



# **Aviation Investigation Final Report**

Location: Independence, Ohio Accident Number: CHI06CA236

Date & Time: August 11, 2006, 17:00 Local Registration: N303MM

Aircraft: Enstrom F28C-2 Aircraft Damage: Substantial

**Defining Event:** 2 None

Flight Conducted Under: Part 91: General aviation

## **Analysis**

The helicopter was substantially damaged during a hard landing. The pilot stated that he was landing the helicopter to the east and that the winds were strong and out of the north-northeast. He stated that he was unaware that the winds were different from those at the departure airport about one hour prior to the accident. He stated that as he approached his selected landing spot the helicopter began to lose altitude and rotor RPM and he could not recover with engine power. The helicopter impacted the ground collapsing the left landing skid causing the main rotor blades to strike the ground. The pilot listed no mechanical malfunctions of the helicopter.

## **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain rotor RPM leading to his failure to maintain control of the helicopter and the hard landing.

### **Findings**

Occurrence #1: HARD LANDING Phase of Operation: LANDING

#### **Findings**

1. (C) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND

2. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER Phase of Operation: LANDING

Findings
3. TERRAIN CONDITION - GROUND

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### **Factual Information**

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#### **Pilot Information**

Certificate:	Private	Age:	52,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 With waivers/limitations	Last FAA Medical Exam:	September 1, 2005
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	April 1, 2006
Flight Time:	234 hours (Total, all aircraft), 20 hours (Total, this make and model), 143 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

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

Aircraft Make:	Enstrom	Registration:	N303MM
Model/Series:	F28C-2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	492-2
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:		Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1543 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	IO-360
Registered Owner:	On file	Rated Power:	205 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

## 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:		
Lowest Cloud Condition:		Visibility		
Lowest Ceiling:		Visibility (RVR):		
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/	
Wind Direction:		Turbulence Severity Forecast/Actual:	/	
Altimeter Setting:		Temperature/Dew Point:		
Precipitation and Obscuration:				
Departure Point:	MEDINA, OH (1G5)	Type of Flight Plan Filed:	None	
Destination:	Independence, OH	Type of Clearance:	None	
Departure Time:	16:00 Local	Type of Airspace:		

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## **Wreckage and Impact Information**

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.380832,-81.664169

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#### **Administrative Information**

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.

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