



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Mount Pleasant, South Carolina	<b>Accident Number:</b>	ERA10LA365
<b>Date &amp; Time:</b>	July 19, 2010, 14:00 Local	<b>Registration:</b>	N882X
<b>Aircraft:</b>	TEXAS AIR VENTURES INC COMP AIR 8	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control in flight	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Positioning		

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## Analysis

The pilot was conducting the first leg of a positioning flight in an experimental, amateur built, tail-wheel turboprop airplane. During landing, the airplane touched down to the right of the runway centerline and departed the right side of the runway. The pilot then added engine power to attempt an aborted landing. The airplane lifted off the runway, pitched up at a steep angle, stalled, and impacted the ground. Examination of the wreckage did not reveal any mechanical malfunctions; however, a postcrash fire consumed the majority of the wreckage. The airplane's pitch trim actuator was observed in the landing position, which was the full nose-up position and would have resulted in a steep nose-up attitude during climb-out, if not corrected by the pilot. The pilot had accumulated about 1,930 hours of total flight experience; however, he only had 5 total hours in the same make and model as the accident airplane.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to retrim the airplane and maintain aircraft control during an aborted landing, which resulted in an inadvertent stall. Contributing to the accident was the pilot's lack of experience in the accident airplane make and model.

## Findings

Aircraft	Pitch control - Not attained/maintained
Personnel issues	Aircraft control - Pilot
Personnel issues	(general) - Pilot
Environmental issues	Gusts - Effect on operation
Aircraft	Pitch control - Incorrect use/operation

## Factual Information

### HISTORY OF FLIGHT

On July 19, 2010, about 1400 eastern daylight time, an experimental, amateur-built Texas Air Ventures Comp Air 8, N882X, was substantially damaged when it impacted the ground during an aborted landing at Mt. Pleasant Regional Airport (LRO), Mount Pleasant, South Carolina. The certificated commercial pilot was killed. Visual meteorological conditions prevailed and an instrument flight rules (IFR) flight plan had been filed for the flight that departed Merritt Island Airport (COI), Merritt Island, Florida, about 1200. The positioning flight was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to witnesses, at the time of the accident, the pilot was flying the first leg of a positioning flight with the intention of delivering the airplane to its owner in Holland, who had purchased the airplane about 3 months prior to the accident.

A witness, who worked for a fixed-base-operator at LRO, reported that the airplane was scheduled to overnight at the airport. He also witnessed the airplane on approach to runway 17, a 3,700-foot-long, 75-foot-wide, asphalt runway. The witness stated that the airplane looked "a little wobbly and unstable" before it touched down on the runway. The airplane then traveled off the right side of the runway on to a grass area, and was "swaying side to side" before he heard the engine power-up. The airplane became airborne again, and "went almost straight up, like it was performing an aerial maneuver and appeared to stall and then flipped over upside down and went straight into the ground..." He then observed smoke and fire coming from the impact site.

### PERSONNEL INFORMATION

The pilot, age 29, held a commercial pilot certificate, with ratings for airplane single-engine land and sea, airplane multiengine land, and instrument airplane. He reported 1,600 hours of total flight experience, with 300 hours during the previous 6 months, on his most recent application for a Federal Aviation Administration (FAA) first-class medical certificate, which was dated June 22, 2010.

The pilot flew the accident airplane on familiarization flight with a certified flight instructor for 5 hours during the day prior to the accident.

According to the flight instructor, they performed about 20 practice landings and the pilot "at first had some difficulty controlling the tailwheel, especially if the airplane bounced during landing;" however, he subsequently "got the hang of it" and the flight instructor was "very impressed" with how he handled the airplane. After the flight, the flight instructor felt that the pilot was capable of flying the airplane on the positioning flight; however, they made plans to conduct another familiarization flight the next day. The flight instructor did not have any further contact with the pilot and was not certain why the pilot elected not conduct a second familiarization flight.

The flight instructor did not recall how much total flight experience the pilot had accumulated. He recalled that the pilot did not have any prior Comp Air flight experience, and that his total turbine flight experience consisted of 14 hours, which were accumulated while ferrying a King Air 90. The pilot also informed him that he had flown "20 Atlantic and 1 Pacific crossings."

The pilot's logbook was not recovered; however, the pilot's father located the last page of the pilot's logbook, which had been torn out. The most recent entry was dated July 15, 2010. According to the "totals to date" section, as of July 15, 2010, the pilot had accumulated approximately 1,927 hours of total flight experience; which included 690.1 hours logged in the "turbine" column. In addition, the logbook depicted 1,053.1 and 1278.5 hours logged in the "complex" and "high performance" columns; respectively.

#### AIRCRAFT INFORMATION

The six seat, high-wing, tail-wheel, turboprop airplane, serial number 0281020, was constructed primarily of composite material and was equipped with a Walter M601D series, 657 horsepower engine, with an AVIA 3-bladed constant speed propeller. According to the kit manufacturer, the kit was sold in August 2002.

According to FAA records, the airplane was issued an experimental airworthiness certificate on May 9, 2003. The airplane was purchased from the builder, by an individual, through a corporation, on March 25, 2010.

The previous owner/builder reported that the airplane had been operated for about 150 total hours at the time it was sold. He also reported that airplane's most recent condition inspection was signed-off during February 2010.

According to personnel where the airplane was maintained, all maintenance records were placed in the back of the airplane, to be delivered with the airplane to the new owner. The airplane had undergone a condition inspection during September 2009. After the airplane had been sold, work was performed which included the installation of a new heavy-duty elevator pitch trim motor and a new tail wheel assembly.

The airplane's maintenance records were not located and presumed destroyed during the accident.

The flight instructor, who flew with the pilot for 5 hours the day prior to the accident reported that the airplane performed well and that he did not experience any mechanical issues during the flight.

With regards to go-arounds, both the flight instructor and previous owner stressed the importance of re-trimming the airplane from the landing configuration, to avoid a dramatic pitch-up condition after engine power was applied.

#### METEOROLOGICAL INFORMATION

The reported weather at LRO, at 1415, was: wind from 170 degrees at 13 knots, gusting to 18

knots; visibility 8 statute miles; clear skies; temperature 31 degrees Celsius (C); dew point 23 degrees C; altimeter 30.06 inches of mercury.

## WRECKAGE AND IMPACT INFORMATION

On-site examination of the airplane was performed by an FAA inspector. The inspector noted tire marks consistent with the accident airplane, about 1,000 feet beyond the approach end of runway 17, on the right side of the runway centerline. The tire marks continued for approximately 360 feet, before departing the right side of the runway. The airplane struck a runway light, and traveled an additional 50 feet on the grass before the tire marks were no longer visible. The airplane came to rest inverted about 300 feet from the right edge of the runway.

A postcrash fire consumed the majority of the airplane. The cockpit was destroyed. The pilot's seat frame was observed; however, its position could not be determined. Examination of the airframe and engine did not reveal any preimpact malfunctions. The three-bladed propeller assembly separated from the engine and all three propeller blades displayed "s-bending" and chord-wise scratches.

The airplane's pitch trim actuator sustained significant fire damage and was removed for further examination, which was conducted at Comp Air, Merritt Island, Florida, under the supervision of an FAA inspector. The examination revealed that the pitch trim actuator was positioned in the landing, full nose-up position. The pitch trim motor could not be functional checked due to damage sustained in the accident.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot, on July 20, 2010, at the Medical University of South Carolina, Department Pathology and Lab Medicine, Charleston, South Carolina. The autopsy report indicated the cause of death as "blunt force injury of the head" sustained in an accident.

Toxicological testing performed on the pilot by the FAA Bioaeronautical Science Research Laboratory, Oklahoma City, Oklahoma, was negative for drugs and alcohol.

## History of Flight

Landing	Loss of control on ground
Approach-VFR go-around	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	29, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	June 22, 2010
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated) 1927 hours (Total, all aircraft), 5 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	TEXAS AIR VENTURES INC	<b>Registration:</b>	N882X
<b>Model/Series:</b>	COMP AIR 8	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	0281020
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	September 1, 2010 Condition	<b>Certified Max Gross Wt.:</b>	5000 lbs
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Turbo prop
<b>Airframe Total Time:</b>	150 Hrs at time of accident	<b>Engine Manufacturer:</b>	Walter
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	M601D
<b>Registered Owner:</b>		<b>Rated Power:</b>	657 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	LRO, 12 ft msl	Distance from Accident Site:	
Observation Time:	14:15 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	8 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	13 knots / 18 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.05 inches Hg	Temperature/Dew Point:	31 °C / 23 °C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Merritt Island, FL (COI )	Type of Flight Plan Filed:	IFR
Destination:	Mount Pleasant, SC (LRO )	Type of Clearance:	IFR
Departure Time:	12:00 Local	Type of Airspace:	

## Airport Information

Airport:	Mt. Pleasant LRO	Runway Surface Type:	Asphalt
Airport Elevation:	12 ft msl	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	3700 ft / 75 ft	VFR Approach/Landing:	Full stop;Go around

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	32.897777,-79.782775(est)

## Administrative Information

Investigator In Charge (IIC):	Schiada, Luke
Additional Participating Persons:	Steve J Petrossian; FAA/FSDO; Columbia, SC
Original Publish Date:	June 20, 2011
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=76686">https://data.nts.gov/Docket?ProjectID=76686</a>

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).