



Aviation Investigation Final Report

Location:	HOLLANDALE, Mississippi	Accident Number:	MIA91LA202
Date & Time:	July 18, 1991, 17:45 Local	Registration:	N9541J
Aircraft:	CESSNA A188B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

WHILE MANEUVERING, THE ENG QUIT & THE ACFT WAS DAMAGED DURING THE FORCED LANDING IN A FIELD. EXAM OF THE ENG REVEALED THAT THE NO. 5 CYLINDER CONNECTING ROD CAP SEPARATED. ONE OF THE TWO BOLTS (NO. 1) FAILED DUE TO OVERLOAD. DUE TO DAMAGE TO THE OTHER BOLT (NO. 2), NO DETERMINATION COULD BE MADE AS TO THE REASON FOR THE FAILURE. BOLT NO. 1 WAS EXAMINED & FOUND TO HAVE SIGNATURES ALONG ITS LENGTH. AN UNDAMAGED ROD WAS REMOVED & THE END CAP INSTALLED. THE SIGNATURES OF BOLT NO. 1 WAS COMPARED WITH THE REMOVED ROD & IT WAS DETERMINED THAT THE BOLT WAS LOOSE & THE NUT HAD BACKED OFF APPROXIMATELY 1/2 INCH. REVIEW OF THE ENG LOGBOOK REVEALED THAT IT WAS OVERHAULED ON 09/03/80. THE ROD BOLTS & NUTS WERE REPLACED AT THAT TIME. AT THE TIME OF THE ACCIDENT THE ENG HAD ACCUMULATED APPROXIMATELY 654 HRS SINCE OVERHAUL. NO DETERMINATION COULD BE MADE AS TO THE REASON FOR THE LOOSE ROD BOLT ASSY.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: OVERLOAD FAILURE OF THE NO. 5 CYLINDER CONNECTING ROD BOLT DUE TO BEING LOOSE FOR UNDETERMINED REASONS. THIS RESULTED IN THE DAMAGE DURING THE FORCED LANDING FOLLOWING TOTAL LOSS OF ENGINE POWER.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD BOLT - LOOSE
2. (C) ENGINE ASSEMBLY,CONNECTING ROD BOLT - OVERLOAD
3. (C) ENGINE ASSEMBLY,CONNECTING ROD BOLT - UNDETERMINED

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

Occurrence #3: MISCELLANEOUS/OTHER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	40, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 23, 1990
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	8000 hours (Total, all aircraft), 5000 hours (Total, this make and model), 219 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N9541J
Model/Series:	A188B A188B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	18803819T
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	March 3, 1991 Annual	Certified Max Gross Wt.:	4200 lbs
Time Since Last Inspection:	219 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4500 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	IO-720-A1B
Registered Owner:	PLANTERS FLIGHT SERVICE, INC.	Rated Power:	400 Horsepower
Operator:	PLANTERS FLIGHT SERVICE, INC.	Operating Certificate(s) Held:	
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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	5 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	225°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	29°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	17:30 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:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	1 None	Latitude, Longitude:	33.170635,-90.849388(est)

Administrative Information

Investigator In Charge (IIC):	Monville, Timothy
Additional Participating Persons:	GERALD DOZIER; JACKSON , MS
Original Publish Date:	May 5, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=32916

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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](#).