



Aviation Investigation Final Report

Location:	FUQUAY-VARINA, North Carolina	Accident Number:	ATL92FA029
Date & Time:	December 7, 1991, 00:15 Local	Registration:	N26FH
Aircraft:	AEROSPATIALE AS350D ASTAR	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal, 1 Serious
Flight Conducted Under:	Part 91: General aviation - Other work use		

Analysis

THE NEWS HELICOPTER WAS RETURNING FROM A REPORTING ASSIGNMENT AT NIGHT IN VMC CONDITIONS. THE SOLE SURVIVOR, A SPORTSCASTER, REPORTED THAT ABOUT 20 TO 25 MINUTES BEFORE THE CRASH, THE ENGINE CHIP LIGHT CAME ON. THE LIGHT CAME ON AND WAS RESET BY THE PILOT 5 TO 10 TIMES. THERE WAS ALSO A LOSS OF TORQUE ON THE TORQUE GAUGE. SUBSEQUENTLY, THE ENGINE LOST POWER & THE HELICOPTER CRASH LANDED IN AN OPEN FIELD. AN INSPECTION OF THE ENGINE REVEALED THE #2 BEARING HAD SEIZED, RESULTING IN FAILURE OF THE COMPRESSOR SHAFT. THE #2 BEARING HAD BEEN REPLACED DURING RECENT ENGINE MAINTENANCE, AND THERE WAS ONLY ABOUT 125 HOURS ON THE NEW BEARING. THE OIL JET TO THE BEARING WAS NOT BLOCKED OR CLOGGED. THERE WERE TORQUE FLUCTUATIONS OBSERVED ON TWO OCCASIONS DURING THE WEEK BEFORE TO THE ACCIDENT. SEVERAL COMPONENTS WERE CHANGED IN AN ATTEMPT TO PINPOINT THE PROBLEM. THE SURVIVOR'S SEAT BELT FAILED IN THE CRASH DUE TO AN IMPROPER INSTALLATION, AND HE WAS THROWN CLEAR OF THE WRECKAGE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER DECISION IN CONTINUING THE FLIGHT WITH A KNOWN ENGINE PROBLEM, AND THE SUBSEQUENT SEIZURE OF THE NUMBER TWO ENGINE BEARING, RESULTING IN ENGINE STOPPAGE. DARKNESS WAS A RELATED FACTOR.

Findings

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

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - CONTINUED - PILOT IN COMMAND
3. (C) ENGINE ASSEMBLY,BEARING - SEIZED

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

4. AUTOROTATION - ATTEMPTED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - EMERGENCY

Findings

5. (F) LIGHT CONDITION - DARK NIGHT
6. MISC EQPT/FURNISHINGS,SEAT BELT - FAILURE,TOTAL
7. MAINTENANCE,INSTALLATION - IMPROPER - COMPANY MAINTENANCE PERSONNEL

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	48, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	January 8, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	7215 hours (Total, all aircraft), 931 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	AEROSPATIALE	Registration:	N26FH
Model/Series:	AS350D ASTAR AS350D AST	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1331
Landing Gear Type:	High skid	Seats:	6
Date/Type of Last Inspection:	November 13, 1991 100 hour	Certified Max Gross Wt.:	4300 lbs
Time Since Last Inspection:	23 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	2716 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	LTS-101-600A2
Registered Owner:	EQUIPMENT LEASORS OF PA, INC.	Rated Power:	590 Horsepower
Operator:	EQUIPMENT LEASORS OF PA, INC.	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:	RDU ,437 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	23:50 Local	Direction from Accident Site:	345°
Lowest Cloud Condition:	Unknown	Visibility	12 miles
Lowest Ceiling:	Broken	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	4°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	WILMINGTON , NC (NONE)	Type of Flight Plan Filed:	None
Destination:	DURHAM , NC (NONE)	Type of Clearance:	None
Departure Time:	23:30 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 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal, 1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal, 1 Serious	Latitude, Longitude:	35.539497,-78.830444(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Ralph
Additional Participating Persons:	JEFF HALLIDAY; MORRISVILLE , NC EUGENE TRIOZZI; BOSTON , MA
Original Publish Date:	January 27, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=8490

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