



Aviation Investigation Final Report

Location:	Mosby, Missouri	Accident Number:	DEN08LA081
Date & Time:	April 18, 2008, 17:05 Local	Registration:	N56895
Aircraft:	Enstrom F28C	Aircraft Damage:	Destroyed
Defining Event:	Loss of engine power (total)	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot had been practicing maneuvers in preparation to taking his commercial helicopter practical test. At the completion of these maneuvers, he planned on making a normal approach, terminating in a hover. While on base leg and descending through 1,300 feet, the pilot started slowing to 70 knots. He lowered the collective control and reduced power momentarily. When he opened the throttle again, there was no response from the engine. He initiated an autorotation. Shortly thereafter, he heard the engine running and the engine instruments were reading normal. He decided to attempt a landing on the nearby runway. When he increased the collective and applied forward cyclic, the engine lost power again. The helicopter was low and the pilot attempted to slow down by using aft cyclic control. The helicopter then impacted muddy terrain.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power for reasons undetermined, and the pilot's decision to discontinue the autorotation when he thought engine power had been restored. Contributing to the accident were the low altitude and excessive airspeed.

Findings

Not determined	(general) - Unknown/Not determined
Aircraft	Altitude - Incorrect use/operation
Aircraft	Airspeed - Incorrect use/operation
Personnel issues	Incorrect action performance - Pilot
Environmental issues	Wet/muddy terrain - Not specified

Factual Information

History of Flight

Approach-VFR pattern base	Loss of engine power (total) (Defining event)
Autorotation	Off-field or emergency landing
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On April 18, 2008, approximately 1705 central daylight time, an Enstrom F28C, N56895, piloted by a private pilot, was destroyed when it made a hard landing during an autorotation after the engine lost power during landing approach at Clay County Regional Airport (GPH), Mosby, Missouri. Visual meteorological conditions prevailed at the time of the accident. The personal flight was being conducted under the provisions of Title 14 Code of Federal Regulations (CFR) Part 91 without a flight plan. The pilot, the sole occupant on board, sustained minor injuries. The local flight originated approximately 1630.

According to the pilot's accident report, he had been practicing maneuvers in preparation to taking his commercial helicopter practical test. At the completion of these maneuvers, he planned on making a normal approach, terminating in a hover. While on base leg and descending through 1,300 feet, the pilot started slowing to 70 knots. He lowered the collective control and reduced power momentarily. When he opened the throttle again, there was no response from the engine. "That's when I heard the engine cut out," he said. The pilot initiated an autorotation. Shortly thereafter, he heard the engine running and the engine instruments were reading normal. He decided to attempt a landing on the nearby runway. When he increased the collective and applied forward cyclic, the engine lost power again. The helicopter was low and the pilot attempted slow down by using aft cyclic control. The helicopter then impacted muddy terrain.

In retrospect, the pilot said that after entering the autorotation, he should have completed the maneuver all the way to the ground. Once on the ground, he could then lift the helicopter into a hover to see how then engine would perform.

FAA inspectors who examined the helicopter said they were able to establish fuel continuity from the fuel tank to the fuel injectors. They were unable to determine the reason for the power loss.

Pilot Information

Certificate:	Private	Age:	33, Male
Airplane Rating(s):	None	Seat Occupied:	Left
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 Without waivers/limitations	Last FAA Medical Exam:	September 1, 2006
Occupational Pilot:	No	Last Flight Review or Equivalent:	November 1, 2007
Flight Time:	532 hours (Total, all aircraft), 172 hours (Total, this make and model), 340 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Enstrom	Registration:	N56895
Model/Series:	F28C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	471
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	November 1, 2007 Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	3147 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	HIO-360-1AD
Registered Owner:	Worley Bird Aviation, LLC	Rated Power:	205 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	MCI,1026 ft msl	Distance from Accident Site:	26 Nautical Miles
Observation Time:	16:53 Local	Direction from Accident Site:	258°
Lowest Cloud Condition:		Visibility	5 miles
Lowest Ceiling:	Overcast / 1200 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	280°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.72 inches Hg	Temperature/Dew Point:	8°C / 6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Mosby, MO (GPH)	Type of Flight Plan Filed:	None
Destination:	Mosby, MO (GPH)	Type of Clearance:	None
Departure Time:	16:30 Local	Type of Airspace:	

Airport Information

Airport:	Clay County Regional GPH	Runway Surface Type:	Asphalt
Airport Elevation:	774 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	Unknown
Runway Length/Width:	5502 ft / 100 ft	VFR Approach/Landing:	Forced landing;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	39.343055,-94.316108

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	Marvin Moore; FAA Flight Standards District Office; Kansas City, MO
Original Publish Date:	August 28, 2008
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=67900

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](#).