



Aviation Investigation Final Report

Location:	CHARLOTTE, North Carolina	Accident Number:	ATL87LA040
Date & Time:	December 10, 1986, 14:00 Local	Registration:	N58188
Aircraft:	HUGHES 269C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

WHILE FLYING AT 300' TO 500' AGL ON A CABLE PATROL FLT, THE PLT HEARD A LOUD LOISE. THE ROTOR RPM STARTED TO DECAY & THE ENG RPM INCREASED SHARPLY. THE PLT INITIATED AN AUTOROTATION TO A PARKING LOT, BUT HAD TO MANEUVER TO AVOID TREES & A VEHICLE. THE HELICOPTER TOUCHED DOWN HARD ON THE RGT SKID, COLLAPSING THE SKID & DAMAGING THE MAIN ROTOR BLADES. AN INV REVEALED THE FORWARD COUPLING SPLINES ON THE LOWER PULLEY DRIVE SHAFT, PN 269A5559-3, HAD FAILED, EFFECTIVELY DISCONNECTING THE ENG FROM THE MAIN ROTOR. THE BOOT FOR RETAINING THE LUBRICANT IN THE SPLINE AREA WAS MISSING & THE SPLINE & RECEPTACLE WERE DRY OF LUBRICANT. THE ACDNT OCCURRED ABOUT 71 HRS AFTER THE COUPLINGS HAD BEEN REPACKED WITH LUBRICANT.

Probable Cause and Findings

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

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE

Findings

1. (C) ROTOR DRIVE SYSTEM,ENGINE TO TRANSMISSION DRIVE - FAILURE,PARTIAL

2. (C) MAINTENANCE - IMPROPER - COMPANY MAINTENANCE PERSONNEL

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

3. AUTOROTATION

Occurrence #3: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (F) TERRAIN CONDITION - HIGH OBSTRUCTION(S)

5. (F) OBJECT - VEHICLE

6. MANEUVER - PERFORMED

Factual Information

Pilot Information

Certificate:	Commercial; Private	Age:	35, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 13, 1986
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	4500 hours (Total, all aircraft), 900 hours (Total, this make and model), 200 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HUGHES	Registration:	N58188
Model/Series:	269C 269C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	380675
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	November 15, 1986 100 hour	Certified Max Gross Wt.:	1670 lbs
Time Since Last Inspection:	58 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	6118 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	HIO-360-D1A
Registered Owner:	MID STATES HELICOPTER, INC.	Rated Power:	190 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	FPUA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CLT ,749 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	14:52 Local	Direction from Accident Site:	274°
Lowest Cloud Condition:	Scattered / 1500 ft AGL	Visibility	15 miles
Lowest Ceiling:	Overcast / 12000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	18°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BURLINGTON , NC (BUY)	Type of Flight Plan Filed:	None
Destination:	CHARLOTTE , NC (8A6)	Type of Clearance:	None
Departure Time:	12:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	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:	35.230587,-80.840843(est)

Administrative Information

Investigator In Charge (IIC): Stiner, Walter

Additional Participating Persons: WALTER G STINER;

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=7357>

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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](#).