



Aviation Investigation Final Report

Location:	MENOMINEE, Michigan	Accident Number:	CHI88LA168
Date & Time:	July 16, 1988, 09:10 Local	Registration:	N280FX
Aircraft:	ENSTROM 280FX	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

DURING A DEMONSTRATION OF AN AUTOROTATION TO A RUN-ON LANDING, THE HELICOPTER SKIDS DRAGGED IN THE SOFT GRASS UPON TOUCHDOWN, AND THE HELICOPTER VEERED TO THE LEFT. THE PILOT FAILED TO MAINTAIN AIRCRAFT CONTROL WHEN THE HELICOPTER VEERED LEFT, THE RIGHT SKID DUG DEEPER INTO THE TURF AND 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 - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. AUTOROTATION - INITIATED - PILOT IN COMMAND
 2. (F) TERRAIN CONDITION - SOFT
 3. (F) RUN ON LANDING - ATTEMPTED - PILOT IN COMMAND
 4. (C) ROTORCRAFT FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
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Occurrence #2: ROLL OVER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	55, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	November 16, 1987
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	5885 hours (Total, all aircraft), 900 hours (Total, this make and model), 45 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	ENSTROM	Registration:	N280FX
Model/Series:	280FX 280FX	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2001
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	July 15, 1987 Continuous airworthiness	Certified Max Gross Wt.:	2600 lbs
Time Since Last Inspection:	85 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1643 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	HIO-360-F1AD
Registered Owner:	ENSTROM HELICOPTER	Rated Power:	225 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:	GRB ,695 ft msl	Distance from Accident Site:	44 Nautical Miles
Observation Time:	09:51 Local	Direction from Accident Site:	200°
Lowest Cloud Condition:	Scattered / 6000 ft AGL	Visibility	7 miles
Lowest Ceiling:	Broken / 10000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	5 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	23°C / 21°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	MEMOMINEE MNM	Runway Surface Type:	Grass/turf
Airport Elevation:	625 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Simulated forced landing

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:	45.120182,-87.620841 (est)

Administrative Information

Investigator In Charge (IIC):	Reeves, Jodi
Additional Participating Persons:	A. GRAY; GRAND RAPIDS , MI
Original Publish Date:	July 10, 1989
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=14116

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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](#).