



National Transportation Safety Board Aviation Accident Factual Report

Location:	INDIANAPOLIS, IN	Accident Number:	CHI00LA002
Date & Time:	10/02/1999, 1040 EST	Registration:	N602H
Aircraft:	Enstrom EN-28	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Minor

Flight Conducted Under: Part 91: General Aviation - Personal

On October 2, 1999, at 1040 eastern standard time, an Enstrom EN-28, N602H, sustained substantial damage during an autorotational landing in a construction area, near the Downtown Indianapolis Heliport, in Indianapolis Indiana, following a partial loss of engine power. The pilot and one passenger reported minor injuries. The personal 14 CFR Part 91 flight was operating in visual meteorological conditions. No flight plan was on file. The flight was originating at the time of the accident.

The pilot said that prior to initiating the flight he conducted a "run-up." He said, during the magneto check the engine ran rough and exceeded the normal magneto drop. He said he continued to run the engine at high RPM and leaned the fuel mixture for a minute. He said he then conducted another "run-up" and the magneto drop was within specified limits.. He stated that during the initial climb the engine began to "pop" and the rotor RPM was dropping. He said he elected to attempt a turn to the heliport; however, due to the continued loss of power he elected to conduct an autorotational landing in a gravel construction area. During the autorotational landing the helicopter landed hard and received substantial damage.

Subsequent to the accident an examination of the helicopter and engine was conducted. The flight and engine controls were found to work correctly and have continuity. Both magnetos and harnesses were examined and no discrepancies were found. All the spark plugs were removed and examined. The bottom spark plug from the #2 cylinder was oil fouled and did not test fire. The top spark plug from the same cylinder (#2) fired with a weak and intermittent spark. All the other spark plugs test fired. No additional anomalies were found in the helicopter or engine.

Pilot Information

Certificate:	Commercial	Age:	62, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	06/21/1999
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	4758 hours (Total, all aircraft), 147 hours (Total, this make and model), 4758 hours (Pilot In Command, all aircraft), 87 hours (Last 90 days, all aircraft), 23 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Enstrom	Registration:	N602H
Model/Series:	EN-28 EN-28	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	1077
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	03/29/1999, Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:	59 Hours	Engines:	1 Reciprocating
Airframe Total Time:	3272 Hours	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	HIO-360-E1BD
Registered Owner:	HAWK, ROBERT H.	Rated Power:	205 hp
Operator:	HAWK, ROBERT H.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	IND, 797 ft msl	Distance from Accident Site:	7 Nautical Miles
Observation Time:	0956 EST	Direction from Accident Site:	250°
Lowest Cloud Condition:	Scattered / 15000 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	210°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	18° C / 7° C
Precipitation and Obscuration:			
Departure Point:	, IN (IN03)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1040 EST	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	STEPHEN A WILSON
Additional Participating Persons:	JAMES D KING; INDIANAPOLIS, IN
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .