



# Aviation Investigation Final Report

<b>Location:</b>	JONES BEACH, New York	<b>Accident Number:</b>	NYC97FA139
<b>Date &amp; Time:</b>	July 8, 1997, 13:47 Local	<b>Registration:</b>	N28535
<b>Aircraft:</b>	Grumman American AA-5B	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The noninstrument-rated pilot/owner departed on a cross-country flight from an airport that was in visual meteorological conditions (VMC). He flew to a shore line, and requested ATC clearance to fly at 400 feet along the water, through another airport's airspace that was also VMC. Witnesses observed the airplane fly into a fog bank. The airplane then crash into the water.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: VFR flight by the pilot into instrument meteorological conditions (IMC), and his loss of aircraft control due to spatial disorientation, which resulted in an uncontrolled descent and collision with terrain (water). Related factors were: the adverse weather condition (fog), and the pilot's lack of instrument experience.

## Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER  
Phase of Operation: CRUISE

### Findings

1. (F) WEATHER CONDITION - FOG
2. (C) VFR FLIGHT INTO IMC - PERFORMED - PILOT IN COMMAND

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Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE

Findings

3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

4. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND

5. (F) LACK OF TOTAL INSTRUMENT TIME - PILOT IN COMMAND

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - WATER

## Factual Information

### HISTORY OF FLIGHT

On July 8, 1997, about 1347 eastern daylight time, a Grumman American AA-5B, N28535, was destroyed when it impacted water and sank near Jones Beach, New York. The certificated private pilot and two passengers were fatally injured. Instrument meteorological conditions prevailed for the personal flight that departed the Republic Airport (FRG), Farmingdale, New York, about 1338, destined for Lancaster, Pennsylvania. No flight plan had been filed for the flight conducted under 14 CFR Part 91.

According to an Air Traffic Control (ATC) voice recording, after takeoff from FRG, the pilot contacted the tower controller at the John F. Kennedy International (JFK) Airport. The pilot then requested clearance to fly along the beach through JFK airspace at 400 feet. The controller issued the pilot a transponder code, and established radar contact with the airplane, 1 mile northwest of the Jones Beach Inlet. The pilot did not acknowledge the radar contact. About 30 seconds later, intermittent radio transmissions were received by the JFK controller, and radar contact was lost. According to the ATC voice communications tape, the last transmissions received from the airplane included the statement, "I've got to keep the wings level."

Witnesses in the water on surfboards observed the airplane before the accident. One of the witnesses stated:

"...I was paddling out to catch a wave when a small red and white single prop airplane suddenly appeared out of the dense fog...The plane was about 10-15 feet over our heads. It was heading in a northwest direction towards where the beach shoreline meets the jetty rocks. The planes engine was running. The plane passed over us and suddenly pulled upward. The plane then disappeared over the jetty rocks and back into the dense fog. About a minute later, I heard a loud slap in the water..."

A witness on shore observed the airplane approaching on a southwest heading. He stated:

"...The plane was very low and almost hit the dunes. The engine was running at the time. The plane suddenly pulled up and then continued out over the water. It then seemed to make a right turn (now heading northwest) over the jetty. It then disappeared back into the heavy fog..."

The airplane came to rest in about 30 feet of water, about 14 miles southwest of FRG, and approximately 3/4 mile off shore in the Jones Beach Inlet. The accident occurred during the hours of daylight approximately 40 degrees, 34 minutes north latitude, and 73 degrees, 35

minutes west longitude.

## PERSONNEL INFORMATION

The pilot held a private pilot certificate with a rating for airplane single engine land. He was not instrumented rated.

His most recent Federal Aviation Administration (FAA) Third Class Medical Certificate was issued on August 8, 1996.

The pilot's personal flight log book was not located, and a family member stated that it most likely had been in the airplane. The pilot reported 350 hours of total flight experience on his last application for a Third Class Medical Certificate.

Two certificated flight instructor's (CFI) who had flown with the pilot provided statements.

One CFI stated the pilot was a "good and safe VFR pilot." He had practiced the "basics" of IFR attitude instrument flying with the pilot, but that the AA5B was a very pitch sensitive airplane, and it was not easy to learn to fly IFR in it. The CFI had flown twice with the pilot in 1997, none of which included attitude instrument flying. During 1996, the CFI flew seven times with the pilot, which included two instrument training periods, one in March and one in December.

The second CFI stated that he had flown with the pilot "on many occasions." He also stated that, "[the pilot] did not feel comfortable in anything less than approx. ceiling of 3,000 feet and visibility of 10 miles."

The second CFI had not conducted any instrument training with the pilot; however, they did log 1.7 hours in instrument meteorological conditions during a cross country flight, about 18 months prior to the accident.

## AIRCRAFT INFORMATION

The airplane had been destroyed by the collision with the water and the subsequent coastal storms. A family member stated that the airplane's maintenance records were kept in the airplane. When the wreckage was recovered, the records were not located.

A flight instructor, who had flown in the airplane stated:

"In 1997 I have flown N28535 numerous times logging about 66 hours. A/C was in very good shape. The only squawk was a loose connection in a front left intercom, but that was quickly fixed. The only other thing worth noting was that sometimes, DG [directional gyro] was slow, and att. Ind. [attitude indicator] was off by about 7 degrees in a roll. Vacuum gauge showed well in a green, but to my knowledge vacuum pump had about 900 hours on it."

## METEOROLOGICAL INFORMATION

Departure airport: The weather reported at the Republic Airport (FRG), at 1345, included broken clouds at 20,000 feet, a visibility of 6 miles, and winds from 180 degrees at 10 knots.

Accident site: At the accident site on the coast, between FRG and JFK, five witnesses reported the weather as:

"...fogy, but the sun was breaking through..." "...dense fog..." "...low fog..." "...the fog was very thick...and visibility was maybe 10 feet..." "...It then disappeared back into the heavy fog..."

En route airport: The weather reported at the John F. Kennedy International Airport (JFK), at 1351, included few clouds at 500 feet, scattered clouds at 5,000 feet, scattered clouds at 25,000 feet, a visibility of 8 miles, and winds from 160 degrees at 8 knots.

## WRECKAGE AND IMPACT INFORMATION

The airplane wreckage was located by divers in the Jones Beach Inlet and marked on July 8, 1997. The divers initial reports indicated that the airplane was intact. The airplane was not recovered until July 10, 1997, due to coastal weather conditions. The airplane wreckage was recovered to a police facility in East Rockaway, New York.

The wreckage was examined at the police facility on July 11, 1997. The examination revealed that all major components of the airplane were not accounted for. The engine, propeller, firewall, and the cockpit with radios and instrumentation had not been recovered. Additionally, sections of the wing, landing gear, and cabin interior were not recovered.

Control continuity was established from the elevator and elevator trim to the pilot's station. Continuity was also established from the rudder to the pilot station. The aileron cables were separated and continuity was not confirmed to the pilot's station.

Examination of the remainder of the wreckage produced no useful information due to damage from the impact and coastal storms.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot, on July 10, 1997, by Dr. Michael DeMartino, Deputy Medical Examiner, of the Nassau County Medical Examiner's Office, East Meadow, New York.

The toxicological testing report from the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma, revealed negative for drugs and alcohol for the pilot.

## ADDITIONAL INFORMATION

The airplane wreckage was released on July 11, 1997, to John Watson, a representative of the owner's insurance company.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	60, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 3 Valid Medical—no waivers/lim.	<b>Last FAA Medical Exam:</b>	August 8, 1996
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	400 hours (Total, all aircraft), 100 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Grumman American	<b>Registration:</b>	N28535
<b>Model/Series:</b>	AA-5B AA-5B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	AA5B0664
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	Annual	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-360-A4K
<b>Registered Owner:</b>	LEO MAGIONCALDA	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	MAGIC WINGS, INC.	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Instrument (IMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	JFK ,13 ft msl	<b>Distance from Accident Site:</b>	12 Nautical Miles
<b>Observation Time:</b>	13:51 Local	<b>Direction from Accident Site:</b>	300°
<b>Lowest Cloud Condition:</b>	Scattered / 500 ft AGL	<b>Visibility</b>	8 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	160°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	FARMINGDALE , NY (FRG )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	LANCASTER , PA (LNS )	<b>Type of Clearance:</b>	VFLF
<b>Departure Time:</b>	13:38 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	REPUBLIC FRG	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	2 Fatal	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	3 Fatal	<b>Latitude, Longitude:</b>	41.270141,-73.980308(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Pearce, Robert
<b>Additional Participating Persons:</b>	RAYMOND B MELCER; FARMINGDALE , NY
<b>Original Publish Date:</b>	October 30, 1998
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=39279">https://data.nts.gov/Docket?ProjectID=39279</a>

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