



Aviation Investigation Final Report

Location:	HATTIESBURG, Mississippi	Accident Number:	MIA98LA236
Date & Time:	August 30, 1998, 16:30 Local	Registration:	N9GH
Aircraft:	Hall MINI 500	Aircraft Damage:	Substantial
Defining Event:	REVOLUTION	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that as he hovered forward at a brisk walk, he heard the low rotor rpm horn. He lowered the collective and the helicopter descended rapidly and touched down on the 'toes' of the skids. The helicopter bounced back into the air and the cyclic control grip separated from the cyclic control stick. The cyclic control moved to the full aft position and the main rotor blades contacted the tail boom.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the pilot to maintain main rotor rpm during a forward hover and the cyclic grip separating during the resultant bounced landing resulting in the pilot losing cyclic control and the main rotor contacting the tail boom. A factor in the accident was the pilot's lack of total time in the make and model.

Findings

Occurrence #1: HARD LANDING
Phase of Operation: HOVER

Findings

1. (C) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND
2. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
3. DESCENT - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

4. (C) ROTORCRAFT FLIGHT CONTROL,CYCLIC CONTROL - SEPARATION

Occurrence #3: MISCELLANEOUS/OTHER
Phase of Operation: OTHER

Findings

5. MISC ROTORCRAFT,MAIN ROTOR/TAIL BOOM CONTACT

Factual Information

On August 30, 1998, about 1500 central daylight time, a Hall Revolution Mini 500 homebuilt helicopter, N9GH, registered to an individual, landed hard at Hattiesburg, Mississippi, while on a Title 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The airline transport-rated pilot was not injured and the helicopter received substantial damage. The flight was originating at the time of the accident.

The pilot stated that as he hovered forward at a brisk walk, he heard the low rotor rpm horn and reduced the collective control. The helicopter descended rapidly and touched down on the "toes" of the skids. The helicopter bounced back into the air and the cyclic control grip separated from the cyclic control stick. The cyclic control stick moved to the full aft position and the main rotor blades contacted the tail boom.

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	40, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 3, 1998
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	6400 hours (Total, all aircraft), 1 hours (Total, this make and model), 100 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hall	Registration:	N9GH
Model/Series:	REVOLUTION MINI 500 REVOLUTION	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	288
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	840 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	99 Hrs	Engine Manufacturer:	Bombardier
ELT:	Not installed	Engine Model/Series:	582
Registered Owner:	GEORGE D. HALL	Rated Power:	67 Horsepower
Operator:	FREDERICK M. JONES	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:	Day
Observation Facility, Elevation:	GPT ,28 ft msl	Distance from Accident Site:	50 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Scattered / 3000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	32°C / 26°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(HBG)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	16:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	BOBBY L. CHAIN MUNC. HGB	Runway Surface Type:	
Airport Elevation:	151 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/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:	31.310865,-89.300224(est)

Administrative Information

Investigator In Charge (IIC):	Kennedy, Jeffrey
Additional Participating Persons:	DAN MALONE; JACKSON , MS
Original Publish Date:	April 6, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=43894

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