



# **Aviation Investigation Final Report**

Location: DAVISON, Michigan Accident Number: CHI82DA245

Date & Time: July 12, 1982, 16:40 Local Registration: N8902F

Aircraft: HUGHES 269A Aircraft Damage: Substantial

**Defining Event:** 2 None

Flight Conducted Under: Part 91: General aviation - Instructional

### **Analysis**

THE STUDENT PILOT WAS MAKING A 180 DEGREE PEDAL TURN TO THE RIGHT WHILE HOVERING. THE INSTRUCTOR PILOT (IP) STATED THAT AFTER 90 DEGREES OF TURN, THE RATE OF TURNING STARTED TO INCREASE AND THE STUDENT APPLIED LEFT PEDAL TO SLOW THE TURN. THE IP NOTED THAT THE RPM HAD DROPPED BELOW THE NORMAL RANGE AND TOOK CONTROL OF THE HELICOPTER. THE IP INCREASED THE RPM AND ADDED LEFT PEDAL, BUT THE HELICOPTER CONTINUED TO TURN TO THE RIGHT. HE THEN INITIATED A HOVERING AUTOROTATION, BUT DURING TOUCHDOWN, THE HELICOPTER ROLLED OVER.

### **Probable Cause and Findings**

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

### **Findings**

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: HOVER

#### **Findings**

1. (C) ROTOR RPM - NOT MAINTAINED - DUAL STUDENT

2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - DUAL STUDENT

3. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

\_\_\_\_

Occurrence #2: ROLL OVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
4. AUTOROTATION - ATTEMPTED - PILOT IN COMMAND(CFI)

Page 2 of 5 CHI82DA245

# **Factual Information**

### **Pilot Information**

Certificate:	Commercial; Flight instructor	Age:	33,Male
Airplane Rating(s):		Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medicalno waivers/lim.	Last FAA Medical Exam:	January 19, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1350 hours (Total, all aircraft), 71 hours (Total, this make and model), 1184 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

## **Aircraft and Owner/Operator Information**

Aircraft Make:	HUGHES	Registration:	N8902F
Model/Series:	269A 269A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	83-0279
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	1550 lbs
Time Since Last Inspection:	37 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4556 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	HIO-360-B1A
Registered Owner:	HELICOPTERS LTD.	Rated Power:	200 Horsepower
Operator:	HELICOPTERS LTD.	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	

Page 3 of 5 CHI82DA245

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:	
<b>Lowest Cloud Condition:</b>	Clear	Visibility	15 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	20 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	78°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ation	
Departure Point:	FLINT , MI	Type of Flight Plan Filed:	None
Destination:	FLINT , MI	Type of Clearance:	None
Departure Time:	16:10 Local	Type of Airspace:	

# **Airport Information**

Airport:	DAVISON.GENOVA 6G0	Runway Surface Type:	Asphalt
Airport Elevation:	0 ft msl	<b>Runway Surface Condition:</b>	Dry
Runway Used:	26	IFR Approach:	None
Runway Length/Width:	3526 ft / 40 ft	VFR Approach/Landing:	None

# Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	

Page 4 of 5 CHI82DA245

#### **Administrative Information**

Investigator In Charge (IIC):

**Additional Participating** 

Persons:

Original Publish Date: July 12, 1983

**Last Revision Date:** 

Investigation Class: Class

Note:

Investigation Docket: <a href="https://data.ntsb.gov/Docket?ProjectID=70417">https://data.ntsb.gov/Docket?ProjectID=70417</a>

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 CHI82DA245