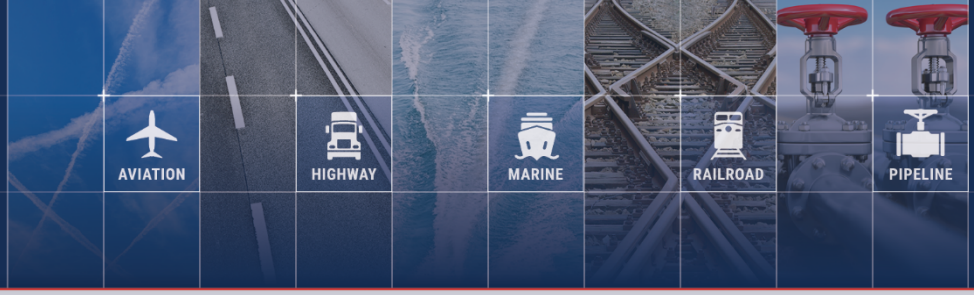

Aviation Investigation Factual Report

Location:	Miami, Florida	**Accident Number:**	ERA24FA075
Date & Time:	December 27, 2023, 12:59 Local	**Registration:**	N757TB
Aircraft:	HUGHES HELICOPTERS INC 369E	**Aircraft Damage:**	Substantial
Defining Event:	Part(s) separation from AC	**Injuries:**	1 Fatal, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Factual Information

On December 27, 2023, at 1259 eastern standard time, a Hughes 369E helicopter, N757TB, was substantially damaged when it was involved in an accident near Miami, Florida. The pilot was fatally injured, and the passenger sustained minor injuries. The helicopter was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the passenger, who was the pilot's daughter, the purpose of the flight was to drop off her brother at Page Field Airport (FMY), Fort Myers, Florida. They departed Miami Executive Airport (TMB), Miami, Florida, about 1030. They arrived at FMY with no issues and were on the ground about 30 minutes before departing to return to TMB. She further stated that the flight home was normal, and she did not notice anything; however, when the helicopter was about 5 miles west of TMB, it yawed to the right and the began spinning out of control. The helicopter impacted the water and her door opened. She exited the helicopter and swam to shore.

The helicopter was located at the bottom of a canal, at a water depth of about 20 ft. Damage to the bottom of the helicopter was consistent with its impacting the water in a near-vertical descent. The tail boom was fractured forward of the vertical stabilizer and was located about 450 ft from the main wreckage. Flight control continuity was observed to all primary flight controls through the fractured tail boom.

The engine remained securely attached to the respective mount struts on the engine gearbox. The aft strut on the left side mount had fractured at the rod end connection with the strut tube. Rotation of the engine power turbine, in the driving direction, resulted in rotation of the engine-to-transmission driveshaft and the main rotor head. Additionally, functionality of the overrunning clutch, both in the drive and freewheeling directions of rotation, was confirmed. A borescope was used to examine the combustion liner, nozzle shield, and first-stage gas producer turbine nozzle and blades. All the associated components appeared visually unremarkable.

The main rotor and main transmission remained installed on the helicopter. All main rotor head components remained installed with no evidence of separation or fractures. The main rotor blades were cut near their root ends to facilitate recovery of the wreckage. The main rotor blades did not exhibit fragmentation, and all were full length. The main rotor blades exhibited chordwise deformation, with two blades exhibiting significant chordwise and downward deformation near their root ends. At the trailing edge of one blade, the upper and lower skins had splayed open at the tip end

The aft portion of the tail boom containing the tail rotor and T-tail stabilizer (empennage) was fractured and separated about 57 inches aft of the tail boom-to-main fuselage attachment and

about 25 inches forward of the tail rotor gearbox attachment. The tail rotor gearbox remained installed on the aft end of the tail boom, the latter of which was fractured and separated from the main wreckage. The tail rotor blades remained installed on the tail rotor hub and did not exhibit anomalous damage other than damage due to submersion in the canal. Rotation of the tail rotor resulted in a corresponding rotation of the tail rotor drive shaft that remained within the [separated] empennage. The tail rotor drive shaft was fractured at the location of the tail boom fracture. Rotation of the tail rotor drive shaft resulted in a corresponding rotation of the main rotor, confirming continuity of tail rotor drive from the main transmission, with no evidence of binding.

Pilot Information

Certificate:	Commercial	**Age:**	71,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	May 4, 2022
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	1270 hours (Total, all aircraft), 187 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	HUGHES HELICOPTERS INC	**Registration:**	N757TB
Model/Series:	369E	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	0166E
Landing Gear Type:	Skid	**Seats:**	5
Date/Type of Last Inspection:	August 18, 2023 Annual	**Certified Max Gross Wt.:**	2700 lbs
Time Since Last Inspection:		**Engines:**	1 Turbo shaft
Airframe Total Time:	7468 Hrs as of last inspection	**Engine Manufacturer:**	Rolls royce
ELT:	Not installed	**Engine Model/Series:**	M250-C20B
Registered Owner:	On file	**Rated Power:**	650 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	TMB,6 ft msl	**Distance from Accident Site:**	3 Nautical Miles
Observation Time:	12:53 Local	**Direction from Accident Site:**	99°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots / None	**Turbulence Type Forecast/Actual:**	None / None
Wind Direction:	320°	**Turbulence Severity Forecast/Actual:**	N/A / N/A
Altimeter Setting:	29.93 inches Hg	**Temperature/Dew Point:**	24°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Myers, FL (FMY)	**Type of Flight Plan Filed:**	None
Destination:	Miami, FL	**Type of Clearance:**	None
Departure Time:	12:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	MIAMI EXEC TMB	**Runway Surface Type:**	
Airport Elevation:	10 ft msl	**Runway Surface Condition:**	Dry
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 None	**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 1 None	**Latitude, Longitude:**	25.650548,-80.497849

Administrative Information

Investigator In Charge (IIC):	Boggs, Daniel
Additional Participating Persons:	Nicholas Shepler; Rolls-Royce; Indiapolis, IN Michael Torrent; FAA/FSDO; Miami, FL
Report Date:	
Last Revision Date:	
Investigation Class:	Class 3
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=193575

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.