



Aviation Investigation Final Report

Location: Saint James, Louisiana Accident Number: FTW85FA310

Date & Time: August 8, 1985, 12:15 Local Registration: N1385W

Aircraft: BELL UH-1B Aircraft Damage: Destroyed

Defining Event: Injuries: 1 Fatal

Flight Conducted Under: Part 133: Rotorcraft ext. load

Analysis

ACFT WAS AT A 150' HOVER PREPARING TO PICK UP A LOG WHEN IT EXPERIENCED A POWER LOSS. WITNESSES STATED THAT THEY HEARD A LOUD 'BANG' AND THE PILOT RADIOED 'GET OUT OF THE WAY'. ACFT AUTOROTATED THRU 60' TO 80' TREES WITH VERY LOW ROTOR RPM AND IMPACTED WITH NO HORZ SPEED AND HIGH VERTICAL SPEED. INVESTIGATION REVEALED THAT ENG HAD EXPERIENCED SEVERE INTERNAL DAMAGE. FOUR COMPRESSOR BLADES FROM THE 4TH STAGE ROTOR WERE FOUND TO HAVE SUFFERED PROGRESSIVE FATIGUE FAILURE, WHICH IN TURN CAUSED THE REMAINDER OF THE BLADES ON THE 4TH AND 5TH STAGES TO SEPARATE LEADING TO AN ENG SURGE AND LOSS OF POWER. THE ACCIDENT OCCURRED IN A FLT REGIME FROM WHICH THE PLT COULD NOT AFFECT A RECOVERY FROM THE ENG FAILURE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

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

Phase of Operation: HOVER

Findings

1. (C) COMPRESSOR ASSEMBLY, BLADE - FAILURE, TOTAL

2. (C) COMPRESSOR ASSEMBLY, BLADE - FATIGUE

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: LOSS OF CONTROL - IN FLIGHT Phase of Operation: DESCENT - EMERGENCY

Findings

3. (C) ROTOR RPM - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. (F) TERRAIN CONDITION - NONE SUITABLE

5. (F) TERRAIN CONDITION - HIGH VEGETATION

Page 2 of 5 FTW85FA310

Factual Information

Pilot Information

Certificate:	Commercial	Age:	Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N1385W
Model/Series:	UH-1B UH-1B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	62-2072
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	August 6, 1985 AAIP	Certified Max Gross Wt.:	8500 lbs
Time Since Last Inspection:	4 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	5763 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	T53-11D
Registered Owner:		Rated Power:	1000 Horsepower
Operator:	SKYLINE AIR SERVICE, INC.	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

Page 3 of 5 FTW85FA310

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:	Scattered / 2000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Vegetation;Wet
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	29.977006,-90.82892(est)

Page 4 of 5 FTW85FA310

Administrative Information

Investigator In Charge (IIC):	Wandel, Warren	
Additional Participating Persons:	J. D SMITH; BATON ROUGE , LA	
Original Publish Date:	June 12, 2023	
Last Revision Date:		
Investigation Class:	<u>Class</u>	
Note:		
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=21567	

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.

Page 5 of 5 FTW85FA310