



National Transportation Safety Board Aviation Accident Final Report

Location:	Pompano Beach, FL	Accident Number:	ERA12LA058
Date & Time:	11/01/2011, 1735 EDT	Registration:	N739JN
Aircraft:	CESSNA 172N	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (partial)	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

According to the pilot, while the airplane was descending on final approach, the throttle control became unresponsive. Although multiple settings were attempted, the engine remained at idle rpm, and the pilot made a forced landing on a road. The airplane collided with a lightpost and sustained substantial damage to the fuselage. Although initial examination of the engine did not reveal any preimpact mechanical anomalies that would have precluded normal operation, further examination revealed that the throttle cable had separated from its housing/end fitting. As a result, the throttle cable could not actuate the carburetor control, and the engine remained at idle rpm. A review of the airframe and engine logbooks revealed that the throttle cable was not maintained correctly and was never maintained in accordance with the manufacturer's service manual.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The separation of the throttle cable from its fitting, which resulted in an inability to control engine power. Contributing to the accident was the inadequate maintenance by the owner.

Findings

Aircraft	Fuel control/carburetor - Malfunction (Cause)
Personnel issues	Scheduled/routine maintenance - Owner/builder (Factor)

Factual Information

On November 1, 2011, at 1735 eastern daylight time, a Cessna 172N, N739JN, was substantially damaged during a forced landing following a partial loss of engine power while on final approach to Pompano Beach Airpark (PMP), Pompano Beach, Florida. The certificated commercial pilot and one passenger reported minor injuries. The personal flight was operating under the provisions of Title 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no flight plan was filed. The flight originated from Fort Lauderdale Executive Airport (FXE), Fort Lauderdale, Florida, at 1730.

The pilot stated that he was descending on final approach to land, when the throttle control became unresponsive. He made attempts to change the engine power setting, but no change in power occurred. The engine remained at idle speed as the airplane continued to descend. He made a forced landing on a road and the airplane collided with a light post.

Post accident examination of the airplane by a Federal Aviation Inspector revealed that the fuselage collided with a light post and broke away from the cabin section. The left wing outboard section was broken away from the wing assembly at the wing strut. The wreckage was recovered and a cursory examination was conducted on the engine. No engine specific mechanical anomalies were discovered that would have precluded normal engine operation. Further examination revealed that the outer throttle cable housing was separated. When the throttle control was moved, it did not actuate the carburetor throttle control. A review of the maintenance records did not reveal any recent maintenance to the cable and during the last annual inspection no anomalies were noted.

A review of the aircraft and engine logbooks revealed that the throttle cable was not replaced or inspected within the last 2512.9 hours. A review of the Cessna model 172 service manual states, on page 2-42, item J: "Engine controls and linkage-check general condition, freedom of movement through full range. Check for proper travel, security of attachment, and evidence of wear. Check friction locks for proper operation (every 50 hours)." Page 2-48 of the manual, special inspections legends, part E; states, "Lubricate each 50 hours, these controls are not repairable and should be replaced every 1,500 hours or whenever maximum linear movement exceeds .050 inches."

History of Flight

Approach-VFR pattern final	Loss of engine power (partial) (Defining event)
Emergency descent	Off-field or emergency landing
Landing-landing roll	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	27, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	05/05/2010
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	03/17/2011
Flight Time:	3000 hours (Total, all aircraft), 1500 hours (Total, this make and model), 2800 hours (Pilot In Command, all aircraft), 220 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N739JN
Model/Series:	172N	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	17270581
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	10/11/2011, 100 Hour	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:	372 Hours	Engines:	1 Reciprocating
Airframe Total Time:	12047 Hours	Engine Manufacturer:	LYCOMING
ELT:	C91 installed, not activated	Engine Model/Series:	O-320 SERIES
Registered Owner:	AIRCRAFT LEASING N739JN LLC	Rated Power:	180 hp
Operator:	AIRCRAFT LEASING N739JN LLC	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	PMP, 19 ft msl	Observation Time:	1653 EDT
Distance from Accident Site:	1 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	33°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Few / 2700 ft agl	Temperature/Dew Point:	26° C / 21° C
Lowest Ceiling:	Broken / 4200 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	16 knots, 20°	Visibility (RVR):	
Altimeter Setting:	30.02 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Lauderdale, FL (FXE)	Type of Flight Plan Filed:	None
Destination:	Pompano Beach, FL (PMP)	Type of Clearance:	None
Departure Time:	1730 EDT	Type of Airspace:	

Airport Information

Airport:	Pompano Beach Airpark (PMP)	Runway Surface Type:	
Airport Elevation:	19 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor		

Administrative Information

Investigator In Charge (IIC):	Eric Alleyne	Adopted Date:	07/18/2013
Additional Participating Persons:	Edward G Cardenas; FAA/FSDO; Miramar, FL		
Publish Date:	07/18/2013		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82220		

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