



National Transportation Safety Board Aviation Accident Final Report

Location:	MARIETTA, GA	Accident Number:	ATL95LA047
Date & Time:	02/01/1995, 0720 EST	Registration:	N103JB
Aircraft:	BRANDT RUTAN LONGEZE	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

ACCORDING TO THE PILOT'S WIFE, THIS FLIGHT WAS TO BE A GROUND RUN ONLY, WITH NO TAKEOFF CONTEMPLATED. THE PILOT & HIS STEPDAUGHTER WERE COMPARING ACCELERATIONS AFTER WEIGHT CHANGES FOR A SCHOOL PROJECT. A WITNESS OBSERVED FROST ON THE ACFT AS IT TAXIED TO THE RUNWAY. OTHER WITNESSES SAW THE ACFT ACCELERATE ON THE RUNWAY, ROTATE, BECOME AIRBORNE TO ABOUT FIVE FEET AGL, SETTLE TO THE RUNWAY, BECOME AIRBORNE AGAIN, & OVERRUN THE RUNWAY INTO A WIDE RAVINE. IT COLLIDED WITH THE OPPOSITE BANK & BURNED. GROUND GOUGES INDICATED THAT THE ACFT WAS AIRBORNE FOR 219 FEET PAST THE RUNWAY END. THREE GOUGES, FOR 135 FEET, INDICATED THAT THE ACFT WAS IN A SLIGHT LEFT SKID, & THE INCREASING DEPTH OF THE GOUGES INDICATED THAT BRAKES WERE APPLIED. THE ACFT CAME TO REST UPRIGHT ON A RIGHT OFFSET HEADING, FROM THE ENERGY PATH, OF ABOUT 45 DEGREES, INDICATING THAT IT VAULTED OVER THE RAVINE UPRIGHT, IN A 45 DEGREE RIGHT YAW ATTITUDE. THE POST-MORTEM EXAM DID NOT REVEAL EVIDENCE OF INCAPACITATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's delayed abort of the ground run which resulted in a runway overrun and collision with the ravine.

Findings

Occurrence #1: OVERRUN

Phase of Operation: TAKEOFF - ABORTED

Findings

1. (F) ICE/FROST REMOVAL FROM AIRCRAFT - NOT PERFORMED - PILOT IN COMMAND
2. (C) ABORTED TAKEOFF - DELAYED - PILOT IN COMMAND
3. (F) TERRAIN CONDITION - WET

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF - ABORTED

Findings

4. (F) TERRAIN CONDITION - RAVINE

Occurrence #3: FIRE

Phase of Operation: TAKEOFF - ABORTED

Factual Information

On February 1, 1995, about 0720 eastern standard time, a Brandt Rutan Longeze, homebuilt airplane, N103JB, collided with an embankment following a ground run on runway 9, McCollum Field, Marietta, Georgia. The airplane was operated by the pilot under the provisions of 14 CFR Part 91, and visual flight rules. A flight plan was not filed for the personal flight. The commercial pilot and his passenger were fatally injured, and the airplane was destroyed by impact forces and post impact fire. The flight was originating at the time of the accident.

There was a heavy frost on the morning of the accident, and a witness observed frost on the airplane as it taxied to the runway. Another witness observed that an undetermined quantity of fuel was added to the airplane from a self service pump. Witnesses observed the airplane taxi onto the approach end of runway 9 and commence what appeared to be a takeoff roll. About 2,000 to 3,000 feet down the 5,105 foot long runway, the nose rotated and the airplane became airborne about five feet. It touched down on the runway, then rotated and became airborne a second time. Witness marks, consistent with the Longeze's landing gear, that were found in the grass overrun, began 219 feet from the end of the runway threshold. A piece of composite material was found at the beginning of the ground witness marks. The witness marks continued about 276 feet. A wheel pant was found near the east end of the ground marks. The center track was consistently closer to the right track, looking east, the direction of the aircraft's path. The ground tracks ended about 135 feet prior to an embankment that descended at a 45 degree angle into a deep ravine. A second wheel pant was found on the near embankment. Witnesses saw the airplane descend into the ravine followed shortly by a large fireball. The airplane came to rest against a boulder, on the east side of the ravine. It was destroyed by the ensuing ground fire.

A wet canopy/fuselage cover was located in the pilot's car. Wing covers normally installed on the airplane, were not located with it. The pilot's wife stated that the wing covers were at their residence being repaired.

Because of the post-impact fire, examination of the airplane did not produce any cockpit documentation.

The engine, a Lycoming O-235-C1, serial number L-8731-15, was examined. The propeller spinner retained its conical shape chordwise, and was crushed inward on one side. Both propeller blades were broken and splintered spanwise, and evidenced areas of charring. There was fire damage to the underside, right side and the accessory section of the engine. The starter ring gear was detached circumferentially. Both magnetos and associated wiring had extensive heat damage with the point cover burned away from the right magneto. There was internal fire damage to the left magneto, and all of its distributor towers were burned away. The mechanical fuel pump cover was absent and there was evidence of fire damage to the pump action. There was a hole in the oil sump through which the oil pickup tube and screen could be seen. No debris was noted in the screen. The Marvel Schebler carburetor was found in the creek at the accident site, detached from the engine. The float bowl contained metal floats and there was no evidence of debris or corrosion in the float bowl. One float kidney was crushed from both sides toward the centerline of the kidney.

According to records obtained from the Federal Aviation Administration, the pilot had 3,500 total civil flight hours, as of March 31, 1993. He obtained a second class medical

certificate on that date, with limitations to wear glasses for distant vision, and possess glasses for near vision, when exercising the privileges of the certificate. His pilot log was not located.

The aircraft logs and records were not located, and the pilot's wife stated that they would have been in the airplane.

A post-mortem examination of the pilot was conducted by the Cobb County, Georgia, Office of the Medical Examiner. The cause of death was listed as generalized trauma with associated generalized body surface burns. The report stated that "minimal atherosclerotic involvement is noted." In reference to the central nervous system, the report stated that "Intrinsic lesions [of the brain] are not identified." A report of the toxicological examination of the pilot indicated that no ethanol nor other drugs were found.

The pilot's wife provided the following information regarding the flight and the accident. The pilot was assisting his stepdaughter with a school science project. The project was to determine the effects of weight on the acceleration of the airplane. It was her understanding that no takeoff was contemplated, only a ground run to obtain two additional data points that her daughter needed to complete her fact gathering for the project. Mrs. Dahl provided anecdotal information that indicated that the pilot was aware of the effects of frost on the airplane. She stated that he was a former Naval Aviator, who flew attack aircraft, and had extensive aviation experience. She opined that her husband experienced an incapacitating event after the first liftoff, which explains his failure to reduce the power, turn off the ignition switch, or raise the nose landing gear. She also stated that the back seat, where her daughter would have sat, had no controls other than a control stick.

Pilot Information

Certificate:	Commercial	Age:	55, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	03/31/1993
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	3500 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BRANDT	Registration:	N103JB
Model/Series:	RUTAN LONGEZE RUTAN LONG	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	509
Landing Gear Type:		Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1200 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	O-235-C1
Registered Owner:	DENNIS K. DAHL	Rated Power:	108 hp
Operator:	DENNIS K. DAHL	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RYY, 1040 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0720 EST	Direction from Accident Site:	90°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	-3° C / -3° C
Precipitation and Obscuration:			
Departure Point:	(RYY)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

Airport Information

Airport:	COBB CO-MCCOLLUM FIELD (RYY)	Runway Surface Type:	Asphalt
Airport Elevation:	1040 ft	Runway Surface Condition:	Dry
Runway Used:	9	IFR Approach:	None
Runway Length/Width:	5105 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	PRESTON E HICKS,	Report Date:	08/31/1995
Additional Participating Persons:	J. K BRANTLEY; COLLEGE PARK, GA		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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