NATIONAL TRANSPORTATION SAFETY BOARD
OFFICE OF AVIATION SAFETY
Anchorage, Alaska, 99513

April 10, 2013

Operations / Witness Group Chairman's Factual Report

## A. ACCIDENT

| | |
|---|---|
| Operator: | Helicopter Consultants of Maui, Inc.<br>Dba: Blue Hawaiian Helicopters |
| Location: | Pukoo, Hawaii (Island of Molokai) |
| Date: | November 10, 2011 |
| Time: | 1214 Hawaiian standard time[1] |
| Helicopter: | Eurocopter EC130 B4, Registration Number: N11QV, MSN: 4909 |

## B. OPERATIONS/WITNESS GROUP


Clinton Johnson – Group Chairman
Senior Air Safety Investigator
National Transportation Safety Board
[redacted]
Anchorage, Alaska 99513

Samantha Link – Member
Aviation Accident Investigator Trainee
National Transportation Safety Board
[redacted]
Seattle, Washington 98003

Kyle Bartler – Member
Principal Operations Inspector
Federal Aviation Administration
[redacted]
Honolulu, Hawaii 96819

Christopher Kaluau – Member
Pilot Supervisor - Maui Base
Blue Hawaiian Helicopters
[redacted]
Kahului, Hawaii 96732

David S. Ryon - Member
Aviation Safety Inspector
Federal Aviation Administration
[redacted]
Honolulu, Hawaii 96819


[1] All times are Hawaiian standard time (HST) based on a 24-hour clock, unless otherwise noted. Actual time of accident is approximate.

## C. SUMMARY

On November 10, 2011, about 1214 Hawaiian standard time, a Eurocopter EC130 B4 helicopter, N11QV, collided with mountainous terrain near Pukoo (Island of Molokai), Hawaii. The commercial pilot and four passengers were fatally injured. The helicopter was registered to Nevada Helicopters Leasing, Henderson, Nevada, and operated by Helicopter Consultants of Maui, Inc., dba Blue Hawaiian Helicopters, Maui, Hawaii. The flight was operated as a visual flight rules (VFR) sightseeing flight under the provisions of 14 Code of Federal Regulations Part 135. Visual meteorological conditions prevailed at the time of departure, and company flight-following procedures were in effect. The flight originated from the Kahului Airport, Kahului, Hawaii, about 1144.

## D. DETAILS OF THE INVESTIGATION

On November 11, the operations/witness group traveled from Seattle, Washington, arriving in Honolulu, Hawaii about 1500. Upon arrival, the group convened at the Federal Aviation Administration's (FAA) Flight Standards District Office (FSDO), located at the Honolulu International Airport and met with representatives from the FAA, Blue Hawaiian Helicopters, America Eurocopter, and Turbomeca USA. During this initial meeting, the group conducted telephone interviews and collected pertinent records**.**

On November 12, the group traveled from Honolulu to the Island of Molokai where they met with police officers from the Maui Police Department. These officers then escorted the group to the community of Pukoo to conduct witness interviews. Each witness was interviewed in-person and in the same location that they were in when they observed the accident. In addition, GPS coordinates were recorded, and photographs were taken from each of the witnesses' locations.

The operations/witness group concluded the initial on-scene phase of the accident investigation on November 12.

Between November 15 and 18, interviews were conducted with the director of operations, chief pilot, company president, and other company pilots at the operator's (Blue Hawaiian Helicopters) base on Kahului Airport in Kahului, Hawaii (Island of Maui).

On April 24, 2012, members of the operations/witness group returned to the Island of Molokai to re-interview the ground witnesses, using the Immersive Witness Interview (IWI) method for further analysis and documentation. The results from the IWI interview process illustrated that the witnesses consistently observed the accident helicopter traveling down the mountain on a southerly heading prior to the impact with the ground. A complete copy of the IWI report is included in the public docket for this accident.

### OPERATING CERTIFICATE AND SPECIFICATIONS

On April 17, 1987, later revised on August 30, 1995, the FAA Honolulu FSDO issued Helicopter Consultants of Maui, Inc., dba Blue Hawaiian Helicopters of Kahului, air carrier certificate number HCMA601E, which permitted the operator to conduct on-demand air carrier

operations in the contiguous United States and the District of Columbia. Pursuant to the certificate, the operator was authorized to carry passengers in Eurocopter AS350 and Eurocopter EC130 B4 (EC130 B4) series helicopters under day/night visual flight rules (VFR). Operations under instrument flight rules (IFR) were prohibited.

## HISTORY OF FLIGHT

On the day of the accident, the pilot arrived at the company office about 0730, which was indicated by other company pilots as his typical arrival time. After checking the weather, he preflighted his assigned helicopter and then waited for his first passengers of the day to arrive. In general, the first flight of the day would usually begin between 0830 and 0900 each day.

The accident flight was the pilot's third flight of the day; the flight was to depart the Kahului Airport with four passengers for a 1 hour and 10 minute roundtrip sightseeing flight destined for the Island of Molokai. Via radio, the pilot reported his departure from the Kahului airport to the company dispatch at 1144. According to Blue Hawaiian Helicopters flight scheduling documents, the helicopter's fuel load at takeoff was listed as 435 lbs, or 64 gallons.

The helicopter was configured with seven passenger seats and one pilot seat (eight total) arranged in two rows of four; the pilot always occupied the left front seat. According to the Blue Hawaiian Helicopters pre-departure load manifest[2], the two front seat passengers occupied the farthest right seats, and the two aft seat passengers occupied the two outboard (window) seats.

[2] See Attachment #1: Blue Hawaiian Helicopters' Load Manifest

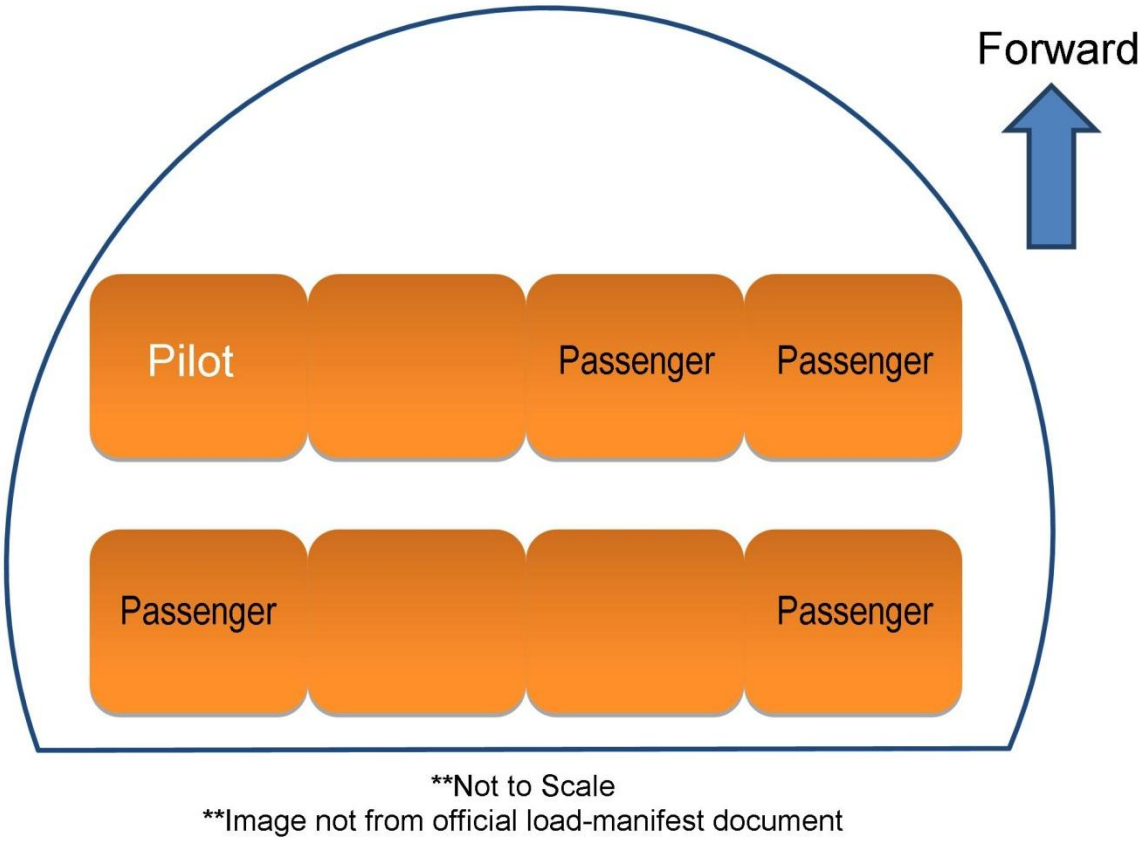


**Figure 1: Seat Arrangements for Accident Flight**

The prearranged flight route was to fly north-northwest from the airport towards the northern tip of the Island of Maui before proceeding northwesterly across the water between the Islands of Maui and Molokai. The flight was then to proceed to the northeastern shore of the Island of Molokai to view the Halawa Valley Waterfall, before continuing westbound along the cliffs on the northern shore. The prearranged flight continued along the cliffs until it stopped to view the Papalaua Falls. If the weather permitted, the flight was to continue down the Wailau Valley and climb up and over the valley wall to the southern side of the Island of Molokai. If weather conditions would not allow the pilot to use the Wailau Valley route, an alternate route was to fly eastbound along the northern shoreline, and then proceed to the south side of the island.

Pilots from other air tour operators that were flying around the Island of Molokai about the same time as the accident pilot reported that overall weather conditions would not have allowed the accident pilot to fly through Wailau Valley. Additionally, they reported seeing and/or talking with the accident pilot at various times and locations throughout the flight. These locations were near the Papalaua Waterfalls, the Halawa Valley Waterfall, and along the southern side of the Island of Molokai. The map below shows the accident helicopter's approximate route of flight given the prearranged flight route and statements from the other pilots.

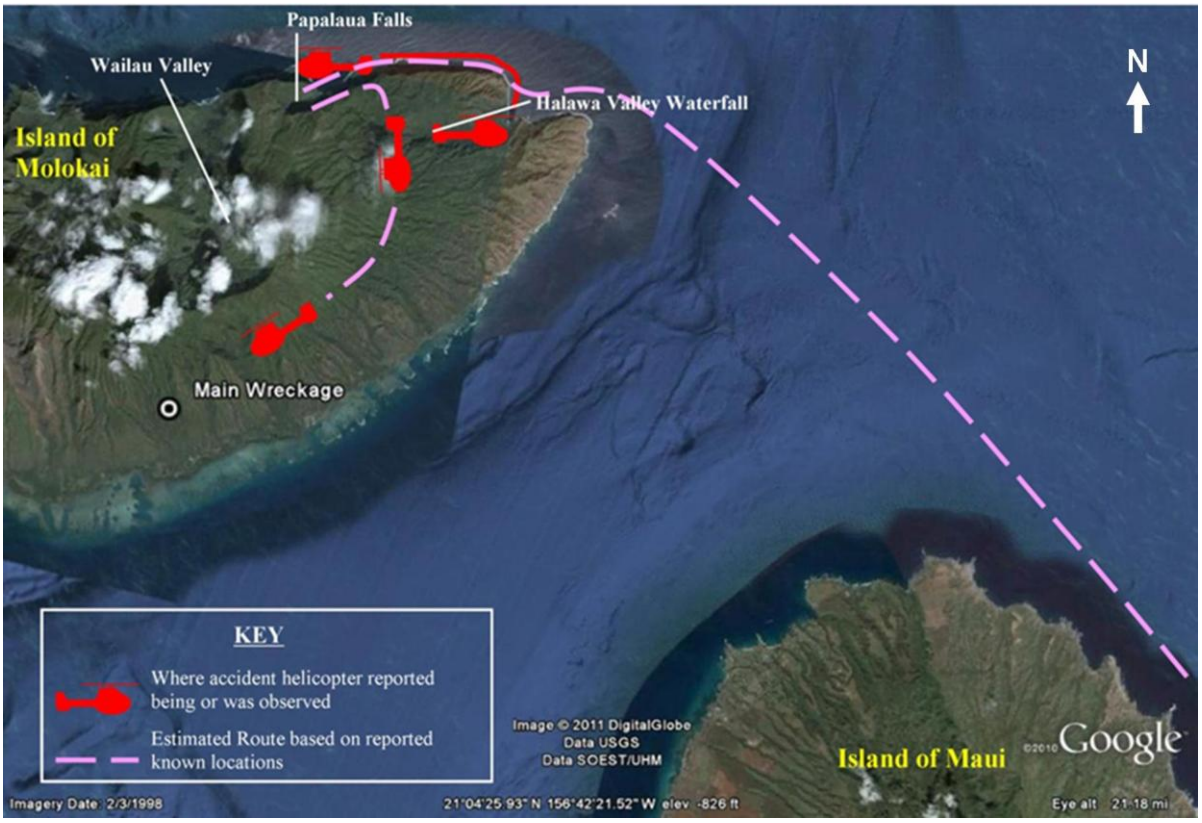


**Figure 2: Presumed Flight Track of Accident Helicopter**

As standard protocol, air tour pilots operating around the Island of Molokai monitor and announce their location and intentions using a prearranged radio frequency. In addition to position reports, pilots also use the frequency to talk informally. A tour pilot that was flying for another company, Sunshine Helicopters, said that he talked with the accident pilot while flying near the northeastern shoreline of the Island of Molokai. He said that, after they reported their respective positions to one another, the two began talking about the accident pilot's FAA check ride from the previous day. After a brief conversation, both pilots continued on with their tour flights.

The last pilot to see the accident helicopter reported seeing it flying westbound along the southern side of the Island of Molokai; the helicopter was just below the cloud ceiling at about 2,200 feet mean sea level (msl), near where the accident had occurred. The pilot reported that he did not witness the accident. He further mentioned that he did not know the helicopter had crashed until after returning to, and landing at the Kahului Airport. The pilot related that, throughout the day, the weather conditions on the Island of Molokai were continually deteriorating with a strong northeasterly wind and fast moving rain squalls.

The accident site was located on the southern slopes of the Island of Molokai, at about 640 feet msl, in tree and brush-covered terrain, about 2 miles east of Pukoo.

Several witnesses reported that their attention was initially drawn to the helicopter when they heard what they described as a "woop wooping" sound; at this time, they observed the helicopter descend downslope from the mountain ridgeline. Witnesses also consistently reported that as the helicopter continued its steep, southerly descent, fragments of wreckage were observed falling from the helicopter just before the helicopter impacted the ground in a nose down attitude. Witnesses further reported that they observed a large "fire ball" when the helicopter impacted the ground.

All witnesses reported that, around the time of the accident, heavy localized rain showers, with strong gusty wind conditions were in the area. Several witnesses reported that the accident occurred in between rain squalls, and one reported that it occurred during a heavy rain squall.

The area of the accident did not have any radar coverage.

The below image is of the main wreckage. The wreckage debris path was approximately 1,330 feet long extending west northwest from the main wreckage.

**Figure 3: Main Wreckage Site**

## PILOT INFORMATION

The pilot, Nathan L. Cline, age 30, had recently moved from southern California to the Island of Maui after being hired by Blue Hawaiian Helicopters. He had been recently married, and he and his wife were living in Kihei, Hawaii, on the Island of Maui.

The pilot held a commercial helicopter and helicopter flight instructor certificates, and a helicopter instrument rating. In addition, he held private pilot privileges with airplane single-engine land and multi-engine land ratings. His most recent second-class medical certificate was issued on March 14, 2011, which contained the limitation that he must possess corrective lenses that correct for near and intermediate vision.

According to Blue Hawaiian Helicopters employment and flight records, a large part of the pilot's previous helicopter flight experience was gained as a contract pilot flying Bell 407 and 206B series helicopters for Bristow International Helicopters in the Gulf of Mexico. During his employment, he accrued about 3,300 flight hours; his last flight with Bristow International occurred on June 22, 2011.

The Blue Hawaiian Helicopters chief pilot indicated that the pilot was hired on July 1, 2011; at that time, the pilot had no flight time in an EC130 B4 helicopter and a total helicopter flight time of about 4,500 hours.

On July 10, 2011, the pilot completed his initial company training, including EC130 B4 pilot ground and flight training, and was assigned to fly EC130 B4 helicopters at the company's base on the Island of Maui. [3]

On November 9, 2011, the day before the accident, the pilot completed and passed a Federal Air Regulation Part 135.293/299 Airman Competency Check Ride, which was administered by the Blue Hawaiian Helicopters FAA principal operations inspector (POI)[4]. The check ride was conducted in a Blue Hawaiian Helicopters' EC130 B4 helicopter. It included instrument navigation and communications procedures, inadvertent IMC procedures, and unusual attitude recovery. Although the accident pilot held an instrument rotorcraft certificate, he was not required to be IFR current. According to the FAA POI that conducted the check ride, the accident pilot was capable, and current in all of his required pilot tasks and training.

While employed with Blue Hawaiian Helicopters, the accident pilot accrued about 306 flight hours in an EC130 B4 helicopter.

## PILOT FLIGHT AND DUTY TIMES[5]

Flight and duty records for the accident pilot revealed that, during the 41 day period from October 1 through November 10, the pilot flew a total of 26 days, with the remainder as days off.

[3] See Attachment #2: Pilot Master Training Records
[4] See Attachment #3: FAA Check Ride Form, 8410-3
[5] See Attachment #4: Pilot Time and Duty Records

In the 30 days prior to the accident, the pilot flew about 95 hours, and in the previous 90 days, the pilot flew about 195 hours.

In the three days prior to the accident, the pilot was off duty on November 7 and 8. On November 9, his duty day started at 0700 and ended at 1700; the only flight time for the day was 1.2 flight hours during his most recent Part 135 check ride.

On November 10, the day of the accident, his duty day officially started at 0800, but according to company management and co-workers, he routinely arrived earlier. He flew about 3.4 hours that day before the accident occurred.

## AIRCRAFT INFORMATION

The accident helicopter was a Eurocopter EC130 B4 helicopter, S/N 4909, manufactured in France in 2010. According to the FAA registry, the aircraft received[6] an FAA standard certificate of airworthiness (C of A) on March 2, 2010. It was registered as N11QV on April 16, 2010.

The EC130 B4 features an enclosed tail fan (fenestron) rather than the traditional tail rotor found on conventional helicopters. The fenestron has unevenly spaced fan blades which has the advantage of reducing outside noise by 50% compared to a tail rotor, resulting in an FAA Appendix H fly-over noise signature of 84.3 EPNdB, 8.5 dB below stage two limits. In 2001, Blue Hawaiian Helicopters was the launch customer for the EC130 B4 helicopter.

The EC130 B4 helicopter was equipped with a Turbomeca Arriel 2B1 turbine engine that produces 730 shaft horsepower, and is equipped with a Full Authority Digital Engine Control (FADEC) system. The FADEC's basic purpose is to provide optimum engine efficiency for a given flight condition.

The helicopter was equipped with a Garmin G500H dual-screen electronic flight display system. The multi-function display (MFD) screen provides the pilot with real-time 3-D moving-map graphics, terrain features, chart data, navaids, and flight plan routings. The system can identify key threats, such as towers and terrain features. The Primary Flight Display (PFD) screen depicts, in part, attitude, airspeed, vertical speed, altitude, climb rate, and course/heading information.

The helicopter was maintained in accordance with an FAA Approved Aircraft Inspection Program (AAIP). A separate NTSB airworthiness group chairman’s report is included in the accident report’s public docket.

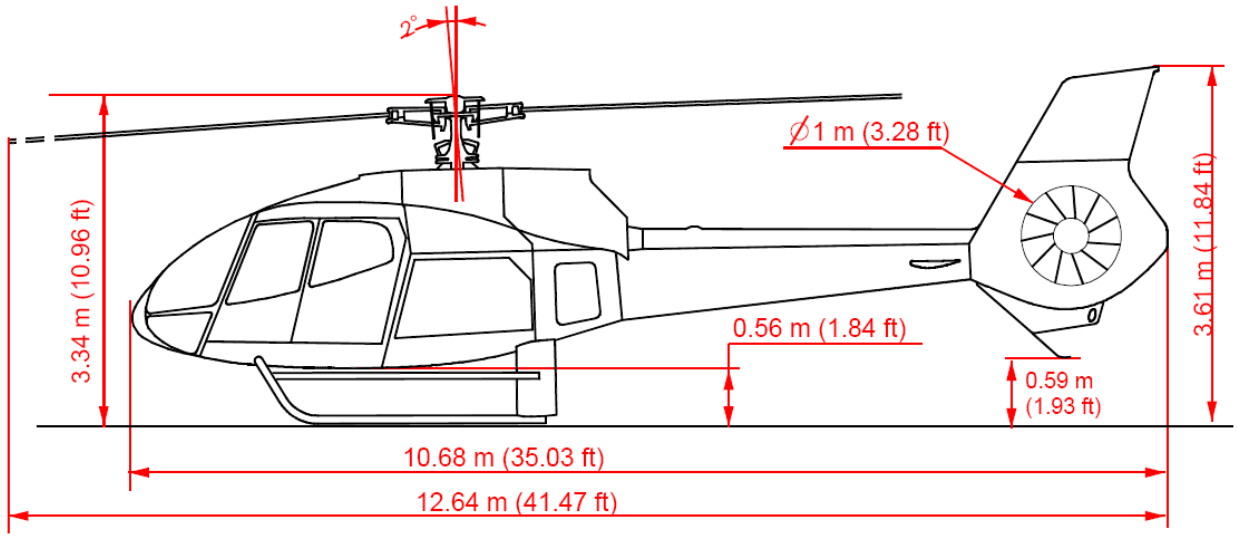


**Figure 4: Basic Overall view of the EC130 B4**

## COMPANY INFORMATION

Blue Hawaiian Helicopters is a 14 CFR Part 135 air carrier and holds on-demand operations specifications. The company headquarters is located at the Kahului Airport, Kahului, with additional bases located in Hilo, Waikoloa, Honolulu, and Lihue, Hawaii. The chief executive officer, president, director of operations, and director of maintenance all reside in Kahului. The chief pilot and director of safety resides in Honolulu.

A review of the company's FAA-approved operations manual revealed that the chief executive officer, director of operations, director of maintenance, and chief pilot are designated as having the authority of exercising operational control over company aircraft and/or flight crews. A second level of operational control is provided by the various base managers, but limited to air tour flights only.

## WITNESS STATEMENTS

Statements were obtained from six witnesses that observed the accident from the ground. Additionally, statements were obtained from pilots of other tour companies that were operating around the Island of Molokai about the time of the accident

The operations/witness group interviewed each person at the same location from which they had observed the accident. A photograph was taken from each perspective. A red circle on the image indicates the approximate location of the accident site (not visible to the witness); a solid red dot indicates where the witness observed the accident.

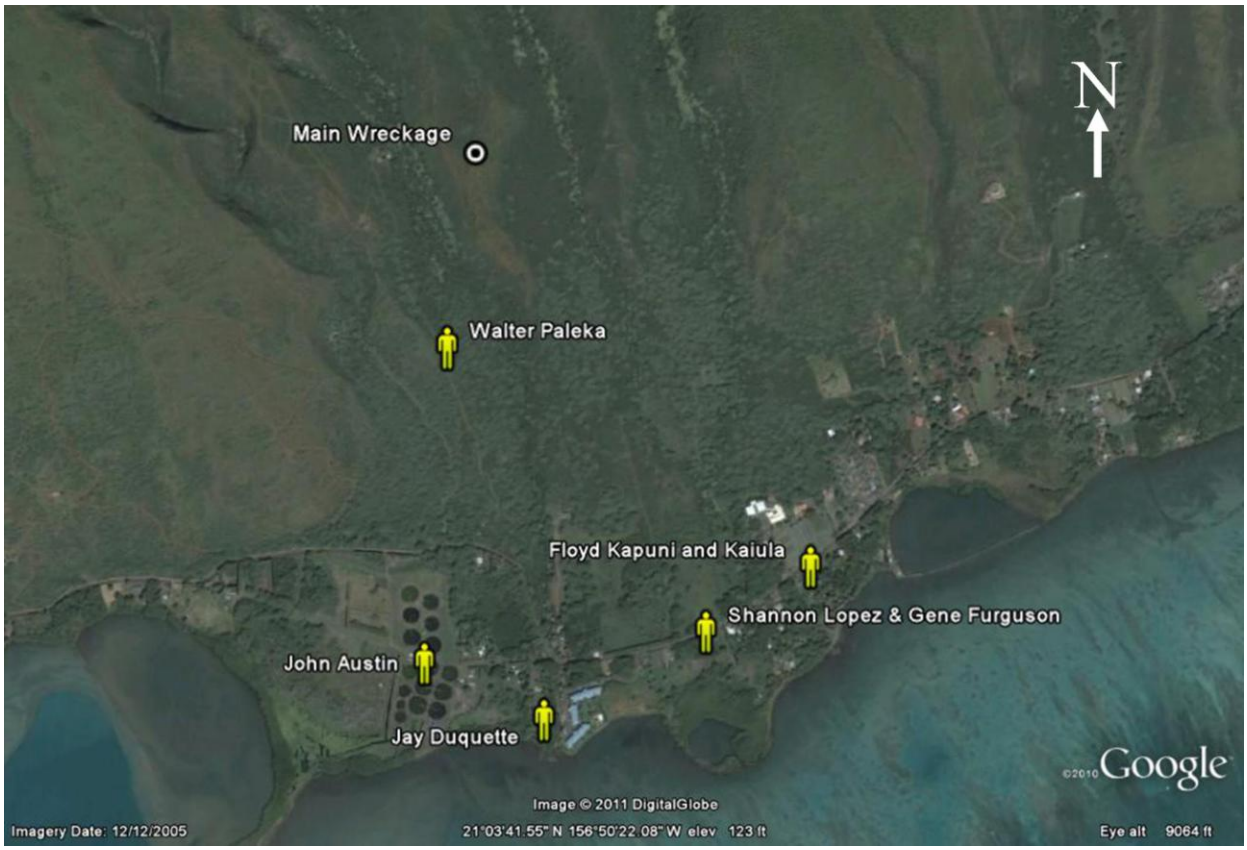


**Figure 5: Witness Locations in Relation to Main Wreckage**

NTSB INTERVIEW

John Austin
Local Resident
Interviewed on November 12, 2011 at 0918
GPS coordinates: 21 03 20.26N 156 50 37.03W

Mr. Austin, who is a private single-engine land airplane pilot, stated that he was outside his home under a covered patio when a squall of heavy rain, which consisted of large raindrops and heavy wind entered the area. Mr. Austin stated that the wind was stronger than normal because it shook his house, which doesn't normally happen; he estimated the wind to be about 45 knots out of the northeast. He stated that his attention was first drawn to the helicopter when he heard a "wooshing" sound that turned into vibrations. These sounds lasted for about 10-15 seconds. Mr. Austin reported hearing the impact, although he could not see it because of a coconut tree blocking his view. Mr. Austin contacted 911 at 1215.

**Figure 6: Mr. Austin's View at the Time of the Accident.**

NTSB INTERVIEW

Jay Duquette
Local Resident and off-duty Fireman
Interviewed on November 12, 2011 at 0952
GPS coordinates: 21 03 287N 156 05 490W

Mr. Duquette reported that he was working outside of his home when it started to rain abnormally hard for the area. After a squall had passed, his attention was drawn toward the helicopter when he heard a very loud hissing sound followed by a "woop, woop, woop" sound, which lasted about 10-20 seconds. During the accident sequence, he reported that he possibly saw a wispy trial of smoke behind the helicopter before he heard an explosion and saw a fireball. He was unable to see the impact because his view was obstructed by trees. Mr. Duquette reported that it was not raining at his home at the time of the accident, although, in the mountains, it was very dark and rainy with limited visibility. Mr. Duquette contacted 911 and proceeded up the mountain to assist any survivors.

**Figure 7: Mr. Duquette's View at the Time of the Accident**

NTSB INTERVIEW

Shannon Lopez
Local Resident
Interviewed on November 12, 2011 at 1013
GPS coordinates: 21 03 413N 156 50 252W

Mr. Lopez reported that he was driving on the road when he heard a "woop, woop" sound. He stopped his vehicle, looked towards the helicopter, and caught a glimpse of something falling straight down. He mentioned that he was unsure if the object was falling from the helicopter or not because the area was obscured by fog, heavy rain, and weather. Mr. Lopez then heard a loud explosion followed by an orange fireball. Mr. Lopez proceeded towards a friend's home to contact 911 before proceeding up the mountain side to assist any survivors. After arriving on-scene, he noted that it started to rain heavily.

**Figure 8: Mr. Lopez' View at the Time of the Accident**

NTSB INTERVIEW

Floyd Kapuni
Local Resident
Interviewed on November 12, 2011 at 1030
GPS coordinates: 21 03 501N 156 50 096W

Mr. Kapuni reported that the weather in the area was raining hard with "big rain;" the squall was all dark and the rain was dark; he couldn't see the mountains. His attention was drawn to the helicopter when he heard a "weird tat, tat, tat noise." He stated that he saw that the back of the helicopter's engine was cherry red and looked like the back of a missile. He saw the "red flash" descend straight down fast followed by an explosion. When asked, Mr. Kapuni stated that the helicopter was red for about 2-3 seconds prior to the explosion. Mr. Kapuni further stated that it appeared as if the pilot lost control in the squall.

**Figure 9: Mr. Kapuni's View at the Time of the Accident**

NTSB INTERVIEW

Walter Paleka
Local Resident
Interviewed on November 12, 2011 at 1303
GPS Coordinates: 21 03 797N 156 50 627W

Mr. Paleka reported that, at the time of the accident, he was working at a site, which was later measured to be about 1/3rd of a mile south of the accident site. He first noticed the helicopter when he heard a "woop, woop" noise, as if the propeller was slowing down. (Note: It was later verified with Mr. Paleka that when he says propeller he was referring to the main rotor blades.) The helicopter was descending down the mountain side and to the right (the pilot's left) from in between a saddle of a lower ridge. During this time, Mr. Paleka stated that he had observed parts and pieces falling off of the helicopter. He then heard a pop when the main rotor blades "stopped and popped" off of the helicopter. At this time, Mr. Paleka observed that the cabin area was "on fire, no explosion, just fire." About 10 feet above the ground, the helicopter rolled away from Mr. Paleka showing him its "belly," descending sideways before striking the ground. When asked, Mr. Paleka stated that the helicopter "went straight down," it was not spinning. Mr. Paleka further reported that at the time of the accident, the weather was ok and not raining, although it was cloudy back in the valley. He further stated that right after the accident; it started to rain with winds a little stronger than normal.

**Figure 10: Mr. Paleka's View at the Time of the Accident**

NTSB INTERVIEW

Kaiula
Local Resident
Interviewed on November 12, 2011 at 1317
GPS Coordinates: 21 03 501N 156 50 096W

Mr. Kaiula reported that he was sitting on a couch in a porch area underneath his house when he heard a loud crash. He looked up and observed a mushroom cloud. At the time, he was unsure if it was an airplane or a helicopter that crashed, however right before impact, it sounded as if it were a large helicopter taking off. Mr. Kaiula noted that the clouds were very low. He did not visually see the accident.

## PILOT INTERVIEWS

NTSB INTERVIEW

Dave Schneider
Helicopter Pilot for Alex Air
Flying around the Island of Molokai at the time of the accident
Interviewed on November 14, 2011 at about 1305

Mr. Schneider reported that he had five total flights the morning of the accident, four of which were to the Island of Molokai. He reported that, throughout the morning, the weather conditions were continually decreasing with the wind out of the northeast. Mr. Schneider stated that earlier that day he had flown in the area where the accident occurred; he had experienced many updrafts, downdrafts, and microbursts, to the point where it "scared the crap out of me." He further reported that the visibility was "great" below the clouds and out of the heavy rain.

Mr. Schneider reported that he departed the Island of Maui at 1130-1135 and was conducting a tour flight around the Island of Molokai at the time of the accident. He estimated that during the flight, the clouds around the island were about 2,000 to 2,100 feet high. His flight path started along the northeast side of the island, and continued westbound along the northern shoreline. He then turned back the way he came and proceeded along the eastern part of the island towards the southern shoreline. During this time, he observed the accident helicopter and started to speak to the accident pilot. The conversation was short and strictly casual. Mr. Schneider continued southbound along the eastern side of the island and crossed over to the southern shore where he experienced a "little bit of a bumpy ride." While flying west across the south side of the island, he briefly observed the accident helicopter flying along the south side of the mountain ridges just below the clouds. Mr. Schneider stated that he could not see the main rotor of the helicopter, just the silhouette. From Mr. Schneider's perspective, he stated that the

accident helicopter appeared to be straight and level and did not appear to be in any form of distress. Mr. Schneider continued along the southern shore before turning back towards the east and departing for the Island of Maui. It was not until he landed that he learned of the accident. He reported that he did not hear any distress or "mayday" calls from the accident pilot. Mr. Schneider gave the NTSB a cut out picture from a newspaper (source unknown) of the accident scene right after the accident occurred and stated that the clouds looked very similar during the flight as they do in the picture (see below). Also, throughout this interview, Mr. Schneider provided a drawing of his route of flight, indicating when he observed the accident helicopter (also below).

**Figure 11: Newspaper Image provided by Mr. Schneider (unknown source)**

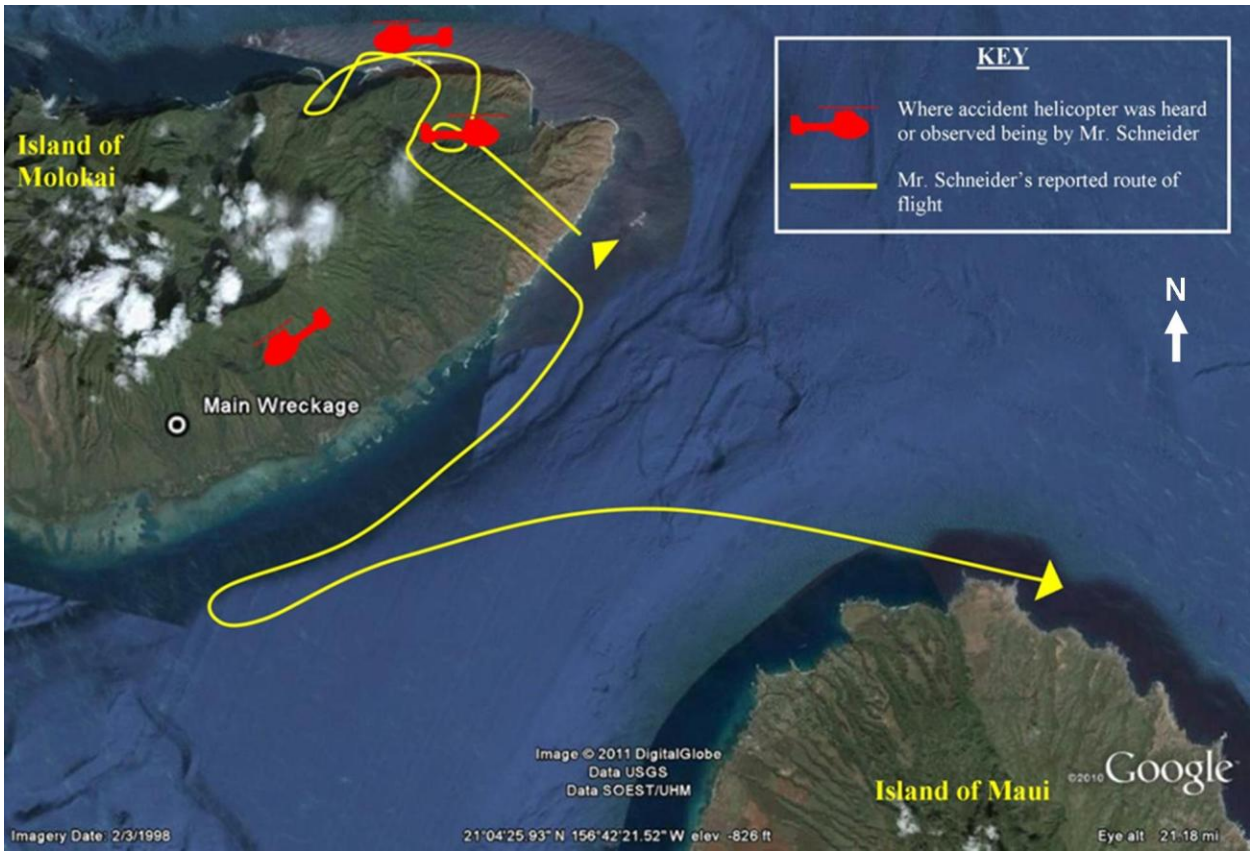


**Figure 12: Mr. Schneider's Route of Flight and Sightings/Communication from Accident Helicopter**

---

NTSB INTERVIEW

Fred Adler
Pilot for Sunshine Helicopters
Flying near the accident site at the time of the accident
Interviewed on November 14, 2011 at 1321

Mr. Adler reported that his flight originated from Lanai before proceeding to the Island of Molokai. Mr. Adler approached the Island of Molokai from the east; he proceeded along the southern shore before flying north along the east side of the island. He then wrapped around to the north side of the island before flying across the water to the Island of Maui. Mr. Adler stated that at the time of the accident, he believes his location would have been about 2 miles off the southern shore of the Island of Molokai, just west of the accident site. He stated that he did not hear any radio calls from the accident pilot, just air traffic control asking if he had heard any word from the accident pilot. Mr. Adler reported that he observed large moderate/heavy rain showers along the shoreline at the time of the accident. Mr. Adler did not provide a picture of his route of flight, however, he pointed out his route on a map to NTSB investigators. His route is shown below.

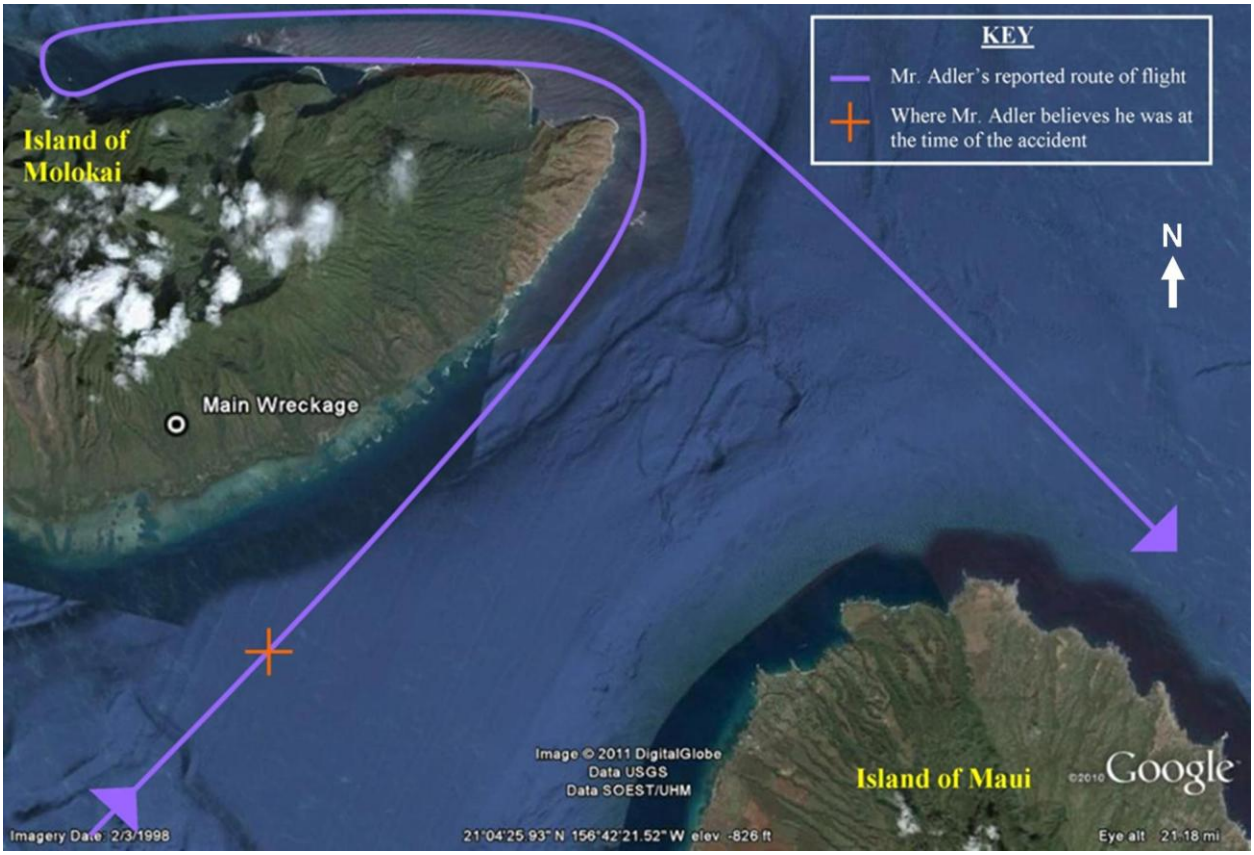


**Figure 13: Mr. Adler's Route of flight with Approximate Location when Accident Occurred**

---

NTSB INTERVIEW

Cliff Cates
Pilot for Windward Aviation
Firefighting response helicopter pilot
Interviewed on November 15, 2011 at 1137

Mr. Cates reported that, on the day of the accident, he had flown during the morning hours; at the time of the accident, his coworker was flying on the east side of the Island of Maui. Mr. Cates explained that the weather on the east side of the Island of Maui is generally the same as the weather on the south side of the Island of Molokai due to the northeast trade winds. His coworker told Mr. Cates that the rain was so heavy at the time that he had to set the helicopter down on the mountainside for about seven minutes, which is an abnormal action for his coworker.

Right after Mr. Cates got the call about the accident, he noted that the weather was "crappy" in between the Island of Maui and the Island of Molokai. He departed from Kahului and arrived in the vicinity of the accident about 20-26 minutes after the initial call. At that time, it was raining pretty heavily and, as a whole, the weather was really poor. He set the helicopter down in a school yard; about 5 to 6 minutes later, the weather lifted and he flew up to survey the

accident scene. When completed, he proceeded back to the school yard until further plans were arranged (in terms of removing bodies, etc.). As he waited at the school yard, he noticed that the weather was changing about every 15 minutes or so. The weather would be VFR and suddenly change to very "heavy crappy weather." Mr. Cates reported that these squalls were similar to normal; they were just very quick, small and condensed. When asked, Mr. Cates reported that the wind was a constant 25-30 knots; the wind would pick up "a little bit" as the squalls approached.

When asked about the best sources for information about the weather around the Island of Molokai, Mr. Cates reported that the best source of weather was through reading PIREPs and looking at radar. There are not enough weather stations around the islands; the weather can change dramatically from where the stations are to the weather on the other side of the island.

---

NTSB INTERVIEW

Chris Currier
Pilot for Sunshine Helicopters
Flying an AS350-B2 around the Island of Molokai at the time of the accident
Interviewed on November 15, 2011 at 1521

Mr. Currier reported that he was flying around the Island of Molokai at the same time as the accident pilot. He reported that he tookoff at about 1132. He initially flew towards the northwest side of the Island of Maui and then proceeded to the Island of Molokai. As he crossed the channel, the ceilings were about 1,000 feet high. He flew up the east coast of the Island of Molokai to the northern shoreline and as he did so, he saw the accident helicopter. Mr. Currier briefly spoke with the accident pilot about his check ride the day prior and both pilots continued on their way. This was the last time that Mr. Currier saw, spoke with, or heard the accident pilot. Mr. Currier flew west along the northern shore before turning around and transitioning along the mountain ridge to the southside of the Island of Molokai where he headed directly off the southern shore. As he was over the water, he heard another helicopter pilot, Mr. Schneider, say "hey Chris, I got you up there." Mr. Currier was confused and looked back around behind him for he was nowhere near Mr. Schneider's helicopter; he was also at the same altitude as Mr. Schneider. Mr. Currier elected not to respond to Mr. Schneider's radio call. (Note: After speaking with Mr. Schneider postflight, Mr. Currier learned that it was really the accident helicopter that Mr. Schneider saw, not his helicopter.)

When asked what the weather conditions were like on the southern mountain ridge, Mr. Currier stated that the clouds were at about 1,500 feet with descending ceilings. He further stated that when he says descending, he is referring to the fact that the ceilings were descending parallel along the mountain ridge. As a whole, the weather was VFR with rain showers coming from the northeast. The wind was about 20-25 knots.

When asked if he knew the accident pilot, Mr. Currier stated, no, he only knew him from over the radio. Mr. Currier mentioned that during one flight, the accident pilot was questioning

the accuracy of Mr. Currier's radio calls and they got into a little dispute over the radio. After the flights were complete, the two pilots spoke about the incident and all was settled.

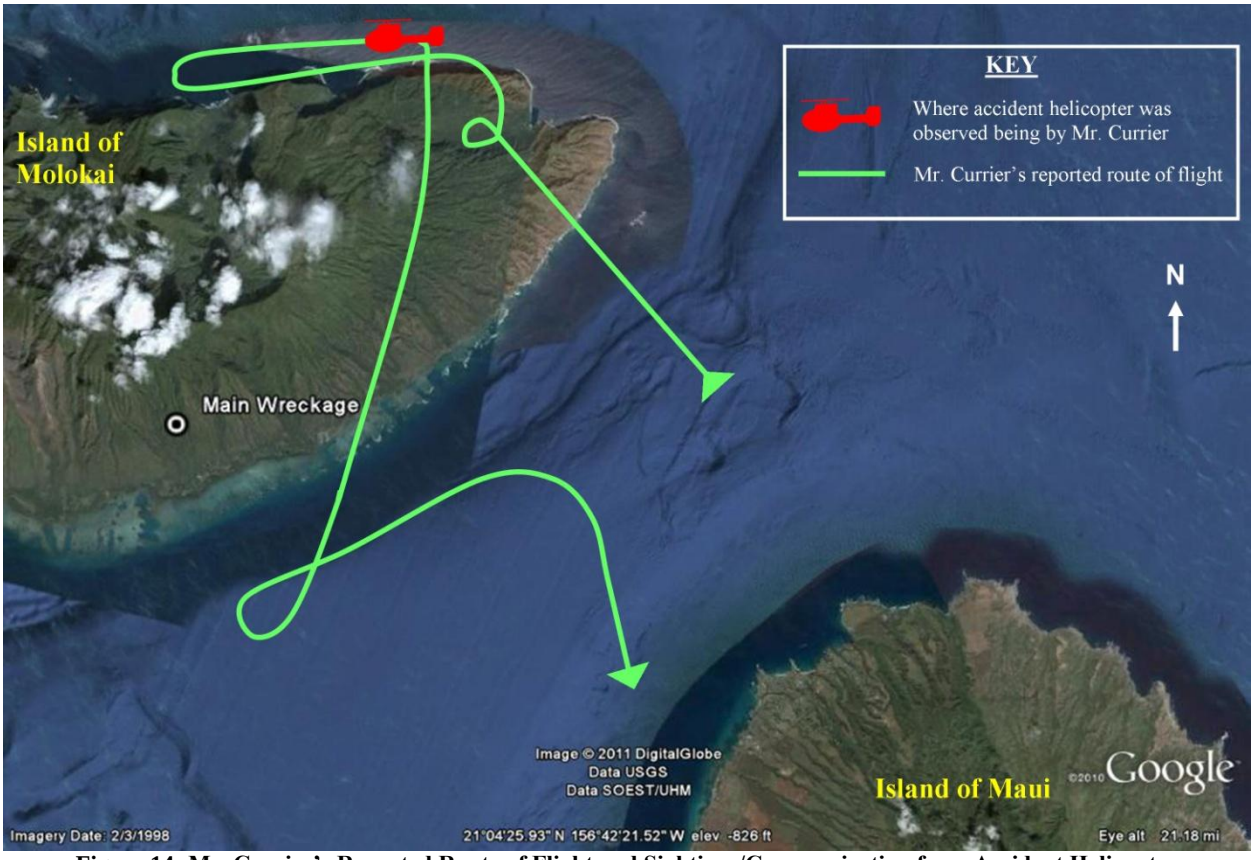


**Figure 14: Mr. Currier's Reported Route of Flight and Sightings/Communication from Accident Helicopter**

---

NTSB INTERVIEW

Al Ruiz
Pilot for Air Maui Helicopters
Flying around the Island of Molokai at the time of the accident
Interviewed on November 16, 2011 at 1300

Mr. Ruiz reported that he was flying around the Island of Molokai at the same time as the accident pilot. He reported that, at the time, the clouds were about 2,000 feet high with light rain; the wind over the water was believed to be about 10-15 knots. Mr. Ruiz mentioned that there were a lot of little cells moving through the area constantly, which is nothing out of the ordinary. Mr. Ruiz flew along the east side of the island and hovered around the Halawa Valley Waterfall. At this time, he had observed the accident helicopter flying over the Halawa Valley Waterfall towards the southwestern part of the island. He then proceeded north and continued westbound along the northern shoreline, he entered the Wailau Valley, and since he could not climb over the Wailau Valley wall, he turned around and exited the valley the same way he

entered it. He then proceeded east along the northern shoreline before returning back to the Island of Maui.

When asked if there were any waterfalls or attractions in any of the valleys northwest of the accident site, Mr. Ruiz stated that there is a waterfall on the backside of Kaapahu Canyon, although he rarely goes there, and he rarely hears other pilots go there. He usually only goes there if he has absolutely nowhere else to go.

When asked about common areas of turbulence on the island, Mr. Ruiz stated that with a southeast wind, the Wailau Valley can be very turbulent. With a northeast wind, the southern side of the island, where the accident occurred, can also have some turbulence.

Mr. Ruiz reported that he did not know the accident pilot personally, just from speaking over the radio. He reported that he was unaware of the accident pilot ever doing anything out of the ordinary or illegal. Mr. Ruiz stated that he was comfortable having the accident pilot fly around the same airspace as him.

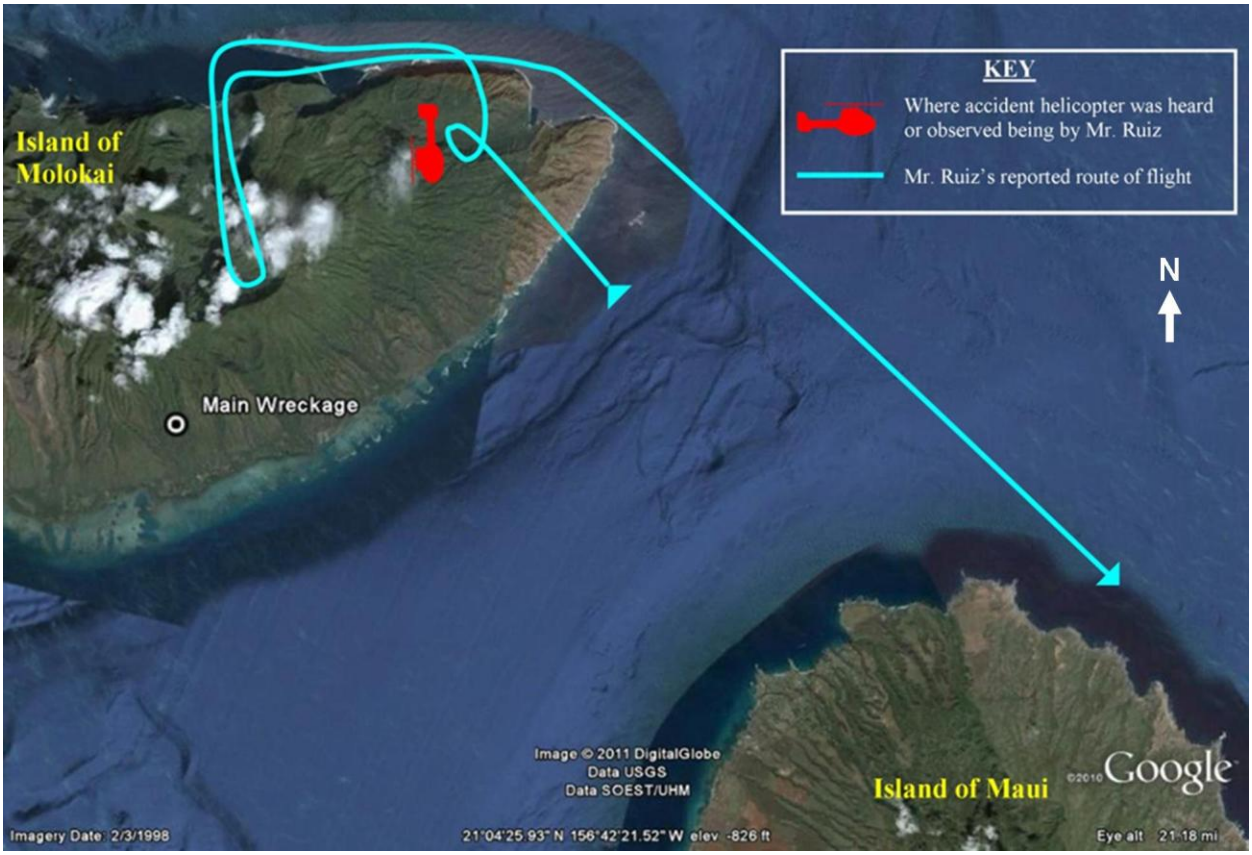


**Figure 15: Mr. Ruiz's Route of Flight and Sightings/Communication from Accident Helicopter**

NTSB INTERVIEW

Eric Hamp
Pilot for Blue Hawaiian Helicopters
Interviewed on November 16, 2011 at 1605

Mr. Hamp reported that for a typical work day as a pilot, they are required to arrive at least 45 minutes prior to their first flight. During this time, they must check weather and preflight the helicopter. Mr. Hamp reported that he and the accident pilot would often get to the hangar about 1 to 1.5 hours before their first flight. Since they were both there that early, it was not uncommon for them to get the weather forecast at the same time; they would then preflight their respective helicopters. On the morning of the accident, they both received their weather briefs separately.

When asked what he felt were the most dangerous weather hazards in Hawaii, Mr. Hamp reported that winds can be very strong and that the descent from Haleakala Crater on Maui could be difficult on windy days. The difficulty lies in descending fast enough to get below the clouds (not through them at any time) before proceeding on to the northeast toward Hana. This descent from Haleakala on Maui has never proven to be a real problem, but it can be difficult. Mr. Hamp reported that the heaviest wind he has seen was 40 knots, and that severe turbulence has only been forecast once since he started flying in Hawaii 1.5 years ago. He also reported that he has not had any microburst experiences.

Another difficulty, although not considered a major hazard by Mr. Hamp, was isolated rain showers that can move into the flight path. These do not cause an issue, but it takes away from a good tour. Mr. Hamp avoids flying through the rain because the purpose of the flight is touring and it makes it difficult for the passengers to see the sights.

When asked if he knew the accident pilot, Mr. Hamp stated only around the workplace; he only knew the basic information about him. They would sometimes interact together in the morning while waiting for passengers to arrive, but otherwise that was it.

---

## OPERATOR INTERVIEWS

NTSB INTERVIEW

Eric Lincoln
Director of Operations for Blue Hawaiian Helicopters
Interviewed on November 16, 2011 at 1530

Mr. Lincoln reported that he is the director of operations for Blue Hawaiian Helicopters. He reported that prior to the accident; the fleet consisted of 15 EC-130 B4s, and 7 AS350 B2s for a total of 22 helicopters.

The company's upper level employees include:

- CEO: Dave Chevalier
- President: Patricia Chevalier
- Director of Maintenance: Troy Atkinson
- Chief Pilot: Darl Evans

The FAA principal inspectors assigned to Blue Hawaiian are:

- FAA POI: Gino Rezzonico
- FAA PMI: Edward Valdez

Mr. Lincoln has been with the company for 14 years; prior to that, he was with Sunshine Helicopters, which is another tour company on the Island of Maui. Mr. Lincoln is still flying for the company and is still qualified in both helicopter types.

The company is currently working on developing and implementing a safety management system (SMS). The company has passed level one, reviewing the company safety program and structure, and is currently working towards level two, which involves identifying potential hazards and mitigation.

When the pilot turnover rate was inquired about, Mr. Lincoln reported that there is a turnover, but in general, pilots are normally employed for a "number of years." The pilots who leave are normally those who wish to expand their experience and try something new or different than air tours. When a new pilot is hired from out of the state of Hawaii, they receive a moving stipend which is paid over a two year period. Half of the money is paid after the first year, and half of the money is paid after the second year.

The minimum requirements to be hired by Blue Hawaiian Helicopters consists of some college and a degree preferred, about 2,000 pilot in command flight hours, 1,000 hours of turbine time, and an instrument rating. When the accident pilot was being considered for hire, he submitted a resume, underwent a telephone interview with Blue Hawaiian Helicopters' HR department, and completed a webcam interview prior to being offered the position.

A typical duty day for a pilot starts at about 0730-0800 and ends about 1630. Each pilot receives a minimum of a one hour lunch break. The company provides the food for the pilots, unless they have greater than one hour for lunch, then the pilot must provide their own lunch.

Mr. Lincoln stated that the accident pilot was almost a "picture perfect" employee. He did not have any disciplinary actions, he came experienced, was professional, and he wanted to learn. He had a good attitude and was overall a "bright light in the company." He further stated that the accident pilot did not take any time off since he started in July, with the exception of about 9 days in September when he got married and went on his honeymoon, which had been scheduled prior to employment.

When asked about the relationship between the company and the FAA PIO, Mr. Rino Rezzonico, Mr. Lincoln reported that the relationship was good. Mr. Rezzonico has been the POI for Blue Hawaiian Helicopters "on and off" for about 10 years. Some people have difficulty understanding Mr. Rezzonico's requests if they don't listen to him carefully because of his Swiss

accent; if they sit down and talk about it, he explains what he needs and an understanding can be reached.

---

NTSB INTERVIEW

Mr. Darl Evans
Chief Pilot for Blue Hawaiian Helicopters
Interviewed on November 18, 2011 at 0900

Mr. Evans reported that he has been living and working in Hawaii for 19-20 years. He has been working with Blue Hawaiian Helicopters for that entire time with the exception of one year, which he worked at Safari. He has been the chief pilot at Blue Hawaiian Helicopters for about four years, and prior to that, it was Gus Lapthorn. Mr. Evans is based in Honolulu and is the chief pilot for all of the company's bases. He maintains oversight of each base through the base managers. He also receives complaints, comments, or concerns about the pilots through all managers located at each of the bases. Mr. Evans further reported that he frequently makes trips to all of the bases.

Mr. Evans stated that he normally conducts initial training and one of the instructors normally conducts recurrent training. The initial training consists of a two week training course at the Maui Base. Throughout this training program, the pilots will receive both ground and flight training. One of the basic modules includes mountain flying; this module covers the basics of ridge lines, landings, etc. When asked about the training pilots receive about inadvertently entering bad weather, Mr. Evans stated that they teach their pilots to either fly around bad weather or conduct a 180 degree turn if that will return them to known VFR conditions. Otherwise they are trained to turn away from terrain, level, climb, and communicate. The minimum cloud height and visibility requirement for Blue Hawaiian Helicopters' pilots are 500 foot ceilings and 1 mile of visibility offshore, and 500 foot ceilings and 3 miles of visibility onshore.

Mr. Evans stated that he knew the accident pilot through the two week initial training he underwent in July 2011, and from occasionally seeing him on base. Mr. Evans mentioned that during the two week training, he observed that the accident pilot was "a natural", and was a strong pilot for his experience level. Mr. Evans also stated that the accident pilot was very comfortable with himself as a person. Never once did Mr. Evans question his (the accident pilot's) knowledge during training, in fact, the accident pilot taught a little to Mr. Evans about some of the technology in the helicopter. Mr. Evans had conducted some of the pilot's initial flight training; at first, he noticed that the accident pilot was a little tense which is common, however, he got use to the helicopter. Mr. Evans also mentioned that he reviewed video footage of the accident pilot flying on a tour and during that video he made note that, while flying, he always left a way out by choosing the conservative route regarding weather.

At an operational stand point, Mr. Evans reported that at the beginning of each day, the management staff ensures that the helicopters are airworthy, are able to fly, and are operationally

legal with certificate. Once that is determined, the pilots are then in charge of maintaining legal certificate operations. The pilots have been educated with what this entails.

Mr. Evans reported that it is the pilot's responsibility to get weather briefs every morning and if not constantly up to date, they must get a new weather brief every two hours. A pilot must also get a new brief if they are flying to a different island then they have been. Pilots have access to web cams, which will show the weather. These cameras are not weather cams, are randomly placed, and accessed online. Finally, all the tour pilots from all of the tour companies in the area are very good about helping each other out and relaying weather to each other. When asked if the pilots had any form of in-flight weather available to them, Mr. Evans replied no. The Garmin 500, which was installed in the accident helicopter, can have weather information downloaded, however, since the system used airport weather reports it does not provide accurate enough weather information for the pilots where they need it most. Mr. Evans further mentioned that the company has been trying with the FAA to get weather cameras up along the coast lines of the islands; however, they are having difficulty getting funding. Mr. Evans also stressed that the company has limited radio contact with their helicopters because their radios are restricted to line of sight. There is no repeater; therefore, transmitting capabilities are not good.

Mr. Evans reported that on the islands, some of the biggest weather hazards that the tour pilots face are temperature changes as the air slopes up the islands and mountains, the speed of the changing weather conditions, and the effects the mountains have on the weather. When asked about cancelled flights due to wind in the mountains, Mr. Evans stated that there have only been about 4 or 5 occurrences where flights were cancelled due to wind in the 19 years he has worked at Blue Hawaiian Helicopters. When asked when a pilot would make a "no go" decision, Mr. Evans stated when weather is below minimum; flights will be cancelled at any time the weather is below minimums.

When asked about the birds that live on Molokai Island, Ewa bird is the largest, but other birds are also in the area. Tropic birds are common. These birds have a tendency to fly in front of and around wind and rain cells.

Mr. Evans was shown the preliminary weather radar for around the time of the accident. When asked what he saw in that radar, he stated that the cell that was around the location of the accident did not seem like an in-flight hazard. He stated that there are not many microbursts in the area, mainly only turbulence because of the ridges.

When asked about what regulations the accident flight was being conducted under, Mr. Evans reported that it was FAR 136, and that the company and pilots closely follow the "Hawaii Air Tour Procedures Manual" issued by the FAA. When asked about the fuel on board the accident helicopter, he reported that the pilot added 58 gallons of fuel before the flight for a total of about 58% of fuel on board the helicopter at the time of takeoff, which would leave him at approximately 48% at the time of the accident.

Mr. Evans stated that he has a hard time believing that the helicopter crashed as a result of a downdraft because, yes, the winds can be significant for a new pilot who has not experienced the effects of wind in this type of terrain; the downdrafts can become a source of great concern

until the pilot finds that the vertical velocity of the wind diminishes as it approach the floor of the valley or ridgeline.

## NEXT OF KIN INTERVIEW

NTSB INTERVIEW

Mrs. Violeta Cline
Widow (pilot's wife)
Interviewed on November 18, 2011 at 1345

When asked about the pilot's last 72 hours leading up to the accident, Mrs. Cline stated that there were no major events that had occurred during that time period. In fact, the accident pilot had Monday and Tuesday off of work (as normal). Otherwise, he went to bed and woke up at his regular times with no abnormalities.

Mrs. Cline further reported that the accident pilot was a very sound sleeper and always got plenty of sleep. He went to bed at about 2200 on the nights before he worked, and he would get up at about 0500. He did have a slight snore, although, she never heard him stop breathing, cough or anything.

The day prior to the accident, Mrs. Cline stated that the accident pilot had a check ride at work. She said that he came home that day at about 1730; he was "so excited and proud" because he did really, really well. She stated that he loved his job and that he has always wanted to do this; she mentioned that he never felt any pressures or had any work related problems.

When asked about the pilot's iPhone and its tracking capabilities, Mrs. Cline stated that she and the accident pilot used an application called "Find Friends" to be able to keep track of each other. The application keeps track of both of their phones. When one phone is commanded to "ping" the other phone, it will show that phone where the other is on either a map or satellite image depending on the individual settings. The application will even allow one phone to follow a continuous track of the other phone. This application is an Apple brand application, and she is unsure where the information resides. She further stated that the accident pilot's telephone number has been disconnected since the accident.

Submitted by:

Clinton O. Johnson
Senior Air Safety Investigator
Alaska Regional Office