



Aviation Investigation Final Report

Location:	ST. AUGUSTINE, Florida	Accident Number:	ATL92LA166
Date & Time:	August 25, 1992, 09:15 Local	Registration:	N37800
Aircraft:	SIKORSKY UH-19D	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

THE PILOT STATED THAT AS HE WAS BEGINNING HIS EXTERNAL LOAD OPERATION, THE ENGINE LOST PARTIAL POWER AND HE WAS FORCED TO EXECUTE AN EMERGENCY LANDING. HE STATED THAT HE LANDED HARD IN THE UNIMPROVED AREA, AND THE AIRCRAFT SUSTAINED SUBSTANTIAL DAMAGE AS A RESULT OF THE HARD LANDING. EXAMINATION OF THE ENGINE REVEALED THAT A ROCKER ARM FAILED, RESULTING IN THE SEIZURE OF THE EXHAUST VALVE IN THE OPEN POSITION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE ENGINE'S EXHAUST VALVE ROCKER ARM.

Findings

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

Findings

1. (C) ENGINE ASSEMBLY,ROCKER ARM/TAPPET - FAILURE,TOTAL
2. ENGINE ASSEMBLY,VALVE,EXHAUST - SEIZED

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

Occurrence #3: HARD LANDING
Phase of Operation: DESCENT - EMERGENCY

Factual Information

Pilot Information

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 26, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	7000 hours (Total, all aircraft), 600 hours (Total, this make and model), 6800 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SIKORSKY	Registration:	N37800
Model/Series:	UH-19D UH-19D	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	55-4944
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	August 23, 1992 Continuous airworthiness	Certified Max Gross Wt.:	7900 lbs
Time Since Last Inspection:	1 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	CURTIS WRIGHT
ELT:	Not installed	Engine Model/Series:	R-1300-3
Registered Owner:	MITCHELL III, WILLIAM L.	Rated Power:	800 Horsepower
Operator:	MITCHELL III, WILLIAM L.	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	MHSL

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CRG ,20 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	08:00 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	Scattered / 2500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	75°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	26°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	08:28 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 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Sasser, Roff
Additional Participating Persons:	JAMES F GUEST; JACKSONVILLE , FL
Original Publish Date:	July 29, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=8652

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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](#).