

## **Attachment 1**

### **Interview Summaries**

## **Draft Interview Summaries**

**Interview:** Ryan McCue, Owner & Operator of RdM Aviation  
**Time/Date:** Mid-morning, August 18, 2007  
**Location:** Telephone  
**Present:** Erickson

During the interview, Mr. McCue stated the following information. Mr. McCue's company provided seaplane tours from a dock behind the office building located at 1621 Tongass Avenue.

Mr. McCue did not see Steve Kamm on the day of the accident. Mr. McCue was busy flying tours that day.

Mr. McCue stated that Mr. Kamm refueled his airplane and loaded passengers at the Carlin Aviation dock during the day, and said Mr. Kamm only tied up his plane at the dock located at 1621 Tongass Avenue during the night.

Two employees of Mr. McCue's company were present during the interview, and they stated that they did not recall seeing Mr. Kamm on the day of the accident either. One of Mr. McCue's employees was flying and the other was driving passengers between the cruise ship docks and the RDM Aviation dock area at 1621 Tongass Avenue on the day of the accident.

This concluded the interview.

**Interview:** Marcus Sessoms, President, Promech Air  
**Time/Date:** 1115, August 18, 2007  
**Location:** Promech Air Office, Ketchikan, Alaska  
**Present:** Erickson, Bramble

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

About 1515 on the day of the accident, Promech was launching all their planes, with some going to Misty Fjords. As they were loading the airplanes, Mr. Sessoms was loading his plane and dockhand came over and told him that the winds were picking up. The dockhand said there was severe turbulence and that two empty Promech Beavers were returning after trying to go out and pick people up from a boat tour. Mr. Sessoms was headed to same place. The dockhand asked what they should do. Mr. Sessoms got on the radio and tried to call Jeff Carlin at Carlin Air. Then he saw Mr. Carlin unloading his airplane and called Mr. Carlin on his cell phone and asked what was going on. Mr. Carlin told him the winds were blowing 45 knots at Mountain Point and he could not get

any lift. Mr. Carlin had turned around there. Promech's two Beaver pilots had somehow found out about it and had turned around also. Mr. Sessoms decided that if it was blowing 45 knots, it was a "no-brainer" and he should not go.

Mr. Sessoms did not recall any remarkable weather in Ketchikan at the time. He stated that it was a beautiful day, but they knew there was a front coming in. There was a high overcast and some lower clouds coming in, but it was "unlimited" ceilings. He did not see any convective activity. The forecast was for thunderstorms and hail. The winds started acting weird. He did not hear any thunder. He did not see any big cells.

Mr. Sessoms said he did get a report of winds right after Promech canceled. Then the winds calmed down. Promech's next round of tours was scheduled to begin at 1645, and all the planes were going out on the bear tour to Neets Bay. Mr. Sessoms said he thought they would be able to get out.

There was a 5:00 flight returning from Metlakatla to the south, and the pilot said there was a big black cloud and it looked ugly, but Mr. Sessoms could not see it from Ketchikan. Promech did not resume flights toward Misty Fjords to the east. Promech's chief pilot was coming out of Thorn Bay or Hollis from the west and said it was fine to the west of town, that the bad weather was coming out of Misty Fjords, and that Behm canal up toward the location of the bear tours looked good.

Mr. Sessoms said they had not had any strong winds all year, but that August and September were generally known for winds.

Promech's 4:45 flights to the Misty Fjords were canceled because Carl Zinc from Taquan was out to the east of Ketchikan and said the Misty Fjords were severe turbulence. Promech canceled Misty tours for the rest of the day.

Usually a southeasterly wind kept it pretty protected along the east shore of Behm Canal and in Neets Bay, Promech launched the bear tours. Three turbine Otters departed on the bear tours. The aircraft and their pilots are listed below.

Table 1.

Promech airplanes returning to base from near the site of the crash.

Airplane	Pilot
N435B	Joshua Ruttkofsky
N6452B	Brentwood Wiest
N270PA	Chuck Perkins

Mr. Sessoms examined company logs and reported the following call-in times for the three airplanes.

Table 2.  
Promech call-in time logs for the three airplanes.

Airplane	Departing Ketchikan	Five Minutes from Landing at Neets Bay	Climbing out of Neets Bay
N435B	1722	1750	Not recorded
N6452B	1733	1747	1812
N270PA	1739	1750	1812

Mr. Sessoms heard Mr. Wiest check in on the radio as he was departing Neets Bay, and Mr. Sessoms said, “Hey guys, Steve’s missing. He’s 20 minutes late. It’s not that big a deal, but Lesley’s concerned. Poke your nose in Neets Bay and have a look around.”

Mr. Ruttkofsky had taken off, but had not called in yet, because they could not hear his transmissions yet. Mr. Wiest called and said Mr. Ruttkofsky was in front of him and would go into Traitors Cove to look for Mr. Kamm.

Mr. Wiest called back and said Mr. Ruttkofsky had found the crash site, and that he saw smoke and saw fire, and saw the tail of the airplane. He said to call the paramedics and get rescue people out there immediately.

Mr. Kamm’s wife was on the phone with Mr. Sessoms at the time asking if he had heard anything. She heard the radio transmissions and came over to be with them at Promech.

Mr. Kamm’s local name was Wammer.

The three Promech airplanes were returning over Traitors Cove in the following order: Mr. Ruttkofsky (N435B), Mr. Wiest (N6452B), and Mr. Perkins (N270PA).

Mr. Sessoms got on the phone. Everyone was panicky because they all knew the Kamms. Mr. Sessoms called Promech’s chief pilot, Tony Dupea, who had just gone to store. Mr. Dupea said he would return to the office in two minutes.

Mr. Sessoms had already called 911 at 1815 and told them that one of his pilots had called and had seen a plane crash and saw it and fire and that he had a turbine Otter they could load up with emergency crews and get up there in 15 minutes. The 911 dispatcher said they needed to know what to dispatch and asked him to fly out and tell them what they needed to send.

Mr. Sessoms called Temsco. They said they were getting two helicopters together. Mr. Sessoms asked if they had any medical people to go on the helicopters, and his impression was that they did not. Mr. Sessoms knew a local fire rescue medic and pilot, Seth Crasnow, and he called him and asked him to call the right medical people and get them on the Temsco helicopters.

Then Mr. Sessoms launched the Promech turbine Otter with no medical people on board. Tony's Dupea flew that airplane, N959PA. With him on the airplane were a Promech pilot, Randy Sullivan, and a Promech mechanic, Joe Hasuba. Helicopters were launched at Temsco with medical people on board a little after that.

Mr. Wiest called and Mr. Sessoms told him not to land at Traitors Cove because they had already launched Mr. Dupea. Mr. Sessoms did not want Mr. Wiest to land with passengers on board. Mr. Sessoms did not know how hazardous the area would be. Mr. Sessoms told Mr. Wiest that Mr. Dupea would be there in 10 minutes. However, Mr. Ruttkofsky saw the airplane and knew there were people on board, and that there was a dock next to it, and he landed with 10 people on his airplane. He got two large male passengers off the plane, explained what they needed to know about the winds, and instructed them to hold the plane because he was worried about the wing blowing into a piling. He told them to stay with the airplane.

Mr. Ruttkofsky ran up to the crash site, started yelling for people, and saw Steve with the 3-year-old girl. The girl was burned very badly. Her grandmother laying face down on the ground, and Mr. Ruttkofsky thought it was her mother. He brought the child over to the grandmother. She said she was the grandmother and told him she had just lost her husband, her son, her daughter-in-law, and a grandson.

Mr. Ruttkofsky took off his shirt, handed it to Mr. Kamm, and asked him to go down to the water, soak the shirt, and get it on the girl. The girl was not really crying. She was just saying "Owie, owie."

The beach was just down by the creek, but Mr. Kamm went a different way, and he missed Mr. Ruttkofsky, so the shirt never got to the girl. An airplane taxied up, piloted by James Jakubek. It was from Pacific Air. They had heard there was a crash and launched some planes on their own. Mr. Ruttkofsky and the pilot of the Pacific Air plane stood on the float, and the pilot took the little girl from Mr. Ruttkofsky and flew her back to Ketchikan.

They landed at the Pacific Air dock and Mr. Jakubek took the little girl to the hospital. During all of this, Mr. Sessoms was at the Promech office trying to find out where his 10 tour passengers were.

The hospital called Mr. Sessoms several times and said they needed to know how many people were on the plane. Mr. Sessoms had no idea. He had had some ladies take Leslie away from the Promech office, so he could not ask her.

Mr. Dupea called from the site with a satellite phone to say Mr. Kamm was alive. He said it was bad, it was really really bad, but he did not specifically mention the bodies. Mr. Sessoms still did not know how many people were on the plane and he did not find out until the next morning. He thought it was 8.

At the crash site, Mr. Dupea put Mr. Sullivan in Mr. Ruttkofsky's plane (52B) to fly it back to Ketchikan. Mr. Sullivan flew 7 of Mr. Ruttkofsky's passengers plus a crash victim, Mr. Kamm's guide Sarah Steffen, back to town.

Mr. Sessoms said "We're missing three people."

Mr. Sessoms called Holland America Cruise Line and said Promech had 10 people off their tour at a crash site who had been on a bear tour, and he let them know where their people were. Linda Houston at Holland America received that call.

Mr. Dupea and Mr. Ruttkofsky had fire extinguishers and they were trying to put out the fire at the crash site when three tour passengers from Mr. Ruttkofsky's plane appeared and said they had medical training. Mr. Dupea told them to go down to the dock and get on the next plane out. Two of these passengers went back to Ketchikan a short time later with Mr. Dupea in N959PA. The third flew back with pilot Dave Doyon.

Mr. Perkins and Mr. Brentwood never stopped at Traitors Cove. They returned to base as instructed.

Mr. Dupea returned to the Promech office and told them what he saw and what was going on. Mr. Sessoms's concern at that point was that he still had Mr. Hasuba and Mr. Ruttkofsky still out at the crash site, and he did not know what they were doing. Mr. Ruttkofsky was shirtless and he was a mess.

Mr. Ruttkofsky returned to Ketchikan on a Coast Guard boat. Mr. Sessoms had instructed a 911 dispatcher to notify Coast Guard, and the Coast Guard had called to ask if they should launch a cutter and Mr. Sessoms had told them yes. Mr. Hasuba came back in a Temsco helicopter.

The three passengers who attempted to assist at the crash site were Ronald Narcavage, Richard Grim, and Linda Grim. They were all from England.

Island Wings was at Traitors Cove giving a bear tour when the accident occurred, and they did not know what was going on.

Mr. Ruttkofsky probably did not encounter Ms. Steffen because there were two ways back to dock from the crash site. Mr. Ruttkofsky went the hard way through the woods, and Ms. Steffen went the other way along the beach, and he never saw her. Tour passengers took care of Ms. Steffen and put her on Mr. Ruttkofsky's plane, and then the three passengers headed toward the crash site. Mr. Sullivan later showed up and took the remaining passengers to Ketchikan with Ms. Steffen.

Ms. Steffen was awake and lucid when she was wheeled by Promech's offices on the dock. That was Promech's last tour for the day.

N959PA left Promech at 1822, with Mr. Dupea, Mr. Sullivan, and Mr. Hasuba on board. They reported arriving at 1830. His report was, "Trader's within 3 minutes." Mr. Dupea was flying.

Mr. Kamm was usually on time returning from his tours, so Mr. Sessoms thought Mr. Kamm had crashed 20 minutes or more before Mr. Ruttkofsky took off, perhaps at around 1745.

This concluded the interview.

**Interview:** Joshua Ruttkofsky, Pilot, Promech Air  
**Time/Date:** 1320, August 18, 2007  
**Location:** Promech Air Office, Ketchikan, Alaska  
**Present:** Erickson, Bramble

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

He was the pilot of a Promech turbine Otter, N435B, being used for a bear tour in Neets Bay on afternoon of the accident. He recalled departing from Promech at 1705, although company records indicated 1722.

During the flight to Neets Bay, the weather pattern was something that happened in the area every August. The winds "came rolling in strong and gusty." At 1,500 feet, the winds were almost 47 knots after his departure in the Tongass narrows. Winds were 12 knots between 3000-4000 feet MSL in Behm Canal. He knew this because he read the wind data off the Capstone equipment installed in his airplane.

Mr. Ruttkofsky stated that the weather pattern he observed that day was a pretty common phenomenon for that time of year. He stated that if the winds did not come, it would get foggy instead. He said the strongest winds seemed to heat up out of the Cassiar flats, and move out toward Ketchikan. It was 82 degrees at Neets Bay that day, and it had been in the mid-70s on previous days.

Mr. Ruttkofsky said the winds had been worse earlier during his inbound leg to Ketchikan at 1630. Before that, it had been westerly winds. Then at 1630 it was hard winds from the east. It had started to calm down when he departed on this flight. Mr. Ruttkofsky encountered moderate turbulence at most during the flight to Neets Bay.

Mr. Ruttkofsky tied up at Neets Bay and picked up 10 passengers for his inbound flight. He departed, climbed out of Neets Bay, and called inbound. Then Promech dispatch wanted him to start trying to raise N345KA (the accident airplane). Mr. Ruttkofsky was still climbing out at that time, and he found out that the airplane's last position was Traitors Cove. Traitors Cove was on Mr. Ruttkofsky's route, and when it was not bumpy, Mr. Ruttkofsky would usually fly over it anyway.

Mr. Ruttkofsky flew over Traitors Cove. The wind was the same blowing hard and gusty. Mr. Ruttkofsky had been trying to fly and climb as fast as he could. He was getting close to 3000 feet, and he was looking down over Traitors Cove to his lower left and he saw a white Beaver at the dock. He could not tell which one. He started descending to get a closer look at the airplane, and started to think it was not N345KA. Then he noticed it was Michelle Madsen's Beaver.

Mr. Ruttkofsky flew a little further up so he could make the turn and keep an eye on the area, and he went almost to Margaret Bay. He saw something white in the water that looked like a Beaver tail. As he turned over toward it, he saw smoke and he circled to look again lower, at the 1,700-foot level. He could see a Beaver tail and fire in the trees. Mr. Ruttkofsky called Brentwood Wiest, another Promech pilot who was flying nearby, and asked him to get the rescue squad out and tell them Mr. Ruttkofsky was landing. Then Mr. Ruttkofsky swung the airplane around and landed.

Mr. Ruttkofsky could not easily describe the winds and turbulence he encountered as he was circling down. He was concentrating on flying and looking at the airplane on the ground. Mr. Ruttkofsky did not remember encountering any violent turbulence or having any difficulty landing. He stated that it was a little gusty, but it was a whole lot calmer than it had been the hour before. It had been "vicious gusty" when he was landing at Neets Bay. On his way in there, he had observed cat paws on the water. When landing at Neets, just behind the hills, Mr. Ruttkofsky saw a "slicked up area" at the head of the bay that was "black and weird."

Mr. Ruttkofsky stated that when he took off from Neets Bay it was probably about the same time Mr. Kamm had taken off from Traitors Cove.

The wind speed at Neets Bay during his takeoff was hard to estimate, but he observed only shallow white capping. There was probably full white capping before, when the wind was stronger. There had been "rollers" coming in from Behm. Mr. Ruttkofsky stated that white capping occurred with wind speeds between 10 and 20 knots, and the winds might have been gusting over 20, but he thought they were a steady 12-16 knots during his landing and takeoff at Neets Bay. Perhaps 10 minutes elapsed between his landing and takeoff there.

Mr. Ruttkofsky stated that there were cumulus clouds building up in the coastal range and there were some lenticular clouds behind Purple Mountain. He could see these clouds from Neets Bay, so visibility was excellent. It was a little hazy in the direction of Wrangell, because he could not see Devil's thumb, but visibility was unlimited to the east and south.

Mr. Ruttkofsky thought he probably saw gusts when landing at Traitors Cove, but he was flying on instinct, and he did not recall the winds. He knew he was probably working through the gusts. There was no precipitation and there were no restrictions to visibility when he landed. He thought the pressure was rising rapidly, because Promech's chief



pilot, Tony Dupea, was asking flight service on the radio. Flight Service would have a log.

After arriving and instructing some passengers to hold his plane on the dock, Mr. Ruttkofsky said he attempted to hike through the woods to the crash site, which was very difficult. Mr. Ruttkofsky ended up walking down the road and he knew he went too far. Then Michelle Masden came upon him. He asked her what she was doing. She was just driving by on a bear tour. Mr. Ruttkofsky said he assumed she had seen the accident and was dealing with it, and he remembered getting mad at her because he did not understand why she was driving away.

Mr. Ruttkofsky stated that the accident airplane was in the woods nearby burning and he thought he had walked past it, but he could not tell. Mr. Ruttkofsky asked Ms. Masden to get into her airplane and lead him to the site using her airplane. Then they tried to juggle fire extinguishers, but Mr. Ruttkofsky ended up taking only the two from his airplane.

Mr. Ruttkofsky had been unable to get to his first aid kit, so he just left it and took the extinguishers. He made it through the bush to the beach, but he had gone too far east, so he went back west. Mr. Ruttkofsky came across the right tip tank from the accident airplane on the beach, then he encountered the tail.

Mr. Ruttkofsky yelled up through the woods and got a response from Mr. Kamm. Then Mr. Ruttkofsky went up into the woods and found Mr. Kamm standing there holding the little girl. Mr. Kamm said "Take this little girl and soothe her." Ms. Masden had been taxiing down the beach. Mr. Ruttkofsky thought she had seen him go into the woods.

There was a woman lying face down on ground with her face turned toward me Mr. Ruttkofsky. Mr. Ruttkofsky took the little girl over to the woman on the ground, thinking it was her mother. He established communication with the woman, who turned out to be the little girl's grandmother, and he asked the little girl her name.

Next, Mr. Ruttkofsky checked out Mr. Kamm. Mr. Kamm's hands were badly burned, and he had a bad cut on his face that had coagulated a bit. It was not bleeding as bad as it probably had been before. Mr. Ruttkofsky gave Mr. Kamm his shirt and told him to get down to the beach and soak his hands in the water, so he could get him doing something productive.

Mr. Ruttkofsky sat down with the little girl, Allison. After Mr. Kamm went over the bank and down toward the beach, Mr. Ruttkofsky heard a Beaver coming. He picked Allison back up, and told the grandmother he was getting Allison out and warned her that she was going to be on her own for a little bit.

One of Pacific Airways' airplanes pulled up. The pilot, James Jakubek, had probably come right off the step and taxied directly to where Mr. Ruttkofsky was when he landed, probably because he saw Mr. Kamm standing there holding Mr. Ruttkofsky's shirt. Mr. Jakubek, was coming out. Mr. Ruttkofsky pulled the left float up on a snag, and the left

wing into the trees. Then he shimmied down the log and gave Allison to Mr. Jakubek. Mr. Ruttkofsky gave Mr. Jakubek's plane a push. It was very difficult getting him back away from the trees, and the plane received a dent, but eventually he succeeded and Mr. Jakubek left.

Mr. Ruttkofsky did not see Mr. Kamm. He went back up in the woods and saw Mr. Kamm holding his shirt and wondering where Mr. Ruttkofsky was. Mr. Ruttkofsky saw or heard another Beaver, and he told Mr. Kamm he would be evacuated next. Mr. Ruttkofsky had Mr. Kamm put the shirt down. Then he took Mr. Kamm down to beach, waved over a Pacific Airways plane, piloted by Mike Rhoads.

About the same time, Tony and Joe and others started showing up. Mr. Ruttkofsky distinctly remembered Tony and Joe coming through the snaggy tree.

Mr. Ruttkofsky stepped Steve into Mike Rhoads plane and pushed them away from the shore.

Asked whether Mr. Kamm said anything about what had happened, Mr. Ruttkofsky said that Mr. Kamm stated, "I was going to go out right and realized I couldn't go out that way and I had to come back around left and didn't make it." Mr. Ruttkofsky assumed he meant he had been trying to turn right out of the mouth of the cove, but he was not positive.

Mr. Ruttkofsky went back to crash site again. He said he did not want to move the grandmother because she was complaining of pain in her lower back. She could move her lower legs and hands, but she definitely had internal injuries, and was not ambulatory. Mr. Ruttkofsky could not spot any life threatening bleeding. Mr. Ruttkofsky left the grandmother in place until a rescue squad could get her out with a backboard.

Tony Dupea and Joe Hasuba were fighting fire by that point. Mr. Ruttkofsky had them do a perimeter search. Then he sat down and talked with grandma. Suddenly, there were two people at the scene that he did not recognize. They turned out to be some of his passengers. Then a lot of other people showed up, including one of Mr. Kamm's employees, Temsco people, and a two-man rescue squad.

Mr. Ruttkofsky stated that he later learned that Sarah had left the crash site and was going down the beach as Mr. Ruttkofsky was coming up the road, so he never saw her. However, his passengers had seen her, and some of them had headed up to the crash site.

The grandmother was coherent. He tried to find out from her how many people had been on the plane. The best he could establish was 8 people. They included her husband, her son, her daughter, the twins, Sarah, and the pilot Steve Kamm.

Mr. Ruttkofsky did not know how many seats Mr. Kamm's airplane had in it. He stated that his company flew with a maximum of 6 passengers plus the pilot in a Beaver. They were only insured for a maximum of 6 passengers.

When asked to describe the condition of the fire when he arrived, Mr. Ruttkofsky said it was raging when he was circling down. About 20 minutes later, after he arrived on foot, the fire was smoldering.

Mr. Ruttkofsky had known Mr. Kamm for long time, but they were not close friends. Mr. Kamm had checked Mr. Ruttkofsky out in a turbine Otter at some point.

When asked to describe Mr. Kamm's proficiency as pilot, Mr. Ruttkofsky said he was probably one of the best pilots on the waterfront. He had been doing it for 20 years, and was still there. Mr. Kamm had previously flown for Seaborne and Promech. He had been a single pilot owner-operator since about 2002.

Asked if he had seen Mr. Kamm in the days before the accident, Mr. Ruttkofsky said he had seen Mr. Kamm across the dock on the morning of the accident, about 150 yards away. Mr. Kamm was busy doing something. Sarah was bringing people down at their main dock. Mr. Ruttkofsky did not remember what time of day it was, probably morning.

Mr. Ruttkofsky diagrammed his flight path into Neets Bay and Traitors Cove on a map of the area.

This concluded the interview.

<b>Interview:</b>	<b>Terry Chandler, Guide, Island Wings Air Tours</b>
<b>Time/Date:</b>	<b>1745, August 18, 2007</b>
<b>Location:</b>	<b>Telephone</b>
<b>Present:</b>	<b>Bramble</b>

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

He did not see the accident airplane in the air before the accident. He arrived at the scene after others had already arrived and were fighting the fire.

Mr. Chandler had been at one of the two bear observation platforms used by his company, called "the bridge." He left that observation platform about 1745 and went to a second observation bridge. About 1800 or 1830, Mr. Chandler noticed the wind picking up and the clouds moving fast. The winds began to blow 30 or 40 miles per hour above his head from the southeast.

Mr. Chandler had been told 2 hours earlier by a pilot who was dropping off passengers that it was blowing really hard in Tongass Narrows at 45 knots with 2-3 foot waves in the narrows. A couple of hours later, between 1800 and 1830, Mr. Chandler noticed that the wind had moved in was blowing pretty hard. Mr. Chandler did not hear any thunder, just wind. It was not dark and he did not see any thunder clouds. It did not start raining until

it was almost dark when Mr. Chandler returned to Ketchikan with the Temsco helicopters about 9 PM.

Mr. Chandler's pilot, Michelle Masden, had left Mr. Chandler at a bear observation bridge a little earlier, about 1815, because the wind was picking up and because she wanted to warm up the airplane and she thought she might have to back-taxi to take off. Taking off toward trader's cove was what lots of people did, but when it was blowing really hard, it was hard to take off that way, because the airplane could run out of takeoff area. Ms. Masden wanted to take off out of the cove toward Behm Canal, perhaps in a westerly direction, and that is what she eventually did.

Mr. Chandler left the bear observation platform about 1830 and then brought the passengers down to the dock, arriving about 1835. About 100 yards from beach, Mr. Chandler saw people coming out of the woods. He asked his passengers to take his vehicle down to the dock, and he headed into the woods with an aviation radio, water, and a first aid kit. The pilot was already on the beach waiting for a plane to taxi over.

Someone told Mr. Chandler there was still a lady up at the site. He went up and checked her for injuries and spoke with her and waited with her for paramedics to arrive via Temsco. It was not much longer before they arrived. Mr. Chandler thought he arrived at the site about 6:40 PM and that paramedics had arrived less than 15 minutes later.

Mr. Chandler had visited with the Kamm's bear guide Ms. Steffen and the family and the single guy who was on the accident plane while he was at the observatory platform. They had shown up about 1700, perhaps a little earlier. They weren't there very long because they had gone to the bridge first. They were probably at the platform for half an hour. Mr. Chandler never saw the pilot with the passengers and he had never met the pilot before he saw him on the beach near the crash site.

Neither the passengers nor the guide mentioned anything about the flight out or the weather. They were just talking about how slow it was with the bears that day because it was pretty hot and they were waiting for the shady hours for the bears to come out.

The only information Mr. Chandler had about the weather was when Ms. Masden dropped his group off. He was going to have his girlfriend come out on that flight, but Ms. Masden had asked her not to come because she did not want the extra weight in the airplane with the gusts at the Tongass narrows.

Mr. Chandler stated that Ketchikan had experienced a "huge hot streak" and he stated that when a low arrived after that kind of weather, the change could be quick. There could be a few electrical squalls. Mr. Chandler understood that they had some toward town, but he did not see any. He added that the weather can change like that at any time around Ketchikan, and that it could be very unpredictable.

This concluded the interview.

**Interview:** Brentwood Wiest, Pilot, Promech Air  
**Time/Date:** 1900, August 18, 2007  
**Location:** Promech Air, Ketchikan, Alaska  
**Present:** Erickson, Bramble, Eick

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

His total flight experience was 26,000 hours, including 11,000+ hours in floatplanes, and 13,000 hours in the Ketchikan area. He had started flying in the area in 1970. He had flown with Horizon Airlines for 17 years, in the Metro, Dornier, Dash 9, 100, Q200, and 400.

Mr. Wiest had flown up to Neets Bay in a Promech turbine Otter and picked up bear tour passengers in the early evening. Josh Ruttkofsky took off before he did. He heard Josh call N345KA on the radio and say "Kamm are you on there." Then he heard him calling again. Mr. Wiest asked what was up, and Josh said he was overdue and was supposed to be going to Traitors.

Mr. Wiest thought Josh was going out of Neets Bay and around the outside of Traitors Cove, and Mr. Wiest said he would look in upper Traitors Cove. Mr. Wiest crossed Fire Cove and flew over upper Traitors and asked passengers to help look for the airplane. He crossed the cove at about 1500-1600 feet, circled a little bit, worked down the cove and circled over the top of Josh's airplane.

Josh said contact Ketchikan and call the fire rescue people. He said he saw smoke in the trees and fire and he could see the tail of the airplane. Mr. Wiest immediately started climbing to radio Promech with the information. (The radio repeater had not been working well last few weeks.) Mr. Wiest climbed to 3 or 4000 feet. As he was calling he kept working his way back toward Ketchikan and Josh said he was landing. Then there were numerous radio calls back in forth. He did not remember them all.

A Promech pilot, Dale Leman, was coming back from Craig and the flight service station had asked him to look out that way and Mr. Wiest told him, that we had located the airplane. Then Mr. Leman told FSS they had found the airplane and that it was all right, which was a mistake. Dale Leman switched over to the flight service station at Point Higgins, and they asked if the airplane had been located. Mr. Wiest told them it had been located and asked them to call his company for more information, because lots of people had radio scanners in Ketchikan and he did not want to say it had crashed.

It was gusty when Mr. Wiest was crossing Fire Cove into Traitors Cove. A weather system had come from SE, and it had not really gotten into Neets Bay yet. It was windy on the outer bay, but the wind was not bad where the three Promech pilots had landed. Mr. Wiest thought it had been calm where they landed. On the outside of the bay, it was blowing 10 or 15 knots, but it was starting to get gusty, with cat paws on the water on the lakes. The pilots were just on the leading edge of the windstorm that came through.

There had been no reduction in visibility and there were no low clouds. During the previous trip he had come back to Ketchikan at 5,000 feet. He had seen clouds around Mary Island and had told Promech's tour office people they were in for a weather change real fast. That was around noon or 1330. Soon after that, clouds were starting to gather around the mountaintops and the winds were starting to hit. Promech had not shut down the Misty Fjords tours yet, but some planes headed that way turned around after that.

Mr. Wiest continued back with his passengers after Josh located the down airplane. Mr. Wiest knew the dock at Traitors Cove was small and he saw that Michelle Masden had landed there already, and knew there would not be room there for him.

Dave Doyon called on the radio and said he was at Deer Island and could get to Traitors Cove in 20 minutes and Mr. Wiest told him to come down to Traitors. Chuck Perkins was probably behind Mr. Wiest.

Mr. Wiest did not experience any really violent turbulence over Traitors Cove when he over flew it, but it was not comfortable. There was moderate turbulence. Nothing was coming off the floor. The passengers did not seem too bothered or scared by the turbulence.

Mr. Wiest was asked to discuss what factors a pilot needed to pay attention to with strong southeast winds. He said there were lots of areas where one would get downdrafts off of the mountains and that usually you could see that on the water.

Just as this storm hit, Chuck Perkins went around and circled and landed coming out of Neets Bay. The wind was blowing into the Bay from the west, so he landed in that direction. Generally Mr. Wiest did not like to do that because he did not like to chase away the bears. Normally if he flew along the shoreline it would be fairly calm and he could get in and land. Mr. Wiest landed coming into the Bay.

Mr. Wiest made 8 round trips to Neets Bay on the day of the accident. Each round trip lasted 42 minutes.

Mr. Wiest asked why Promech operates its tours in Neets Bay rather than Traitors Cove. He stated that Neets Bay had a hatchery that limited the number of people per year that could visit. He stated that Traitors Cove was more natural than Neets Bay, but Neets was more of a controlled environment for bears and fish. Taquan, Island Wings, SeaWind and Carlin Air went to Traitors Cove primarily.

Mr. Wiest said that coming around Bushy Point into the bay a pilot could get slammed with southeast winds, so he would swing wide around that area. However, it was not too bad in that area on that day.

Asked whether the weather pattern he observed on the afternoon of the accident was extraordinary or common for that time of year, Mr. Wiest said "I think it was on the

verge of extraordinary for it to come up as fast and as violent as it did. We get a lot of windstorms but they don't usually come up that fast." He stated, "Water was sloshing over the docks here, and that is pretty unusual." There had also been water splashing over the docks at Neets Bay, but by the time he got to the dock, the swells had died down. It was calm in the head of the bay when he arrived there.

Mr. Wiest said he saw very few thunderstorms in the Ketchikan area in a year, adding that he was lucky to see even one. He watched one the night before the accident for about 4 hours. He lived on Mountain Point, and he watched the lighting at Nickel pass as it drifted west toward Prince of Wales Island. He was counting to 25 and 30 seconds between seeing the lightning and hearing the thunder.

Mr. Wiest said that on Thursday evening, the direction of movement of the low clouds was from the south, over the top of Mary Island.

Mr. Wiest said that at Neets Bay, pilots typically landed straight in and took off out of the mouth to the channel unless the winds prevented it. They landed close to the left hand shoreline because it was the calmest at Neets. He was not sure what pilots did at Traitors Cove, but thought it was similar. Mr. Wiest said that if he had landed at Traitors Cove he would have done it the same way as Mr. Ruttkofsky.

Asked how he would have taken off out of Traitors Cove with a heavy southeast wind, Mr. Wiest said he probably would have-back taxied down the cove and taken off back into the wind.

Mr. Wiest thought the water run on a 985 Beaver was 1,200 to 1500 feet.

Asked whether he thought there was anything that could be done to better disseminate warnings or information about weather changes to pilots in the area, Mr. Wiest said, "I don't know what you could do. I don't know if it was forecast to come up that hard that fast."

He stated that the Chelton displays installed in the Beavers did not provide weather or traffic information, just terrain information. He said it would be valuable if it provided traffic information.

Mr. Wiest was asked how local tour pilots handled weather briefings. He stated that they talked to each other and other pilots who had just flown into the area where they were going. Aviation weather forecasts for the area were very general, mostly marine forecasts were available. There was a terminal area forecast for Ketchikan, but Mr. Wiest said he never looked at it, because he could walk outside and look. Mr. Wiest said that if he had access to it, he would watch Alaska aviation weather on the local public broadcasting station on television, but he never saw it because he never got home in time.

This concluded the interview.

**Interview:** Charles Perkins, Pilot, Promech Air  
**Time/Date:** 1945, August 18, 2007  
**Location:** Promech Air, Ketchikan, Alaska  
**Present:** Erickson, Bramble, Eick

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

His total flight experience was 6,000 hours, including 4,800 hours flying float-equipped airplanes.

Asked to describe the sequence of events leading to the accident, Mr. Perkins said there were three Promech airplanes, piloted by Josh Ruttkofsky, Brentwood Wiest, and himself, transporting passengers to Neets Bay for bear viewing.

The most notable thing he observed during the trip was that there was a wind change during the middle to latter part of the afternoon when they were departing out for the last pickup.

They normally run trips out and back on an hour-and-a-half cycle. When they were bringing out the next to last group they could see the clouds moving in. It was a solid overcast layer moving from the south. He could definitely see that there was going to be a frontal change. During that flight leaving Ketchikan, there was a discussion on the Ketchikan flight service radio frequency about whether the pilots should be using east routes or west routes. There was so much discussion about it, that Mr. Perkins was unable to talk to the flight service station until he had already proceeded beyond Point Higgins.

Ernie Robb, who flies for Southeast Aviation, was coming in from Mountain Point for the harbor, and he was probably reading off his capstone to determine how much tailwind he had. He was wrapping around and was going to be landing to the southeast at Ketchikan. Mr. Perkins announced that he was taking off to the west, and as he was departing, Mr. Robb was coming in. Mr. Robb said he had a big tailwind rounding Mountain Point and that they should probably be switching to southeast routes for takeoff and landing in the Narrows in front of Ketchikan. That was what the discussion on the flight service frequency was about.

Mr. Perkins took off using the west route because the wind at surface was from the west, and waves were coming from the west. One could have winds from southeast and a dead zone in the harbor and a westerly wind over by the airport.

Sometimes flight service would call the direction of takeoffs and landings based on the number of people headed in a particular direction. Flight service generally facilitates the flow, but they could not mandate the direction of takeoff and landing.



Usually on the way back to Ketchikan from Neets Bay, Mr. Perkins would fly down George Inlet. He had been able to do so on the previous day, and in the morning on the day of the accident. At the end of this route he would usually fly over the mountains east of Ketchikan (Deer Mountain, Fawn Mountain) at about 4,000 feet. On the morning of the accident when he did this he had great visibility and ceilings. This was a fast, efficient, scenic route.

During the afternoon on the day of the accident, during the second to last trip, he did not come back that way because he could see the weather coming in. He flew back near the shore on Behm Canal, because it was turbulent near the mountains.

There was a big dramatic change in weather between what he could do in the morning, versus flying in the 1000 to 1500 foot range toward the end of the day.

During his last trip up to Neets Bay, he was over the water in Behm Canal coming up. Normally they would go to a dock at Neets Bay. The hatchery operators there preferred for the pilots to land on the left shore coming in. However, the wind had picked up so much that he came up the valley and landed west into the wind (flying over the dock on his final approach). It was bumpy in the area. There were white caps in the bay, and cats paws on the water, and if things went bad, he knew he could go straight out of the bay. He did not like landing with a tailwind in white caps.

When Mr. Perkins departed Neets Bay, the worst weather was at the Bay entrance. The white caps had stopped, but one could still see dark splotches. Mr. Perkins was the last to depart, behind Mr. Ruttkofsky and Mr. Wiest. He was a distant third because the dock only accommodates two Otters at a time.

When Mr. Perkins was taxiing out for takeoff, he heard on company radio, "Has anyone heard from N345KA." Mr. Ruttkofsky called back and asked where 5KA was supposed to be. It came back "Traitors Cove." Traitors Cove was just over the hill. Mr. Perkins was not normally inclined to go that route because it would be a bumpier ride. Mr. Ruttkofsky did, and he saw the tail of the accident airplane.

There was some discussion with management, and Marcus Sessoms told the three pilots to bring their passengers back to Ketchikan. Mr. Ruttkofsky chose to land. Mr. Perkins was not sure whether it was a good call to expose the passengers to the situation, with Michelle Masden's airplane already on the ground, but it was a tough call.

Mr. Perkins heard Dave Doyon say he was about ten minutes out from Traitors Cove, Ms. Masden was already on the site tied up at the dock, and Mr. Perkins knew the dock had fairly limited space for boats and planes. By the time he came up over the ridge he saw Mr. Ruttkofsky tied up at the dock too, so he returned to Ketchikan with his passengers.

Visibility was good at the time. Mr. Perkins could see the weather moving up from the south, but it had not quite reached the area yet. By the time he and the other two Promech pilots did the last flight, the top of deer mountain (3001 ft) was not visible, so

the weather was moving down. Mr. Perkins knew it was probably going to block George Inlet. There was no cloud issue to the west at the time, but there was a wind issue. The turbulence was light to moderate, nothing that would cause loss of control, but enough that a passenger might get sick flying over the mountains. No passengers expressed any anxiety about it during his trip.

During the second to last flight north, Mr. Perkins had flown in the middle of the channel part of the way. The wind was getting more active and Mr. Perkins flew more toward the west side of Behm Canal because it was smoother. There was more mountain turbulence on the east side of the canal.

During the last flight back to Ketchikan, Mr. Perkins flew over and out of Traitors Cove to see what was going on. He did a climbing 360-degree turn in Neets Bay before doing so. He thought he had crossed over Traitors Cove at 2000 feet or so, and he just saw the two planes parked at the dock.

Mr. Perkins had flown into Traitors Cove many times between 1996 and 1999 when he worked for the old Taquan Air. Promech had an arrangement with a hatchery in Neets Bay allowing them to bring tourists there for bear watching. By contrast, smaller operators flew into Traitors Cove and drove passengers up for bear viewing because it was more economical.

This concluded the interview.

<b>Interview:</b>	<b>Mike Rhoads, President, Pacific Airways Inc.</b>
<b>Time/Date:</b>	<b>1400, August 19, 2007</b>
<b>Location:</b>	<b>Pacific Airways Offices, Ketchikan, AK</b>
<b>Present:</b>	<b>Erickson, Bramble, Soucy</b>

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

He had 15,700 total flight hours, including over 10,000 hours in seaplanes. Pacific Airways operated 7 airplanes.

Mr. Rhoads stated that he had been on a trip west of Ketchikan in VFR conditions with westerly winds about 1600. When he left Ketchikan, the winds were from the west on a nice day. When he was inbound to Ketchikan, he noticed a “significant” change. The winds were strong and southeasterly. He stated that they had changed to 20+ knots in an hour’s timeframe by the time he had landed in the harbor and parked his airplane.

About 1800, he and another Pacific Airways pilot, James Jakubek, began hearing radio traffic about an overdue airplane, piloted by Steve Kamm. About the same time, they heard that an airplane was down in Traitors Cove. This information was received via telephone from Taquan, and via radio.

Mr. Rhoads and Mr. Jakubek launched by themselves in two separate Pacific Airways airplanes about the same time Promech dispatched their response plane, a turbine Otter, just after 1800. Mr. Rhoads was flying N9294Z. Mr. Rhoads and Mr. Jakubek landed at Traitors Cove at 1830, 1840 at the latest. There were strong gusty winds at the head of Traitors Cove, and it was quite turbulent.

The Promech plane arrived first, followed by Mr. Jakubek, in N94DC. Mr. Jakubek evacuated a child. Mr. Rhoads was next, and Mr. Kamm got in his aircraft. Both airplanes were assisted at the shore by Promech personnel. Mr. Jakubek and Mr. Rhoads headed back to Ketchikan, landed, and pulled up at the Pacific Airways dock, where an ambulance was waiting. Mr. Rhoads had called ahead to assure that an ambulance would be waiting for them at their dock.

When asked about the weather change that afternoon, Mr. Rhoads said the winds had been westerly at 10-15 knots, but then switched to southeasterly with clouds coming in at “5:30 to 5” PM and the wind was gusting up to 20+ knots “here in the harbor.” He stated that the weather was air mass, “frontal-like weather, and fast, from the southeast.” He saw the system coming in, and the change in the wind, but he did not notice any convective activity. He experienced 20-knot gusty winds while he was on the beach at Margaret’s Cove. He was unsure of exactly when the wind shifted, but it was “quite noticeable.” Mr. Rhoads did not remember seeing anything in the forecast about the change.

Mr. Rhoads’s business partner had put together an internal web site at Pacific Airways that had a lot of weather information. Mr. Rhoads used this system to obtain weather information, including METAR, TAF. Updates occurred every 90 seconds. The weather information was available right next to his workstation, where he gave the pilots their manifests. Agents at outstations also kept pilots apprised of weather conditions. Pilots typically obtained weather information at the beginning of the day and obtained updates during the day as needed.

Mr. Rhoads said he pulled up to the beach right after Mr. Jakubek pulled off. He picked up Mr. Kamm right on the beach, just down slope from the crash site. Promech personnel held his airplane in place long enough to get Mr. Kamm on board. It was mid-tide.

Mr. Rhoads stated that he did not talk to any of the Promech people or to Mr. Kamm, any more than to make sure Mr. Kamm was seat belted in, and to ensure that the door was closed. Mr. Kamm sat in the farthest aft seat during the flight. Mr. Rhoads did not recall if Mr. Kamm made any comments. Mr. Rhoads just asked Mr. Kamm if he was all right when they arrived, and Mr. Kamm said thanks. Mr. Kamm walked off the airplane to the ambulance.

Two Promech Otters and Michelle Masden’s Beaver were already on the water when Mr. Rhoads arrived at Traitors Cove. A Promech Otter, and Mr. Jakubek and Mr. Rhoads

were all back taxiing out at the same time. The Otter took off first, followed by Mr. Jakubek, followed by Mr. Rhoads.

Mr. Rhoads taxied out of the cove, took off toward the cove, and made a clockwise 90-degree right turn before reaching the passage between the island and the point. The taxi out lasted only a few minutes, because he was taxiing as quickly as he could.

The wind was 20 knots with gusts. Sea conditions were not that bad. There was not much fetch. It was a little rougher beyond the island, but the water conditions did not concern Mr. Rhoads. When asked to describe the wind conditions that were present when he was in the cove, Mr. Rhoads said the wind was coming from the head of the cove, rather than from the mouth of the bay.

During his takeoff and climb out of Traitors Cove, it was turbulent. He could not recall the conditions in detail, but he estimated that it was light with occasional moderate turbulence, and he recalled that the turbulence went away as soon as he got away from the hillsides and flew out over Behm Canal. The air was not calm in the canal, but it was a lot better than riding against the hillsides.

Mr. Rhoads had operated tours out of Traitors Cove in past summers, and he said that the most typical way in and out was to land into the bay and depart out of the bay. Asked what percentage of time he had had to take off toward the head of the cove, Mr. Rhoads said seldom, and estimated that it occurred less than 3 percent of the time. Asked what was the main consideration in planning a takeoff toward head of the cove, he said it would depend on how much distance you had, what kind of winds, the performance of the machine, and what you weigh. Typically, the water run was fairly short. He did not think Mr. Kamm's airplane was very heavy. He estimated that the accident airplane might have been in the air in less than a thousand feet.

Asked about the weather that occurred on the afternoon of the accident, Mr. Rhoads said that that weather phenomenon was rare in the Ketchikan area. He had seen it before, but similar weather changes occurred only three times per year, at most, usually between June and September.

Mr. Rhoads said he did not see Mr. Kamm in the three days before the accident. They were both busy running their businesses. It was August and there was more work than they could do, and it was about three weeks away from being over. Mr. Rhoads said his company did mostly lodge work and scheduled flights.

Some tour passengers were walk-ins and some were vended from the cruise ships. Pacific Airways had done the cruise ship thing for a while, but stopped because it affected their other work. Only Promech and Taquan had direct arrangements with the cruise lines.

Single pilot owner operators flew mostly tourists in the summer, but they did whatever they could. In the winter, Mr. Kamm would be golfing. He did not work much in the

wintertime. Pacific Airways pilots averaged 4 to 10 flights per day in the summer, with flights ranging from .4 to .6 hours each. Their workdays typically lasted 11 to 14 hours in the summer.

Mr. Rhoads thought the emergency response to Mr. Kamm's accident went surprisingly well, given that there was no central person pulling the strings. Everyone had worked together. Michelle Masden had a satellite phone.

During a typical emergency response, a company would ask other companies for help. If it started to look pretty serious, there was generally a pretty significant launch of airplanes to find out what was going on. Then official calls were made. Mr. Rhoads said that was what happened with Mr. Kamm's accident, and it was what had happened in the past.

Mr. Rhoads was asked whether he would consider the response adequate if paramedics had arrived between 1900 or 1915. He stated that he thought that was pretty rapid.

Asked how a company would ensure paramedics were sent on a rescue flight, Mr. Rhoads said he would call the State Troopers or 911. He stated that the company Guardian had a medevac Learjet in Ketchikan, and they had some paramedics that could respond on a Beaver or helicopter. The fire department would have been notified, and they had paramedics on staff as well. Outside of the city limits one called the troopers, inside the city, it was the fire department.

This concluded the interview.

<b>Interview:</b>	<b>Michelle Masden, Owner &amp; Operator, Island Wings Air Tours</b>
<b>Time/Date:</b>	<b>1545, August 19, 2007</b>
<b>Location:</b>	<b>Telephone</b>
<b>Present:</b>	<b>Erickson</b>

During a telephone interview, Ms. Masden stated the following information.

Said had docked her airplane in Traitors Cove and she was assisting with her bear-watching tour with her guide Terry Chandler. She and Terry had split the group in two and each of them was guiding passengers on the ground.

Ms. Masden stated that she was driving back to her airplane in a van when she encountered Josh Ruttkofsky, a pilot from Promech Aviation, running up the road with fire extinguishers in his hands.

Ms. Masden initially joked with Mr. Ruttkofsky, asking if he was getting exercise running up the road carrying fire extinguishers. He said no, there had been an accident and the plane was on fire. Mr. Ruttkofsky went into the woods, but he came back out, asked her to go to her airplane and assist him in finding the accident site.

Ms. Masden said she started her airplane and began taxiing along the beach while Mr. Ruttkofsky went back into the woods and eventually appeared at the beach. Ms. Masden directed Mr. Ruttkofsky to the accident site, and she began making satellite phone calls. Ms. Masden stated that she called FAA flight service, Promech Aviation, her own office, and possibly others as well.

Next, Mr. Chandler arrived at the Traitors Cove dock with Ms. Masden's customers. A customer on that tour was an x-ray technician. Somehow they had encountered Mr. Ruttkofsky, and the customer had gone into the woods with Mr. Ruttkofsky, and the customer had begun to render aid to the injured grandmother.

Other airplanes began arriving, and Ms. Masden thought that eventually there were as many as 7 airplanes in the cove at one time. A Temsco helicopter arrived and picked up the grandmother. Ms. Masden was uncertain how the other occupants of the accident flight were transported to Ketchikan.

Asked about the weather conditions, Ms. Masden stated that when she flew into Traitors Cove before the accident, Mr. Kamm was already at the dock. The winds were still coming from the west at that time. Ms. Masden commented that there had been a wind shift along Behm Canal, but the shift had not affected the cove yet. The winds outside of Margaret Bay were blowing 35-40 knots.

It was still windy when Ms. Masden departed the cove (after the accident). When she departed, she back-taxied to the upper part of Traitors Cove to a narrow referred to as the Chuck and she took off crosswind toward the outlet of Margaret's Cove. She used that strategy because it was "too scary" and she was "too much of a chicken" to do that.

This concluded the interview.

<b>Interview:</b>	<b>James "JJ" Jakubek, Pilot, Pacific Airways</b>
<b>Time/Date:</b>	<b>1700, August 20, 2007</b>
<b>Location:</b>	<b>Telephone</b>
<b>Present:</b>	<b>Erickson</b>

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

Mr. Jakubek's flight experience was as follows:

Total Time	28,500 hours
Time on floats	26,500 hours

Mr. Jakubek was a pilot for Pacific Airways. He recalled that on the accident day, he heard radio calls, first about an overdue airplane, Steve Kamm, and then radio calls that

the airplane had been located in Traitors Cove by Josh, a pilot for Pro Mech. Mr. Jakubek departed from Ketchikan and landed at Traitor Cove about 1845.

He said he saw the crashed airplane along the beach and taxied his airplane as close as possible. Josh came out the beach from the crash site, carrying a child. Josh handed the child to Mr. Jakubek and he placed the child in the right seat of his airplane.

The wind conditions at that time were about 20 to 25 knots, from the southeast. He said that for his takeoff from Traitors Cove, he taxied downwind while on-step until the water condition became choppy. He then slowed, turned around into the wind, facing into the mouth of the small cove known as Margaret's Cove, and departed. He said there was moderate turbulence near the hillsides. He flew to Ketchikan and landed at the Pacific Airways dock, where an ambulance was waiting.

Mr. Jakubek commented that the wind conditions from the southeast were producing a lot of turbulence, even in the protected portions of Margaret's Cove, and that the amount of turbulence was rare for that area.

Mr. Jakubek said that in his opinion, Steve Kamm is a conscientious and professional pilot, and that Steve would have done everything possible to be safe. He said that Steve probably ran out of enough area to make a turn after takeoff, and got caught in a rogue, extra heavy downdraft.

This concluded the interview.

<b>Interview:</b>	<b>Jeff Carlin, Owner, Carlin Aviation</b>
<b>Time/Date:</b>	<b>1745, August 20, 2007</b>
<b>Location:</b>	<b>Carlin Aviation Office</b>
<b>Present:</b>	<b>Bramble</b>

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

Mr. Carlin was a commercial pilot and had been flying in the Ketchikan area for 28 years.

Steve Kamm fueled his airplane and loaded passengers for some tours at the Carlin Aviation dock. They shared a sales booth at the cruise ship dock. Mr. Carlin was a good friend with Mr. Kamm.

Mr. Carlin saw Mr. Kamm about 1500 on the day of the accident, right before Mr. Kamm left Ketchikan for Traitors Cove. He looked "fine," and appeared no different than any other day. They engaged in some casual conversation. Everything was routine. When asked if Mr. Kamm had expressed any concerns about flying conditions, Mr. Carlin said no, Mr. Kamm had just returned from a Misty Fjords tour "up high" and had said it was fine. Mr. Kamm left for Traitors Cove about 1530.

Mr. Carlin stated that the weather in Ketchikan was very strange on the day of the accident. A weather change hit about the time Mr. Kamm was taking off. Mr. Carlin Ketchikan about 1500 on a Misty Fjords tour and the winds suddenly shifted to the southeast at 40 to 45 knots. It was very bumpy below 800 feet. Mr. Carlin tried to climb, but he could not. The winds seemed to be 5 knots gusting to 50 knots.

Mr. Carlin had heard that a boater in Neet's Bay had encountered sudden winds while moored at the dock there about 1730, and the winds were so strong that they had had to untie from the dock.

Mr. Carlin thought that Mr. Kamm probably believed that the winds in Traitors Cove were the usual 20-25 knots, back-taxied as far as he thought he had to, and probably encountered the stronger winds as up in the little valley as he was trying to turn around. Mr. Carlin stated, "Maybe he could have back-taxied more, but he probably did not realize what the wind was until he got into it." Mr. Carlin stated that he had only seen this kind of strange wind a couple of times in 28 years.

Mr. Carlin had flown into Traitors Cove on the day of the accident at 1200 and 1400 and the winds had been westerly.

Mr. Carlin was not aware of any problems in Mr. Kamm's personal life, finances, or health.

Mr. Carlin had seen Mr. Kamm in the two days before the accident and everything had appeared fine. He had never mentioned being tired.

Mr. Carline stated that Mr. Kamm was really a good pilot and had always made good decisions. He stated that Mr. Kamm must have firmly believed his best option was to take off as he did.

A southeasterly wind would not normally have created the kind of turbulence Mr. Carlin had encountered on his Misty Tour. The passengers had been concerned, and he had turned around and come back at 800 feet at 1500 and quite flying at that point. Mr. Carlin had had another trip scheduled later in the day with the Alaska Department of Fish and Game to the north end of the island, but they said they could postpone the trip until the next day.

Mr. Carlin stated that he had mentioned the winds to Mr. Kamm before Mr. Kamm left for Traitors Cove, but that Mr. Kamm was headed in a direction where there was good weather.

This concluded the interview.



**Interview:** Charles Perkins, Pilot, Promech Air  
**Time/Date:** 0930, August 21, 2007  
**Location:** Telephone Interview  
**Present:** Bramble

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

Mr. Perkins made contact with investigators after his initial interview. During a follow-up interview conducted by Dr. Bramble by telephone at 0930 on August 21, Mr. Perkins stated the following information.

He had some general safety concerns about the aviation industry in the Ketchikan area. He was concerned about the pilots' continuous 12 to 14 hour duty days during the summer. He stated that since he had been working in the area there had been three bad accidents and they had all happened during the last flight of the day, and they tended to happen late in the season. The three accident pilots he was thinking about were Tom Poplin, Brian Salazar, and Steve Kamm.

Mr. Perkins was concerned that the pilots were burning the candle at both ends and that the industry might want to reconsider the 14 hour duty day. He himself worked 6 days per week, about 84 hours per week, 12-14 hours per day. He got up for work about 0430, began work at 0530, and quit work between 1730 and 1930. He stated that he was not as alert toward the end of the day. He stated that this pace continued throughout the tour season, which began the third week of May and ran through mid-September. He stated that the challenging pace resulted from the pilots trying to make a year's living in just a few months.

Mr. Perkins stated that there were not enough experienced pilots for the operators to back the workday down to 10 hours a day. The regulations allowed 14-hour duty days, but Mr. Perkins did not think the rule was intended for sustained 14-hour days.

This concluded the interview.

**Interview:** David Borne, Ketchikan Adventure Tours  
Tom LeCompte, Ketchikan Tour Referrals  
**Time/Date:** Mid-afternoon, August 21, 2007  
**Location:** Ketchikan Visitor Information Center, Ketchikan, AK  
**Present:** Erickson, Soucy, Bramble

During the interview, Mr. Borne and Mr. LeCompte stated the following information.

Mr. Borne worked as a tour coordinator and travel planner, with a booth at the Ketchikan Visitors Center, which was located next to the city cruise ship dock. Mr. Borne operated within the visitor bureau building and was authorized to sell tours, both airborne and ground based, for several operators.

He recalled that Mr. David Herron and his wife approached his booth wanting to go on a bear-viewing flight in the afternoon on the day of the accident. He checked his operators and found only one seat available, which was at SeaWind Aviation, Steve Kamm's company. Mr. Borne commented that the other seats on the accident flight had been booked with SeaWind Aviation via their web site.

Mr. Borne said that Mr. Herron and his wife discussed who would take the flight, and they agreed that Mr. Herron would go. Mr. Borne said he did not discuss any other tours to Neets Bay, run by Promech, since he did not market their tours. Mr. Herron never stated that he wanted to go to Neets Bay.

Mr. Herron wanted to pay for the tour via credit card, and David escorted him to another booth that has the credit card machine for SeaWind Aviation. That booth was operated by Mr. Tom LeCompte.

Mr. LeCompte operated a tour-planning booth for airborne and ground-based tours, in the visitor's center. He recalled that Mr. Borne escorted Mr. Herron to his booth, and he ran a credit card charge for the tour flight. He escorted Mr. Herron to the SeaWind van, for transportation to the airplane.

The SeaWind van was scheduled to pick up the group at 1515 and the tour was scheduled to begin at 1530. Mr. Herron was booked shortly before the tour, between 1450 and 1500.

Soon after the SeaWind tour departed, Taquan and Promech Air canceled their trips. They were doing all east tours. Mr. Borne began to hear that people were turning around on the Misty Fjords tours. The wind began to pick up at the cruise ship dock about 1600.

Passenger weights were determined by asking the passengers.

Mr. Borne stated that the maximum number of passengers for Mr. Kamm's airplane was 7, and that the combined weight of the passengers could not exceed 1,200 pounds. He said that he checked with Mrs. Kamm to find out how many flights would be flown for the day and how many seats were available for him to try to sell. When he sold a seat he would first call Mrs. Kamm to confirm that it was his, so that there were no over-sales.

Mr. Borne stated that the Misty Fjord tours began to cancel around 1600 because of wind. He heard that a pilot at Wilson Lake reported an indicated airspeed of 110 knots but his GPS groundspeed readout was only 55 to 60 knots.

Mr. Borne stated that he knew the Kamm's well and socialized with them. He lived in the bottom of Mr. Kamm's house, and he spoke with Mrs. Kamm routinely during the day about the tours. He did not know what time the pilot woke up on the day of the accident or when he may have gone to sleep the night before.

Mr. Borne would usually get off work between 1700 and 1800 and have dinner with the Kamm's later in the evening, but he did not recall if he had dinner with them in the two days preceding the accident.

Usually the first tour was booked for 0800. Mr. Borne and the other sales agents arrived at the Ketchikan visitors center for work at 0700. He would call Mrs. Kamm for the day's schedule.

Generally, Mr. Kamm went to bed around 2100. The earliest Mr. Borne would book a trip for him was 0800.

Mr. Kamm's recent activities and home life were routine. The family was doing "great." Mr. Borne added that he lived right below them, so he would know.

The Kamm's business was doing well that year. He thought that every year it got a little better. Mr. Kamm had started out with a 5 or 6 seat Cessna 206, and then upgraded to a Beaver.

Mr. Borne volunteered that Mr. Kamm did not have a drinking problem and was not under any particular emotional stress.

Mr. Kamm's health was excellent. He played golf.

Mr. Kamm worked in the summer and flew 2 to 3 hours per week during the winter. He would do trips to pick up shrimp from board, transport loggers, and take passengers to Craig or Thorn Bay.

Mr. Kamm had lived in Ketchikan year round his whole life.

SeaWind had a 3-person minimum per tour. Fuel cost 4 to 5 dollars per gallon, and chartering the airplane cost about \$600 per hour.

Most days Mr. Kamm did tours from 0800 to 1900, but every once in a while Mrs. Kamm would call and tell Mr. Borne not to book any more trips because Mr. Kamm was tired and they were done.

Mr. LeCompte stated that after he ended his shift (after escorting Mr. Herron to the van), he walked over to a nearby bar. He noted gusty conditions and heard people yelling and saw hats and "stuff" swirling and napkins just inside the door of the bar flying around. He also saw a kiosk's umbrella tip over outside. It was dark to the north.

This concluded the interview.

**Interview:** Lesley Kamm, Co-Owner of SeaWind Aviation  
**Representative:** Robert Richmond, Richmond and Quinn Associates  
**Time/Date:** 1500, August 21, 2007  
**Location:** Telephone Interview  
**Present:** Erickson, Bramble, Soucy

During the interview, Mrs. Kamm stated the following information.

She stated that everything was running on time before the accident flight. Mr. Kamm came back from a trip from Misty Fjords. He had a little lunch break before going out on the accident trip.

Mrs. Kamm pulled on to the cruise ship dock to pick up the passengers, and then took them down to the plane at the dock. Mr. Kamm asked Mrs. Kamm if she needed him to come back from Traitors Cove while the passengers were doing the bear tour, and Mrs. Kamm told him no, it was the last flight of the day and he could stay at Traitors Cove.

The family of 6 had pre-booked and purchased their tickets via the SeaWind web site, but Mr. Herron, booked his seat at a kiosk at the cruise ship dock.

Expecting Mr. Kamm to return to Ketchikan at 1745, Mrs. Kamm had gone out to the dock. She was a little concerned before then because the weather had changed. When she arrived at the dock and saw that he had not yet returned, she immediately called Ketchikan flight service station to ask whether they had heard from him and they had not. She also called Promech Air and they had not heard from him either. A woman at Promech was on the phone with her and was monitoring radio communications about the missing plane in the Promech office. Mrs. Kamm could not understand the radio traffic in the background very well, but eventually the woman on the other end of the line said "Lesley did you hear that?" The woman told her that their pilots had spotted a plane that was down and it was on fire.

Mrs. Kamm went over to Promech Air. Mrs. Kamm called flight service and said it was an emergency. Promech sent a plane out with their Chief Pilot, Tony Dupea, on board. Mrs. Kamm called Jeff Carlin at Carlin Aviation. She was so worried about what she had heard about the fire. She asked Mr. Carlin to call Temsco. Mrs. Kamm called Pacific Airways. Then she just sat and waited. The first thing she heard thereafter was that a Promech plane was coming in with a woman, Sarah Steffen, on board. Then Mrs. Kamm heard that Sarah was okay and was going to the hospital. Mrs. Kamm's friends were telling her that it was looking more positive. Then she heard Mr. Kamm was coming in and going to the hospital. She got in the van, and Marty of Alaska Seaplane Tours drove her there.

Sarah had not gone out on the plane with the passengers who were involved in the accident. She was already out in Traitors Cove. Jeff Carlin was using her as a guide for a previous tour, even though she worked for SeaWind because he had lost his guide. Mr. Carlin had a 1300 traitors cove tour, and SeaWind had a tour scheduled right after Mr.

Carlin's, so they asked Mr. Carlin to leave Ms. Steffen at the cove. Mrs. Kamm did not recall the loading when the passengers departed for Traitors Cove.

The accident occurred on Thursday August 16. SeaWind had several flights that day. Mrs. Kamm did not recall when the first flight was, so she did not know when the pilot awoke, nor did she recall when he got up or went to bed on the previous two days. Wednesday night she and Mr. Kamm had friends in town, visiting. Those friends left about 1000 and the Kamms went to bed right after that. She stated that she and Mr. Kamm were "not late night people," that they were not out drinking that night, and that Mr. Kamm did not have an alcohol problem or anything like that. Ms. Kamm stated that they had a happy family.

When asked whether they had any discussions about the weather conditions between tours on the day of the accident, Mrs. Kamm said Mr. Kamm had told her the weather would be changing "tonight with thunderstorms." That was the only discussion they had about the weather. The weather had been "great" since August 1<sup>st</sup>.

Mrs. Kamm stated that Mr. Kamm would get weather information the day before by looking on the Internet. Asked whether Mr. Kamm usually got weather updates throughout the day, Mrs. Kamm said that she and her husband would communicate with her if there was "iffy weather," to discuss whether they were going to cancel a flight. She stated that sometimes there were fog issues, and that they might put off a flight if they had the flexibility. Mrs. Kamm stated that the pilot did not get weather information from her. Rather, she got it from him. Mr. Kamm obtained his weather information from flight service, other pilots, and the Internet.

Mrs. Kamm could and did communicate with her husband by cell phone when he was airborne, as they did not have a radio for that purpose.

Mrs. Kamm was asked how she determined passenger weights. She stated that SeaWind asked for passenger weights when they pre-booked a tour. If they had empty seats, they would ask the person who was buying a seat their weight and would write it down. If the passengers were over 200 pounds, she would add a few pounds to the stated weight. Steve would load the plane according to the weight capacity. Mrs. Kamm stated that SeaWind was insured for 7 seats. She stated that they normally took up to 6 passengers, but sometimes 7 if some of the passengers were kids. The airplane had a modification and was weight sensitive in the back, so they only took 7 passengers when some were kids. Mrs. Kamm stated that the accident flight was within the maximum weight.

When asked whether Mr. Kamm used the weights as stated by the passengers or whether he added additional weight to given weights, Mrs. Kamm said that Mr. Kamm had something on his computer that sometimes he would use to calculate the weights. She did not know exactly how he handled it because she was not a pilot.

Mrs. Kamm said that she usually added a few pounds when people called her to book a trip because people tend to gain weight on the cruise ship, especially when they were

heavier to begin with, although she thought people were usually pretty honest about their weights because they knew it was an important factor.

When asked whether there was a standard location for the tour guide to sit in the airplane, Mrs. Kamm said that if they had a heavy guide they usually put them in the front seat of the airplane. They never put him in the back. It was dependent on the weights.

When asked about SeaWind's policy for lap children, Mrs. Kamm said that if passengers were under 2 years of age they allowed them to be on the parent's lap. If over two years of age, they were required to have a seat for them and the customer was required to pay for it. If there were an empty seat, they would put them in a seatbelt if they were under 2 years of age.

Mrs. Kamm explained the seating configuration. In the back seat, her understanding was that there were two seats at the very front, three seats behind that, then two seats, and then two seats in the very back. Each seat had a seat belt.

Mrs. Kamm was asked if she used any method for verifying the stated age of child passengers. She stated that she explained to them how the insurance worked and that if they were over two years of age, they had to pay for a seat. She had let SeaWind's people down at the dock know that too. She told them she had to know the age of the children, but she did not ask for birth certificates.

Mrs. Kamm was asked whether she provided a preflight safety briefing to passengers or whether Mr. Kamm did, she stated that Mr. Kamm was the only one who did that. He performed the safety briefing when he received the passengers on the dock.

Asked whether the Smiths told her the children's' ages, Mrs. Kamm said they had told her the age was 3.

When asked whether she knew where the passengers were seated when the flight departed Ketchikan, Mrs. Kamm said she did not recall.

Mrs. Kamm was asked whether Mr. Kamm ever talked to her about how he conducts takeoffs and landings from Traitors Cove. She said, "No. Not with me. I'm not a pilot."

Asked whether she performed any of the guiding on the ground for SeaWind, Mrs. Kamm said that she would like to serve as a guide, but that she had to answer the phones and make reservations and run the business.

She stated that the plan was for Sarah to come back with Mr. Kamm after the last tour. Mrs. Kamm had that on her schedule. She was not sure if she had given that information to Sarah.

Mrs. Kamm was asked whether the guides did not necessarily go out on every flight, instead staying at the cove for several tours. She answered that that was possible, but that

normally the guide would go out and come back on SeaWind's airplane. This may have been the first time Sarah Steffen had gone out with Jeff Carlin and come back in SeaWind's airplane.

Mrs. Kamm confirmed that the accident flight was the last flight of the day.

When asked whether had Mr. Kamm had flown a tour to Misty Fjords earlier, Mrs. Kamm said she thought they had had a couple of flights there earlier on the day of the accident, although she could not say for sure. However, she was certain that the accident trip was the first bear tour of the day.

She could not remember her husband's last day off. It was on a weekend, and it would be on her schedule. When asked if it had been more than a week since his last day off, Mrs. Kamm said that it might have been.

SeaWind's tour season ran from the beginning of May through the end of September. The Kamm's lived in Ketchikan year-round. They were thinking about not doing so, but Mr. Kamm flew a little bit in the winter too. The winter business was very weather-dependent.

Mrs. Kamm stated that the pilot was no longer in critical condition. He was still in the intensive care unit. He had severe burns on his arms and would require chest surgery. He was on heavy pain medications. He had burns to his face that were not quite as severe as his arms. He had a gash to his head that had caused severe bruising and swelling, but nothing major. His CT scan had been okay. They were watching him closely. He was in and out of consciousness and feeling a little better every day. When he was awake, they were walking him more. He was being provided physical therapy for his hands. He was pretty heavily sedated and when he had surgery it would start all over again.

Mrs. Kamm stated that her husband's health had been pretty good the year before the accident.

When asked how many seat belts were on SeaWind's airplane, Mrs. Kamm said the plane had 7 seat belts. She stated that their guide weighed 95 pounds, so she was usually placed in a middle seat so that all of the customers could have a window seat.

The pilot did not have a cold or other illness in the days before the accident and had not taken prescription medication in the three days before the accident.

This concluded the interview.

**Interview:** Charles “Chip” Wisner, Aviation Safety Inspector – Airworthiness,  
Federal Aviation Administration  
**Time/Date:** 0945 August 22, 2007  
**Location:** Juneau Flight Standards District Office, Juneau, Alaska  
**Present:** Bramble, Erickson, Soucy

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

He was an Airworthiness Safety Inspector, journeyman level. He held the following certificates/ratings: A&P mechanic, IA, commercial pilot certificate, instrument rating, ground instructor, flight instructor, 5,000 hours flight time (nearly all in float planes). He had flown primarily around Ketchikan and Metlakatla, Alaska. Mr. Wisner began working for FAA August 30, 1998.

SeaWind Aviation was assigned to Mr. Wisner December 22, 2006, after another inspector transferred out of the Juneau FSDO. Larry West was the principal airworthiness inspector for SeaWind before Mr. Wisner.

Mr. Wisner was overseeing about 34 certificates at the time of the accident, including: 18 single pilot operators, 5 basic operators. The remainder consisted of full-blown 135 operators, including 3 or 4 commuters (Wings of AK, LAB, Taquan Air, Promech, Pacific Airways). He did not oversee any repair stations or Part 141 schools. There was one other airworthiness inspector in the office, David Frederick, who oversaw all the helicopter operators and repair stations.

Other staff at the FSDO included: an Aviation Safety Technician, an Aviation Safety Assistant to handle administrative affairs, a computer technician, a manager, an assistant manager, and six inspectors. The inspector workforce consisted of two operations inspectors, three airworthiness inspectors, and one avionics inspector. A third operations inspector, Greg Horrell, being trained, and Mr. Wisner was providing his on the job training.

The last time Mr. Wisner had seen Mr. Kamm was during the last week of July when Mr. Wisner was meeting with Promech. Mr. Wisner had waved to him from a distance. He had last visited with Mr. Kamm at the end of June when he performed a ramp inspection on Mr. Kamm’s airplane. Mr. Wisner was performing R items during the inspection. It lasted half an hour to an hour. Mr. Wisner looked at Mr. Kamm’s certificates and his discrepancy sheets. This occurred at a hangar at Pacific Airways at the Ketchikan airport. He was having maintenance done there.

Mr. Wisner was asked how he set up the inspections. Sometimes he arranged it in advance with an operator, and sometimes the FSDO did and the inspectors traveled in a group. Sometimes they showed up unannounced. Mr. Wisner tried to visit with each operator once a month (bigger operators at least), and at least once a quarter for all operators. Operator locations were Yakutat, Ketchikan, Sitka, Wrangell, Petersburg,



Juneau, Skagway, Haines, and Gustavus. Yakutat was the furthest north that the FSDO's territory extended.

Visits with single pilot operators often had to be planned, so the inspector could find them. Other times, the inspector might just see them. Traveling to see the operators was usually accomplished by performing an enroute inspection on an Alaska Airlines flight.

A visit to one of the outlying communities typically lasted about 2 days.

Mr. Wisner was not usually able to see all of the operators during each visit. Usually he saw four or five operators per trip. He would perform ramp checks and records checks. Sometimes base checks were performed, although those were usually arranged in advance with the operator. The seasons affected Mr. Wisner's ability to see the operators. They were busy in the summer, and they had time constraints in late winter, because they had to ensure that they were ready for summer.

A single pilot operator was not required to have an operating manual, a Director of Maintenance, a Director of Operations, or a Chief Pilot. The company could have more than one plane, but only one could be in the air at a time, and it had to be piloted by the single owner/operator. The company was required to have an agent for service listed in their operations specifications, which could be the same person as the owner/operator.

A Basic operator could have a maximum of 5 airplanes and 5 pilots. One person could work two of the three management positions. They also had to have a manual.

A Full operator required that all three management positions be filled, that the company have a manual, etc. When asked how the FAA considered complexity in assigning his workload, Mr. Wisner said three groups were put out for bid. One was helicopters. One was a lot of Ketchikan, including Skagway and Haines. Bids on the groups were chosen by seniority. Asked how it was ensured that no single inspector got more than they could handle, Mr. Wisner said the groups were designed so that each was a mix of big operators and single pilot operators.

Workload was measured in complexity points and related to pay grade. A new inspector was a GS-12. Journeyman inspectors serving as a principal were a GS-13. Some inspectors were GS-14s and Mr. Wisner was one of them, as of December of 2006, when all of Mr. West's operators were given to him. Mr. Wisner understood that the FSDO's staffing might be increasing, and that he might not remain a GS-14.

Mr. Wisner was asked whether, if he could not keep up with all of his operators, he could offload some to another inspector. He said he did not know. Asked how successful he had been at doing more than R items with his operators, Mr. Wisner said he had planned a bunch of R items for the year and was on track to complete them this year. He had been able to keep up with R items as well. He thought he was 100% done with R items and 90% done with P items.

Asked if he had adequate travel funds, Mr. Wisner said yes, "When need to go we go." They put travel in their quarterly planning, and made it happen. The budget had been very good the past year. Staffing had been decreasing in recent years as people had retired or left, so there had been plenty of travel funds. The FAA staffing model had prompted the reduction in staffing, but the demands of the customers had remained constant as the FAA staff was decreasing, so some requests had had to take a back seat to other priorities.

Mr. Wisner spaced out his inspections throughout the fiscal year. When doing a ramp inspection on a single pilot operator, he looked at certificates and medical, airworthiness certificate, registration, life vests, records on when next inspection is due, fire bottle, seat attachments, seat belts. Looked over the airplane. Mr. Wisner would then follow up at the maintenance facility on the next visit to verify what the operator had told him during the ramp inspection.

Mr. Wisner knew Mr. Kamm well. Mr. Kamm had flown for the old Taquan Airways when Mr. Wisner was director of maintenance at the time. He knew him and thought highly of him. When asked about the word on the street regarding Steve's operation, Mr. Wisner said he had not heard a thing about Kamm's operation, even after the accident. He would not have expected to hear any negative reports about him. Asked how he would characterize how Mr. Kamm kept up his airplane, Mr. Wisner said that on a weather day at the old Taquan Airways, a lot of airplanes would be back in the hanger. Mr. Kamm would be in the hangar scrubbing the airplane floors, tightening the screws in the headliner, and taking care of minor things. His plane was immaculate. He took a lot of care to maintain it, and Mr. Wisner expected the same would be true of him today.

Asked if there were any general safety issues related to the recent accident in the Ketchikan sightseeing industry, Mr. Wisner said that the first accident did not surprise him (Taquan). The pilot was not from the area and did not have the right experience. A person had to make decisions early. The accident pilot as probably used to flying in the sunshine and was a good stick. The second accident was not as easy to understand. If it could happen to Steve Kamm, it could happen to anyone. He was very experienced and from the area.

When Mr. Wisner was asked if he had ever experienced the southeast wind pattern that occurred in Ketchikan on the day of the accident, Mr. Wisner said, "Yes, it's horrible. You have to be on your game."

Asked if he had anything in his file about the configuration of Mr. Kamm's seats and seat belts, Mr. Wisner said no, and he could not remember it either. However, he understood Mr. Kamm's plane had an STC conversion for seating.

Asked whether it was universal for the tour pilots in Ketchikan to make their year's living in the summer season, Mr. Wisner said yes, since logging had gone, tourism was the biggest industry. Although they did some flying to the villages, most of the flying was in

the summer. Asked if it was tough to make a living in the wintertime, Mr. Wisner said he imagined it would be.

When he had worked for Taquan Airways, Mr. Wisner he had worked 10-12 hours a day, 5 days per week during the summer. He flew to logging camps, on fish spotting trips, to villages, and to forest service cabins. Occasionally they would fly a tour. That was in the early 1980s, perhaps 1983-86. They worked year-round. Duty days were shorter in the winter, but they flew year round. The Part 135 industry had become a lot more seasonal than it used to be.

Asked how many flight hours he got per day during that period in the 1980s, Mr. Wisner said he remembered getting 8 hours in a day rarely, 5 or 6 hours per day pretty commonly. Asked whether he found it tiring to fly 8 hours in a day, Mr. Wisner said, "Yes." Asked whether he could have maintained that pace for days on end, Mr. Wisner said, "Sure." Asked whether he had any concerns about fatigue and decision making, the way the pilots flew in the summer, Mr. Wisner said it was a "young man's job." It got harder when one got a little older.

Asked if he thought the weather patterns had been changing in Ketchikan over the previous 20 years, Mr. Wisner said he did not think so. They had had 200 inches of snow in the area during the previous year. Asked about what sources of info were available to warn pilots about weather changes, Mr. Wisner said he had wondered the same thing. He had thought there might be a NOTAM.

Asked what changes he could suggest to improve the safety of the air tour industry, Mr. Wisner said he did not know. He would not over-regulate the industry. The operators knew what they should do, and the FAA did their best to oversee that.

Mr. Wisner did not feel overwhelmed by his work. He was able to accommodate urgent requests from operators. The highest work priority was surveillance, enforcement, and inspections, etc.

Mr. Wisner noted that there was only one Part 91 tour operator in the Ketchikan area, and that operator was restricted to operations within a 25-mile radius of his takeoff point.

Before the SeaWind accident, Mr. Wisner's biggest aviation safety concern had been about general aviation pilots coming up from the south and flying VFR into IMC.

This concluded the interview.

**Interview:** Michael "Mick" Green, Aviation Operations Safety Inspector,  
Federal Aviation Administration  
**Time/Date:** 1130, August 22, 2007  
**Location:** Juneau Flight Standards District Office  
**Present:** Bramble, Erickson, Soucy

During the interview, Mr. Green stated the following information:

Mr. Green was the Principal Operations Inspector for Seawind Aviation, among his other FAA duties. He was paid as a GS-14. The rate of pay for inspectors was based on the complexity of duties assigned. Complexity was determined by the number and type of operations for which the inspector was responsible. In Mr. Green's case, his number of operations would decrease once a new employee, who was presently in training, attained full performance level status. Once the new Inspector was fully rated, workload would be re-distributed and Mr. Green would go back to GS-13 pay rates

Mr. Green grew up outside of Annapolis, MD. He attended college at Embry Riddle Aviation University (ERAU), at Prescott, AZ. He flew for a part 135 operator in Kelso, Washington. His flight experience included pilot for Part 135 flights, flight instruction, and flight for logging support, and Turbotech. He had tried to get on with Samoa Air. He was hired to fly for LAB in Haines in 1993 for two years flying wheels mostly, twins. He was checked out in floatplane, but didn't fly it much. In 1995, he went to Ketchikan, and flew Beavers exclusively. The Beaver flights were Anan Creek bear tours, and lots and lots of Misty Fjords tours. Mr. Green stated that Neets Bay and Traitors Cove were pretty recent areas for tours, and had only begun 4 or 5 years ago because of permits. In August of 1996, Mr. Green went to Juneau and flew for Wings of Alaska until 1998, flying Beavers, Otters, and Cessna aircraft, all on floats. He estimated that he had 3,000 hours on floats. Of that, he thought 2,000 hours were in Beavers. He estimated that his total flight time was 6,100 hours.

Mr. Green was hired by the FAA on August 30, 1998 and was assigned to the Juneau FSDO. He stated that he rented an airplane occasionally to maintain currency, but he left professional flying because he was tired of the 14-hour duty days and the 6-day workweeks. Since he had married and had a young child, he felt he needed to be home on a more regular basis. Mr. Green's wife was a Part 135 professional pilot. She had recently been hired to fly a Learjet for a medevac company based in Juneau, AK.

When asked what operators he had responsibility for as an Operations PMI, Mr. Green stated that he was presently assigned a 141 school and approximately 33 part 135 operators. The commuter operators were named Skagway (which was going out of business), Promech, Taquan, Pacific Airways, and LAB. When asked how the complexity of his work was determined, Mr. Green stated that each operator was valued at a certain number of points dependant upon its complexity. For example, he stated that a single pilot operation was rated at 25 points whereas a more complex operation such as Wings of Alaska would be rated around 700 or 800 points. His current workload consisted of 7 full operators, 6 basic operators, and 17 to 18 single pilot operators.

Mr. Green stated that he saw Mr. Kamm during his last trip to Ketchikan on July 15-16. He was certain that he spoke with him but he was not sure whether or not he had done a ramp inspection. Mr. Green said that he did not know Mr. Kamm well.

Mr. Green stated that the Inspectors would get “dinged” by the regional office if they conducted unscheduled inspections. Unscheduled inspections were flagged in the management-tracking database. For that reason, inspectors would do only what was planned. He stated that, in theory, the flagged items were only supposed to be talking points, but the practice discouraged unplanned surveillance.

Mr. Green did not remember whether he had performed an official ramp inspection on Seawind that day, but if he had, it would have shown up in the PTRS. Mr. Green commented that his “R” items were finished for Seawind at the time of the accident and that he had no “P” items planned for Seawind.

Mr. Green stated that ramp inspections were unannounced but that check rides were always scheduled. Mr. Green stated that he had rented Mr. Kamm’s airplane for a proficiency flight in the spring of 2007.

When asked how inspections were conducted, Mr. Green answered that during a ramp inspection he would stand back to avoid interrupting the handling of passengers. He would check as bags are unloaded to ensure that the freight was tied down. He would approach the pilot and introduce himself. He would check that the pilot possessed a current and valid license and medical. He would look for obvious things indicating something is broken, such as the flap indicator, which frequently suffered damage in Beaver aircraft, etc. He also checked that the life jackets, briefing cards, and fire extinguisher, were on board. He reviewed the maintenance discrepancy sheets and the 100-hour inspection entries, and occasionally he would check for reserve fuel quantities. He also checked aircraft configuration logs. The old originally-configured Beavers were easy to inspect because the sling seat could be moved up or down.

Mr. Green was asked whether he could remember the Sealand seat conversion. He stated that almost all of the operators (Taquan, Promech, etc) were using them. Mr. Green had the STC for the Sealand conversion on his computer. The STC indicated that the rear seat could have 2 people in it however; a single passenger was required to sit in the middle of the seat. The maximum allowable weight for the rear seat was 195 lbs. Mr. Green stated that some airplanes restricted the weight to no more than 175 lbs. When asked what seat configuration the other operators had, Mr. Green said that he believed that Taquan had only one seatbelt back there, and that he thought Steve (N345KA) might have had two, but he was not certain. Mr. Green stated that the next seats forward of the rear seat were two jump seats, one on the right side and one on the left side of the fuselage. The next row forward consisted of the traditional 3-seat bench. Forward of the bench seats were the two cockpit seats.

When asked about the construction of the seats, Mr. Green thought that the front seats had evolved over the years and were more comfortable than they used to be. The standard Beaver seat would slide up and down the bar. The forward right seat ("co-pilot seat") was nonadjustable in 80% of the aircraft that he has seen.

When asked how often he traveled to Ketchikan to do his work, he stated that he liked to go once a month, twice if he could. He liked to go more than once a quarter the rest of the year. Mr. Green stated that in the winter the flying was done more by the local pilots. In the summertime, additional pilots come up from the south to fly.

Mr. Green stated that Brad was a POI at Juneau FSDO. He did all the helicopter operators and Wings of Alaska. Mr. Green was the only POI who traveled to Ketchikan. He recalled that during last year he was down there twice a month in the summer. This year he had a young child and he went down about once a month. He had adjusted his travel from 3-day trips last year to 2-day trips in 2007 because of the baby.

Mr. Green said it was often difficult to find the operators. He would go down to the docks to wait for a pilot to arrive but he didn't know whether one would come in or not while he was there. After a time, he would go to a different dock to see if he could catch a pilot at dockside between trips. He didn't plan to see a specific operator at any particular time because he didn't know what their schedule was for any particular day and the schedules changed daily.

When asked about travel budgeting, Mr. Green stated that he thought travel was supported well. He often would purchase a one-way ticket on an airline and then "en route" the other way. He said that money for travel had never been a problem for him. The budget supported whatever was needed to get his work plane done. He said that a government car was kept in Ketchikan and that he had a cell phone so that he could keep in touch with the office. Mr. Green commented that as soon as he stepped off the Alaska Airlines flight everyone seemed to know that he was in town and the operators would often call him. He said that he used to have an office in Ketchikan but it had been closed to reduce costs. He said that he had access to offices at the companies and the Ketchikan Flight Service Station.

Mr. Green stated that the Juneau FSDO had a moratorium on Part 61 activities such as private pilot ratings since the designated pilot examiner had retired. The local people have to wait for the new designee who was expected sometime soon or go to another FSDO that could accommodate their needs. As for part 135 start ups, no new ones are being actively considered at the time due to the present workload. He said that the persons who wanted to start up a new part 135 operation were encouraged to get on a list so at least his office knew who was asking for what when the time came that they could begin processing such requests.

Mr. Green felt that his office would "bend over backwards" to make the 135 operators work. He stated that, "You get the most bangs for your buck working with them". Mr.

Green's opinion was that Anchorage and Fairbanks were not as responsive to operators as was the Juneau office.

When asked whether there had been an increase in new Part 135 or Part 61 requests, Mr. Green answered that he thought there were about 2 or 3 Part 61 requests per month and about 3 Part 135 start up requests fper year.

Regarding the operations in Ketchikan, Mr. Green remarked that there was one Part 91 tour operator in Ketchikan. The operator's name was Sam Romey and he provided flight-seeing tours with a restriction to remain within 25 nautical miles of where he picked up his passengers. When asked what a Part 91 tour operator had to do to receive approval, Mr. Green stated that the pilot had to register with the FAA, get a drug test program in place as well as operations specifications. However, if the pilot is a "guide", he would not be required to do all of that. Mr. Green thought that Mr. Romey's flights could arguably be considered guided.

Mr. Green was asked whether or not he checks the pilots' flight and duty time. Mr. Green stated that he checks every operator at least once a year. He stated that the pilots typically fly 80 to 100 hours a month however, there were some that flew 160 to 180 hours for one or two months. The pilots are required to take 13 days off per quarter, but that meant that a pilot could take 13 days off April 1 through 13 and not take the next 13 days off until the end of the next quarter which could be as late as September, which corresponded to the end of the heavy tourism season.

When asked what the requirements were for the duty day, Mr. Green stated that the pilots were required to have 10 hours off prior to the beginning of the next duty day. During the typical duty day, the cruise ships would arrive at 8:00 am and leave at 4:00 pm. That time period seemed to help the pilots out because they knew that their day would end sometime around 4:00 pm. Other flight companies had defined duty times for their pilots. Mr. Green remarked that the month of August seemed to have accidents due to fatigue and the month of September seemed to have accidents due to bad weather.

Mr. Green was asked how the business had changed in the last few years. He stated that when he flew in Ketchikan, there were 30 logging camps, which kept the pilots, busy all year in that area. Now there are only 2 remaining. People used to fly to Metlakatla and Prince of Wales, but an Inter Island Ferry Authority had been formed which had taken a goodly amount of the available passengers. Prince of Wales Island used to have 8000 people in logging, but that number has been reduced to only 3000, and most of them were in Craig. Because there were fewer logging camps and the ferry service was in place, the flying work in Ketchikan was more seasonal and focused on the tourism trade.

Mr. Green was asked what he could recall specifically about Mr. Kamm's airplane. Mr. Green stated that the aircraft had come from Ketchum Air and it seemed standard.

Mr. Green discussed an accident that Mr. Kamm had had in the same area in the past. Approximately 2 or 3 years ago, before 2005, Steve was flying a Cessna 206 on floats

and was landing or taking off in waves that were 2 or 3 feet high. The aircraft hit hard but no one was injured. Steve flew the aircraft back to Ketchikan. When he arrived, he examined the aircraft and found that the firewall had been badly damaged. That was when he had upgraded to a Beaver aircraft. Another time, when Steve was flying Otters for Promech, a dockhand unleashed another Otter and it chewed up the back of the one Steve had just loaded with passengers. No one got hurt. That accident was not Steve's fault.

Mr. Green thought Steve had over 15,000 flying hours when he started his company, Seawind. Steve had flown with Temsco years ago when they were flying airplanes. Temsco now flew helicopters. It surprised everyone to hear that such an experienced local pilot had crashed. Mr. Green commented that there had been a couple of old timers who had crashed in the past.

Mr. Green commented that it was unusual to go for many months without a Part 135 accident and then to have a few in a row. He recalled that back in the mid-90s there was a bad spell with a lot of accidents, which came to seem "normal" and then the accidents tapered off.

The accidents that were still prominent in his mind were the accidents where people continued flying into bad weather, which he felt was so simple to avoid by turning around if you couldn't see where you were going. He said that the companies had a good safety culture regarding time pressure, but there are self imposed pressures – "do the tour you always do, follow the normal flow of traffic, make your living in the summer, etc." that came into play. Mr. Green thought that Steve's accident was more operational, less judgment. He further stated that Steve's was more insidious. Steve probably didn't know what the winds were doing and how strong they were. People knew in Ketchikan about the wind and it took another couple hours to hit that spot. Mr. Green surmised that Steve thought he had seen wind in there before and would just back taxi more if he needed to. Mr. Green stated that he had flown down that way earlier that day and flew over that area for proficiency and he flew down the Behm Canal.

The night before his flight, Mr. Green recalled that the public forecast was for thunderstorms for the day of the accident. He called up the FAA Kenai FSS, and received a good forecast through 10:00 am. The next morning when he awoke, he called Ketchikan FSS and they said their computers were down. They said good weather was expected, with 10-15 knots winds later in the day. Mr. Green stated that Ketchikan had had great weather. By 2:00 or 3:00 pm it had started getting windy and people began to cancel flights. People said there were nasty 30-40 knot winds with downdrafts. Mr. Green stated that the Ketchikan pilots are used to flying in strong, steady winds but the day of the accident it seemed like it was more "down-drafty". Jeff Carlin told him that he had tried to go out to the east but could not climb above 800 feet. Mr. Green said that Mr. Carlin had told Steve about his experience then.

Mr. Green was asked what he would have thought if he had received the same information from Jeff Carlin and was planning a flight to Traitors Cove at 3:30 pm. Mr.



Green said that Jeff told him Steve had just come back and had flown in west over Ketchikan Lakes and stated that it was fine, so he was headed north on the next tour. Mr. Green said with that information, he probably would have taken the flight also. People weren't canceling in that direction. He wasn't sure what the forecasts were in the morning and didn't know if the Ketchikan FSS computers were back up later in the day.

Mr. Green was asked to discuss the performance characteristics of a Beaver on floats. He said the Beavers get off the water quickly, but they did not climb very fast – 200 fpm. He thought they were great in ground effect. The Beaver needs to have flaps down during steep turns. The aircraft's stall speed would increase from 60 mph to 105 mph in a 60 degree banked turn pulling 2gs with 0 flaps. The average airplane would stall at 84 mph. Mr. Green thought that Steve most likely would have had flaps down for takeoff. A normal takeoff would use 1,200 feet with the aircraft close to its maximum load in no wind conditions. The take off could take over 4000 feet if it was done without flaps. Mr. Green based these estimates on a previous accident. He said that a Beaver can take off in 400-500 feet if it is lightly loaded in wind. When asked how he would fly into Traitors Cove, he said that he would take off west in the main part of the bay with westerly winds, but if the winds were southeasterly, he would back taxi into the bay and take off into the cove. Mr. Green said that it was always bad taking off into a cove because the pilot would have no 'outs' or options. Before he would take off into a cove he would have to weigh the winds.

Mr. Green was asked what kind of information he would need to decide whether or not to cancel a flight? Mr. Green responded that the turbulence was so localized, that it would have had to be a weird report, "like I've never seen about widespread reports of severe downdrafts or something". He did not feel that the forecasts were that good, so the operators relied on a general one in the morning, and on pilot reports and outstation reports from the base in Craig. He commented that there were always AIRMETS for mountain obscuration and moderate turbulence below 6,000 feet.

Mr. Green was asked what measures he thought would be useful to help the pilots. He said he thought wind-measuring stations could be useful. He recalled that one had been set up in Juneau after an Alaska Airlines aircraft had been flipped over. He noted that the high winds were not usual in Juneau but that Ketchikan pilots routinely fly in 30 to 40 knot winds. For that reason, he was unsure whether the wind sensor would be as useful for them as it would be for the Juneau pilots.

Mr. Green was asked how he decided how far to taxi before a take off was commenced. He responded that one should have a go/no-go point. He noted that although the Beaver will jump off very quickly, it will not climb quickly. The more flap that is put down, the less aileron travel a pilot would have. The ailerons droop, so when it is nasty, fewer flaps is used. The flap setting was changed to climb flaps right after take off.

Mr. Green was asked how rough the water would have to be before a takeoff could not be commenced. He answered that a Cessna would be limited to waves of 1 foot, a Beaver, 2

feet, and an Otter, 3 feet. Winds of 15 – 20 knots would throw up about a 1 ½ foot wave in protected areas like Traitor's Cove.

Mr. Green was asked to discuss his experience flying for Ketchikan Air in Ketchikan. He said that he had flown a variety of trips. Tourism was strong and the Wings people in Juneau only did tours. The Ketchikan flying had more variety, and charters which made the job more enjoyable. He said everyone would complain about Misty tours this time of year, because they were tired of going out to the Mistys. He had normally worked 6 days per week, and sometimes filled in on the 7<sup>th</sup> day. He couldn't take a vacation all summer. He said he probably flew 6 hours a day, and occasionally 8 hours. Every two weeks, there might be a couple of high 7- or 8-hour days. The duty day was typically 0630 to 2030. They kept the airplanes on the airport side, so he had to take the 0530 ferry over there. Now people generally start at 0800 and finish at 1630 or 1700.

Mr. Green was asked how tired he got toward the end of a 6 or 8 hour day. He said, "plenty tired". Mr. Green said that he thought the duty days should be chopped down to a maximum of 12 hours, preferably 10. He felt that the 135 rules should have more limits like part 121. Limits such as a mandatory day off 1 in 7, weekly and monthly time limits for duty time should be considered. He said Wings was working pilots only a 10-hour duty day, but getting 8 hours of flying out of them, and he said that that really helped. The long hours of flying were not so bad if the pilot was well rested. The guys with the 160 hours of flight time, that happened more with the bigger companies, because the single pilots did not have the infrastructure to handle that much flying.

When asked what he would change to improve safety, Mr. Green said a few months ago he would have said that everything was fine. He said that Capstone has been great and the web cams helped a lot to decrease accidents around northern southeast. Mr. Green said that he thought 1 mile clear of clouds (ceilings below 1000 feet) was a low weather standard for 135 pilots and he thought it should be increased.

Ketchikan was FAR Part 93 airspace. Communication with Ketchikan flight service was mandatory. Ketchikan was 2<sup>nd</sup> in world behind Lake Hood for daily operations, but number 1 for annual operations.

Mr. Green's other suggestion was to require written load weight and balance forms for each flight. He believed that Mr. Kamm's weight was well under the maximum gross take off, but it would be good for the pilots to do it anyway. He mentioned the "Seegee" calculator and said that they are great but that the old Dehavilland systems were terrible. Taquan used the Seegee system and Medallion required their use.

Mr. Green said the useful load for a Beaver was typically around 1,700 lbs. The standard Beaver MTOW was 5,090 lbs; with tip tanks installed and empty, it increased to 5,110 MTOW; and with wing tip tanks full of fuel the MTOW was 5,370 lbs. The Beaver would carry 95 gallons of fuel in its main tanks, plus tip tanks at 21.5 each, totally 138 lbs. Mr. Green said that it was pretty rare to use the tip tanks.

He stated that for a flight to Traitors Cove he would probably bring 55 gallons of fuel, located in the front two main tanks. The front tank's capacity was 35 gallons, the center tank was 35, and the rear tank held 25 gallons. The fuel load for Misty trips would likely be 35 gallons in the front tank and 20 in the middle tank or just fill two tanks. Filling the front and having 20 gallons in the middle tank would probably be "overkill" for a trip to the Traitors Cove.

Mr. Green said that most Misty trips were about an hour and 15 minutes long. The Misty tour would probably burn about 30 gallons, and about 8 gallons each way. The rate of 25 gallons per hour was a standard figure to use. He said that a pilot would probably want at least 30 gallons on board for the roundtrip including a 30-minute reserve. Mr. Green said that he would probably take a front plus 20 gallons (55 gallons).

Mr. Green said all of the companies must write down the passengers' weights, but they were not required to calculate the CG every time if they knew what it would be. The operators always asked the passenger's weight and then added 10 pounds to that. He calculated that if you took 55 gallons, that would equate to 330 lbs, leaving 1,370 pounds for passengers.

Mr. Green commented that if it was 1730 and the ship sailed at 2000, there might have been some pressure to get the passengers back. The wind would probably have to be over 40 knots and rough to make a pilot want to postpone his departure. Straight 40-knot winds could be handled, but turbulence was different. Generally a pilot could see that turbulence might be present by watching for "cat's paws" on the water.

Mr. Green did not think that the kind of down-drafty weather phenomenon that was present on the day of the accident had happened before in 20 years.

Mr. Green estimated the landing run and take off in a Beaver on floats to be about the same – 1,200 feet. He said that he would like to ask an operator what a standard take off would be and whether the pilot would try to stay over the water the whole time or fly some overland.

Mr. Green commented that he thought that the attitude of the companies in the mid-90's was that they did not care as much when an accident occurred because they were not so much in jeopardy of losing their company. However they were more recently working to improve safety.

<b>Interview:</b>	<b>Ryan Moor</b>
<b>Time/Date:</b>	<b>1215, August 23, 2007</b>
<b>Location:</b>	<b>Telephone Interview</b>
<b>Present:</b>	<b>Bramble, Soucy</b>

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

Mr. Moor was the manager of the Clover Bay Floating Fishing Lodge.

He witnessed the accident airplane and pilot, Steve Kamm, landing and taking off at the lodge on August 15 about 1230. He observed nothing out of the ordinary.

Mr. Kamm was scheduled to arrive about 1215. He was running a few minutes behind schedule. Mrs. Kamm called Mr. Moor and told him that Mr. Kamm was running just a few minutes behind.

It was a typical tour. Mr. Kamm picked up a party of six. They flew to the Misty Fjords, made a stop at Goat Lake where they enjoyed themselves, then they were taken to Traitors Cove for the Bear tour, and then they returned to Clover Lodge about 1715.

Mr. Moor had some conversation with Mr. Kamm when he first arrived at the lodge. It was routine conversation. Mr. Moor had not seen Mr. Kamm for a while, but they had grown up in the same town.

Mr. Kamm did "a nice normal approach," and landed into the wind. It was a beautiful landing. He taxied right up to the dock. Mr. Kamm said his summer was going well, and his family was doing well.

When the clients walked out to the airplane, Mr. Kamm placed them in the aircraft by body weight and briefed them on the airplane. Then he told Mr. Moor he would be back some time after 1700 and he did a nice takeoff out of the bay.

When the clients returned, they said they had had a great trip and really enjoyed it.

Mr. Moor was a seaplane and helicopter pilot, with about 500 hours total time. He thought Mr. Kamm's takeoffs and landings looked pretty normal for a bush pilot in Alaska. The bay at Clover lodge was similar to other coves in the area, with water at the mouth of the bay, and high hills around the back. When Mr. Kamm landed he came in on the north side of the bay, flew to the back side, made a left-hand descending turn, and landed going out of the bay. The wind was blowing into the bay at 5 to 7 knots and it was a sunny day.

Mr. Kamm departed the bay by taxiing downwind 300 yards and making a  $\frac{3}{4}$  mile run straight out of the bay into the wind. Mr. Moor stated that the mouth of the bay was to east. The winds were from the northwest, but they funneled into the bay from the east.

The man who chartered the sightseeing trip was Kevin Fee. One of the other passengers on the trip was Rex Schwendiman.

When asked to describe Mr. Kamm's reputation as pilot, Mr. Moor. Mr. Moor had always felt he was a pretty good pilot. Most of the people Mr. Moor knew around town would want to charter Mr. Kamm to get out of small towns when the weather was tough because of Mr. Kamm's experience in the local area.

Mr. Moor had never known Mr. Kamm to be a bad decision maker. Asked whether he had ever witnessed anything that gave him concern about Mr. Kamm's flying, Mr. Moor said no. He thought Mr. Kamm's ability was really good. He could fly the airplane to its maximum performance. Mr. Moor stated that he would not call it hot dogging, rather he felt Mr. Kamm could get into small places that were pretty tight and he always handled the plane very well. Mr. Moor never heard any rumors about him having bad judgment or having a lack of caution.

Mr. Kamm was in a very good mood when Mr. Moor saw him at the lodge. Mr. Moor said he was very happy to see Mr. Kamm. They only saw him 2 or 3 times per summer because they primarily used another aviation company, Pacific Airways. Mr. Moor thought Mr. Kamm did not look tired at all.

Mr. Moor was asked if Mr. Kamm was viewed as someone who could be relied upon to get people to remote locations in bad weather when no one else would fly. He said no, Mr. Kamm was the pilot who could get you there safely or not at all. A person could trust his opinion. Mr. Moor always thought he had good judgment.

This concluded the interview.

<b>Interview:</b>	<b>Rex Schwendiman</b>
<b>Time/Date:</b>	<b>1315, August 23, 2007</b>
<b>Location:</b>	<b>Telephone Interview</b>
<b>Present:</b>	<b>Bramble, Erickson, Soucy</b>

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

Mr. Schwendiman rode as a SeaWind passenger on a flight seeing trip that departed Clover Bay Floating Fishing Lodge about 1200 on August 15, 2007. He was not a pilot, but he had ridden in small airplanes before.

Mr. Schwendiman stated that for the most part it was a pretty uneventful trip. They had flown up and landed at Misty Fjords. Then they had landed on a lake and gone on a bear watching tour. He stated that the pilot had also flown them around Misty Fjords and shown them some goats on the mountains.

The pilot provided a quick safety briefing at the beginning of the trip, describing where the life jackets and exits were located. Mr. Schwendiman did not remember if the pilot had showed them how to open the airplane doors. The pilot did tell everyone to wear their seatbelt, and all the passengers wore headsets.

When asked if he recalled anything unusual during the takeoffs or landings, Mr. Schwendiman said there was nothing that he would have thought of as unusual. Everything appeared routine. He added, "The only thing that he did different was he did

a zero gravity drop on us. That was about it.” Asked to describe this maneuver, Mr. Schwendiman stated that the pilot took off from Goat Lake, and as the airplane came over the ridge of the mountain there, the pilot dropped the airplane. The maneuver did not result from turbulence. The pilot warned them that he was going to do something, and that was what he did. Before performing the maneuver, the pilot said, “I’m going to do something that you guys are going to really like, and I only do it with groups I think would have fun with it.” Mr. Schwendiman estimated that the drop lasted 3 or 4 seconds and that the passengers were weightless as it occurred. He stated that the pilot had one of the other passenger’s cameras and took a picture of the passengers as he did it.

Asked to clarify the maneuver occurred, Mr. Schwendiman said that as the plane came over the ridge where the waterfall came out of the lake, the pilot dove down the other side of the ridge, and then pulled up within 3 or 4 seconds. Mr. Schwendiman clarified that the pilot did this once at the ridge, and then did it a second time with the camera so that he could take a photo for the passengers.

Mr. Schwendiman was asked to describe the terrain below the ridge where the first maneuver occurred. He stated that trees and rocks were below the airplane. When asked how close the plane came to the ground, he stated, “We didn’t get anywhere close to hitting anything or close to the ground.” He stated that they did not have any fear that they were getting too close to the ground.

When he was asked whether these maneuvers made him uncomfortable, Mr. Schwendiman said that they did not, but that one passenger in the back, Travis Mitchell, was a little anxious about it. Mr. Mitchell was part of the group with whom Mr. Schwendiman was traveling.

None of the passengers on the flight was a pilot.

Mr. Schwendiman stated that the bear tour began on a lake with a few boats and a large dock. The lake could have been part of the ocean. The passengers got off the plane and got onto a van. The van took them up and showed them the bears. There was another group coming down as Mr. Schwendiman’s group was beginning the bear tour. Mr. Kamm took off and left, and another airline picked up the group that was coming down.

Mr. Schwendiman was asked how the pilot had landed at the cove when they arrived for the bear tour. Mr. Schwendiman said that the airplane came down over the trees and into the lake toward the dock. The passengers could see the van from the window as they came in over the trees. The airplane did not land and glide up to the dock, the pilot had to taxi over to dock.

When they departed the cove, they took off in a different direction, more over the open water.

The weather was great day on the day of their trip. There were no clouds. The pilot had mentioned that the heat made the plane operate less efficiently than it did when the weather was overcast. The water was pretty smooth.

Mr. Schwendiman stated that the pilot seemed alert, and that he did not seem tired.

The pilot complained a little bit about the heat in the plane, and said he preferred to fly when it was cooler, but he did not say anything related to alertness other than that.

Asked whether there was any other conversation with the pilot related to flying that might have been relevant to the investigation, Mr. Schwendiman said, "Not really. He was upbeat and real friendly."

Mr. Schwendiman confirmed that the takeoffs and landings at Goat Lake were "pretty uneventful," but he added, "When we took off from there and went in to look at the goats, he did get in pretty close to those guys." Mr. Schwendiman said he did not know how close they came to the mountains, but that the pilot had "banked it pretty hard around the top of the mountain for me." Mr. Schwendiman stated that he did not know if that was odd or not. Asked to describe the steepness of the turns, Mr. Schwendiman said, "Seemed like we tilted pretty steep, I was on the left side and when he turned right I could see straight down almost."

When asked whether the pilot had banked as steeply as 45 degrees, or beyond 45 degrees, Mr. Schwendiman stated that the pilot had banked at least 45 degrees, if not a little bit more. When asked to describe how low the right wing went using the face of a clock, Mr. Schwendiman said that it probably lowered to about the 5 o'clock position from the 3 o'clock position.

Asked whether the air was bumpy during the trip, Mr. Schwendiman said it was a little bumpy, but not a lot. The bumpiest portion of the flight was when they flew in the mountain area around Goat Lake, high where the goats were, close to the snow. Mr. Schwendiman confirmed that there were no clouds around the mountains in that location.

Mr. Schwendiman was asked whether the pilot banked steeply during takeoff or landing. He stated, "Not that I remember." He stated that the landings seemed pretty uneventful. Mr. Schwendiman confirmed that he did not feel uncomfortable at any point during the flight.

This concluded the interview.

**Interview:** Sarah Joanne Steffen, Tour Guide, SeaWind Aviation  
**Representative:** Tim Miller, Attorney  
**Time/Date:** 0900, September 5, 2007  
**Location:** Harbor View Hospital, Seattle, Washington  
**Present:** Erickson, Bramble

During the interview, Ms. Steffen stated the following information:

Her date of birth was April 13, 1980. She had lived in Ketchikan her entire life.

Ms. Steffen was an employee of SeaWind aviation, personal assistant to Leslie Kamm, and a SeaWind tour guide. She began working for SeaWind on June 1, 2007. She did not receive health or other employee benefits from SeaWind.

Ms. Steffen had no experience as a pilot. On the day of the interview, she was taking pain medication consisting of Tylenol and 20 mg of Oxycodone every three hours, and her most recent intake was about 0230.

Ms. Steffen's training at SeaWind had consisted of on-the-job training with Ms. Kamm for a couple of weeks. The pilot, Mr. Kamm, showed her how to do things like tie up the plane.

SeaWind was Ms. Steffen's primary source of employment, but she was allowed to conduct bear viewing tours for other companies, such as Carlin Air, and Southeast Aviation. She would do tours for the other companies only when she was not needed for SeaWind tours. So far, she had only done one tour for another company, and that was on the day of the accident, for Carlin Air.

Ms. Steffen did not hold any other jobs at the time of the accident, but she was a nursing student. Before she began working for SeaWind, Ms. Steffen was employed as a collections manager for the Ketchikan Credit Bureau.

Ms. Steffen stated that she had discussed "a little bit" of the events of the day with other people, mainly about how people got out of the airplane, and what she remembered about that, but nothing about the events preceding the crash.

Ms. Steffen was asked to describe the events of the day of the accident, and she related the following information.

She did not remember what time she had started working that day. SeaWind had conducted a couple of flights in the morning into Misty Fjords. It was a really pretty, sunny day, and it was pretty busy at the tour ship dock.

About 1100 or 1130, Ms. Kamm told her that she could go out and serve as a tour guide for Carlin Air, so she flew out to Traitors Cove with Carlin Air about 1145 or 1200. After arriving at Traitors Cove, she took some people on a tour. She spent about 1:40 to



2 hours with them, during which time she took them to a bear-viewing platform and along a trail. It was really sunny, nice and relaxing. After the tour was over, she put those visitors on the Carlin Air plane about 1400.

Ms. Steffen “hung around the dock” for roughly 40 minutes before Mr. Kamm arrived with the SeaWind tour group, consisting of the [Smith] family and one solo individual. She took them on the tour, and they saw lots of bears, and had a good time. She then took the group back down to the dock. It was still really pretty and sunny. The group was taking family photos on the dock.

Mr. Kamm started loading the airplane. He looked at everyone and assessed where he wanted to seat them. Christy Smith was seated in the farthest aft seat with her son Trevor. Before Christy entered the cabin, the solo individual, Mr. Herron, was already up in the copilot’s seat because he was eager to sit there. After Christy and Trevor Smith boarded, Mindy Mayer got in, and then Ms. Steffen did. Mindy was on the right side of the airplane and Ms. Steffen was on the left, in the second-to-last row. The father, the little girl, and the grandfather entered next and they sat on the bench seat in front of Ms. Steffen.

Ms. Steffen recalled that there were at least 2 seatbelts installed on the farthest aft seat. The little boy was on that seat with a seatbelt, and the little girl was on the bench seat between the grandfather and father. Before they departed, Mr. Kamm poked his head in the cabin and made sure everyone had their safety belt on. He also pointed out masks, flotation devices, and the location of exits. He joked about “no running around the cabin,” got in his seat, buckled himself up, and everyone was ready to go.

Ms. Steffen said that the airplane was parked on the north part of the dock, facing northwest. There was a buoy between the little island and the mainland (on the east side). Mr. Kamm taxied out to the buoy and around it counterclockwise really slowly while looking over his left shoulder. Ms. Steffen had no idea what he was looking for and it baffled her because she did not know what he was looking for. Mr. Kamm taxied really slowly out there and took his time. He then started taking off. Ms. Steffen said that she was not sure in exactly which direction, but it was toward the mouth of the creek. She said that she did not know at what speed or how many feet from the shore they were.

After takeoff, she remembered the airplane making a turn to the left. It felt like a sharp turn to her. She remembered Mr. Kamm straightening out the airplane. A few moments after that, Mr. Kamm said “Oh shit” and we were in the trees. When shown a map of the cove, she said she had no idea what the flight path was after takeoff.

During the crash, Ms. Steffen braced herself against the seat in front of her. After they came to a stop, she looked down and saw blood. She did not know whose it was. No one was really talking. Mr. Kamm asked if everyone was okay.

In less than a minute, flames broke out. The flames were mainly up front. There were none in the cabin at that point, but there was a lot of black smoke, and it was very, very

hard to breath. Because she was in the back with Christy and Trevor Smith, she did not hear anyone else talking besides them. Mrs. Smith and Ms. Steffen were both trying to punch out the side windows with their feet and hands and anything they could use to force a way out. The left hand main door was open. Ms. Steffen did not know how it had opened. She did not know if it was open beforehand or not. There were lots of flames at that door, with more flames on the outside than the inside. Ms. Steffen did not remember flames being on the inside of the cabin.

Ms. Steffen stuck her head out of the cabin for a minute, “got singed,” and then pulled her head back down. All of a sudden, said she lunged out of the door, dropped and rolled to make sure she was not on fire, and rolled down a hill. She got to the beach and put her hands in the water to cool them off. She didn’t recall hearing any voices at all. Mr. Kamm then called out to her, asking if was her, and she said “yes.”

Mr. Kamm asked if Ms. Steffen was okay. Ms. Steffen said “yes,” but she was burned. When she saw Mr. Kamm, he had blood running down his face from a wound over his right eye. He said “I can’t see. I don’t know where the fire extinguisher is. It’s so hot, I can’t get to it.” He told her to stay where she was. Ms. Steffen told Mr. Kamm that Michelle Masden should still be at the dock, and she would try to wave her down. Ms. Steffen knew they were fairly close to the dock.

Mr. Kamm went back up in the woods. Ms. Steffen stayed at the water for about 5 minutes, “pretty much in shock,” and checked herself over to see if she was hurt. She called up to Mr. Kamm, wanting to know where he was. She heard a couple of soft explosions. He said “Don’t come up here, it’s too hot.” She heard one of the kids making a sound, not necessarily crying, but just saying “ouch ouch ouch.” Then she called out to Mr. Kamm again and he said, “Just go get help.”

Ms. Steffen walked down the beach toward the floatplane dock. She found the road and ran on the road towards the dock, where she ran into a couple of pilots. While she was on the beach, there had been a couple of Promech Otters that had made a beeline loop around them and they had landed at the dock where Ms. Steffen was headed.

Ms. Masden had not taken off in the Island Wings airplane and she was taxiing out a bit. Ms. Steffen was located at a big gravel parking lot when she saw Ms. Masden, and she waved her toward the crash site. After that, she had gone down to the dock where the Otter was, and got inside the Otter.

It took about 5-10 minutes for Ms. Steffen to make her way to the dock, although it seemed like longer because she was hurting. There were already people on the otter. They were really nice people. They flew out of Traitors Cove and it was surprising for Ms. Steffen to see that right outside of Traitors Cove it was “really pretty nasty.” There was a lot of wind, and it was gray. Ms. Steffen had not realized the weather was that bad. The flight to Ketchikan was really bumpy. She was just praying they would be able to land. They landed at the Promech dock and she was put on a stretcher and loaded into an ambulance.

Ms. Steffen was asked to describe any turns conducted during the takeoff. She said there were no turns on the water. She only recalled one turn in the air. The left wing was between the 7 and the 8 o'clock position, perhaps at 30 degrees of bank during that turn. She said the water run was fairly smooth. It was "nice." It was kind of a cove inlet there, and was somewhat sheltered. She did not remember the sensations during liftoff and climb.

Ms. Steffen was asked to describe the point at which she realized things were not going as planned or were not normal. She stated that the first thing she thought was not normal was before the takeoff. Usually they got in the airplane and Mr. Kamm went straight forward, and off they went. It was unusual for him to take a long taxi. Normally he just took off straight out from the dock to the left of the island.

Ms. Steffen did not recall any unusual sounds in the airplane during the takeoff and initial climb. She did not know what the airplane's stall warning horn sounded like.

Ms. Steffen was asked to describe how the airplane got into the forest. She stated that she recalled straightening out from the turn. It felt like there was a little force driving the plane down. It felt pretty fast, "almost like a little carnival ride." She did not notice any sudden drops, just going down pretty fast. She could not remember the airplane's pitch. She said they were just straightening out when she felt the plane start to go down. The nose was not pitched down to a noticeable extent. When they hit the trees, she said she knew from how it felt that the nose probably hit the trees first, because the impact was forward.

When asked if Mr. Kamm had mentioned anything about the weather before they left Ketchikan for the Cove, Ms. Steffen said that neither Mr. Kamm nor Ms. Kamm mentioned anything about the weather before she left. The weather conditions during the trip to the Cove had been smooth and nice. Ms. Steffen did not remember the winds or water conditions. The weather during the bear viewing was nice and sunny. There had been a "nice comfortable breeze" on the platform that had kept the bugs away. The water in the cove had been a little ripply, not flat calm, but just a little bit of wind, and a little bit of a current.

When asked about Mr. Kamm's activities during the bear tour, Ms. Steffen said she had no idea what he was doing. When she came back from the tour he was standing by the plane waiting for them. He appeared "chipper and ready to go home." He said, "Hey, how was it? Did you guys see any bears?" Then it was picture time for a while. Mr. Kamm liked to get people in the plane and get going because Ms. Kamm kept a pretty tight schedule to get people back to the boat. They boarded the passengers. Ms. Steffen asked Mr. Kamm to wait a minute so she could put some water bottles in the company van. She had a big backpack full of water (4 bottles). Mr. Kamm said, "No, let's just go, don't worry about it," so Ms. Steffen put her backpack in the plane and they departed.

When asked what time the airplane taxied out for takeoff from Traitors Cove, Ms. Steffen said she had no idea. She could not remember what time it was. The last time point she recalled was around 1600, because she had finished the last tour about 1400. Mr. Kamm probably got out there at 1430 or 1440. She was guiding the SeaWind tour for an hour and thirty minutes or an hour and forty minutes, so they might have begun boarding the plane around 1645. The amount of time between the loading and the accident was perhaps 10 or 15 minutes. She could not recall the duration of the taxi.

Ms. Steffen was asked if Mr. Kamm had expressed any concerns about getting the passengers back on time, or if he had said anything about the weather conditions before attempting to depart from Traitors Cove, and she said “no” to both questions.

When asked about weather conditions during the passenger loading, she said the weather was sunny, a little breezy, and nice. That was why she wondered why he was taking so long taxiing the airplane.

Ms. Steffen could not remember how the water looked out in the bay. She was looking out at the mountains. It was cloudy, but she could see the mountains. She saw white clouds. There were no dark clouds that she could see. She did not remember the type of clouds. They were not low clouds. They were out beyond the mouth of the bay in the distance. She could not recall whether there were any clouds in the valley surrounding the cove or around the nearby mountains, but when they had driven up the road in the van, it had been sunny and breezy.

Ms. Steffen said that there was one plane at the dock when they boarded to depart, and that was Island Wings (Michelle Masden). Ms. Steffen did not remember seeing any boats.

Mr. Kamm did not discuss with her how he planned to depart the cove.

Ms. Steffen was asked to describe any safety equipment on the accident airplane and to describe where it was located. She said there was a first aid kit and a fire extinguisher on board. She was not sure where the fire extinguisher was located. The first aid kits were on the side panels between rows 2 and 3. Airbag flotation devices with masks were on the backs of the row 2 seats for row 3, and by the calves of the people in row 2, and near the base of the farthest aft bench. Ms. Steffen had no idea what the passenger flotation devices looked like. She stated that Mr. Kamm performed the safety briefing. He had not shown them to her and she had never seen them. She did not know if the airplane carried a raft. She did not know how many fire extinguishers were on board. She had never seen it or them.

Ms. Steffen stated that safety equipment kept in the van that was used to transport passengers to see the bears consisted of a first aid kit. There were no blankets or flashlights in the van.

When asked how her seatbelt performed during the accident, Ms. Steffen said that it remained intact. She was wearing just a lap belt. She had not suffered any belt injuries.

Ms. Steffen was asked about the passenger's use of seatbelts. She said that when they were taxiing, she knew everyone was in their safety belt, but she did recall that when she turned around to look at Christy Smith and offer her the use of her headset, Trevor was on Mrs. Smith's lap and Ms. Steffen did not know if he was buckled into Mrs. Smith's safety belt or how that had worked. He was sitting peacefully.

Ms. Steffen was asked about the position of the airplane after the crash, and she said the cabin was on its side. The left door was up and she had to lunge out. She stated that they were trying to kick out the left side windows. She did not know whether part of the cabin was suspended above the ground. She could not remember whether there were obstacles outside the door. She had felt herself do "a couple of rolls" after she came out. Fire was just outside the cockpit to the left. She did not know how high the fire was. She thought the fire might have broken out within 15 seconds after the crash. When asked how long it took her to get out of the cabin, Ms. Steffen said maybe a minute, maybe less, maybe a couple of minutes. She was not sure.

When asked about her injuries, Ms. Steffen said that she did not break any bones, but that she was a little tender in places. She had burns on the front of her right leg, on her right arm to elbow, on her left arm a little past her elbow, and on the front part of her left leg to the thigh. On her face, she had burns a little past her hairline. At the time of the accident she was wearing jeans, a cotton T-shirt, a fleece pullover, and hiking boots.

Ms. Steffen was asked about the condition of the other passengers immediately after the crash. She said the first person she heard was Mr. Kamm asking if everyone was okay. Flames then broke out. Mr. Kamm said "Oh shit." He was struggling to get out. The next voice Ms. Steffen heard was Christy Smith's. She did not remember what Mrs. Smith said, she just recalled hearing her panicked voice. Trevor Smith was crying. Ms. Steffen did not hear any other voices or see or touch anyone else. She had no idea whether Allison was belted in. She did not recall seeing anyone else or noting anyone's injuries. She stated, "It was pretty black in there with the smoke and I think I was in shock."

Ms. Steffen said that she had no difficulty getting out of her seatbelt. No one helped her get out of the plane. She did not have any idea how Mindy and Allison got out.

The Promech otters had arrived at the cove about five minutes after Ms. Steffen got out of the wreckage.

Ms. Steffen was asked about Mr. Kamm's activities on the day of the accident, and in the two days before. She said she saw him on the morning of the accident at the Alaska Seaplane tours dock, in and out of flights, but she did not know what time. She would untie the plane for him. He seemed "good." It was nice outside. Everyone was in a good

mood because the sun was out. Mr. Kamm had appeared alert. He was not yawning. His mood appeared good.

When asked if she knew whether Mr. Kamm had experienced any significant changes in his health, finances, or personal life in the past year, Ms. Steffen said that this was her first summer working for SeaWind. She was not aware of anything like that.

Ms. Steffen had not experienced any close calls before on the SeaWind airplane, and when asked if Mr. Kamm had ever made any decisions or had taken any in-flight actions as a pilot that made her uncomfortable, she said no, not when she was in the plane. Ms. Steffen stated that Ketchikan weather could be kind of “gloomy,” and that pilots, with their expertise, had to make sure it was safe. Mr. Kamm was the best pilot she had ever flown with. When he made those judgments, he knew what he was doing. Ms. Steffen said he had never performed any aerobatic maneuvers or flown inadvertently into clouds. Ms. Steffen had no knowledge of Mr. Kamm being involved in any previous accidents or safety-related incidents.

Ms. Steffen stated that the accident flight was the only time they had ever taken off toward the head of the cove. Mr. Kamm was looking over his shoulder a lot, but he never said anything to her.

Ms. Steffen said, “I think he [Mr. Kamm] is extremely careful. He checks with every other airline if anything is somewhat questionable.” She added that he was very “safety aware.” His wife helped him do the scheduling. It was a very nice, family-oriented company.

When asked about Mr. Kamm’s reputation as a pilot in the local community, Ms. Steffen said he was one of the best in Alaska. She had always bragged about that to her husband who had been Mr. Kamm’s dockhand for a while. Ms. Steffen’s husband had watched Mr. Kamm to see how he did things, and he liked that Ms. Steffen was working for SeaWind because he had really enjoyed working for the Kamms and they had gotten along well. Ms. Steffen’s husband had received his pilot’s license a couple of years before the accident.

Ms. Steffen was asked about the tour season and tour flights, and said that the tour season was mid May to mid September, but she had started working for SeaWind on June 1. She had received a little on-the-job training at the end of May, but she was still working full time for the credit bureau, not for SeaWind, at the time.

SeaWind offered Misty Fjords tours (1 hour and 45 minutes to the national monument); harbor tours (30 minutes around the back of Revillagigedo Island); Traitor’s Cove bear tours (3 hours, with 20 minutes each way flight time and 1:40 to 2:00 on the ground with Ms. Steffen). SeaWind was only allowed to have 12 people per day visit Traitors Cove so they could do a maximum of two tours per day unless the plane was not full. Mr. Kamm also took people to lakes for camping. On a busy regular day, Mr. Kamm might

do five tours. The day of accident was a busy day. She didn't recall when she saw Mr. Kamm or when he might have been getting up and going to bed on those days.

When asked to describe a typical bear tour, Ms. Steffen said, she would greet the people if she had not flown out with them. Then she would go up to the van and seat them in the van. They drove pretty slowly on the logging road. It was roughly 10 minutes to a bridge on the lower part of the creek. They would see if they could see any bears there. They would remain there 5 to 30 minutes, depending on bears. The time they spent there was up to them (the passengers). After that they would turn around and go up to the upper trail. They did a 10-15 minute hike on a trail. She would tell people about some of the vegetation and flowers. They would take pictures. Then they visited a platform built in 1989 by the forest service, and located above a fish ladder. It was common to see bears there. They would remain at the platform for half an hour to an hour, and then get in the van and go downhill and get in the plane. If they did not see any bears at the platform, they would go to the first bridge again.

Island Wings had a big group out there at the same time as the passengers from SeaWind who were on the accident flight. The two groups overlapped at the observation platform. Ms. Steffen did not like to be at the observation deck at the same time, and she left the platform first with her group. Terry Chandler was the guide for the other group. They had arrived 15 to 20 minutes after Ms. Steffen's group, and Ms. Steffen's group left about a half hour later.

Ms. Steffen was asked how SeaWind determined the weights and ages of passengers. She said that Mr. Kamm did it in his head, and she had no idea. Ms. Kamm did it also, she had no idea how. Mr. Kamm analyzed everybody before boarding. She did not recall him asking anything about the weights of the passengers on the accident flight. She did not recall seeing a form with weights on it for the passengers.

Asked about what kind of pre-flight safety information or briefing was provided by SeaWind, Ms. Steffen said that if people asked questions in the van about the trip, she would answer, but Mr. Kamm conducted the safety briefing down at the plane. The briefing included the location of the first aid kits, exits, and flotation devices (yellow pouches) for each individual. Mr. Kamm explained how to open the doors. He explains how to put the safety belt on and he made sure everyone was secure. He did that at the beginning of the accident flight. It was routine to brief the passengers before each flight.

When asked about the airplane seat belts, Ms. Steffen said there were nine seat belts in the plane. Shoulder harnesses were only in the front row. Mr. Kamm always wore his. Ms. Steffen said she usually was stuck in back of the plane because she was light, but Mr. Kamm placed her wherever he needed her. Usually it was in the back or in a middle seat. If Mr. Kamm did not think was good for her to go, she was stuck at the dock. It depended on the scheduling. Ms. Steffen did not perform any in-flight narrations.

Ms. Steffen was asked about the use of headphones during the flight and she said that she did not know who used them. Christy Smith did not use one. Ms. Steffen had turned

around when she got in her seat and handed Ms. Smith her own headset, because Ms. Steffen usually did not get one. Ms. Smith did not want to wear one, so Ms. Steffen wore it during the flight. That was how she heard Mr. Kamm exclaim as they went into the trees. She did not remember him saying anything before the crash except “Oh shit.”

Asked about the number of passengers on a bear tour flight, Ms. Steffen said the maximum was 12 at the cove at one time. They could take as many people as there were seat belts on an individual flight. When asked about children on the flights, she said it was pretty common. She did not know SeaWind’s seating policy for infants and children. She did not know the rules about kids having their own seats.

Ms. Steffen was asked if there was anything else that was not specifically asked that might be relevant to the investigation of the accident, and she said “no.” When asked if she had any safety suggestions, she said no.

Ms. Steffen was asked if the synthetic clothing she was wearing had melted in the fire, and she stated that it might have melted, but she was not certain.

This concluded the interview.

On September 27, 2007, Ms. Steffen provided additional information through her representative, stating that her height was 5’6” and her weight at the time of the accident was 110 pounds.

<b>Interview:</b>	<b>Clifford Kamm, Co-Owner and Operator, SeaWind Aviation</b>
<b>Time/Date:</b>	<b>September 6, 2007</b>
<b>Location:</b>	<b>1430, Harbor View Hospital, Seattle, Washington</b>
<b>Present:</b>	<b>Bramble, Erickson</b>

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

His date of birth was March 23, 1963. He weighed 181 pounds.

At the time of the interview, he was taking pain medication. His last dose of 25 mg was 2 hours before the interview.

Mr. Kamm’s highest level of education completed was high school.

He had lived in Ketchikan all his life. He had gotten interested in flying because he had grown up around aviation and because his father had been a pilot for about 40 years. His father had worked as a commercial pilot for different companies.

Mr. Kamm began his pilot training at Boeing field in 1984 and 1985. He had finished up his private license on floats in Kenmore, Washington. He had completed additional training with Shebley Riviera Aviation in Bullhead City and Blythe, Arizona. He had a



commercial pilot's license with instrument rating and had held an airline transport pilot certificate with land and multi-engine ratings. He had completed his multi-engine sea airline transport pilot rating in Lake Havasu with Joe Laplaca.

Mr. Kamm had about 17,000 hours total flight experience. All but 200 hours was in floatplanes. Those 200 hours were mostly gained during training. The majority of his flight experience was in single turbine engine Otters, but he had about 7,000 hours in Beavers. He had flown approximately 580 hours in the last 12 months, and roughly 375 hours in the previous 90 days.

When asked whether he had attended any safety seminars or clinics in the past 3 years, Mr. Kamm said he had attended a Coast Guard seminar about right of way rules and confusion in the harbor. The seminar was conducted in Ketchikan. He could not recall any other seminars.

Describing his work history as a pilot, Mr. Kamm said he had mostly worked for other people. He was first hired by Temsco on June 6, 1988 and worked there until that company closed its doors in 1991. Then he was hired by Jerry Skedaro at Taquan Air, and he worked there until the spring of 1999. He took the summer off to fly as a copilot on a twin otter for Seaborne Aviation, working under Chuck Slagel. Marc Sessoms was a pilot at Seaborne at that time. After that he worked at Taquan for its final 3 or 4 months of operations, until that company closed its doors. He began working for Promech in January 2000, under Kevin Hack, and he remained there until he started SeaWind Aviation with his wife in June 2003. He and his wife were the owners of SeaWind Aviation.

When asked what he enjoyed about his work, Mr. Kamm said he enjoyed meeting different people and getting a chance to show them the area. There was nothing he disliked about his work, except perhaps for having to work for other people.

Mr. Kamm enjoyed flying the Beaver, which he described as a "good solid plane." It was very stable. He had always liked Cessna products as well, but he switched to the Beaver because it held up better in the choppy water. Cessna 185s and 206s could "run you to the poorhouse trying to keep up with maintenance." The wet, harsh climate was hard on the airplanes.

When asked whether he had discussed the events on the day of the accident with Ms. Steffen or other survivors, he said he had not discussed the accident with the other survivors. He said he had spoken a little but with Ms. Steffen, but they had not had much time to chat.

Mr. Kamm described the events leading up to the accident, starting with the arrival of the passengers at the dock at Traitors cove for the flight back to Ketchikan. The passengers appeared to have had a good time. They were all smiles. They had seen bears and were "kind of buzzing about that." He asked about how many they had seen, and then it was time to get going, because they had ships to catch. He and Sarah assisted them with

boarding the plane. Mr. Herron sat up in the copilot's seat, as he had on the trip out to Traitors Cove from Ketchikan.

Ms. Steffen was coming back to Ketchikan with them, because she had gone out to the cove on a previous trip to bear guide. A woman sat in the farthest aft seat with her daughter. Ms. Steffen and the other woman sat in the seats in front of them. The two men sat on the bench seat ahead of them with the other child between them. Upon further questioning, Mr. Kamm indicated that he was not certain which of the children was located in the farthest aft seat and which was located between the two men.

Mr. Kamm stated that each of the children had their own seat. There were a total of 9 seat belts on the plane. There were two located on the farthest aft seat.

Mr. Kamm stated that Ms. Steffen was seated on the pilot's side of the aircraft and the other woman in her row was seated on the opposite side. Mr. Kamm did not recall which of the two men sat on which side of the bench seat.

Mr. Kamm stated that he had to warm the airplane up a little bit, so he back-taxied behind the small island in the cove, then turned into the wind and took off. He stated that the tide was "pretty high" and he headed toward the head of the cove. He was taking off directly into the wind so he would have a nice headwind, and he planned to make a "nice climbing turn and head back the other way so I would not get caught in some of the hills." He stated, "As I came around the island, I was thinking I could just keep a nice shallow right hand turn going, but looking at the water, I could tell it was a little rough and a downwind turn was not going to work, so I just kept going."

Mr. Kamm recounted that as the passengers were coming down to the plane, there was a nice stable breeze coming down from the direction of Margaret Lake. As he was taking off and making a 180-degree "gradual" left turn inside the cove, he reached about the halfway point in the turn and the airplane began losing altitude. Responding to this, he "started putting a little flaps on and tightening up the turn a bit. Then he started to descend faster. He increased the power and started putting some flaps down. Ultimately, the airplane stalled just before contacting the tops of the trees, after nearly completing the 180-degree turn.

Clarifying the turns executed after the takeoff, Mr. Kamm stated that "After coming off the water, I just banked right a little and I could tell it was not going to work out because it would have been cross-downwind too soon." Instead, he kept going straight, and then initiated a "gentle" 180-degree turn to the left. At 90 degrees into the turn, "the bottom started to fall out fast."

Mr. Kamm stated that after coming off the water, he had reduced power a little bit, cleaned up the airplane, and had achieved a "good established rate" of climb. However, he stated, "As I was coming out of the turn, I was fighting for everything I could get." He put a little more flap and a little more power back in. He could tell that he was "pulling a pretty good amount of back elevator and it finally let go [stalled] right above

the trees.” However, he stated that before the stall, the airplane was on its way down, and it stalled low, perhaps at an altitude of 60 feet. The airplane pitched a tiny bit down and to the left, and the airplane hit the tops of the trees.

Mr. Kamm thought the left wing might have hit first, because the airplane was in “kind of a left bank.” He stated, “I just remember trying to fly it the whole way.”

Mr. Kamm stated that takeoff flaps were normally about an inch past the no flaps point on the indicator, at the placarded location. Asked how much flaps he put in after the airplane began sinking, he said, “Maybe a pump, if that.” He only added flaps once after the airplane began to sink. He stated that he had never gotten them completely up during the takeoff.

Mr. Kamm did not hear a stall warning horn, because his Beaver was not equipped with one, he just experienced a buffet.

When asked about his target speeds during the takeoff, Mr. Kamm said that normally 60 miles per hour was the speed for getting off the water. Then he was looking for cleanup and to establish a good rate of climb. His target airspeed for the initial climb was anywhere between 90 and 95 knots. Asked whether he recalled visually monitoring the airspeed during the takeoff and climb, Mr. Kamm said, “Yes, you monitor it.” He estimated that the stall speed in his aircraft with the loading he had during the accident flight would have been between 45 and 55 miles per hour. Mr. Kamm did not specifically recall what speeds he achieved during the takeoff and climb, but recalled that “everything was normal, it felt like a normal takeoff.”

Mr. Kamm was asked to describe the bank angle during the initial left-hand turn. He stated that it was “not much, less than 30, 25” degrees. He had set up the airplane to make a shallow turn.

Mr. Kamm stated that he decided a right turn would not work about 2 or 3 seconds after liftoff. He stated again that this was because he saw rougher water in that direction and he did not want to turn downwind too quickly.

During the takeoff, the wind was coming down from Lake Margaret and some was coming up from Behm Canal. The stronger wind was coming off of Behm Canal. Rougher water was located just around the point to the southwest of the little island in the cove.

The takeoff run on the water had been short, perhaps 300 yards. There was “maybe a foot of chop or less, hardly anything at all” in the cove. Mr. Kamm stated, “That’s why, taxiing back and looking at the whole thing I was using the best possible water and headwind component.” He stated that he was off the water long before passing the dock on his left. The airplane lifted off in the narrow channel between the island and the shore.

Mr. Kamm was asked how far he back taxied before turning around and beginning his takeoff run. He stated that he had back taxied beyond the island, "maybe another minute's worth," perhaps 150 to 200 feet. The water beyond the island was rougher in Traitors Cove. He stated, "I could see what was in store that way." He estimated that the waves in that area were about a "three foot chop."

When he was asked about the maximum altitude he achieved during the climb, Mr. Kamm said he may have climbed "close to 400 feet."

Mr. Kamm did not know how long he climbed before beginning the left hand turn.

His engine felt "solid" during the entire takeoff and climb until the accident.

Mr. Kamm was asked whether, when he began his takeoff run, he felt like the space he had available in the cove was ample, or whether it appeared tight and might have given him some concern. He stated that he felt like he had plenty of space and that he had "a lot of room" to the left when he began his turn. He stated that he had "just crossed the shoreline" when he began the left hand turn, and that he was over the trees on the shoreline. He stated that he had felt pretty confident about the decision making process.

Mr. Kamm was asked to describe the weather when he left Ketchikan for the cove. He stated that it was, "a little breezy, but nothing out of the norm. Nothing like 35 or 40 knots. It was 10 gusting 20. The water was decent. It was another nice warm summer day. Nothing to where I would have thought it would be a problem later down the road."

Asked to describe sources of weather information that were available to him, Mr. Kamm said, "We have flight service and PIREPS from other pilots. It was a really beautiful nice day." Mr. Kamm said he had obtained a morning forecast from Ketchikan flight service, and then called the other tour companies and asked how the weather was out toward Misty Fjords. That was a daily practice for him. He stated that flight service had not said anything about big wind changes. Earlier in the day, they had been calling for some thundershowers, but they really had not seen any. Mr. Kamm stated that usually Ketchikan flight service would "let you know when you're getting to that part of the day that it is going to be a threat."

Mr. Kamm was asked to describe the weather during his flight to Margaret's Cove. He stated that the weather was "real nice" and that it was a "smooth trip." He had flown a full pattern, going down the west channel at 800 feet by the airport, rounded Point Higgins, shown his passengers the sub base, and headed north along the eastern side of West Behm Canal. He departed on that trip around 1500. He stated that there was "hardly any wind at all" when he landed in Margaret's Cove.

Mr. Kamm described the weather he observed at the cove while the passengers were viewing bears. The weather was beautiful. There was hardly any wind to speak of. The weather changed, however. He "could tell at higher altitudes it was getting a little blustery." He saw birds soaring "very high." He stated that he could tell the wind was

coming, but he could not tell the magnitude. The sky was not dark. There was no evidence of any rain. There was no convective activity. He did not even see any downbursts on the water, and he tended to look for those. It was just a nice, steady breeze out of the lake. Those were the only changes he noticed before attempting to depart the cove. It “just wasn’t as nice and flat calm any more.” He was not certain exactly when the weather changed, because he was docked at the cove for two hours. He stated that the situation appeared normal, and that people were flying their tours.

Mr. Kamm had been cleaning up the plane and washing the windows while the passengers were gone. The passengers returned to the dock about 1700, right on time. He was not concerned about getting the passengers back to Ketchikan in time for their ship’s departure. He knew they had time. They were not running late, so it was not a driving issue. Ms. Steffen was right on time. Everything was routine.

Asked whether he had felt any concern, as the weather was changing, about wanting to get out earlier, Mr. Kamm said, “I would have liked to have known that the weather was coming, but there was never anything major, I just had to back taxi and take off into the wind.”

Mr. Kamm stated that, in fact, while he was at the Cove, another tour plane had been able to land downwind in the cove.

During passenger loading, the weather did not change compared to his earlier observations.

As he waited in the cove, there was one other tour plane there and no boats. The plane was from Island Wings and was flown by Michelle Masden. He had talked to her on the dock in passing as she took her group up. She did not say anything about the weather. They had had no discussion beyond greetings.

Mr. Kamm stated that “lots of times the wind is the exact opposite.” His typical takeoff and departure route out of the cove was to “land down river and take off straight into the wind.” Sometimes there was no wind. When asked what percentage of the time during past visits he had taken off toward the head of the cove, Mr. Kamm stated that he had never had to before, and he had never seen the wind “blowing that hard out of the lake like that.” He added, “The weather was never such to where I would have operated that way. I had worked there several times in my junior years when there was a logging camp and never saw anything like that.” He again confirmed that this was the first time he had taken off toward the head of the Cove. He stated that there appeared to be plenty of space. He had not felt it was going to be tight. If he had felt it was tight, he would have done something completely different. When asked what his next best strategy would have been, Mr. Kamm stated that it would have been to take off empty, go back to Ketchikan, and find another way to get the passengers back. He might have called Promech to get a bigger plane to pick them up.

When asked whether he had heard anything about changing winds before he departed Ketchikan for Margaret's Cove, Mr. Kamm stated that he had talked with a friend who had said he was on his way to Misty Fjords and had turned around because he was unable to maintain altitude. The friend told him he was not going to go back into the canyons under those conditions. Mr. Kamm stated, "That made me think about it, but it was very nice in the harbor." He stated that he thought his friend might have seen a thunderstorm. Mr. Kamm had flown in Misty Fjords earlier in the day and it had been fine.

Mr. Kamm estimated that he departed Margaret's Cove between 1710 and 1715, and that the accident had occurred minutes later.

Describing what the air felt like during the takeoff and initial climb, Mr. Kamm said it "Felt good." He had a positive rate of climb. He had no concern about the turn to downwind. He took off, left in a little power, put it at climb setting which would normally result in a speed of 85 to 90 mph, put the flap selector back in the down position and things were going "up, up, up." He rolled into the left turn, and then he was "descending out." He stated that the descent made him wonder if his flaps were off or something. The settling occurred about the time he set the airplane for cruise power. He felt like he had a headwind that was just pushing him down.

The climb rate in his airplane was normally about 200 feet per minute. Asked whether the accident might have occurred three minutes after takeoff, Mr. Kamm thought that was possible, but he was not certain.

Mr. Kamm stated that the first time he realized something was not going as planned or was not normal during the takeoff was when he was about 90 degrees through his 180 degree turn.

During the stall, he did not hear anything, but he felt the buffet.

Asked whether he recalled whether the airplane flew or fell into the forest, Mr. Kamm said "We were still coming down, and right as we got to the trees it really stalled."

The passengers were wearing headphones during the flight, although he thought the kids had taken them off. They were all invited to wear headphones. There were not enough headsets for Sarah to use one.

The passengers were all wearing seatbelts. The kids were all buckled in when he shut the door of the airplane. He stated that most of the time he put the seatbelts on the kids, but that the two men and the mother had taken care of that before the accident flight.

Mr. Kamm stated that his seatbelt remained intact during the crash and that he had sustained some restraint injuries from his shoulder harness and seatbelt.

The airplane was upright after the crash, nose low, and tilted right.

Asked to describe the injuries he sustained and how he got them, Mr. Kamm said “I hit my head in such a way and burned myself to where I was getting fluid and blood in my right eye and had a cut on my left eye and a little blood from that. I had blood in my eyes and it reduced my visibility greatly.”

Mr. Kamm did not know how much time elapsed between the crash and his escape from the airplane. He stated that he was in the airplane long enough to sustain severe burns to his arms. He recalled, “It was not getting unbuckled and hopping right out.” He did not remember that much. He did think for a second that he was not going to be able to get the door open. He guessed that branches from a tree were lying across the door. He pushed the door open.

Mr. Kamm did not remember any sounds after the impact. He did not know whether he had a headset on after the crash. He just remembered, “getting hot all of a sudden, and knowing I had to get out of there.” He did not recall any sounds from the back of the plane. He knew Ms. Steffen had already exited the plane by the time he got out, because he encountered her outside.

When asked to describe the condition of the other passengers immediately after the crash, Mr. Kamm stated that he did not know their condition. He was having difficulty seeing, and he could not see things clearly that were located only a few feet away. He stated that he “just got out and crawled away.”

Asked how long it was after the crash that the fire broke out, Mr. Kamm said he guessed the plane was on fire right after it hit the ground.

Mr. Kamm confirmed that his arm injuries (burns) occurred while he was inside the cockpit. He had sustained all of his burns inside the airplane.

Mr. Kamm said that he could not remember whether it was difficult to get his seatbelt off.

His clothing consisted of jeans, tennis shoes or leather shoes, and a short-sleeve cotton shirt. He was not wearing any synthetic materials.

Mr. Kamm did not know how Mindy Mayer and Allison Smith had exited the airplane. He thought they might have crawled out on the other side of the airplane because Ms. Steffen never noticed them, and he did not see them when he was on the left side of the airplane. He did not know if they were just getting out at that time. Mrs. Mayer had crawled away from the plane and Mr. Kamm tried to help as much as he could with the little girl. He pulled some of her clothes back on and tried to hold her to keep her from crawling around. He had found both of them on the right side of the airplane. He located them by the sound of the little girl’s crying.

The engine was completely off of the airframe.

Mr. Kamm asked Ms. Mayer how she was doing and how mobile she was because he felt she was a little close to the airplane which was burning. He asked if she could get situated closer to her granddaughter. Mr. Kamm tried to look around a little bit, but his sight was “pretty limited,” so it was “kind of useless.” Ms. Steffen was running down the beach, so it was pretty difficult to get a response.

Ms. Mayer and the little girl were in a “pretty cool area” and he did not think there were going to be any explosions, so he tried to make the little girl comfortable until help came. It was all he could do.

Asked about any discussions he might have had with Mrs. Mayer, Mr. Kamm stated that she asked him if he had insurance. He did not remember anything else.

When he first found them, they were 10 or 12 feet away from the airplane. The little girl was further away from the plane than the grandmother was.

Mr. Kamm did not know how long it was before help arrived.

Asked about his last day off before the accident, Mr. Kamm said that sometimes he planned days off around maintenance. Coming into the season, he usually had a lot of time in April, and met his rest requirements then. He had taken a couple of days off 2 or 3 weeks before the accident. He was planning a big rest period at the end of September.

His typical schedule was 7 days per week. Some days were light and some were busy. Typically his first tour would begin around 0900 and his last around 1630. He usually had about 4 to 7 hours of flight time per day. Mr. Kamm usually arrived at the airplane a half hour before the first tour to clean the windows and get the airplane warmed up. He would spend time at the end of the day getting the airplane ready for the next day. It took him less than 20 minutes after the last tour to run the airplane up on the ramp, tie it down, and sweep it out. He kept his airplane at the Westflight Building. He sometimes loaded passengers there, but more often he loaded at Carlin Aviation, because that was where he obtained fuel.

Mr. Kamm stated that his schedule the week of the accident was typical. The weather was getting better.

Mr. Kamm could not recall his sleep, wake, and work times, or meals for the period August 14 through August 16. He stated that he usually went to bed between 2100 and 2200, sometimes earlier, although his young children sometimes modified that. He was usually awake at 0600. He always got up an hour and a half before he did anything. He did not sleep in. He was “kind of a morning person.” He stated that he felt “really good” on the morning of the accident, as he had all summer. He also felt fine during his departure from Margaret’s Cove. He felt alert.

Mr. Kamm stated that he was “a pretty healthy person” before the accident. He had encountered no problems passing physicals or obtaining insurance. His vision was “fair”



but corrected to 20/20. He was wearing contact lenses at the time of the accident. He did not take prescription medication. He occasionally drank alcohol. His last drink was “a margarita” a couple of days before the accident. He stated that, in the 72 hours before the accident, he did not use any medications or substances, either prescription or nonprescription, that might have affected his performance.

Mr. Kamm stated that he had not experienced any significant changes in his health or personal life in the previous year. He had experienced some positive changes financially, because his company was growing. This change had not been difficult for him to manage, but it had been a little bit more difficult for his wife. She had been “a lot busier” in the last year.

SeaWind was started in 2003. At first he flew a Cessna 206. He acquired the Beaver in 2005. The company offered Misty Fjord tours, bear tours, a 30-minute local tour, and a glacier tour. His tours were Misty Fjords tours at least 70% of the time. He did not know how many tours the company operated per season. The summer of the accident, he typically flew 2 to 5 tours per day.

Mr. Kamm did point some things out to his passengers after exiting the control zone around Ketchikan, but he did not narrate continuously.

In the off-season, Mr. Kamm did a little charter work, “not a lot.” He stated that there was not a lot of business in the winter. There used to be more work, but it had become more seasonal in recent years. He stated that this change seemed to occur around September 11, 2001, which had been the “benchmark” of the timber industry.

Mr. Kamm did not hold any other jobs besides operating SeaWind.

His company’s business had been “good” compared to previous years.

When asked how SeaWind determined the weights and ages of passengers, Mr. Kamm stated that his wife compiled that data from reservation forms submitted on the company’s Internet site. The passengers entered weight data that way, or vendors would provide the weights. Mr. Kamm’s wife provided him a schedule at the beginning of the day, with all the tours that were scheduled. Later she would call and tell him when they had additional passengers, and she would provide the weights over the phone.

The useful load on his airplane was 1,760 pounds. He gave Mrs. Kamm 1,375 pounds as a passenger weight limit. That accounted for his weight and enough fuel to fly to Misty Fjords plus a reserve. For the accident trip, Mr. Kamm had filled the front tank and he had 8 gallons in the center tank before leaving Ketchikan. He had no fuel in the aft tank or the tip tanks. The center fuel tanks, from front to back, held 35, 35, and 25 gallons.

Mr. Kamm stated that SeaWind had passenger briefing cards in the backs of the seats. He pointed out the use of the fire extinguishers, life vests, and first aid kits before flight. He did point out the location of the fire extinguisher and he explained the use of the exits.

He showed them the survival kit. There were a total of 9 seat belts in the plane. The passengers learned how to use them because he demonstrated as he put it on them. He talked about the operation of the door handle and its location.

SeaWind could take a maximum of 12 people per day to Margaret's Cove. They had a lot of child passengers, so it worked out weight-wise. They had carried 7 passengers a couple of times before, but it was not common. They were insured for 7 passengers, but he was not as clear about the maximum. SeaWind considered Ms. Steffen to be an employee and not a passenger. It was common for them to carry children. Asked about their seating policy for children, Mr. Kamm stated that he liked to have them next to an adult. If they were older than 2 years, they had to have their own seat.

Mr. Kamm stated that the following safety equipment was located on the plane: a fire extinguisher (behind his legs and in front of his seat mounted low to his left side) and two first aid kits (between the double door and the window in yellow bags). Asked whether the location of these items hindered their use, he stated that he could not see in the heat and with the blood in his eyes. Choosing a location was "fighting the age old battle where it seems like everything's in a good spot until the one time it's not." The fire extinguisher was in brackets bolted to the frame. It was very accessible, but he had fire in the cockpit, and he did not stop to get it out. It felt as if the fire was coming from directly below his buttocks. He was surprised that he did not have burns on his lower body. The airplane carried a single fire extinguisher. After he got out of the plane he did not attempt to retrieve any safety items because "my hands were pretty fried and I couldn't see."

Mr. Kamm stated that he had not been involved in any previous accidents or incidents of this nature. He acknowledged having bent a firewall in his Cessna 206, and stated that other planes had run into the back of his plane before when he was parked at the dock, but he had not experienced any other incidents, nor had he experienced any emergency or abnormal situations.

Mr. Kamm stated that he had never been disciplined for his performance as a pilot. He had not received any commendations either, aside from a bonus or something like that.

Mr. Kamm stated that he could not think of anything he had not been specifically asked about that could be relevant to the investigation. Asked whether he had any safety suggestions, he said, "No, as a pilot, we're always thinking of that." He stated that when he had flown freight in the past he and other pilots had considered ways the FAA could better help them do what they were doing, but he could not think of anything related to this accident.

Mr. Kamm stated that the FAA's role in the flying community in Ketchikan was excellent. He had never seen it better before in his life. When he first started flying there, pilots would walk out when FAA inspectors walked in. It could have been the company that he worked for, but as time went by he remembered FAA people like Jim McCoy who made a difference. He had encouraged Mr. Kamm to be a chief pilot at

Promech when they were Part 121 in the twin otters. Mr. Kamm had told him how nervous he was about it. Mr. McCoy had told him he would help him and make sure he did not screw up. That had been very helpful. Recently, there had been people like Mick Green and Chip Wisner, people he had known for a while, and it really helped. They were instrumental.

The FAA's ability to be helpful over the last couple of years had remained good. Any time he had a question he would call up and ask and get prompt answers right away. He was certificated as a Part 135 operator with Freddy Kaiser and he was "a total gentleman about the whole deal." There had been "lots of ups and downs," but he felt as though "times had changed."