



National Transportation Safety Board Aviation Accident Preliminary Report

Location:	Fort Lauderdale, FL	Accident Number:	ERA17LA026
Date & Time:	10/01/2016, 1808 EDT	Registration:	N497SJ
Aircraft:	CESSNA 172	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Personal		

On October 1, 2016, about 1808 eastern daylight time, a Cessna 172S, N497SJ, was substantially damaged during a precautionary landing at Fort Lauderdale Executive Airport (FXE), Fort Lauderdale, Florida. The commercial pilot and passenger were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight conducted under the provisions of 14 Code of Federal Regulations Part 91, which departed FXE, destined for Punta Gorda Airport (PGD), Punta Gorda, Florida.

According to the pilot, he was planning to fly from FXE to PGD and return. The purpose of the flight was to build flight time.

During the preflight inspection, the pilot determined that the engine had 7 quarts of oil, and there were no discrepancies with the airplane that would prevent or delay the flight. After receiving a clearance to PGD, he taxied out to the run-up area. He went through the checklist, which included a complete run-up where the engine rpm drop was within range on both the right and left magnetos. The airplane was then cleared to taxi on to Runway 9, and then cleared for takeoff.

The pilot applied full throttle and checked that all engine indication instruments were in the "green arc," which included the oil temperature and oil pressure. During the initial climb, he noticed a more pronounced shimmy from the landing gear than normal. At 2,500 feet mean sea level (msl) and 5 nautical miles northwest of FXE, the pilot noticed the oil temperature indicated 245 degrees or redline. He then called Miami Approach Control and requested to return to FXE. Miami Approach Control asked him if he had an inflight emergency and he advised that he had an oil temperature issue. The engine then began running roughly.

The pilot contacted the FXE air traffic control tower, was cleared to land, and advised that the winds were 070 degrees at 12 knots, gusting to 18 knots. He then began a turn to the final approach leg of the traffic pattern, slowed to flap operating range, and added one notch of flaps. The airplane was at 90 knots and slowing, so he did not add a second notch of flaps due to the wind gusts. He then reduced engine power to 1,500 rpm and slowed the airplane to 72 knots.

Upon reaching the runway he began to pull back on the control yoke in an attempt to bleed off more airspeed to slow the airplane to the 65 knots required for landing. After touchdown, the airplane bounced and was substantially damaged before it came to rest on the runway. The pilot stated that he did not go-around or abort the landing because of the potential engine issue.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector, revealed that the airplane contacted the runway on the nose landing gear, which was bent forward, and in contact with the lower engine cowling. Further examination also revealed that the propeller, the firewall, the lower forward fuselage skin, and the floorboards were damaged.

According to FAA records, the pilot held a commercial pilot certificate with ratings for airplane single-engine land, airplane multiengine land, and instrument airplane. He also held a flight instructor certificate with a rating for instrument airplane, and a ground instructor certificate with an advanced rating. His most recent FAA second-class medical certificate was issued on June 15, 2016. He reported on that date that he had accrued 702 total hours of flight experience.

According to FAA and airplane maintenance records, the airplane was manufactured in 2000. The airplane's most recent 100-hour inspection was completed on September 23, 2016. On October 1, 2016, about 1808 eastern daylight time, a Cessna 172S, N497SJ, was substantially damaged during a precautionary landing at Fort Lauderdale Executive Airport (FXE), Fort Lauderdale, Florida. The commercial pilot and passenger were not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the personal flight conducted under the provisions of 14 Code of Federal Regulations Part 91, which departed FXE about 1700, destined for Punta Gorda Airport (PGD), Punta Gorda, Florida.

According to the pilot, he was planning to fly from FXE to PGD and return. The purpose of the flight was to build flight time.

During the preflight inspection, the pilot determined that the engine had 7 quarts of oil, and there were no discrepancies with the airplane that would prevent or delay the flight. After receiving a clearance to PGD, he taxied out to the run-up area. He went through the checklist, which included a complete run-up where the engine rpm drop was within range on both the right and left magnetos. The airplane was then cleared to taxi on to Runway 9, and then cleared for takeoff.

The pilot applied full throttle and checked that all engine indication instruments were in the "green arc," which included the oil temperature and oil pressure. During the initial climb, he noticed a more pronounced shimmy from the landing gear than normal. At 2,500 feet mean sea level (msl) and 5 nautical miles northwest of FXE, the pilot noticed the oil temperature indicated 245 degrees or redline. He then called Miami Approach Control and requested to return to FXE. Miami Approach Control asked him if he had an inflight emergency and he advised that there was an oil temperature issue. The engine then began running roughly.

The pilot contacted the FXE air traffic control tower, was cleared to land, and advised that the winds were 070 degrees at 12 knots, gusting to 18 knots. He then began a turn to the final

approach leg of the traffic pattern, slowed to flap operating range, and added one notch of flaps. The airplane was at 90 knots and slowing down, so he did not add a second notch of flaps due to the wind gusts. He then reduced engine power to 1,500 rpm and slowed down to 72 knots.

Upon reaching the runway he began to pull back on the control yoke in an attempt to bleed off more airspeed to slow the airplane to the 65 knots required for landing. After touchdown, the airplane bounced and was substantially damaged before it came to rest on the runway. The pilot stated that he did not go-around or abort the landing because of the potential engine issue.

Examination of the airplane by a Federal Aviation Administration (FAA) inspector, revealed that the airplane contacted the runway on the nose landing gear, which was bent forward, and in contact with the lower engine cowling. Further examination also revealed that the propeller, the firewall, the lower forward fuselage skin, and the floorboards were damaged.

According to FAA records, the pilot held a commercial pilot certificate with ratings for airplane single-engine land, airplane multiengine land, and instrument airplane. He also held a flight instructor certificate with a rating for instrument airplane, and a ground instructor certificate with an advanced rating. His most recent FAA second-class medical certificate was issued on June 15, 2016. He reported on that date that he had accrued 702 total hours of flight experience.

According to FAA and airplane maintenance records, the airplane was manufactured in 2000. The airplane's most recent 100-hour inspection was completed on September 23, 2016.

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N497SJ
Model/Series:	172 S	Aircraft Category:	Airplane
Amateur Built:	No		
Operator:	FXE FLIGHT CENTER CORP	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	FXE, 13 ft msl	Observation Time:	1816 EDT
Lowest Cloud Condition:	Clear	Conditions at Accident Site:	Visual Conditions
Lowest Ceiling:	None	Temperature/Dew Point:	29° C / 22° C
Wind Speed/Gusts, Direction:	7 knots, 70°	Visibility	10 Miles
Altimeter Setting:	29.96 inches Hg	Type of Flight Plan Filed:	Unknown
Departure Point:	Fort Lauderdale, FL (FXE)	Destination:	Fort Lauderdale, FL (FXE)

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Todd G Gunther
Additional Participating Persons:	Juan C Garcia; FAA FSDO; Miramar, FL
Note:	The NTSB did not travel to the scene of this accident.