

= 2009 Hudson River mid @-@ air collision =

The 2009 Hudson River mid @-@ air collision was a flight accident that occurred on August 8 , 2009 , at 11 : 53 a.m. (15 : 53 UTC) , in which nine people died when a tour helicopter and a small private airplane collided over the Hudson River near Frank Sinatra Park in Hoboken , New Jersey .

The aircraft were in an area known as the " Hudson River VFR Corridor " , which extends from the surface of the river to altitudes of 800 to 1 @,@ 500 feet (240 to 460 m) at various locations along the Hudson River in the immediate area of New York City . Within this corridor , aircraft operate under visual flight rules , under which the responsibility to see and avoid other air traffic rests with the individual pilots rather than with the air traffic controller .

Because of the heavy commercial air traffic into Newark , LaGuardia , and Kennedy airports , an air traffic control clearance is required to operate in much of the airspace around the city . Since ATC is often unwilling to grant this discretionary VFR clearance because of traffic volume , many airplanes that need to transit the New York metro area use the VFR corridor as an alternative to going east of the city (over water) or west (toward Pennsylvania) . The corridor is also heavily used by helicopter tour companies , which take passengers on sight @-@ seeing tours of the New York skyline . Visual flight rules on the river corridors by Manhattan have been subject to considerable debate since the 2006 New York City plane crash , in which New York Yankees pitcher Cory Lidle crashed into an apartment building while flying using visual flight rules on the East River . This was the first aircraft collision over the Hudson River since 1976 .

The collision , which occurred opposite 14th Street in Manhattan , was about 40 blocks south of where US Airways Flight 1549 ditched in the Hudson River on January 15 , 2009 , with no loss of life , after the plane suffered a complete loss of thrust following a bird strike .

= = Collision = =

The light aircraft was a 1976 @-@ built 6 @-@ seat Piper PA @-@ 32R @-@ 300 Cherokee Lance piloted by Steven Altman with 2 passengers . Altman was given clearance from the tower at Teterboro Airport in Teterboro , New Jersey at 11 : 48 a.m. to take off . It departed at 11 : 49 a.m. , and was headed for Ocean City , New Jersey .

The helicopter , a Eurocopter AS350 carrying five Italian tourists and its pilot , took off from the West 30th Street Heliport at 11 : 52 a.m. At about the same time , Teterboro tower radioed Altman in the Piper at take @-@ off requesting him to pick his flight path towards Ocean City , and indicate whether he wished to head there via the Hudson River , or take a southwest tack . Altman replied " Either " . " Let me know " said the tower , and Altman replied " OK , tell you what , I will take down the river . "

Altman was then instructed to contact Newark Liberty International Airport , and he acknowledged the instruction . However , he did not contact the tower at Newark . It later transpired that , in acknowledging the instruction to contact Newark , Altman had read back the wrong frequency (127 @.@ 8 MHz instead of 127 @.@ 85) ; an error that the controller did not correct . Soon after , a controller at Newark who was concerned about aircraft in the Piper 's path contacted the Teterboro controller and asked the Teterboro controller to attempt to re @-@ establish contact . Attempts to contact Altman and change his aircraft 's heading were unsuccessful . After the unsuccessful attempts to contact Altman , a radar alert about a possible collision occurred in both the Newark and Teterboro towers . However , the two controllers did not remember seeing or hearing the alert .

While heading south down river , the airplane was seen to be behind the sightseeing helicopter , which was going about half as fast . The pilot of another helicopter (refueling at the heliport) saw the impending accident and attempted to warn both the airborne helicopter and the plane by radio but received no response . At 11 : 53 : 14 a.m. , the Piper 's right wing crashed into the Eurocopter , severing the right wing of the airplane and multiple rotor blades from the helicopter . Most witnesses reported the plane did a nose dive while spiraling into the water . Many reported that the helicopter just dropped into the water . The collision occurred at approximately 1 @,@ 100 feet (340 m) MSL altitude and was caught on tape by an Italian tourist . Less than a minute after the collision occurred

, the Teterboro controller contacted the Newark tower to inquire about the airplane , and was told that the airplane had not contacted Newark .

Killed in the airplane were the pilot Steven Altman , his brother Daniel , and his nephew Douglas . The helicopter tourists were in two groups ; the first was Michele Norelli and his son , Filippo Norelli . The other group was Fabio Gallazzi , his wife , Tiziana Pedroni , and his son , Giacomo Gallazzi . The pilot of the helicopter was New Zealander Jeremy Clarke , who had logged 2 @, @ 700 hours as a helicopter pilot . All recovered victims died from blunt trauma to the head , torso and extremities , according to the NYC medical examiner 's office .

National Weather Service weather conditions at noon in New York City stations on the day of the collision were described as " sunny " or " partly sunny " with a temperature of between 73 ° F and 75 ° F (22 @. @ 8 ° C and 23 @. @ 9 ° C) and variable wind speed of 3 ? 10 mph (4 @. @ 8 ? 16 @. @ 1 km / h ; 2 @. @ 6 ? 8 @. @ 7 kn) .

Authorities said the Piper 's " low wing " design made it difficult to see below the aircraft and the helicopter 's rotors make it difficult to see above . In addition , neither small aircraft was required to have a flight data recorder or cockpit voice recorder .

= = Emergency response = =

= = = Rescue = = =

Immediately following the accident the Coast Guard had reported that the New York City Fire Department (FDNY) had rescued one survivor from the Hudson River ; however , this report was shown to be incorrect . In addition to FDNY , six rescue boat crews from Coast Guard Station New York , a Coast Guard rescue helicopter crew from Coast Guard Air Station Atlantic City , several Coast Guard Auxiliary assets , the New York City Police Department (NYPD) , New Jersey State Police , and local emergency services all participated in the rescue effort . The Red Cross and the New York Harbor Police also assisted in the efforts . At about 3 : 00 p.m. , Michael Bloomberg , the mayor of New York , addressed questions in a press conference . Calling the crash " an accident which we do not believe was survivable , " Bloomberg announced that the mission was no longer a rescue mission , but rather a recovery mission .

On the night of August 8 , 2009 , the US Coast Guard maintained a two @-@ mile safety zone from the Holland Tunnel to the Lincoln Tunnel , requiring vessels to move slowly and stay within 400 yards of the Manhattan side while passing through the area . The safety zone was maintained by the Coast Guard cutter Penobscot Bay .

= = = Recovery = = =

On the afternoon of the crash , divers had recovered two bodies from the water . By the next morning , a total of four bodies were found , while the other five victims were presumed dead . Meanwhile , the helicopter 's wreckage was found in about 30 feet (9 @. @ 1 m) of water , far from the wreckage fields of the plane . Aided by a sonar , investigators attempted to discover the plane 's debris in deeper water near the mid @-@ channel point of the Hudson . Their efforts were hindered , however , due to poor visibility underwater and a storm on August 9 .

The efforts succeeded on August 10 , when the plane 's wreckage was discovered in approximately 60 ft of water . The plane wreckage was recovered from the river on the afternoon of August 11 . Additionally , the last few bodies were found in the wreckage of the plane , ending the search for bodies . The recovery effort was led by the United States Army Corps of Engineers with the aid of NYPD boats , New Jersey State Police divers , and the FDNY .

= = Investigation = =

An investigation was conducted by the National Transportation Safety Board (NTSB) , which sent

a Go Team on the day of the crash . Senior NTSB Air Safety Investigator Robert Gretz was the Investigator @-@ in @-@ Charge of the 10 @-@ member team . NTSB Chairman Debbie Hersman accompanied the team and served as principal spokesperson for the on @-@ scene investigation . Keith Holloway is the NTSB press officer who joined the team in New York .

On August 14 , 2009 , the NTSB released a report regarding the incident . The report discussed several aspects of the collision , including locations of origin of the aircraft , planned destination , and air traffic control communications . In addition , the report discussed how one of the controllers at Teterboro Airport was on a phone call and did not warn the airplane pilot of the potential conflict . The National Air Traffic Controller 's Union (NATCA) then issued their own press release disputing some of the phrasing in the NTSB 's report . The NTSB then retracted some of its statements regarding the controller 's part in the crash , saying that the controller could not have warned the plane about the tour helicopter because the tour helicopter was not on the controller 's radar . The NTSB also removed NATCA as a party to the investigation as a result of NATCA 's press release , as parties to NTSB investigations agree to let the NTSB control publicity during the investigation . NATCA may still submit information to the board regarding the accident , but they will not hold a seat on the investigation board .

Due to the accident , the FAA put the Teterboro controller and his supervisor on leave and made comments about the phone call , which was deemed improper behavior . However , the NTSB rebuked the FAA for doing so , stating that only the NTSB has the authority to determine the controller 's contribution to the incident .

On September 14 , 2010 , the NTSB released its final report on the incident . The report cited two primary causes of the accident : (1) the " inherent limitations " of the see @-@ and @-@ avoid concept , which meant that from the airplane pilot 's point of view , the helicopter would have appeared as a small , stationary object against a backdrop of the New York City skyline until the final seconds before the collision ; and (2) the Teterboro controller 's personal phone call , which distracted him from his air traffic control duties and prevented him from correcting the airplane pilot 's incorrect readback of the Newark control tower 's radio frequency . [1]

= = Aftermath = =

= = = Reaction = = =

Reaction from government officials , aviation industry groups , and individuals has been widespread . The FAA convened a " New York Airspace Working Group " on August 14 , 2009 . The group will solicit comments from helicopter and aircraft operators , and will review the operating procedures of the Hudson and East River VFR corridors . They will report to FAA administrator Babbitt on August 28 . A NOTAM issued on August 11 , 2009 advises pilots flying in the area to turn on their lights , use the designated self @-@ announce radio frequencies , and fly at a speed of 140 knots or less .

15 members of Congress , led by Representative Jerrold Nadler (D @-@ New York) , sent a letter to FAA administrator J. Randolph Babbitt calling for " immediate action to provide greater oversight of small aircraft operations " .

In a press conference on August 8 , 2009 , New York City Mayor Michael Bloomberg (an airplane and helicopter pilot himself) stated that " Until the National Transportation Safety Board makes a determination , nothing is a fact " and stressed that the investigation will take weeks or months before those facts are known . Representatives from the Aircraft Owners and Pilots Association (AOPA) , including AOPA President Craig Fuller , have appeared on numerous news programs and collaborated with news sources to explain the workings of the Hudson River VFR corridor and the safety record of flights in that area .

= = = NTSB recommendations = = =

The NTSB issued a " Safety Recommendation " to the FAA on August 27 , 2009 . Because of the

accident airplane 's intended flight path , the NTSB believes that the pilot may have wanted to climb out of the uncontrolled VFR corridor into the controlled Class B airspace above . However , for reasons unknown as yet , he was not in communication with any air traffic controllers after he switched frequencies from Teterboro tower . He also apparently was not communicating on the Corridor 's self @-@ announce frequency .

The NTSB recommended that the FAA revise the procedures for ATC facilities in the area to facilitate the process for VFR traffic that wishes to transit Class B airspace . This included establishing procedures to coordinate such requests between facilities ; requiring controllers to instruct pilots to self @-@ announce on the VFR corridor frequency if they are unable to immediately enter Class B airspace ; adding information to area Automatic Terminal Information Service (ATIS) broadcasts reminding pilots to use the self @-@ announce frequency ; and ensuring that pilots are provided with traffic advisories if they are in contact with a controller .

Additionally , the NTSB recommended that ATC controllers and supervisors be briefed in the circumstances of this accident ; that a Special Flight Rules Area (SFRA) be established for the location requiring special training for pilots transiting the area ; and that helicopters be required to operate at lower altitudes than airplanes in the corridor to minimize the speed differences .

= = = FAA changes = = =

On September 2 , 2009 the FAA announced a plan to improve safety of flights in the corridor . The proposed changes include standardizing the height of the VFR corridor to 1 @, @ 300 feet (400 m) . In addition , many existing procedures that have been treated as " Suggested " items for flying the corridor will now be mandatory , including operating landing lights ; maintaining a speed of 140 knots (160 mph) or less while flying in the corridor ; monitoring and announcing on the area Common Traffic Advisory Frequency ; and travelling along the west shore when southbound and along the east shore when northbound . Pilots will be required to have appropriate charts available , and to familiarize themselves with the applicable rules before flying in the corridor . Additionally , pilot training courses for both transient pilots and charter helicopter pilots will be developed . An implementation timeline was not initially announced .

On November 16 , 2009 , the FAA announced that the new rules for the Hudson River corridor would go into effect on November 19 , 2009 , at 4 p.m. The FAA elaborated on the new rules from their previous announcement . In the clarifications , they said that three air traffic zones for different purposes would be instituted . Under 1 @, @ 000 feet (300 m) , planes and helicopters for sightseeing and lingering would be allowed . From 1 @, @ 000 to 1 @, @ 300 feet (300 to 400 m) , aircraft would be allowed to fly without air traffic control handling . Above 1 @, @ 300 feet (400 m) , aircraft would be allowed to traverse the corridor under the handling of air traffic control .

= = See Also = =

List of civilian mid @-@ air collisions