



Aviation Investigation Final Report

Location:	Arcaida, Florida	Accident Number:	MIA08LA164
Date & Time:	August 13, 2008, 14:15 Local	Registration:	N94339
Aircraft:	Ercoupe 415-C	Aircraft Damage:	Substantial
Defining Event:	Collision during takeoff/land	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A witness observed the airplane depart toward the west from the 1,200-foot-long grass strip. During the takeoff the witness observed the airplane encounter what he believed to be a downdraft, causing it to lose altitude. The airplane seemed to reestablish the climb when it impacted an oak tree that was located about 50 feet past and 20 feet left of the runway. The airplane impacted several trees before impacting the ground inverted. The wreckage examination revealed no abnormalities or discrepancies that would have prevented the airplane and its systems from normal flight operations. The nearest weather reporting station was located 23 miles southwest from the accident location. The recorded temperature during the time of the accident was 32 degrees Celsius (90 degrees Fahrenheit) and the wind was reported from 250 degrees at 13 knots. The autopsy report noted evidence of moderate to severe coronary artery disease and a prior heart attack. The toxicology results were consistent with the recent use of an anti-acid medication, available over the counter. The medication was unlikely to have adversely affected the pilot's performance. Postmortem toxicology could not determine whether the pilot's heart disease or the symptoms for which he was taking medication were related to the accident.

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 a proper climb rate after takeoff.

Findings

Aircraft	Climb rate - Not attained/maintained
Personnel issues	Aircraft control - Pilot

Factual Information

History of Flight

Initial climb	Collision during takeoff/land (Defining event)
---------------	------------------------------------------------

HISTORY OF FLIGHT

On August 13, 2008, at 1415 eastern daylight time, an Ercoupe 415-C, N94339, incurred substantial damage when it collided with trees during takeoff from a private airstrip (Southern Dreams Ranch) in Arcadia, Florida. The certificated commercial pilot was killed. Visual meteorological conditions prevailed and no flight plan was filed. The airplane was operated by the commercial pilot, under the provisions of Title 14 Code of Federal Regulations Part 91 as a personal flight.

A witness stated to a DeSoto County Sheriff's Office representative that the pilot routinely flew into the property from Venice, Florida, where he was based. On the day of the accident, the witness observed the airplane depart toward the west, from the measured 1,200-foot long grass strip, which veered to the left. During the takeoff, it appeared to the witness that the airplane encountered a downdraft, causing it to lose altitude. The witness added that it looked like the pilot attempted to reestablish a climb, but was unable to clear an oak tree, which was located about 50 feet past and 20 feet left of the runway. The airplane clipped the tree at an estimated height of 30 feet above the ground, entered an uncontrolled descent while impacting several pine trees, and came to rest inverted on the ground with a section of the left wing separating from the airplane.

PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with an airplane single-engine land rating. He was issued a second-class medical certificate in March 04, 2005, with a limitation of must have available glasses for near vision. The pilot reported a total of 10,000 hours at the time of the last medical certificate application. The responding Federal Aviation Administration Inspector stated that a review of the pilot's flight logbooks revealed that his last entry was April 16, 2002, with a total of 7,209 hours. The pilot's last biennial review was on December 02, 2006.

AIRCRAFT INFORMATION

The 1946 Ercoupe 415-C, serial number 1562, was being operated in the Light Sport Aircraft category. The airplane was powered by a Teledyne Continental Motors (TCM), O-200-A, 100-horsepower engine. Maintenance records provided by the responding FAA inspector showed that the airplane's last annual inspection was on June 6, 2008, at a total time of 3,473 hours. A review of the airplane's engine records by FAA and TCM personnel determined the engine had

a total time of 1,885 hours since overhaul.

METEOROLOGICAL INFORMATION

The closest official weather observation was at the Charlotte County Airport, Punta Gorda, Florida, 23 miles southwest from the accident site. On August 13, 2008, at 1353, an Aviation Routine Weather Report (METAR) recorded in part, winds at 250 degrees at 13 knots; visibility, 9 statute miles; sky clear; temperature 32 degrees Celsius (C); dew point 23 degrees C; altimeter 29.95 inches of mercury.

WRECKAGE AND IMPACT INFORMATION

Examination of the main wreckage showed the airplane's top section of the cockpit area was crushed and the windshield broken and separated. The fuselage was twisted aft of the cockpit area. The cockpit area was partially separated and ripped open. The right wing leading edge was crushed with impact damage and bent aft toward the tail section of the airplane. A section beyond the left wing spar area separated and the leading edge was observed with impact damage similar to the right wing. The engine nacelle section was crushed aft and twisted toward the left. The propeller remained attached to the engine; both propeller tips were twisted and bent.

A wreckage examination was conducted by an FAA and TCM representative. There were no abnormalities or discrepancies noted that would have prevented the airplane and its systems from normal flight operations. A non-Technical Standard Order (TSO) electronic magneto (E-mag) was observed in the right magneto position of the certificated engine.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination of the pilot was conducted under the authority of the Florida State Medical Examiner, Sarasota, Florida, on August 14, 2008. The cause of death for the pilot was attributed to multiple blunt force injuries. The autopsy report noted heart weight of 490 grams, "moderate to early severe atheromatous eccentric and concentric calcified stenosis" (up to 80% in the left anterior descending and right coronary arteries) and "a 1.5 x 0.7 x 1.0 cm focus of healed fibrosis of the left posterior lateral ventricular free wall midway between base and apex."

The FAA Civil Aeromedical Institute (CAMI) conducted toxicological testing on specimens from the pilot. The tests were negative for alcohol. Ranitidine was detected in the blood and urine.

Pilot Information

Certificate:	Commercial	Age:	72, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	March 4, 2005
Occupational Pilot:	No	Last Flight Review or Equivalent:	December 6, 2006
Flight Time:	10000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Ercoupe	Registration:	N94339
Model/Series:	415-C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1562
Landing Gear Type:		Seats:	2
Date/Type of Last Inspection:	June 8, 2008 Annual	Certified Max Gross Wt.:	1260 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3474 Hrs as of last inspection	Engine Manufacturer:	Teledyne Continental Motors
ELT:	Installed, not activated	Engine Model/Series:	O-200-A
Registered Owner:	On file	Rated Power:	100 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PGD,26 ft msl	Distance from Accident Site:	23 Nautical Miles
Observation Time:	13:53 Local	Direction from Accident Site:	209°
Lowest Cloud Condition:	Clear	Visibility	9 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	250°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.95 inches Hg	Temperature/Dew Point:	32°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Arcaida, FL (NONE)	Type of Flight Plan Filed:	None
Destination:	Venice, FL (VNC)	Type of Clearance:	None
Departure Time:	14:14 Local	Type of Airspace:	

Airport Information

Airport:	Private, Southern Dreams Ranch N/A	Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	1200 ft / 50 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	27.206666,-81.808609(est)

Administrative Information

Investigator In Charge (IIC):	Obregon, Jose
Additional Participating Persons:	James E Davidson; FSDO/FAA; Orlando, FL Sara Irwin; Teledyne Continental Motors, Inc; Mobile, AL
Original Publish Date:	May 11, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=68695

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](#).