



Aviation Investigation Final Report

Location:	Stuart, Florida	Accident Number:	MIA06FA050
Date & Time:	February 4, 2006, 16:00 Local	Registration:	N667WP
Aircraft:	Cirrus Design Corp. SR-22	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airplane took off at 1556. Approach Control observed the airplane in a turn. At 1559, one of the pilots reported they were having trouble with their instruments, and requested clearance to return to the airport. This was the last communication with the flight. Radar contact was lost at 1600. Both the pilot and his wife were instrument rated. The airplane was instrument equipped and certified for instrument flight. Instrument meteorological conditions prevailed. The wreckage was located in the ocean approximately 3 miles offshore at a depth of 60 feet. The memory device recovered from the MFD was damaged to the extent that no data could be extracted. Engine examination revealed no anomalies. Examination of the CAPS rocket motor indicated it had fired when the airplane struck the water. This broke the activation cable and put pressure on the igniter spring. Water resistance, however, kept the parachute from deploying.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain aircraft control, which resulted in an uncontrolled descent and impact with the water. Contributing to the accident were a reported instrument failure, pilot disorientation, and instrument meteorological conditions. A factor in the severity of the impact was the pilot's failure to deploy the airplane's onboard parachute system.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) SPATIAL DISORIENTATION - PILOT IN COMMAND
3. (F) FLIGHT/NAV INSTRUMENTS - FAILURE
4. (F) WEATHER CONDITION - LOW CEILING
5. (F) WEATHER CONDITION - OBSCURATION

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - WATER

Factual Information

HISTORY OF FLIGHT

On February 4, 2006, at 1600 eastern standard time, a Cirrus SR-22, N667WP, registered to Aircraft Guaranty Management & Trust, LLC, was destroyed when it impacted the Atlantic Ocean shortly after taking off from Witham Field (SUA), Stuart, Florida. Instrument meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under the provisions of Title 14 CFR Part 91, and an instrument flight rules (IFR) flight plan had been filed. The two instrument-rated private pilots and a passenger on board the airplane were fatally injured. The flight originated at 1556, and was en route to St. Augustine (SGJ), Florida.

N667WP took off from runway 12 at 1556. Palm Beach Approach Control tried to contact the airplane, but received no response. At that time, the airplane appeared on radar to be in a turn. At 1559, radio contact with the airplane was established and a female voice advised that they were having trouble with their instruments. At that time, its encoded altitude was 2,400 feet msl (above mean sea level). At 1600, the female voice requested, and the controller cleared the flight, to return to the airport. There was no acknowledgement. The last radar contact was at 1600:23 when the airplane was 3 miles north of the airport at a location of 027degrees, 12'16.15" north latitude, and 080 degrees, 08'00.32" west longitude, and at an altitude of 1,900 feet msl.

At 1603, American Airlines flight 2437 advised approach control that they were receiving ELT (emergency locator transmitter) signals. At 1630, airplane debris was located 5 miles east of the airport. The wreckage was found in water 60 feet deep and on a magnetic heading of 031 degrees.

PERSONNEL (CREW) INFORMATION

There were two pilots and a pilot-rated passenger aboard the airplane. The filed flight plan indicated the first pilot was the pilot-in-command.

The first pilot, age 67, held a private pilot certificate, dated May 19, 1996, with airplane single engine land and instrument ratings. He also held a third class airman medical certificate, dated July 29, 2005, with the restriction, "Holder shall possess corrective lenses for near vision while exercising the privileges of this airman certificate." When he made application for this medical certificate, he estimated his total flight time to be 648.2 hours, 32.2 hours within the last 6 months, and no less than 293.4 hours in the Cirrus SR-22. The pilot had participated in FAA's Wings Program and has been issued Phase 6 on January 25, 2005.

The second pilot, the pilot's wife, age 52, held a private pilot certificate, dated May 19, 1996, with airplane single engine land and instrument ratings. She also held a third class airman medical certificate, dated July 29, 2005, with the restriction, "Holder shall possess corrective lenses for near vision while exercising the privileges of this airman certificate. When she made application for this medical certificate, she estimated his total flight time to be 640.7 hours, 22.2 hours within the last 6 months, and no less than 63 hours in the Cirrus SR-22. According to FAA records, the pilot failed her instrument rating practical test on January 9, 2001. Two days later, she successfully passed the flight test. She also had participated in FAA's Wings Program, and has been issued Phase 6 on January 25, 2004.

AIRCRAFT INFORMATION

N667WP, a model SR-022 (s.n. 0341), was manufactured by the Cirrus Design Corporation in October 2002. It was powered by a Teledyne Continental IO-550-N7 engine (s.n. 686391), rated at 300 horsepower, driving a Hartzell PHC-J3YF-1RF propeller (s.n. FP1925B).

According to the airplane's maintenance records, the last recorded annual inspection was accomplished on November 5, 2005. A pre-purchase annual inspection was completed on November 29, 2005, at which time the cylinders were borescoped and a compression check was performed. At that time, the airframe and engine had accrued 486.9 hours. The last bench check of the pitot-static system, including the altimeter, transponder, and encoder, was on November 4, 2004. The emergency locator transmitter (ELT) was installed in the airplane on September 2002. The ELT battery was due to expire in March 2008.

METEOROLOGICAL INFORMATION

The following special weather observation was recorded at 1547 at Witham Field (SUA), Stuart, Florida: Wind, 220 degrees true at 11 knots, gusting to 14 knots; surface visibility, 4 statute miles, rain; sky condition, 900 feet overcast; temperature 18 degrees Celsius (C.); dew point, 17 degrees C.; altimeter setting, 29.80 inches of Mercury.

AIDS TO NAVIGATION

There were no reported difficulties with aids to navigation.

COMMUNICATIONS

There were no reported communications difficulties.

FLIGHT RECORDERS

The airplane was not equipped with a cockpit voice recorder or flight data recorder, nor were they required. However, the airplane was equipped with an avionics package that included an Avidyne EX-5000 Multi-Function Display (MFD) with memory card.

WRECKAGE AND IMPACT INFORMATION

The last recorded radar contact with the airplane was at 1600:28 at a location of 27 degrees, 20.92' north latitude and 080 degrees, 13.55' west longitude. Side scanning sonar located the wreckage 3,750 feet north-northeast of the last radar contact. Water depth was 60 feet. The fuselage, engine, and propeller were in close proximity to each other. The wreckage was aligned on a magnetic heading of 031 degrees.

MEDICAL AND PATHOLOGICAL INFORMATION

The second pilot was recovered on February 14, and the first pilot and passenger were recovered on February 17, 2006. Autopsies of the three occupants were performed by the Medical Examiner-Department 19, representing St. Lucie, Martin, Indian River, and Okeechobee Counties. According to their reports, death in all three cases was attributed extensive blunt trauma. Toxicological screenings were negative for drugs and alcohol.

TESTS AND RESEARCH

The wreckage was recovered from the ocean and examined on March 3, 2006, at St. Lucie County International Airport.

The Avidyne EX-5000 MFD was recovered and sent to the manufacturer for data retrieval. According to Avidyne's report, the unit "had been exposed to a violent shock. Damage to the memory device was beyond Avidyne's capabilities to extract data."

The engine was disassembled and examined on March 3, 2006, at Opa-Locka Airport, Opa-Locka, Florida. No anomalies that would have precluded rated power production were found.

According to the BRS summary report, the CAPS system fired "sometime during initial break up of the airframe when it impacted the water. The rocket motor likely fired when the activation cable broke which put the needed pressure on the igniter spring. The resistance of the water kept the parachute and rocket close to and suspended to the airframe."

ADDITIONAL INFORMATION

In addition to the Federal Aviation Administration, parties to the investigation included Cirrus Design Corporation, Teledyne Continental Motors, and BRS.

The aircraft wreckage was released to Aircraft Guaranty Management & Trust, Houston, Texas, and the Avidyne instrumentation was released to CTC Services LAD Aviation, Inc., Orlando, Florida, on March 29, 2006.

Pilot Information

Certificate:	Private	Age:	67, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 1, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	648 hours (Total, all aircraft), 293 hours (Total, this make and model), 16 hours (Last 90 days, all aircraft)		

Pilot Information

Certificate:	Private	Age:	52, Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	July 1, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	641 hours (Total, all aircraft), 63 hours (Total, this make and model), 11 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cirrus Design Corp.	Registration:	N667WP
Model/Series:	SR-22	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	0341
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	November 1, 2005 Annual	Certified Max Gross Wt.:	3400 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	487 Hrs as of last inspection	Engine Manufacturer:	Teledyne Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-560-N7
Registered Owner:	Aircraft Guaranty Management & Trust LLC Trustee	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Day
Observation Facility, Elevation:	SUA,18 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	15:47 Local	Direction from Accident Site:	45°
Lowest Cloud Condition:		Visibility	4 miles
Lowest Ceiling:	Overcast / 900 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	11 knots / 14 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.79 inches Hg	Temperature/Dew Point:	18°C / 17°C
Precipitation and Obscuration:			
Departure Point:	Stuart, FL (SUA)	Type of Flight Plan Filed:	IFR
Destination:	St. Augustine, FL (SGJ)	Type of Clearance:	IFR
Departure Time:	15:56 Local	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	27.204444,-80.133331

Administrative Information

Investigator In Charge (IIC):	Obregon, Jose
Additional Participating Persons:	Carlton Kitchen; Fort Lauderdale FSDO-17
Original Publish Date:	January 31, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=63195

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).