



Aviation Investigation Final Report

Location:	COUNCIL BLUFFS, Iowa	Accident Number:	MKC83FA073
Date & Time:	February 25, 1983, 15:38 Local	Registration:	N1040S
Aircraft:	HUGHES TH-55A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

THE STUDENT, WHO WAS A RATED HELICOPTER PLT, AND A HELICOPTER INSTRUCTOR (CFI) WERE ON A DUAL INSTRUCTIONAL FLT. AFTER TAKEOFF, THE AIRCREW REMAINED IN A RIGHT TRAFFIC PATTERN FOR RWY 13 , INTENDING FOR THE STUDENT TO MAKE A 180 DEG AUTOROTATION TO A PARALLEL TAXIWAY. THE STUDENT OVERSHOT THE AUTOROTATIVE TURN & THE CFI INSTRUCTED HIM TO CONTINUE THE APCH TO A GRASS AREA BETWEEN THE TAXIWAY & RWY. THE CFI REPORTED THAT THE TOUCHDOWN WAS SMOOTH WITH ZERO AIRSPEED. HOWEVER, THE HELICOPTER BEGAN VIBRATING & TURNED TO THE LEFT. REPORTEDLY, THE MAIN ROTOR BLADES HAD SEVERED THE TAIL BOOM.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (F) EMERGENCY PROCEDURE - SIMULATED - PILOT IN COMMAND(CFI)
2. (F) AUTOROTATION - PERFORMED - DUAL STUDENT
3. (C) DISTANCE - MISJUDGED - DUAL STUDENT

4. (C) ALTITUDE - MISJUDGED - DUAL STUDENT
5. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND(CFI)

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	25, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 10, 1982
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2200 hours (Total, all aircraft), 25 hours (Total, this make and model), 2020 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HUGHES	Registration:	N1040S
Model/Series:	TH-55A TH-55A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	6418194
Landing Gear Type:	Ski	Seats:	2
Date/Type of Last Inspection:	100 hour	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:	30 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4356 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	HIO-360-A1A
Registered Owner:	IOWA WESTERN COMMUNITY COLLEGE	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	Condition of Light:	Day
Observation Facility, Elevation:	OMA ,983 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	15:47 Local	Direction from Accident Site:	298°
Lowest Cloud Condition:	Scattered / 2500 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	2°C / -6°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	15:30 Local	Type of Airspace:	Class G

Airport Information

Airport:	COUNCIL BLUFFS MUNICIPAL CBF	Runway Surface Type:	Grass/turf
Airport Elevation:	1269 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Simulated forced landing;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 1 None	Latitude, Longitude:	41.240222,-95.85041 (est)

Administrative Information

Investigator In Charge (IIC): Wall, James

Additional Participating Persons:

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.ntsb.gov/Docket?ProjectID=33320>

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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](#).