



Aviation Investigation Final Report

Location:	CUMBERLAND IS., Georgia	Accident Number:	ATL92LA071
Date & Time:	March 28, 1992, 17:00 Local	Registration:	N1975Y
Aircraft:	MOONEY M20D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

AT ABOUT 60-70 FEET ABOVE THE GROUND, DURING THE INITIAL CLIMB AFTER TAKE OFF, THE ENGINE RPM DECREASED. HARDWOOD TREES BOUNDED THE RUNWAY DEPARTURE THRESHOLD & THE PILOT ELECTED TO TURN BACK TO THE AIRSTRIP. THE AIRPLANE STALLED, DRAGGED THE RIGHT WING TIP, & COLLIDED WITH THE GROUND. THE PILOT STATED THAT A SPARK PLUG BLEW OUT & THAT THE CYLINDER SPARK PLUG HOLE WAS FITTED WITH A HELICOIL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE LOSS OF THE SPARK PLUG AT A CRITICAL POINT IN FLIGHT WHICH RESULTED FROM THE INADEQUATE OVERHAUL OF THE ENGINE BY AN UNKNOWN PERSON; AND THE INADVERTENT STALL OF THE AIRPLANE WHEN THE PILOT FAILED TO MAINTAIN AIRSPEED. A FACTOR WAS THE HIGH OBSTRUCTIONS (TREES) WHICH BOUNDED THE RUNWAY DEPARTURE THRESHOLD.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) IGNITION SYSTEM, SPARK PLUG - SEPARATION

2. (C) MAINTENANCE,OVERHAUL - INADEQUATE - UNKNOWN
3. SINGLE ENGINE AIRCRAFT - OTHER

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. (C) AIRSPEED(VS) - NOT MAINTAINED - PILOT IN COMMAND
5. (C) STALL - INADVERTENT - PILOT IN COMMAND
6. (F) TERRAIN CONDITION - HIGH OBSTRUCTION(S)

Factual Information

Pilot Information

Certificate:	Private	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 Expired	Last FAA Medical Exam:	September 26, 1989
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	895 hours (Total, all aircraft), 386 hours (Total, this make and model), 2 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	MOONEY	Registration:	N1975Y
Model/Series:	M20D M20D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	240
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	January 2, 2000 100 hour	Certified Max Gross Wt.:	2500 lbs
Time Since Last Inspection:	2 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3770 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360
Registered Owner:	DAVIS, J.R. & HILL, M.L.	Rated Power:	180 Horsepower
Operator:	DAVIS, J.R. & HILL, M.L.	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:	Day
Observation Facility, Elevation:	SSI, 12 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	17:47 Local	Direction from Accident Site:	20°
Lowest Cloud Condition:	Scattered / 25000 ft AGL	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	130°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	14°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	CUMBERLAND IS. NONE	Runway Surface Type:	Grass/turf
Airport Elevation:	15 ft msl	Runway Surface Condition:	Dry
Runway Used:	22	IFR Approach:	None
Runway Length/Width:	2500 ft / 25 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	30.790128,-81.660499(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Preston
Additional Participating Persons:	KELLY MARTIN; ATLANTA , GA
Original Publish Date:	March 24, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=8580

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