



Aviation Investigation Final Report

Location:	MURFREESBORO, Tennessee	Accident Number:	ATL90LA088
Date & Time:	March 29, 1990, 20:55 Local	Registration:	N7061V
Aircraft:	MOONEY M20F	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

DURING A DESCENT FOR LANDING AT 4500 FEET PART OF THE PROPELLER BLADE SEPARATED FROM THE ACFT. THE PILOT WAS VECTORED TOWARD AN AIRPORT BUT HAD TO MAKE A FORCED LANDING SHORT. THE GEAR WAS NOT EXTENDED & THE ACFT SLID ONTO AN INTERSTATE HWY. IT HIT A PASSING VAN. EXAMINATION OF THE PROPELLER BLADE FRACTURE WHICH REMAINED SHOWED THAT IT FAILED FROM FATIGUE WHICH INITIATED ON THE CAMBER SURFACE OF THE BLADE. THE PILOT SAID HE HAD BEEN OPERATING FROM AN AIRSTRIP WITH A STONE SURFACE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FATIGUE FAILURE OF THE PROPELLER BLADE WHICH RESULTED IN A FORCED OFF-AIRPORT LANDING.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: DESCENT - NORMAL

Findings

1. PROPELLER SYSTEM/ACCESSORIES, BLADE - FAILURE, TOTAL
2. (C) PROPELLER SYSTEM/ACCESSORIES, BLADE - FATIGUE

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

Findings

3. LIGHT CONDITION - DARK NIGHT

Occurrence #3: GEAR NOT EXTENDED
Phase of Operation: LANDING

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING - ROLL

Findings

4. TERRAIN CONDITION - ROADWAY/HIGHWAY

5. OBJECT - VEHICLE

Factual Information

Pilot Information

Certificate:	Commercial	Age:	61, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	May 4, 1988
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	10000 hours (Total, all aircraft), 800 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N7061V
Model/Series:	M20F M20F	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	22-1403
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2740 lbs
Time Since Last Inspection:	0 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:		Engine Model/Series:	IO-360-A1A
Registered Owner:	WATTS, THOMAS E., JR.	Rated Power:	200 Horsepower
Operator:	CARGILE, NEIL H.	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:	Night/dark
Observation Facility, Elevation:	BNA ,600 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	21:16 Local	Direction from Accident Site:	320°
Lowest Cloud Condition:	Scattered / 2500 ft AGL	Visibility	8 miles
Lowest Ceiling:	Broken / 3700 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	14°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	WEST PALM BEACH, FL (PBI)	Type of Flight Plan Filed:	None
Destination:	NASHVILLE , TN (BNA)	Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	

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 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	35.850002,-86.390426(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Preston
Additional Participating Persons:	ROBERT D DAVIDSON; NASHVILLE , TN BERNARD DEESE; NASHVILLE , TN
Original Publish Date:	November 9, 1992
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=8224

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](#).