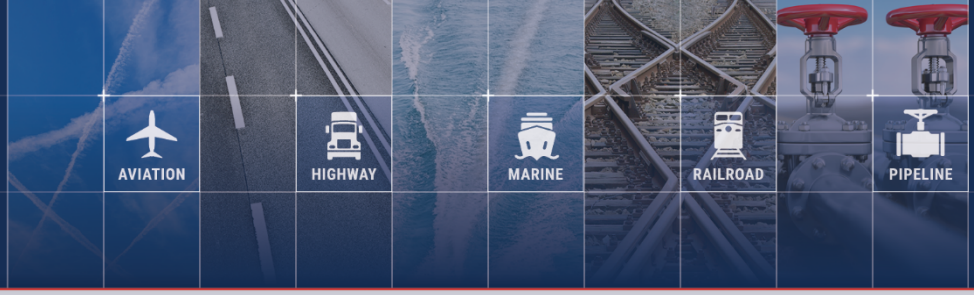

Aviation Investigation Final Report

Location:	Nacogdoches, Texas	**Accident Number:**	DFW07LA017
Date & Time:	October 30, 2006, 16:30 Local	**Registration:**	N2591W
Aircraft:	Mooney M20E	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The 849-hour private pilot completed his preflight inspection, which consisted of checking the oil, fuel, and control surfaces. After starting the engine, he went through his normal checks; "oil pressure, volts, fuel pressure, and avionics." He then taxied the airplane to Runway 18, where he completed his engine run-up. The pilot reported that the engine gauges were "normal" and he departed. After reaching an altitude of approximately 300 feet, "the engine lost power," and the pilot elected to land in a grassy area between runways 18 and 15. Additionally, the pilot reported the time between engine start and takeoff was about 15 minutes. Fuel was found at the accident site, and the airplane sustained structural damage during the forced landing. An engine run was conducted on January 23, 2007 under the supervision of the NTSB IIC. The engine, which was separated from the airframe for transport to the salvage yard, was placed on an engine test stand. The propeller, which sustained impact damage during the forced landing, was replaced with a test propeller. The engine was then started and run for approximately 10 minutes at various power settings. The reason for the reported loss of engine 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 loss of engine power for undetermined reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings
2. TERRAIN CONDITION - GROUND

Factual Information

On October 30, 2006, approximately 1630 central standard time, a single-engine Mooney M20E airplane, N2591W, was substantially damaged during a forced landing following a loss of engine power shortly after takeoff from the A L Mangham Jr. Regional Airport (OCH), near Nacogdoches, Texas. The private pilot and passenger were not injured. The airplane was registered to and operated by a private individual. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 91 personal flight.

The 849-hour private pilot reported in the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1) that he completed his preflight inspection, which consisted of checking the oil, fuel, and control surfaces. After starting the engine, he went through his normal checks; "oil pressure, volts, fuel pressure, and avionics." He then taxied the airplane to Runway 18, where he completed the engine run-up. The pilot reported that the engine gauges were "normal" as he elected to depart. After reaching an altitude of approximately 300 feet, "the engine lost power," and the pilot chose to land in a grassy area between runways 18 and 15. Additionally, the pilot reported the time between engine start and takeoff was about 15 minutes.

A Federal Aviation Administration (FAA) inspector, who examined the airplane at the accident site, reported that fuel was present in the fuel tanks and that the airplane sustained structural damage during the forced landing.

An engine run was conducted on January 23, 2007 under the supervision of the NTSB Investigator-In-Charge. The engine, which was separated from the airframe for transport to the salvage yard, was placed on an engine test stand. The propeller, which sustained impact damage during the forced landing, was replaced with a test propeller. The engine was then started and run for approximately 10 minutes at various power settings.

The reason for the reported loss of engine power could not be determined.

At 1553, the automated weather observation system at LFK, approximately 20 miles south of the accident site, reported winds from 160 degrees at 11 knots, 10 miles visibility, a clear sky, temperature 77 degrees Fahrenheit, dew point 61 degrees Fahrenheit, and an altimeter setting of 29.87 inches of Mercury.

Pilot Information

Certificate:	Private	**Age:**	49,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	December 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	October 1, 2005
Flight Time:	849 hours (Total, all aircraft), 700 hours (Total, this make and model), 760 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	**Registration:**	N2591W
Model/Series:	M20E	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	944
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	April 1, 2006 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	5864 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	IO-360
Registered Owner:	On file	**Rated Power:**	200 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KLFK	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	15:53 Local	**Direction from Accident Site:**	180°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	160°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	25°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Nacogdoches, TX (OCH)	**Type of Flight Plan Filed:**	None
Destination:	Nacogdoches, TX	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Airport Information

Airport:	A L MANGHAM JR. REGIONAL OCH	**Runway Surface Type:**	Asphalt
Airport Elevation:	355 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	5000 ft / 75 ft	**VFR Approach/Landing:**	None

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	**Latitude, Longitude:**	31.577777,-94.708335

Administrative Information

Investigator In Charge (IIC):	Hatch, Craig
Additional Participating Persons:	Richard Payton; FAA, FSDO; San Antonio, TX
Original Publish Date:	March 26, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=64788