



Aviation Investigation Final Report

Location:	RAVENNA, Ohio	Accident Number:	IAD00LA056
Date & Time:	June 30, 2000, 20:05 Local	Registration:	N20PZ
Aircraft:	Enstrom F28C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

Several witnesses stated the helicopter experienced a 'hard' landing, bounced, and then rolled over. After the accident, witnesses and emergency personnel said the student pilot appeared uninjured but exhibited right facial droop, weakness on his right side, and slurred speech. The student pilot's wife said her husband had suffered a stroke. The Safety Board's medical officer reviewed the student pilot's medical records and provided a report. According to the report: 'The CAT scan report dated the same day as the accident notes: '1. Cerebral hemorrhage is noted in the left cerebral hemisphere in the left basal ganglia. This measures approximately 2.5 to 3 cm. in size. 2. Intraventricular hemorrhages are noted in both lateral ventricles and the third ventricle.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the student pilot's loss of helicopter control after suffering a stroke in flight.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING

Findings

1. AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND
2. (C) PHYSICAL IMPAIRMENT(STROKE) - PILOT IN COMMAND

Occurrence #2: ROLL OVER
Phase of Operation: LANDING

Factual Information

On June 30, 2000, at 2005 Eastern Daylight Time, an Enstrom F28C, N20PZ, was substantially damaged during rollover after landing at the Portage County Airport (29G), Ravenna, Ohio. The certificated student pilot/owner received minor injuries. Visual meteorological conditions prevailed for the solo instructional flight that originated at 29G, about 1950. No flight plan was filed for the flight conducted under 14 CFR Part 91.

Several witnesses observed the accident flight and provided statements to the Ohio State Highway Patrol. The statements were in a narrative and question and answer format. One witness observed the accident from the cockpit of his airplane while parked at the approach end of runway 27. According to his statement:

"The helicopter was coming from the east end of the runway a little to the north of it. He flew to the south side of the runway. It appeared he was going to touch down there on the grass. When he touched down, it appeared he touched down hard. The helicopter came back up about 2 feet or more off the ground. I don't know if it bounced up or if he brought it up off the ground intentionally. He was still facing the west when it came back off the ground. The craft became unstable and rotated towards the south. The [main] rotor then hit the ground."

According to the airplane passenger's statement:

"[The] helicopter came in from the east and hovered about 1/4 of the way down the runway. He sat down on the side of the runway in the grass. When he sat down, he landed very hard. The helicopter bounced up from the ground and tilted to the south. The [main rotor] blades caught the ground and pulled it over."

According to the statement from the student's instructor:

"I was at the NE corner of the airport when I saw [student pilot] in the helicopter as he was about to land. I heard him hit the ground. I turned and saw the helicopter blades hit the ground and the helicopter roll on its side."

When asked by the Ohio State Highway Patrol if there was any unusual "engine or propeller noise", the witnesses said there was none.

During interviews, the witnesses said they helped the student pilot egress the helicopter. They said he appeared uninjured, but that he mumbled his speech. One witness said, "He was conscious, he knew his name, but he really didn't seem coherent." Another witness said the pilot's right arm hung limply at his side. Emergency personnel who responded to the scene noted the student pilot exhibited right facial droop, weakness on his right side, and slurred

speech.

In a telephone interview, the pilot's wife said her husband had suffered a stroke.

The Safety Board's medical officer reviewed the student pilot's medical records and provided a report. According to the report:

"The CAT scan report dated the same day as the accident notes: '1. Cerebral hemorrhage is noted in the left cerebral hemisphere in the left basal ganglia. This measures approximately 2.5 to 3 cm. in size. 2. Intraventricular hemorrhages are noted in both lateral ventricles and the third ventricle'."

The weather reported at Akron, Ohio, 10 miles southwest of 29G was clear with 10 miles visibility and calm winds.

Pilot Information

Certificate:	Student	Age:	80, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	July 30, 1999
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	150 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Enstrom	Registration:	N20PZ
Model/Series:	F28C F28C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	493-2
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2150 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3473 Hrs	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	H10-360-C1A
Registered Owner:	HERSHEY LERNER	Rated Power:	205 Horsepower
Operator:		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:	CAK ,1228 ft msl	Distance from Accident Site:	9 Nautical Miles
Observation Time:	19:51 Local	Direction from Accident Site:	20°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	15°C / 10°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(29G)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	19:50 Local	Type of Airspace:	Class G

Airport Information

Airport:	PORTAGE COUNTY AIRPORT 29G	Runway Surface Type:	Asphalt
Airport Elevation:	1197 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	3500 ft / 75 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	41.149394,-81.240623(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	KEN SHAUMAN; CLEVELAND , OH
Original Publish Date:	December 18, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=49671

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](#).