



National Transportation Safety Board Aviation Accident Final Report

Location:	Monroe, NC	Accident Number:	ERA16LA045
Date & Time:	11/21/2015, 1530 EST	Registration:	N28365
Aircraft:	PHANTOM AERONAUTICS PHANTOM X 1	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

According to the noncertificated pilot of the experimental, light-sport airplane, he was flying in formation behind another airplane. As he approached the destination airport and began a turn to set the airplane up for landing, he heard the engine "hiccup," and he increased the throttle; however, the engine then "choked." The pilot increased the pitch attitude of the airplane to climb, but the airplane impacted a tree and then descended to the ground nose first.

During a postaccident examination of the airplane and engine, no preimpact mechanical malfunctions were found that would have precluded normal operation. When asked about the loss of engine power, the pilot stated that he thought the "old gas" he brought that day might have been contaminated with water and that this could have contributed to the accident. The fuel tank was ruptured, leaking, and an unmeasured amount of fuel was noted in the tank. No debris was noted in the remaining fuel. The investigation could not determine the effect the fuel had on the engine performance, and the reason for the loss of power could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The partial loss of engine power for reasons that could not be determined because postaccident examination of the engine did not reveal any preimpact anomalies that would have precluded normal operation.

Findings

Environmental issues	Tree(s) - Contributed to outcome
Not determined	Not determined - Unknown/Not determined (Cause)

Factual Information

On November 21, 2015, about 1530 eastern standard time, an experimental light sport Phantom Aeronautics Phantom X1, N28365, impacted trees during approach to Edwards Airport (9NC3), Monroe, North Carolina. The airplane sustained substantial damage to the right wing and fuselage. The non-certificated pilot incurred serious injuries. Day visual meteorological conditions prevailed and no flight plan was filed for the personal flight, which was conducted under the provisions of Title 14 Code of Federal Regulations Part 91.

According to the pilot, he had flown two times earlier in the day without any anomalies. For the accident flight, he and another pilot were flying in formation to 9NC3. As they approached the airport, the other pilot conveyed that he was going to land, and the accident pilot responded that he would "make a slow circle" and then land at the airport. He then began a turn to the right and was overflying trees when he heard the engine "hiccup." He adjusted the throttle and then stated that the engine was "choking." Next, the pilot increased back pressure on the flight control stick in order to gain altitude, "but was already too slow to maintain level flight." The airplane struck a tree, descended "straight down," and impacted the ground nose first.

The pilot reported that he did not hold a Federal Aviation Administration (FAA) airman certificate or a medical certificate. However, he had approximately 32 hours of flight experience, of which, all the flight hours were in the same make and model as the accident airplane, and 18 hours were in the previous 90 days.

According to FAA records, the airplane was manufactured in 2002 and registered to the pilot/owner in 2015. The high wing, single seat, airplane was equipped with a Rotax 582 series, 65-hp engine, that was mounted above and forward of the cockpit. A review of the engine maintenance log indicated that the most recent engine inspection occurred on May 1, 2014, and at that time the engine had accumulated 165.4 total hours of time in service, and 20.8 hours since major overhaul.

When asked about the loss of engine power, the pilot stated that he thought the "'old' gas he brought" that day, which might have been contaminated with water. In addition, the pilot reported in the NTSB Pilot/Operator Aircraft Accident/Incident Report, Form 6120.1, under the Operator/Owner Safety Recommendation section of the form that "there had been rain during that week."

The airplane came to rest approximately a quarter mile to the northwest from the center of the airport. Postaccident examination of the wreckage revealed that the airplane impacted in a right wing low, nose down attitude. The outboard section of the right wing exhibited crush damage and was bent aft. The forward section of the fuselage was impact damaged and bent to the left. Flight control continuity was confirmed from the flight controls to all flight control surfaces. In addition, the engine remained attached to the fuselage; however, all propeller blades were impact separated and located in the vicinity of the main wreckage. The fuel tank was ruptured, leaking, and an unmeasured amount of fuel was noted in the tank. No debris was noted in the remaining fuel. In addition, the fuel lines remained attached to the engine, and

there was fuel noted in the lines. There were no other obvious mechanical anomalies observed with the engine.

History of Flight

Approach	Loss of engine power (partial) (Defining event) Loss of control in flight Aerodynamic stall/spin Collision with terr/obj (non-CFIT)
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Pilot Information

Certificate:	None	Age:	58, Male
Airplane Rating(s):	None	Seat Occupied:	Single
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	32 hours (Total, all aircraft), 32 hours (Total, this make and model), 18 hours (Last 90 days, all aircraft), 12 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PHANTOM AERONAUTICS	Registration:	N28365
Model/Series:	PHANTOM X 1 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2002	Amateur Built:	No
Airworthiness Certificate:	Experimental Light Sport	Serial Number:	0302004
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	05/01/2014, Condition	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	ROTAX
ELT:		Engine Model/Series:	582
Registered Owner:	On file	Rated Power:	65 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	EQY, 682 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	1453 EST	Direction from Accident Site:	240°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.02 inches Hg	Temperature/Dew Point:	14° C / -2° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	INDIAN TRAIL, NC (28A)	Type of Flight Plan Filed:	None
Destination:	Monroe, NC (9NC3)	Type of Clearance:	None
Departure Time:	1430 EST	Type of Airspace:	

Airport Information

Airport:	EDWARDS AIRPORT (9NC3)	Runway Surface Type:	N/A
Airport Elevation:	640 ft	Runway Surface Condition:	Unknown
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	35.070833, -80.566389 (est)

Administrative Information

Investigator In Charge (IIC):	Heidi Moats	Report Date:	10/02/2017
Additional Participating Persons:	William Wege; FAA/FSDO; Charlotte, NC		
Publish Date:	10/02/2017		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=92350		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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](#).