots in Key West.

Mr. Sessoms was asked if the cruise ship tour contracts in Ketchikan included any bonuses for on-time performance and he said no. Asked whether it would have been a problem if the accident flight returned late, he said no. If Mr. Krill had landed in Ketchikan at 1240 and the all-aboard time was 1240, that was when they wanted people to start getting back on the ship. It was not a big deal. If a flight was running late, they could call the ship and tell them the people were going to be there 5 minutes before departure. It was a normal part of the process. They did not absolutely have to be back on time. Mr. Sessoms said he thought he made that clear when he spoke to the pilots. He came into the flight coordination office as the tour planes were taking off on the accident tour, asked what the all aboard time was for those passengers because the planes were departing late. He grabbed the mic and said, "Hey guys, don't forget about your 1230 all aboard." That occurred just as they were leaving.

The planes launched on the accident tour between 1115 and 1125. He made the comment about the all aboard time and then went back to this office to do work. He remembered Mr. Franklin calling 10-15 minutes into the tour to say the weather was looking wide open and the short way would be the preferred route back from the Misties. He also said the 1230s looked really good. They tried to let the tour office know in advance if there is a possibility of cancellation, so that meant the 1230 tours were likely to happen.

Mr. Sessoms went back to work. About the time he expected the planes to be coming back he went in the flight coordination office to look at the screen. Their planes were outlined in green on the display so he could glance at the screen and know they were coming back. He saw Mr. Franklin's target somewhere around Thorn Arm. Mr. Franklin was asked how the weather was, and he said it was good. At the same time, Mr. Sessoms noticed that Mr. Perkins was going around Point Alava and he was not quite there yet. Mr. Sessoms or the flight coordinator Leah Shockley asked Mr. Perkins what the weather was and he said the weather was nice and smooth. He said it was nice and smooth, unlike the short way, and that the passengers were very happy.

Mr. Sessoms went back into his office and did some work. Mr. Franklin landed in Ketchikan. Out of curiosity, Mr. Sessoms went over and looked at the flight tracking screen again. He saw 397 coming through the dogleg going the short way. Ms. Shockley said she had not heard from 270 (Mr. Krill's airplane) yet. Mr. Krill was not due back for 15 minutes so Mr. Sessoms was not alarmed. Mr. Sessoms said it was odd that 397 would be ahead of the otter. He had wanted to put people on the Otters to get them back faster. That was the first moment he thought something was odd.

Mr. Sessoms told Ms. Shockley to ask where 270 was. They typically called "Ella inbound" out of Rudyerd Bay and Mr. Sessoms anticipated that he would hear from Mr. Krill any minute. That did not happen. He called Mr. Turiano and said he found it odd that they had not heard from 270 yet. Mr. Turiano said that was funny because he had heard Mr. Krill in Ella and Mr. Krill had been in front of him so he should still be in front of him but Mr. Krill was not on the screen. Ms. Shockley asked Mr. Turiano to try Mr. Krill on 122.75, but Mr. Turiano could not reach him. At that point, Mr. Sessoms was somewhat alarmed but not overly alarmed.

Mr. Turiano came around Mountain Point and called for 270 but there was no answer. Then 397 landed, but there was still no answer from 270. Mr. Sessoms was getting worried. Mr. Krill was not supposed to be back yet on a textbook turn because since he had left at 1120 he was due back at 1240, but Mr. Krill knew they were trying to get the people back at 1230. Mr. Sessoms became slightly alarmed. Mr. Sessoms talked to Mr. Turiano on the dock and asked if he had seen or heard anything, and Mr. Turiano said no. Mr. Sessoms stood there on dock and thought about what to do. He called Bob Grace and said they might have an airplane with mechanical problems sitting on the water somewhere. His concern was that Mr. Krill still could have called, so he wanted to be available if Mr. Krill called.

Mr. Sessoms told Mr. Grace they should get in a turbine otter and go look for Mr. Krill. Mr. Sessoms got his headset and preflighted the airplane. The next round of planes was going out on a tour. The pilots were taking off and Mr. Sessoms was sitting in the plane waiting for Mr. Grace. Mr. Grace came down and they started the plane and taxied out. Mr. Franklin was in front and had already left on the next tour flight and he transmitted that there was an ELT going off. At that point Mr. Sessoms got really nervous. He was still in the pond at the Promech docking area. He stopped the plane, pulled out his phone, called his business partner and said they had a missing plane. He said normally that would not alarm him but now they had an ELT going off. Mr. Dole asked what Mr. Sessoms wanted him to do and Mr. Sessoms said in a plane and come here. After that, Mr. Sessoms took off. After he got in the air, he called dispatch, called off the harbor, and said call Clark, Call Carl, bring them in ASAP, and execute our emergency response plan. Those were his exact words. He said ground all the planes that come back to base. Mr. Sessoms thought Ms. Shockley asked "Do you want me to turn them around?", and Mr. Sessoms said no, when they come back shut down the business.

Mr. Sessoms flew out of there, turned down the squelch, and looked for 45 minutes. When he arrived near the crash area, the weather was windy and choppy. Nothing they had not seen a thousand times before. It was bumpy in dogleg due to the wind direction. He flew up to the base of clouds which was a 2,500 foot overcast layer. The visibility was outstanding. He said he was initially flying in Princess Bay, to the north side of Thorn Arm. He looked everywhere there. He looked in Princess Bay because Mr. Franklin had said the ELT was really strong over there. The tour planes were all flying by and Mr. Sessoms was doing 360s to the point where Mr. Grace was getting sick in the airplane. Next, Mr. Sessoms saw that Steve Kamm was out there. He had probably been listening to Promech's company frequency and he was circling and searching. Mr. Sessoms's search moved to Ella Lake. While flying, he would climb to the cloud base at 2,500 feet and talk to the company. Mr. Grace was in right seat. Mr. Sessoms was thinking how could this happen, the weather was high and clear. Mr. Sessoms started circling in Ella Lake. He could feel the wind rolling down the hill and pushing from east to west toward Mirror lake. A 2,000-hour pilot in a beaver might say it was severe turbulence, but it was not. It was something they had flown through a million times, but it was windier than he was expecting. The two windiest spots were the dogleg and Ella Lake. It took Mr. Sessoms by surprise, but he would have flown through it on a Misty

tour without too much notice. He realized that was the loudest area for the ELT signal, so he spent the latter part of his flight searching the area between the middle of Mirror Lake to Gokachin lakes. In the 45 minutes he was circling there a rain shower moved through and visibility went down to about 4 miles. It was clear and then the next second it was all fogged in, and then five minutes later it was clear again. It was a rain shower. Mr. Grace's head was in his hands and he was soaked with sweat, so he decided to fly back to Ketchikan.

Previously, on his way out to look for the missing airplane, probably around the Thorn Arm area, he had flown as high as he could, called dispatch, and told Ethan Berto, the owner of Temsco, the company that owned Promech's boats, to let them know the situation and to ask Temsco for an emergency response. He asked them to bring helicopters and have all hands on deck for a rescue. They responded and he could hear them, but by that time he was down low and they could not hear him. Mr. Hassell left the office to go home to get supplies. Mr. Zink called to tell Mr. Sessoms that the emergency response plan was activated and headed his way, so Mr. Sessoms knew that was inbound. After that he was searching until he finally got over to Ella Lake and then opted to go back to Ketchikan.

On his way back to Ketchikan, Mr. Sessoms climbed up again. As soon as he got over to Thorn Arm he was out of the rain shower and in the clear. Mr. Sessoms said he would land, get some water, drop Mr. Grace off, and have Mr. Hassell take the airplane out to continue looking for the missing airplane. Carl Zink met Mr. Sessoms at the dock and they walked to his office. There, he received a list of everything that had been accomplished. They went through it step by step by step. He wrote down the times he made calls. The first call he made was to John Percy. Mr. Percy did not answer. After that, he called Gregory Horrell, Promech's PMI. He advised him of the missing plane and the ELT going off and that he thought it was Promech's. He told him the scenario, and Mr. Horrell gave Mr. Sessoms instructions said to keep him informed. By that time Mr. Burdell had arrived. Mr. Sessoms' next call was to NTSB. Mr. Zink had already called the Coast Guard and Temsco at that point. He had actioned the majority of emergency response plan except for calling the FAA and NTSB which Mr. Sessoms did.

The Otter was airborne by this time and doing circles again. At some point before 1500, Joe Hicks, the pilot on the helicopter, said that they were looking and they would continue to look. Rain showers were there and the visibility was down. Mr. Sessoms asked what they should do with airplane 9PL out there, and whether he needed their support. Mr. Hicks said no, pull them away, we're on scene, so Mr. Sessoms told dispatch to pull the Otter back and make sure all the planes were at the dock. After they verified that all the planes had returned, Mr. Sessoms shut down the business. He went to dispatch said he wanted everyone out of that area. He sent the dispatchers home and set up the office area as nerve center for the emergency response. He called the cruise lines, Mr. Horrell, and the NTSB to kept everybody updated. At 1500, he received a call that Temsco had located the plane. Mr. Hicks called and described what he had seen.

Mr. Sessoms called Mr. Horrell and told him the plane had been positively identified, and that it had crashed. He told him that the wings and tail had dislodged, that the fuselage seemed intact but, that it was on a mudslide and facing up. That caused Mr. Sessoms to think perhaps they had survivors. Next, he contacted the cruise lines and told the Coast Guard, Mr. Horrell, and the NTSB what he had been told about the accident airplane. After that, they sat around and could do nothing in the Promech office and that was the worst part of it, the waiting and the unknown. Mr. Sessoms had the CEO of Holland America and all the Vice Presidents of Holland America on the line. He talked to them three or four times. Mr. Sessoms also spoke with his business partner who had arrived. At that point, Mr. Sessoms started delegating because he was overwhelmed. He gave his partner specific duties, and his partner started communicating with the cruise lines. Jill was also communicating with them because they had a ship that was missing their people. It was an emergency, but Mr. Sessoms recalled being astonished at how calm, cool, and collected everyone was during the emergency response. He was worried about everyone involved.

Next, Mr. Sessoms received a call from Mr. Burdell in his office. Mr. Burdell said there were no survivors, they were all deceased. Mr. Sessoms called the CEO of Holland America. The Holland America executive were all sitting in an emergency board room in Seattle and Mr. Sessoms was on speaker phone. The lady who answered the phone was a dear friend of his from 1997, and he explained to her that he had the worst possible news he could give her. He did not realize at the time that he was on the phone, and he heard all the people react in the background. Next, he called the FAA and Mr. Horrell. Duane was in the room with them. Mr. Sessoms told them there were positively no survivors. Mr. Sessoms had a lot to do. Their family assistance plan had to be executed. Mr. Sessoms was living for Temsco's phone calls as they were notifying Promech about details at the crash site. The rest of it was dealing with first responders and rescue people. At that point, Mr. Sessoms and the others at Promech did what they were told to do.

Mr. Sessoms was asked to describe Promech's relationship with the company's principal operations inspector (POI) and others at their FAA Flight Standards District Office (FSDO). He said the relationship had been good. Bob Grace was a well-respected PMI. He worked well with the Promech mx people. Mr. Sessoms said that he used to work well with Promech's FAA POI. The FSDO came down on them when they needed to, and Mr. Sessoms thought it was fair. Sometimes Promech would make mistakes and tell the FAA about it, so he thought the relationship was healthy.

Asked how operational control was maintained, Mr. Sessoms said it was maintained by the presence of someone who was listed on the operations specifications being there 7 days a week. Asked who had responsibility for operational control, Mr. Sessoms said that when he was not there, it was Mr. Hassell. They had appointed Carl Zink as assistant chief pilot that summer as well. Mr. Zink had been flying in the area for a long time and had a lot of local knowledge. He came on the previous year, and had worked for them before in the past. Mr. Zink had begun playing a role in training after being checked out as a company instructor in 2015. The training was a team effort involving the chief pilot, Mr. Zink, and the director of training. Asked how operational control was delegated when

Mr. Hassell was not available, Mr. Sessoms said Mr. Hassell would typically delegate it to Mr. Zink or Mr. Sessoms or to dispatch. They tried to ensure that one of them was always present. Asked if Promech maintained a current list of operational control delegates, Mr. Sessoms said he was not sure.

Asked to describe Promech's approach to managing safety, he said safety was at the forefront for management across the board in their business. They were a float plane business and safety was number one. They had just held a meeting the Friday before the accident where they talked about safety issues and concerns. It was an open safety discussion. That was how they managed it. It was mandatory for pilots. The meeting was run by the director of operations and all the pilots were there, including Mr. Sessoms.

Asked if there was a written safety policy and an accountable safety manager, Mr. Sessoms said the director of operations managed all that. They had safety reports. They had the tools necessary for pilots to communicate safety concerns to management. Management communicated a lot with the pilots, interacting with them daily. They would say little things to them here and there. There was a lot of movement in the operation, so management watched very carefully. The skill and experience level of the manager on duty was so important. Mr. Sessoms said he wanted to fly. He wanted to get out there and watch what the pilots were doing. The director of operations was not a full-time pilot position, but Mr. Sessoms told him it was important to get out there two or three times a week to watch and listen to the pilots. Mr. Sessoms did that often as well, although not as much this year as he had in the past.

Asked for more details about Promech's participation in the Medallion Foundation, Mr. Sessoms said they had the CFIT star and their safety star was in progress. They were trying to get another star this winter because they had worked really hard at cleaning up the office and the manuals. Asked if the safety star was like an SMS program, he said yes. He thought it was changing because SMS was not a requirement but Medallion was working with Promech to get an SMS program going. Asked if Promech had a formal written safety policy, he said yes. Asked if they had a formal safety officer, he said no. Asked if the company performed risk assessments, either in general or on a per-flight basis, he said they did not have a documented risk assessment process, they just performed general risk assessment. They had general manager's meetings, they brought the pilots in, and the spent a lot of time watching the operation. The operation had a lot of moving parts with the boats and the airplanes.

Asked if there was a way for employees to bring up safety-related issues anonymously or without fear of retribution, he said the safety reports could be submitted anonymously in a box in the lunch room. Copies of the report form were located in the GOM and next to the box. Typically, they just walked in and told the managers if they had a concern, but they had the ability to do it either way. Asked whether they ever received written reports or mostly verbal reports, he said Mr. Hassell might have received written reports, he did not know. Verbal reports were more likely. Asked if the company monitored trends in operations or maintenance, he said they certainly did trend monitoring for the PT6s. Weather trends were the most important for operations. They had really trendy weather

patterns so they monitored the direction of the weather in the area in general. On the day of the accident, the trend was improving. After the accident it was just the opposite, but the weather was better in town. Mr. Sessoms was asked if he recalled anything about an earlier tour on the day of the accident when Mr. Krill went the short route and the other pilots went the long route. He said he did not recall hearing that. He did not think anyone had gone the short route earlier that day, but Ms. Shockley would know.

Mr. Sessoms was asked if Promech had minimum requirements for pilots to act as PIC on the Otter. He said they had no written minimum experience requirements but they did not typically hire direct entry, but a pilot who was showing strong progression in the Beaver and wanted to transition could make the transition. Mr. Sessoms had been told that Mr. Krill's flying skills were perfect. They liked to see good decision making skills. They liked to see them work for a month or so and see what their decision making was like and how they interacted with the passengers. Decision making with weather was an important thing there in Alaska. It was a collective decision there.

Asked how pilots like Mr. Krill were trained, Mr. Sessoms said that Mr. Krill arrived in April. He did some Beaver ground school, some emergency procedures, and some safety training. He went through flight training before the other Beaver pilots because of his time in the plane. He was expected to be an easy check-out with 1,400 hours of float time in the Beaver. Mr. Krill did his flight training in the beaver, passed his checkride, and Mr. Zink or Mr. Hassell rode in the right seat with him for 7 hours, even though it was not required. They were very pleased with what they saw. They let him fly around for a few weeks and then started talking to him about transitioning to the turbine Otter.

After that, there were many days when Mr. Krill was sitting in the office studying the Otter manual. It showed that he wanted to move up. Promech had a Chelton simulator for the display that was installed in the Otters and one Beaver) and a Garmin simulator. He sat there for days all on his own time working on that. That was not documented training time. Mr. Krill then moved to the Otter, flying with Mr. Hassell and Mr. Hassell said Mr. Krill was "a real good stick." They trained all kinds of extra emergency engine issues, feathered props, restarts, and relights, and Mr. Krill "hammered it." Promech did CFIT training, putting hoods on people, flying into canyons, and simulating IMC encounters. During that training, Mr. Krill had to use the Chelton equipment to turn around, fly down to water and land without being able to see anything. He did it perfectly several times in the Beaver and more than once in the Otter. They also did a full checkride and then rode with him in the Otter for 4 or 5 hours.

Asked if it was standard to lower the flaps to reduce the turn radius during an inadvertent IMC recovery maneuver he said yes. They would typically lower the flaps about 20 degrees, which was about two "pumps". The Otter had big wings. A couple pumps of flaps and it slowed right down. A pilot could turn the Otter or the Beaver on a dime. Asked whether lowering the flaps was a standard part of the inadvertent IMC recovery procedure, he said yes.

Asked who was responsible for training the pilots, he said the chief pilot and director of operations. It typically took a week to 10 days to get a Beaver pilot up and running. It was the same for the Otter. Depending on a pilot's background, they might be able to do it in three days. Mr. Krill had been checked out on the Otter in May 2015.

Mr. Sessoms was asked if he was aware of an issues with the Chelton display decluttering and turning all red below 500 feet, he said there was a red warning that appeared around 500 feet. The pilot could see through it but it was hard to see through. They also got a warning in their headset. The Garmin was a little bit better. They could turn it so it almost had an infrared look, do their 180-degree turn, and get out of inadvertent IMC. The primary tool for terrain avoidance in inadvertent IMC in the Otter was the Chelton. The Garmin was primarily in the Beavers.

Asked if they had different minimums for scheduled versus nonscheduled Part 135 flights, he said no. However, if Rudyerd Bay and Behm Canal were all 500 feet and 2 miles they would not go, because that was not a tour. Asked who managed pilot scheduling, he said it was a combination of Mr. Hassell and Mr. Zink. However, the pilot staffing requirement was created by Mr. Sessoms.

Asked if he was aware of any disciplinary action involving Mr. Krill, he said no.

Mr. Sessoms was asked to describe his interactions with the pilot in the 72 hours before the accident. He said he first saw Mr. Krill on the day of the accident about 0800 as the pilots were getting ready to leave. He did not speak with him at that time. At some point between the flights he did interact with Mr. Krill. He asked how he was doing and Mr. Krill said good. He was a happy, nice guy. He did not remember anything else specifically about it. The flight of airplanes that departed on the accident tour left at 1120, and at that time Mr. Sessoms broadcast to all the pilots on the radio. A typical length tour would mean they would return about 1235, but some might stretch it to 1240, so he was reminding them about the 1230 all aboard time.

Mr. Sessoms had not had the opportunity to directly observer Mr. Krill's flying performance. Asked about Mr. Krill's reputation as a pilot among others at the company, he said Mr. Krill was known as one of the better new guys. The instructors had told Mr. Sessoms that Mr. Krill's skills were superb. They said he was doing an amazing job and they wanted to move him into the Otter. He was well-rounded, had good experience, and mentally he was the right kind of decision maker. Decision making was a big deal for the upgrade. Mr. Krill was very timid about flying when he was not comfortable with weather. Mr. Sessoms was very appreciative to him about that. One example of many occurred a week or so before the accident. He took off and one of the rain showers came by the point. Every plane was heading through the rain, but Mr. Krill turned around and came back to the Harbor. He landed, unloaded his passengers, and walked into Mr. Sessoms' office. He was nervous. He said "Boss, I'm sorry. It was raining and I didn't feel comfortable." Mr. Sessoms told him, "You never have to say sorry to me for coming back. When you come back I will pat you on the back ever time. You are not to feel stressed or feel negatively when you turn around." Mr. Sessoms then shook Mr. Krill's

hand and told him he did a good job. Mr. Krill would turn around a lot. He had done it three times when other airplanes were going through the weather. He was very cautious about weather. He would always take the path of least resistance. He had turned around in the dogleg and gone up Thorn Arm because it looked better. That was him to a "T". He was a very weather-cautious pilot. That was why they felt good about him being in the Otter. He was not a hot dog who would plow through anything. A lot of young pilots were like that, but he was not.

Mr. Sessoms was unaware of any health-related issues with Mr. Krill or any recent interpersonal conflicts he might have experienced.

Asked where he first saw Mr. Franklin's target appear when he was coming out of Ella Lake during the accident tour, he said he saw him appear in the north end of Thorn Arm. That was when Ms. Shockley called and asked how the weather was and Mr. Franklin said it was good.

Asked how Temsco determined that all the victims were deceased, he said Temsco flew the first responders out there, they made the determination, and Temsco relayed that information. That occurred about 1730-1800.

Asked which display turned red on the Chelton during a low terrain warning, Mr. Sessoms said the MFD. Asked whether most pilots disabled the warning, he said no, it was not normal to do that. Asked if they were worried about false alarms, he said he did not think that was an issue.

Ask if there were any unique design characteristics on the Otter, he said they had the Vasar conversion for the PT6.

This concluded the interview.

Interview: Chuck Perkins, Promech Pilot

Representative: Dan Quinn (Attorney)

Location: In-person interview, Bill Bramble via teleconference

Time/Date: 0800 AKD, June 29, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen

(FAA),

Duane Edwards (FAA)

During the interview, Mr. Perkins stated the following information.

He stated that he was 51 years old and held a Commercial certificate with single engine land and sea, multi-engine land and sea, and instrument ratings. He has approximately 7,700 hours of total flight time and over 6,000 hours of Alaska flight time. His background in aviation included receiving his float rating in 1995 at Kenmore in Seattle, WA. In 1996, he got his first job in Alaska at Taquan as a dock hand, and Clark Hassell (who he considered a mentor) would let him fly on empty legs as much as possible to gain experience. He was hired as a pilot for Taquan in 1996 in the Cessna 185, and worked there through 1999 flying Beavers and Recip Otters. He worked at Promech from the summer seasons of 2000 and 2001. Whet to Anchorage in 2002 before returning to Vermont for a few years and returned to Promech for 2007, 2008, and 2010 seasons, and again in 2014 and 2015. He stated that his normal duties and responsibilities as a pilot were to fly the Otter and Beaver under Part 135 regulations.

Asked about the day of the accident, Mr. Perkins said that he arrived at 0700 and wandered into dispatch office to see what he was doing that day. He had flights at 0800, 0930, 1100, and 1230. He looked at weather cams and completed his preflight. On the 0800 flight, the longer but overwater route around Point Alava was ideal. Visibility wise Alava is usually the lower point, and Rudyerd Bay is usually better. He uses three areas when evaluating the return flight from Rudyerd Bay; Point Alava, Sea Level, and Ella Narrows. He flew the first flight at altitudes up to 4000 feet. He said that it was a good tour. On the return leg, he explored the Ella Narrows and Lake Ella, but due to lower "scud" over the south end of Lake Ella, he crossed over the east ridge bordering the lake at about 1,300 to 1,400 feet in between the peaks labeled 2,700 and 2,300 feet on the sectional chart and returned via the Point Alava route. Regarding the weather conditions over south Lake Ella, he said that the visibility was good on the north of Ella, ceilings were 1,800 to 2,000, but it was like a person had "hung a sheet over the southern end of Ella."

When asked about the ceilings and visibilities over Lake Ella during the first flight, he said that it was very clear, but the conditions can vary substantially in 20-30 minutes. A pilot who gave a PIREP might get chided for giving a bad report, but it was not intentional. The conditions in the area change rapidly.

On his second flight of the day, the weather was improving, but he did the Alava run again outbound flying around 3,000 feet. On the return leg, knowing that Ella was down earlier, he didn't go that way. He said that there were scattered rain showers in Thorne

arm area. Michelle Masden from Island Wings contacted him on the radio and asked about the weather while he was coming inbound and he passed along a report that the long way was his preference and he had to turn around in Ella earlier.

On the third flight of the day, which was the accident flight group, he stated that the short route still not ideal, so the entire group took the long route again. He took off a little late due to boarding of a handicap passenger. He said that he was the third airplane to land in Rudyerd Bay, but second airplane to the dock at the boat dock. Originally, he was going to be empty for the return leg, but they decided to move Mr. Turiano's passengers to the Otter to get them back sooner. He departed #2, with the #1 airplane (Shannon Franklin) a few minutes ahead. He thought that he left the boat dock around 1145 to 1150. After exiting Rudyerd bay, he switched frequencies from 122.85 to 122.75. After switching frequencies, he heard Mr. Franklin talking to Mike Falconeri about conditions on the short route. He recalled hearing "scatted layers" and "ragged." Mr. Perkins said that looking into the Ella narrows, he could see some hanging clouds in there but again knowing the conditions he experienced earlier, he did not explore going the short route. He said that he made his decision based what he already knew. He said that near Eddystone, he liked to be able to look into the narrows. The narrows went in and made a left turn. If he could see in the narrows toward the ridge on far side of Ella Lake, he continued, but if there was white stuff in there, he was thinking he might not want to do this. He listened to two aircraft, was not gung ho about what he was hearing, he had already been in there on round one, and it was low rain conditions from his viewpoint. He knew they were on a timeline and thought he would go with what was known. His next area of evaluation, Sea Level Pass, was also not promising, so he went to Point Alava and turned a little bit over the point to save time. Asked what conditions he would like to see in order to proceed via Sea Level, Mr. Perkins said that the forward visibility out the windscreen out the front of otter is not as good as a beaver so you had to be a little more careful. If he could see the top of the ridge nearby and it just had some low stuff, he could use the ridge and be in gliding distance of water on both sides. If there was just low stuff, one could go over. If there was a higher stratus layer, one could go underneath. If he could not go over and he could not go under without weaving and dodging, he did not want to put himself in that situation. He did not explore it. He simply opted to return via Point Alava.

He said that the group of planes launched on the fourth round of flights. At that point, they knew Mr. Krill had not returned to base. He tried to call Mr. Krill via the radio and received no response. The weather had improved, so he went the short route but through Sea Level Pass into Behm Canal. Around the Gokachin Lake area he heard an ELT signal on 121.5. The flying conditions on short route were better, with higher visibility, but it was more turbulent. One passenger thought it was very turbulent outbound, so he returned via Point Alava.

He stated that overall, throughout the day, the weather between Mountain Point to Point Alava was improving, but Rudyerd Bay was going down in trend.

He did not recall a whole lot of conversation between pilots about the weather during the flights.

He didn't recall any other operators on the third flight.

Asked about his decision making, go/no-go, and risk assessment processes, Mr. Perkins said that he looked at the FAA weather cameras, talked with Promech flight followers and other local operators to make decisions about a flight. He said that he could not put enough emphasis on local knowledge. Asked if he used any type of risk assessment for dispatch, he said "Yes and No." If the Director of Operations, Clark Hassell, was around they might have a discussion. He said that the flight followers gathered information and passed it along to the pilots, but they did not really get involved in go/no-go decisions. Asked about his minimums for launch, he said that 500-foot ceilings and 2 miles visibility were the minimums, but you generally needed a little better than that to get out of the harbor. He said that the weather cameras were vital, and the south camera from Eddystone rock was very good for planning. He thought more cameras would be valuable, especially one on Point Alava and one looking into Thorne Arm. He added that a lot of the pilots had little to no instrument proficiency.

Asked about the cockpit technology in the airplane, he stated that the Chelton was very good, except that the red and yellow terrain warning depictions on the moving map display cover the map creating an issue if you needed to use the map for situational awareness in a CFIT avoidance situation. He said he carried an iPad with Foreflight installed as a backup because it offered better terrain views. He kept it under the pilot seat unless he needed it, in which case it would sit on his lap. Asked about the TAWS inhibit switch, he said that the switch was generally in the inhibit position.

Asked about his typical schedule, he said the typical show time was 0700, and they were usually done around 1700. Management usually tried to give them two days off per week, but that varied. He liked to fly. That was why he was there, so he did not always take those days off.

Asked about his interactions with the accident pilot in the 72 hours prior to the accident, Mr. Perkins said that the evening before the accident they had gone to a local bar for a couple of beers, and then gone to dinner at a local restaurant. After dinner, around 2100, the accident pilot returned home and Mr. Perkins stayed out a bit longer. He was one of the pilot's roommates, and he recalled that Mr. Krill was asleep when he returned home sometime after 2200.

Asked about other interactions with the accident pilot, Mr. Perkins stated that he never had the opportunity to fly with him, but Mr. Krill was regarded by others at the company as a good pilot. Although they had not flown together, Mr. Perkins had spent time with the Mr. Krill reviewing the Otter systems and operational information.

He lived with the accident pilot so he knew him pretty well. Mr. Krill was very likeable and sociable with the other Promech employees. He was a fit guy and had no health

issues, but he did wear glasses. Mr. Perkins did not know of any recent changes in Mr. Krill's health or personal life, but he did say that the Mr. Krill was involved in a restaurant business. Asked about any interpersonal conflicts the pilot may have had recently, he said that there had been some conflict between Mr. McCrea and Mr. Krill over their home situation. It had started over an issue of splitting the rent. Mr. Krill thought Mr. McCrea and his wife should have been paying a higher share of the rent. Mr. Krill had decided to move out and get his own place. There was also an interaction between Mr. McCrea and Mr. Krill on a flight about who should be coming in first, but didn't recall much about it. Most of the squabbles didn't lead to anything major. The atmosphere around the house was okay the few days before the accident. Mr. Krill was quite pleased to be getting his own place, the pressure was off, he was really relaxed and fine. He was experiencing no personal issues that would have played a role in the accident.

Asked whether Mr. Krill had been up late the night before the accident packing to move into his new place, Mr. Perkins said no, he had a room adjacent to Mr. Krill. Mr. Krill could pack 5 minutes. He had an inflatable bed, a couple of plastic totes, and a couple of plastic chairs. It was very spartan. The roommates had all coordinated prior to arriving in Ketchikan about who would bring what. Mr. Krill had just gone home and gone to bed the night before the accident.

Asked about Promech in general, he said that the pay was comparable to other air tour companies, and there was adequate staffing for the amount of work. He said that morale amongst the pilots was good overall, and that the pilots all tried to get out and socialize with each other which brought them together.

Asked who was responsible for Promech's safety programs, Mr. Perkins said that the DO was the go-to person. Mr. Perkins usually brought any issues he had to Mr. Zink, the assistant chief pilot, first. The president was there, but Mr. Perkins usually did not go to him because he was very busy with the business side of the operation. Mr. Perkins said he felt the company's approach to managing safety was very good and that safety issues were addressed promptly. He said the company had a safety reporting system, but one usually got faster action by going straight to management. He had not recently filled out any formal safety reports. He said that there were no particular hazards or risks that the company was currently addressing. Safety meetings usually happened more at the beginning of the season during training, but it was not uncommon for management to give safety related briefings about specific issues. He described the level of standardization at Promech as good, and said management tried hard to have everyone do the same thing.

Asked about company support for turning down flights for safety related issues, he said he had turned around a number of times and he had always been supported in his decisions. He wouldn't say there was pressure to fly in unsafe conditions. He said that Mr. Zink was fairly new to his management role and that Mr. Hassell was the go-to guy for launching flights and he had never felt any pressure from him.

Asked about Inadvertent IMC and CFIT avoidance procedures, he said that he and Mr. Franklin were the first pilots to get spooled up in training that year. They took a beaver to the west end of Ketchikan and practiced inadvertent IMC. They drove up a valley and then the instructor said they had gone IMC and get out of there. The procedure was to go to the terrain page, throttle back, put flaps down, make a 180 degree turn, fly away from the IMC area toward open water, and then descend.

Asked about his top safety concerns at the company, Mr. Perkins said that the seasonal nature of the operation and the fact that there was not a year-round group of pilots was tough. They were losing that depth of local knowledge. He said that local knowledge was part of the safety culture.

Asked if he had ever experience an inadvertent IMC encounter with Promech, he said that he had, at the dogleg last year in a Beaver. He could see through the area of reduced visibility, and the layers were scattered layers. Then he was suddenly in the clouds. Since he could see ahead and through the clouds before and knew what was in front of him, he knew that there was a straight line ahead to water. He just maintained heading and came out the other side. Local knowledge came in key in that situation. He could not look forward, but he had visual reference below. He did not have any passengers. He did report it to Mr. Hassell. He was not aware of any other pilots who had experienced any inadvertent IMC.

Asked about the Chelton System and terrain inhibit, Mr. Perkins said that he could not say what others did, but what he did in the Otter was have the terrain inhibit switch in the disabled position. He was first introduced to the Chelton equipment in 2005 when he moved to Juneau. The Chief Pilot he was working with was as wonderful an advocate for the Chelton as you could find. The Chelton equipment was excellent, with the exception of the audio warnings and the fact that screen at 600 feet starts painting the forward view red and yellow when what you want to see is blue. In a CFIT avoidance or inadvertent IMC, you wanted to steer to the blue but it got painted red and yellow and took away your last opportunity to have a successful outcome. Water was normally depicted as blue. Terrain was green, but at an altitude of 600 feet the screen was painted reds and yellows. This terrain painting obscured whether you were over terrain or water, and it was impossible to know where you were. As seaplane pilot, it would be nice to disable the red and yellow.

Mr. Perkins carried an iPad with Foreflight on it all the time. He said it was his insurance policy. He said that when he used it he did not stare at it. It was just nice to have another GPS receiver to use when he wanted a second piece of equipment to give him spatial orientation. A blue blinking blip on a map was the best piece of equipment you could have. He said that if it looked like it was going to be weather conditions that might be leading to certain obscuration issues he would turn it on when he saw that it might be

needed. Otherwise, it stayed under the pilot seat. He said the accident day was good, so it had remained under his seat, but there were some days when there was heavy rain and it was difficult to see and it was nice to know he had it. He recalled that he had also had a Chelton unit crash on him once, with a big red X across the screen. He said that the Chelton was excellent equipment, but in the seaplane community below 500 feet the reds and yellows on the screen in low visibility were just asking to put a person in a dangerous situation. If a pilot was flying at 500-800 feet and flew into heavy rain showers, the last thing they wanted to do was have an island on their nose and have the map page become a useless red and yellow mess.

Asked if there was anything else that could help the investigation, he said that Mr. Krill wore tri-focal glasses and that could have been an issue. He said that the right eyewear could be a game changer in being able to see in reduced visibility. He said the Chelton terrain map was a hazard.

This concluded the interview.

Interview: Clark Hassell, Director of Operations, Promech Air

Representative: Dan Quinn (Attorney)

Location: In-person interview, Bill Bramble via teleconference

Time/Date: 1345 AKD, June 29, 2015

Present: Chris Shaver (NTSB), Shaun Williams (NTSB), Bill Bramble

(NTSB), Pat Hempen (FAA)

During the interview, Mr. Hassell stated the following information.

He held an Airline Transport Pilot certificate with single engine land and sea, multiengine land and sea ratings and multiple type ratings. He also held an A&P certificate with IA authorization. He had accumulated 20,000+ hours of flight time. He had grown up in Ketchikan, and had held numerous jobs both locally and in the lower 48. He had flown the same personal airplane, a Pacer, for 35 years. He had worked for Seaborne airlines until they were sold to Promech, and then he worked for Promech from March 2000 to September 2000, when he left Alaska to fly for the airlines. He spent 8 years flying for SkyWest and 5 years flying corporate. In May 2013, Marcus Sessoms asked him to return to Promech as the director of operations and he agreed.

Asked about his normal duties and responsibilities as director of operations, he said that he was the person who was on the ops specs for operational control. He helped maintain pilot records and he helped with pilot training. He also served as the interface between the pilots and the mechanics, and he assisted with the general maintenance of the mooring docks and fuel systems. He was basically a "jack of all trades". He also had flying duties and estimated that he flew the line 3 to 4 days per week.

He was not on duty the day of the accident. Mr. Sessoms was to be at the operation and in command for the day. Mr. Hassell was in a barber shop getting a haircut when he received a text message that there was an event at work and he needed to come into the Promech office. When he arrived at the office, he got word that there was an overdue airplane and that Mr. Sessoms had taken another airplane out to search for it. Carl Zink had enacted the company's Emergency Response Plan (ERP). When word came back to the office that there was an active ELT, he went home to get a power saw, rigging, and a "go bag" in preparation for the first response. He was out of cell phone communication for about 20 minutes before arriving back in town.

Around 1420, Mr. Hassell got in an Otter with Carl Zink, Russell Williams, and Dave Hay, all of whom had appropriate gear. They flew out to the Princess Bay area, then toward Thorne Arm and Ella Lake. By the head of Thorne arm he could hear the ELT signal on the radio. Once in the Lake Ella area, they continued searching the west shore. While flying up Ella Lake at 900 feet, he thought he saw a broken treetop on the west side of the lake, but when he turned the airplane around he could not see it. As he was making that turn, he received a radio call to return to base. By the time he made it back to Ketchikan, the full ERP had been implemented. He later learned that the area where he thought he saw a broken treetop was not near the accident location. Mr. Hassell could not remember in detail how the rest of his day unfolded. He recalled waiting for the second

trip of the helicopters to see if there was anybody alive at the crash site and finding out that there were no survivors.

Mr. Hassell's recollection of the weather in the area while he was performing the search was that the ceilings in the dogleg of Carroll Inlet were 1,200 to 1,500 feet or higher, with ragged bottoms, rain showers and "associated squalls". Visibilities outside of the rain showers were 10 to 15 miles. Inside the rain showers, visibility was 2 to 5 miles. Mr. Hassell said a better estimate of the cloud cover in the area was that the cloud bottoms ranged from 2,500-3,000 broken down to 1,300 scattered. With the frontal passage of a major system one would encounter brisk wind blowing up Behm canal, so it was bumpy but most of the bumps were associated with squalls. The general air mass was moving 15 to 20 knots, with gusty wind to 25 knots. The wind might have been up to 30 knots in the narrow passages.

Mr. Hassell said that the company had a total of 6 DHC-3 Otters and 5 DHC-2 Beavers in their fleet of which 2 Otters were based in Key West, Florida. There were a total of 12 pilots on staff; 3 full time, and 9 seasonal. A 13th pilot was about to arrive. Of the nine seasonal pilots, five were in their first season flying for Promech. The other management personnel were Evan Phillips (Chief Pilot), Bob Grace (Director of Maintenance), and Carl Zink (Assistant Chief Pilot.)

Asked about any significant changes to the company over the last couple of years, Mr. Hassell said that the long-running chief pilot (Tony Dupae) was no longer with the organization. He had been the chief pilot for 16 or 17 years. He said that he thought that Mr. Dupae was invited to leave, and that the company president wanted to spread out his management to their other operation. Mr. Hassell said he thought that after a certain number of years that people could become complacent and less willing to help when help was needed. Mr. Dupae had interests in Juneau and was not around as much as he had been earlier. The company also had a new tour manager and a new flight follower in training, but other than that there had not been any significant changes in company personnel. There had also been no major changes in pilot training or the training of flight followers.

Mr. Hassell said that the company still held the commuter operations specifications, but they no longer did commuter work. He thought that the relationship between the company and the Juneau FSDO was "extremely on the up and up", and the principal inspectors for their operation were very understanding, knowledgeable, and easy to talk to.

Asked if there had been any changes made as a result of FAA oversight, he said there had been some scrutiny of Promech's seat configuration log. That seemed to be a hot item for the PMI. The pilots were not filling out a seat configuration log every time a folding seat went up or down. The FAA had worked with them to resolve the problem and the seat configuration log was now located on a sticker and additional records were located in a door pocket. Promech had made a change to follow the rules better. On another occasion, a Promech pilot was ramp checked at an outstation by an FAA inspector who wanted to

see the ops specs. The operations manual was missing a detail that the inspector wanted to see, so Promech had subsequently included every possible ops spec in their GOM. They were happy to try to comply in any way. They made it work. Otherwise there had been no big changes.

Asked about operational control, Mr. Hassell said that he was responsible for operational control, and that it would only be delegated if he had the day off or was on a flight, in which case he would delegate it to Mr. Sessoms. Sometimes operational control was passed on to the pilots with regard to making decisions about sending out the next round of tour flights. If they were not going to fly the tour, they needed to tell the company 35 minutes beforehand not to load the passengers in the bus and bring them down to the dock. That decision could come from the experienced pilots. Mr. Hassell could also delegate operational control to Mr. Zink if Mr. Sessoms was out of town.

Asked about the role of the flight followers with respect to operational control, he said their normal role was to provide weather information to the pilots. They obtained information from other operators. Mr. Hassell would ask the flight follower if the other operators were out flying. If not, it was a red flag. If they had already done a weather check they could see it on the flight tracking display and they would wait to hear. There had been times when the weather had been questionable and Mr. Hassell had told the flight coordinator to have someone go check. The flight coordinators had very limited operational control, almost none.

Mr. Hassell was asked about a provision of Promech's GOM which stated that responsibility for operational control could be delegated to flight schedulers and pilots cooperatively for initiating and canceling the flights. He said that if no managers were at the office, the pilot and flight follower could work together to decide whether to release a flight.

Mr. Hassell was asked about a provision of Promech's GOM which stated that both pilot and scheduler had to agree to a flight before it departed, and asked how that factored into the decision making process. He said that it would be a joint effort between the scheduler and pilots looking at all of the available weather information, including the weather cameras. He thought there could be a time when the pilots might want to go and the flight coordinator might say "I'm not sending you," but normally it was hashed out between the pilots and flight coordinator. He did not think there would ever be a time when the flight coordinator would say not to go and the pilots would overrule that decision.

Asked if there was anyone else to whom he could delegate operational control he said Bob Grace, the director of maintenance. He would not have much insight into whether they should fly, but he would have insight into maintenance aspects.

With regards to sampling the operational control delegates' performance of the operational control function, he said yes, he did. Occasionally the pilots canceled a 0930 tour because they had gone out, turned around, and come back, and the managers would

say "Good call." The pilots had exercised that decision making authority and those decisions had been appropriate.

Asked how often the FAA principal operations inspector (POI) visited the operation, he estimated every six weeks. The POI would come and look at training records and GOM revisions and check airplanes for required documents. The FAA did not really do enroute inspections on the tour flights, but they did observation rides. He thought they used "must ride" forms, but the FAA did pay for the flights. The FAA inspector would ride in the copilot's seat. That had not yet happened in 2015. He thought the most recent such observation ride had been in the fall of 2014 during the previous tour season.

Mr. Hassell said that the company's weather minimums for flights were a 500-foot ceiling and 2 miles visibility. Asked whether there was a minimum cloud clearance requirement he said not in uncontrolled airspace. Asked if the airspace was all class G in the tour area, he said he thought the airspace was class G up to 700 or 1,200 feet in Misty Fjords. There was an area of controlled airspace around Ketchikan. Their minimum altitude under Part 135 was 500 feet agl over unpopulated areas and 1,000 feet agl over populated areas.

Asked to elaborate on launch decision making on low weather days, Mr. Hassell said that there were days where, first thing in the morning, he would tell the pilots to do the "conga line" around Point Alava and try to put an experienced pilot in the front of the line, but the decision to launch in the first place was based on the weather cameras. They were pretty good at determining if it was going to be safe and legal to the mouth of Rudyerd Bay. Based on the conditions they encountered on the way there, they could tell whether it was going to be a good tour in the fjord. They would take a look at the short route on the way out to Rudyerd Bay.

By the time they had completed their first flight out and back they had a pretty good assessment of what the weather was doing. After spending 20 or 30 minutes in the fjord they would be able to tell if the weather was getting worse or better and the next round of tours would be decided based on that information and the information provided by other operators who were flying in the area. The decisions were easier as the day wore on because they had more information on which to base their decisions.

The difference in time between the short and the long route was only 4-5 minutes. He would tell the pilots not to worry because the time difference was negligible. It was not worth basing any kind of decision on that. That was why, for example, Chuck Perkins went the long route on the accident tour. It did not make any difference in terms of time. They could not base a successful outcome on the difference of a 5-minute window. That was no way to run a business.

Asked again about the role of the flight followers in performing operational control and whether they could initiate flights if the managers were not present, he said no, they would have to collaborate with the experienced pilots. With groups of airplanes it was usually not just one pilot making the decision. For a single airplane charter, however, the

pilot would be selected based on experience and assigned based on the conditions that day. If there was anything out of the ordinary, a select pilot would be chosen and management would do a briefing with them the day before the flight. They would use Google maps to talk about the route they had requested the pilot to fly. They would discuss available resources. They would never just call a pilot and send them out in the middle of nowhere. It would be planned cooperatively between the pilot and a senior manager.

Asked about training for the flight followers, he said it was primarily on the job training and there was no formal curriculum. They had a brand new flight follower and that individual was only on duty when there was a senior manager present. Asked if they provided flight coordinators with recurrent or enrichment training, he said they had them go through the GOM and they spent a lot of time quizzing the flight coordinators about locations on the map. A new coordinator worked side by side with an experienced one. In addition, they would go over the emergency response plan, and have numerous Q&A sessions addressing what-if scenarios. Asked whether, as the DO, he was responsible for flight coordinator training, he said yes.

Asked how the flight followers would decide when an airplane was overdue, he said an airplane would be considered overdue if it had not checked in within the last 30 minutes. In that case, the ERP would be initiated. Although the airplanes were out of radio contact in some areas, they normally contacted the office more frequently than every 30 minutes. Their normal routes were only 25 minutes in duration. They normally always had some kind of contact via a radio repeater or another airplane. The repeaters were collocated on mountains with ADSB antennas, so they were generally in radio contact when the flight coordinators could see them on the CRABS display.

Mr. Hassell was asked whether he thought a formalized preflight risk assessment would be feasible for Promech's type of operation and he said "probably." He said he was probably the only guy he knew who wore a safety vest when he flew. He had grown up in that country and he knew "how hard it can bite." Whatever a pilot would want to have with them on the beach at night had better be in their pocket. Mr. Hassell had been through Embry Riddle Aeronautical University's safety management course and the words they had used back in the 1990s when discussing risk assessment were exposure, probability, and severity. Viewing the world that way had changed his life. Everything he saw and did now seemed to relate to those components. He was no stranger to being a safety advocate.

They did not have a safety management system (SMS) at Promech. No one who advocated for safety would ever say they could not fit an SMS program into the operation. However, they accomplished the same things through their safety culture. They did not have enough people on staff to manage a formal SMS and ensure that it was appropriate, useful, and effective. Given the size of the operation in Ketchikan and its centralized nature, however, they could maintain a safety culture through the presence of Mr. Hassell and the use of multiple communication methods. The bulletin board in the dispatch area, for example, was loaded with useful information. They continually posted

bulletins there about hazards to look out for and provide information that could help the operation and the pilot. Mr. Hassell had worked with risk assessment forms before and he believed they were able to accomplish the same thing informally.

Asked how pilots could bring up safety concerns he said that they could come to him personally or they could communicate a concern electronically. They told the pilots where the hazard reporting forms were. If they experienced any kind of slip and fall, a bumped head, or a dropped camera, the company wanted them to fill out an incident, accident, or hazard form. Most of it was handled on the dock though. A lot of the things that came up had to do with things like missing bumper tires on the dock that could damage the airplanes.

Asked whether the pilots could report safety concerns anonymously and whether the company had a nonpunitive safety reporting policy, he said that he would have to look through the GOM section to review the policy, but the pilots could submit a form anonymously using the collection box and Mr. Hassell would look in there from time to time and there was never anything in it. He though everyone knew they could bring up anything they wanted. He liked to think it was a culture where they felt free to bring up anything that was bothering them.

Asked whether the company monitored trends in operations or maintenance, he said yes, they monitored for trends in maintenance issues. Such issues had included radio and ignition issues. Monitoring of safety-related trends tended to occur more on the maintenance side of things.

Asked who was responsible for managing Promech's safety programs, he said that as the director of operations, he was responsible. He was qualified to do so. He had previously developed the company's safety programs for its Part 121 operations and everyone looked to him on safety-related matters.

Asked if the company held safety meetings to communicate with the pilots on safety-related matters, he said yes, the company had held a safety meeting on June 19. He liked to have a safety meeting about a month after the pilots completed initial training, during which they would discuss 30 or 40 years' worth of safety-related information. That gave the pilots time to gain on-the-job experience that would make the information more relevant to them. The company would hold another safety meeting on July 21 or 22 when the bear viewing tours began. They would review the routes on Google maps.

Asked about the cue-based weather training that was provided to pilots, Mr. Hassell said all Promech pilots were required to go through the training. It was simulator-based. There was a simulator located in Ketchikan and all the air taxi operations had access to it. The simulator instructor had the ability to incrementally lower the ceilings and visibilities as the pilot flew a tour route so they could observe the pilot's decision-making process. The simulator had the local terrain database and the simulated flights were conducted in the local area. Asked if he thought the cue-based training helped the pilots improve their decision-making skills, he said he thought so. He said that if a pilot never thought about

doing a 180-degree turn because they did not like what they saw ahead of them he guessed that point would have to be gotten across to them somehow. However, he had a hard time believing that a person would blindly keep flying along without turning around if they did not have the training. They all had that survival instinct as a human, so from that standpoint he did not know if it helped or not. It would help if that person had no other skills on this Earth and could learn to turn around and they did not know that ahead of time.

Their routes and pass transitions were so short that Mr. Hassell felt it would be more beneficial to point out to the pilots what they should be able to see from different locations, such as "From here, you should be able to see into Ella Lake," or "From here, you should be able to see into Thorne Arm." Asked if he thought it might be beneficial to mount a high definition video camera on the windscreen and record a bunch of video at various decision points so pilots could be shown good, bad, and marginal conditions, he said that would be a good option because the fidelity of the simulator was too low to properly depict such conditions.

Mr. Hassell was asked if he was aware of an issue with the formatting of the Chelton Display which turned red or yellow at low altitudes and whether he felt this was a problem. He said the inadvertent IMC maneuver was incorporated as part of Promech's training while he was away and it was in place when he rejoined the company. In his opinion it was great training. The pilots were in the airplane and it was as real as it could be. Asked to clarify whether he felt the formatting of the Chelton display was problematic at low altitudes, he said the Chelton was an IFR capable system and he did not know how one could make such a system work well when flying close to the terrain. It worked great as a moving map, but as far as ground proximity warning went, it became awash in red. The system was mix-and-match, but it was better than nothing.

Mr. Hassell was asked if he thought it would be beneficial to use pre-programmed GPS waypoints along the tour routes that the pilots could rely on to survive if they had an inadvertent encounter with IMC. He said he had grown up in the area and the old-timers said there was "no escape up." He did not think they should enable more ways to be in the clouds using waypoints or IFR routes. He would not want to encourage the pilots to think they could get farther into the clouds, and he did not think they should establish point-to-point routes below any kind of minimum enroute altitude. He added that seaplane pilots were not necessarily skilled IFR pilots. That was not the focus of their skill. They were VFR pilots. He could not support trying to make them be great instrument pilots down below the terrain. It would be human nature for them to try to take advantage of the waypoints to fly missions they should never be on.

Mr. Hassell said that he only knew the accident pilot through their work interactions and not socially. He had no issues with Mr. Krill's performance as a pilot, and Mr. Krill had received no disciplinary actions during his employment. Asked whether he was aware of any examples of how Mr. Krill had recognized and handled in-flight emergencies, he said no, but he thought Mr. Krill had demonstrated good judgment. On one occasion, Mr. Krill was heading out with a group of airplanes and he turned around just east of

Ketchikan and came back to the harbor as the rest of the group continued at 1,700 feet or higher. Mr. Krill came back, told the managers he was sorry, and said he would get the job done. Mr. Hassell said they told Mr. Krill not to apologize, that he did exactly what they wanted him to do, and that he did a great job. That had occurred within a week or so of Mr. Krill transitioning to the Otter. Mr. Krill had not felt comfortable with what he was able to see with his dark, trifocal glasses on.

Asked to clarify whether the cue-based simulator training was required of all Promech pilots, he said yes. Asked when it was provided, he said they tried to get it done during initial training, but all the air taxis were vying for the same machine. He was confident that Mr. Krill had completed the cue-based training during the last days of April or the first week of May, however.

Mr. Hassell stated that he had no interactions with Mr. Krill outside of the office during the 72 hours prior to the accident. He said that the last time he observed the pilots flying performance would have been on a flight to the Waterfall Lodge on June 6. During the return flight, when the airplane was empty, they briefed and then performed a full engine shutdown and dead stick landing maneuver. Mr. Hassell killed the engine and Mr. Krill did a stellar job of feathering the propeller, pushing the nose over and pumping in landing flaps. He was smooth, competent, and proficient. He was ready to fly Otters.

Asked to describe where Mr. Krill fell on the continuum of caution to adventurous, he said Mr. Krill was good in that respect. That was why he had been chosen to be in the Otter – because he had the turnaround decision making skills they looked for in the bigger airplane with the turbine engine. He was the type of pilot they wanted in that airplane. He did a great job. The decision to upgrade Mr. Krill to the Otter had been made collaboratively by Mr. Sessoms, Mr. Hassell and Mr. Zink.

Asked about pilot selection and training, Mr. Hassell stated that the company did not set any real minimum flight times for pilot hiring, but they were looking for pilots with float time, experience, and proficiency. They had once taken a chance on a pilot with 100 hours of float time, but it "wasn't his cup of tea." They looked for as much float experience as they could get in new hires. Asked about the availability of experienced float pilots, he said they were getting harder to come by. It was becoming a more specialized field.

With regards to training, they typically started new pilots in the Beaver. They took the approach that they never wanted training to turn into a real emergency, so they did not shut down engines down completely or anything like that in the Beaver. However, there was no real way to simulate landings with a dead engine in the Otter without actually feathering the propeller, so they did train an actual engine shutdown and restart in the Otter, as well as a dead stick landing to the water. The pilots were also trained in inadvertent IMC and CFIT avoidance.

Asked if he had any other comments Mr. Hassell said that funding for the weather cameras had been amazing, but he thought more cameras would be beneficial. He thought

it would be useful to have a camera installation that could look into Ella Lake and the other way towards Thorne Arm, maybe in the Gokachin Lakes area. He also thought it would be useful to have a camera installation at Point Alava that looked up Behm Canal and toward Ketchikan. If more weather cameras were installed, they would not have to perform weather check flights and the flight coordinator would be able to radio and warn them and that certain routes were not looking good. Asked whether he had ever communicated with the weather camera organization at the FAA, he said no.

Asked to clarify when the pilots lost radio communication with the office, he said that when departing the Ketchikan area at 1,500 feet they would lose communications in the Ella Lake area. There was no radio contact beyond Ella Lake and there was no cell phone service at the dock in Rudyerd Bay. On one occasion, the pilots had put all their people on the boat back to Ketchikan in Rudyerd Bay because of poor weather and the boat had eventually contacted Promech and told them that the airplanes were tied up at the dock and did not have enough fuel to keep checking the weather. Company managers thought that was perfect. They waited until the weather camera in Behm Canal indicated it was flyable with an improving trend, at which time Mr. Hassell flew out and told the pilots it was time to go home.

Asked if he had ever personally had to abort a return flight and go back to the dock in Rudyerd Bay, he said yes but it did not happen very often.

Asked if two-way satellite texting for the lead airplane was an option, Mr. Hassell said yes, but their routes were short and they had aircraft from lots of other companies they could communicate with.

This concluded the interview.

Interview: Pilot's Wife

Representative: None

Location: Telephone Interview 0800 adt, June 30, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB)

During the interview, the pilot's wife stated the following information.

She resided in Sagle, ID. She was not a pilot. She and the pilot were married in 1991. They lived together most of the time, but they were temporarily living apart at the time of the accident while the pilot worked a seasonal job as a float plane pilot in Ketchikan, Alaska. She had plans to travel to Ketchikan and visit him on August 11. In the summer of 2014 both she and the pilot had worked seasonal jobs in Talkeetna, Alaska, but there was no job for her in Ketchikan and they could not find suitable living arrangements. The pilot was sharing a house with three other people and three dogs in Ketchikan. The pilot planned to return to Slagle and rejoin his wife in mid-September.

The pilot had completed some college coursework but had not finished college. He began flying in the 1970s but his focused turned to other things. In the early 1990s they moved to Havasu, Arizona and he became very involved in aviation. He owned airplanes for personal transportation and did some commercial flying. He flown for a Baja 1000 race car driver in Mexico, for Bettles Air Service in the Brooks Range of Alaska, and for Talkeetna Air Taxi in central Alaska. They had originally intended to return to Talkeetna in the summer of 2015, but the pilot decided to work for Promech Air in Ketchikan instead because they offered him the opportunity to fly floatplanes, which he loved. He was excited about it.

Flying was the pilot's passion. He was happiest when he was flying and many of his aviation friends and colleagues had spoken positively about his flying skills since the accident. The pilot and his wife had previously owned float planes. They had moored them in a lake in front of their house in Sagle and flown on backcountry trips in Idaho and Canada. Planes they had owned included two Cessna 185s and a Piper Cub. At the time of the accident they owned a Cessna 170 on tundra tires that the pilot had used for personal transportation in Alaska in 2014. There was nothing the pilot disliked about flying, although he did not approve of some old-timers in Arizona who did not talk properly on the radio or follow the rules.

The pilot did not work for any employer other than Promech at the time of the accident. He and his wife had owned a restaurant in Arizona for 22 years. The pilot was involved in some of the decision making related to that business, but it had been operated day-to-day by relatives for 10 years and it did not demand much of his attention or serve as a distraction from flying.

Asked whether the pilot got along with his colleagues, the pilot's wife said yes, she had seen many pictures of him with big groups of people in Ketchikan and he always looked

really happy. His living arrangements were a bit crowded and he had had a bit of a personality clash with one of his roommates and that roommate's wife, but he had been uncertain about having roommates anyway. He had been unable to find solo living arrangements when he first arrived in Ketchikan but shortly before the accident he had located a furnished apartment where he could live by himself. He planned to pay the new landlord and move into the new place on the day of the accident, right after he got off work. He had only a few personal possessions that he needed to move over to the new place. Just some clothes, an inflatable mattress, a DVD player, a couple of GPS devices and a couple of end tables. She was not sure how many GPS devices he had.

Asked who his closes friends were in Ketchikan, she said Shannon, Chuck, and Leah, but especially Shannon. The employees at Promech seemed to gather frequently in the evenings to build campfires and watch sunsets.

The pilot had been a successful businessman. He had built a company in the 1970s which he sold in the 1980s. After that he went on to run various other business ventures. Aviation was more of a pleasure that grew into a vocation. He not been involved in any previous aviation accidents nor had a he experienced any recent non-aviation accidents, such as an auto accident. On one occasion they had been flying in their turbo Cessna 185 on floats when the crankshaft failed in flight, resulting in a total loss of engine power. They had just refueled and departed Burns, Oregon when it occurred. There was a horrendous noise and the propeller stopped. The pilot glided the airplane to a landing on a fire road in a cattle field. Because they were on floats, the wings were high enough that they passed over a fence. There were no injuries and the airplane was undamaged.

Asked if the pilot maintained a logbook, she said she had some of his old ones but she thought he had a logbook with him.

Asked if the pilot had experienced any significant changes in his finances in the year before the accident she said no. The restaurant in Arizona was doing really well. They had planned to sell another restaurant they owned in Idaho a few days after the accident, but it had little impact on their finances. She had been handling the details of that transaction with his concurrence. There had also been no significant changes in his personal life in the year before the accident.

With regard to the pilot's daily habits, the pilot's wife stated that the pilot typically went to sleep at 2200 and woke at 0500 when he was off duty for an extended period of time. He could sleep through anything. He was a morning person. Asked how many hours of sleep the pilot liked to get to feel rested, she said he would usually fall asleep on the couch first, perhaps around 2100 and then move to the bed around 2200, so he would get at least 8 hours of sleep. He snored when he slept. He had no difficulty falling asleep at night or remaining awake during the day and he had never been diagnosed with any sleep disorders.

The pilot typically ate three meals a day. He was a good cook. They generally ate healthy meals.

The pilot had limited leisure time while he was working in Ketchikan. He generally spent it visiting with friends and running errands.

She did not know the details of his work schedule, but he had told her they were always done by 1700 because the cruise ships did not stay. That was the difference between flying in Talkeetna and flying in Ketchikan.

She was not sure about his days off. She thought they varied according to the demand for flights. The pilot had had a few Saturdays off and gone hiking with friends. Asked whether the pilot felt he was getting enough days off she said yes, he would rather be flying.

Asked about the pilot's last vacation or extended time off, she said he had been at home from mid-March until he left for Ketchikan on April 19. During that time, he was just doing projects around the house and getting ready to go. He was not doing anything strenuous or stressful. He was not overworked. He was always really excited about going up to Alaska to fly.

Asked about the pilot's recent activities, the pilot's wife said that on the evening Wednesday, June 24, the pilot sent a photo of himself and two colleagues with a text message telling her that he was eating out for dinner. They were all smiling. He sent her another text message about 2200 saying he was at home and telling her goodnight. That was the last communication she received from him. She did not know when he woke on the day of the accident. Aside from the evening of Wednesday, June 24, she did not know when he went to bed or woke in the 72 hours before the accident. She stated that he often went to bed early. He was not a guy who went out and partied every night. When they were in Talkeetna the previous summer they had gone to bed no later than 2200 every night and she doubted that he had varied much from that pattern. Asked whether he had given any indication as to whether he felt rested in recent days, she said yes, he never had any trouble sleeping.

When asked to describe his mood in the days before the accident, she said it had been positive. He was very excited to be doing what he was doing and he was generally a positive person. Asked if he had any significant upcoming plans, aside from change of living arrangements, she said he was making plans for her visit on August 11.

With respect to the pilot's health, the pilot's wife said that was "Healthy as a horse." His blood pressure was perfect, and he had no other health problems. He did not go to doctors. He was strong and active and he never complained about any health issues. He had no history of chronic medical conditions and he had experienced no recent minor illnesses. He did not have a personal physician. He completed his annual aviation medical examination and that was it. When asked whether, in the 72 hours before the accident, the pilot took any medication, prescription or non-prescription, that might have affected performance, she said no, not as far as she knew. When he left for Alaska he brought only ibuprofen. He was not taking any prescription medication. He was a social drinker, but he

did not drink to excess. At home he would have a glass of wine or two with her about twice a week. He was very conscious of the 8-hour bottle-to-throttle rule and he would not put himself or anybody else in a position where he would be flying while impaired. He did not use tobacco products.

Asked to describe the pilot's feelings about working for Promech Air, the pilot's wife stated that he had said nothing but good things about everybody there, from the girls in the office to the bosses. He thought it was a great group of people. He was very satisfied with the training he had received from the company and he felt completely comfortable in what he was doing. Had a lot of time in Beavers. He was relatively new to the Otter. She had asked him how he felt about transitioning to the Otter and he told her and he felt great about it. He did not have any reservations about it at all. Asked whether he had mentioned any things he disliked about flying the Otter, she said that he had been flying the Beavers a long time and he liked the old radial engines, but he wanted to fly the Otter. He seemed really impressed with it. He loved the way it handled. Nothing frightened him about the airplane. He had no reservations about it. He was very positive about it.

Asked if he had shared any impressions with her about how company management was running things, she said no. He was really happy being there. It was a great group. He was talking about working for them next summer and he was thinking about possibility of working for them in Florida as well. He had no negative feelings about the company. Asked whether he had mentioned any safety-related concerns she said no. She had asked him if they made him fly in bad weather and he had told her no. He said they were very conscious about that. They did not want to put anybody in jeopardy and he was never made to do something he did not feel safe doing. He also made safety-oriented decisions and everyone felt really comfortable with him. She said some of his former passengers in Talkeetna had once told him about an instance where he turned back due to poor weather conditions. Asked if the pilot had told her of any instances where he had turned back due to weather in Ketchikan, she said she did not think so, but she thought he might avoid telling her about something like that because he would not want her to worry unnecessarily.

Asked if she had any additional information to provide that could be helpful to the investigation she said no.

Asked whether there was anyone else investigators should speak with who had not already been interviewed, she said perhaps Tyler Klaes had owned Bettles flying service. The pilot had flown for him for three summers in the Brooks Range until that company was sold.

Asked if she would give permission for investigators look for the pilot's logbook in his belongings in Ketchikan, she said yes.

This concluded the interview.

Interview: Carl Zink, Promech Assistant Chief Pilot

Representative: Dan Quinn (Attorney)

Location: In-person interview, Bill Bramble and Dan Quinn

via teleconference

Time/Date: 0800 AKD, July 1, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen

(FAA), Dwayne Edwards (FAA)

During the interview, Mr. Zink stated the following information.

He was 39 years old. He held a commercial pilot certificate with single engine land and sea, multi-engine land and sea, and instrument ratings. He had grown up in Ketchikan but done most of his flight training in Oregon. He started flying commercially in 2001 in Juneau, Alaska. After building some time there, he moved back to Ketchikan where he flew for Taquan Air and Island Air Service.

Mr. Zink was hired by Promech Air in November 2013 as a line pilot. In January 2015, he took on the role of Assistant Chief Pilot (CP). His normal duties and responsibilities as Assistant CP were flying the line, maintaining pilot records, assisting with training, mentoring, and providing moral support to employees. He was still learning the management position. He tried to mimic what he had seen the other managers do over the last year or so. Recently, he had also become a company check airman. In addition, he worked with accounting overseeing how the pilots were paid. His favorite duty, however, was serving as one of the company's primary Beaver and Otter pilots in the winter.

The day of the accident was his scheduled day off. He received a text and phone call from Leah Shockley asking him to come to the office because an airplane (270) was overdue. He arrived within 20 minutes of that call and went into the dispatch office. Ms. Shockley told him that Mr. Sessoms and Mr. Grace had gone out in an airplane with call sign Poppa Mike to search for the missing airplane and that Mr. Krill had not checked in.

Mr. Zink obtained a general briefing about the missing flight, including its mission, route, and last known position, and he then began monitoring radio communications. When he heard over the base radio that someone was hearing an ELT signal, he began going through the company's emergency response guide. He called Temsco immediately and Ethan Burdo showed up right on time. Mr. Zink asked Mr. Burdo to handle tours, cruise ships, and other communications so he could focus on going through the emergency procedures.

Mr. Zink clarified that his first call had been to Eric Geitner. He provided him with latitudes and longitudes using Google Earth and then he reached out to the U.S. Coast Guard and provided them the information he had on the missing flight. They began getting the Jayhawk ready, which could take a while sometimes. He also wrote notes for Mr. Sessoms to provide him with the same information.

Next, Mr. Hassell showed up and Mr. Sessoms started heading inbound for fuel or some reason. After Mr. Sessoms landed, Mr. Zink and Mr. Hassell loaded that airplane (Poppa Mike) with emergency gear and departed with Chuck Perkins and Dave from maintenance to continue the search. They began their own reconnaissance of the area and began hearing ELT signals. They had been hearing the signals for about 15 minutes when they were called back. After they returned, they began figuring out next steps and calling hospitals. Temsco was sending an MD-500 and an A-Star. He began coordinating the response from a business perspective. He had been around search activities many times, but this was the first time he had had to orchestrate one for a company. He did that until Mr. Hassell and Mr. Sessoms took over.

Mr. Hassell was asked to describe where he flew and what weather he observed when he was out searching for the ELT. He said they took off sometime between 1100 and 1300. The weather was VFR. It was a low pressure day, and some of the mountains were obscured. The cloud ceiling was between 1,800 and 2,500 feet with a ragged bottom with 6 to 8 miles of visibility, 10 miles in some directions. Rain showers were moving through the area. The rain showers they encountered during their search reduced visibility to between 4 and 6 miles. Some of the mountains were being obscured by 1,800 to 2,200 to 2,400 foot ceilings. The lowest visibility they encountered was 4 miles and the highest was 10 miles. Their route was from Mountain Point to the dogleg of Carroll Inlet to Thorne Arm to the South Ella area. They were picking up the ELT signal in the South Ella area with the squelch on, so they turned the squelch off and started flying a grid between the head of Thorne Arm and Princess Bay, working their way in a northerly direction toward south Ella. They never got to the north end because they were called back to base by company dispatch because a helicopter from Temsco had located the wreckage. They had been focused on the south end of Lake Ella, almost exactly where the wreckage ended up being located. They were only there for a brief moment before dispatch contacted them.

Asked if there had been any significant recent changes in the company's operations in the last year or two, Mr. Zink said the biggest change was the addition of the company's Key West operation. That had been fun and interesting and a new type of mission on the opposite corner of the Earth. They had a couple of turbine otters and couple of really good pilots down there, including chief pilot Evan Phillips. Promech had also stopped flying scheduled service in Ketchikan in the fall of 2014, after deciding to focus their energy on the tours and charters. That had simplified things quite a bit.

Mr. Zink occasionally served as a pilot in Key West to help relieve the pilots who worked down there. In fact, he had just returned from Key West. He made four or five trips down there and flew eight days in the month before the accident. The days in Key West were long and typically lasted from 0630 to 1800. Asked about any significant changes in staffing, he said the company's longtime chief pilot had left a couple of years before the accident and he had been replaced by Evan Phillips. He did not know why the former chief pilot left.

Asked how operational control was maintained at Promech, he said they would show up and see what the first mission was. Their immediate focus was on the weather conditions, and see what was out there. They had the CRABS system so they could see where the planes were and what routes they were working. If the planes were flying at 1,500 feet, the weather was probably good that way. The weather cameras were one of their greatest assets. They only had one in the Misties, but it was a pretty nice camera.

Asked whether the cameras gave him a pretty good feel for the weather, he said yes, the cameras gave them a good feel for it. They had been a great addition to the area. He thought more of them would be good, especially along the high-traffic routes. He thought it would be nice to see new cameras installed at Mountain Point, Point Alva, and Lake Ella. The weather did change between the time you looked at a camera feed and the time the pilot arrived at the location, but the cameras were a good analysis tool.

Reviewing the weather camera footage from the Misty Fjords camera looking up and down Behm Canal one to three hours before the accident flight, Mr. Zink said low scud with visible moisture was moving along the hillsides. Visibility was good and the winds were about 10-15 knots. Conditions looked appropriate for flying. At times, rain and mist moved through, reducing the visibility to 3 or 4 miles in certain areas.

Examining at a west-looking photo of Ella Bay taken at 1055 local time he said that he would not go the Ella Lake route. He would stay on the Eddystone side and head for Muskeg to see if Thorne Arm was visible from there. That was what they trained the pilots to do if the Ella route was no good.

The next west-looking photo taken at 1109 showed the weather improving a bit, but he had had the experience of flying into Ella Lake and getting to the south end and then having to backtrack and fly all the way back out before. West-looking photos taken at 1121 and 1134 showed low clouds he estimated at between 300 and 600 ragged. He commented that it took almost the same amount of time to fly via Eddystone rather than going through Lake Ella. It was not a race.

In the west-looking photo, taken at 1146, about the time Shannon Franklin took off in Rudyerd Bay, Mr. Zink thought the weather did not look good at all. If he was in the lead, he would tell the other pilots that Ella was no good and he was heading for Muskeg. He usually headed out quicker than the other guys for those reasons.

Asked if the weather in the west-looking photo, taken at 1212, looked more inviting, he said he would still fly toward Point Alva and pick up the other option. It was pretty definitive. Ella did not look like the right route. He saw a low band of obscuration across Ella Bay that he would not be able to get under. He would have to fly over a short narrow band of clouds through some "swiss cheese" to get into Ella Narrows before he could even get into the lake. There also appeared to be a broken layer at 1,800 to 2,200 feet and a high overcast layer above that. He was seeing obscuration in a narrow pass that he would not approach.

By the time of the west-looking photo at 1304 was taken, the lower band was gone. He could see into the "twist" and would be able to go in there without performing evasive maneuvers. It looked comfortable. Subsequent pictures looked "ugly" again, with low obscuration, glassy water, and flat, white light, his "arch nemeses".

Mr. Zink said the pilots always took a look at the short route on the way back, but they did not have to go that way. The weather came and went. It had been one of the nicest years they ever had. There had been very few bad weather days.

Mr. Zink was asked which Promech personnel had overall responsibility for operational control. He said Marcus Sessoms, Clark Hassell, Bob Grace, and himself were the primary people who held that responsibility. Leah Shockley, the flight follower, would make some decisions, but she deferred to them.

Mr. Zink said that his favorite thing about flying in the Ketchikan area was the weather. It was fascinating.

Asked how he went about releasing a flight, he said that he started looking at what was going on when he pulled out of his house or had his coffee on the deck. Then he would get to work and see what was going on. He would see if all the airplanes were on the dock and, if so, why. Either it was in between flights or the weather was bad. They would analyze available information. If the weather cameras looked good, they would not launch until he knew what it was like on the other side. He would use his personal contacts in Klawock. He always wanted to know who was giving a weather report.

Mr. Zink said that Taquan had created a bigger buffer because of their past accident, so if Taquan was out flying it was generally pretty darn good. If some other person was out there it meant nothing. Making a decision depended on knowing the history, the people and the culture of the area. If they were operational at Waterfall Resort, he would ask himself what are the winds doing. There could be 4-foot waves at the dock. If he was halfway there and said he was "direct waterfall", it meant everything was really good and they could go anyway they wanted. If the dogleg was off, they knew something was up. The other pilots were trained to listen to him. He was a manager and he had the experience. If he saw something that troubled him, he might wait a bit to see if it would clear. There were so many variables.

Asked if he knew the other operators, he said yes, he knew all of them. Asked if there was much competition between them, or if some were more aggressive than others in trying to meet schedules despite weather he said the independent guys could "toot their own horn". Taquan, Promech and PacAir were the big operators. They were the blue coats, red coats, and green coats. PacAir did lodge flights. They were not in the tour business. Those pilots were great and the airplanes were well-maintained. They might be going west when Promech was not even thinking about it. Taquan was the most conservative because of their past event.

Asked if there was pressure on Promech pilots to fly tours despite inclement weather, he said pressure was nonexistent. Pressure only came from within themselves. It did not come from management any more. It used to. Asked how things had changed, he said pressure had created accidents which created animosity. There were some pilots on the waterfront who were some of the most incredible pilots on Earth, but they flew in weather that Mr. Zink would never want Promech's new hires to fly in.

Taquan had changed the way they did things. They performed a risk assessment and came up with a number. Mr. Zink disagreed with that approach because it did not take a pilot's ability into account. One could not expect a pilot who had just arrived and completed training to do what a really experienced pilot could do. Asked whether experience was considered in Taquan's risk assessment, he said yes but only one point for 40 years of experience. He disagreed. The risk had to be evaluated, but safety culture had to come from within oneself.

Mr. Zink reiterated that there was no pressure to complete a mission. Promech never told their pilots "Just go take a look. I know you can do it." They wanted them sitting in the office drinking coffee when the weather was marginal and they would pay them for it.

Mr. Zink was asked to describe Promech's recent history of interactions with the FAA. He said Ketchikan operators had a letter of agreement (LOA) with the FAA. There was an annual meeting to discuss details of the LOA such as operational altitudes, routes, and frequencies. Mr. Zink focused on decision points. At the beginning of the season, he and the other managers signed a piece of paper saying they would abide by the agreement so they all knew they were doing the same thing. Promech probably adhered to the LOA better than anybody when it came to the routes, altitudes, and frequencies. The details of the LOA were available online, as was a list of all the operators that participated.

Mr. Zink was asked how he managed risk for Promech flights. He said that if they had several missions and good weather he would attempt to balance the workload and assigned the experienced pilots to the tougher missions, such as flying a Beaver into a creek. He made those decisions naturally for every Promech flight. He stated that Taquan was part of the Medallion shield insurance savings program. Promech was not, but he thought they did exactly what Taquan was doing and more except Promech did not have the piece of paper.

Asked whether he thought there was any value to formalizing the risk assessment, he said yes because it might encourage somebody to look at things instead of just launching a plane. However, he thought the value had to come from whoever was performing the risk assessment method and it would depend on their training. A flight follower might use the tool in a simplistic fashion. Mr. Zink thought that he and Mr. Hassell should always be a part of the decision making process. Asked if there would be any value in trying to formalize the expertise they had in risk assessment, Mr. Zink said he would be curious to know what was documented for the Taquan last crash. That pilot had only 25 hours in the local area and he was flying between a pilot with 30,000 hours in the local area and another with 25,000 hours in the local area. The pilot with 25 hours had smashed into the

hill. Mr. Zink said a formalized risk assessment would be a piece of paper and another file cabinet to prove to people they were doing something. That made him very upset. They were working very hard to avoid having something like this happen and it happened and they were going through the steps and he hoped it never happened on his shift again.

Asked to describe the role of Promech's two flight followers, he said they were brilliant. They performed a difficult job. They orchestrated things throughout the day including slots, planes, pilots, time, and destinations. They played a big part in operational control, but not in the decision to actually launch a pilot. That decision was made by Mr. Hassell and Mr. Zink and Mr. Sessoms. However, anybody had the ability to stop a flight. That included the people responsible for maintaining the operational control and the pilots. He did not know what happened when there was uncertainty or disagreement and the conditions were bad but the pilots decided to go anyway. Understanding that would involve analyzing mental stuff and he was not a doctor.

Mr. Zink was asked if he was qualified to fly in instrument meteorological conditions (IMC) and he said yes. He had been forced to at Island Air in the Caravan, but that had been unusual. Asked whether he thought there would be value in incorporating more IFR training into Promech's operation, he said that was an idea he did not analyze because they were a VFR operation. They trained the CFIT maneuver for avoiding IMC. If a pilot was in the clouds they were going too far. Five hundred feet and 2 miles was low when you were doing 130 knots, especially if you had glassy water. There were also a pilot's personal minimums and ability to fly the airplane. They might be comfortable flying a long but unable to whip the Otter around and get it going the other direction. Asked if Promech did training with its pilots under the hood, he said yes, they trained the CFIT avoidance maneuver.

Mr. Zink was asked how he would evaluate a PIREP on the weather in Ella Lake if it was coming from Mike Falconeri. He said it would have no validity for him personally. He would disregard any and all comments from multiple pilots, Mr. Falconeri included.

Asked for his opinion on the value of the cue-based simulator training Promech provided to its pilots, he said he thought it was good. Cue-based was "You are here, you're going here, and what do you analyze between those two points." That was sort of how he taught the pilots generally and now there was a term for it. That's how Mr. Zink's father had taught him. His father had taught him that anything could happen between the two points and the pilot would have to decide what to do. Mr. Zink thought it was a great tool, but not in a simulator. He believed it needed to be done in an actual airplane, similar to initial operating experience in a scheduled operation. Promech had essentially implemented that because they never sent a pilot anywhere without showing them the route. They did scenario-based, cue-based training. It was an excellent training technique.

Asked if he had any thoughts on how the existing cue-based training could be improved, he said that even if they came up with standardized training, experience was the best part. It was a hard thing to teach in Southeast Alaska. Asked if there was some better way that newer pilots could be inculcated with the experience he and the other long-time Alaska

pilots had, he said it was possible, but he did not know how to do it. Asked if he thought it could be taught through photos or video, he said they did take photos of particular docks and point out the hazards. Asked if similar pictures of mountain passes and weather could be used as teaching aids, he said that was a great idea. He said he told the pilots they could always ask him questions.

Mr. Zink was asked how well he knew the accident pilot, Mr. Krill. He said he did not normally create any personal relationships with the new pilots until after they had passed their checkrides. He had taken a personal interest in Mr. Krill outside of work, however, because of his demeanor, smile, sarcasm, personality, and passion for flying. Mr. Zink's fiancée liked Mr. Krill and Mr. Krill also became close friends with one of the other pilots. Mr. Zink enjoyed seeing Mr. Krill show up asking questions about how to fly the otter and dock in the wind. Mr. Zink enjoyed instructing Mr. Krill and he enjoyed interacting with him on a personal level outside of work.

Mr. Zink said he always told Mr. Krill he did not have anything to prove and if Mr. Krill started feeling that little uncomfortable thing in his stomach, he should turn around and Mr. Zink would applaud him for it. They would reschedule the trip and pay the people back. Mr. Krill said Promech's safety analysis was very strict, but he could not control what the pilots did when they were out there in the left seat by themselves.

Asked to describe Mr. Krill's handling, expertise, and decision making, Mr. Zink said it was positive. Mr. Krill had flown in Talkeetna, in Bettles, and he had flown a Beaver before. That was part of the reason for the decision to transition Mr. Krill to the otter, a decision Mr. Zink had been a part of. He thought Mr. Krill had a good concept and a safe ability and had showed adequate skills to do what they did there around Ketchikan. Mr. Krill had proved it over and over even in marginal conditions. He never had expected this from Mr. Krill.

Asked if Mr. Krill had expressed any reservations or concerns or experiences that had frightened him before, Mr. Zink said yes, Mr. Krill had landed long at the dock and Mr. Zink had talked with him about that one day. Mr. Krill asked him why he landed and taxied four miles back to the dock rather than landing short of the dock. There were a couple of things like that that were part of the learning curve. With all the pilots he would analyze their mistakes and tell them to do things slower. Mr. Krill had come to him to ask about docking, taxiing, and different things like that, but when the weather was marginal they did not push it. Mr. Krill never asked something like why did he deviate when Mr. Zink went through and it was fine. Mr. Zink had never questioned Mr. Krill's decision making. Asked whether Mr. Krill had ever come back from a flight and said he had gotten into bad weather and it had scared him, Mr. Zink said the pilots would come back and say, "How did you make it look so easy?", but there was no event that stuck out in his mind that involved Mr. Krill pushing through bad weather or Mr. Zink thinking that Mr. Krill had gone into an area where he should not have.

Asked to describe Mr. Krill's flying proficiency compared to the other Promech pilots, he said Mr. Krill was one of their more skilled pilots in the Beaver. Mr. Zink had never flown with him in the Otter, so he could not comment on that.

Mr. Zink was asked to describe his interactions with Mr. Krill in the 72 hours before the accident. Mr. Zink was off duty the day of the accident, but Mr. Krill lived across the street from him in a place Mr. Zink rented to the pilots. He could see when their cars were home and it was always by a reasonable hour. He never saw excessive extracurricular activities or those pilots dragging in to work late. They were on time, rested, and professional. He could not recall the specifics of Mr. Zink's activities in the 72 hours before the accident, but they were always happy and upbeat about what they were doing.

Mr. Zink was asked to describe where Mr. Krill fell on the continuum of cautious to adventurous and he said that he could only speculate and he should not speculate. He added, however, that there was an inherent pressure that came from within the pilots to perform like the others. When one pilot went somewhere there was a natural inclination to want to accomplish that as well. How the pilots handled that he could not say. The pressure did not come from the managers; it came from within the pilots themselves. It came from internal pressure to complete the mission, to prove they could do it. That went for all the pilots, not just Mr. Krill. Mr. Zink saw all types of personalities and ability levels around Ketchikan every summer.

Mr. Zink was asked if he ever did any training with Mr. Krill in the Beaver and he said no. Asked to describe the CFIT avoidance maneuver, he said it was something the company really focused on in training, in addition to encouraging the pilots not to go IMC in the first place and emphasizing legal minimums and personal weather minimums.

Mr. Zink's procedure for training the CFIT avoidance maneuver was to set the pilot up to fly toward rising terrain. He would simulate a call from dispatch saying it was good, and tell them to continue. He would head them overland toward a pass, have them put on Foggles and regain stable control of the airplane and then say, "You just went IMC." He would then watch them implement the CFIT avoidance maneuver, which required them to note their present heading, slow down, add flaps for a shorter-radius turn, pay attention to where the terrain was on either side, and complete a 180-degree turn without descending. Next, they would fly the reverse course and pull up the terrain page on the navigation display, fly out over the water, see what terrain lay ahead, and let down over lower terrain or water. He was looking for a slow, stable, controlled let-down until they passed the last point of terrain designation. Sometimes the reverse course brought them back towards terrain, and they would have to use the display to head back over the water to let down. He would usually bring them down to 1,500 feet and then have them descend to 1,000 feet and let them do a glassy-water let down to a landing on the water.

Mr. Zink contrasted the CFIT avoidance maneuver that was trained in the airplane with the cue-based training that was provided in the simulator. During the cue-based training, all he was doing was reinforcing to the pilots that turning around was a good idea. He would steadily lower it in the simulator and wait for them to see the trend. He just gave them positive reinforcement that turning around was a good idea. Mr. Zink did not fly into clouds because they were rocks and Promech did not do VFR on top or fly in IMC. Sometimes a 180-degree turn was not always the best option if one was in a "swiss cheese" type situation. Mr. Zink's greatest obstacle was glassy water and flat light. In those conditions he would not fly in conditions involving 500-foot cloud ceilings and 2 miles visibility, but they did not often see those conditions.

Mr. Zink was asked to describe the starting altitude for the CFIT avoidance maneuver that they trained in the airplane. He said they would begin the maneuver at 1,500 feet and let down to 500 feet, at which point they would set up for landing straight ahead. Asked how close they typically got to terrain during the maneuver, he said they never got within 500 feet. He felt 800 feet was a good, moderate guideline. As an instructor he was always evaluating their position. He never put them in a high risk situation, but he tried to make it as realistic as possible. He looked for the student to evaluate which way they were going to turn and turn in the correct direction.

Asked whether he thought the usefulness of the Chelton terrain display was reduced below 500 feet when the display became all red and yellow, he said he had heard people's arguments about the display blocking the terrain, and he would tell them they were already below where they should be if that happened. The terrain information could be better, but they did have a terrain awareness and warning system (TAWS) that provided an aural warning "terrain, terrain, pull up." He never relied on that equipment, however. He was an out-the-window flyer. That was part of the culture that was developing in the area. Fancy glass displays led to false perceptions of ability. Mr. Zink could smash the glass and still fly the airplane by looking at the shorelines.

Asked whether Promech had a policy regarding where the terrain warning inhibit switch should be, he said he could not answer for all the airplanes. He thought it was a regulation to have it. They would not have all those systems disabled so they could not hear the annunciator. Asked how he set the switch when he was flying, he said he did not know if he ever looked at it. He did not want to hear the warning, but he did not constantly get in and turn it off. Whatever position it was in, it was in. He had silenced it before, however, on a beautiful day when going through a pass and it was going off. He was not sure about Promech's policy, but he was certain he had never personally discussed anything other than leaving it on with any of the pilots.

Asked who he would have considered the lead pilot on the day of the accident, Mr. Zink said that if there was one he would have considered Chuck Perkins as the lead and most experienced, but he did not know if the other pilots would have followed Chuck on the long route or if Chuck would have been the first to take off from Rudyerd Bay.

Mr. Zink said he believed that the accident pilot's lack of experience had something to do with the accident.

This concluded the interview.

Date: July 9, 2015 @ 1530 AKD
Person Contacted: Mike Falconeri (Pilot with Seawind Aviation)
NTSB Accident Number: ANC15MA041

Narrative:

In a telephone conversation with the NTSB operations group chairman, Mr. Falconeri stated that he was a pilot for Seawind aviation and was flying on the day of the accident.

He stated that he had more than 13,000 hours of backcountry flying experience and numerous years flying in Ketchikan.

On the day of the accident he was flying a Misty fjords tour. On his flight back to Ketchikan he flew from point Louise direct to Ella Bay. He said that the narrows were clear, and the section above the narrows and Ella Lake was still showing ceilings above 1,200 feet. He entered Ella Lake and flew down the middle of Ella Lake at 1,100 to 1,200 feet. As he passed through the Ella Lake area he communicated with another pilot in the area, Shannon Franklin, about the conditions he encountered in the area. He told Mr. Franklin that he could see South Ella all the way through to the dog-leg. He stated that there were plenty of openings in the weather for an experienced pilot to navigate.

Mr. Falconeri stated that in his opinion the weather was not really an issue. He felt that the accident happened due to the decision-making on the part of the pilot. He thought that the pilot wasn't familiar with the area and got disoriented thinking that he was passed South Ella. In his own words, Mr. Falconeri described the weather that day as a "normal bad day."

He also stated that Promech had a much tighter schedule than some of the other operators with regards to the time in between tours.

ANC15MA041 Attachment 1 - Page 70 NATIONAL TRANSPORTATION SAFETY BOARD

IN RE:

THE PROMECH AIR PLANE

ACCIDENT THAT OCCURRED IN : NTSB Accident No.

KETCHIKAN, ALASKA ON : ANC15MA041 JUNE 25, 2015

-----:

INTERVIEW OF: KEVIN ROOF

Sunday,

October 2, 2015

Offices of Taquan Air Ketchikan, Alaska

BEFORE:

WILLIAM BRAMBLE, NTSB CHRIS SHAVER, NTSB

This transcript was produced from audio provided by the National Transportation Safety Board.

P-R-O-C-E-E-D-I-N-G-S

1	P-R-O-C-E-E-D-I-N-G-S
2	(8:00 a.m.)
3	MR. ROOF: 35 years.
4	MR. BRAMBLE: How much of that in Alaska?
5	MR. ROOF: Twenty-three years.
6	MR. BRAMBLE: Okay. Was it the last 23?
7	MR. ROOF: Yes.
8	MR. BRAMBLE: And how much of that was in
9	Ketchikan area?
10	MR. ROOF: All of it.
11	MR. BRAMBLE: Okay. So you consider yourself
12	very familiar with the local marine and
13	MR. ROOF: Yes. Yes, I'm a local. I came up
14	here to work for five months.
15	MR. BRAMBLE: Okay. Yes, I remember hearing
16	that story a few times, too. Okay, and can you give me a
17	Do you mind if I take one of those?
18	MR. ROOF: Then I have one left.
19	MR. BRAMBLE: Mine have
20	MR. ROOF: Feel free.
21	MR. BRAMBLE: You might be happy that I had
22	that. Thanks. So can you just give me like sort of a rough
23	estimate of flight time and maybe in floats and
24	MR. ROOF: For me?
25	MR. BRAMBLE: Yes.

1	MR. ROOF: I probably have about 20,000 hours
2	of flight time and I would say probably all but 1000 of that
3	is on floats.
4	MR. BRAMBLE: Okay. And which aircraft have
5	you flown the most in?
6	MR. ROOF: De Havilland Beavers and Otters.
7	MR. BRAMBLE: Okay. How much in the Otter?
8	MR. ROOF: Oh, probably about 3000 hours.
9	MR. BRAMBLE: Okay. And what's your date of
10	hire with Taquan?
11	MR. ROOF: This Taquan it was started in 2000,
12	I started here in 2002. Taquan itself I started in 1997.
13	They went out of business.
14	MR. BRAMBLE: Okay. I actually forgot to ask
15	for your certs and readings, too, but
16	MR. ROOF: I have a Commercial Seaplane rating
17	and a Multi-Engine Commercial and I got NE Double ISA
18	(phonetic), (inaudible) instructor.
19	MR. BRAMBLE: Good enough, works for me.
20	Okay. And what positions have you held here at Taquan
21	since you started back, actually I guess we can start in
22	' 97?
23	MR. ROOF: I have been a check airman, a line
24	pilot, a check airman, an assistant chief pilot, a chief
25	pilot, and now a director of operations, pretty much every

1	hat there is that I can hold.
2	MR. BRAMBLE: How long have you been the DO now?
3	MR. ROOF: For approximately 12 years.
4	MR. BRAMBLE: Who's the owner of Taquan?
5	MR. ROOF: Brien Salazar, it's B-R-I-E-N.
6	MR. BRAMBLE: Okay, all right. And what do you
7	know about the history of, the accident history of Taquan
8	since the '02 reincarnation, there's the one in '07,
9	anything else?
10	MR. ROOF: We had an accident back in 2010, I
11	believe, where a pilot flipped a plane on takeoff and bent
12	a wing and he didn't, nobody was hurt, the aircraft righted
13	itself.
14	He actually just tipped it over on its side,
15	bent the wing up, and the plane ended up upright. I believe
16	that was in '10, it might have been '11, I don't know off
17	the top of my head.
18	MR. BRAMBLE: Okay.
19	MR. ROOF: But it was an accident being the
20	flying surface of the airplane was substantially damaged.
21	MR. BRAMBLE: Okay. And the '07 fatal that
22	was, how many fatalities in that one?
23	MR. ROOF: Five.
24	MR. BRAMBLE: Okay.
25	MR. ROOF: A pilot and four passengers.

1	MR. BRAMBLE: All right. And what changes did
2	you guys make after the 2007 accident?
3	MR. ROOF: Well we did a TapRoot with the help
4	of Dennis Ward for Medallion Foundation. He kind of
5	facilitated it.
6	We couldn't I mean the bottom line, the root
7	cause analysis was a continued VFR into IMC conditions and
8	the weather was, again, VFR at the time, so we raised our
9	minimums from two miles visibility to four over areas of
10	land and in the fjords themselves.
11	So basically if you are flying over any area of
12	land from here to there, if you're over the water you can
13	still maintain two miles, but if you fly over an area of
14	land It's not going to work is it.
15	So we give people maps. We actually give them
16	little placemat-type maps when they first come up here in
17	their grounds training. I can try to find you one if you
18	want.
19	MR. BRAMBLE: Yes.
20	MR. ROOF: But basically let's say this
21	Ketchikan and this is a route to the fjords, any time they
22	are flying over an area of land we give them a map that
23	denotes what four miles visibility looks like.
24	So there's a lake here. So if you can't see
25	from this shoreline to this lake you can go that way. If

you can't from this lake to this shoreline you can't go that way and they have to turn around and go a different way or find another route.

MR. BRAMBLE: Okay. So it points out specific landmarks at each point, land mass?

MR. ROOF: It's basically a cue-based training. To another degree we give them a map and expect them to adhere to those points of reference to see visibility wise, not just knowing where you are at but knowing how far four miles looks like, and when they are in the fjords there is the same thing.

When you are this point in the fjords four miles, if this is another point over here, four miles is this point. Otherwise you have to do a 180 and go another way where you can maintain four miles visibility.

And we also brought in -- One of the biggest parts of that accident that bothered me the most was the fact that we had two of the highest time pilots in southeast Alaska and a first-year guy in the middle and they both came back and said, I said "Where's Joe?" "I don't know." They didn't keep track of one another. They were on their own little game plan.

So then we instigated a lead pilot mentality and a group mentality. The planes are expected to take off in a group, they are supposed to communicate with each other.

Whoever is the first plane out is supposed to tell the other pilots behind him what they, if he has a weather issue. Just like the FAR say, if you run into any forecast or hazardous weather conditions I expect him to tell the other guys if they are going to have to go a different way.

I can't get through here, I need to go this way, or we're going to have to go that way, and if that turns everybody around and now the last guy is lead pilot he is expected to take that role on if he is in the lead, and so that they always keep in contact with each other.

It really bothered me when three pilots leave and two come back and the other two said I have no idea where he is at. So we initiated that as well. They are expected to land within sight of each other, in either groups of two or three.

If there is five planes three can go one place, two can go another, but there are never supposed to be less than -- They are not supposed to just go off on their own somewhere, that way if they have a dead battery, a dead starter, they don't have a bunch of planes coming back wondering where this guy is and we know what the status of the flight is.

We tried to instigate some controls to alleviate some of the guesswork as far as where is, do we

1	have an accident or do we just have a mechanical. Because,
2	again, these things can rue their ugly heads at any time.
3	MR. BRAMBLE: How do you guys, what do you guys
4	teach them about what constitutes visibility, like how well
5	do you have to see the landmark? I mean we have debates
6	sometimes with a meteorologist about what visibility is,
7	but
8	MR. ROOF: Well, obviously, there are a lot of
9	obscurations around here in the form of rain fog, but that's
10	not a cloud, that's not IFR.
11	Again, four miles is quite a bit. Two miles
12	should be plenty in a plane that does 120 knots. You got
13	one minute from the time you see till you get to that point.
14	I think research has shown that most pilots are
15	pretty comfortable with one mile visibility, but four gives
16	you plenty of time. And that's one thing Dennis Ward told
17	us was two miles obviously isn't enough visibility.
18	Well it probably was, but, again, we had a pilot
19	who flew into a cloud, and so he took that away from him,
20	so And it's intuitive. I mean you're at Disney Land,
21	people come up here to take families on tours that shouldn't
22	be a life-threatening event. It's a tour.
23	MR. BRAMBLE: Yes.
24	MR. ROOF: We're not saving lives, we're not at
25	war, there is no acceptable losses here. And so we went

ANC15MA041 Attachment 1 - Page 78 1 with the four miles and stuck with it because, again, we want to give people a safe product. It's not good for 2 business to kill people. 3 As far as the visibility goes, obviously if you 4 5 can see the point that's the visibility, that's how we go I mean if it's rainy and gray that's just the nature 6 7 of where we live, if we didn't fly in the rain we wouldn't 8 fly most of the time. But we do expect people to have the legal 9 minimums to fly. And, again, over water they can still 10 maintain 500 and two, it's just over those areas of land 11 that they have to go to four miles. 12 MR. BRAMBLE: Okay. Do you guys have any kind 13 14 of paper-based risk management thing, you know, with the risk management forms, how do you feel about that? 15 MR. ROOF: We do have risk assessment forms 16 that we use for flights, and I am sure you are familiar with 17 18 this. It actually plays on equipment, manpower, weather, other factors, loads, the amount of weight in the plane, 19 and they all have numerical values for different things. 20 And if based on the numerical value, what it 21 adds up to, it's either a go ahead and do the mission and 22

management approval is another one, or cancel the flight.

And, again, these are based on has the guy been

do the mission with management notification, the

23

24

1	here, is it is his first year, does he have more than 100
2	hours in the airplane, or 500 I think is what it says, is
3	there no communications from the destinations, things like
4	that, and it's a whole list of variables involved.
5	MR. BRAMBLE: How did you guys develop that?
6	MR. ROOF: Through our participation in the
7	Medallion Foundation.
8	MR. BRAMBLE: Did you guys have to adapt it much
9	or were you able to use something they just gave you?
LO	MR. ROOF: We actually did a lot of
L1	communicating with Wings of Alaska, the ones who go to the
L2	Taku Lodge. I'm not sure if it's Wings Airways or Wings
L3	of Alaska, there is two of them now.
L 4	We communicated back and forth since we are not
L5	direct competition, so we kind of tailored ours and they
L 6	tailored there's to each others to come up with something
L7	that would work.
L8	And we have tweaked it, I think we're on
L 9	Revision 3 of our Risk Assessment Sheet. Because if you
20	literally have a stormy day or it's blowing 50 and you can't
21	see anything and it doesn't say you can't fly there's a
22	problem.
23	MR. BRAMBLE: Yes. So you guys have tweaked it
24	quite a bit to suit it, or sort of make it better suited

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2		MR.	ROOF:	Yes	, we	e've	1

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lowered the numbers and have changed some things around, again, so that it kind of mirrors what you are actually looking at outside, but you can't alleviate common sense from the equation.

And there is even a box in there that says "other factors, " and it can be anything. It could be a gut feeling on the pilot's part, it could be what it's forecast to do six hours from, there could, you know, it's whatever.

It leaves it to the pilot, if he is still, if everything says it's a go he still doesn't have to go because he is the pilot in command and if there is something that he feels and he doesn't want to go for some reason that's his call.

MR. BRAMBLE: Okay. Do you feel like --MR. ROOF: I can get you a copy of one those if you want.

> MR. BRAMBLE: That would be great, yes.

MR. ROOF: Yes.

MR. BRAMBLE: I'm going to put an asterisk by that so I don't forget.

MR. SHAVER: I unplugged one of your computers here.

MR. BRAMBLE: Do you feel like that's been a useful tool for you guys?

MR. ROOF: Well it has definitely made us change personnel on flight sometimes. We have a, we use those mainly for scheduled flights.

We do them for the tours but we do schedule flights year round and a lot of times we can't put a low-time pilot on some of our schedule where we can put a high-time pilot on, just because of the lower risk factor of a more experienced pilot, one way to approach and departures into places, more familiarity with the area, things like that.

Now here is an interesting scenario for you, the weather is bad going to the Misty's, it's marginal. It's legal, but it's marginal. It's a legal minimum of 500 and two.

You might have a first-year guy that's only been up here for 30 days go on a plane, it's not necessarily good enough for him to go. His familiarity with every tree and rock out there might not be the same as someone like myself, but my theory is if it's not good enough for him it's not good enough for me, because we have to send six airplanes at a time.

We don't have the luxury of sending one or two guys. So if it's not good enough for the lowest guy to go it's not good enough for the highest guy to go. It has to be good enough for everybody's skillset or experience level.

1	MR. BRAMBLE: And do you guys find the 4-mile
2	vis over land requirement to be, I mean does it impair your
3	business model to the point where you have trouble making
4	it work?
5	MR. ROOF: Well what it makes us do is go around
6	the island rather than across it usually, which actually
7	probably raises the safety level a little bit.
8	There hasn't been a whole lot of CFIT accidents
9	into the water out there in the time I've been here. I
10	can't think of any, but there has been plenty into land.
11	And especially if you are flying a floatplane
12	and you've got to land over water you're basically over a
13	runway.
14	MR. BRAMBLE: Okay. All right, so let's talk
15	about the day of the accident. What do you recall about
16	that?
17	MR. SHAVER: Can I actually real quick, sorry,
18	thank you, before we go into that day I just have
19	MR. BRAMBLE: Okay. If you want to keep it
20	contained to that issue, otherwise
21	MR. SHAVER: The risk assessment.
22	MR. BRAMBLE: (inaudible) back and forth.
23	(Simultaneous speaking)
24	MR. BRAMBLE: Yes, sure.
25	MR. SHAVER: Do you have a risk assessment

ANC15MA041 Attachment 1 - Page 83 still? 1 2 MR. ROOF: Yes. 3 MR. SHAVER: Is it just islands that you, like 5 MR. ROOF: Dispatch spells it out. MR. SHAVER: Okay. 6 7 MR. ROOF: And the pilots are supposed to concur with the dispatcher on what it says. 8 dispatchers fill it out based on what they know of the 9 weather from the agents or other pilots or the weather 10 forecasts, and then the pilot is supposed to take that and 11 give it the once over and if he agrees with it he can go 12 ahead and sign off on it. 13 If he doesn't he can tweak some of the numbers 14 based on what he has heard or knows and write a different 15 number down there and they are supposed to come to a 16 concurrence. 17 Rather than the dispatcher being the authority 18 and saying go out there and fly, they have to come to a group 19 20 concurrence on the flight whether it can be done safely. 21 MR. SHAVER: All right. So you have, so they both sign it off before the flight? 22 MR. ROOF: That's correct. And a lot of times 23 it's the dispatcher is the authority over whether or not

to initiate a flight and this shares the responsibility

24

1	between the pilot and the dispatcher.
2	MR. BRAMBLE: (Inaudible).
3	MR. SHAVER: Okay. Do you guys have licensed
4	dispatchers or are they more like
5	(Simultaneous speaking)
6	MR. ROOF: No. We're a 135, they are not
7	required to have a license.
8	MR. SHAVER: Okay.
9	MR. ROOF: Even if they had a license they
10	wouldn't be utilizing the license at a 135 (inaudible)
11	operation.
12	MR. SHAVER: Okay.
13	MR. ROOF: One of ours does, she worked for
14	Alaska, but she is not utilizing her 120 (inaudible)
15	license here.
16	MR. SHAVER: Okay.
17	MR. ROOF: And our other dispatcher, our lead
18	dispatcher, actually has been through a lot of the
19	Medallion courses as well, such as systems safety or
20	operational risk management.
21	MR. BRAMBLE: All right. All right, so let's
22	talk about that day of the accident, what do you recall
23	about that day?
24	MR. ROOF: Well if I remember correctly it was
25	not a bad day to begin with, it was low stratus. The

1 weather in Ketchikan I can't tell you what exactly the ceiling and vis was, but it wasn't bad. 2 3 Just five miles east of town though at Mountain Point it got down to 200 or 300 feet in low stratus. 4 MR. BRAMBLE: How many feet? 5 MR. ROOF: Two hundred to 300. 6 7 MR. BRAMBLE: Okay. MR. ROOF: And I don't recall the visibility 8 being bad underneath it. There were rain showers in the 9 area at the time, occasional, but as I said I went out there 10 three different times starting first thing in the morning 11 to take a weather check in a Beaver by myself, Part 91, and 12 each time I could not maintain 500 feet, I couldn't maintain 13 400 feet most of the time, and I could not cross the island 14 at all. 15 I headed towards Alva, which is south of town, 16 to go around the island, then it just got lower and lower. 17 18 MR. BRAMBLE: All right, so backing up, just I missed a couple things, so you went out three times starting 19 20 at what time? MR. ROOF: Oh, it was probably at 7:30 or 8 21 o'clock in the morning. 22 23 MR. BRAMBLE: Okay. 24 MR. SHAVER: They have them on there. 25 MR. ROOF: Well they didn't put down when I

left.

MR. BRAMBLE: And then you said you couldn't maintain 400 feet and then you did go out around Point Alva?

MR. ROOF: I headed towards Point Alva rather than --

MR. BRAMBLE: Okay.

MR. ROOF: It became -- At 400 feet you can't possibly get across the trees crossing the island.

MR. BRAMBLE: Yes.

MR. ROOF: So I started heading towards Alva and just go lower and lower and lower.

MR. BRAMBLE: All right.

MR. ROOF: And each time I went out there it was the same basic -- You could not maintain 500 feet anywhere at any time. It was nice in the fjords. You could see on the webcam that it was decent in the fjords and it wasn't bad here in Ketchikan, but you couldn't get from Point A to Point B and have legal minimums.

Now that being said, that doesn't mean a person couldn't go up through a hole and get between layers, but now you're flying on top of a low stratus and that's not legal.

MR. BRAMBLE: Can you estimate what times each of the flight was? You said the first one was 7:30 to 8 o'clock, when do you next flew you think?

1	MR. ROOF: Well let's see if they did write down
2	anywhere here that I flew, because I believe I flew somebody
3	else's plane, too, I jumped in somebody else's plane every
4	time I did it.
5	Well we had a flight at 8:00 so I probably took
6	off around 7:00 on the first one and then we had flights
7	at 9:30, so I would've had to tell them by 9:00 so it was
8	probably 8:30 on the next one, and then we had a 10:45, so,
9	again, they had to know by 10:15, so I probably took off
10	around 9:45 on the next one.
11	MR. BRAMBLE: And that was, were those in
12	Beavers or
13	MR. ROOF: That was in a Beaver, yes.
14	MR. BRAMBLE: Okay.
15	MR. ROOF: And the 12:30 round I don't think I
16	even bothered to get in a plane I just told them to cancel
17	it because nothing had changed.
18	Now here's where it gets interesting though.
19	At What time was the accident?
20	MR. SHAVER: 12:16.
21	MR. BRAMBLE: 12:16 I think.
22	MR. ROOF: At 2 o'clock we sent two airplanes
23	to George Inlet Lodge, which is right around the corner at
24	Mountain Point because the weather had improved, and that
25	tour consists of going from here, flying around for 20

1	minutes in the local area, and landing at George Inlet
2	Lodge, which is at the end of the road system 12 miles south
3	of town.
4	And the pilots went there, dropped off
5	passengers, and one plane picked up six, the other plane
6	came back empty, but they both said when they called off
7	George Inlet Lodge for town we had more Misty Fjords tours
8	that day at 3:45, they said do not send anybody out here
9	because now it's blowing 40 knots.
10	I believe the pilot said don't you dare even
11	think about sending anybody else out here and they reported
12	it was blowing 40 knots at Mountain Point.
13	MR. BRAMBLE: All right. So what's the name of
14	the point they were going to again?
15	MR. ROOF: They went around Mountain Point, the
16	east end of town, but they were going to George Inlet Lodge.
17	
18	MR. BRAMBLE: George Inlet Lodge.
19	MR. ROOF: Yes. And they actually did do the
20	flight, they came back and, again, like you said though that
21	was the, we had more of those, we canceled the next rounds
22	of everything.
23	MR. BRAMBLE: And so they were sitting out
24	there at George Inlet Lodge and they said
25	MR. ROOF: No. They landed, unloaded, loaded,

1	and departed.
2	MR. BRAMBLE: Oh, okay. But they said no more
3	out there?
4	MR. ROOF: Yes. They said don't send another
5	flight out here.
6	MR. BRAMBLE: Okay.
7	MR. ROOF: But, again, that was a local flight.
8	They never probably got more than 20 miles from town.
9	MR. BRAMBLE: Okay. In which direction?
10	MR. ROOF: East towards It's in the basic
11	direction of the fjords, but, again, they never really left
12	the road system in town here.
13	MR. BRAMBLE: Yes, okay.
14	MR. ROOF: They just fly along the shoreline.
15	You could drive everywhere that they flew.
16	MR. BRAMBLE: Okay. And what time was that,
17	you said 4 o'clock, 1400, 2 o'clock?
18	MR. ROOF: That was a 2 o'clock flight.
19	MR. BRAMBLE: And what time did they tell you
20	don't send anybody else out?
21	MR. ROOF: Around 2:45.
22	MR. BRAMBLE: Okay, all right. So how far out
23	to Alva did you make it when you did your weather checks?
24	MR. ROOF: I believe I went as far as Cone
25	Island on Thorne Arm, which is most of the way there. But,

1	again, I couldn't I just got lower as I went.
2	Now there is a notation here, I imagine it was
3	done I can't tell you when it was written, but it says
4	"ceilings 500 feet at Alva, 800 feet at Mountain Point."
5	MR. BRAMBLE: Okay.
6	MR. ROOF: And then it says "500 feet at the
7	Lodge." So I am assuming since it says "500 feet at the
8	Lodge" this was for these flights right here.
9	MR. BRAMBLE: Yes, the ones that went to the
10	Lodge?
11	MR. ROOF: The Lodge, yes, and that was at 2
12	o'clock.
13	MR. BRAMBLE: All right.
14	MR. SHAVER: Would they be able to see Alva
15	though from here?
16	MR. ROOF: You could. If you had good
17	visibility underneath the ceiling you could, I mean you
18	could see 20 miles from the ground if you have good
19	visibility.
20	MR. SHAVER: Yes.
21	MR. SHAVER: Can I take a peek at that?
22	MR. ROOF: Oh, sure. Yes, if you'd like I can
23	go get you one of those risk assessments.
24	MR. SHAVER: Yes.
25	MR. BRAMBLE: That would be great, yes.

1	MR. SHAVER: Yes, I definitely would like to
2	see that. This is a pretty powerful image right here. I'm
3	sorry, without seeing where you question this I don't know
4	
5	MR. BRAMBLE: Oh, wait
6	MR. SHAVER: if you've got something that's
7	coming up
8	MR. BRAMBLE: Yes, yes.
9	MR. SHAVER: So I'm kind of just writing this
10	stuff down here.
11	MR. BRAMBLE: Well the other thing you can
12	always, you can do, is just make a note, you know, if there
13	is something that you think that you want to make sure we
14	ask and you're not sure
15	(Simultaneous speaking)
16	MR. SHAVER: I'm making notes, but a couple of
17	them, like while you were talking about the risk assessment
18	and stuff I was like not listening.
19	MR. BRAMBLE: Yes. The only thing I want to
20	avoid is getting into just the extended back and forth, you
21	know, because it just eats up a lot of time and it's hard
22	to keep things sort of, I don't know, on track.
23	MR. SHAVER: Yes.
24	MR. BRAMBLE: I'll try and get you this here.
25	Wait, this is the 12:30. Oh, wow, what's the first half?

1	I'm going to photograph that.
2	MR. SHAVER: This is a pretty powerful image
3	here, Kevin.
4	MR. ROOF: Well keep in mind every one of those
5	planes is worth about \$1200 an hour.
6	MR. SHAVER: Yes.
7	MR. BRAMBLE: So you guys had Each one of
8	these red lines is an airplane, or a scheduled tour?
9	MR. ROOF: Yes, a weather cancellation.
10	MR. BRAMBLE: And how many of these are Beavers
11	and how many Otters?
12	MR. ROOF: We don't have any Otters. We have
13	one Caravan, which was here.
14	MR. BRAMBLE: Okay.
15	MR. ROOF: And I don't think he did that.
16	Well, no, he didn't do it because there is no time. Well
17	there is a time off, but there is no time on. Everything
18	was canceled all day.
19	The only thing that we did was a (inaudible)
20	Thorne Bay, and that's weather canceled, WX, and the two
21	Georges. That's all we did all day to make money.
22	MR. BRAMBLE: Yes.
23	MR. ROOF: But, again, I've had the privilege
24	of carrying employees in bags in the back of my plane, and
25	that's a pretty strong image as well.
J	1

1	MR. BRAMBLE: Yes. Sobering, yes.
2	MR. ROOF: It's something you don't really want
3	to get in the habit of doing.
4	MR. BRAMBLE: No. Okay, so let me just shoot
5	him really quick what my question was so he knows what's
6	coming up.
7	But what I'm going to ask you about next is what
8	you recall, if anything, about, you know, the accident and
9	the emergency response and, you know, when you guys heard
10	about and if you had any participation in that. One quick
11	sec.
12	MR. ROOF: And you can see on the bottom of this
13	thing where it's right above the green line there where it
14	says "Chief pilot, DO, President," and they have to, it says
15	"supervisor initials, flight coordinator initials,
16	pilot."
17	MR. BRAMBLE: Right.
18	MR. ROOF: So if it says here that the
19	management has to be notified they have to write down, they
20	have to circle who was notified.
21	MR. BRAMBLE: Yes.
22	MR. ROOF: And if it is management approval the
23	supervisor actually is supposed to sign it.
24	MR. SHAVER: Yes.
25	MR. BRAMBLE: Yes.

1	MR. ROOF: It's pretty self explanatory. But,
2	again, this was all as part of participation through the
3	Medallion Program.
4	MR. SHAVER: Yes.
5	MR. BRAMBLE: All right, I shot it over to you
6	there, Chris.
7	MR. SHAVER: Thanks.
8	MR. BRAMBLE: So, all right, yes, let me take
9	a peek at that.
LO	MR. ROOF: You got one right here.
L1	MR. BRAMBLE: Oh, thanks. So you've got, you
L2	just put points in for each of these items and then sum them
13	up, is that the idea?
L4	MR. ROOF: That's right. Then at the bottom
L5	you've got the total, zero to ten it's low risk, 11 to 25
L 6	is caution. Management has to be notified if there is a
L7	caution even.
L8	MR. BRAMBLE: Okay.
L 9	MR. ROOF: A medium there has to be management
20	approval and high is the flight is canceled automatically.
21	MR. BRAMBLE: Okay.
22	MR. ROOF: And, again, right above where it
23	says "risk factor total action" there is a little asterisk,
24	double asterisks, it says "other factors," and that can
25	include anything relevant to the flight's safety, high

1	winds, turbulence, low visibility, et cetera.
2	MR. BRAMBLE: Yes, and it's not on here, but the
3	pilot's put look, this is relevant and we need to pay
4	attention to it?
5	MR. ROOF: Yes, that's right.
6	MR. BRAMBLE: Yes.
7	MR. ROOF: And it could be whatever the pilot
8	feels, it could be anything.
9	MR. BRAMBLE: Right. You're not going to just
10	sloppishly execute it and then ignore some other risk
11	that's not on here like you don't have enough fuel or
12	something?
13	MR. ROOF: Right. Right, but it still doesn't
14	take away, you could have the numbers say that it's okay
15	to fly, but that doesn't mean we're going to fly.
16	MR. BRAMBLE: Yes.
17	MR. ROOF: I mean the forecast could be for fire
18	and brimstone to come out the sky in two hours, and nobody
19	just flips a switch in two hours and it happens, so I mean
20	realistically you could know that by the time this guy gets
21	out there he might be flying back through the storm.
22	MR. BRAMBLE: Yes. Is this all about current
23	conditions?
24	MR. ROOF: Yes.
25	MR. BRAMBLE: All right. Or reasonably

1 anticipated conditions? MR. ROOF: Yes, I don't think there is anything 2 3 about forecasts in here. MR. BRAMBLE: Okay. 4 MR. ROOF: It's basically at the time. 5 MR. BRAMBLE: Yes. So the forecast part is 6 7 more of the pilot judgement? 8 MR. ROOF: Yes. MR. BRAMBLE: All right. Although it's short 9 tours, what a half hour out and back, or a half hour each 10 way they go out there? 11 MR. ROOF: Yes. 12 MR. BRAMBLE: Okay. All right, so when did you 13 guys hear about the accident and did you have any 14 involvement in the emergency response? 15 MR. ROOF: Oh, gosh, I think we probably heard 16 about it around 2 o'clock when those planes were out there 17 18 going to George I think they are the ones who reported to us that they were out there looking for a plane. 19 Our dispatcher made a call to Promech to offer 20 any assistance that we could in the way of aircraft to help 21 22 The person at the other end said we have it under control and hung up on them. 23 MR. BRAMBLE: All right. And so no additional 24 25 participation, or no participation in the emergency

ANC15MA041 Attachment 1 - Page 97 1 response beyond that call, okay. MR. ROOF: Yes. No, we offered, but they said 2 they had it under control. 3 MR. BRAMBLE: Okay. Did you interact, did you 4 5 guys interact with them earlier in the day as far as you 6 know about weather or anything? 7 MR. ROOF: I don't know the answer to that. we did interact at all it would have been to tell them what 8 we, what I, the dispatcher would tell them what I saw when 9 10 I went out there. MR. BRAMBLE: Yes. Were you guys aware that 11 they were running tours on --12 13 MR. ROOF: Oh, yes. Yes, we have a TV screen 14 down in dispatch, an ADS-B, and we can see everything everybody does. Everybody who is ADS-B equipped we can see 15 what they are doing and how high they are and we can base 16 our decisions on that as well because we can see how high 17 18 they are flying. MR. BRAMBLE: Yes. 19 MR. ROOF: And a lot of times we will watch 20 somebody fly around at 200 feet on that screen and we will 21 22 -- Obviously, it's not 500 feet or they wouldn't be at 200. 23 MR. BRAMBLE: Yes. MR. ROOF: And it's based on 29.92, so we can 24

just take the local altimeter setting and add or subtract

numbers and know exactly how high they are, it's not rocket
science.
MR. BRAMBLE: Were there other operators
running around morning that you are aware of, or, I guess,
it's primarily you and Promech and then mostly small
operators in the area?
MR. ROOF: Yes. And, actually, I believe
there were.
MR. BRAMBLE: And were you aware of other
companies that canceled that morning?
MR. ROOF: No.
MR. BRAMBLE: All right. How did your risk
management practices with regard to the weather that
morning, like was the flight risk assessment involved at
all or just you didn't even get to that point?
MR. ROOF: We didn't get to that point. Again,
it was questionable weather so we just took a plane, I took
a plane, and went out by myself, saw if I thought our company
could get there legally or not.
Because the cameras are here, the cameras are
out there, there is nothing in between, and so if you don't
physically go out there and look you can't tell what the
weather is doing between Point A and Point B. There is
limitations.

MR. BRAMBLE: Okay. All right. I want to

1 pull up a camera image here. Have you seen the images from the weather cams from the day of the accident? 2 3 MR. ROOF: Well I saw them on the day of the accident. I believe it was legal to fly in the Misty Fjords 4 5 and it was legal to fly here. MR. BRAMBLE: I'm going to show you one 6 7 particular photo and just get your viewings, or your impressions of the conditions there. This is Ella Bay or 8 Ella Creek, it looks like 12:12. 9 10 MR. ROOF: It looks terrible. MR. BRAMBLE: Would you consider flying there? 11 MR. ROOF: Not at all. 12 13 MR. BRAMBLE: Okay. 14 MR. ROOF: No, I would go around the island in a situation like that because why put yourself in the middle 15 of mountains. The clouds are below the tops of the hills, 16 there is clouds down by the trees, so, again, you'd have 17 18 to fly between layers to go through there, if there is an area between the layers to fly. 19 20 MR. BRAMBLE: Yes. MR. ROOF: And if you are familiar with 21 22 meteorology at all and flying you'll know that if you are flying between layers and it starts to rain those clouds 23 can become one just like that, and then they go back to two 24

layers again just like that.

1	And you learn that a lot of times the hard way
2	and if you are lucky you survive it. I was told the first
3	year I came here when I was 1000 hour young man that if you
4	can't go under it or around it and you can't see through
5	it find a different direction to go.
6	Because if you put yourself in between layers
7	that's a recipe for exactly what happened to happen,
8	because we are a (inaudible) VFR operations.
9	MR. BRAMBLE: Did you know Bryan Krill?
10	MR. ROOF: Not at all.
11	MR. BRAMBLE: Okay. Had you heard anything
12	about him before the accident?
13	MR. ROOF: No.
14	MR. BRAMBLE: Okay. Do you have any thoughts
15	or observations on Promech's operating practices and
16	organizational decision making/risk tolerance?
17	MR. ROOF: If you want to turn off the recorder
18	I'll give you my impressions, but, again, they are just
19	MR. BRAMBLE: Wait. Let me just turn off the
20	recorder, but I can, let me just
21	MR. SHAVER: We're still going to type it
22	though. We're going
23	MR. BRAMBLE: Do you mind if I take notes?
24	MR. ROOF: Well, again, it's just my gut
25	feelings about the company.

	ANC15MA041 Attachment 1 - Page 101
1	MR. SHAVER: Oh.
2	MR. BRAMBLE: Okay. And how do they typically
3	respond when you guys, like is there any kind of penalty
4	if you get people back late, you know, past the all aboard
5	time?
6	MR. ROOF: Well they don't like it, but, no,
7	there is not penalty. If they buy the tour on the cruise
8	ship the cruise ship will wait for them if you are late.
9	MR. BRAMBLE: Oh.
10	MR. ROOF: If they buy the tour in the visitor's
11	bureau or from a private vendor in town that all aboard time
12	is a line in the sand and they will leave without them.
13	MR. BRAMBLE: Ah.
14	MR. ROOF: And then you have to pay for them to
15	fly to their next destination if you have a mechanical or
16	whatever, the ship will leave without them. They will take
17	their bags off, set them on the dock, and leave.
18	MR. BRAMBLE: Okay.
19	MR. SHAVER: But if they buy it through the boat
20	
21	MR. ROOF: Through the boat the boat will wait.
22	MR. SHAVER: the boat will wait?
23	MR. ROOF: Yes.
24	MR. BRAMBLE: How common is that would you say
25	that you might get, you know, a tour comes back late and

they are late for the, they get there a little after the all aboard time?

MR. ROOF: Well on weather days when the weather is marginal it's not uncommon, it happens. You depend on people to come from a ship on a bus to here, there is traffic, so typically leave late, then you get on the tour and you get back here you got to, people go to the bathroom whatever, they get on a bus to go back.

It's not uncommon for them to pushing the all aboard time on a regular basis. And that's on, you know, one round of tours, because you'll have three and the third one will be an all aboard group and that happens a couple times a day.

MR. BRAMBLE: All right. So it's not the end of the world, especially if they bought the tour on the boat it's not that big of deal, it shouldn't be that much pressure?

MR. ROOF: No. No, I mean they don't like it. They're not going quit doing business with you. They get 30 percent of everything that they sell. For every \$100 that we sell they get \$30 and we get \$70. It's big money for them, too.

MR. BRAMBLE: Yes. So, and this is one thing we didn't actually tie down with those folks yet on the cost, but what do you estimate that the revenue is from a

1	fully-loaded Otter for a Misty Tour?
2	MR. ROOF: Well like we sell This is, again,
3	we probably sell these things through our website for \$249,
4	\$250 a person. If they sell downtown the vendor gets 20
5	percent, if we sell them on the ship, I don't know what the
6	ship charges, they make their own rates, but they get a
7	percentage as well, a higher percentage.
8	So if we get at least \$150 a person, I believe
9	is the bottom line, six people in a Beaver that's \$900 or
10	a plane that's \$700 an hour to charter, and it goes up from
11	there. We can make \$1200 if it's \$200 a person that we get.
12	In an Otter, now you're looking at \$1500 to
13	\$2000 an hour for the same amount of time. I mean it's a
14	lucrative business.
15	MR. BRAMBLE: Yes. Fifteen hundred to \$2000
16	on an Otter and \$900 an hour on a Beaver?
17	MR. ROOF: Nine hundred to \$1200 an hour on a
18	Beaver.
19	MR. BRAMBLE: Okay.
20	MR. ROOF: Depending on the load.
21	MR. BRAMBLE: So one stack of planes turning
22	around is
23	MR. ROOF: A substantial amount of money.
24	Again, five Otters could be \$10,000.
25	MR. BRAMBLE: Yes. And they typically get all

1 the money back if they come back from Point Alva or something? 2 3 MR. ROOF: Yes, if we turn around, you bet. Ιf they don't get the tour they are fully refunded. 4 5 MR. BRAMBLE: Okay. All right, I was going to ask about your observations on risk management among the 6 7 local air tour operators in general. I mean any sort of general comments about like the culture here among the 8 operators or whether there is sort of a range of risk 9 10 tolerance or --MR. ROOF: I would say there is a range based 11 on -- A lot of the single pilot operators are not 12 inexperienced pilots. They've been here a long time. 13 14 Most of them worked their way up through companies like this one to buying their own aircraft and 15 doing their own things, so they're not low-time pilots. 16 I believe that the mark is the FARs. You 17 18 regulate it to 1000 and one or to 500 and two. There is no wind cutoff. There is nothing that says you can't fly 19 20 in 50 knot winds. But most people, again, you depend on sales 21 22 through word of mouth, you want your passengers to have a pleasurable experience because they can tell their 23

friends, they'll get on TripAdvisor, they'll get on

anything and, you know, fly with these guys, it was the best

24

1	time we ever had in my life, oh my God, I can't believe we
2	did this.
3	MR. BRAMBLE: Yes.
4	MR. ROOF: As opposed to oh my God I would never
5	fly with these guys again, they scared the shit out of us.
6	I mean that's a big these days. There is so much social
7	networking out there you can't do anything without it
8	affecting your business, so you want positive rather than
9	negative results.
10	MR. BRAMBLE: And what was the 1000 and one you
11	said earlier, the mark is regulated at 1000 and one and 500
12	and two?
13	MR. ROOF: Well everybody is, yes. You either
14	have to have 1000 feet in a mile, if you go below a thousand
15	feet, you can down to 500 feet, but you have to have two
16	miles.
17	MR. BRAMBLE: Oh, okay.
18	MR. ROOF: That's what the regs say.
19	MR. BRAMBLE: Oh, okay. Oh, I missed the
20	higher
21	(Simultaneous speaking)
22	MR. ROOF: You can't float Yes, you can't fly
23	below 1000 feet unless you have two miles visibility.
24	MR. BRAMBLE: Okay.
25	MR. ROOF: You can be 1000 feet or above with

1	one, which are actually just crazy.
2	MR. BRAMBLE: Yes, it is.
3	MR. ROOF: Because now you are farther from the
4	ground and your visibility can be less.
5	MR. BRAMBLE: Yes. How about your
6	relationship with the FAA, I mean do you think they play
7	a constructive role in the community, in the air tour
8	operators?
9	MR. ROOF: I do, actually. I think that they
10	do a great job, but you can't have somebody on every flight.
11	MR. BRAMBLE: Yes.
12	MR. ROOF: They are very proactive about ramp
13	inspections and records checks, doing your ghost rider
14	program.
15	MR. BRAMBLE: They send people out as tourists?
16	MR. ROOF: Yes.
17	MR. BRAMBLE: Huh.
18	MR. ROOF: Yes, they do, and they which is
19	great. I think they should have one on every flight
20	because they buy a ticket.
21	MR. BRAMBLE: Yes.
22	MR. ROOF: And if a person doesn't like it there
23	is probably a reason for it.
24	MR. BRAMBLE: Yes.
25	MR. ROOF: No, I think they do their due
l	

1	diligence, but, again, you can't be out there on every
2	flight holding people's hands or watching what they do.
3	It's up to the companies to self-regulate.
4	I mean the whole problem is having some moral
5	compass. You got to self-regulate, you have to have people
6	that are trustworthy enough to do that. The whole ESP
7	thing these days now you can actually get an app for your
8	phone or you can get that, it's called Flightradar24, and
9	you can see airplanes with ADS-B flying around and how high
LO	they are, how fast they are going.
L1	MR. BRAMBLE: Yes.
L2	MR. ROOF: You would think things like this
L3	would start to level the playing field a little, but my
L 4	understanding is ADS-B and things like that cannot used for
L5	enforcement purposes.
L 6	MR. BRAMBLE: Yes, they can't.
L7	MR. ROOF: Now if they made ADS-B regulatory
L8	for commercial aircraft and said, you know, this can be used
L 9	for enforcement purposes and made it required for a
20	commercial aircraft then you might have something where you
21	could actually watch people do things.
22	MR. BRAMBLE: Yes.
23	MR. SHAVER: It's getting to that point I
24	think, you know.
2.5	MR. BRAMBLE: Yes. That was kind of one of the

1	tenets of the Capstone Project.
2	MR. ROOF: Right.
3	MR. BRAMBLE: You know, for allowing
4	(Simultaneous speaking)
5	MR. ROOF: Well for runway incursions and stuff
6	like that, so you could see the movement of airplanes and
7	see where they're at.
8	MR. BRAMBLE: Yes.
9	MR. ROOF: Take the search out of search and
10	rescue.
11	MR. BRAMBLE: Yes.
12	MR. SHAVER: And the whole regulation, you
13	know, like not being able to use it for enforcement was one
14	of the reasons why the Capstone Project was allowed to
15	start, you know, because everybody was like well, yes, we
16	want this.
17	MR. BRAMBLE: Because they wouldn't have put
18	them in the airplanes, right.
19	MR. SHAVER: Yes, we want this, but
20	MR. ROOF: But we don't want big brother
21	watching us.
22	MR. SHAVER: You know, you got to make sure
23	MR. BRAMBLE: Yes, it's a lot of compromise
24	(Simultaneous speaking)
25	MR. SHAVER: But I think that now that is going

1

to be requirement at this --

2

3

there were operators who didn't put the equipment in their

4

5

MR. SHAVER: Yes.

6

MR. ROOF: And you got to wonder if somebody

MR. ROOF: And you know what, if some -- I mean

7

offers you \$80,000 worth of equipment they could take the

8

search out of search and rescue, give you a great CFIT

9

avoidance or situational awareness, why anybody in their

10

right mind would not take that on, and there's probably a

11

reason for it.

planes.

12

MR. BRAMBLE: Yes. That's a potential safety

13

improvement I guess that you think might be a good idea,

14

can you think of any other potential safety improvements

for the air tour operator community here in Ketchikan that

15

would be particularly valuable for preventing this or other

17

16

accidents?

18

MR. ROOF: Well, you know, my personal

19

20,000 hours of flying time, if people adhere to the

experience, having flown here for 23 years and having

20

regulations that are out there you are probably not going

22

to have a CFIT accident.

23

Pilots usually don't run into things they can

24

see, and if you have two miles visibility you aren't going

25

to hit something. If you have a mile visibility you

probably aren't going to hit something.

It's when these guys go IMC and try to do bootleg

IFR at low altitude is where people run into the sides of

hills. I mean it's pretty simple and the more people you

see do it the more you have to ask yourself why does this

continually happen.

Is it just people with lack of experience who haven't seen the downside of it or is it people have been doing it so long that they feel comfortable flying in that condition? I don't know the answer to that. I am sure there is some psychology involved.

Everybody wants to shine, everybody wants to do their job and be good at their job and perform, and I guess if breaking the rules enhances your sense of self as far as getting the job done that might, again, there might be psychology involved in this. You'd have to -- I don't know.

MR. BRAMBLE: What do you think about the importance of, or the potential value, safety value of satellite-based tracking of aircraft to improve operational control?

MR. ROOF: Well we have the ADS-B. We also, because we do Forest Service work we have Spidertrax, which is GPS tracking of airplanes, and it is way better.

You can see the plane in the fjords, on the

1	water, there is no dead area on a GPS tracking system. It
2	is definitely a, it would be a much better tool for seeing
3	your airplanes and what they are doing and knowing where
4	they are at.
5	MR. BRAMBLE: Yes.
6	MR. ROOF: Because once these planes hit Mount
7	Point and head to the fjords unless they are at probably
8	above 2500 feet we cannot see them and once they descend
9	into the fjords we cannot see them.
10	But with that Spidertrax and the GPS that the
11	Forest Service has we could put that in a plane and we can
12	watch them, literally every two minutes we will know
13	exactly where they are at and how high they are and what
14	direction they are going.
15	I mean with today's technology GPS is way better
16	than the line of sight GBTs that they have on the mountain,
17	and that's in terrain like this. If you were up in
18	southwestern Alaska where it's all flat you could probably
19	see ADS-B planes from takeoff to landing.
20	MR. BRAMBLE: Yes.
21	MR. SHAVER: Yes.
22	MR. BRAMBLE: Do you guys have that installed
23	in all your planes or just only when you are doing the Forest
24	Service stuff or

MR. ROOF: No. We only use it when we do the

25

1	Forest Service flights because it is required on their
2	flights and it is quite costly.
3	MR. BRAMBLE: Yes.
4	MR. ROOF: Three dollars an hour I believe is
5	what it costs us. And if you fly 16,000 hours a year in
6	your planes that's a lot of money. Or, I'm sorry, not
7	16,000, but I think it was going to cost \$16,000 to equip
8	all our planes with Spidertrax a year as opposed to \$1600
9	for the ADS-B subscription.
10	MR. BRAMBLE: Yes.
11	MR. ROOF: Based on what we fly a year with our
12	planes.
13	MR. BRAMBLE: How many hours a year do you guys
14	fly roughly?
15	MR. ROOF: Well what's 16,000 divided by three?
16	MR. BRAMBLE: Five thousand and change.
17	MR. ROOF: There you go.
18	MR. BRAMBLE: Okay.
19	MR. ROOF: We fly nine airplanes five months of
20	the year and we fly three the other seven. Usually they're
21	getting about 100 hours a month in summer, so, yes, we've
22	got nine aircraft.
23	MR. BRAMBLE: And how many people do you think
24	roughly do you carry per year?
25	MR. ROOF: Oh, God, I couldn't even hazard a

1	guess. I mean I'm sure that our owner could tell you
2	exactly.
3	MR. BRAMBLE: Yes. I was trying to get an idea
4	of scope of the industry a year and I think from like ten
5	years ago it was like 170,000 people a year or something.
6	MR. ROOF: Well if you look at all these planes
7	with potentially six people on them, there's one, two,
8	three, four, five, six, just on tours, times one, two,
9	three, four, five, so that's 36 times five, it's 180 people
10	a day
11	MR. BRAMBLE: One hundred eighty people a day,
12	yes.
13	MR. ROOF: times 150 days of the summer, the
14	potential is staggering.
15	MR. BRAMBLE: Yes, 20,000 to 30,000, somewhere
16	in that neighborhood.
17	MR. ROOF: Yes. And, again, that's if
18	everything worked out.
19	MR. BRAMBLE: Yes.
20	MR. ROOF: If we had beautiful every day and
21	there were no mechanicals and everybody bought trips.
22	MR. BRAMBLE: Yes.
23	MR. ROOF: But that's not realistic.
24	MR. BRAMBLE: All right. I'm trying to think
25	of how to ask this next question, but what would you think
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1	of minimums of 1000 and three to depart Ketchikan?
2	MR. ROOF: I think it would really curtail
3	people's ability to make money. I think it would be
4	unnecessary. As long as people adhere to the rules that
5	are out there it should be safe to fly. Again, we're flying
6	floatplanes over water.
7	If you adhere to the rules that are already in
8	place your likelihood of an accident are greatly reduced.
9	I think that in your position you probably find that CFIT
10	accidents usually involve flying in weather that isn't
11	legal to fly in in the first place. It's usually a VFR and
12	IMC conditions.
13	MR. BRAMBLE: Yes. Yes, the thing that's
14	tricky is we don't know, without cameras we don't know what
15	they are looking at when they do that. It's hard to tell
16	whether or not they are intentionally doing it or whether
17	they get themselves into a bad situation inadvertently or
18	
19	MR. ROOF: Well, yes, they could be maneuvering
20	to get out of a bad situation when they hit the side of a
21	hill. They could be holding a heading and flying, again,
22	bootleg IFR at low altitude.
23	MR. BRAMBLE: Yes.

MR. BRAMBLE: Yes.

24

MR. ROOF: You would think if you have that, the Chelton in a plane, or even the Garmin, you've got a picture

1	of the terrain.
2	MR. BRAMBLE: Yes.
3	MR. ROOF: If you are over water you should be
4	fine.
5	MR. BRAMBLE: Yes.
6	MR. ROOF: My understanding is that gal in
7	Juneau just missed, or hit that hill, just barely hit the
8	hill, she hit the trees first. She almost missed it.
9	MR. SHAVER: She had good ways to go to miss it,
10	but
11	MR. ROOF: Really?
12	MR. SHAVER: Yes.
13	MR. ROOF: But she hit trees before she hit the
14	ground, right, so if she had been a little higher maybe she
15	would have got over it.
16	Now the weather that I saw when that happened
17	it looked not legal to fly, especially in a wheelplane
18	across miles of water.
19	MR. SHAVER: And she probably had another 500
20	feet to get over the top.
21	MR. ROOF: But I mean you can't even fly a
22	wheelplane from Point A to Point B unless you have gliding
23	distance to land.
24	MR. SHAVER: Oh.
25	MR. ROOF: And it looked like it was rain, fog,

ANC15MA041 Attachment 1 - Page 116 1 and low visibilities. MR. BRAMBLE: What would you think about the 2 idea of equipping the airplanes with like Appareo units or 3 some kind of camera so that the next time it happens we can 4 see exactly what the weather is and what the decision making 5 6 was? 7 MR. ROOF: I personally wouldn't have a problem with it. Some of the operators might if, it depends on the 8 cost. Every time we have an accident like this though the 9 insurance rates go up. It's just -- We lose business. 10 It just destroys the industry. In 2007 when 11 you were here there was actually people on the cruise ship 12 dock with signs protesting the aircraft tours. 13 MR. BRAMBLE: From the cruise ship? 14 MR. ROOF: No. 15 MR. SHAVER: And after this one, too. 16 MR. ROOF: Really? No, it was friends of the 17 gentleman who from California that crashed in Steve's plane 18 out here. 19 20 MR. SHAVER: Ah. MR. ROOF: Saying don't fly on aircraft tours 21 22 they're killing people. And we had two accidents in a 23 week. 24 MR. BRAMBLE: Yes.

MR. SHAVER: There's a pretty -- There's a quy

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1 here in town who I think runs a boat tour, right, and he's 2 pretty vocal? 3 (Simultaneous speaking) MR. ROOF: Well, but, again, you're going to 4 5 have to take that with a grain of salt, too, because we're direct competition for one another. 6 7 MR. SHAVER: Yes. Right, yes. MR. ROOF: No, he would constantly, I don't the 8 person by, who you are talking about, but I know of him 9 because through my dealings with the FAA in my position that 10 they would constantly get calls from a boat operator out 11 there saying that the planes were flying in and out of 12 13 clouds. 14 MR. BRAMBLE: Yes. MR. ROOF: Well if you're flying over a 15 scattered lower of low stratus, scattered, from the ground 16 every time you go over that little air it's going to look 17 like you've just flown in to a cloud when in fact that didn't 18 happen. 19 20 (Nonpertinent conversation) 21 MR. BRAMBLE: All right. So what do you think 22 about higher minimums for new hires, like 1000 and three until they complete IOE? 23 MR. ROOF: Well first of all that wouldn't 24 apply to Promech because they don't do scheduled flights, 25

1 so there is no IOE involved. That's only for scheduled service where they have to have initial operating 2 3 experience. Charter operations can take somebody off the 4 5 street, give them whatever their training program says, and 6 ours is three hours and a check ride, and they're good to 7 go. 8 MR. BRAMBLE: Yes. MR. ROOF: So realistically a guy could be set 9 10 free in four hours legally. MR. BRAMBLE: Do you think they should have 11 different, do you think it's a good idea to have 12 differential minimums for new pilots or --13 14 MR. ROOF: No, I don't really want to go down that road. I think that it comes down to operational 15 control again. The company needs to adhere to the rules 16 and, you know, I don't know. I don't know the answer to 17 18 that question. MR. BRAMBLE: Okay. 19 20 MR. ROOF: I mean Shannon worked here probably in the early 2000's for Pacific Air for a year and then he 21 22 worked up here again just this year, and Bryan had experience flying up in Talkeetna --23 24 MR. BRAMBLE: Yes. 25 MR. ROOF: -- and maybe somewhere else, but

1 even with my 20,000 hours if I went to Talkeetna or Southwestern Alaska my experience would amount to nothing 2 3 because I have no local experience. So it's all about local knowledge and knowing 4 5 what's out there, and that's only if you're going to be doing stupid shit in the first place. 6 7 MR. BRAMBLE: Yes. MR. ROOF: Because if you're flying and you 8 have visibility anybody should be able to do it. 9 MR. BRAMBLE: Yes. 10 MR. ROOF: That's why it's so important that 11 people adhere to the regulations that are there. 12 MR. BRAMBLE: What do you think about the idea 13 14 of having inadvertent IFR GPS weigh points pre-loaded that you could, you accidentally get in a cloud, you know, along 15 a route and you could just hit a button and have some 16 quidance? 17 Is that possible? 18 MR. ROOF: I think hypothetically yes. MR. BRAMBLE: 19 20 MR. ROOF: I mean we train people on that 21 simulator when we are doing CFIT avoidance training. 22 train them to turn away from terrain when you are doing a, if you have inadvertent IMC on that simulator you are 23 trained to turn away from terrain, only because you don't 24 25 have the peripheral vision that you would need to do it

ANC15MA041 Attachment 1 - Page 120 1 correctly. 2 MR. BRAMBLE: Yes. 3 MR. ROOF: In real life you fly that plane far enough offshore and this is your visual reference you turn 4 5 toward the terrain, because otherwise you turn out to rain 6 fog over water now you've got gray-out conditions. 7 You've got gray sky, gray water, you are 8 essentially flying IMC. If you are flying, and this is your reference point, you turn toward the reference point 9 so now you can see to make that turn. 10 MR. BRAMBLE: Yes. 11 MR. ROOF: On the simulator we train the 12 opposite direction, I mean opposite, because you can't see 13 the shoreline off here on the simulator and you'll 14 inadvertently, every time they'll end up being closer than 15 they thought they were. 16 So every time they do an inadvertent IMC 17 18 encounter escape maneuver they'll hit the side of the hill if we do it the way we do it when we are in the plane. 19 20 MR. BRAMBLE: Yes, interesting. Huh. Would 21 you --22 MR. ROOF: Because your depth perception on that simulator is not the same. 23 24 MR. BRAMBLE: Yes.

MR. ROOF: If you put two miles visibility on

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1 that simulator it doesn't look like two miles, it looks like four. 2 3 MR. BRAMBLE: Yes. MR. SHAVER: I just did that yesterday. MR. BRAMBLE: Yes. 5 MR. ROOF: If you put a mile then it maybe looks 6 7 The simulator weather and what you see, I mean it's not perfect, but it's a hell of lot better than what 8 we had before. 9 10 MR. BRAMBLE: Yes. MR. ROOF: But that's a little thing that we 11 teach guys, that's just common sense to stay far enough 12 offshore that you can see a reference point so you can turn 13 towards it and have room to make that turn and a normal 14 degree of bank and not having to do aerobatic maneuvers, 15 because then you are going to lose altitude due to loss of 16 lift and start heading downhill anyway. 17 18 MR. BRAMBLE: Yes. What do you think about the inadvertent IMC training in the sim there? 19 20 MR. ROOF: I think the CFIT avoidance program is probably one of the best programs in the Medallion. 21 22 I think it's invaluable to get guys to fly the routes in differenting weathers and the ability to sit 23 there and change the weather while they fly is great. 24

It probably wouldn't happen if you did it in an

25

1	airplane because of the cost and you can put them in
2	situations that are deadly on that simulator, again, that
3	you can't do in airplane.
4	MR. BRAMBLE: Yes.
5	MR. ROOF: We actually make, I actually make
6	people do instrument approaches on that simulator and get
7	instrument current, just fly the plan via the instruments
8	and do approaches, because you can, because every pilot
9	here is supposed to be an instrument pilot so I try to get
10	them to be current on their instrument skills before we go
11	out in the airplane and do the check ride.
12	When we do a check ride in our planes, since we
13	are Chelton equipped, we make them do inadvertent, or I'm
14	sorry, unusual altitudes and recoveries, inadvertent IMC,
15	which is 180 degree turn
16	MR. BRAMBLE: Hang on one sec.
17	MR. ROOF: And these are all in the training.
18	They are standard in the training programs.
19	MR. BRAMBLE: What was the, what are the things
20	that
21	(Simultaneous speaking)
22	MR. ROOF: We have do unusual altitudes and
23	recoveries in the plane, under the hood, we have to do
24	inadvertent IMC, which is, again, a level 180 degree turn
25	away from terrain, because now you're in the clouds, you're

1	not turning towards the land because you can't see it. You
2	are basically flying by reference of the instruments.
3	MR. BRAMBLE: Yes.
4	MR. ROOF: And then I will make them, usually,
5	from where we are on our training area is at least ten miles
6	from where they have to pick up the ILS in town, so I will
7	make them climb, flight, maintain their own terrain
8	separation at 2000 feet.
9	The MEA around here is at usually 5000 or 4600,
10	so at 2000 feet I will make them fly under the hood to the
11	ILS, follow the localizer in until the glide slope comes
12	down to meet them, and then go down the runway.
13	Because at 2000 feet they can maintain their own
14	terrain separation down the channel until they get there
15	and fly inbound, just to see that they can actually fly the
16	plan solely by reference to the instruments without hitting
17	anything.
18	MR. BRAMBLE: Yes. You make them, did you say
19	make them fly the localizer to the ILS?
20	MR. ROOF: Well the glide slope starts at 4600
21	feet.
22	MR. BRAMBLE: Yes. So you fly into the
23	intercept on
24	MR. ROOF: Yes. I make them intercept it at
25	2000 feet because chances are that's more realistic where
l	

1 they would be if they had to escape and get out of something. Now, obviously, if you had one IMC in Ella Lake 2 3 you would have to climb to 5000 feet to avoid hitting anything. 4 5 MR. BRAMBLE: Yes. MR. ROOF: But you can do it in these planes if 6 7 a person has their shit together. 8 MR. BRAMBLE: Yes. MR. ROOF: But the best way to do it is not to 9 get yourself in that situation in the first place. 10 MR. BRAMBLE: Yes. What do you think about the 11 fidelity of the system? I mean is it robust enough that, 12 you know, you can judge the visibility? 13 14 MR. ROOF: What? MR. BRAMBLE: In that simulator? 15 MR. ROOF: Well you can judge the visibility 16 based on known points of reference. So rather than what 17 18 the simulator says is two miles, I will look at it and say well I know that from here to here it's got to be -- You 19 20 know, because I have known points, I fly around here all the time. 21 22 MR. BRAMBLE: Yes. MR. ROOF: So this is what I want you to see from 23 24 Point A to Point A. 25 MR. BRAMBLE: How about --

Τ	MR. ROOF: And you can look at, again, you could
2	look at that map we give the guys that says from here to
3	here, and set the weather so you can see what four miles
4	
5	MR. BRAMBLE: Oh. And they've already had
6	that training when they get into
7	MR. ROOF: Well they have the map and we've gone
8	over all the CFIT groundings before we get on the simulator.
9	MR. BRAMBLE: Ah. Do you guys do the tour
10	route in there?
11	MR. ROOF: We do.
12	MR. BRAMBLE: Ah. And that's where you do the
13	inadvertent IMC along the tour route?
14	MR. ROOF: We might do it on the tour route, but
15	we'll probably do it on a tour route, we'll probably do it
16	on a (inaudible) flight into Harris River (inaudible) into
17	Craig, we'll probably do it on the way to Thorne Bay or
18	Metlakatla.
19	MR. BRAMBLE: Yes.
20	MR. ROOF: Every where we put them eventually
21	they're going to have to make a decision to turn around.
22	MR. BRAMBLE: Okay.
23	MR. ROOF: And all we were doing is making sure
24	that they are going to actually make a decision to turn
25	around. You'd be surprised how many pilots that will just

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go lower and lower and just keep on going, and it's like

what are you doing, this isn't what we told you to do.

MR. BRAMBLE: Yes.

MR. ROOF: But you can see that even on a

MR. ROOF: But you can see that even on a simulator people will sit there and just keep flying, so that's where it becomes invaluable because now you can tell how people are going to react.

MR. BRAMBLE: What do you think about the idea of like, I don't know, one of the ideas that we have batted around with those guys is just strapping a GoPro on an airplane for a season and at the end of the season during the winter, you know, like editing through that video and finding like the good, the bad, and the very gray in between and then showing new pilots this and saying like this is something I don't want you getting into, this is, you know, this stuff is obviously good and bad, but this, here's where we're going to draw the line on, you know, something that actually looks like the real place, real weather?

MR. ROOF: Yes. Well I am not opposed to anything that helps educate people and make it safer. It's getting other people to go along with this is the problem, to buy into it.

MR. BRAMBLE: Yes.

MR. ROOF: I will tell you flat out you cannot fly around here for a season without breaking the rules.

1	It could be 500, 600, 800, whatever, and go out there to
2	the fjords and on your way back you might fly into 400 to
3	300.
4	MR. BRAMBLE: Yes. Because there's no way to
5	get through?
6	MR. ROOF: Well because the weather will
7	insidiously come down on you while you are out there.
8	MR. BRAMBLE: Yes.
9	MR. ROOF: And generally when it does that you
10	don't want to go across the island, you stay over water and
11	fly along the shoreline, and if you have to land you land.
12	There is plenty of places to put planes down out there if
13	you are on floats.
14	MR. BRAMBLE: Yes. So you think it's not a
15	matter of calibrating people to what the organization
16	expects them, what decision the organization expects them
17	to make for some sort of, you know, where they should draw
18	the line based on what they are seeing, you think everybody
19	knows that already and it's just a matter of getting them
20	to do the right thing?
21	MR. ROOF: Well I think that the pilots know the
22	rules, but I think there might be pressure from management
23	to do what needs to be done to make the money.
24	MR. BRAMBLE: Yes.
25	MR. ROOF: You know up until a few years ago we

1 had a waiver or exemption that allowed us to fly at 200 feet. We could fly down to 400 feet if we had two miles visibility 2 and 200 feet if we had three. 3 And what the exemption did essentially was 4 5 allowed us to do what people had done forever up here in 6 floatplanes anyway. 7 MR. BRAMBLE: Yes. MR. ROOF: That's what they taught you to do 8 when I came up here. You can see forever, keep going. 9 Yes. What was the exemption for 10 MR. BRAMBLE: again? 11 MR. ROOF: It was called a Calm Water 12 Exception. 13 14 MR. BRAMBLE: Ah. MR. ROOF: It allowed us to fly over landable 15 water at a lower altitude if you had visibility. 16 it was designed to allow people to do the scheduled service, 17 18 mail service and stuff, to the communities around here, and then it started getting used on tours as well, and so I mean 19 it's just a freaking free-for-all. 20 21 MR. BRAMBLE: Yes. 22 MR. ROOF: And I believe some people in D.C. and some of the legal and the FAA realized that this wasn't a 23 good idea, because here they are giving you your blessing 24 to fly at a lower altitude than the minimums and they were 25

1 putting themselves in harms way of being blamed for an accident, so they took it away. 2 3 I personally -- And a tour is not a tour at 200 feet. You charge somebody \$250 to go up in an airplane, 4 5 showing them the bottom 200 feet trees or a cliff is not a tour. 6 7 MR. BRAMBLE: Yes. 8 MR. SHAVER: Yes. MR. ROOF: But that doesn't mean that people 9 10 aren't going to use that tool to make money. MR. BRAMBLE: Yes. 11 MR. SHAVER: God, you know, I remember how it 12 used to be in the '80s around here. I mean my dad and I 13 14 used to go hunting on (inaudible) every winter and I was not a pilot but I remember going IMC over ridges and 15 mountains in those airplanes and thinking it was -- I didn't 16 know any better, you know, I was --17 18 MR. ROOF: Why would you? MR. SHAVER: Yes. 19 MR. ROOF: And that's just stupid. I know it 20 happens all the time, but, again, it's all about money. 21 22 MR. SHAVER: Yes. MR. ROOF: I mean bottom line is about money. 23 You don't make money if you don't fly. Now the funny thing 24 25 about these pilots -- I'm going to tell you about me.

1	1
	ANC15MA041 Attachment 1 - Page 130
1	I've been offered a job with the FAA to be an
2	aviation safety inspector here in Ketchikan. I live at
3	Mountain Point, everybody flies by my house to go to the
4	tours and I watch people fly by my house at low altitude
5	all day long on my days off in marginal weather.
6	And I have actually said, you know, if you put
7	a camera on my deck you'll see who the scofflaws are in this
3	town, because my deck is 180 feet above sea level.
9	And because of the last accident, one of the

2.0

And because of the last accident, one of the NTSB's said they needed more coverage here in Ketchikan and so they hired a gentleman who was a DO at Kenmore, he's been here a little over here, just became, got badged, but he wants to move to Juneau so they offered me the job and I said sure.

I'm in the process of, I have applied online waiting for it all to go, happen. But I think that they do all they can. You can't, it's hard to stop people from breaking the rules.

If you drove home every night and you know there was no chance of getting a speeding ticket would you obey the speed limit every night?

MR. BRAMBLE: Yes, I mean it's routine violations, people do it all the time. You just go down on the freeway and you can see it, you know. It's just a matter of --

1	MR. ROOF: But Brian, the owner of this
2	company, him and I butt heads in the summer. The day the
3	accident happened he was telling our COO we should be out
4	there flying.
5	Promech was out there flying, everybody in this
6	town was out there flying. We could be flying right now.
7	If you looked at that picture you showed me over water in
8	the fjords it looked perfectly fine.
9	MR. BRAMBLE: Yes, they would have been okay I
10	think if they went south.
11	MR. ROOF: But, again, down towards Alva
12	towards the open water there was a low layer of clouds that
13	didn't, that negated you doing it legally, okay.
14	MR. BRAMBLE: Yes.
15	MR. ROOF: The reason that I am able to not fly
16	and make my pilots not fly and the reason we are a shield
17	carrier of Medallion is all because of him. These are his
18	mandates.
19	He said I don't want us flying if the weather
20	is not legal to fly. I don't want us killing people.
21	MR. BRAMBLE: But he still had a hard time with
22	your decision that day?
23	MR. ROOF: Sure.
24	MR. BRAMBLE: How tough Well, I guess the
25	accident happened, so, I mean when was he complaining about

1	it, before the accident or
2	MR. ROOF: Yes, yes. No, he was pretty happy
3	with our decision when they had an accident.
4	MR. BRAMBLE: I bet.
5	MR. ROOF: But
6	MR. BRAMBLE: That probably bought you some
7	serious credit.
8	MR. ROOF: He told, he would tell anybody, and
9	he has told me this, the reason he is not in operation
10	control is because he's not the right guy for the job.
11	MR. BRAMBLE: Yes.
12	MR. ROOF: Because he is going to think about
13	the money that's not coming in.
14	MR. BRAMBLE: What do you think would have
15	happened to you if that accident hadn't happened? I mean
16	would he have been pissed off and told you to
17	(Simultaneous speaking)
18	MR. ROOF: Sure, but he'd get over it. I've
19	worked with him When I came to this town his dad owned
20	the company, I worked for Ketchikan Air, and I've known him
21	for 23 years.
22	MR. BRAMBLE: Yes. And in the past he has
23	backed you? I mean
24	MR. ROOF: Oh, we have our moments. I mean,
25	again, he has his role, I have my role, pilots have their

1	role, but you have to have somebody who runs interference
2	between that guy who counts the money.
3	MR. BRAMBLE: Yes.
4	MR. ROOF: Because, again, you're going to see
5	thousands of dollars go out the window.
6	MR. BRAMBLE: Yes.
7	MR. ROOF: And nobody thinks they are going to
8	have an accident.
9	MR. BRAMBLE: Tony Dupea (phonetic) got the
10	wrong end of that deal I guess. It wasn't working out too
11	well for him and trying to hold that line or
12	MR. ROOF: Well him and Marcus used to scream
13	at each other. They would get in verbal altercations.
14	MR. BRAMBLE: And you think that was the
15	primary source of the
16	MR. ROOF: Oh, sure. That's just my gut
17	instinct though, but I wasn't there.
18	MR. BRAMBLE: Yes.
19	MR. ROOF: But all the pilots who came to work
20	for me they saw it. They said Tony was probably the best
21	chief pilot they've ever worked for in their lives.
22	MR. BRAMBLE: That's very interesting.
23	MR. ROOF: But, you know, and I have always told
24	the Medallion guys they need to have owner education
25	classes where they need to sit down with the owners and it's

1 mandatory that they go though accident statistics, they go through loss revenue statistics, they go through all the 2 3 costs and the fact that it debilitates the company if you have an accident. 4 5 It should be required for them to know the cost 6 of an accident beyond just the human life part, because if 7 all you care about is making money in your company you can put it in terms that they can understand. 8 MR. BRAMBLE: Yes. What do you think that 9 costs them? I mean I guess the insurance will cover it but 10 their premiums will go up, but I mean is it like \$10 million, 11 \$20 million for something --12 MR. ROOF: When we had our accident it cost us 13 \$500,000 out of pocket almost immediately. 14 MR. BRAMBLE: Yes. 15 MR. ROOF: Just for everything that we had to 16 do as far as getting people up here, getting the loss of 17 18 the plane, getting the families up here, hiring people to talk for us to everybody and talk to us about PTS and all 19 20 that other stuff. 21 MR. BRAMBLE: Yes. 22 MR. ROOF: We had counselors up here, we did all this other stuff. 23 24 MR. BRAMBLE: Yes. 25 MR. ROOF: It cost us about half a million

1 dollars and nobody sued us. MR. BRAMBLE: Huh. 2 3 MR. ROOF: There was nobody to sue us. They were all older, the four people in there, two couples, were 4 older adults, they had grown children. There was no loss 5 6 of support or income or --7 MR. BRAMBLE: Yes, yes. MR. ROOF: Nobody sued us. 8 MR. BRAMBLE: Wow. And how much did your 9 10 premiums go up after --MR. ROOF: Oh, I don't know the answer to that. 11 MR. BRAMBLE: Yes. 12 MR. ROOF: But they will I guarantee it. 13 14 crash in Juneau, the crash up in Talkeetan, it will all affect our premiums. 15 MR. BRAMBLE: Yes. Wow, even in Juneau. 16 MR. ROOF: Well I mean it's just the insurance 17 companies they go by the accident statistics. 18 MR. BRAMBLE: Yes. 19 MR. ROOF: But our participation in the 20 21 Medallion helps. Disney came along a couple of years ago 22 and came to town and the guy, they sent their chief pilot and, it used to be their chief pilot for their aviation 23 department, and their head of risk assessment down here to 24 25 go over, he went over this place.

1 He was more, what would be the word I am looking for here, he was intimidating, more intimidating than the 2 FAA doing a base inspection. 3 MR. BRAMBLE: What did they call that audit or 4 5 whatever? MR. SHAVER: It's just a safety audit. 6 7 MR. BRAMBLE: Just like a safety audit? MR. ROOF: Yes, he came down --8 MR. SHAVER: You go through one with the oil 9 companies, you know, like --10 MR. ROOF: He came down and checked every 11 aspect of our operation and he said they don't do business 12 with people that don't fly turbine-powered airplanes, but 13 people in Alaska want to fly Beavers. 14 MR. BRAMBLE: Yes. 15 MR. ROOF: So they were nice enough to do 16 business with us. But they required us to carry \$2 million 17 18 a seat and \$10 million per incident insurance, which would, I think it effectively doubled our seat insurance 19 requirements and I don't know if it more than doubled our 20 whole, our total liability. 21 22 MR. BRAMBLE: Yes. MR. ROOF: But he also said to me, he goes what 23 24 do the other cruise lines require your pilots to have? I said well, generally they want 1000 hours, and he goes 25

1 well, what about in the time for a plane or a make and model, 2 he goes oh, there's none. 3 How about Alaska? I said there's none, it's just 1000 hours. He goes well why don't we make it 3000 4 5 hours, 200 in a Beaver, 200 (inaudible), which made it harder for me to find pilots to fly for us. 6 7 MR. BRAMBLE: Three thousand hours --MR. ROOF: Minimum. 8 MR. BRAMBLE: Total? 9 10 MR. ROOF: Yes. MR. BRAMBLE: In floats or any --11 MR. ROOF: Total. 12 13 MR. BRAMBLE: Okay. 14 MR. ROOF: As opposed to 1000. MR. BRAMBLE: Yes. 15 MR. ROOF: And 200 in make and model and Alaska, 16 which isn't that bad, 200, but it's harder and harder to 17 18 find floatplane pilots every year. MR. BRAMBLE: Yes. 19 20 MR. ROOF: And that was just a random number he pulled out of the hat. I mean he said that's not too big 21 22 a deal, is it? And I said well, I guess if that's what you want that's what we'll have to do. 23 24 MR. BRAMBLE: Yes. So the other companies, the other cruise companies are happy with 1000? 25

1	MR. ROOF: Generally 1000 hours is what they
2	expect to see.
3	MR. BRAMBLE: Do the other cruise lines
4	MR. ROOF: You have to have 500 hours just to
5	do 135, okay, so they are definitely not a requirement to
6	1000, so that's proactive right there. Disney likes to
7	think of themselves as far above, beyond the other
8	operators, so they want it, they just, 3000.
9	They wanted nothing to do with being in the news
10	for an airplane accident.
11	MR. BRAMBLE: Do the other cruise lines audit
12	you as extensively as they do or no?
13	MR. ROOF: When we had the accident in 2007 we
14	had to hire an independent risk assessment team to come and
15	audit our company for Princess Cruise Lines. All they
16	found wrong with our company was we didn't have orange vests
17	on our freight guys on the dock, the dock guys.
18	MR. BRAMBLE: Yes.
19	MR. ROOF: And Princess didn't like that so
20	they sent their own risk assessment team to audit us again
21	and then they gave us their business back.
22	We're doing everything we could in our power to
23	negate an accident.
24	MR. BRAMBLE: Yes.
25	MR. ROOF: But, again, like I said you can't,

1	there is no, you can't put up a shield, especially if
2	somebody is in the situation we had. It's not a drug that
3	they tested for. The guy lived with me in my house, shared
4	my house with my children.
5	He seemed like a perfectly, he seemed as normal
6	as anybody. He was always happy. Of course, he was
7	probably on high doses of anti-depressants.
8	MR. BRAMBLE: How about Holland America Line,
9	did they audit your guys?
10	MR. ROOF: No. It's just, it was The only
11	time we have been audited by the cruise lines is when we
12	had the accident.
13	Disney does it every year and the FAA does it
14	probably quarterly where they go through pilot records and
15	ramp inspections and maintenance records and things like
16	that.
17	MR. BRAMBLE: Yes.
18	MR. ROOF: And, you know, the big problem is
19	like even if I join the FAA it's hard to prove things to
20	effect a change.
21	MR. BRAMBLE: Yes.
22	MR. ROOF: It's like the plane on the rocks.
23	MR. BRAMBLE: Yes, enforcement is tricky. I
24	mean it's tricky for us sometimes to come up with just
25	MR. ROOF: It's tricky to have, you know,

1 black-and-white and have a --MR. BRAMBLE: Yes, which makes it tougher to 2 3 make a case for certain improvements sometimes and, yes --MR. ROOF: But the funny thing is to me is that 4 most of the -- I gave my boss four months notice and I told 5 6 him I was going to do every thing I could to get this job. 7 I have worked with him forever, like I said. 8 MR. BRAMBLE: Yes. MR. ROOF: So I gave him lots of time to let him 9 know that I was going to leave. And so everybody in this 10 town who flies a plane knows that Kevin is trying 11 (inaudible). 12 13 MR. BRAMBLE: Yes. 14 MR. ROOF: They also know where Kevin lives, right at Mountain Point right on the way to the Misty's. 15 MR. BRAMBLE: Yes. 16 MR. ROOF: So I'm hoping that just that in 17 itself might help curtail some of the stupid acts. 18 MR. BRAMBLE: Yes. 19 20 MR. ROOF: Because I could put a camera on my 21 deck all day long. 22 MR. BRAMBLE: Yes. That's a pretty strategic move on the FAA's part, yes, if they wanted to keep you here. 23 What do you think about the Chelton Avionics if 24 25 you do get into a situation where you, you know, may be in

1	lower visibility than you want to be and you need to escape
2	the inadvertent IMC maneuvers, that sort of thing?
3	MR. ROOF: I think it's a Godsend. I think
4	it's invaluable, way better than the Garmin. The act that
5	you have the synthetic vision of a blue sky day of what's
6	in front of you and the multifunction, the PFD and
7	multifunction together are beautiful with the terrain.
8	I don't understand how anybody could hit the
9	side of the hill with that in their airplane.
L 0	MR. BRAMBLE: Have you noticed that there are
L1	different loads for the soft, for the terrain data that some
L2	of which show lakes and some of which only show ocean?
L3	MR. ROOF: Yes. There are earlier versions or
L 4	there are different versions I know that, yes, some do show
L5	lakes, some don't. Obviously in a perfect world you want
L 6	it to show the actual bodies of water.
L7	MR. BRAMBLE: Do you
L8	MR. ROOF: One of the down sides of that
L 9	equipment is in a floatplane if you get close to terrain,
20	if you are landing in a lake or on a body of water it assume
21	you are crashing.
22	MR. BRAMBLE: Yes.
23	MR. ROOF: It only recognizes runways. So
24	most of us have the TAS inhibited all the time, otherwise
25	every time you come in to land it's going terrain, pull up,

1	terrain, pull up, because it assumes you are crashing.
2	MR. BRAMBLE: Yes.
3	MR. ROOF: So that is one of the down sides of
4	it and as a result we all fly with the TAS inhibited. Now
5	that still paints your screen yellow and red, yellow for
6	anything 100 feet below you, 150 feet below you and lower,
7	and red for anything 150 feet below you and higher.
8	MR. BRAMBLE: Yes. Somebody was telling us
9	that they thought that that was, because it does that,
10	paints the screen all yellow and red, that it's like the
11	worst possible thing to happen to you if you get into a
12	situation where you are going to potentially have a CFIT
13	because it takes away the information you might need to
14	survive.
15	MR. ROOF: Well I guess you could look at it
16	that way. If you are landing everything in front of you
17	goes away and it's yellow now on the multifunction display.
18	I mean that is a possibility in itself.
19	Itself reduces so that now instead of seeing two
20	miles or five miles you got it down to a mile. It just goes
21	down, so now everything in front of you is yellow.
22	MR. BRAMBLE: So it changes the
23	(Simultaneous speaking)
24	MR. ROOF: Automatically if it thinks you are
25	going to hit something.

1	MR. BRAMBLE: To one mile?
2	MR. ROOF: I Well, I think that that's what
3	it goes down to. It might even be lower than that, it might
4	be a mile.
5	MR. BRAMBLE: Wow.
6	MR. ROOF: Yes, it automatically goes to give
7	you a better picture.
8	MR. BRAMBLE: Which ends up being one big
9	yellow or red screen?
10	MR. ROOF: Yes.
11	MR. BRAMBLE: Okay.
12	MR. ROOF: Yes, it automatically goes to a
13	lower setting of visibility.
14	MR. BRAMBLE: Yes. It seems like there could
15	be some improvements with that system.
16	MR. ROOF: Well I mean it's antiquated today.
17	It was I think in '04 when we put them in our planes and
18	that was over a decade ago.
19	But there's a lot of things on the market today.
20	The problem is, again, it just comes down to money, how much
21	are you willing to pay for safety.
22	MR. BRAMBLE: Yes.
23	MR. ROOF: You should be able to fly every day
24	around here with just the basic steam gauges in your plane
25	without running into shit.

MR. BRAMBLE: Yes. All right, I've taken more than my share of time here, so I'm going to hand it over to Chris.

MR. SHAVER: I don't have a whole lot to ask. You did good. I do have one thing though. Give me your thoughts about Medallion, you know, and I mean, and not, I mean we, you know, with regards to how they have been doing over the last few years with all of their, with the programs and --

MR. ROOF: Well they've gone through some personnel issues, some changes. I don't have a problem with that at all. We've gone through several I guess inspectors for our company. They've had a lot of turnover.

The thing about Medallion is it provides an education to maybe help you take a step outside the box and look at your company a different way and give you some different ways of trying to look at your company and how you do business.

It's kind of like an SMS program in that they try to tell you, to say look at a function within your company, be it flights, maintenance, could be dock, and say what are you seeing on a day-to-day basis and what can go wrong with what you are seeing, how could you lessen the likelihood of an incident or an accident, be it somebody, a freight guy walking into a propellor or a plane running

1 into another airplane on the water.

And anytime anybody provides additional education, especially in the area of risk management or safety management it's not a bad thing.

MR. SHAVER: Yes.

MR. ROOF: Like I said I think that CFIT Program is pretty cool. I like having the simulator over there, I like them being able to go over there and play with it.

I like showing -- A lot of the pilots will go over there on one of their days and play with it and fly and to keep their instrument skills up, and they're usually doing it for the next job not because the want to care about flying the Beaver around IFR.

But, again, any time somebody is getting their instrument skills up it's going to lessen the likelihood of losing control of an airplane.

I think it's been a valuable asset to me, personally. I feel like they have educated me and had me -- I used to be quite a cowboy around here, but they teach you, they tell you some things and teach you some things that you might not have thought of before.

I mean I went through human factors training,
I went through safety officer training, I went through a
course taught by a gentleman by the name of Tony, Tony,
Tony, Tony, from the Forest Service in D.C. at one time.

1	He writes books on human factors and
2	MR. SHAVER: Tony Kern.
3	MR. ROOF: Kern.
4	MR. SHAVER: Is he from Juneau?
5	MR. ROOF: No. I said I think he's I don't
6	know where he is from.
7	MR. SHAVER: Oh, but he worked for the Forest
8	Service, I didn't know that.
9	MR. ROOF: Yes, he was the head of the Forest
10	Service in D.C. after they had their C-130 accident where
11	the wings fell off.
12	MR. SHAVER: Huh.
13	MR. ROOF: But he is a doctor in human factors
14	and some of the things that he talked about were just
15	The Spokane crash with the B-52 and all of these pilots that
16	had histories of non-compliance and how the people who
17	worked with him let them skirt through the system because
18	of the good ole boy system and, you know, he's all right
19	and he's all right and eventually boom, into the ground they
20	go.
21	MR. SHAVER: Yes.
22	MR. ROOF: And that was a big part of his
23	training was the people slipping through the cracks.
24	MR. SHAVER: The culture of non-compliance,
25	that's something that we talk about a lot.

MR. ROOF: Yes.

MR. SHAVER: How often do you see the Medallion

MR. ROOF: Well I'm supposed to see one this

folks?

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before the season begins and we'll see an auditor. He'll come down and audit our programs, and that would be Deb Walker, right now she is our representative.

Then Larry Dalrymple, who just retired from

afternoon actually, but usually we see them in the spring

there, would actually come down and do an audit. She would come down to make sure we're ready for an audit, then we'd actually, all the paperwork is in place and all the programs are where they should be, and then he would come down and actually do an audit.

His audit was more of a process measurement audit in that he would sit down with every employee in our company and ask them what they think of our safety culture individually.

So like Promech they have a CFIT Star, they probably just come down and look at the CFIT training to see if it's getting done in a timely manner and the way it's prescribed.

We have the shield. He sits down with every freaking employee in this place. The girl at the counter, our bookkeeper, and say what can you tell me about the

ANC15MA041 Attachment 1 - Page 148 1 safety culture at Taquan Air, and it's completely anonymous, he doesn't write names down. 2 Do you think they have one, do you think it's 3 4

taken seriously, and things like that. So I tell them whatever you do today we have a safety culture. Yes, okay.

(Laughter)

MR. SHAVER: Yes.

MR. ROOF: And that's a big deal. I mean if you can, I mean he debriefs us after he is done and everything like that and one time this year I think one of the mechanics said he would feel that we would take safety more seriously if we could buy new ladders for the shop because they were old.

And, again, it's a spending money thing and we've gone round and round about that now and we're replacing ladders slowly but surely.

But it's the kind of thing that if you could have a company where you could sit down with all the employees anonymously and ask them questions and have them give you honest answers it's pretty good.

MR. SHAVER: Have they changed it a lot though? Well I mean I know that you said they've had a lot of different people, have they changed how they have been approaching some of the stuff that they have been doing?

MR. ROOF: You know, I know that some of the

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1 training programs have changed over time and they are concentrating more on SMS these days since that's going to 2 come the down the pike here for us. 3 MR. SHAVER: Yes. 4 MR. ROOF: They do revise their audit points 5 6 for the programs occasionally, not always, and that's if 7 a need arises. They have changed the audit points for CFIT 8 avoidance a couple times to add scenarios that may not have 9 been there when they first started the program, such as 10 flat-lining conditions and whiteout conditions, which is 11 flat-lining. 12 MR. SHAVER: I'm easy. There's no more. 13 14 That's all I have. MR. BRAMBLE: That's it? 15 MR. SHAVER: Yes, I don't have -- Yes. Other 16 than if you had a copy of that visibility map somewhere that 17 18 we could, you know, take a picture of --(Simultaneous speaking) 19 20 MR. ROOF: I could probably dig one up for you. MR. SHAVER: (Inaudible). 21 22 MR. BRAMBLE: I have one, just one more, one or two more questions before we wrap up though. Just that 23 what actually reminded me on the SMS stuff like do you guys 24 have a way that, I mean like if somebody does inadvertently 25

ANC15MA041 Attachment 1 - Page 150 1 get into a bad situation they can report it, do they report? I mean like if weather-related stuff, CFIT or 2 3 lost control is the most potentially serious hazard, then is there some way to collect information on near misses in 4 5 that regard? 6 MR. ROOF: Well we have a safety reporting 7 program here where you can anonymously report things to the company. You can also fill out a safety report and put your 8 9 name on it. If you fill out a safety report with your name 10 on it to identify a hazard you get your name in a hat for 11 \$100 drawing at the end of the season. 12 13 MR. BRAMBLE: Huh. 14 MR. ROOF: If you don't put your name on it we will still see it. If you are worried about Kevin or 15 somebody having retribution against you you don't have to 16 put your name on it but you could still put it in the box 17 18 and it will be seen by the all the managers. MR. BRAMBLE: Yes. 19 20 MR. ROOF: Because we do all that stuff and we look at them and then we have management meetings where we 21 22 go over all the safety hazards that have been identified

We also, again, this is all part of the Medallion things, this is who started this in the company,

by somebody.

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1	we also have a fix-it award where if you see a hazard, say
2	there is a piece of board loose on the dock or a rope broken
3	or a bad ladder, if you fix the problem now you get your
4	name in a hat for another \$100 drawing at the end of the
5	season.
6	It's kind of getting people to buy into this,
7	to actually being active participants in the safety
8	program.
9	MR. BRAMBLE: Yes.
10	MR. ROOF: As far as if a pilot were to go out
11	inadvertently IMC around here, and thank God didn't hit the
12	side of the hill, if he came back and told me I would say
13	well don't do it again. You know, I'm not going to fire
14	the guy.
15	MR. BRAMBLE: Yes.
16	MR. ROOF: I'm going to ask him how he got into
17	it and say well didn't I tell you if you see cloud in front
18	of you turn before you get into it, don't wait until you
19	are in it to make a decision on what to do.
20	If you can see that you can't maintain 500 feet
21	and two miles up here turn now, not then. It's simple.
22	MR. BRAMBLE: Yes.
23	MR. ROOF: I mean it really is that simple, but
24	when you are flying an airplane evidently there is other

things --

1	MR. SHAVER: Did you ever have situations where
2	it comes down behind you and in front of you or not so much?
3	MR. ROOF: Oh, yes. It can come down all
4	around you.
5	MR. SHAVER: I mean that's kind of what I was
6	thinking like, and there must be cases where people
7	MR. ROOF: Well like I said earlier I mean there
8	is going to be times everybody, I don't care who you are,
9	there is going to be times when the weather is going to come
10	down all around you and you are going to have to deal with
11	that some way or another.
12	If it gets lower and lower and lower if you can
13	still see and it's safe to fly you're probably going to keep
14	flying. If you can't you better find somewhere to land.
15	If you are in open water and there is nowhere
16	to land you better find somewhere to land sooner than later
17	because then otherwise you are going to find yourself in
18	a situation where you are going to have to climb.
19	MR. SHAVER: Yes.
20	MR. ROOF: Because if the water is not landable
21	going lower and lower and lower is not going to help you.
22	MR. SHAVER: Yes.
23	MR. ROOF: You can't land on it. So while you
24	need to make that decision in a timely manner while you
25	still have the ceiling and visibility to divert to a cove,

1 a bay, somewhere to land the plane. But, again, like I said, the day that I went out 2 3 there and took a look at it, if you have 500 feet you've got quite a little fudge factor there. 4 5 MR. SHAVER: Yes. MR. ROOF: But if you are flying around at 200 6 7 feet now you've just literally, your fudge factor gets lower and lower and lower. 8 MR. SHAVER: And just one other thing, the 9 shield program is that essentially SMS or --10 MR. ROOF: It is similar but it doesn't have all 11 the components of an SMS system. 12 13 MR. SHAVER: Okay. 14 MR. ROOF: But it is essentially the beginnings of an SMS system. 15 MR. SHAVER: Okay. And does it require more 16 staffing for you guys to do that or is that just something 17 18 you can handle as a collateral duty? I mean would Promech have to hire people if they wanted to do a shield program? 19 20 MR. ROOF: No, not at all. Not at all. 21 MR. SHAVER: Okay. 22 MR. ROOF: No, because unlike the SMS program that the FAA is proposing the Medallion can be tailored to 23 the size and scope of your operation. 24 25 If you have 20 pages of audit points that you

1	have to build into a program you could literally take the
2	ones that don't apply to your 5-Beaver operation and toss
3	them out the window.
4	But you better be able when they audit you and
5	give you the star for that program you're, you're going to
6	have to explain to them why it didn't apply to you, why you
7	don't think you need that one.
8	MR. BRAMBLE: So I have just a couple of
9	closeout questions, but did you have anything else?
10	MR. SHAVER: That's good.
11	MR. BRAMBLE: Is there anything that you
12	thought we were going to ask about that we didn't ask about
13	that it might be relevant to the accident?
14	MR. ROOF: No.
15	MR. BRAMBLE: Okay. And is there anything
16	that, anything else that you feel would be important for
17	us to know or that you want to Any final thoughts or
18	comments?
19	MR. ROOF: On the record, no.
20	MR. BRAMBLE: Okay.
21	MR. ROOF: No.
22	MR. BRAMBLE: All right. So that concludes
23	the interview.
24	-END-

ANC15MA041 Attachment 1 - Page 155 NATIONAL TRANSPORTATION SAFETY BOARD

IN RE:

THE PROMECH AIR PLANE

ACCIDENT THAT OCCURRED IN : NTSB Accident No. KETCHIKAN, ALASKA ON : ANC15MA041

JUNE 25, 2015

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INTERVIEW OF: MICHELLE MASDEN

Friday, October 2, 2015

Island Wings Air Service Ketchikan, Alaska

BEFORE

CHRIS SHAVER, NTSB WILLIAM BRAMBLE, NTSB

This transcript was produced from audio provided by the National Transportation Safety Board.

<u>APPEARANCES</u>

On behalf of the Interviewee:

JIM KELNHOFER, Personal Representative

P-R-O-C-E-E-D-I-N-G-S

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(3:20 p.m.)

1	MR. BRAMBLE: So your last name is M-A-S-D-E-N,
2	right?
3	MS. MASDEN: Yes.
4	MR. BRAMBLE: Okay. And I don't recall, Jim,
5	your representative. What's your last name, Jim?
6	MR. KELNHOFER: Kelnhofer, K-E-L-N
7	MR. BRAMBLE: K-E-L-N
8	MR. KELNHOFER: H-O-F-E-R.
9	MR. BRAMBLE: H-O-F-E-R, okay. And Michelle,
10	you're the owner or president or
11	MS. MASDEN: Owner.
12	MR. BRAMBLE: Owner, okay.
13	MS. MASDEN: Owner, pilot. Depends on what hat.
14	Waxer, dock boy.
15	MR. BRAMBLE: Okay, and Island Wings. And
16	Jim, what's your position?
17	MR. KELNHOFER: Not affiliated.
18	MR. BRAMBLE: Okay. All right. I'll just put
19	you down as friend. There you go. Okay. Just so that we
20	can, you know, put some context to the experience behind
21	your information, can you just tell me briefly how long
22	you've been a pilot and how much total time, how much local?
23	MS. MASDEN: Been flying 37 years. Got a total
24	time of about 22,000 hours, a little bit more actually.
25	All but 6,000 of it has been here.

Τ	MR. BRAMBLE: And now much, do you have any
2	Otter time or
3	MS. MASDEN: No.
4	MR. BRAMBLE: Mostly in the Beaver on the
5	floats or
6	MS. MASDEN: Beaver and 185.
7	MR. BRAMBLE: And how many hours would you say
8	in the, or let's say in the floats?
9	MS. MASDEN: 18,000. What's 22 minus 6? Is
10	that right? 16,000.
11	MR. KELNHOFER: I think you might
12	MS. MASDEN: 16,000-ish.
13	MR. BRAMBLE: Okay. All right, everything is
14	here. Okay. And let's see, how long have you operated the
15	Island Wings?
16	MS. MASDEN: Twenty three years.
17	MR. BRAMBLE: And where else have you worked in
18	Ketchikan in the air tour industry? Any other companies
19	or
20	MS. MASDEN: No, always for myself.
21	MR. BRAMBLE: Oh, nice. All right. Have you
22	guys had any accidents? Any
23	MS. MASDEN: I flipped an airplane in 1985,
24	1995. 1994. 1994, landing here in the harbor
25	MR. BRAMBLE: Okay.

1	MS. MASDEN: in a strong northerly wind.
2	Just, I was alone. The airplane was really late. I was
3	alone. And it was actually going more crosswind than down
4	the channel, and it got under my left wing and rolled me
5	over.
6	MR. BRAMBLE: Were you okay with any injuries
7	or
8	MS. MASDEN: Oh, yes, I didn't get wet. I got
9	wet when I stood on the wing, and because the wing tipped
10	down I got wet to up here. And then I climbed up on top
11	of the floats, and they pulled the airplane out of the
12	water. Forty five minutes later the engine was running.
13	MR. BRAMBLE: Wow.
14	MS. MASDEN: It was a nonevent, really.
15	MR. BRAMBLE: That's lucky. So the engine,
16	the airplane wasn't substantially damaged?
17	MS. MASDEN: They totaled it at the end because
18	of the salt.
19	MR. BRAMBLE: Oh, okay.
20	MS. MASDEN: And I couldn't get it fixed. It
21	was late April, so I couldn't get it redone before summer,
22	because summer was starting. So
23	MR. BRAMBLE: (Indiscernible)?
24	MS. MASDEN: They ended up totaling it. They
25	deemed it an incident because there was very little damage

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1	done to the plane other than salt water. I mean, visibly
2	there was a little crinkle on the front float and a little
3	crinkle on the bow, maybe a one foot section on the wing
4	tip. But the airplane itself suffered very little damage.
5	MR. BRAMBLE: Okay. Did you happen to know
6	Brian Krill
7	MS. MASDEN: No.
8	MR. BRAMBLE: the accident pilot?
9	I'll start with that. So one thing I was
10	curious about, you know, we're pretty interested in sort
11	of risk management practices and how people evaluate
12	weather and that sort of thing. And you noted that when
13	you were flying across on your first tour and you decided
14	that the ceilings weren't adequate to go on the short route,
15	how did you make that decision? Like, what did the weather
16	look like that led you to that decision?

MS. MASDEN: So if you'll look at the map here for a second. This is me here. So the way around the island is over a salt water the whole way. And the way across the island means you have to cross this pass here and this pass here. You could either go, we call this Muskeg, we call this Ella and we call this one here Sealevel. No matter which way you go you need 1,200 or better to get across there.

But from this point, from Mountain Point you

1	can't see, if you can see all the way across there. If
2	you're at 1,200 feet at Mountain Point and it's a blue sky
3	day like today, you still don't know if there's fog sitting
4	over here or here.
5	I mean, you can obviously climb up and take a
6	look on a day like today. But when the ceiling, I don't
7	remember what the ceiling was at Mountain Point on that day,
8	but when it's unclear that this is going to be good all the
9	way, the time it takes to come up here and get to right here
10	and go, it's not good and go back all the way around again
11	takes 20 minutes, and it takes 5 minutes more to go this
12	way.
13	So anytime I feel like this is uncertain, then
14	I go this way. Because it just
15	MR. SHAVER: You kind of check it all out as
16	you're going up, right
17	MS. MASDEN: Yes.
18	MR. SHAVER: to see if it's good to go in?
19	MS. MASDEN: I run my tours back to back, and
20	as I told you we're always dealing with cruise ships
21	departures and just staying on schedule in general. And
22	so I can't, I find it better to not risk being later than
23	I already would be by having to go the long way if there's

any question. It's just not worth the time.

25

MR. BRAMBLE: And so when you get to Mountain

1

Point you're looking -- how far can you see up there?

2

3 the ceilings. I mean, there's times when you can only see

4

as far as California Head, but you get to the dogleg and

It depends on the visibility and

5

everything just goes poof and it's good.

MS. MASDEN:

6

and forth that you can talk to people that are coming the

So usually there's enough traffic going back

7

other way or who are ahead of you. But in this case this

9

-- normally the flights start at 8 o'clock, and I don't know

10

for what reason but we started at 9 o'clock that morning.

11

So the 8 o'clock people had already gone out ahead of me.

12

So when I got to Mountain Point there was no one

13

to talk to because nobody was coming back and nobody was

14

ahead of me at that point. So rather than try and go figure

15

this out in terms of is this good enough, I just went on $% \left(1\right) =\left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left(1\right) +\left(1\right) \left(1\right) \left$

16

just for time saving.

17

MR. BRAMBLE: And so what did you see from

18

Mountain Point? Do you recall what the weather looked like

19

out that direction or --

20

MS. MASDEN: I remember it being layered. I think like I said in the email this is around 700 foot is

21

the beginning there, but it was very patchy. And I don't

22

remember the higher layers because I didn't try to climb

24

up and over them or between them or anything. So it didn't

25

matter. I was just going Alva and at 700 feet going around,

1	so I didn't really pay much attention to where the layers
2	were.
3	MR. BRAMBLE: Yes, okay. I'm just taking a
4	quick look at your statement again here. Okay. And when
5	you departed Rudyerd Bay at 10:15, who was on the radio
6	talking about the possibility of the people in the short
7	route? Do you know?
8	MS. MASDEN: I'd rather not say.
9	MR. BRAMBLE: Okay. Can you say whether it was
LO	the company of interest or not, or because our
L1	understanding was they didn't go that route on that second
L2	tour, I don't think. I mean, just from, I don't know. We
L3	have track info just on the accident airplane, and I think
L 4	on that second tour he went the long way.
L5	So I just didn't know if it was
L 6	MS. MASDEN: I believe that some of the pilots
L7	from that company went the short way going home on their
L8	second trip.
L 9	MR. BRAMBLE: Okay. Okay.
20	MS. MASDEN: But they were part, they were in
21	the conversations of whether or not that was an option.
22	MR. BRAMBLE: Uh-huh.
23	MS. MASDEN: But as I said in the email, there's
24	some pilots from whom you would take weather information
25	as the gospel, and there are other people from whom you
	1

1	would just dismiss it as pipe dream at best.
2	MR. BRAMBLE: Yes.
3	MS. MASDEN: No one in my estimation have
4	deemed weather worthiness was crossing at the time.
5	MR. BRAMBLE: Okay.
6	MS. MASDEN: So I didn't pay attention to my
7	but there were multiple companies discussing that option
8	and I just don't want to get into who.
9	MR. BRAMBLE: Yes, that's helpful to know
LO	though that it wasn't just one that, you know, there was
L1	more than one operator sort of considering it. Although
L2	that particular, that was the tour before the accident
L3	tour.
L4	MS. MASDEN: Correct.
L5	MR. BRAMBLE: Okay. And you think at least
L 6	somebody from some company might have gone the short route
L7	that second, that tour around 10:15-ish?
L8	MS. MASDEN: Yes. So the planes that were
L 9	directly behind me were discussing the option of going
20	across with another company that was, another two companies
21	that were trying to come across the other direction.
22	MR. BRAMBLE: Okay.
23	MS. MASDEN: So they were communicating the
24	hows and wherefores of coming across the short way.
25	MR. BRAMBLE: Okay, so they were discussing it

1	and you think at least some of them might have?
2	MS. MASDEN: Yes.
3	MR. BRAMBLE: Okay. All right. So at that
4	time let me just take a peek at your weather description
5	again. There was a wall of rain and reduced visibility
6	moving north of Behm Canal from the south as you were
7	returning, and can you show us where that wall was?
8	MS. MASDEN: Sure. So this is fairly
9	mountainous right here, and remember I told you about the
LO	three passes? The one we call Sealevel, there's an old
L1	gold mine here at the outlet of this salmon stream that was
12	called the Sealevel 9, and you can fly up that to Aloish
L3	(phonetic) Pass and get across to the Behm side. It was
L 4	approximately just south of the Sealevel Pass.
L5	MR. BRAMBLE: Okay, so it was
L 6	MS. MASDEN: So it was here-ish, you know, so,
L7	or coming that direction. And in the conversations of
L8	people that were talking about going across the island,
L 9	climbing up and over some of the cloud to lower stuff on
20	the Behm side was in the discussion.
21	And for me to go and go back and climb up to go
22	across was again to the time crunch. You know, I didn't
23	want to spend extra time because I've got another tour.
2.4	I've got to get back, right?

So rather than go around with a possibility of

25

1	climbing and getting over something, I don't know what.
2	Again I didn't think the people who were discussing this
3	weather, I didn't think that they were reliable enough
4	weather sources. And so rather than try to dink around
5	with that option I went the long way.
6	But as I approached Alva from Princess Bay, so
7	I overheard the conversations when I got to Princess Bay,
8	about here. And that's kind of a decision point of should
9	I go across or should I go around? And from
10	MR. BRAMBLE: By the Sealevel route?
11	MS. MASDEN: Yes, well, you could go this way
12	as well. We call this Muskeg.
13	MR. BRAMBLE: Okay.
14	MS. MASDEN: And so there's three. Going
15	north to south, or south-north, it's Sealevel, Muskeg and
16	Ella are the three general passes that people go across.
17	And I just figured it would be quicker to go Alva. But as
18	I got closer to Alva, the visibility started getting
19	diminished. So we had really great visibility in the
20	morning here, probably 15, 20, 30 miles. It was beautiful.
21	So this is open ocean here, and generally what
22	happens is coming off Dixon Entrance everything kind of
23	funnels in from the southeast to the northwest, kind of like
24	that. So when we do get frontal passages, they typically

will get here even before they get to Mountain Point.

24

1	MR. BRAMBLE: Okay.
2	MS. MASDEN: You know, so you'll see it here
3	first. And then again when it clears that also you'll see
4	it here first.
5	MR. BRAMBLE: What's the name of that point
6	they reach first?
7	MS. MASDEN: Point Alva.
8	MR. BRAMBLE: Oh, they reach Alva before
9	Mountain Point. I got you.
10	MS. MASDEN: Right.
11	MR. BRAMBLE: All right. And just, I think I
12	saw what you were doing with your hand, but the line that
13	you saw was sort of oriented from northeast to
14	southwest
15	MS. MASDEN: Yes, kind of.
16	MR. BRAMBLE: and it was moving to the
17	northwest, or to the northeast.
18	MS. MASDEN: So probably the whole, a lot of
19	times the whole band will move like that and you can
20	actually sometimes visibly see it, you know, as it
21	approaches. You can be coming down the west Behm and it's
22	right here, right, or it's here and you can see it coming
23	in, right. The whole thing moves like that. And that's
24	true for deteriorating weather as well as improving
25	weather

1	MR. BRAMBLE: Yes.
2	MS. MASDEN: Just everything, generally.
3	Occasionally we'll have a south to north run or north to
4	south, but that's pretty rare.
5	MR. BRAMBLE: But this one was kind of like
6	northeast-southwest line?
7	MS. MASDEN: Southeast-northwest, yes. Just
8	about the same as the channel.
9	MR. BRAMBLE: Oh, I see. Okay. And just kind
10	of moving north.
11	MS. MASDEN: Correct.
12	MR. BRAMBLE: Okay.
13	MS. MASDEN: Now it looks to me from Princess
14	Bay as it was just a big squall. And that's the other thing
15	that you can't really tell, because some of the cells can
16	be big enough to cover the whole Behm Canal or, you know,
17	depending on how big a rain squall it is. So it just looked
18	to me like it was raining and the visibility wasn't as good
19	as it was back here in Rudyerd.
20	MR. BRAMBLE: Yes. And where was that line
21	exactly again
22	MS. MASDEN: It was
23	MR. BRAMBLE: as you came across Behm, say,
24	or
25	MS. MASDEN: When I got to Princess I could see

1	it coming up the Behm this way.
2	MR. BRAMBLE: Oh, okay.
3	MS. MASDEN: So from Princess Bay it was
4	visible to the south.
5	MR. BRAMBLE: Up Behm Canal, okay.
6	MS. MASDEN: So from Princess Bay looking south
7	down the Behm it was visible.
8	MR. BRAMBLE: I think we saw some of that on the
9	weather cameras too like when it got there. And so then
10	when you came around Alva was it kind of low from that front
11	in the, whatever that
12	MS. MASDEN: Yes, I don't know that the ceiling
13	had really deteriorated at that point, but the visibility
14	had deteriorated. So we went down to, you know, two or
15	three miles going around Alva from the 20 or 30 we had up
16	here. So it definitely had, you know, that was just, I
17	didn't pay attention to actual poor visibility, but it
18	wasn't
19	MR. BRAMBLE: It was somewhere in that
20	ballpark?
21	MS. MASDEN: It was still flyable but not, you
22	know, it's diminishing visibility for sure.
23	MR. BRAMBLE: Yes.
24	MS. MASDEN: Poor visibility.
25	MR. BRAMBLE: And ceiling wise, any sense of
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_	ANC15MA041 Attachment 1 - Page 170
1	what it was like?
2	MS. MASDEN: Again we had those, you know,
3	scattered 700 off and on plus above that and I didn't, I
4	don't really remember that it was any different from that.
5	MR. BRAMBLE: Yes. So the scattered 700
6	layers that you've been talking about, they kind of existed
7	all along that east-west canal or no, what do you call this
8	body of water?
9	MS. MASDEN: This one? This it the Tongass
10	Narrows.
11	MR. BRAMBLE: Tongass Narrows.
12	MS. MASDEN: This is Carroll Inlet, George
13	Inlet, Thorne Arm.
14	MR. BRAMBLE: So it was kind of all along in
15	that area was kind of low ceilings?
16	MS. MASDEN: Yes. Typically what happens in
17	the morning is we get a lot of, you know, a lot of moisture
18	hanging out on the vegetation, right. So if it's going to
19	be multilayered it's more likely to be over the land, unless
20	it's high pressure and then we get just the opposite. So
21	during high pressure you get fog over the water and not over
22	the land.
23	MR. BRAMBLE: In this case it was more like
24	multilayer over the land?

MS. MASDEN: Yes.

25

1	MR. BRAMBLE: Okay. With stuff like hanging
2	on the hills and
3	MS. MASDEN: Yes. But again I didn't look, I
4	didn't get any good look at the island because I didn't go
5	that route. So I can only tell you what I observed on along
6	the Behm side from the south and east side of Revilla
7	Island.
8	MR. BRAMBLE: Okay.
9	MS. MASDEN: So what it was actually doing in
LO	Ella Lake or Muskeg or any of that I couldn't tell you.
L1	MR. BRAMBLE: Okay. So we know one airplane
L2	let's see, 9:15, 8:45 to 9, or 8:40 to 9:10, 9:15-ish, an
L3	airplane went from here into Lake Ella out through here.
L4	Where's the dogleg?
L5	MS. MASDEN: This little jog.
L 6	MR. BRAMBLE: Came through here. Went from
L7	750 feet over this land, which is a couple hundred, climbing
L8	to around 1,300. Came back over here, spiraled down to 500
L 9	in a 360, and then came around like that. Do you have any
20	idea what was going on in that area at the time?
21	MS. MASDEN: No, because I didn't go that way.
22	MR. BRAMBLE: Okay. You couldn't see that
23	way, I guess, given the conditions from your all right.
24	MS. MASDEN: No.
25	MR. KELNHOFER: Well, at 9:15 we probably

1 didn't even leave the dock. MS. MASDEN: Yes, I would have been out of --2 usually my trips depart 15 after the hour, so I would have 3 left here at 9:15. I would have done my landing around 10 4 5 o'clock, and then took back off around 10:15. 6 MR. BRAMBLE: Okay. So I'm sorry, you said you 7 left around 9 --MS. MASDEN: 15. 8 MR. BRAMBLE: -- 15, okay. All right. Was it 9 windy enough that day that around the time you left that 10 you would have any concerns about significant turbulence 11 in that area? 12 MS. MASDEN: Not at that time. Later in the 13 14 day it did, yes. MR. BRAMBLE: All right. You mentioned some 15 convective cells later in the day. Can you tell us roughly 16 where you think those might have been? 17 MS. MASDEN: So here's the progression. 18 get a frontal system coming in and the first thing that 19 20 happens is you get a temperature dewpoint coming together to make foq. 21 22 MR. KELNHOFER: (Unintelligible). MS. MASDEN: (Unintelligible). So it 23 decreases the visibility when the temp and dewpoint comes 24 25 together, and then typically what happens is the wind from

the front comes behind that. Usually what happens, or what can happen and what did happen on this day is if it gets very windy then the visibility actually improves.

And it did get very windy around -- well, around 1 o'clock so we're watching the cameras, right, because I have tours backed all day, right. So we're watching the camera in Rudyerd and over in Hyder and what we can see down the channel here to try to make a determination of whether or not this is good to go, right.

MR. BRAMBLE: Yes.

MS. MASDEN: So if the front's moved from a southeast, from a southerly, southeast to northeast, kind of this way, Hyder will still be foggy. The camera in Hyder or in Misty will have cleared and then you know that things have changed, right.

And so what happened after I came back around from the, when I got home at 11, I decided that this probably was going to be moving into Rudyerd, which is typical of what happened and the cameras confirm that. And rather than give someone not a quality tour, I elected to not go on the second trip, on the 11 o'clock flight.

Because I felt this was, this visibility that we had diminished here now in Rudyerd Bay defeats the whole purpose of going which is to show someone beautiful scenery. So rather than give a diminished quality tour or

even attempt it, I just cancelled my 11 o'clock flight. 1 By 1 o'clock the winds had picked up and they 2 were southeasterly and strong -- 30, 35. So when I got to 3 Mountain Point, say, around 1:20-ish, I observed in the 4 Carroll Inlet at George Inlet you can see that then when 5 the wind comes over these mountains it hits in the cat's 6 7 paw fashion. It's downdrafts, so you can visibly see the 8 downdraft wind on the water. And then it did appear that it was possible to 9 10 go across the island at that point, because the visibility and ceiling had greatly improved. But I elected not to go 11 that way because I don't like to make people airsick. 12 MR. BRAMBLE: Yes. Where do you see the cat's 13 14 paws again? MS. MASDEN: In Carroll Inlet. 15 MR. BRAMBLE: Oh, okay. 16 MS. MASDEN: Before the dogleg. So you could 17 see it, from Mountain Point you can see this stretch of 18 water and it was cat's paws and --19 20 MR. BRAMBLE: Okay. Yes, we heard some reports of turbulence down in the south Ella area around 21 12:20-ish because that was, you weren't up at that time. 22 23 MS. MASDEN: No. 24 MR. BRAMBLE: Okay. 25 MS. MASDEN: It would have been an hour later.

1 MR. BRAMBLE: All right. MS. MASDEN: But I would have gotten here about 2 probably 1:30 or so, up Behm-Ella, but I never did go --3 I don't like to cross the island when it's that rough, 4 5 because it just makes people airsick on the way out and 6 then, you know, they're not having a good time. And for 7 me it's all about them having a good time. 8 MR. BRAMBLE: Yes. MS. MASDEN: Because if they have a good time 9 they tell their friends --10 11 MR. BRAMBLE: Yes. MS. MASDEN: -- and that's how I get to be the 12 number one company on TripAdvisor. 13 14 MR. BRAMBLE: Are you really? Wow. Cool. That's important these days. That's what everybody keeps 15 saying. 16 MS. MASDEN: That's important, right? So if 17 they go home and say Michelle does a good job, then that's 18 19 good for my future. 20 MR. BRAMBLE: Yes. 21 MS. MASDEN: So I work very hard at trying to 22 give people as great an expectation, to meet all their expectations, you know, or exceed them if I can because that 23 24 keeps me in business. 25 MR. BRAMBLE: Yes. So when you got up there on

1	chat tour at 1330, I guess that's an hour after the accident
2	or a little more than that, but what were the conditions
3	like besides windy? So it was just better vis and
4	MS. MASDEN: Better visibility, yes. And then
5	typically what happens is, when it's a southeasterly wind
6	ironically the wind generally kind of peters out when you
7	get on the mainland. So it might have been 30, 35 at Alva
8	and maybe 20, 25 at the entrance to Rudyerd. Still going
9	into Rudyerd would be bumpy, but once you get inside the
L 0	fjord it usually is a diminished amount of wind in a
L1	southeasterly pattern. And that's presuming that there's
L2	no upper level wind shear going on.
L3	MR. BRAMBLE: Yes, okay. All right.
L 4	MS. MASDEN: My degree's in meteorology so that
L5	helps.
L 6	MR. BRAMBLE: Oh, really? No way.
L7	MS. MASDEN: Yes.
L8	MR. BRAMBLE: Well, we're talking to the right
L 9	person.
20	MS. MASDEN: The only thing that really helps
21	though truthfully, I mean you can take my degree and burn
22	it or throw it out the window. The only thing that's really
23	helpful is just years of watching what happens.
24	MR. BRAMBLE: Yes.
25	MS. MASDEN: That is so much more helpful than

the meteorology background. You know, you take a particle and you take it through calculus, do a thermodynamic equation and raise it up and dewpoint it, whatever the, you know. That's not helpful in knowing that it's going to bumpy going across the islands, you know.

MR. BRAMBLE: Our meteorology guys might be interested. Is it a bachelors in meteorology or --

MS. MASDEN: Uh-huh.

MR. BRAMBLE: Okay. And where did you get it?

MS. MASDEN: Nebraska.

MR. BRAMBLE: Okay. And, you know, that's actually an interesting question because, or it brings up an interesting question for me. Because, you know, I know there's this Medallion simulator that some of the operators are using for the CFIT avoidance training, but I was also wondering about one of the issues that we wrestle with, which is that when you have pilots that are relatively new to the area and they don't have that long experience we've seen accidents over the years and Hawaii and other places where they seem to be not as good at interpreting what's going to be truly hazardous.

And, you know, the simulator seems good, you know, teaching people to turn around and so forth, but I wonder how much value there is to actually showing people real-life, like high-def video of the sort of in between,

obviously go and no-go type situations, or to train them about like --

MS. MASDEN: Personally, I think all the pilots should be made to fly on a really crappy day long before they get to fly a tourist. They should be forced to be sitting in the left seat next to an experienced guy in the right seat, and taken out across the island in really shitty weather.

I think that because the simulator can only do so much for you, real world is a totally different deal. And it's not bouncing you around, it's not trying to talk on the radio, it's not trying to see through the pass, it's, you know.

MR. BRAMBLE: That's another idea that's been raised is some sort of IOE type experience, but I haven't seen anybody say the IOE would have to include a bad weather day which seems like that --

MS. MASDEN: It should especially include a bad weather day, or four or five or ten bad weather days. The trouble with that is, you know, they come up to train in April and the weather's beautiful. Typically, you know, we get our driest weather months are April, May and June. And so that's when they're learning. They're learning when it's good.

And then our weather deteriorates after the 4th

1 You know, we get more rain, more high pressure fog, more rain fog. So the only way to train them would 2 be to do it on a summer day. 3 MR. BRAMBLE: Yes. 4 5 MS. MASDEN: Realistically. You know, I mean 6 it's possible to get some weather in the spring, but it's 7 less likely. I mean, I feel for them because it's a challenge, you know, they're trying to operate so many 8 extra planes, and it's a really weird little niche we have, 9 you know. Somebody's got to have seaplane and Alaska time, 10 and then they're only going to employ them five months of 11 the year so you've got to find some other kind of work the 12 13 rest of the year. 14 It's a very challenging, for the whole state, you know, not just here. But that's the exact reason I only 15 have one plane. I don't have any relief pilots or, you 16 know, when we shut down we shut down and I don't have to 17 18 worry about anyone else. And that's the reason I went to work for myself, so no one would tell me I had to go out 19 20 in that, you know. 21 MR. BRAMBLE: Yes. MS. MASDEN: So. 22 23 MR. BRAMBLE: Yes. Do you have any agreements with the cruise lines? 24 25 MS. MASDEN: (No audible response.)

1	MR. BRAMBLE: Okay.
2	MS. MASDEN: No, I wouldn't go with them. They
3	want 40 percent of the take.
4	MR. SHAVER: So when they book independently
5	through do they, can they only book through you or do
6	you have so just you. That works.
7	MS. MASDEN: Yes. We're full all the time so
8	I must be doing something right. Not making them sick.
9	Not taking them when it's crappy.
10	MR. BRAMBLE: And, you know, with one do you
11	have any other pilots or are you the only pilot?
12	MS. MASDEN: Only pilot.
13	MR. BRAMBLE: Okay. I guess you probably
14	don't have too much formalized like risk assessment because
15	it's not like you have a bunch of pilots and somebody else
16	to sign off if it's high risk or whatever. Okay.
17	Do you use any kind of checklist or anything for
18	making your decision making on the weather or, I know it
19	probably doesn't seem like it makes sense for one person,
20	but just curious in terms of comparing.
21	MS. MASDEN: I use a whole multitude of weather
22	sites. I can give you the list if you'd like.
23	MR. SHAVER: I'd like to hear a few, yes. Let's hear
24	it.
25	MS. MASDEN: Okay. So the NOAA weather site

right off the bat will give you synoptic charts. That's surface analysis. On that same webpage you can get the current satellite picture. On the same website you can get the marine forecast which is the, you know, the marine channel forecast for this area.

The Americans are inherently wrong in their wind forecast, so the better option is to check with the Canadians, their marine weather. So they give Dixon Entrance east, this weather forecast here. Whatever is happening in Dixon Entrance is going to be here in anywhere from 90 minutes to an hour and 20, or two hours.

So you can get, the Canadians have wind buoys all along the border and on their islands that give you actual conditions. So it gives you temperature, wind velocity, dewpoint. Temperature dewpoint's important for sea fog. Give you the wind velocity, wind direction and visibility.

So you can get, you know, it's automated, but you can get a reasonable idea. So when a weather front comes through you can look at the NOMAD, the west NOMAD buoy out here and see that it's switched to southwest. And you can look at Central Dixon Entrance and see that it's still southeast, and maybe over here at Grey Island is still northeast.

So you can say, well, here's the front right here, you know, and you can actually see by wind direction,

1	wind speed, where it's at roughly. That's a very helpful
2	website.
3	And they give you a 24-hour history, so the
4	weather at this buoy was
5	MR. BRAMBLE: I want to capture that because I
6	think it's a great example so, but I couldn't catch all the
7	names.
8	MS. MASDEN: Sure.
9	MR. BRAMBLE: So NOMAD buoy, that's southwest
10	there.
11	MS. MASDEN: There's the west NOMAD Buoy or
12	north NOMAD, I think it's called.
13	MR. BRAMBLE: Oh, okay. West NOMAD.
14	MS. MASDEN: And then Central Dixon Entrance
15	buoy.
16	MR. BRAMBLE: Central Dixon Entrance buoy.
17	And then your example of that one was still going which way?
18	MS. MASDEN: So if you're looking for where the
19	frontal system is, let's say it's right here in the middle.
20	The north NOMAD Buoy, the wind will have shifted to
21	southwesterly behind the front.
22	MR. BRAMBLE: Yes, okay. And then it's
23	Central Dixon.
24	MS. MASDEN: And then in the Central Dixon
25	Entrance buoy it might be still going southeasterly if

1	that's the location of the front. And you could check the
2	Grey Island Buoy which is a lighthouse next to Dundas
3	Island. Grey, G-R-E-Y, Island.
4	MR. BRAMBLE: G-R-E, Island.
5	MS. MASDEN: E-Y.
6	MR. BRAMBLE: Okay, buoy.
7	MS. MASDEN: And if that was still blowing,
8	say, out of the northeast then you would know that the front
9	hadn't gotten there yet.
LO	MR. BRAMBLE: Yes.
L1	MS. MASDEN: And there's quite a few other
L2	weather stations. There's Masset and over here on Queen
L3	Charlotte, Masset and Rose Point.
L 4	MR. BRAMBLE: M-A-S-S-I-T?
L5	MS. MASDEN: E-T.
L 6	MR. BRAMBLE: And
L7	MS. MASDEN: Rose Point.
L8	MR. BRAMBLE: Rose Point. Okay. Yes, that's
L 9	great. And it's sure helpful to be a meteorologist to be
20	able to understand all that stuff.
21	MS. MASDEN: It's not rocket science.
22	MR. BRAMBLE: It still is helpful. I didn't
23	hear anybody else describing it like that, you know, how
24	they use the weather information, so it's great.
25	MR. KELNHOFER: There's also Windy TY.

1	MS. MASDEN: And then Windyty is a new one that,
2	so it's windyty.com. It's 32 super computers.
3	MR. SHAVER: That's the one that does all the
4	wind modeling
5	MR. KELNHOFER: Yes.
6	MR. SHAVER: and you can just click on a
7	point in time. That one's cool, yes.
8	MS. MASDEN: Now the farther forward you go in
9	time with that the less accurate it becomes like any weather
10	forecast.
11	MR. BRAMBLE: Yes.
12	MS. MASDEN: But that one will give you a really
13	good idea of what to expect in the short term.
14	MR. BRAMBLE: Okay.
15	MS. MASDEN: And it pulls everything together,
16	so you can click on, you know, rainfall expectations or
17	cloud cover. It doesn't give you cloud heights but
18	MR. SHAVER: If you want to look at that later
19	I have it.
20	MR. BRAMBLE: Okay.
21	MR. SHAVER: That's one of the last ones I
22	bookmarked
23	MS. MASDEN: It's fabulous, yes.
24	MR. SHAVER: yes, because it is really cool.
25	MS. MASDEN: And it's world, it's global so you
I	1

ANC15MA041 Attachment 1 - Page 185 1 can go look at a typhoon hitting Japan and --MR. SHAVER: Yes, that's neat though. 2 3 MS. MASDEN: Actually this summer we watched -so we had a lot of bad weather in August this year, and you 4 5 could watch the cyclones being born off the Baha. So we 6 got hot desert and cool, cold California current coming up 7 from the equator spinning off the cyclone and then have it move west to Hawaii and then get caught in the jet stream 8 and sling up to the Aleutians and slam back over into us. 9 So they were making these loops. 10 MR. BRAMBLE: Wow, cool. 11 MS. MASDEN: And there would be sometimes three 12 or four cyclones going across, and only depending on the 13 14 waves and the jet stream, so the jet streams will drive the low pressure systems. So if you have a dip in the jet 15 stream that second low of the three maybe will be the one 16 that gets sucked up back in the southeast. 17 18 We call them the pineapple express here, because it's like you look at a satellite picture and 19 20 there's a direct line from Hawaii here up the frontal 21 boundary. 22 MR. BRAMBLE: I'm looking for a picture I want

MR. BRAMBLE: I'm looking for a picture I want to show you. All right. So this is 12:12. That's a few minutes before the accident --

MS. MASDEN: Yes.

23

24

25

1	MR. BRAMBLE: and that's where the accident
2	airplane went, up in there and then took a left down to Ella
3	Lake and then you probably know where it ended up, but
4	
5	MS. MASDEN: Yes.
6	MR. BRAMBLE: any thoughts looking at the
7	weather pattern laying there?
8	MS. MASDEN: Well, you have a lower layer there
9	that looks like you could go under it or over it, but what's
LO	around the corner would be impossible to tell you in terms
L1	of like you could, looking at that situation a pilot
L2	might go, well, I'll go take a look at Ella.
L3	But again the problem with going to go take a
L4	look at Ella, in my opinion, if it's not crystal clear that
L5	you can get through there is the time it takes to do the
L 6	whole
L7	MR. BRAMBLE: Coming back out.
L8	MS. MASDEN: So I've done that. So I've looked
L 9	at that and come in to Ella and came all the way down to
20	here to go up, can't see the Thorne Arm.
21	MR. BRAMBLE: Yes.
22	MS. MASDEN: Then you've got to go all the way
23	back out and all the way back around, and that little jog
24	just ate up 20 minutes of your time.
25	MR. BRAMBLE: Yes.

1	MS. MASDEN: And I don't have that kind of time
2	to play with.
3	So if a pilot that I appreciate weather from had
4	gone into Ella ahead of me and said it was clear to go
5	through, I would have gone to look at it looking at that
6	picture. But without confirmation of the south end of Ella
7	in terms of being able to get to the Thorne Arm, I wouldn't
8	have gone through there.
9	MR. BRAMBLE: Okay. Is that similar to what it
10	looked like when you departed at 10:15 to come back?
11	Actually we have the picture from them.
12	MS. MASDEN: Yes.
13	MR. BRAMBLE: Why am I doing that?
14	MS. MASDEN: I didn't pay attention to cloud
15	heights.
16	MR. BRAMBLE: Yes, hang on a second. All right,
17	so we have 10:15 and 10:27. Yes, so this is what we have
18	for the one there and then
19	MS. MASDEN: Yes, that's fairly similar, and
20	you can see where it's starting to rain so the visibility's
21	you can see right there where it's slightly less clear
22	because it's starting to rain.
23	MR. BRAMBLE: That's the let's see, I was
24	showing you the 10:14 and 10:27 shots, so the 10:27 looks
25	a little rainier and less visibility.

1	MS. MASDEN: Yes.
2	MR. BRAMBLE: But similar low scattered on
3	the
4	MS. MASDEN: It's a similar layer that that the
5	12:15 picture the upper layer is lower, but the lower layer
6	looks very similar to the 12:15 picture.
7	MR. BRAMBLE: What's a rough, do you know from
8	the landmarks what the rough altitude of that layer is
9	or
10	MS. MASDEN: The low end of that is probably
11	5-600 feet, and the high end of that is probably 1,200
12	feet-ish.
13	MR. BRAMBLE: And top of that is, do you think
14	that's 12
15	MS. MASDEN: Roughly.
16	MR. BRAMBLE: Okay.
17	MS. MASDEN: It's hard to tell because you're
18	looking at it from ground level looking up as opposed to
19	an airplane level.
20	MR. BRAMBLE: Yes. And then here's the time of
21	12
22	MS. MASDEN: Yes, very similar.
23	MR. BRAMBLE: Okay.
24	MS. MASDEN: Yes. So that the upper level on
25	the 12:15 has, you know, this is like, this layer's come

1 together here. MR. BRAMBLE: Oh, yes. 2 3 MS. MASDEN: In appearance. Now again we're looking at it from ground level, so from an airplane level 4 5 it's going to look different. 6 MR. BRAMBLE: Yes. 7 MS. MASDEN: This level of cloud appears to be similar to the 10:15. However, these upper clouds have 8 come down now, and there's a situation where these two 9 layers came together, but again looking from the ground 10 level. So what that looks like from 1,500 feet --11 MR. BRAMBLE: You have a different --12 MS. MASDEN: Yes. 13 14 MR. BRAMBLE: plan come looking down there. MS. MASDEN: Yes. Different perspective. 15 MR. BRAMBLE: Okay. And climbing over that 16 layer -- actually, just let me just really quick take notes 17 18 about that earlier one. Let's see, 10:14 shot similar to 12:12 with low layer 500 to 1,200 rough estimate, reduced 19 20 vis due to rain. Okay. MS. MASDEN: The upper layer is lower on the 21 22 12:15. MR. BRAMBLE: On the 12:15, okay. 23 MS. MASDEN: That's obvious though. Just look 24 25 at the two pictures, compare them.

1	MR. BRAMBLE: 12:00 shot, upper layer has come
2	down and possibly joined lower layer but airborne
3	perspective might be different. Okay.
4	And would there so as long as you heard
5	confirmation that, you know, the south end of the lake was
6	looking okay, it wouldn't be a problem to sort of climb over
7	that low-lying stuff as long as you had some clearance there
8	or
9	MS. MASDEN: So a lot of times what happens is
10	that low level, the level of clouds will form right on the
11	shoreline, so on the edge of the island. And if you climb
12	up over it you can see into the lake from, say, 1,500 feet.
13	But you would have to be there at 1,500 feet to make that
14	call, which I wasn't.
15	MR. BRAMBLE: What would you do if you got into
16	the lake and there was, the front was right at the south
17	end of the lake?
18	MS. MASDEN: Been there done that. Turn
19	around
20	MR. BRAMBLE: And the clouds are obscuring the
21	tops, you just turn around and go back out?
22	MS. MASDEN: Turn around and go back out, yes.
23	MR. BRAMBLE: All right. Any comments that
24	you wish to share on the record about Promech's risk
25	management, any concerns about operating practices,

1	anything like that? I understand it's a small community.
2	If you don't want to say anything that's fine, but
3	MS. MASDEN: I prefer not to say.
4	MR. BRAMBLE: Okay. And then how about sort of
5	the community in general, any general issues that are
6	I guess you already talked about it in your email. Let me
7	just review that really quick.
8	All right, so you talked in your email a little
9	bit about, you know, the mentality of some pilots maybe
10	leading to riskier behavior. Do you feel like it's
11	outliers, or sort of a general cultural issue for the
12	community, or do you see any change?
13	MS. MASDEN: It's very specific.
14	MR. BRAMBLE: Okay.
15	MS. MASDEN: It's specific to a pilot. So,
16	yes.
17	MR. BRAMBLE: Or to individual pilots, not
18	
19	MS. MASDEN: It's specific to individual
20	pilots, correct.
21	MR. BRAMBLE: Okay.
22	MS. MASDEN: But what can happen, and I don't
23	know what happened in Promech's case, but definitely what
24	happens and for the good of it and also the bad is that you
25	have an experienced pilot who leads the pack, and then the

inexperienced or less seasoned local pilots will follow an experienced guy.

And that can be for the better or the worse depending on the decision making of the guy in front. And again that's very pilot specific.

MR. BRAMBLE: Yes. It seems like that's kind of a unique challenge for the bigger operators when they have the seasonal pilots.

MS. MASDEN: Always err on the side of caution is, you know, is the way to try to prevent that. You know, if you're -- like when I give weather to, say, a summer Taquan pilot who wants to know if he or she should go across the island, I will temper that given who I'm talking to on the radio and advise them to what I think their ability is. And if I don't think their ability is to my ability I will suggest that they go around, or not go or go, it's beautiful, or whatever, you know.

MR. BRAMBLE: Okay. Can you think of any potential safety improvements for the industry here that you think might be most effective in reducing a repeat based on, a repeat of -- I know you don't know all the details about the accident, but no, I don't want to say anything too analytic about it. But can you think of any safety improvements that you think might be particularly beneficial to the industry here?

MS. MASDEN: I really don't know what prevents, how you change people's state of mind. I mean, I think that will be your biggest hurdle, you know, is that what I try to explain to my customers, because everyone wanted to know what happened in the accident, why do planes crash and why do small plane — they all think that they're more, that if someone has an accident in Ketchikan that, you know, maybe it'll happen to me too.

And the analogy I use for people, non-pilots, is that there are some people who are risk takers and some people who are not. And obviously Alaska has a lot of challenges for all of us, you know, mechanical issues and weather issues and what not, but you can put yourself in a bigger risk or not depending on your actions, and how you change human behavior that's beyond my ability to understand.

I still to this day don't understand why people choose to fly the way they do, and I've been watching them my whole life. So it's kind of like drivers, you know, somebody repeatedly talks on the cell phone or texts while they drive and other people don't. Some people drink and drive and other people don't. Some people just never drink and drive, you know, they never text and drive because they just don't. And they can still get in an accident, you know, that doesn't mean because you don't text you won't

1 have an accident, but it sure helps, you know. MR. BRAMBLE: What do you think about the 2 3 weather cameras? Do you think more weather cameras is going to make a difference? 4 5 MS. MASDEN: The weather cameras have been 6 really helpful at saving gasoline and the decision to not 7 go when it's clearly not good, yes. So it's saved us all 8 a great deal, yes. MR. KELNHOFER: Here's a question for you. 9 10 How many people use them? It's obviously your website you can tell, right. Well, it's somebody's website, right, so 11 you can look at the IP addresses and you can tell how many 12 different people, you know, are using them. 13 14 MS. MASDEN: To my knowledge everybody here uses the cameras. 15 MR. BRAMBLE: Everybody we talk to, yes. 16 MR. KELNHOFER: They all use them. Okay. 17 18 MR. SHAVER: The one thing that people do use here with regards to anything is --19 20 MS. MASDEN: Yes. I mean, that's really, really helpful, definitely. If you put one in Ella at the 21 22 pass to see if, you know, is it doable or not, you're going to stick that thing on the ground and it's not, I don't think 23 it's going to be helpful to be able to tell you is it good 24 25 to go through the pass or not.

1	MR. BRAMBLE: There's some talk about, I can
2	show where they're talking about putting them
3	MR. KELNHOFER: Yes, south Ella, like kind of
4	in between Ella and Thorne, somewhere in that area looking
5	at (unintelligible).
6	MS. MASDEN: Unless it's up high it won't be
7	helpful.
8	MR. BRAMBLE: They want to put them in the red,
9	there where the yellow comes (unintelligible) with the use
10	in those directions. I think Alva and in the south Ella
11	or in Thorne Arm area.
12	MS. MASDEN: Is this, oh this is
13	MR. BRAMBLE: I don't know whether that's an
14	island or
15	MS. MASDEN: This side would be more helpful.
16	MR. KELNHOFER: Oh, the Alva Point.
17	MS. MASDEN: Yes. Because we hardly ever go
18	around that one. And this one is
19	MR. KELNHOFER: You could put it over here on
20	the hill looking this way on Deer Mountain? That's another
21	mountain. Fawn Mountain.
22	MS. MASDEN: This will be helpful but that's
23	going to be low elevation, so unless you're going to put
24	it up high on something you're not going to be able to see
25	across.

1	MR. BRAMBLE: Yes.
2	MS. MASDEN: So this pass where they're showing
3	the camera might go is a very low pass, and only if the
4	ceiling is less than 500 feet can you not get through there.
5	MR. BRAMBLE: That's into that Gokachin Lakes
6	area?
7	MS. MASDEN: No, this is looking from Carroll
8	and Thorne Arm.
9	MR. BRAMBLE: Yes, but pointed kind of up into
10	the south Ella area. I don't know, maybe you can't see in
11	here from there.
12	MS. MASDEN: Can we blow it up a little?
13	MR. BRAMBLE: Sure. Yes, how do I do that?
14	Let's see. Oh, too much.
15	MS. MASDEN: That's good. That's good.
16	MR. BRAMBLE: I guess it was looking towards
17	like the south end of
18	MS. MASDEN: Right, but the actual location is
19	going to be on the pass between Carroll and Thorne, right.
20	This is at Thorne? I think that's
21	MR. BRAMBLE: Somewhere in Thorne Arm, yes, or
22	I don't
23	MS. MASDEN: This is George, this is Carroll
24	and this is Ella here, Mesa. Where's the Thorne Arm at?
25	MR. BRAMBLE: Isn't this (inuntelligible)?

1	MS. MASDEN: Oh, Thorne Arm right here, okay.
2	Yes, that probably wouldn't be bad that one. The other one
3	would be better on Alva than Point Sykes. You've got it
4	on Point Sykes right now.
5	Yes, so this one is depicted on Point Sykes, so
6	it would be better if it was on Alva with the same
7	(unintelligible) going this way. This way towards town
8	and this way up the Behm because that's the pattern, going
9	around here.
LO	MR. BRAMBLE: Yes.
L1	MS. MASDEN: So sometimes you can get here and
L2	you can't see there, but you can see fine up that way.
L3	MR. BRAMBLE: Okay. All right. I'll make a
L 4	note of that. When looking into south Ella it might be
L5	helpful, the one to the south would be, one to the south
L 6	where did you say it was?
L7	MS. MASDEN: Point Ella. Right now it's
L8	current location is Point Sykes.
L 9	MR. BRAMBLE: Point Sykes.
20	MS. MASDEN: P-S-Y-C-K-S. How do you spell
21	it? Jim, can you read this? (Unintelligible) Sykes,
22	P-S-Y
23	MR. KELNHOFER: S-Y-K-E-S.
24	MR. BRAMBLE: S-Y-K-E-S more helpful.
25	MS. MASDEN: Alva would be more helpful than

1	Sykes, yes.
2	MR. BRAMBLE: It was on Point Alva. I guess
3	unless they had a view looking west from Point Sykes or
4	southwest or
5	MS. MASDEN: Well, I mean, the way they have it
6	now, in theory if you could see across then you would be
7	able to know what Alva's doing.
8	MR. BRAMBLE: Yes.
9	MS. MASDEN: I mean it would be better than no
10	camera, but I think Alva might be better since we're always
11	following the shoreline this way when it's low.
12	MR. BRAMBLE: Yes.
13	MR. KELNHOFER: How about sticking one up here
14	looking this direction?
15	MR. BRAMBLE: I guess if it was at Alva it might
16	be a little tougher to judge the conditions at
17	Alva
18	MS. MASDEN: Yes.
19	MR. BRAMBLE: because it's what, a couple
20	miles across that
21	MS. MASDEN: Yes.
22	MR. BRAMBLE: Behm Canal? Okay.
23	MS. MASDEN: And the other one I'm talking
24	about putting it right here looking towards Ella this way
25	and this way.

MR. BRAMBLE: Oh, yes, that little point.

MS. MASDEN: So there's a little cove here called Matt Cove (phonetic) and it's only like, I mean it's just a hop, skip and a jump over to Thorne Arm. So this weather is much less critical and you only need like, you know, you could probably cross that at 200 feet if you wanted to. But if you had 500 feet minimums you could easily get across there. This is the problem child here.

MR. BRAMBLE: Yes, is that a typical trouble spot in the Gokachin Lakes-south Ella area if the weather's low?

MS. MASDEN: Yes, because again it moves in.

And anytime you get a squeeze in the wind velocity or any
air movement at all you're going to lift up the air. As
it squeezes it's going to speed up and lift up, and then
you're going to reach the dewpoint and it all comes
together.

So you get orographic lifting when it comes straight up the Thorne Arm and hits -- this is Fish Creek before you get to Gokachin or Ella Lakes, Mesa Lake, any of those. As it hits the Fish Creek border here you get orographic lifting.

MR. BRAMBLE: Yes, it pulls it down.

MS. MASDEN: Yes. Because I've come all the way through Ella and you can see Gokachin and then you can't

1	see sait water. I've actually come all the way through
2	Ella and had to go down to Sealevel back across the island
3	and around, because it'll just sit there.
4	MR. BRAMBLE: Yes, okay.
5	MS. MASDEN: So unless this camera that you
6	guys have proposed on this spit here between Carroll Inlet
7	and Thorne Arm, unless you have that up a little bit higher
8	like, you know, 500 feet-ish, it probably won't be helpful.
9	Because again you're doing this lift like that, right.
10	So a lot of times you'll this happens on high
11	pressure all the time. So we'll look at the Misty cameras
12	and it'll just be, look like Fog Central. Meanwhile it's
13	a beautiful, crystal view, beautiful day here.
14	MR. BRAMBLE: Because you get that low stuff,
15	that's why you want it up higher. Okay.
16	MS. MASDEN: Yes. I mean, if your point in
17	going the short way is to go the short way, you're not going
18	to get pass information from Sealevel is my point. Does
19	that make sense?
20	MR. BRAMBLE: Yes. Yes. Although Sealevel's
21	to the east of there, right, or northeast of where the
22	camera would be or
23	MS. MASDEN: It looks to me like you have the
24	camera so there's this spit of land between George and
25	Carroll and this spit of land between Carroll and Thorne.

1	MR. BRAMBLE: Yes.
2	MS. MASDEN: This one is really low, and it
3	looks to me like you have the camera right here like looking
4	towards Ella this way, but the camera's going to be on this
5	land. It's a little hard to tell
6	MR. BRAMBLE: Oh, no, I think it's on that spit.
7	That little point that sticks out. Maybe I'm just
8	interpreting the contour line wrong, but I was thinking,
9	I think it's showing this point.
10	MS. MASDEN: Okay. That's Mop Point.
11	MR. BRAMBLE: And then that, you know, looking
12	up like that.
13	MS. MASDEN: So this is really low here.
14	MR. BRAMBLE: Yes.
15	MS. MASDEN: I know they like to
16	(unintelligible) because you can get at them easy, right.
17	So maintaining a camera up here that would give you some
18	height.
19	MR. BRAMBLE: What would you call this area?
20	MS. MASDEN: This is Matt Cove.
21	MR. BRAMBLE: Matt Cove, all right. So you'd
22	prefer one at Matt Cove?
23	MS. MASDEN: Well, I would prefer one up in
24	elevation which they may or may not be willing to do.
25	MR. BRAMBLE: Yes.

MS. MASDEN: You know, because the access would
be, you know, fly out, boat out, hike in. Most the cameras
are at Sealevel. But if your effort is to provide pass
information, I mean, Sealevel would be better than nothing.
But probably what's going to happen a lot of times is if
you have that camera at Mop, it's M-O-P like mop, Point,
it's going to be looking up at that cloud deck. So whether
the pass is actually open or not you won't know that.
MR. BRAMBLE: Did you say M-O-P or M-O-T?
MS. MASDEN: M-O-P.
MR. BRAMBLE: M-O-P, Mop Point. All right.
MS. MASDEN: The other thing that would be
MS. MASDEN: The other thing that would be helpful is a, what do you call it, a receiving unit for our
helpful is a, what do you call it, a receiving unit for our
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station.
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station. MS. MASDEN: ADS-B. Because when people go
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station. MS. MASDEN: ADS-B. Because when people go around the corner here, so you can watch people go around
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station. MS. MASDEN: ADS-B. Because when people go around the corner here, so you can watch people go around the corner and then it disappears. And if you're up really
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station. MS. MASDEN: ADS-B. Because when people go around the corner here, so you can watch people go around the corner and then it disappears. And if you're up really high, like if I came over Ella at 3,000 feet you can be seen
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station. MS. MASDEN: ADS-B. Because when people go around the corner here, so you can watch people go around the corner and then it disappears. And if you're up really high, like if I came over Ella at 3,000 feet you can be seen on the Capstone. So if you're sitting here wondering
helpful is a, what do you call it, a receiving unit for our MR. SHAVER: ADS-B ground station. MS. MASDEN: ADS-B. Because when people go around the corner here, so you can watch people go around the corner and then it disappears. And if you're up really high, like if I came over Ella at 3,000 feet you can be seen on the Capstone. So if you're sitting here wondering should I go across the island, let's say we've got high

MR. BRAMBLE: Yes.

25

1	MS. MASDEN: Meanwhile the camera's going to
2	show zero-zero, you know.
3	MR. BRAMBLE: Yes.
4	MS. MASDEN: So some antenna thing on the
5	island that is joining the Capstone would be real helpful.
6	MR. BRAMBLE: On the island in that area
7	somewhere?
8	MS. MASDEN: Anywhere in there would be great.
9	Because we all see them and go, oh, did so-and-so go across
10	the, they go around, they go to Alva.
11	MR. BRAMBLE: Yes.
12	MS. MASDEN: Because you can watch them go to
13	Alva and then, you know, again when you go around here it
14	disappears. But, you know, at that point I don't think you
15	want to spend a bunch of money putting a bunch of those up
16	in high elevation because
17	MR. BRAMBLE: Yes.
18	MS. MASDEN: the main information is should
19	we go the short way or should we go the long way or should
20	we go at all, you know.
21	MR. BRAMBLE: Yes. What do you think as far as
22	like sort of like basic weather minimums and especially for
23	the larger companies that may have more, you know, seasonal
24	pilots and that sort of thing? What do you think would be
25	like a reasonable sort of minimum visibility and should it

1 | vary over land or water?

MS. MASDEN: I don't know. I mean, there are times when, you know, 5 and 2 going around Alva is plenty, but 5 and 2 in Rudyerd is not a quality tour, so in my opinion

6 mortgage either.

So, you know, I don't know. Definitely the minimum should be higher going over land if --

they should cancel it. But I don't have a \$10 million

MR. SHAVER: Did you self impose different minimums?

MS. MASDEN: Over land and water? I go over water, that's my minimum.

MR. BRAMBLE: You go what?

MS. MASDEN: Water water. So if I -- at the Thorne Arm you can go up the Fish Creek Lagoon to Mesa Lake and from Mesa Lake you can go, or to Big Lake, and from Big Lake you can go to Mesa Lake. From Mesa Lake you can go to Gokachin Lake. From Gokachin Lake you can go to Ella Lake, and from Ella Lake if you get stuck and it's fogged in over here, you can backtrack your way across the water.

So if you can see the next lake to where it's comfortable you can land on that next lake, then go for it. If you can't see that lake and you can't comfortably just circle around and land in there, then it's time to go somewhere else.

1	MR. BRAMBLE: Okay. So you have defined
2	landmarks that you're looking for as you go along that's
3	sort of was your decision point.
4	MS. MASDEN: Oh, yes.
5	MR. BRAMBLE: If you can't see this next thing
6	then
7	MS. MASDEN: Yes.
8	MR. BRAMBLE: Okay. That's another idea
9	that's been discussed. And I think some companies like
10	Taquan have even implemented for their pilots, where they
11	train them with a map and say like from this point you need
12	to be able to see this. If not, turn around.
13	I don't think they've been doing that
14	systematically at Promech but it might be something
15	that
16	MS. MASDEN: Taquan has been better over the
17	years, a little. They still suffer. I mean, they had that
18	accident with Joe.
19	MR. BRAMBLE: Yes.
20	MS. MASDEN: I was there for that one too. I
21	seem like I manage to be around for all of them.
22	MR. BRAMBLE: Yes.
23	MS. MASDEN: That was the convective activity
24	that I told you about for later in the afternoon.
25	MR. BRAMBLE: Yes.

i	
	ANC15MA041 Attachment 1 - Page 206
1	MS. MASDEN: So what happens when the wind
2	switches out of the south is we get, usually it's quite
3	strong, 30, 35-ish, and that southerly wind hits all these
4	landfalls and creates orographic lifting and then you get
5	lots of convective activity.
6	So in the summertime, if we're going to have any
7	thunderstorms or just big cells in general, the bigger the
8	orographic lifting the worse they're going to be. And of
9	course there's a lot more terrain over here, so they're

MR. BRAMBLE: Yes.

going to be worse over there.

2.0

MS. MASDEN: And if you get in a fjord what can happen is, you can do a five minute, ten minute flight through Rudyerd and it's beautiful, and you can come back ten minutes later and there's a huge cell that's camped on the whole thing and you can't see anything. And so if you don't time it exactly right you're not going to have any tour at all and you're not going to have very much fun going through there.

MR. BRAMBLE: Yes.

MS. MASDEN: And that's what happened to Joe.

So that day there was two Taquan pilots in front of him. We go through Punchbowl Lake and come down into the south arm here, past Big Goat Falls. And Dale went through, Dale Clark, and it was fine. And then Joe -- no,

Τ

and then Joe went behind him and Joe went missing.

And then what's his name, the guy that just retired, old guy, Gerry Baker. Gerry Baker was behind Joe, and Gerry Baker got from Punchbowl to the south arm where he could see it but there was a big cell in there, but Big Goat was clear.

So these cells move, you know, and it's like zero-zero over here and it's beautiful sunshine over here.

MR. BRAMBLE: Yes.

MS. MASDEN: So he gets to the pass and he sees this cell, but he also sees that he could see Big Goat and a big beautiful waterfall there, so he takes his people to show them the falls. Turns around and comes back. And he's about at Punchbowl Cove where now I'm coming in. He's saying, hey, Michelle, you know, you can go see the falls, it's beautiful but there's a big squall on the south arm, you know, and you can't see anything in there. So I come through.

Now this is five-minute intervals, right. We have Dale in front and then Joe five minutes behind him and Gerry five minutes behind him and I'm five minutes behind Gerry. By the time I get here you can totally see up the south arm. So I finish my tour and go and land up in here.

And then on the way back out I get one of the Taquan guys calling me asking me if I've seen Joe.

1

MR. BRAMBLE: Yes.

2	MS. MASDEN: No. But it moves, when that
3	convective activity starts, and especially if I have a
4	really strong surface wind, it gets, it can get ugly back
5	there. And so a lot of times, like this last August we did
6	a lot more tours up in here because we had the wind driving
7	up in here. And it kind of peters out on this side of the
8	island, so we do what we call a north end Misty and go up
9	on the north side. And Taquan does that quite a lot too.
10	MR. BRAMBLE: You know, one thing, one flight,
11	I think, went and this might have been the second, I think
12	it was the second, their second tour today which would have
13	been around here where you started out.
14	MS. MASDEN: Yes.
15	MR. BRAMBLE: I think they went, I think the
16	accident airplane went this way, up through here and then
17	maybe saw that or something, up here.
18	MALE PARTICIPANT: He went to Big Goat.
19	MS. MASDEN: He looked at Big Goat?
20	MALE PARTICIPANT: But he went, but he didn't
21	go into Rudyerd.
22	MR. SHAVER: He didn't go in that draw. He
23	came through here instead of
24	MR. BRAMBLE: Went over the taller one or
25	MS. MASDEN: Yes, it is when you're trying to

1	so one of the things about working for a big company is
2	they're always trying to minimize their flight time. So
3	if you can over to the Checats Ridge here, you can shave
4	off a couple of minutes here. So they're always about
5	shaving off time, you know, 1.0, 1.1 on the clock, and
6	minimizing their total flight time. So if the
7	visibilities are good, and a lot of people do that, you
8	know, go across that ridge.
9	MR. BRAMBLE: And what's it called again,
10	Checat Ridge?
11	MS. MASDEN: So it's the pass between Checats
12	Lake and Punchbowl Lake. So the radio call is usually
13	coming over Checats for Punchbowl.
14	MR. BRAMBLE: How do you spell Checats?
15	MS. MASDEN: C-H-E-C-A-T-S.
16	MR. BRAMBLE: C-A-T-S.
17	MS. MASDEN: Yeah, weird.
18	MR. BRAMBLE: But I have to be able to find it
19	on the map.
20	MS. MASDEN: I should have brought my big map.
21	MR. BRAMBLE: And what's the other one?
22	Checats, and what's the other one?
23	MS. MASDEN: Punchbowl Lake.
24	MR. BRAMBLE: And Punchbowl Lake, okay. All
25	right. Do you go that way too, or

1	MS. MASDEN: Sometimes.
2	MR. KELNHOFER: Want some of my fries?
3	MR. SHAVER: No, I'm good. Thanks.
4	MR. KELNHOFER: Here you go.
5	MS. MASDEN: Oh, never mind. I'm on a diet.
6	MR. BRAMBLE: How high do you have to be to get
7	through there?
8	MS. MASDEN: Oh, probably around 2,500, 3,000,
9	somewhere in there.
10	MR. BRAMBLE: Okay. So if you have high
11	weather or good weather you can get through there?
12	MS. MASDEN: Yes.
13	MR. BRAMBLE: Usually. All right.
14	MS. MASDEN: That's probably a bigger, better
15	map for you, and you can take it too.
16	MR. BRAMBLE: Okay. Oh, thanks. And it has
17	some sights or the, where the mainland (unintelligible).
18	Fantastic. Thank you guys very much.
19	So I'm going to hand it over to Chris for a bit.
20	Chris, you got any follow-up questions?
21	MR. SHAVER: You asked most of mine, so
22	Actually, there's one thing that I did want to
23	know about. Did you go to the end of the season meeting?
24	MS. MASDEN: No, I was in (inintelligible).
25	MR. SHAVER: Oh that's right, you were in

1	(unintelligible). I just kind of wonder how it went. You
2	know, first in, you know, like, you know, you say that there
3	are is there also like a Ketchikan air tour group?
4	MS. MASDEN: There's a meeting, like that was
5	today. The Tongass Pilots Association.
6	MR. SHAVER: Tongass Pilots Association. Is
7	there any self regulating? You know, like, hey,
8	whoever-whoever, you're acting like a jackass, you know,
9	and I mean, this is just kind of being a little bit of
10	jest, but I mean, you guys know they're out there, you know,
11	and people doing it. Is there anything like that that
12	happens?
13	MS. MASDEN: There's a little clique-y, like we
14	don't like this weather and there's the clique-y of oh, you
15	can get through, it's no problem. There's this clique and
16	there's this clique, and that's it.
17	MR. SHAVER: There's no
18	MS. MASDEN: No, because it's a waste of breath
19	to tell the guy in this clique that he should go around Alva
20	because he's going to belittle me for my cowardice. And
21	I'm going to say I don't have anything to prove, especially
22	not to you.
23	MR. SHAVER: Is it the same in the FAA end of
24	season, or in the beginning of the season?
25	MS MASDEN: Oh ves Meetings are always

1 very subdued. I mean, no one's going to show their true colors at a safety meeting. 2 3 MR. SHAVER: Okay. MS. MASDEN: What would show their true colors 4 5 is an ADS-B thing right here that shows how low people go across the pass. That'll be true colors, if you want. 6 7 MR. BRAMBLE: The FAA can't use that anyway --MS. MASDEN: Yes, but --8 MR. BRAMBLE: -- at least at this point. 9 10 MS. MASDEN: You would see a trend and you would go, oh, there's that plane with that same tail number. 11 MR. BRAMBLE: They have call signs on the ADS-B 12 tags, I can't remember. All right, well, should go take 13 14 a look at some of those a little later. MS. MASDEN: So if they went to Mountain Point 15 and then it disappeared, you know they went this way. And 16 if they went to Alva and they disappeared, you know they 17 went the other way. So you'll get to see which way they 18 went anyway. 19 20 MR. SHAVER: Do you have anything else on your plane, just Spidertracks or anything like that? I mean, 21 22 that's amazing. MS. MASDEN: Fabulous, yes. Shona (phonetic) 23 knows exactly when I get back and exactly where I landed 24 25 and it's fabulous.

1	MR. BRAMBLE: What happens if you sorry.
2	You go ahead.
3	MR. SHAVER: No, keep going. No, go ahead.
4	MR. BRAMBLE: What happens if you go missing?
5	Like who looks up your Spidertracks data? You have
6	somebody working in here?
7	MS. MASDEN: Shona's watching me on the
8	computer 24/7.
9	MR. BRAMBLE: Oh, you've got somebody in here
10	all the time. Okay.
11	MS. MASDEN: She gets hives if I'm five minutes
12	late. Calling Flight Service, hey, you heard from
13	Michelle? She's late.
14	MR. BRAMBLE: What do you call her, a scheduler
15	or
16	MS. MASDEN: She's just my office gal.
17	Technically I file flight plans. We don't have an in-house
18	dispatch, so I file a flight plan for everything. But she
19	knows where I'm going, you know. And she can see me on the
20	Spidertracks, you know, see where the airplane landed.
21	That would be really helpful too, for every
22	airplane, and it's so cheap it ought to be just law. You
23	know, the price of it's come way down, and they give you
24	the equipment for free just for buying the service. And
25	the service costs me a \$1,000 a year. It's like that's a

1	no-brainer, like I spill more coffee than that, you know,
2	for an air taxi operation.
3	It's sad that Capstone doesn't work that way,
4	I mean, like have a Spidertracks kind of built into it kind
5	of thing.
6	MR. SHAVER: Yes. Do you have your
7	Spidertracks linked to your flight plans?
8	MS. MASDEN: No.
9	MR. SHAVER: You know, you can do that now.
10	MS. MASDEN: Oh, really.
11	MR. SHAVER: Yes.
12	MS. MASDEN: We haven't shared though, see, we
13	don't like to share.
14	MR. SHAVER: Sure.
15	MS. MASDEN: So we haven't shared our
16	Spidertracks with anyone.
17	MR. SHAVER: I mean, it's, you know, like so
18	like
19	MS. MASDEN: You can specifically share
20	though, right? Like I could probably share with Flight
21	Service and not
22	MR. SHAVER: Oh, yes. Yeah, so like flight
23	service you give them permission to link to your
24	Spidertracks account. So then what happens is, you know,
25	whatever parameters you have set up, if one of those
	1

1 targets, if one those hits, it'll go to the Flight Service station as well so they go, oh. So now you have another 2 group of people looking --3 MS. MASDEN: Right. 4 5 MR. SHAVER: -- you know, like for, you know. 6 So instead of issuing an (unintelligible), you know, no, 7 you know, remember where they were, you know, that they 8 ought to have --MS. MASDEN: Right. 9 MR. SHAVER: Yes. So it's actually pretty --10 and I imagine that -- I know that it was a new kind of a 11 -- I don't know if they have to have a new system to link 12 it, but I think all the Flight Service stations in Alaska 13 14 can do it now. MS. MASDEN: That's cool. 15 MR. SHAVER: So anyway, I mean, just --16 MS. MASDEN: Yes. If we can specifically 17 18 share I would be interested in doing that. I just don't want to -- you can put it out to the public, you know, and 19 20 I don't want to do that. MR. SHAVER: No, I think this is just, this is 21 a single share. You should talk to them about it though. 22 I'm sure they could have --23 MS. MASDEN: They're pretty bummed they don't 24 25 have Capstone as it is. That's unbelievable.

1	MR. BRAMBLE: Who doesn't?
2	MS. MASDEN: Flight Service.
3	MR. BRAMBLE: Oh, really?
4	MS. MASDEN: Yes.
5	MR. BRAMBLE: Oh.
6	MS. MASDEN: Why don't they have a unit that
7	they can sit there and look at when there's 15 of us in the
8	harbor at the same time.
9	MR. SHAVER: Yes. They ought to just get on
10	one of the Flightradar24 or something and do it.
11	MS. MASDEN: Right. It's pretty behind flight
12	radar though. It's like five minutes lag, yes.
13	MR. BRAMBLE: Weird.
14	MR. SHAVER: Yes, they should have. By now
15	you'd think they'd have something.
16	MS. MASDEN: It just didn't make any sense to
17	me that they gave it to every operator and not Flight
18	Service. It's like why? You know, these guys are trying
19	to keep us all from running into one another.
20	MR. SHAVER: Well, they probably, I mean,
21	probably because they don't want a Flight Service guy
22	trying to direct traffic in that way.
23	MS. MASDEN: Well, they're still trying to give
24	traffic.
25	MR. SHAVER: They're trying to give, but yes.

1	MS. MASDEN: And if they know exactly where
2	that plane is, you know
3	(Simultaneous speaking.)
4	MS. MASDEN: the Flight Service guys are
5	amazing. And so the people that have been here forever,
6	which is diminishing now because a bunch of them are
7	retiring, but when I look down and, you know, Shona will
8	say, well, there's a Beaver at Channel Island, probably at
9	Channel Island for the harbor. And I look down and I'm
L 0	going by Channel Island and she's nailed it, you know,
L1	without being able to see me. I just am always amazed at
L2	that.
L3	But the new guys don't. It takes a long time
L 4	to get that, you know, in your head that whole spatial
L5	MR. BRAMBLE: Yes.
L 6	MS. MASDEN: And then there's a guy who doesn't
L7	want to talk on the radio, who's a private guy landing out
L8	of Murphy's, and he's old and he's old-school and he doesn't
L 9	talk to anybody. And, you know, there's all of that too.
20	MR. SHAVER: Since you do all your bookings
21	independent, what happens if you get somebody back and they
22	miss the ship?
23	MS. MASDEN: It's never happened. But I would
24	assume responsibility for getting them to their next
25	destination whether that be Vancouver or Seattle, Juneau,

whatever. Hotel, lodging, food, airplane.

2 MR. SHAVER: Got you.

MS. MASDEN: If it were my fault, yes. But I've been stuck out many times, you know, had to have a boat come and get my people. Couldn't go back out to get them like on an air tour where we drop them off and leave them, and then a fog comes in and you can't go back out. So we hire a jet boat to go and get them.

So far I've been lucky. I haven't actually missed the sailing of the ship. But there have been times when I landed, came back from Misty on a big frontal system and got to the dogleg, all the way here, and it was blowing about 70. It was ugly. I mean, there was a forecast that come in but not that hard. And visibility, it was like a wall just like the other one only worse.

And I turned around and landed at Shelter Cove, over here's a little logging camp dock. And got on the satellite phone and called Shona and told her to get one of the boats to come out and get my people and -- I had six people on the plane. Five of them had flown with me before and they were totally not even like somewhat flustered.

We took off to the west when we left Ketchikan, beautiful sunny day, flew to the fjords 4- or 5,000 feet, beautiful, came back and it was just --

MR. SHAVER: Yes.

ANC15MA041 Attachment 1 - Page 219 So sometimes being inconvenienced 1 MS. MASDEN: 2 3 Satellite phones are another, would be also be really 4 5 but it's not one in every plane. 6 7 8 something. 9 10 11 12 13

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is not any fun, but it's the right thing to do.

And a few of the operators are carrying them now,

MR. SHAVER: I never asked that question. just kind of would have assumed though that would have been

MS. MASDEN: Spidertracks, I think, would be the number one helpful thing for everybody. Even if we didn't share it with everybody, each dispatch person could look and see at a glance where all their planes are without having to guess. Did they land at Hollis? Did they make it through the pass to Craig? Did they land in Misty? Where did they land in Misty? Because we're on permits with the Forest Service, so these pilots never want to keep track of the fact they're landing on Big Goat one flight and (unintelligible), with the dispatch gal, no, (unintelligible) mark that on their thing, right.

I mean, for a variety of reasons besides just we have an airplane missing, you know, somebody's broke Well, where is he broke down? Oh, look, he's at the entrance to Rudyerd.

That solving, problem solving the headaches of running an air taxi business would be greatly diminished,

1	never mind the whole missing airplane thing. I mean
2	MR. SHAVER: What are we missing?
3	MR. BRAMBLE: Anything you expected us to ask
4	you about that we didn't ask?
5	MS. MASDEN: I just don't want to talk names.
6	MR. SHAVER: Yes.
7	MS. MASDEN: Yes. Just too small of town.
8	MR. BRAMBLE: Anything that I have a good
9	story I can tell you later, but anything else that you want
10	to, that you think we should know that would be helpful for
11	us in terms of thinking about cause of the accident or, you
12	know, safety improvements?
13	I mean, I guess we've already kind of gone over
14	that, but just anything else that you want to bring to our
15	attention or
16	MS. MASDEN: Other than, you know, for pilots
17	just to err on the side of caution. But I mean, I really
18	don't know how you teach that or demand that or make a rule
19	for that.
20	(Whereupon, the above-entitled matter went off the
21	record at 4:40 p.m.)
22	
23	
24	
25	

ANC15MA041 Attachment 1 - Page 221 NATIONAL TRANSPORTATION SAFETY BOARD

IN RE:

THE PROMECH AIR PLANE

ACCIDENT THAT OCCURRED IN : NTSB Accident No.

KETCHIKAN, ALASKA ON : ANC15MA041 JUNE 25, 2015

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INTERVIEW OF: DAN MCCREA

Tuesday, October 27, 2015

Telephonic Interview conducted at 1330 MDT.

BEFORE

CHRIS SHAVER, NTSB

This transcript was produced from audio provided by the National Transportation Safety Board.

ANC15MA041 Attachment 1 - Page 222 1 P-R-O-C-E-E-D-I-N-G-S 2 (1:30 p.m.)3 MR. SHAVER: Then let me just pull up my questions here one more time. And it's, M-C-R-E-A, is that 4 how you spell your last name? 5 It's -- no, it's, M-C-C-R-E-A. MR. MCCREA: 6 7 MR. SHAVER: Oh, close. All right. M-C-C-R-E-A. So, Dan, basically, you know, before we kind 8 of get into, you know, some of the questions, could you just 9 kind of give me, kind of your basics? Your background, 10 your qualifications. You know, ratings, flight times, 11 stuff like that. 12 MR. MCCREA: Okay. So my qualifications are 13 14 of course commercial instrument, multi-engine land. And then my seaplane rating would just be of course six 15 martials, commercial single-engine seaplane rating. 16 MR. SHAVER: Okay. 17 18 MR. MCCREA: My total flight time is about 2,100 hours. And my time in floats is about 500. 19 20 MR. SHAVER: Okay.

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MR. MCCREA: And, yes. I am also, it doesn't

MR. SHAVER: Oh, okay. I've always wanted to

MR. MCCREA: Well, I'm more of a AP&IA then I

probably really pertain to this, but I am also an AP&IA.

add that to my list, but I haven't gotten to do that yet.

1	am a pilot.
2	MR. SHAVER: Oh.
3	MR. MCCREA: The pilot very side of it. You
4	know what I mean? I mean I have a shop in Brigham here.
5	MR. SHAVER: Oh, okay.
6	MR. MCCREA: Where we do rebuilding and
7	maintenance and stuff like that. So the flying is just
8	kind of the fun side of it for me.
9	MR. SHAVER: Got you. I just picked up so
10	I think I may have mentioned to you, I just got moved down
11	to Denver.
12	MR. MCCREA: Yes, you did.
13	MR. SHAVER: I just picked up an accident over
14	the weekend down by Eureka, Utah.
15	MR. MCCREA: Okay. What did you pick up?
16	MR. SHAVER: Oh, a Ag plan. A guy was doing
17	some seeding and just, I think he made a turn. You know,
18	I think he made a tailwind turn and stalled it and, you know.
19	But he's okay. His airplane burnt. Caught fire and
20	burned up.
21	MR. MCCREA: Oh, so you did the okay, when
22	you say picked up, I thought maybe you meant like bought
23	to repair.
24	MR. SHAVER: Oh, no, no. Just, yes, no.
25	MR. MCCREA: Okay.

1	MR. SHAVER: Had, there was an accident down
2	there this weekend.
3	MR. MCCREA: Oh, yes. Okay.
4	MR. SHAVER: So, yes, sorry about that. I
5	digressed.
6	MR. MCCREA: Yes, no, no, no, you're fine.
7	You're fine.
8	MR. SHAVER: So how long did you work for
9	Promech?
10	MR. MCCREA: You know, I worked for Promech for
11	the first, eh, probably month, month and a half. I worked
12	for them from the start of the season to that day. That
13	was the last day that I actually, I shouldn't say it was
14	the last day of work when it's the last day I flew there.
15	MR. SHAVER: Right. Okay. And that season,
16	so you got there end of April, is that
17	MR. MCCREA: Yes. We actually got there a
18	little bit earlier. So we got there about the middle of
19	April.
20	MR. SHAVER: Okay.
21	MR. MCCREA: But we really didn't do a lot,
22	other than just, you know, 135 paperwork and that kind of
23	stuff.
24	MR. SHAVER: Okay.
25	MR. MCCREA: I can actually give you, I have my

1	logbook right here. I can tell you the day that I actually
2	first flew for them.
3	MR. SHAVER: Okay.
4	MR. MCCREA: If you'd give me half a second here
5	I can find it. So it would have been, yes, so the first
6	day I actually got in the airplane was 5/2.
7	MR. SHAVER: Okay.
8	MR. MCCREA: Okay?
9	MR. SHAVER: Okay.
10	MR. MCCREA: And then the last day I flew for
11	them was, like I said, the day of that.
12	MR. SHAVER: Yes. So you were flying that day?
13	MR. MCCREA: I did. I flew the flight before
14	that flight and I flew the flight after that flight. I did
15	not fly that flight.
16	MR. SHAVER: Okay. Do you, I mean just while
17	we're on it, do you recall your flights that day? I mean
18	
19	MR. MCCREA: I actually did several. And I can
20	kind of I do recall them actually very well. The first
21	flight I did at okay, so you're a little bit familiar
22	with the way that's set up
23	MR. SHAVER: Yes.
24	MR. MCCREA: in that the airplanes are right
25	there at the dock.

ANC15MA041 Attachment 1 - Page 226 1 MR. SHAVER: Yes. MR. MCCREA: Down at Promech. And then their 2 3 maintenance facility is, you know, a couple of miles away. MR. SHAVER: Yes. 4 5 MR. MCCREA: Okay, so you're familiar with So that's called the pullout. At least that's what 6 that. 7 they called their pinpoint or whatever you want to call it. Well my plane -- so the way that Promech does 8 their deal is you call the pilot line. And it's basically 9 just a recorded answering machine, for a lack of better 10 I think that's all it is actually. 11 words. MR. SHAVER: Okay. 12 MR. MCCREA: And they tell you what plane 13 14 you're in and what time to be there. MR. SHAVER: Okay. 15 MR. MCCREA: And where the plane is. Whether 16 it's, you know, at the waterfront or whether it's at the 17 18 pullout. So I called that night and my plane was at the 19 20 pullout. So I had to go to the pullout to get it. And 21 bring it from there to the waterfront to be ready for the 22 flight. 23 So the weather was really crappy. So I went to

the pullout and got the plane. And I thought, well, it's

really crappy but I'm not, you know, it's not far.

24

1

a pretty short flight.

2

3

There's not a lot to you, you know, it's a fairly easy

4

flight. So I took off from there and landed there at

5

6

MR. SHAVER: Okay.

7

MR. MCCREA: At the waterfront base there.

And it's, you know, and you're over water.

8

And taxied up. And, you know, parked the plane, got out

9

of the plane.

Promech.

10

And when I was going upstairs, and it was really

11

crappy. I would guess it was 200 feet and a mile maybe.

12

Maybe less than a mile, you know. But it was not good. And

13

the ceilings weren't high.

14

Anyways, so I, so on my way up to the office up

15

16

And I told Marcus, I said, man, the really is really, really

there, upstairs where everybody was, I ran into Marcus.

17

crappy out there. And his comment, I remember it today,

18

his comment was, that's just Alaska weather. It could be

19

like that for months.

20

21

you know, I don't know the culture and I don't know, you

22

know, and I'm new to all this. You know, still even at that

23

point I'm pretty new to this.

24

MR. SHAVER: Okay. And so we went ahead and

And, you know, I'm not from Alaska so I don't,

25

did the first flight and it was shitty. What sucks is I

Ţ	actually wrote all this down and I have this, all my notes
2	somewhere. And I thought I knew where it was and I went
3	to grab it this morning and it's like shit, that's a
4	different thing that I had written. It wasn't the notes.
5	Because I had all the time, the ceilings and visibilities.
6	MR. SHAVER: Oh, okay.
7	MR. MCCREA: But we made the first flight. We
8	went the long way around. Which, you know the difference
9	between the short way and the long way, right?
10	MR. SHAVER: Yes.
11	MR. MCCREA: Okay. So you know what that is or
12	
13	MR. SHAVER: Yes.
14	MR. MCCREA: understand what it is.
15	Anyway, went the long way around, did the flight, came back.
16	And whenever you, with that company, whenever
17	you report, mount and point inbound, they tell you what your
18	next flight is so you know how to get ready.
19	MR. SHAVER: Okay.
20	MR. MCCREA: You know what I mean? So they'll
21	set you have a whatever time, Misty. And then you know,
22	all right, I got to get the plane fueled, I got to get it,
23	you know, straightened out, I got to go get my people and
24	get, you know what I mean.
25	But what happened was, so that was the first

	ANC15MA041 Attachment 1 - Page 229
1	flight. So the second flight was set to go. So anyways,
2	I called Mountain Point and they didn't, this flight didn't
3	sell. So they didn't have a flight for me. So my next
4	Misty was, that would be the third flight of the day.
5	MR. SHAVER: Okay.
6	MR. MCCREA: And I remember thinking, God, it's
7	freaking awesome. I, you know, I got a stay of execution.
8	Maybe the weather will improve by my next flight. You
9	know.
10	MR. SHAVER: Yes.
11	MR. MCCREA: So I was relieved that I wasn't
12	going on the second flight. So that's kind of how that
13	went.
14	So the second flight happened. The planes were
15	coming back. Now I was on the third flight, so we're
16	getting ready to go. We're warming up and we're getting
17	ready to go.
18	And I was standing in the dispatch office, which
19	Leah of course does the dispatching and all that.
20	MR. SHAVER: Okay.
21	MR. MCCREA: And the planes were coming back,
22	and they're watching them on the screen, we're getting
23	ready to go. And Marcus tells me, tells me that, says hey,
24	the short routes good. The short routes good.
25	And I said, well who said that? And he said,

1	Shannon did. And my comment to him was, well that doesn't
2	mean a damn thing to me. And he was kind of surprised. And
3	he said, what do you mean? And I said, I'm not following
4	him again. He's drug me into too much shit, you know.
5	MR. SHAVER: Hmm.
6	MR. MCCREA: When I first started I, you know,
7	I just believed everybody. But his idea of good is, you
8	know, you maybe can get, you know, you can kick your way
9	and fight and, you know, it isn't good. Good to me is
10	reasonably good.
11	MR. SHAVER: Yes.
12	MR. MCCREA: So anyway, so that was, my comment
13	was, that doesn't mean shit to me. You know, I'm not
14	following Shannon.
15	You know, Shannon was a good pilot.
16	MR. SHAVER: Yes.
17	MR. MCCREA: But he was a bit of a cocky,
18	arrogant, you know, kid. You know.
19	MR. SHAVER: Yes.
20	MR. MCCREA: Anyways, so we're getting ready to
21	go. And about that time, you know, the planes are coming
22	back. And he's watching on the screen.
23	Now Chuck goes around the long way. Chuck
24	doesn't take the short routes.
25	MR. SHAVER: Right.

1	MR. MCCREA: And I can remember Marcus, because
2	I think he was all board, being frustrated. He's like, oh
3	dammit, come on Chuck. You know, like that kind of deal.
4	Because I can see Chuck going the long way around the deal.
5	Well anyways, to make a long story short, the
6	planes are coming back, we're getting ready to go, I'm
7	getting ready to launch. And at that time we know, we can't
8	find, you know, Bryan on the screen.
9	MR. SHAVER: Okay.
10	MR. MCCREA: You know. And that's not
11	uncommon. You can get kind of, you know, dropped off in
12	the, you know, in the mountains up in there. Until you,
13	you know.
14	MR. SHAVER: Yes.
15	MR. MCCREA: Just because it doesn't transmit
16	through that, you know, if you're low and whatnot. But
17	anyways.
18	But by the time I launched you're late. I mean
19	all the other planes are back and we know he's late. But
20	we go ahead and launch and takeoff.
21	The weather is still shitty. When I say
22	shitty, it probably was technically legal right then.
23	MR. SHAVER: Okay.
24	MR. MCCREA: That was probably the best it had
25	been all day. So I would say it probably was technically

1

legal. But it wasn't nice.

2

3

go the short way. Because I look up in there and see that

I went ahead and I went the long way. Didn't

And then the second reason was that Chuck was

4

it just wasn't, it wasn't good.

5

ahead of us in the Otter. The Otter is just faster so he

67

just was ahead of us. And he called back and said, it's

8

extremely turbulent in here, send the Beavers the long way.

9

MR. SHAVER: Okay.

10

MR. MCCREA: So anyway. So went the long ways

11

around. I get passed Mountain Point and I'm getting down

12

towards Thorne Arm and I hear Chuck call back and say, I've

13

got an ELT. So at that point we kind of know that something

14

bad has happened. You know. But nobody knows what,

15

right.

MR. SHAVER: Yes.

17

16

MR. MCCREA: So, you know, I switch over to 1215

18

and I'm trying to see if I can maybe kind of pinpoint or,

19

you know, this or that and do the tour. Come back. We now,

20

you know, and that was the last flight of the day.

21

But when I was coming back, I was down probably, you know, you come around Alva and it was really down. It

22

was less than a mile visibility and about 200 feet.

24

And what sucks about that is there's areas where

25

you like cross the Thorne Arm and you cross some of these

1 different inlets, you have no land reference. And you're basically, all you have is just hold the wings level and 2 3 hope to find the next chunk of land. And I remember thinking, this is going to be a 4 5 day that we're going to lose two airplanes. Because I felt 6 like this was a, you know, this was a really and spot to 7 be in with this airplane. You know. Because you're now a couple hundred and you're 8 basically just eye afar waiting to find hopefully the next 9 shoreline. So it was a shitty, shitty deal and we 10 shouldn't have been there. 11 And actually, at that point I still didn't know 12 what happened to Bryan, but I was pissed off. And so I let, 13 14 you know, I got my passengers unloaded, went up to the upstairs up there and told Leah, pull me off the schedule. 15 MR. SHAVER: 16 Hmm. MR. MCCREA: I said, you know, until I talk to 17 18 the management I'm not doing this again. MR. SHAVER: Yes. 19 20 MR. MCCREA: At that point I realized, you know, what we're doing is not right. You know. So 21 anyways, so that's kind of was the end -- was kind of the 22 end of my flying with them. 23 24 MR. SHAVER: Okay. 25 MR. MCCREA: And that was kind of how that day

ANC15MA041 Attachment 1 - Page 234 1 went. MR. SHAVER: So is that, I mean is that why you 2 3 left? MR. MCCREA: It is. It was 100 percent that. 4 5 It was just the weather. I didn't leave for more pay, I didn't leave for, because I didn't like the people. I 6 7 really truly loved the people that worked at that company. It was a ton of fun. You know. 8 I just felt like, we're supposed to be 9 10 responsible pilots too. MR. SHAVER: Yes. 11 MR. MCCREA: And we're doing things that aren't 12 responsible. 13 14 MR. SHAVER: Right. MR. MCCREA: You know. You know, people on the 15 cruise ships don't sign up for 200 feet and a half mile 16 visibility. That's not what they're there for. You know. 17 18 So anyways, what I felt like I wanted -- what I felt like was I need to talk to Clark. Because Clark is 19 of course the director of operations. 20 21 MR. SHAVER: Okav. 22 MR. MCCREA: And I need to have a clear

MR. MCCREA: And I need to have a clear understanding of what we're doing. So I didn't quit that day, I just said, pull me off the schedule. My feeling was, I needed to talk to him and say, you know what, this isn't

23

24

smart.

MR. SHAVER: Okay.

MR. MCCREA: So if this is what it is, then I'm, you know. So I had a meeting with him. Let's see, it would have been, probably, because the cruise ships, after they found out it was crashed, the cruise ships pulled all the contracts. So the next thing that was really available was going to be waterfall turns.

MR. SHAVER: Okay.

MR. MCCREA: And he called me, it was only like maybe three days. He called me and said, are you up for doing waterfall? And I said, no, I'm not. You know, just put somebody else on it, I'm not going to do it.

MR. SHAVER: Hmm.

MR. MCCREA: And anyways. Because I hadn't talked to him at that point.

MR. SHAVER: Right.

MR. MCCREA: You know. I did talk to him the day, I believe the day after that. And what I was looking for was, you know, hey, we're going to be more careful or we're going to change what we're doing or we're going to up the minimums or blah, blah, blah, blah. What I got from him was not that.

What I got from him, you know, 500 feet and two miles is actually really good weather and you can do a lot

1 of maneuvering in that. You can turn around and you can do this and you can do that. 2 3 And what I told him that day was -- a lot of these pilots, actually all the pilots, with an exception of a 4 5 couple that I started with, were green. MR. SHAVER: Okay. 6 MR. MCCREA: I've never flown Dehavilland 7 Beaver and I never really, I've flown in Alaska, you know, 8 just as a vacation. So I've been to Ketchikan in a small 9 10 plane a couple times. But, you know, we're pretty green and we don't 11 know these areas. And we don't know every little rock and 12 hill and valley and, you know. It's very easy for me to 13 14 get turned around and lost in really bad visibility. MR. SHAVER: Yes. 15 MR. MCCREA: So anyways. And I pointed that. 16 I said, you guys have to dumb this down. You have a fleet 17 of guys here that have never been here. And most of them 18 have never flown in even one of these airplanes once. 19 20 With very, very low seaplane time you have to dumb this down. And he didn't feel he did. He felt that 21 22 what they were doing was within the regs and was safe. So that was -- so anyways. That was when I said 23 I was done. 24

MR. SHAVER:

Okay.

1	MR. MCCREA: And I said, you know, I'll give you
2	as much notice as you want, but I'm going to be done. So
3	anyways.
4	MR. SHAVER: Okay.
5	MR. MCCREA: So that's kind of how that went.
6	So he was aware of it.
7	The other thing that came out in that, in that
8	conversation was, when we did the initial training, and
9	again, I don't know, I've never flown commercially in
10	Alaska. But when we did the initial training, we're going
11	over the 5 and 2 and the this and the that.
12	And Carl, which I later come to find out is a
13	freaking complete idiot. A good pilot, but not, not
14	very poor judgment. So Carl is assistant to the director
15	of operations.
16	MR. SHAVER: Okay.
17	MR. MCCREA: And he's the one going over all
18	this paperwork with us. Well his comment to the group, not
19	just me is, it's 5 and 2. But this is Alaska, you won't
20	make it there, you got bend the rules. We fly just clear
21	clouds. You know.
22	And his other comment was, you know, so the
23	question is about turning around and coming back. His
24	comment is, well, if all the airplanes get through and you

turn around, we're going to have conversation about it.

You know.

So anyways. That was how it started. So. So that's kind of, now, I don't believe that was the company's philosophy, I believe that was Carl's philosophy.

MR. SHAVER: Okay.

MR. MCCREA: But it sets a kind of a bad, you know, a situation is what it does.

MR. SHAVER: Yes.

MR. MCCREA: So.

MR. SHAVER: We heard some stories about Carl that I didn't know about, here pretty recently. With just some of the things, you know, with Taquan and some other personal issues I guess.

MR. MCCREA: You know, Carl, Carl is -- Carl's a good pilot. Very, very, a very poor manager. I went to Carl, because I was roommates with Bryan. And I could see the changes in Bryan. And Carl lived right across the street.

MR. SHAVER: Okay.

MR. MCCREA: And he was outside washing his truck and I walked over there and I told him, I said, you guys need to back off of this. Or you need to, I can't remember what the word was. I said, you're pushing Bryan too hard. I can see it, you know.

And what it was, was there was an event where

1 Bryan and I got into a little bit of a rawl over passing, coming back from the Misty's. And it's something that was 2 3 such a minor thing and he just exploded. And I could just see the, you know, between that 4 5 and the amount of drinking he was doing and the staying out late every night, you guys are pushing that guy too hard. 6 7 You need to pay attention. He said, hey, as long as everybody is flying 8 okay I don't really care. You know. So basically just 9 leave me alone. You know. 10 And it wasn't very long after that he wrecked 11 the plane. But anyways. I think he only had ten hours. 12 He didn't have the time. So it wasn't long after that. 13 14 MR. SHAVER: Yes. MR. MCCREA: But anyways. So yes Carl, yes, is 15 somebody I can put on my list that I will never work for 16 or around. 17 18 MR. SHAVER: Hmm. Can you tell me a little bit about your guys' living, you know, situation? Like, you 19 20 know, kind of your interactions with Bryan. Especially in the few days leading up to the 21 accident and stuff, you know. I mean I know that he was 22 moving out and stuff like that. 23 24 MR. MCCREA: Yes. 25 MR. SHAVER: Could you kind of --

	11
1	MR. MCCREA: You beat. So we started this
2	with, it was Chuck and Bryan and my wife and I. So there
3	was four people in the, you know, in the house. It was a
4	three-bedroom house. Which I mean was fine. I mean that
5	worked fine.
6	But mentally, you know, Bryan was a little bit
7	of a different duck anyways. But not in a bad way. Just
8	a little bit odd.
9	But anyways, everything was fine, everybody was
10	getting along fine and Shannon came into the picture. And
11	Shannon was again, like I said, kind of a younger cockier
12	guy. Him and Shannon became really good friends. They
13	used to call it a bromance down there.
14	MR. SHAVER: Okay.
15	MR. MCCREA: Because they just became really
16	good friends. Ultimately that's, I think, what lead up to
17	this or played a big part in what happened out there.
18	So they started hanging out. Pretty much all
19	the time. And that kind of arrogance and that cockiness
20	kind of rubbed off on Bryan. Bryan kind of, you know, I
21	don't know. Kind of was, I don't really know how you'd
22	explain it.
23	But he started, he changed basically. He
24	became kind of more like Shannon. You know, probably

because he looked up to him and wanted to be the young, you

1 know, the young guy again or whatever. I don't know. Because he was quite a bit older. Shannon's 2 3 got to be in his 20's or early 30's. Of course Bryan was in his 60's. 4 5 And then they'd start going out to dinner and 6 start drinking. You know, quite often. Probably just 7 about every night or so. A lot of times, you know, there's times Bryan 8 would leave his truck downtown and walk home. And I told 9 him, if you need a ride, call me, I'll come get you. 10 So that changed a lot. When Bryan first moved 11 into the house it was pretty rare for Bryan to even drink 12 13 a beer. 14 MR. SHAVER: Okay. MR. MCCREA: And so it went from that to the 15 other. His temperament changed. Just his whole, you 16 know, deal changed. You know. So anyways. So that's 17 18 kind of how that changed. So that all basically changed, you know. 19 20 So anyways. He was moving out over an incident we had coming back from the Misty's where I passed him. And 21 22 he felt like I shouldn't have passed him. So anyways. So he had -- so when rounded Mountain Point I 23 was in front of him. And going down the channel there he 24

was, you know, saying different things in the radio.

And I finally said, Bryan, just, you know, we'll 1 talk about it when we got on the dock. Just basically 2 3 because you're on an open frequency. If you're pissed off that's fine, let's work it out. But you don't need to 4 5 broadcast it to the entire country. 6 MR. SHAVER: Okay. 7 MR. MCCREA: So anyhow, we came and landed at the dock and he's like, well, you swooped down and cut me 8 off and this and that. Which we have a difference of 9 opinion on that, but that's fine. 10 But I stuck my hand up, said, hey look, I'm 11 sorry, you know. We're friends, we all got to get along. 12 And he said basically fuck you, I'm pissed off. And 13 14 wouldn't shake my hand. And that was kind of the end of our friendship. 15 But then it all hit his man (indiscernible) and 16 his whole persona had changed by then. 17 18 MR. SHAVER: Okay. MR. MCCREA: You know, so. So a couple days 19 20 later he came to me and said, basically either Chuck and I are moving out or you're moving out. Which Chuck never 21 22 had any intention of moving out, so Bryan was just basically lying about that. 23 And I said, well, if you guys don't want me there

I'll move. No big deal. I said I'll move into, you know,

24

1 I said I'll move into Tom's old place. I know it's Because Tom, one of the pilots that had left 2 available. 3 there. MR. SHAVER: Okay. 4 5 MR. MCCREA: So I called and made arrangements 6 to do that. In the meantime, he went ahead and called and 7 got the phone number for the lady that had the place too. And made a deal with her to go ahead and take it. Even 8 though I had already, you know, talked to her about it. 9 I just wanted to make sure that, I want to talk 10 to him one last time and say, are you sure you're going to 11 do this. Because I was afraid what would happen is I would 12 bail and then he would bail and leave Chuck stuck with the 13 14 house. And Chuck, you know, Chuck was, didn't want to backout on a house because it was a house that Carl had found 15 and he didn't want to screw Carl over. 16 MR. SHAVER: 17 Okay. 18 MR. MCCREA: So I didn't want Chuck to get stuck. And in the meantime he was kind of just, you know, 19 20 sneaking behind me and renting a house that, you know, he didn't even know was available till I mentioned it to him. 21 So he just became a real pile of shit in the end. 22 23 opinion. 24 MR. SHAVER: Hmm.

MR. MCCREA: So anyways. Sorry that's not

1	really sugarcoated, but that's just kind of how it went.
2	MR. SHAVER: Hey, no
3	MR. MCCREA: You know, he became arrogant and
4	he became just what he was.
5	MR. SHAVER: Yes, I don't need sugarcoated.
6	I'd rather not. I get too much sugarcoated.
7	MR. MCCREA: So anyways, that's kind of the
8	deal. He looked up to Shannon like, I don't know. He
9	looked up to Shannon. He wanted to be like Shannon. The
10	problem was he didn't have the skills that Shannon had to
11	be out there doing that stuff.
12	MR. SHAVER: Okay.
13	MR. MCCREA: In the Otter. And I'm sure that
14	when Shannon said it was clear, he was dumb enough to follow
15	him in. You know.
16	MR. SHAVER: Yes.
17	MR. MCCREA: So that's kind of how that went.
18	You know.
19	MR. SHAVER: Hmm.
20	MR. MCCREA: So anyways, that's kind of the
21	story. Of how that day went.
22	MR. SHAVER: Yes. So
23	MR. MCCREA: Other than that, yes, I don't know
24	what else to tell you.
25	MR. SHAVER: So basically
	1

1	MR. MCCREA: Had he never meet Shannon that
2	wouldn't have happened. That whole accident wouldn't
3	have.
4	MR. SHAVER: Hmm.
5	MR. MCCREA: I believe. It was just a perfect
6	storm that all came together there. In the wrong airplane,
7	you know.
8	MR. SHAVER: Yes.
9	MR. MCCREA: You know. And he clearly was not
10	super in control of that airplane. He was green. Not that
11	he couldn't fly the airplane, but the management should
12	have had enough commonsense, in my opinion.
13	Again, this is all hindsight. They should have
14	had enough commonsense to not have him in a airplane in a
15	really shitty weather day.
16	MR. SHAVER: Yes.
17	MR. MCCREA: They should have put him back in
18	the Beaver that day. And then on nice days send him out
19	in the Otter and use a little more caution. You know.
20	Not just said, here, you're comfortable in the
21	plane and have him say, yes, I am. You know. So that's
22	where management has to make those decisions and realize
23	what they're doing.
24	MR. SHAVER: Yes.
25	MR. MCCREA: So that was their short sidedness

1 He shouldn't even have been in that airplane that 2 day. 3 MR. SHAVER: Yes. MR. MCCREA: You got the owner of the company 4 5 that has got 10,000's of hours in Otters up in the Ketchikan 6 flying the Beaver and you got a guy that's got no experience 7 in an Otter flying an Otter. That was dumb. 8 MR. SHAVER: Hmm. MR. MCCREA: You know, I do admire the fact that 9 I've seen Kevin transition some of the new pilots into the 10 And he's always very, very careful of where he 11 caravan. sends them and what he's doing. 12 And the same with the new pilots and the 13 14 Beavers. He just doesn't send them out the shitiest, hardest places to get to. He lets them learn something. 15 I do admire that about Kevin. He has a little bit of 16 17 commonsense that way. 18 MR. SHAVER: Yes. MR. MCCREA: And apparently these guys just 19 20 really didn't get it. 21 MR. SHAVER: So I just want to make sure. 22 you think kind of the moving out, you know, the kind of inner personal stuff in the house there, did that kind of start 23 when you guys had that little rift coming into Ketchikan 24 25 or I mean is that where --

1	MR. MCCREA: No. No. It had started before
2	then. As far as him just being not social, you know.
3	MR. SHAVER: Okay.
4	MR. MCCREA: It started before then.
5	MR. SHAVER: Okay.
6	MR. MCCREA: You know. No, my wife absolutely
7	couldn't stand him. She would, when he came, she would go
8	back in the bedroom and just hide from it. She didn't, you
9	know.
10	But that deal all started when Shannon started.
11	And they became friends. And then the drinking started and
12	partying started. That's when that started.
13	The coming into Ketchikan was kind of the last
14	straw.
15	MR. SHAVER: I got you.
16	MR. MCCREA: So that kind of was the, yes, that
17	was kind of the last straw. And truthfully, you know, I
18	was glad to either be moving out or him moving out.
19	It was, you know. Chuck was great, Chuck's
20	amazing. I got zero trouble with Chuck.
21	MR. SHAVER: Okay.
22	MR. MCCREA: We stayed there the whole rest of
23	the season and got along perfectly. But anyways. So
24	Bryan, yes. Yes, it defiantly, I mean he just changed so
25	much.

1	MR. SHAVER: Yes. Do you remember any like,
2	you know, we kind of call it the 72-hour history, you know.
3	Like the 72-hours before the accident, you know. You know,
4	or the three days before the accident.
5	Do you recall anything specific from those
6	days, you know, like in the house or any other, you know,
7	out flying or anything like that with Bryan?
8	MR. MCCREA: You know, I don't know. The
9	problem is I don't have, you know, when this happened and
10	when this happened and when this happened. So it may not
11	have been in the 72-hour window.
12	MR. SHAVER: Okay.
13	MR. MCCREA: Our, I would say our deal did not
14	happen in the 72-hour window. I would say it was probably
15	a little bit older than that.
16	It was maybe, because there probably was a week
17	that went by. Prior to that, I know we were out there one
18	day in the Misty's, which is a little bit of a, yes.
19	Again, anyways, we were out in the Misty's and
20	his was actually in the Beaver. I remember he was in 90
21	Bravo that day and I was in 2 Alpha Kilo.
22	And it was really weird weather. It had a lot
23	of just downdrafts. And it was really windy and gusty and
24	crappy in there.
25	And I know he hit the trees in there the one day

1	with the airplane. You know, just hit them with the
2	floats. He got into a downdraft and it was probably where
3	he shouldn't have been.
4	But it was an area that we had went in earlier,
5	one of the earlier flights of the day, and there was a pretty
6	sever downdraft in there. So I didn't go back in there
7	because I thought, well, there's no reason to tour right?
8	We're not at war, we don't have to go back in there.
9	MR. SHAVER: Okay.
10	MR. MCCREA: So he went ahead did go back in
11	there and wound up hitting the trees with the floats. You
12	know. But that was just bad judgment more than anything.
13	MR. SHAVER: Do you
14	MR. MCCREA: So other than that, you know, I
15	don't really have a
16	MR. SHAVER: Do you think that was, so gosh,
17	probably, gosh, ten days or so before the accident he made
18	a
19	MR. MCCREA: Probably.
20	MR. SHAVER: He made a, we found his log book,
21	and he had a comment in his log book that said, I thought
22	I was dead today.
23	MR. MCCREA: Yes. I would say that's probably
24	
25	MR. SHAVER: That's probably it.
	1

MR. MCCREA: exactly what it is. That's
probably exactly what it was. Because when I got home I
parked the plane, he was already home.
MR. SHAVER: Okay.
MR. MCCREA: And he was already pretty drunk.
MR. SHAVER: Hmm.
MR. MCCREA: You know.
MR. SHAVER: Did he
MR. MCCREA: And he was just coming out of
there.
MR. SHAVER: Who else knew about that? Did the
management know about that?
MR. MCCREA: I don't know if management did or
not. I don't know. I know I did, I know Chuck did, I know
Shannon did.
MR. SHAVER: Hmm.
MR. MCCREA: I don't know.
MR. SHAVER: Okay.
MR. MCCREA: Management, the problem with
management, I told this to Clark too. Clark is a super good
guy and a very good pilot.
Clark, Carl and Marcus all had the same problem.
They're good talkers, they don't listen at all.
MR. SHAVER: Yes.

1 world to communicate with anyone. Because they already know everything so you can't tell them anything. It's just 2 3 all one-sided conversation. And I tried to explain that to both, actually 4 5 to both of them, and I think Marcus got it. I don't think, 6 you know. 7 Because this was after I had already, when I went back in to talk to Marcus. I'm not mad at him, I like 8 9 the guys. 10 MR. SHAVER: Yes. MR. MCCREA: They just need to understand that, 11 you know, part of management is not only talking but being 12 able to listen to somebody tell you something. 13 14 MR. SHAVER: Yes. MR. MCCREA: And those guys are very, very poor 15 You know, I don't know. At least in my opinion. 16 I don't know. It's the only job I've ever had since I was 17 22. 18 MR. SHAVER: Okay. 19 20 MR. MCCREA: So I don't have a lot to compare But it's not how I treat my people. 21 it with. 22 MR. SHAVER: Yes. MR. MCCREA: But anyways. But that place can 23 do it too. So I don't know if anyone talked to him or not. 24 And if they did, they might have just said, eh, whatever. 25

1	You know.
2	MR. SHAVER: I'm guessing it didn't do any
3	damage to it. I mean to the floats or anything.
4	MR. MCCREA: No. No. Apparently not.
5	MR. SHAVER: Hmm. Yes, when I saw that note in
6	his logbook I, you know, I mean, you know, I asked Shannon
7	about it, I asked Chuck about it. Yes, nobody said a word.
8	MR. MCCREA: Is that right?
9	MR. SHAVER: Yes.
10	MR. MCCREA: I'm sure that's what it is. Well
11	I know, you know, you talked with Chuck and I think the world
12	of Chuck.
13	MR. SHAVER: Yes.
14	MR. MCCREA: Chuck's afraid to say anything
15	because he's, it's just his personality.
16	MR. SHAVER: Yes.
17	MR. MCCREA: You know.
18	MR. SHAVER: No, yes.
19	MR. MCCREA: He doesn't want anybody in trouble
20	and he doesn't want to get up in trouble and doesn't, you
21	know, whatever. You know.
22	MR. SHAVER: Sure.
23	MR. MCCREA: But no, I'm sure that's exactly
24	what that was. When he, you know.
25	The other days, this goes back to Shannon. I

really, because I think he played a big factor in this. 1 We were in the Misty's one day and I come around, 2 3 have you ever even been out there? Do you kind of know where the cut is, where any of this stuff is? 4 MR. SHAVER: Yes, I've been out there. 5 MR. MCCREA: Okay. So we were coming over the 6 7 cut and, again, it was kind of a weird windy day and I came over the cut. And I picked up about a 1,000 foot a minute 8 downdraft in that. And wound up being, you know, pretty 9 much full power coming out the other side just to stay out 10 of the trees. 11 And so I got through there and I could hear the 12 other airplanes coming in. It wasn't that the visibility 13 was bad, you just had this huge downdraft. So I warned 14 those guys. I said, hey, there's a pretty severe downdraft 15 going over the cut. 16 Basically because, you know, I don't want 17 anybody going in there at 1,500 feet and hitting the ground. 18 MR. SHAVER: 19 Okay. 20 MR. MCCREA: And over the radio I hear Shannon in the Otter, he says, hey, I just went through there, it 21 was fine. You know, a little bit of a downdraft. 22 Well, you know, again, he had that arrogant, you 23 know. And just a couple minutes later I hear there on the 24

radio, I hear Rick come through there and say, hey, it's

25

T	over a 1,000 foot a minute downdraft, you guys shouldn't
2	go through there.
3	The problem is he's in an Otter. I mean he can
4	climb. He's got some options. And he's a lot higher.
5	You know.
6	So anyways. But he just had that cocky, you
7	know, I don't know. I'm not a big fan of Shannon either.
8	Sorry.
9	MR. SHAVER: Yes.
10	MR. MCCREA: I believe he was a huge, huge
11	factor in this. And I believe that's why he quit. I think
12	he knows that too.
13	MR. SHAVER: Shannon quit as well?
14	MR. MCCREA: Yes.
15	MR. SHAVER: Hmm, I didn't know that. When did
16	he quit?
17	MR. MCCREA: Yes. It wasn't long, a little
18	long after I did.
19	MR. SHAVER: Huh, I didn't know that.
20	MR. MCCREA: Yes. Yes. I think he carried,
21	and he should have carried a lot of guilt in this. Because
22	he's had a lot of responsibility in this.
23	MR. SHAVER: Yes.
24	MR. MCCREA: He called it clear when it wasn't
25	and Bryan was dumb enough to follow him in. You know. So

1	yes, so no, he hasn't been there for quite awhile.
2	MR. SHAVER: Interesting. Sorry, I'm just
3	kind of looking through some of my questions here.
4	So yes, kind of thought you were talking about,
5	you know, kind of the management style and kind of what they
6	do. I mean, was there pressure by those guys?
7	I mean, you know, whether it be Carl or Clark
8	or Marcus, you know, I mean like that day. You know, like,
9	I mean we had a couple people say that they had heard Marcus
10	kind of, you know, say hey, you guys need to take the short
11	route, you know, because we're running behind or something,
12	you know.
13	MR. MCCREA: Well that's kind of their I
14	don't know if he I don't know, because I wasn't standing
15	there. So I can't say that.
16	MR. SHAVER: Okay.
17	MR. MCCREA: I know that he was frustrated when
18	Chuck took the long route and he could see him on the screen.
19	MR. SHAVER: Okay.
20	MR. MCCREA: You know. Because I remember him
21	commenting, going on, come on Chuck. You know, like come
22	on, you couldn't have went the short route and you're taking
23	the long route.
24	And then as he got down towards Alva he did cut
25	the corner there and he did say, well, at least he cut the

1 corner there. 2 MR. SHAVER: Okay. MR. MCCREA: You know, that was further, 3 further down towards Alva. 4 5 MR. SHAVER: Yes. MR. MCCREA: You know, I view that a little 6 7 different. I mean Chuck's got thousands of hours and a lot 8 of years there. MR. SHAVER: Got you. 9 MR. MCCREA: So I think his judgments probably 10 a little better than some of the other guys. So he was 11 obviously smart enough to not go in there. 12 MR. SHAVER: Okay. 13 14 MR. MCCREA: Unfortunately Bryan didn't have that experience. Wasn't smart enough. 15 So as far as pressure goes, you know, I don't 16 During the period of time that I flew for them, the 17 18 only time I ever turned around, we went out in kind of a group, all the airplanes. And I know that Marcus was in 19 that and Clark was in that. 20 21 We went out and we turned around about Alva and 22 And actually the weather that day was better came back. than an awful lot of the weather I've flown in prior to that. 23 And we turned around and I followed them back. 24 That is the only time that I turned around flying for them. 25

1 And the rest of the time we pushed through. Just pushed 2 through the shit. 3 MR. SHAVER: Yes. MR. MCCREA: You know, because again, you know, 4 5 I still am, I don't know the area and I don't know the, I 6 don't know the mentality of that. I assume that's just how 7 it works in Alaska. Because I've never flown commercially in Alaska. So I assume that's the culture. 8 So it's like we push through, we push through, 9 10 you know. MR. SHAVER: Yes. 11 MR. MCCREA: And, you know, if all the other 12 planes make it and you don't, we're going to have a 13 conversation. And I have that in my mind. And I have the, 14 we fly clear of clouds. It's not 5 and 2, it's clear of 15 clouds. Because you have to bend the rules here. 16 And I have all that in mind because that's what 17 18 I've been told. And, you know. So anyways. So I don't recall Marcus saying, you will fly 19 20 in this. 21 MR. SHAVER: Right. MR. MCCREA: So he never said, why did you turn 22 Because I never did. The only time I every turned 23 around? around was the one time that they were all. 24 25 MR. SHAVER: Got you.

1	MR. MCCREA: So I can't really answer that.
2	MR. SHAVER: Yes. No, that's
3	MR. MCCREA: You know. I know that we went out
4	to waterfall and it was the waterfall turn that we had done.
5	And I remember thinking, you know, and you know what
6	waterfall is. It's just a fishing lodge.
7	MR. SHAVER: Yes.
8	MR. MCCREA: But it's apparently a big part of
9	that company. And I've got my people out and we're heading
10	out to waterfall and I hear Carl come over the radio
11	basically and just says, be careful, it's severe turbulence
12	in here. You know.
13	And I'm thinking, if we know it's severe
14	turbulence why are we flying the airplanes into it. You
15	know, I've got a guy that's flown up here his life and he's
16	telling me it's severe turbulence, it probably it is.
17	MR. SHAVER: Okay.
18	MR. MCCREA: You know. So I just told all the
19	guys, well, I, you know, tighten up your seatbelts, it ain't
20	going to be pretty. You know.
21	MR. SHAVER: Yes.
22	MR. MCCREA: But again, not good judgment.
23	Why would, you know, these guys are going up fishing. Do
24	we need to fly 60 airplanes in a severe turbulence?
25	MR. SHAVER: Yes.

1	MR. MCCREA: So anyways. So there is a lot of
2	difference between Taquan and Promech, I will tell you
3	that. They are entirely different companies.
4	Because I was going to go home. I just told
5	Don, I said, you know what, I'm done with this. I'm not,
6	you know
7	MR. SHAVER: Okay.
8	MR. MCCREA: I'm not in for this.
9	MR. SHAVER: And that was one of my questions.
10	You know, was what, you know, kind of what is the comparison
11	between the culture and risk management between the two,
12	you know.
13	MR. MCCREA: And the other side too, and they
14	do it, it's kind of dumb, but both companies does it a little
15	bit. Promech does it a lot more.
16	You have a lot of times the dispatcher, which
17	is Leah at Promech. And it can be a number of people over
18	at Taquan. Looking at the cameras and making the decisions
19	of go or not go.
20	MR. SHAVER: Okay.
21	MR. MCCREA: And that's silly to have somebody
22	that's never, ever, ever been there, making those calls.
23	And you can look at the cameras and you can go, all right,
24	well I can make out this shadowing of that landmark so
25	there's three miles or whatever the, you know what I mean?

ANC15MA041 Attachment 1 - Page 260 1 MR. SHAVER: Okay. So it's good to go. Well no it's 2 MR. MCCREA: 3 not. You have to be able to look at the whole picture. And Leah is not capable of doing that. 4 5 MR. SHAVER: Right. 6 MR. MCCREA: You know. It's a lot different to 7 look at the pictures sitting in the office than just sitting in the airplane. So that's a little bit of a flaw too. But 8 they both kind of do that. 9 The difference -- so anyway. So I was going to 10 go home. And I've been talking to Brent. Well, I don't 11 know if you know who Brent was. He flies there. He's, I 12 think he's 71 years old. 13 14 MR. SHAVER: Oh, yes. MR. MCCREA: Super nice guy. We became 15 friends. 16 MR. SHAVER: Yes. 17 18 MR. MCCREA: And he said, it's not like that, If you come down there you'll find it's not, 19 I promise you. 20 we don't do that. And I'm like, yes, uh-huh. 21 My wife was already working down there so I went 22 down and talked to Kevin. I thought that's fine, I'm 23 already here, I don't have to get my shit here.

24

25

But my plan was to leave. I've already made the

journey, I guess I'll give them a shot. But if it's, you

1 know, if it's the same thing, I'm leaving. You know, I'm not going to continue this, do this. 2 3 I actually honestly, many times thought, how do they not kill people everyday out here. Stupidity. 4 5 Because of this crap we were flying in. I just couldn't believe that, how can we not be 6 7 having accidents. And then of course it did happen. But anyways, the difference is, when I met --8 so I met Kevin. Kevin basically said, you know, I don't 9 care if you turn around, I'll never question that, ever. 10 But I will fire you if I find out you're pushing through 11 bad weather. You know. So don't do it. 12 So that was kind of his mentality. And Kevin 13 14 made an awful, awful lot of the calls. He cancelled a tremendous amount of flights. Which just surprised me. 15 The problem with Promech is a lot of times, if 16 you have an owner or somebody like that making those calls, 17 they're making them based on dollars, not based on what's 18 wise. 19 20 MR. SHAVER: Yes. MR. MCCREA: You know. And Kevin didn't 21 22 really seem to care that much about the dollars. He'd look at the weather cameras, look at this and look at that. And 23 if it was even questionable he'd be like, nah, we're 24

25

cancelling the round.

1 And it went from, when I was working for Promech, you know, if it was beating down rain at night and 2 3 stormy and crappy, I couldn't sleep at night. Because I knew in the morning I'd be flying in it. 4 5 MR. SHAVER: Yes. MR. MCCREA: When I went to work for Taquan, I 6 7 didn't care. Because I knew we weren't flying in it. 8 MR. SHAVER: Yes. MR. MCCREA: You know. You know, I was like I 9 know if we get in in the morning and it's crappy, we ain't 10 going. So I, you know, so it was just so much, it was so 11 much more peaceful to fly there. 12 The first day that I started there it was 13 14 crappy. And Jessie was there, and a couple of the other guys in the pilot's lounge, and it was about time to warm 15 the planes up for the first round and I said, well, I'm going 16 to go down and warm my plane up. And they said, well, we're 17 18 not going. And I said, well how do you know? And he says, I promise, we ain't going in this. 19 20 Well, we would have gone with Promech. There's 21 no question. So they hadn't technically cancelled the 22 flight, but I'm like, you sure I shouldn't go warm this up? And they're like, they would have a mutiny if they tried 23

to send us out in this. So I'm like all right. And he was

right. We didn't go. They cancelled the route.

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ANC15MA041 Attachment 1 - Page 263 1 MR. SHAVER: Okay. MR. MCCREA: So it took awhile to get used to 2 3 the fact that they did cancel rounds there. And they did, you know. You know. And they just didn't send you in 4 5 anything. 6 MR. SHAVER: Yes. 7 MR. MCCREA: So Kevin much better judgment in where he sent new guys and what he did and the weather we 8 9 flew in. I'm not saying there isn't times that I flew for 10 Taquan that, you know, you might leave, it's like anything 11 12 in Ketchikan. You might leave in pretty good weather and fight your way back. 13 14 MR. SHAVER: Yes. 15 MR. MCCREA: You know. And that happened, oh, two or three times. But I can live with that. Nobody can 16 control that. You know. 17 18 MR. SHAVER: Yes. MR. MCCREA: But when you leave in minimums, or 19 20 less than minimums, you know you're going to fight your way 21 back. It's going to be really bad. So there's a 22 difference. 23 MR. SHAVER: Yes.

MR. MCCREA: So I would fly for Taquan again.

I will never fly for Promech again. You know.

24

25

1 And we had several old Promech pilots that were And that was kind of always the joke, you know. 2 there. 3 You know, was, you know. Basically, you know, was kind of the shit they would fly in. 4 5 We'd see them on the screen too. Even when we 6 were sitting on the ground we'd watch them on the screen. 7 Say, what the Hell are they doing. 8 MR. SHAVER: Hmm. MR. MCCREA: You know, especially after the 9 You'd think, God, you'd have a little more 10 commonsense. You know. 11 And the waterfall deal, that was the other 12 reason I left. Was I didn't want to deal with the 13 14 waterfall. You know, there's no more cruise ships, because 15 those have all cancelled. So all I have to look forward 16 to is going to one of the shitiest places there is in world, 17 to try and get to in a small plane, in the weather. 18 MR. SHAVER: Yes. 19 20 MR. MCCREA: Doesn't have -- and now you're, you know, the pressure is really on. Those guys will do 21 22 anything to get the waterfall. There's no, you know, 5 and 2, there's no nothing. It's freaking get there. 23 24 MR. SHAVER: Right. 25 MR. MCCREA: You know. These people are

1 paying a lot of money, we got to get them there. Which is It's a hard area to get to. You know. 2 dumb. 3 MR. SHAVER: Yes. MR. MCCREA: Because of what you got to cross 4 5 to get there. And we saw them on the screen fighting their 6 way through it. 7 And I know that one of the kids, I can't remember his name, that flew for Carl in there, he wound up finally 8 giving up and he sat on the dock for like five hours over 9 there in Krueger somewhere. You know. 10 MR. SHAVER: 11 Hmm. MR. MCCREA: Said that's enough. A seasoned 12 quy, you know, he can't get through. And they're still 13 14 pushing through and picking around, you know. So they're not done. They're not done wrecking 15 airplanes. 16 MR. SHAVER: Yes. Do you know much about, you 17 know, kind of like the tour scheduling or like the 18 agreements with the cruise lines and stuff? 19 20 You know like, I mean do they have penalties if they get back late or, you know, anything like that? 21 22 MR. MCCREA: I don't think so. No. But what happened is, the reason -- what they do, and Taquan does 23 this too. If you can do these flights in an hour and a half, 24 because they used to be longer than that. 25

1	MR. SHAVER: Okay.
2	MR. MCCREA: Well not be longer, but they had
3	more time in between.
4	MR. SHAVER: Okay.
5	MR. MCCREA: The flight is basically an hour
6	and 15 minutes. And I will touch on that real quick,
7	because if I don't tell you I'll lose my train of thought.
8	One of the huge advantages that Taquan has over
9	Promech, they still do the same dumb flight, which is an
10	hour and 15 minutes. Promech wants you to fly the
11	airplane, the Beavers, at 28 and a half inches and 1,900
12	rpms.
13	MR. SHAVER: Okay.
14	MR. MCCREA: I don't know if they, like it's
15	going to last longer or if they feel like it burns less fuel.
16	I don't know why that set number. But that's their number.
17	At Taquan you run the airplane 30/20.
18	MR. SHAVER: Okay.
19	MR. MCCREA: So it doesn't seem like a big
20	difference, but it makes a huge, huge difference in the
21	climb of the airplane and in the way the airplane trims out
22	and goes forward. So it's faster.
23	MR. SHAVER: Okay.
24	MR. MCCREA: So it's faster and climbs faster
25	in cruise. And it may only look like a four or five minute

1 difference, but if you do that both ways it's eight or ten minutes and that's a big deal. 2 3 MR. SHAVER: Yes. MR. MCCREA: It makes that a much more doable 4 5 Because you have an hour and 15 minutes. And these turn. 6 things turn every hour and a half. 7 So you've only -- basically have 15 minutes, if 8 at all goes well, at best, to get your people off the plane, get them up the dock, get your other people, get them down 9 to the plane, get the plane, you know, the dock gets, have 10 to have the plan fueled and belt straightened out and turned 11 and ready to go. 12 13 MR. SHAVER: Yes. 14 MR. MCCREA: So it's super tight. But the reason they do that is they can get one more flight in the 15 day. By scheduling them that tight. And that's why they 16 do it. 17 18 So they can pick up -- and that's a big deal. I mean if you can get one more flight in and you got nine 19 20 or ten airplanes, you know. 21 MR. SHAVER: Yes. 22 MR. MCCREA: Those airplanes make about a \$1,000 and hour. So it's worth doing. You know. 23 24 MR. SHAVER: Oh yes. 25 MR. MCCREA: So that's why they do it. As far

1	as the only time the cruise ships get in a real, get real
2	pissy is when it's last call and you're late. Or all aboard
3	and you're late. Because now the ship is waiting.
4	MR. SHAVER: Right.
5	MR. MCCREA: And that's the rub. Is the ship
6	is now waiting for, you know, how many every people you
7	have. That you're late.
8	And that's why they always push the short route.
9	If it's at all possible, the short route saves you about
10	five minutes each way.
11	MR. SHAVER: Yes.
12	MR. MCCREA: So it goes back to that, you lose
13	ten minutes. Well, you only had 15 in there to start with,
14	you can't do it. And if you get behind then you screw up
15	the bus and the everything. The whole flow. So that's why
16	they push that
17	MR. SHAVER: Yes.
18	MR. MCCREA: short route. Taquan does not
19	push the short routes at all. At all.
20	MR. SHAVER: Do they have the same
21	MR. MCCREA: I
22	MR. SHAVER: Oh, sorry. Do they have the same
23	turn times, at Taquan? Is it
24	MR. MCCREA: Same turn times.
25	MR. SHAVER: Okay.

1	MR. MCCREA: Same turn times, but we can run the
2	airplanes at a higher power set.
3	MR. SHAVER: Okay.
4	MR. MCCREA: So they're faster.
5	MR. SHAVER: Got you.
6	MR. MCCREA: You know. And instead of
7	climbing at a 100 feet a minute maybe now they climb at 300
8	feet a minute. But it makes a big difference in the overall
9	time of what you're doing.
LO	MR. SHAVER: Okay.
L1	MR. MCCREA: So, like I said. You're only
L2	going to maybe save eight or ten or take up eight or ten
13	minutes running into that power saved, but eight or ten
L4	minutes is a gob of time when you only got 15 to start with.
L5	MR. SHAVER: Yes.
L 6	MR. MCCREA: So it's I know that Kevin
L7	doesn't want you in the short route unless, I believe it's
L8	four miles. And I don't know if it's 500 or 1,000 feet.
L 9	It's got to be pretty good for him to want you to go through
20	there.
21	MR. SHAVER: Yes.
22	MR. MCCREA: You know. When I first started
23	flying for Promech, if you could at all maneuver, dive
24	under, go around, push through the short route, that's what
25	you did.

1	When I started flying for Taquan, I would get
2	to Mountain Point. And if I couldn't just about see all
3	the way to Ella, you know, to Ella Narrows there or not to
4	Ella Narrows, but to the opening, Ella, South Ella, I
5	wouldn't go that way. Say, nay, it's too much work.
6	And that's what Kevin always said. If you got
7	to find this, you're working too hard at it. You shouldn't
8	be there. So then I just adopted a little different
9	philosophy of
10	MR. SHAVER: Right.
11	MR. MCCREA: if it doesn't look really good,
12	I don't go that way, I just go around to Alva. You know.
13	MR. SHAVER: Yes.
14	MR. MCCREA: Don't make it work. They had a
15	little bit of an advantage, also, in the fact that they're
16	doing schedules and they're doing mail. Because not every
17	airplane is on the same schedule. So if you got behind
18	somewhere, a lot of times fly to take the next route that
19	was already, just came back from mail or not.
20	MR. SHAVER: Okay.
21	MR. MCCREA: Or something. so they had a
22	little bit of a tool there to maneuver, you know, to move
23	schedules around and make it work. So they had an
24	advantage there where Promech didn't have.

MR. SHAVER: Got you.

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1	MR. MCCREA: If that makes sense?
2	MR. SHAVER: Yes, no. You know, like I kind of
3	keep kind of coming back to it. So did any of the
4	management at Promech ever kind of, I mean like, did any
5	of the managers try and use any commonsense I guess?
6	You know, like in, you know, I remember somebody
7	was saying that there was a previous chief pilot or
8	something, can't remember his name now
9	MR. MCCREA: Yes, Tony.
10	MR. SHAVER: that
11	MR. MCCREA: I didn't know Tony. He was prior
12	to me.
13	MR. SHAVER: Got you.
14	MR. MCCREA: The problem, and it's what I told
15	Clark that day. Clark was a big part of this problem too
16	because Clark's a really good pilot.
17	MR. SHAVER: Okay.
18	MR. MCCREA: And Clark knows this area. He's
19	lived up here and he'd one this and all that. And that's
20	what I told him. I said, what looks really good to you
21	doesn't look real good to somebody that's just got here from
22	the lower 48. You know.
23	MR. SHAVER: Yes.
24	MR. MCCREA: You know, and that's the problem.
25	What, 5 and 2 looks just fine to Clark. 5 and 2 to me is

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not that good, you know. It's workable, but it's not like

a nice, you know, easy, easy deal.

So he was a little bit, just because of his years

there, his abilities there, he assumes everybody else has

the same abilities. And they don't.

And Carl is the same way. Plus, Carl's a little bit of a, you know, whatever takes to get it down and I've got to be the fastest and the best and this and that. You know, that kind of competitive push through get-er-done attitude. You know.

So, you know. And Marcus is, you know, Marcus has got the same problem. Marcus is a very talented pilot. And has been out there a long time. In a second generation of doing this crap.

So yes, you have three very good pilots making decisions for a whole group of not very good pilots.

MR. SHAVER: Yes.

MR. MCCREA: You know. So I don't know if it's a lack of commonsense or if it's a lack of understanding that, you know. But, you know again, it's just lack of realizing that not everybody is as good at doing something as somebody who's done it their whole life.

MR. SHAVER: Okay. Oh, you know, I was thinking about this one other event. You know, so that first, on the day of the accident, that, you know, on the

1	first run.
2	MR. MCCREA: Right.
3	MR. SHAVER: Bryan went the short route that
4	day. At least coming back. I think he went the long way
5	going out, but coming back he did.
6	And he made, once he got to the dogleg, I think,
7	he made a, to me it looked like a, you know, I won't say
8	abrupt, but an odd kind of climbing 180 turnaround. Got
9	back over to the Thorne Arm and did like a descending 360
10	over Thorne Arm and then came out over Thorne, you know.
11	MR. MCCREA: Wow.
12	MR. SHAVER: Did you see any of that or did you
13	ever hear anything about that?
14	MR. MCCREA: No I didn't.
15	MR. SHAVER: Okay.
16	MR. MCCREA: No. No.
17	MR. SHAVER: And, you know, I mean when I
18	looked, when I look at it, you know, just from my
19	experience, you know, like I could see the turnaround. You
20	know, maybe if he hit some turbulence or something there
21	at the dogleg or something, you know. Or maybe if the
22	weather was going down or something, you know. But
23	MR. SHAVER: Yes. Well, or you're picking
24	through holes trying
25	MR SHAVER. VAS

1	MR. MCCREA: to find a way through the Swiss
2	cheese of that crap, you know.
3	MR. SHAVER: Yes. But the odd part was, you
4	know, after he made the 180, you know, that he did this
5	descending 360 degree turn over the water there of Thorne
6	to come back out, you know.
7	I mean when I look at it, that kind of makes me
8	say, oh, you're in the clouds, you know. And you're
9	MR. MCCREA: Yes. Or you're going to be in the
10	clouds in a minute. Yes. But it makes me say, you
11	shouldn't have been there.
12	MR. SHAVER: Yes.
13	MR. MCCREA: You know. But again, they do, you
14	know, again, he wants to be the same hotshot that Shannon
15	is.
16	MR. SHAVER: Yes.
17	MR. MCCREA: You got to remember that, you
18	know. He just doesn't have the skills. And, you know, and
19	I know there was you talked to Rick didn't you? Rick
20	Rikluytjes?
21	MR. SHAVER: I don't think.
22	MR. MCCREA: Okay. He flew. Well, he flew
23	for them. But I know that early on Rick was kind of
24	scheduled to be in, Rick didn't want to fly the Beaver.
25	MR. SHAVER: Okay.

1	MR. MCCREA: Rick wanted to fly the Otter. And
2	Rick's got, I don't know, 20 some thousand hours and an
3	awful lot of, you know, certainly a much more seasoned, much
4	more skillful guy than Bryan.
5	MR. SHAVER: Okay.
6	MR. MCCREA: But he kind of got I remember
7	early on he was following Bryan into somewhere and he wound
8	up turning around. And he said, the guy freaking went eye
9	afar. He went right into the clouds. He said I'm not
LO	going to do that. I turned around.
L1	And so I know that it got in kind of a bad spot
L2	with Clark. So from that point on him and Clark really
L3	didn't see eye to eye. Clark felt that he was not that good
L 4	of a pilot and he really couldn't read the weather and he
L5	couldn't do this and he couldn't do that.
L 6	So I believe he probably was, had spent a fair
L7	amount of time kind of pushing, you know, kind of dicking
L8	around going in and out of the clouds and stuff.
L 9	MR. SHAVER: Okay.
20	MR. MCCREA: But that would be something that
21	Rick could answer to a lot better than I could. But I
22	remember that, you know, he could explain how that all went
23	down better. But
24	MR. SHAVER: What was Rick's last name again?
25	MR. MCCREA: my point is. What?

T	MR. SHAVER: What was Rick's last name again?
2	MR. MCCREA: Rikluytjes. I'll spell it for
3	you because you'll never get the spelling right. I can
4	give you his phone number if you want.
5	MR. SHAVER: Oh, yes. Yes.
6	MR. MCCREA: Give me just a minute here to
7	figure out how to get there, on my phone here. Let's see,
8	Rick Rikluytjes.
9	Okay, Rick Rikluytjes. Area code 77
10	(inaudible)
11	MR. SHAVER: Sorry, say that one again.
12	MR. MCCREA: 57. Go ahead.
13	MR. SHAVER: Sorry, I broke up. I'm sorry.
14	MR. MCCREA: Okay. And it's
15	spelled, R-I-K-L-U-Y-T-J-E-S.
16	MR. SHAVER: Okay.
17	MR. MCCREA: So you might just touch he flew
18	for them. Now I don't know he flew that day or not, I can't
19	honestly remember.
20	MR. SHAVER: Yes. He didn't fly that day. We
21	talked to everybody who was at least flying.
22	MR. MCCREA: Okay.
23	MR. SHAVER: Except for you. That was flying
24	that day.
25	MR. MCCREA: But I believe he can tell you that

1	he had seen him fly into the eye afar, you know, in those
2	airplanes.
3	MR. SHAVER: Okay.
4	MR. MCCREA: So anyway. But again, that's,
5	you know, you'd have to get that from him.
6	MR. SHAVER: Yes.
7	MR. MCCREA: But no, when you tell me he's doing
8	that and he's doing these, you know, again, shouldn't have
9	been there. Obviously even that day.
LO	MR. SHAVER: Yes.
L1	MR. MCCREA: Even on the first run, you know.
L2	So I didn't do the short route on any of the flights that
13	day.
L4	MR. SHAVER: Yes.
L5	MR. MCCREA: I felt damn lucky to get back on
L 6	the second flight I did, which was the third turn.
L7	MR. SHAVER: Right.
L8	MR. MCCREA: Because it was that bad. You
L 9	know.
20	MR. SHAVER: Hmm.
21	MR. MCCREA: So, you know. Anyways.
22	MR. SHAVER: Let's see. You kind of talked a
23	little bit about kind of training stuff, you know, they have
24	down there. You know, like how
25	MR. MCCREA: Yes.

1	MR. SHAVER: you made some mentions about
2	how Carl made some comments in training about, you know
3	MR. MCCREA: Right. And I told Clark that.
4	And Clark's comment was, that guys a fucking idiot. You
5	know, he's a grown man in a 14-year-old body. Or I said,
6	well he's a 14-year-old man in a whatever.
7	MR. SHAVER: Yes.
8	MR. MCCREA: 14-year-old in a grown man's body.
9	MR. SHAVER: Right.
10	MR. MCCREA: Was what he said. So he didn't
11	so obviously that was not something that management brought
12	forward. That was on Carl.
13	MR. SHAVER: Okay.
14	MR. MCCREA: That was Carl's viewpoint, not
15	Clark's.
16	MR. SHAVER: Okay. What about
17	MR. MCCREA: Clark still felt like 5 and 2 was
18	a wonderful day and that we should all be happy to have it.
19	But I don't think that his feeling was we should be out there
20	in 200 feet and a half mile.
21	MR. SHAVER: Got you.
22	MR. MCCREA: And I don't think that he felt like
23	you should feel like, if the other planes make it and you
24	don't that we're going to have you in the office. I don't
25	think that came from Marcus or Clark. That came from Carl.

1	MR. SHAVER: Got you.
2	MR. MCCREA: Which is why I don't I won't be
3	involved with anything with Carl again.
4	MR. SHAVER: Okay. How about the rest of the
5	training? I mean was
6	MR. MCCREA: The rest of the training was, it
7	was fine. You know, you basically, you know, I can
8	probably tell you, no, I could tell you exactly how many
9	hours I did with them.
10	MR. SHAVER: Yes.
11	MR. MCCREA: Because I have it right here in my
12	logbook. You know, the training was kind of like it is for
13	everything. You basically go through all the books and,
14	you know, they have a little, you know, you write down how
15	much fluid does it hold and how many did this and how much
16	this and all that.
17	You know, the stuff you'd expect from learning
18	any new airplane. And then you went out and did some flight
19	training with them.
20	MR. SHAVER: Okay.
21	MR. MCCREA: Let's see. So I did 1.9, 1.4 and
22	1.3. So whatever that adds up to.
23	MR. SHAVER: Okay.
24	MR. MCCREA: And then I did a 1.7 check right
25	with Carl.

1 MR. SHAVER: Got you. MR. MCCREA: What about like the inadvertent 2 3 IMC, I mean like Q-base training and stuff like that? mean was that --4 5 MR. MCCREA: Well the, we did -- in amongst the 6 training I have, you know, the different various landing 7 steep turns. And then we would do the, basically the cease 8 fit maneuver. 9

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Which was, you know, where you fly up a canyon and, you know, you'd have the foggles on and you'd have to be able to turn the plane and get back to the water and descend over the water and set up for a glassy water landing type thing.

MR. SHAVER: Right.

MR. MCCREA: So we did do that. And the other thing too, that I'd be curious to know, would, you know, Bryan obviously had an instrument in commercial rating. I never looked in his logbooks. I doubt that he ever flew in the IFR time.

MR. SHAVER: Okay.

MR. MCCREA: You know. That would be my -- so to be in there pushing that weather, if you don't have some pretty good skills, you're not going to get yourself out of this deal.

MR. SHAVER: Yes.

1	MR. MCCREA: You're just not. There are a few,
2	you know, you just or you just got to avoid it entirely.
3	MR. SHAVER: Yes.
4	MR. MCCREA: So anyways. Whatever. But so,
5	as far as that goes, so that's what we did.
6	On the two practice deals that I did with Clark,
7	I would say we did that maneuver four times. Twice each
8	day.
9	MR. SHAVER: Okay. The CFIT maneuver?
10	MR. MCCREA: The CFIT maneuver.
11	MR. SHAVER: Okay.
12	MR. MCCREA: And the rest of it was basically,
13	you know, your other kind of basic air work in the airplane.
14	MR. SHAVER: Okay.
15	MR. MCCREA: Which should be just your steep
16	turns and blah, blah, blah. Whatever. Landings and
17	glassy water landings and this and that to the other. And
18	I think that's fine. There's, you know.
19	MR. SHAVER: Okay. One of the other things
20	that I have mentioned, I think to you before, is that, you
21	know, we've been looking a lot at the Chelton stuff.
22	MR. MCCREA: Yes.
23	MR. SHAVER: Got any thoughts? You know, I got
24	a couple specific questions, but I kind of just wanted to
25	hear your thoughts about it first maybe. I don't know.

1	MR. MCCREA: I can tell you a couple thoughts
2	I have on it.
3	MR. SHAVER: Okay.
4	MR. MCCREA: I think on a bright, clear, sunny
5	day it's a great piece of equipment. Any other time it's
6	pretty useless.
7	It shows you over things that you're not. Like
8	when I fly through the Misty's I could look down at the
9	Chelton and a lot of times it would show me over the, I'd
LO	be right in the middle of a channel and it would show me
L1	over the terrain. Over the dirt.
L2	So it was very inaccurate that way. So I don't
L3	feel like it was actually a tool that if you really, really
L 4	got your back against the wall it was going to get you out
L5	of anywhere.
L 6	MR. SHAVER: Hmm.
L7	MR. MCCREA: The other thing I don't like about
L8	it is, the terrain feature on it is awful. It does a couple
L 9	of things that I don't like.
20	If you're down low, it paints everything it
21	covers up all the terrain with the color it paints things.
22	MR. SHAVER: Yes.
23	MR. MCCREA: I don't like that. So then that
24	doesn't help you at all. The other thing that it does is
25	you can't move like if you fly like, I don't know how

1	much stuff you've flown, if you've flied like G1000 or a
2	G600
3	MR. SHAVER: Okay.
4	MR. MCCREA: the terrain is depicted on the
5	entire map. It doesn't wait for you to get, for you to
6	stick the nose of the airplane to it to show you that it's
7	higher than you.
8	MR. SHAVER: Right.
9	MR. MCCREA: You can see what's higher than
10	you, but no color is shaded on the map. Does that make
11	sense?
12	MR. SHAVER: Yes. Yes.
13	MR. MCCREA: So you can look and go, oh, well
14	all right, I can get out this way. The terrain is going
15	lower this way.
16	And you can move the map, you know, you can move
17	the map infinitely. So you can move the map a hundred
18	rounds ahead of you if you want.
19	MR. SHAVER: Okay.
20	MR. MCCREA: All you have with the Chelton is
21	what's shown on the map. You can't slide that map forward.
22	You know. If that makes sense. Does that make sense?
23	MR. SHAVER: Yes. Totally.
24	MR. MCCREA: So between that and the fact that
25	it doesn't really show you the terrain until you get to it,

T	it's very unnelpiul as far as terrain avoidance goes. Now
2	I understand it's old technology and old equipment and you
3	get what you get, but
4	MR. SHAVER: Yes.
5	MR. MCCREA: maybe you shouldn't be basing
6	your, you know, you shouldn't be basing everything on that
7	anyways.
8	MR. SHAVER: Yes.
9	MR. MCCREA: You know, you're supposed to be
10	not doing that.
11	The other thing that it did, and it really, when
12	I very first started flying there, it really we were
13	down, we were flying and the thing that happened to me, and
14	it took me awhile and it had to happen a couple more times
15	before I figured it out, and it was actually a shitty day.
16	We were going we were across what's called sea level.
17	MR. SHAVER: Okay.
18	MR. MCCREA: Well it was, I don't know if you
19	know where that is.
20	MR. SHAVER: Yes, I know where it's at.
21	MR. MCCREA: Okay. Not the short route but
22	it's shorter than going all the way around Alva.
23	MR. SHAVER: Yes.
24	MR. MCCREA: And I thought, it looks like I can
25	get through there. And I poked my nose in there, and again,

1	I was pretty green at the time, you know. And I kept going
2	and going and going and I thought, nope, this
3	ain't going to work. And I wound up making a real hard turn
4	to the right and coming back out on my course.
5	And when I did that it can be pretty
6	disorienting. So I and what the map had done, I don't
7	really even know how you would explain it. But it's almost
8	like the, whatever slaves the map, had lost its mind.
9	Because it was showing me going the wrong direction.
LO	Because I thought, as soon as I get back to the
L1	shoreline I make a right. But it wasn't showing that. It
L2	was showing me going an entirely wrong direction.
13	So it was confusing as hell trying to figure
L 4	out, already, my heading should be about this and trying
L5	to look at the compass. And of course you're down at a
L 6	couple hundred feet and it's, you know, you can't see
L7	anything. And it took it awhile.
L8	And I kept hitting direct and enter. You know,
L 9	direct to Ketchikan, enter, just to try to get a reference
20	to get, you know, to get reoriented.
21	MR. SHAVER: Hmm.
22	MR. MCCREA: And it kept drawing a real weird
23	circular magenta line. Like a 180 back around.

Well, what had happened on this thing, and I've

seen it several times after that is, is this thing will be

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1	showing you sometimes 60 or 80 degrees off of what your
2	heading really is. It's like a slaving gyro or whatever
3	turns it doesn't do that.
4	MR. SHAVER: Hmm.
5	MR. MCCREA: And I actually took pictures of it
6	doing that.
7	MR. SHAVER: Hmm.
8	MR. MCCREA: Because I brought it to their
9	attention. I said, I don't know what causes this, but it's
10	extremely disorienting when that happens. Because you,
11	you know, if you turn the map 60 or 80 degrees the wrong
12	direction, from what you should be flying, it was very
13	disorienting.
14	MR. SHAVER: Yes.
15	MR. MCCREA: And it does that. And it does it
16	several times.
17	And it actually did it in more than one
18	airplane. So I took pictures of it in more than one
19	airplane.
20	MR. SHAVER: I'll be darn.
21	MR. MCCREA: To try to explain that to whoever.
22	MR. SHAVER: You still have those pictures?
23	MR. MCCREA: I do. And I'm actually was just
24	looking. And I do still have them.
25	MR. SHAVER: Oh man, I'd like to see that.

1	MR. MCCREA: And I can forward them to you.
2	MR. SHAVER: Yes, I'd love to see that.
3	Because that's
4	MR. MCCREA: A couple of them I actually took,
5	I took these on crystal clear days where I could point the
6	airplane directly at where I was heading and show them, all
7	right, I know I'm right here where it shows I am
8	MR. SHAVER: Okay.
9	MR. MCCREA: and I'm pointed directly at
10	Mountain Point. I can see it. I'm directly on line and
11	it's showing me that I need to turn the airplane like 60
12	degrees the other way to go to Mountain Point.
13	MR. SHAVER: Right.
14	MR. MCCREA: So that's the other thing. And
15	now that very same day, which I thought was kind of odd,
16	so I got back and somehow I beat Chuck back. Chuck got into
17	IMC and Chuck wound up climbing up 2,000 feet in solid IMC.
18	Because the Chelton had lost its mind. And he couldn't get
19	it to, you know, so he was also confused and turned around.
20	MR. SHAVER: Yes. The same day that you were
21	going
22	MR. MCCREA: On that very same day.
23	MR. SHAVER: over sea level or
24	MR. MCCREA: The same day I was going over sea
25	level, he went around Alva. I got back first and I'm

1 standing in the office. And I can tell he's worried because they're trying to talk to him and finally just said, 2 3 you know, I got a situation here, just basically shut up. I got to work through this. 4 5 And he was up around 2,000 in the craft. To try 6 to get the Chelton to do what he wanted. To get it to 7 reorient. And he did finally get it. And then he went descending back down over the water and breaking out, 8 getting back. 9 MR. SHAVER: Huh. Now would it --10 MR. MCCREA: He probably didn't tell you that 11 though, huh? 12 No. Now would it also -- now you 13 MR. SHAVER: 14 said that you kind of were making a tight turn, you know, like coming back. Would it only do that when you were 15 making a tight turn or --16 MR. MCCREA: No, there's -- no. Because 17 18 sometimes I could be flying straight and level and I've look down and I'd be like, what the hell. I can see where I'm 19 20 going and it's telling me to go a different direction. So it, yes. It wasn't -- because, yes, that's 21 a good question. It didn't like tumble a gyro or something 22 making a hard turn. 23 24 MR. SHAVER: Hmm.

MR. MCCREA: It could be in straight and level

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1 flight and do it. And I didn't take, you know, it happened multiple times, but I only took a couple of pictures. 2 I was looking to see if I had, because I had them 3 from Taquan and I had them from Promech. I had them for 4 5 both -- both airplanes did it. MR. SHAVER: Hmm. 6 7 MR. MCCREA: So I was looking to see, I may only have the one set. But what's odd about it too, like when 8 I look at the display, like I'm looking at this one here, 9 okay, this is the one in 2 Alpha, no -- yes this is 2 Alpha 10 Kilo. Because I think that 2 Alpha Kilo is the only one 11 that had Chelton stuff. And that was my bird. 12 I'll send you this. What's interesting about 13 14 this picture, this was taken on a really nice day. Like I said, with the airplane pointed direct at Mountain Point. 15 And it shows me probably about 70 degrees going the either 16 17 way. 18 But if you look at the, up in the left window, it will show your wind, 355 degrees at 110 knots with an 19 20 89 knot crosswind. Okay. So something happens. And obviously we didn't 21 have a 110 knot wind with an 89 knot crosswind component. 22 23 MR. SHAVER: Yes. 24 MR. MCCREA: But you'll see that in this 25 picture. So something gets confused in this thing. Does

1	that make sense?
2	MR. SHAVER: Yes.
3	MR. MCCREA: You know, we might have had a 20
4	knot wind, but it's showing that I have a 355 degree wind
5	at 110 knots. Okay. And it almost would always do that.
6	So if the display was disoriented, the winds were goofy.
7	MR. SHAVER: Hmm.
8	MR. MCCREA: And again, on a clear day, it's
9	perfect equipment.
10	MR. SHAVER: Yes.
11	MR. MCCREA: On a shitty day, and it does that,
12	and it did it to me once, I wound up just holding a compass
13	heading thinking, you know, shit, I'll eventually just go
14	out to sea. But I know that I can't turn this way, it's
15	the wrong compass direction. So it just was very, very
16	confusing. You know.
17	MR. SHAVER: Yes. I'll be darn.
18	MR. MCCREA: For what should have been a fairly
19	simple 180, find the shoreline and go around Alva.
20	MR. SHAVER: Hmm.
21	MR. MCCREA: It turned in to a whole deal. And
22	that was the very same day that Chuck got into IMC and
23	climbed up.
24	MR. SHAVER: Interesting. Huh.
25	MR MCCREA: Anyways But I'll give you this

1 if you give me somewhere to send it. But when you look at this screen, I snapped a 2 3 line on the screen, which is the magenta line, that shows Mountain Point. 4 5 MR. SHAVER: Okay. MR. MCCREA: And my starting point. And then 6 7 you'll see the airplane. I'm tracking that line direct on pointing, the 8 nose pointed direct at Mountain Point. And you'll see the 9 airplanes turned to the right on the picture. It's 10 depicted to the right. Like I'm going across the magenta 11 And I'm not. I'm right on it. And then you'll also 12 line. see the wind and the crosswind component and all that. 13 14 So give me somewhere to send it to you and I'll send it to you. 15 MR. SHAVER: So email? Good? 16 MR. MCCREA: I can email it. 17 18 MR. SHAVER: Yes. So it's chris, C-H-R-I-S, .shaver, S-H-A-V-E-R, @ntsb.gov. 19 20 MR. MCCREA: Okay. All right, I'll fire that out to you here when we're done. 21 22 MR. SHAVER: Okay, cool. Thank you. MR. MCCREA: And if you have any questions 23 about this picture, if you have any -- we'll actually I can 24 send it to, I probably can send it to you right now. Let 25

me forward it and see if you get it. 1 All right, Chris. It's chris.shaver, right? 2 MR. SHAVER: Yes. 3 (Off record comments.) 4 5 MR. MCCREA: Okay, it shows that it sent. So 6 let me know if you get that. And I'll do some searching 7 on my phone. Because I have, I have more than just that 8 picture of it. MR. SHAVER: Okay. 9 10 MR. MCCREA: Because it happened more than once. And, you know, you try to tell somebody what it's 11 doing, it's easier just to snap a picture of it. 12 13 MR. SHAVER: Yes. 14 MR. MCCREA: But I may have, I may have erased them. But I saw it more than once. It wasn't a -- oh, here 15 we go. I do have the other ones. Ah, that one's blurrier 16 than shit. That was the problem with that one. 17 MR. SHAVER: 18 Hmm. MR. MCCREA: And that's a little bit -- this is 19 20 kind of the same exact thing here. I'll send you this one 21 too. Boy, it's relay hard to -- I'll send you this 22 one. Well, you'll see -- again, this one is a little bit 23 blurry and hard to see, but you'll see that the wind in this 24 25 shows 282 degrees at 209 knots. Okay.

ANC15MA041 Attachment 1 - Page 293 1 MR. SHAVER: Okay. So it's the same thing. Whenever 2 MR. MCCREA: 3 the wind gets screwed up in it somehow it -- and this is a totally different airplane. That I'll send you this one. 4 5 MR. SHAVER: Okay. MR. MCCREA: And this one unfortunately is a 6 7 little bit blurry. But you'll still be able to see it. So I'll mail you that one too. 8 And I'll send you one more. This was actually 9 the same airplane on the same day. This one's showing --10 11 this one, again, I'm going directly straight down the And we can go over these if you want. 12 channel. MR. SHAVER: Okay. 13 14 MR. MCCREA: If you have any interests. MR. SHAVER: Yes. 15 MR. MCCREA: And it shows the airplane turned 16 completely the wrong direction. And again, you have this 17 86 knot wind, 80 knot crosswind deal. 18 So this is a -- so let me forward you this one 19 20 here too. All right, mail, Chris. All right, well that's 21 -- you now have, I believe, all the pictures of that that 22 I still have. 23 MR. SHAVER: Cool. Yes, I'm looking at the

MR. MCCREA: So you have it? It came through?

24

25

first one that you sent.

1	MR. SHAVER: Yes. Yes.
2	MR. MCCREA: Okay. So you can see
3	MR. SHAVER: So
4	MR. MCCREA: So in that picture, let me get back
5	to here, it let me find it really quick here. Sorry,
6	I got about a million pictures on my phone. Okay, is that
7	the one showing the 110 knots?
8	MR. SHAVER: Yes.
9	MR. MCCREA: The 365 at 110?
10	MR. SHAVER: Yes.
11	MR. MCCREA: Yes. Okay.
12	MR. SHAVER: So
13	MR. MCCREA: That airplane was pointed
14	MR. SHAVER: Now, you were headed toward
15	Mountain Point right there?
16	MR. MCCREA: Directly, directly 100 percent
17	towards Mountain Point.
18	MR. SHAVER: Hmm.
19	MR. MCCREA: And you can see which way it shows
20	the airplane flying. So that means you had a pretty good
21	if you look at the degrees, that that compass is turned.
22	MR. SHAVER: Yes. I'll be darned.
23	MR. MCCREA: So, and like I said, I've seen that
24	in multiple airplanes. So it isn't unique to this. The
25	picture that you're looking at right there was 2 Alpha Kilo.

1	Which was Promech's airplane.
2	MR. SHAVER: Hmm.
3	MR. MCCREA: And that was taken June 23rd.
4	MR. SHAVER: I'll be darn.
5	MR. MCCREA: So I've seen it, so it isn't unique
6	to just that airplane because I saw it in the other airplane
7	too.
8	MR. SHAVER: Interesting. Yes, that is
9	interesting. And you hadn't dealt, like so on that one
LO	that you took that picture, like, I mean
L1	MR. MCCREA: What's that now? Say that again.
L2	MR. SHAVER: So on this one where we're looking
13	at, on that flight, like, I mean, you just looked down and
L 4	that's what it was doing?
L5	MR. MCCREA: That's what it was doing. And I
L 6	just thought, well, this is kind of fucked up. So I snapped
L7	a picture of it.
L8	MR. SHAVER: Huh.
L 9	MR. MCCREA: Because it had screwed me before
20	in bad weather. And I couldn't explain, I couldn't get an
21	answer as to what had happened. Why was it, you know what
22	I mean.
23	And again, I was new to the equipment and new
24	to the deal but I still know, you know, you should be heading
25	West not East if you're going to go back a certain

1 direction. But it was very confusing. And I couldn't 2 figure it out. And when I saw this I thought, ah-ha, now 3 I see where the rub is. 4 5 MR. SHAVER: Huh. MR. MCCREA: You know. But I would -- I don't 6 7 know how much detail you guys retrieved out of Bryan's plane. I don't know if you can determine --8 MR. SHAVER: Well --9 10 MR. MCCREA: -- you know. Was he on the heading that it showed it being on? 11 MR. SHAVER: You know, so basically he -- I'm 12 trying to see if you can correlate it. 13 14 MR. MCCREA: See I'm flying at --MR. SHAVER: He got into, he went into --15 MR. MCCREA: -- degree heading there. 16 MR. SHAVER: Yes. He went into a --17 18 MR. MCCREA: And it's showing about a 280. MR. SHAVER: What he did, you know, he 19 20 basically, he went in, he went in to Ella, was flying just 21 about down the middle of the lake and then he just started 22 a, and he just made a gentle right turn. Yes, it was right into the mountain. 23 Now, I mean this part is interesting because, 24 you know, like I don't know if like that was something that 25

1	could have happened. If it just like all of a sudden jumps
2	and it's off or if that's something that like, it's almost
3	like if it's precessing or something you know.
4	MR. MCCREA: No, it's not like a precess.
5	MR. SHAVER: Okay.
6	MR. MCCREA: It's rapid.
7	MR. SHAVER: Okay.
8	MR. MCCREA: And it will jump around.
9	MR. SHAVER: Hmm.
10	MR. MCCREA: Sometimes it won't, but sometimes
11	it will. The second pictures I took, actually I can look
12	at those and give you a timestamp on those too. I believe
13	those were on the very same flight and within very close
14	times to each other.
15	So that was August 8th at 2:54. Okay, so if you
16	look at that, okay, so it would be the blurrier picture
17	MR. SHAVER: Okay.
18	MR. MCCREA: was August 8th at 2:54.
19	MR. SHAVER: Okay.
20	MR. MCCREA: Okay, so that one happened first.
21	I think I sent it to you out of order.
22	MR. SHAVER: Yes.
23	MR. MCCREA: And it's showing 209 knots at 282
24	degrees of wind. The next picture was taken at 2:58.
25	MR. SHAVER: Yes.
	1

1 So it was four minutes later, but MR. MCCREA: you can see that it's only 86 knots there. 2 Weird. 3 MR. SHAVER: Hmm. MR. MCCREA: So it would happen, it would kind 4 5 of jump around fairly sporadic. So it wasn't like a slow overtime precession. 6 7 But I, again, if you can actually see outside the airplane and you're in decent weather, that's, you 8 know, it's a VFR airplane. 9 MR. SHAVER: Yes. 10 MR. MCCREA: You know. The problem with the 11 Chelton is it's not reliable. And it doesn't show terrain 12 well. You can't move the map. It doesn't show the terrain 13 14 until you're to it. MR. SHAVER: Right. 15 MR. MCCREA: The other problem with it is, is 16 it gives you the ability to think that you can push though 17 something because you have more equipment. 18 MR. SHAVER: Okay. 19 MR. MCCREA: You have another tool to be able 20 21 to push through a little bit shitier weather than you would 22 if you didn't have that. If you just had a directional gyro and an attitude indicator, you know, you might not venture 23 24 in quite as easily. 25 MR. SHAVER: Yes.

1	MR. MCCREA: As you do when you have this. But
2	it's not really a very good tool.
3	So as far as what I think of the Chelton, I think
4	in a Beaver on good sunny day it's a great piece of
5	equipment. But
6	MR. SHAVER: Hmm. Interesting. Have you
7	ever had any issues
8	MR. MCCREA: It's not a reliable piece of
9	MR. SHAVER: so one of the things that we've
10	heard that it will do like, and I don't know
11	MR. MCCREA: Is go black?
12	MR. SHAVER: No. It was with like that
13	automatic altimeter settings. And I don't know if this
14	was, maybe you can tell me if, you know, if it was a fairly
15	common thing for you guys to take off before it initiated?
16	MR. MCCREA: On a good day, absolutely.
17	MR. SHAVER: Okay.
18	MR. MCCREA: I mean if it was a sunny clear day,
19	I don't even care if it's on.
20	MR. SHAVER: Yes.
21	MR. MCCREA: You know. I mean you would turn
22	it on, but yes. Yes. And the problem with it is it takes
23	it awhile to come up.
24	MR. SHAVER: Right.
25	MR. MCCREA: And it doesn't just happen real
l l	1

1	quick. And I think its backup battery is supposed to help
2	it come up faster, but it doesn't work that good. Or maybe
3	they don't change the batteries or who knows. I don't
4	know.
5	I'll tell you the other anyways, so back to
6	that. But what the when I worked for Taquan, which was
7	really, really nice, the dock kids knew, they were pretty
8	on their game. They knew what flights were going, who was
9	going and they would get the planes fueled and they would
. 0	always reach in and flip those things on.
.1	MR. SHAVER: Right.
.2	MR. MCCREA: So before I even got my passengers
.3	down to the dock it was already spun up. So that was
. 4	definitely helpful.
.5	It does lose, it does often times lose its
. 6	ability to have synthetic vision.
.7	MR. SHAVER: Okay.
.8	MR. MCCREA: That happens all the time.
.9	That's not uncommon. You'll hear the beep and you'll look
20	down and then you basically have an attitude indicator.
21	MR. SHAVER: Got you.
22	MR. MCCREA: And nothing else. And that's
23	real common. So I say, it's not reliable enough to
24	actually use it for anything other than whatever.
25	MR. SHAVER: Okay.

1	MR. MCCREA: It's just not.
2	MR. SHAVER: One of the things that we had heard
3	was that sometimes, you know, if you take off without it
4	being initiated, and again, on a good day it doesn't matter.
5	But once it finally aligned itself, that there's a it
6	basically, I guess, it searches for the nearest terrain or
7	the nearest airport and sets itself to that altitude.
8	So it will set the altimeter automatically to,
9	you know, if you're leaving out of the Misty's, it would
10	set its altimeter to Ketchikan's. To show whatever, you
11	know, the airport elevation at Ketchikan was. Even if you
12	were at 400 feet, the altimeter would end up setting down
13	to 30 feet or something, you know.
14	MR. MCCREA: Oh. You know, honestly I like the
15	big old fashion altimeters. I never set the altimeter in
16	it once.
17	MR. SHAVER: Okay.
18	MR. MCCREA: Because the setting, you have to
19	have the barometric pressure.
20	MR. SHAVER: Right.
21	MR. MCCREA: And you don't most the time have
22	that.
23	MR. SHAVER: Yes.
24	MR. MCCREA: But if I'm sitting in the Misty's
25	on the water, I know it's zero.

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	ANC15MA041 Attachment 1 - Page 303
1	avoid having to do specials because that would become a
2	monster to have 20 airplanes inbound that all need specials
3	that are now holding in shitty weather. So they but
4	there's times I'll look out the window and I can't even
5	freaking see Ketchikan and they'll be calling in five
6	miles. Because they're looking the other direction.
7	MR. SHAVER: Yes.
8	MR. MCCREA: In the mountain that has nothing
9	to do with where we're at. It's just very, very
10	inaccurate.
11	Anyways. So you do have that also working
12	against you.
13	MR. SHAVER: Interesting.
14	MR. MCCREA: And I don't know the answer to
15	that.
16	MR. SHAVER: Yes.
17	MR. MCCREA: I understand why they do it, but
18	it's, you know.
19	MR. SHAVER: Yes.
20	MR. MCCREA: But it's not a good situation
21	either. Anyways, there is that.
22	MR. SHAVER: Yes. Interesting.
23	MR. MCCREA: And if you're coming from a long
24	ways away, because I've had this happen, if you're coming
25	from Prince Rupert and you're in a wheel plane and you're

1	cruising along on a vacation and you think, well shit, I
2	get to Ketchikan, it's five miles and it's 1,200 feet,
3	you're actually expecting it to be that.
4	MR. SHAVER: Right.
5	MR. MCCREA: And it's not. You know, you get
6	there and it's substantially worse than that. Because
7	they're looking out the window at the mountain, which they
8	can't look at the direction that, where the airplanes are,
9	they're looking where the airplanes aren't. Because of
LO	the way the buildings oriented.
L1	That doesn't make any sense. But that's a
L2	whole different, that's not what caused this. But that's
L3	a whole different thing.
L4	MR. SHAVER: Yes. Hmm, interesting. Man,
L5	what have I missed? I'm thinking.
L 6	MR. MCCREA: I don't know what you mean. What
L7	about it?
L8	(Laughter.)
L 9	MR. SHAVER: Oh, I mean, looking through most
20	of the things that I have written down that I wanted to talk
21	to you about I've kind of checked off.
22	MR. MCCREA: Okay.
23	MR. SHAVER: And I'm like, I don't know man.
24	Like the last thing, one of the things that I generally try
25	and say is, is there something that we're not asking, that
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1	we're not looking at that you think is relevant or, you
2	know?
3	MR. MCCREA: Yes, I can't I don't have
4	anything else. I mean, you know, I don't have anything
5	else.
6	Obviously, I mean you guys know the faults with
7	the Otter. Bryan was, wanted to fly that thing so bad and
8	I told them that they wouldn't drag me into that airplane
9	kicking and screaming. Because you can't see out of the
10	front of it.
11	MR. SHAVER: Yes.
12	MR. MCCREA: In rain.
13	MR. SHAVER: Yes.
14	MR. MCCREA: It doesn't clear the windshield.
15	MR. SHAVER: Right.
16	MR. MCCREA: Because of the way but
17	everybody that's every flown one knows that.
18	MR. SHAVER: Yes.
19	MR. MCCREA: But that doesn't help either, in
20	bad weather, if you're low time. And now you're in an
21	airplane that's faster and you can't see out of it. So
22	whatever.
23	But you already know that too. So. I mean
24	there's just an awful lot of contributing things that
25	happened.

ANC15MA041 Attachment 1 - Page 306 1 MR. SHAVER: Yes. MR. MCCREA: But, you know. It's like every 2 3 accident. It was the chain of events that never got broken. And that's how that always happens, you know. 4 5 MR. SHAVER: No. Yes. I mean it's, you know. It's always tough to look at it afterwards and kind of see 6 7 the chain, you know. But. 8 MR. MCCREA: Yes, I agree. Yes. He was the wrong guy in the wrong plane on the wrong day. You know. 9 And it should have never happened. You know. 10 MR. SHAVER: Yes, for sure. Well, man, I 11 really appreciate it. And I appreciate your candor and, 12 13 I mean that's often times what I really need, you know. 14 you know. Is just kind of trying to figure out some of the, 15 you know, I don't need, you know. Like you were saying 16 before, I don't need it fluffed up or calmed down. You 17 18 know, just straight talk is great times, you know. MR. MCCREA: Yes. 19 20 MR. SHAVER: But no, I do appreciate it. Ι appreciate you taking the time. I know --21 22 MR. MCCREA: Oh, no, I'm glad you called. felt kind of bad, you know. 23

MR. SHAVER: Yes.

MR. MCCREA: I thought, well, whatever.

24

25

1 figured you guys didn't want to hear from me. MR. SHAVER: No, we want to hear from everybody 2 3 we can get to. You know, it just ended up happening, you know, while we were down there, while we were in Ketchikan, 4 5 you know, a couple of our team members couldn't get to Ketchikan so it was just me and one other guy down there. 6 7 And then we got as much down as we could. And then right after that we had the Juneau accident with Wings 8 happened. And then so I went to that, I was on that one 9 as well and it just, you know, man, it's like --10 MR. MCCREA: Yes. 11 MR. SHAVER: And then it just kind of, you know, 12 when you do about 50 interviews for each accident, it's hard 13 14 to get them all. MR. MCCREA: Oh no, I understand. 15 MR. SHAVER: Yes. 16 MR. MCCREA: I understand. I my feeling was, 17 well, I didn't do that round so it, you know, it doesn't, 18 you know, I just probably figured it wasn't relative or 19 20 relevant to what had happened. 21 MR. SHAVER: Yes. MR. MCCREA: Which is all fine. But anyways. 22 MR. SHAVER: Yes. But you know, like a lot of 23 it is background. And a lot of stuff like that is sometimes 24 25 more important for us, you know.

1	MR. MCCREA: Yes.
2	MR. SHAVER: Kind of get the ideas of what's
3	going on. So no, this is great. Really good.
4	MR. MCCREA: Okay. All right.
5	MR. SHAVER: If you do ever happen to come
6	across those notes that you wrote down
7	MR. MCCREA: Yes, you know, I didn't even
8	bother to look for them until this morning because I knew
9	that that was them. I checked in my logbook, that was
10	actually a different thing that I had written down.
11	MR. SHAVER: Yes.
12	MR. MCCREA: And it wasn't them at all. I will
13	run across them. I don't know if there's anything else in
14	there that I haven't told you.
15	MR. SHAVER: Yes.
16	MR. MCCREA: You know. I mean it definitely,
17	you know, I did tell Marcus that morning that the weather
18	was crappy. And again, if you're a good listener you would
19	have said, well, define crappy.
20	Or, you know, it's less than minimum, should we
21	not launch. You know, something.
22	MR. SHAVER: Yes.
23	MR. MCCREA: Don't just tell me that that's how
24	it is in Ketchikan for months on end.
25	MR. SHAVER: Yes.

1	MR. MCCREA: So, and stuff like that. But, you
2	know, and that was the stuff I had written down. It
3	basically my thoughts. Because I was just more pissed off
4	than anything else.
5	MR. SHAVER: Yes.
6	MR. MCCREA: And the things that happened
7	there. You know. And I didn't want to forget. I didn't
8	want to forget a detail.
9	So if I do run across that, and I will, they're
10	somewhere. Just in the packing they got put somewhere.
11	MR. SHAVER: Yes. No, that would be a
12	MR. MCCREA: But if they're something else
13	relevant to the situation, I'll let you know.
14	MR. SHAVER: Yes. Yes, if you run across
15	those, I mean I always like to have, you know. And you can
16	take a picture of them or something and send them to be,
17	it would be nice to just kind of
18	MR. MCCREA: Yes.
19	MR. SHAVER: attach them to
20	MR. MCCREA: Absolutely.
21	MR. SHAVER: Yes.
22	MR. MCCREA: Absolutely. And I will run
23	across them. So I'll save your name here
24	MR. SHAVER: Okay.
25	MR. MCCREA: and your email. And they will

1	show up. I just haven't put my fingers on them. Because
2	like I said, I was positive I had and then I flipped my
3	logbook open and it's basically a bunch of narration I wrote
4	for the tours. And I was like, well that isn't it.
5	MR. SHAVER: Got you.
6	MR. MCCREA: So anyways, so I don't know how I
7	screwed that up, but I did.
8	MR. SHAVER: Yes. Oh hey, I did have one last
9	question here. As I'm looking at this.
10	MR. MCCREA: Yes.
11	MR. SHAVER: That area, you know, where you
12	said where Bryan hit the trees with the floats
13	MR. MCCREA: Yes.
14	MR. SHAVER: where was that at again?
15	MR. MCCREA: That's the head.
16	MR. SHAVER: Oh, all the way up at the head of
17	(indiscernible).
18	MR. MCCREA: Yes. When you come out of there,
19	and there's, again, you know, commonsense. It's a pretty
20	big area. If you takeoff and you don't have a lot of room,
21	you should make a circle.
22	MR. SHAVER: Yes.
23	MR. MCCREA: And gain a little altitude and
24	then come out of there. And it's actually wide enough that
25	you can stay over the water too. But it's pretty tight.
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1	You know, like I said, I don't know your
2	experience of flying up there, but basically coming out of
3	the head there crossing that little chunk of land there.
4	MR. SHAVER: Okay.
5	MR. MCCREA: There was a pretty good downdraft
6	in there. And I had done that earlier in the morning. You
7	know, I had already been through there. And I was like,
8	eh, I'm not doing that again.
9	MR. SHAVER: Yes. Okay.
L 0	MR. MCCREA: So anyways. So that was where he
L1	hit the trees.
L2	MR. SHAVER: Okay. All right. Cool, real
L3	good. I think that was all I have.
L 4	MR. MCCREA: All right. Well, if you think of
L5	something else I have my phone all the time.
L 6	MR. SHAVER: Okay.
L7	MR. MCCREA: Just me give me a holler and I'd
L8	be happy to, happy to talk to you guys. And hopefully
L 9	you'll, I think we all already know what happened, so, you
20	know, but whatever.
21	MR. SHAVER: Yes. You know, I mean we kind of
22	know what happened. And getting to where we can kind of,
23	with very good, you know, authority, say why, I don't know
24	if we're there yet. You know.
25	MR. MCCREA: Yes.

T	MR. SHAVER: But I mean it's also, you know, I
2	mean we're trying to figure out, from our side, what in the
3	world can we do to change some stuff down there. You know.
4	MR. MCCREA: I agree.
5	MR. SHAVER: And that's kind of where we're at
6	right now. I mean, man it's like, you know, we've got to
7	come up with some ideas that are actually going to, that
8	are going to work. You know, not just some, well, we're
9	going to put this and make a change just to make a change.
10	You know.
11	MR. MCCREA: Yes. And I hope you don't do
12	that. Because I've seen that many, many, many times and
13	it drives me crazy.
14	MR. SHAVER: No.
15	MR. MCCREA: Like that has nothing to do with
16	what happened.
17	MR. SHAVER: Yes.
18	MR. MCCREA: They always have a different
19	restriction or a different something that didn't solve the
20	problem.
21	MR. SHAVER: Yes. And unfortunately
22	MR. MCCREA: And I don't know what you can do
23	either.
24	MR. SHAVER: Unfortunately I think we've
25	already seen a little bit of that happen, from the FAA side,

Τ	to Promech. They were kind of forced into a couple of
2	changes that I'm not a hundred percent sure why. But
3	MR. MCCREA: Well they did. But that doesn't,
4	you know, whenever you pass a rule or a law that you can't
5	enforce, there's no point in doing it.
6	MR. SHAVER: Right.
7	MR. MCCREA: To a degree. So if you go in there
8	and say, okay, now you have to have 600 feet and three miles,
9	I don't remember what they changed it to
10	MR. SHAVER: Yes.
11	MR. MCCREA: but I know that that was part
12	of what they did.
13	MR. SHAVER: Yes.
14	MR. MCCREA: It doesn't change anything when
15	you're the guy sitting in the airplane and you don't do it.
16	MR. SHAVER: Yes. No, that's
17	MR. MCCREA: So I mean that's the problem. Is
18	exactly that.
19	MR. SHAVER: Yes.
20	MR. MCCREA: You know. So it's going to have
21	to come from inside the company. I didn't have that
22	problem at Taquan.
23	MR. SHAVER: Right.
24	MR. MCCREA: I didn't. Because, I think
25	because in the '07 accident they had the sting of that and
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1	they haven't forgotten that.
2	MR. SHAVER: Yes.
3	MR. MCCREA: And they learned. And they
4	realized that, you know, this what we need to do.
5	MR. SHAVER: Yes.
6	MR. MCCREA: I mean it's risky anyways. I mean
7	there's risk in all this anyways. But doing it the way
8	Promech's doing it, and I don't think they learned.
9	Because I can still see them doing the same stupid shit.
10	MR. SHAVER: Yes.
11	MR. MCCREA: You know, it's real simple. You
12	can go look at one of those trainings, who's doing what.
13	MR. SHAVER: Yes.
14	MR. MCCREA: It's not difficult to see what's
15	going on.
16	MR. SHAVER: Yes.
17	MR. MCCREA: You know, you see somebody going
18	around Alva at 200 feet, it isn't because the weather is
19	1,000 and they want to go around at 200, because that's what
20	it is.
21	So I don't know how you so changing the
22	minimums, I don't know that that helps you any.
23	MR. SHAVER: Yes, no.
24	MR. MCCREA: I mean you guys can figure all that
25	out. Because you already have the minimum set. And

1	that's, you know, so to change that
2	MR. SHAVER: Yes.
3	MR. MCCREA: somehow you're going to have to
4	change the company. Or the way the pilots operate or the
5	culture of the company.
6	MR. SHAVER: Yes.
7	MR. MCCREA: Anyways. So good luck with that.
8	I'm not sure what you'll do there.
9	MR. SHAVER: Yes. We're going to look at it.
10	You know, we're looking at it. We're trying to, you know,
11	and we've been talking, as much as a we can, about things
12	that are actually going to be meaningful, you know. But
13	like you said, it's difficult to change culture.
14	MR. MCCREA: It is. It is. And the problem is
15	too, you know, ultimately it's pilot in command.
16	MR. SHAVER: Yes.
17	MR. MCCREA: And that's where my mistake was in
18	this whole deal. And that's when I left. I thought, I'm
19	not fulfilling my end of what I'm supposed to do. You know.
20	It doesn't yes, there's company pressure and
21	there's this and that, but at the end of the day you are
22	the guy driving the airplane. You have the call.
23	MR. SHAVER: Yes.
24	MR. MCCREA: The thing is, they can always fire
25	you.

1	MR. SHAVER: Yes.
2	MR. MCCREA: So I don't know how you change
3	that.
4	MR. SHAVER: Yes.
5	MR. MCCREA: You know. And I know they talked
6	about ghost riders and this and that, but that violates the
7	pilot. It doesn't change the culture of the company.
8	MR. SHAVER: Oh yes.
9	MR. MCCREA: It's putting the pressure on them
10	to go. You know. So that's kind of the rub there. I
11	don't know.
12	MR. SHAVER: Yes.
13	MR. MCCREA: I don't know if you guys even
14	actually do that. It doesn't matter, but, you know.
15	MR. SHAVER: Yes. You mean like ghost rides
16	and stuff you mean?
17	MR. MCCREA: Yes. I mean if you send somebody
18	out from the FAA and go see what they're doing.
19	MR. SHAVER: Yes. I mean the FAA does it. I
20	mean
21	MR. MCCREA: Yes. Yes.
22	MR. MCCREA: we don't.
23	MR. MCCREA: But again, all you're going to do
24	there is a violate a pilot. Because the company is going
25	to be like, well we don't know, we didn't, well, they do

1	know because they're the ones who sent them out.
2	MR. SHAVER: Yes.
3	MR. MCCREA: And they're the ones putting the
4	pressure on. Because it is a lot of pressure.
5	MR. SHAVER: Yes.
6	MR. MCCREA: So yes. So anyways, I don't know.
7	I don't know. I just hope they don't come up with a bunch
8	of crap that doesn't make any sense.
9	And that's what seems to typically happen in
LO	these situations. Because people want a change to, you
L1	know, they lost their loved ones and they want answers.
L2	And they just want change.
L3	Just unfortunately, they don't even know what
L4	the change should be because they're not usually in this
L5	industry.
L 6	MR. SHAVER: Yes.
L7	MR. MCCREA: So anyways. Chris, I got nothing
L8	else. If I find that I will send you a copy of it.
L 9	MR. SHAVER: Okay man.
20	MR. MCCREA: If you got anything at all I'd be
21	happy to talk to you, just give me a call.
22	MR. SHAVER: Okay.
23	MR. MCCREA: You might talk to Rick. Rick, you
24	know.
25	MR. SHAVER: Yes. No, I got his number. I'll
J	1

25

1 MR. MCCREA: He could probably, you know, place 2 3 a little bit of better, you know, what actually happened that day that kind of started him and Clark on the wrong 4 5 path. MR. SHAVER: Yes. 6 7 MR. MCCREA: As far as weather goes and all that. But I remember the event. 8 MR. SHAVER: Hmm, interesting. Yes, I got --9 MR. MCCREA: And he's work with Bryan too. I 10 mean, you know. 11 MR. SHAVER: Yes. You definitely, yes, I 12 definitely got a lot to chew on here, so --13 14 MR. MCCREA: All right. Well, if you have a question or anything let me know. And like I said, I'd be 15 happy to answer it. 16 MR. SHAVER: Yes. No, I appreciate it. 17 18 MR. MCCREA: All that. MR. SHAVER: And cool. 19 20 MR. MCCREA: Good luck. 21 MR. SHAVER: Well thanks again. And yes, same 22 thing. You know, if there's anything that comes up, don't hesitate to give me a ring. 23 MR. MCCREA: Okay, yes. Yes. Yes, I think, 24

yes. And I'll eventually turn that up and I'll, you know,

1	I can help you with that. Or I'll send you a copy of it
2	or whatever.
3	MR. SHAVER: Okay.
4	MR. MCCREA: Sounds good. All right, and
5	that's it.
6	MR. SHAVER: All right, man.
7	MR. MCCREA: Unless you got something else for
8	me?
9	MR. SHAVER: That's it man. Like I said, I
10	appreciate it. I really do.
11	MR. MCCREA: All right. Hey, have a great day
12	and I'll talk to you some other time.
13	MR. SHAVER: Okay. Thanks a lot.
14	MR. MCCREA: Thanks, Chris. And bye-bye.
15	(Whereupon, the above-entitled matter went off
16	the record.)

Interview: Brad Sapp, Front Line Manager, Juneau FSDO

Representative: Howard Martin, FAA (Attorney)
Location: In-person interview, Juneau FSDO

Time/Date: 1330 AKD, October 5, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen (FAA),

During the interview, Mr. Sapp stated the following information.

He was an ATP rated pilot, CFII, helicopter rated, with about 7,000 flight hours. He started flying in Alaska when he was 18 years old and flew for numerous operations throughout the state. He was hired at the FAA in 2000 as an inspector in the Juneau FSDO. He worked his way through the ranks and became a Front Line Manager (FLM) about eight years ago. His management training included a detail where he shadowed a manager for four months, and then the standard training online and courses at the FAA Center for Management and Executive Leadership.

He stated that his duties as a FLM were diverse, and he dealt with just about everything that came into the office. He said that his job was to look at the assets that he had and assign those assets to specific jobs. He assigns the principle inspectors to the certificates, and ensures that there is a balanced workload. He said that he supervises five inspectors. The Juneau FSDO oversees a total of 71 operators of varying complexity.

He stated that the FLM has the responsibility of creating the certificate management teams (CMT) for each certificate, but there is some guidance in the Order 8900 that he uses to help make the determination of CMT composition.

Mr. Sapp described the relationship between the FAA and Promech as a historically good relationship. He said that Promech was responsive to FAA inquiries and safety concerns. He said that he described the relationship as better than average.

Asked about how he reviews the work of his inspector, Mr. Sapp stated that all changes to manuals or ops specs come to the principal inspector first. If the inspector approves the change, the he approves it, and sends it to the FLM, who reviews the changes as well before sending the approval back to the operator. With regards to PTRS entries, he said that there has been a regional goal in increasing data quality which mandates a 20% review of PTRS entries. But in his group, if there is an entry with a comment, then he reviews it. The office is reviewing about 40% of all PTRS entries. He said that he had rarely found any issue with the Promech POI's documentation.

Mr. Sapp stated that his general view of the Promech certificate was that they are very proactive with regards to compliance. He had no issues at all.

Asked to comment on the level of FAA oversight at Promech prior to the accident, he said that there was somewhere around 130 PTRS entries in the last two years, which showed that Promech was being looked on a regular basis. He said that the Key West operation was a different animal based on geographic location and budget issues. They

had used the Miami FSDO to do some surveillance, but it had been over a year since anyone from the Juneau FSDO had been to the Key West base. He felt that the geographic oversight of the Key West base was adequate, but he would like to get his inspectors there at least semi-annually.

Asked if the FAA had made any changes to the Promech certificate oversight following the accident, he stated that they had interacted with them quite a bit. The regional FAA deputy director and the and the Juneau FSDO manager had met with Promech about plans moving forward, and Promech seems to have been receptive to those meetings.

Asked if it was normal to have higher division management work with an operator following an accident rather than the local FLM or POI, he said that this was the only time he had ever seen the division and office manager play that role.

Asked to describe the "Ghost Rider" program, he said that after the air tour accident in 2007, the NTSB the recommendation for unannounced enroute inspections. The FAA would buy an inspector a regular ticket, and the inspector would take the flight anonymously. Afterwards, the FAA would send a letter to the operator letting them know that there had been an unannounced enroute inspection. He thought that is was a good program. He said that the cue-based training was also a part of the NTSB recommendations, and that his observations of that program were all good.

Mr. Sapp stated that there are pre and post-season air tour meetings in Ketchikan. They have several speakers that talk on safety related topics. The post-season meeting is considered the more productive meeting where the operators look at what was done well and what was not, and how they can do things better. He said that at least one member of management from the FAA attends the meetings. Asked if Promech was present at the meetings, he said that they are always in attendance. He said that the meetings are not mandatory for operators to attend, but participation is highly recommended. He said that he was not in attendance at the last post-season meeting.

Asked about any other lessons learned from the last accident in 2007, Mr. Sapp stated that the Director of operations from Taquan had addressed the operators at one of the meetings and let them know what they had done after their accident and encouraged the other operators to follow suit. He was not involved in that meeting, but had heard from others that reception to the suggestions was cold.

Asked to expand on his thoughts of cue-based training, he said that the FSDO had sufficient input into the implementation. He said that it was a huge effort that encompassed many lines of FAA business. At one point, there were probably 100 people in a room talking about how the training was going to be implemented. He thought that the final product ended up being what they wanted it to be. Asked if anyone oversees the cue-based training, he said that the FSDO oversees the overall training of each operator, which includes the cue-based training, but the operators also look at their own training. He said that before the cue-based training, the serious injury and fatal accident rate was much higher than after its implementation.

Asked about the Medallion Foundation, Mr. Sapp said that he thought they were a great third party safety advocate. He said that the 5-star program was right on, and that Medallion was a great place to go if you were looking for some risk mitigation. He said that the FAA does not get Medallion's assessments. He said that we just know they do good things so we encourage operators to use them.

Mr. Sapp said that the risk mitigation plan that was presented to Promech had been talked about and that he thought Promech had been mostly receptive to it. He said that he thought they did push back on the flight risk assessment recommendation. He thought that the push back had to do with Promech not seeing the value.

Asked if he was involved in the creation of the risk management plan, he said that he would have liked to have been but he was not involved.

This concluded the interview.

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Interview: Gregory Horrell, Principal Maintenance Inspector, FAA

Representative: Howard Martin, FAA Attorney

Location: FAA Juneau Flight Standards District Office

Time/Date: 1500 AKD, October 5, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen (FAA)

During the interview, Mr. Hornell stated the following information.

He had been employed by the FAA for 9 years and he had been Promech's PMI for the last 7 or 8 years.

He had a good collaborative relationship with Bob Grace, Promech's DOM. Promech had done a couple of self-disclosures. They were generally a very compliant operator.

Mr. Horrell said that he had written the most enforcements of any inspector in the Juneau FSDO, so he was not cozy with any operators and Promech knew that.

Mr. Horrell received some assistance in Ketchikan from a geographic inspector named Roy Dunn. Mr. Dunn had recently completed his OJT training as an FAA inspector and he reported any issues he identified to the Juneau FSDO. Mr. Dunn lived in a building next door to Promech's headquarters and checked in with the Juneau FSDO daily.

Mr. Horrell oversaw 17 certificates. Promech was his biggest operator. He oversaw another operator in Juneau (Wings Airways) and five others, plus a lot of single-pilot seasonal operators. He spent about 10-15% of his time overseeing Promech, mostly on certificate management and matters dealing with DeHavilland DHC-3 Otters. Mr. Horrell called Bob Grace with Otter questions because Mr. Grace was the best resource for that in the region.

Mr. Horrell's relationship with Mr. Grace was collaborative. Mr. Grace called Mr. Horrell before he made any major decisions. That open communication and trust had to be developed.

Asked if he had any thoughts about Promech's operations as a whole, he said that when he found a problem with them it was an anomaly. The FSDO's philosophy was to fix things at the lowest effective level. Mr. Horrell was not an operations or avionics inspector, so he could not comment on those areas, but Promech's maintenance record keeping, qualifications and signoffs were all good. They had had issues in the past with some Part 43 record keeping requirements, but if he told Promech something once they seem to get it. Mr. Grace established a good corporate presence for the maintenance department. Asked if he had brought any noteworthy issues to Promech's attention, he said he had spoken to them about seat configuration logs and pilots not understanding the maintenance requirement for maintaining those logs. He had had that issue with other operators as well.

He had last visited Promech in April 2015. He typically went to Ketchikan once a quarter, but he had not been there quite as often in 2015 due to some personal health issues. However, they had Mr. Dunn in Ketchikan.

Asked if he had visited Promech's Key West facility, he said the FAA had good geographic support down there. Through their computer system they could request geographic surveillance, however he planned on going down there twice in 2016. Promech was flying two amphibious Otters there. The company's maintenance was contracted in Key West, but the contract mechanic had been the assistant director of maintenance in Ketchikan and they followed the Promech GOM.

Mr. Horrell had not modified his surveillance of Promech since the accident or requested any procedural changes.

Mr. Horrell had not received any complaints about the company from Promech's pilots or mechanics.

Asked if he was aware of a recent incident involving a Promech airplane having a tree strike on a float, he said he had not heard anything like that.

Every two years there was a meeting of Beaver and Otter operators in Ketchikan where they brought up all the maintenance issues. Viking was there. The FAA Aircraft Certification Office was there (Mr. Horrell was the ACO's point of contact). The next meeting would be held in March 2017. Promech was very active in that. They were also very active and commented whenever a potential AD was coming out. They are pretty proactive.

Promech had STCs in their Otters that limited them to 9 passengers. As a result, they could maintain them to a different standard than the 15-seat version.

ANC15MA041 Attachment 1 - Page 325

Interview: Richard Bochynski, Principal Avionics Inspector, FAA

Representative: Howard Martin, FAA Attorney

Location: FAA Juneau Flight Standards District Office

Time/Date: 1530 AKD, October 5, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Pat Hempen (FAA)

During the interview, Mr. Bochynski stated the following information.

He had been an airframe and powerplant mechanic since 1969. He had been employed by the FAA from 1986-1999 and from 1993 to 2015. He had been assigned to oversee the Promech certificate since 2003. He currently oversaw all operators that were overseen by the Juneau FSDO, which was about 80 certificates. He had to prioritize his time. Because Promech had a commuter certificate, it received more of his time than a single-pilot operator. He focused on the avionics in IFR-capable airplanes and unique avionics, such as the Chelton displays.

He felt Promech stumbled once in a while, but they were generally a good operator. He could not specifically recall the last time he had visited them. He tried to travel to Ketchikan once a month for one or two nights, but he did not always make it. In addition, he could not always visit every operator each time he was in town. He had not visited Promech's Key West operation. He wanted to, but was not sure it was in the budget. He felt he could only speak about the maintenance side, but he felt that the relationship between the certificate management team and Promech was very positive. Anything they asked Promech to do, Promech would do.

Asked if he was aware of any special challenges involving the use of Chelton terrain displays and alerts in the float planes, he said that was more of an operational question. From an airworthiness perspective, the concern was whether a unit was installed correctly, worked properly, and was maintained correctly. Asked if he had heard about any problems with the barometric pressure settings being off in the units, he said no. Asked if he had heard about any issues from Promech or operators with respect to the use of the Chelton devices, he said nothing came to mind.

Asked if any Part 135 operators used devices other than the Chelton as terrain awareness and warning systems, he said almost all the operators in the area used the Chelton devices because they had been free so almost everyone had one installed in their turbine-powered airplanes. Helicopter operators in the region used a Garmin GDL-90 ADS-B unit rather than the Chelton and most of those units had been provided by the Capstone project as well. A terrain awareness function was built into those Garmin units. Asked whether any air tour operators in the region had video recorders, such as the unit made by Appareo, installed in their aircraft, he said he thought Temsco had one installed in their Airbus AS-350B3 helicopters. The last time he had looked at it, it had been bumped out of alignment. He thought some of the pilots did not like to have their actions video recorded. It was optional equipment.

Asked whether the installation of a temporary system for video recording an operators' flights would require FAA approval, he said the operator would determine whether it was a major alteration, submit it to the FSDO and the FAA would review it.

Asked whether there were any new avionics coming that would replace the Chelton displays, he said no, nothing the FAA would pay for. The Capstone program had been done to prove a theory and it had worked. It was quite a large project. The impact of Capstone had been wonderful. It had really helped cut down on CFIT accidents. There had been a lot of concern in the beginning about whether the pilots were watching the display or looking outside, but with any new technology, there would always be such concerns. Asked about the impact of a requirement to install ADS-B equipment by 2020 on Promech, he said they would be able to see more airplanes traversing the area. The FAA's system would be able to pick it up.

Asked whether it would aid Promech in their ability to perform flight following, he said they would have to put a ground repeater out in Misty Fjords for that to work.

ANC15MA041 Attachment 1 - Page 327

Interview: Jon Percy, FAA Principal Operations Inspector for Promech,

Juneau FSDO

Representative: Howard Martin, FAA (Attorney)
Location: In-person interview, Juneau FSDO

Time/Date: 0830 AKD, October 5, 2015

Present: Chris Shaver (NTSB), Bill Bramble (NTSB), Shaun Williams

(NTSB), Pat Hempen (FAA),

During the interview, Mr. Percy stated the following information.

He started flying in 1997, and had worked as an instructor before going to Part 135 flying. He worked for Wings of Alaska until 2007, when he was hired at the FAA Juneau FSDO. He became the Principal Operations Inspector (POI) for the Promech certificate sometime between 2008 and 2009, and has been the POI since that time. The Promech certificate has the normal three inspectors making up the certificate management team (CMT). He said that he is responsible for around 20 other certificates other than Promech.

Asked how much of his time he is able to dedicate to the Promech certificate, he said that 2015 had been a challenge in that the office on had two qualified inspectors to do check rides, so he spent a lot of time doing those duties. He said that he finished most of the Promech work program before the accident happened, and had dedicated a lot of time to them prior to the accident.

Asked about specific activities that a POI should perform during the year to ensure adequate oversight of a certificate, Mr. Percy said that a POI should observe training, observe checking, conduct check rides, conduct enroute surveillance and unannounced air tour enroute inspections, and make sure that the operators training program is sound.

Asked about his general view of Promech, he said that he had been working with them for a long time and he believed that they were operating safely and not a higher risk operator. He noted that they had had a change in management personnel, but he was impressed with the new management so far, and they had been responsive. He described the relationship between Promech and the FAA as cooperative and responsive.

He could not recall the specific date of his last visit to the Promech facilities, but said that he tries to visit twice a month in the summer and once a month in the winter. He thought that he had only made one visit to them this year though. He had visited the Key West operation once, but it had been a couple of year ago.

Asked to describe the Promech pilot training program, he said that the program that was approved was solid, and that Promech had been operating safely under that program for years until the accident. He said that he had observed the cue-based training ground portion, but not the simulator portion. From what he had observed, he thought that the cue-based training was being utilized appropriately. He said that he believed that up until recently the training seemed to be effective, but his impressions of the simulator portion were not as good. He thought that maybe a better simulator could help. He said that he

had seen pilots using cue-based skills on flights, and had seen check airmen pointing out specific landmarks to training pilots.

Asked to describe how Promech performs operational control. Mr. Percy said that they have whiteboards of pilots and airplanes in the dispatch office. The chief pilot and director of operations help to ensure that everyone is current and qualified. They also utilize company flight plans. Asked what persons are allowed to exercise Tier 1 operational control as defined in FAA order 8900, he said the Chief Pilot, Director of Operations, and anyone that they delegate the authority to. Asked how many people are authorized to exercise operational control, he said that the FAR 119 management personnel are authorized. Also the flight coordinators, but he thought they needed the okay from the 119 management. He said that the last operational control inspection was performed sometime before the accident, but he didn't have the specific date. He said that the inspection was satisfactory, but he was not sure if there were any other findings.

Asked if he had ever observed flight coordinator training, he said that he had not. The flight coordinator training is not in the crew member training program, and he was not sure if they had a written program at Promech, and had never looked at flight coordinator training records. He was not aware of any prerequisites required to be a flight coordinator at Promech.

Asked how flight coordinators are qualified as required by FAR 119.69, Mr. Percy said that he was not sure how the qualification was accomplished. The thought they would have to be watched and trained until they could perform the job adequately.

Asked if Promech utilized a flight risk assessment, he said that he thought they had one in development, but nothing before the accident.

He did not know any specifics with how the contracts with the cruise lines are structured. The FAA does not review contracts between operators and their customers. He did say that the cruise lines have no operational control over flights, and he could not think of any pressures that the cruise lines would put on operators.

Asked to describe the role of the Medallion Foundation in promoting safety among the Ketchikan air tour operators, he said that he initially didn't think that Medallion was very impressive. They had staffing issues, and he didn't know how effective they were in the safety side of things. Mr. Percy said that he did like Medallion's risk assessments that they provide. He said that Medallion does not communicate with the FSDO.

Asked about the Medallion CFIT avoidance training, Mr. Percy said that he had seen some operators use the simulator, but he thought that the simulator only has a certain benefit. He said that the simulator is very good for teaching procedures, but the visuals are not great.

He said that he believed that Promech's procedures for managing weather-related risks were solid and effective. There is often weather in the harbor and in the Misty Fjords, and

the pilot is the only one that can make most of those weather decisions. He said that procedurally, he had never had any issues with their decision making.

He said that since the accident, the FSDO had increased the number of enroute inspections on Promech. They had also changes their ops specs and created higher departure minimums, and removed the approvals for Special VFR operations. There was also a list of items on the risk mitigation plan that the company was supposed to implement before the start of the next tour season.

Date: December 9, 2015 @ 1525 MST
Person Contacted: Dale Carlson (Passenger on Shannon Franklin's 1200 Flight)
NTSB Accident Number: ANC15MA041

Narrative:

During a telephone conversation, Mr. Carlson reported that he and some members of his family were passengers on a "Cruise/Fly" package with Promech on June 25, 2015. He had taken the boat outbound to Rudyerd Bay, and then boarded the airplane piloted by Mr. Shannon Franklin, which departed just prior to the accident flight.

Mr. Carlson stated that the weather during the outbound boat ride consisted of low cloud cover and drizzle. After boarding the airplane, he said that it was very calm in the fjord, and that there was good visibility with low clouds. About 20-25 minutes into the flight it became very turbulent, and the pilot mentioned something about being on a roller coaster.

He recalled that there were times during the flight that the clouds were close to the airplane, but that he never lost sight of the ground.

Date: December 10, 2015 @ 1000 MST Person Contacted: Jacalyn Slingsby (Passenger on Bryan Krill's 0800 Flight) NTSB Accident Number: ANC15MA041

Narrative:

During a telephone conversation, Mrs. Slingsby reported that she was a passenger on the 0800 flight on the morning of the accident. The flight that she and her husband were originally scheduled on canceled because of weather, but the flight that her sister was on was still going and they were able to get seats on that flight. Mrs. Slingsby stated that she herself was a pilot and that she considered the weather to be okay but not ideal (VFR, but the ceilings were dropping). She stated that her husband is also a float pilot and that they talked about wanting to do this flight in his airplane.

She stated that the flight out to Misty fjords was nice and that the pilot made a nice landing. She took a number of photos from the right side of the airplane on the flight out to the fjords. On the return flight she sat on the left side of the airplane but the weather was not great and she didn't take as many photos on the return flight.

Asked if she recalled the pilot turning around at any point she said that she wasn't sure, but her husband could tell about any deviations.

Date: December 15, 2015 @ 1100 MST
Person Contacted: Jeff Slingsby (Passenger on Bryan Krill's 0800 Flight)
NTSB Accident Number: ANC15MA041

Narrative:

During a telephone conversation, Mr. Slingsby reported that he was a passenger on the 0800 flight on the morning of the accident. He stated that he was a current float rated pilot. The members of his group had signed up for the tour on two separate operators. The flight that he was initially scheduled on canceled for weather but they were accommodated on the other flight. He said that on the ride to the Promech base the weather looked marginal, but the Promech personnel said that they had cameras that the other operators did not have where they could see the weather in the Misty fjords.

When the flight took off from Ketchikan the weather looked okay and he felt comfortable. He was sitting in the back of the airplane and for the flight out there were scattered clouds with a broken layer above the airplane.

On the return flight to Ketchikan, as the pilot was making a climb, they started getting into instrument meteorological conditions. The pilot immediately turned the airplane around, flew to an area of visual meteorological conditions, and continued the flight to Ketchikan. He said that they never went completely into instrument conditions and never lost ground visibility nor were they ever VFR on-top. Mr. Slingsby stated that in his opinion the pilot made the correct decision to turn around.

As they neared Ketchikan he stated that he did notice the airport Beacon was on at the Ketchikan airport.

Date: December 10, 2015 @ 1100 MST
Person Contacted: Joan Laffon (Passenger on Bryan Krill's 0800 Flight)
NTSB Accident Number: ANC15MA041

Narrative:

During a telephone conversation, Mrs. Laffon reported that she was a passenger on the 0800 flight on the morning of the accident. She said that her sister's flight was canceled for weather and her flight was the only one that went out that morning. She said that this made her a little nervous, but the weather looked clear enough when they left. She also said Promech personnel talked to the group about webcams in the Misty fjords, and said they were the only company with the cameras so they could see what the weather was like in the fjords.

She said that she was seated on the left side of the airplane and that there were clouds but she could always see the ground. After landing in the Misty fjords she said that it started raining. After they took off on the return flight the pilot showed them an area on the lake where you could rent cabins. She said that all of a sudden, it became very cloudy so she didn't get any more pictures until they were landing back in Ketchikan.

She stated that the flight was smooth and that the pilot seemed normal. She did think that her brother-in-law, Jeff Slingsby, had noticed the pilot turn around at one point during the flight. She did not notice that the airplane turned around and the pilot did not mention anything over the headsets.

Date: December 10, 2015 @ 1500 MST Person Contacted: Calley Lafon (Passenger on 0800 flight) NTSB Accident Number: ANC15MA041

Narrative:

During a telephone conversation, Ms. Lafon stated that she was a passenger on the 0800 flight piloted by Mr. Bryan Krill (the accident pilot). She said that the weather in Ketchikan that morning was not good, and her entire group was wondering if the flight would even be able to leave. She said that they were able to depart, and the flight out to the fjords was pretty clear: cloudy, but they had good visibility. During the flight back to Ketchikan the weather was definitely getting worse, and the flight was more turbulent, to the point that she started not feeling good. She said that there were definitely a few times where they were close to lower clouds, but she could always see the ground out of the windows. She did not recall the pilot turning around at any point.

Interview: Rik Luytjes

Representative: None

Location: Telephone interview

Time/Date: 1000 MST, March 2, 2016 Present: Chris Shaver (NTSB)

During the interview, Mr. Luytjes stated the following information.

He has been flying for 50 years and has 26,000 hours flying all over the world, with about 5000 hours of float time. He holds an airline transport pilot certificate with single engine sea (SES), multi engine sea (MES), single engine land, multi engine land, Helicopter, and Glider ratings. He was also a FAA designated pilot examiner for SES and MES. He owned a bush camp in Canada in 1970's and early 80's. He was brought up to Promech to fly the Otter, and this was his first season flying in Alaska.

He stated that he met Mr. Krill during their initial training. He and Mr. Krill were paired together during their flight training, so he had witnessed numerous flights with Mr. Krill flying. They flew together on all their training flights with the director of operations (DO). He stated that during every CFIT maneuver, Mr. Krill would start descending; and instead of making a 180 degree turn, he would make a 270 degree turn and fly straight toward another ridge. His instrument proficiency was very marginal.

When he heard that Mr. Krill was being picked to fly the Otter, he went to the DO and expressed concern that Mr. Krill had never flown turbine airplanes before and that he had some issues flying into questionable weather. The DO stated to him that Mr. Krill had checked off all the necessary boxes and that he was going to fly the Otter.

Mr. Luytjes stated that when it comes to Mr. Krill flying IFR and flying into a ridge, he put that back to DO for pushing Mr. Krill into the airplane; and then watching his performance and leaving him flying the plane. On the day of accident, Mr. Krill should have been put in a Beaver and Marcus [Sessoms] (who had the weather experience) should have flown the Otter.

In his opinion the accident was a clear CFIT. He said that Mr. Krill should not have been flying that airplane that day.

Mr. Luytjes also stated that another factor could have been that the Otter is known to be hard to see out of in marginal weather/rain.

Asked about any other issues that he had noticed with Mr. Krill, he said that on one occasion, near the beginning of the flying season, he was following Mr. Krill on a trip out to the fjords. They were going into Ella Lake when Mr. Krill disappeared in front of him in the clouds. He made a radio call saying" hey Bryan, how's the weather up there because it looks IFR here?" He said that Mr. Krill came back saying everything is fine. He went on to say that company management heard the radio exchange him and ridiculed

him for mentioning IFR on the radio. He said that he was told to never say IFR on the radio or he'd get fired.

He said that he tried to tell company management that Mr. Krill was having an issue with weather and lot listening to others about weather conditions. It was like Mr. Krill thought that he was invincible or thought that he was better than he was. Other pilots also said that they had seen Mr. Krill go through clouds too.

He said that he didn't think that Mr. Krill's vision was very good either.

Mr. Luytjes said that he was off the day of the accident, but when he came to work later and was told that a plane was missing, he was not surprised to hear that it was Mr. Krill.

Asked about pressure from management, Mr. Luytjes stated that he didn't think that there was pressure on Mr. Krill to fly. He was surprised that they wanted him to fly the Otter with his lack of turbine experience. Management should not have let him fly in that kind of weather either.

He thought that the Promech management was in full denial of what actually happened.

Asked about Mr. Krill's relationships with other Promech pilots, he said that Shannon Franklin and Mr. Krill were really close. He thought that Mr. Krill looked up to Shannon. He said that Shannon is a good pilot with turbine experience and lots of IFR experience that Mr. Krill did not have, so Mr. Krill trying to follow Shannon didn't make any sense and was only putting himself in jeopardy.

Asked about changes in Mr. Krill's demeanor, he said that Mr. Krill started having a "holier-than-thou" attitude and didn't want to listen to folks. On one occasion, Mr. Krill was flying the Otter and passed a Beaver coming back into Ketchikan, which you are not supposed to do. He was confronted about it by the other pilot and Mr. Krill said something to the extent of he was going to fly how he wanted to fly. Mr. Luytjes didn't think that Mr. Krill's attitude was professional or careful, or conscious of what he was trying to do.

He said that the Chelton system had IFR limits when it should be set for VFR limits. Once you get close to terrain, the entire screen goes red and it blankets out all the terrain, all of the clear water below, and you have to fly out of the red before the terrain is visible again. He said that even though that happens, a pilot still has to have ground contact and need to know where you are and where you are going.

Mr. Luytjes didn't think that management pushed pilots into bad weather. Many times that Taquan wasn't flying, Promech was, and sometimes people questioned that. They would send people to take a look though. Did think that management would try and see if there were other ways to complete a flight when other companies might just cancel.

Asked about training in general, he said that he thought that is was comprehensive. The training for him and some of the other experienced pilots was more of a refresher. Some of the newer guys washed out, of the training was good enough to differentiate those who didn't have the ability to fly there.

Asked if he recalled Mr. Krill having any other problems, he said that there was a flight where he was told not to fly up into the narrows because there were severe downdrafts, and Mr. Krill totally ignored the warnings and flew up there anyway. He said Mr. Krill told another pilot that he actually went through the trees with the floats trying to get out of that narrow area.

There was also a time, early in the season, where he had just come through Ella Lake and the weather was not good. He passed Mr. Krill going the opposite direction by the dogleg and told him that Ella was pretty much closed off and to use Alava. Mr. Krill continued on and couldn't get through and finally decided to head toward Alava. By the time he maneuvered around looking for places to get through he had to call "low fuel" going by Alava going up and he turned around and went back to base.

He didn't have any notable interactions in the days before the accident. He said that he did feel like Mr. Krill was a little disassociated with the norm and hanging out more and more with Shannon. He thought that Mr. Krill was getting ahead of himself a bit.

Asked about thoughts on Promech general operational policies, he said that the generally followed the 500-2 policy. He did think that there was a disassociation with common sense with some of the management. Generally thought it was a safe atmosphere where everyone was trying to look out for everyone else. After the accident, they came to a standstill for a week or two, then things whet back to the norm. There wasn't any more or less concern about the weather other than maybe look at it a little bit harder.