



Aviation Investigation Final Report

Location:	KINGSTON, Tennessee	Accident Number:	ATL96LA067
Date & Time:	March 17, 1996, 18:55 Local	Registration:	N78896
Aircraft:	Mooney M20C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that he had just departed Meadow Lake, and was in cruise flight at about 2,000 feet above ground level when the aircraft engine lost power. He attempted to execute a forced landing in a field. The aircraft struck a utility building during the forced landing. The initial postcrash inspection revealed that the airplane was intact and fuel tanks did not appear to be compromised. The fuel tanks were examined, the right fuel tank contained no fuel, and the left fuel tank contained a small amount of residual fuel. The fuel gauges were inspected, and the right fuel quantity indicator showed full, although there was no fuel in the airplane. The pilot stated he did not perform a complete walk around of the airplane before the flight, or visibly check the fuel quantity. He used only the fuel gauges as a reference for fuel quantity, and thought he had 26 gallons on board before takeoff.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate pre-flight inspection, which resulted in fuel exhaustion. A factor relating to the accident was: the lack of suitable terrain for the forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: EMERGENCY LANDING

Findings

3. (F) TERRAIN CONDITION - NONE SUITABLE
4. OBJECT - BUILDING(NONRESIDENTIAL)

Factual Information

On March 17, 1996, at 1855 eastern standard time, a Mooney M20C, N78896, was substantially damaged following a collision with a building and terrain near Kingston, Tennessee. The commercial pilot received serious injuries, and his passenger received minor injuries in the accident. The aircraft was being operated under the provisions of Title 14 CFR Part 91 by the pilot. Visual meteorological conditions existed, and no flight plan had been filed for the personal flight. The flight departed Meadow Lake, Tennessee, and was destined for Jacksboro, Tennessee.

The pilot reported that he had just departed Meadow Lake, and was in cruise flight at about 2000 feet above ground level when the aircraft engine lost power. He attempted to execute a forced landing in a field. The aircraft struck a utility building during the forced landing attempt.

The FAA Investigator stated he performed a post crash inspection of the aircraft. He indicated there were no visible signs of leakage from either fuel tank resulting from the accident. The airplane was intact and the fuel tanks did not appear to be compromised. The right fuel tank contained no fuel, and the left fuel tank contained a small amount of residual fuel. The airplane was then hooked up to battery power in order to operate the fuel gauges, and the right fuel quantity indicator showed to be almost full, although there was no fuel in the aircraft.

The pilot stated he did not perform a complete walk around of the airplane before flight, or visibly check the fuel quantity. Not knowing the right fuel quantity indicator was not working properly, he used only the fuel gauges as a reference for fuel quantity, and thought he had 26 gallons of fuel on board before takeoff.

Pilot Information

Certificate:	Commercial	Age:	53, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	October 31, 1994
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	786 hours (Total, all aircraft), 648 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mooney	Registration:	N78896
Model/Series:	M20C M20C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2911
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 17, 1996 Annual	Certified Max Gross Wt.:	2575 lbs
Time Since Last Inspection:	3 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2065 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	O-360-A1D
Registered Owner:	DOUGLAS D. KINSER	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Dusk
Observation Facility, Elevation:	TYS ,981 ft msl	Distance from Accident Site:	27 Nautical Miles
Observation Time:	18:53 Local	Direction from Accident Site:	95°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	14°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MEADOW LAKE , TN (30A)	Type of Flight Plan Filed:	None
Destination:	JACKSBORO , TN (JAU)	Type of Clearance:	None
Departure Time:	18:45 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	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 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	35.870216,-84.50949(est)

Administrative Information

Investigator In Charge (IIC):	Sasser, Roff
Additional Participating Persons:	JAMES W MATHEWS;
Original Publish Date:	November 11, 1996
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=3709

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).