



Aviation Investigation Final Report

Location:	MILFORD, Iowa	Accident Number:	CHI92DCD04
Date & Time:	May 6, 1992, 07:35 Local	Registration:	N8286
Aircraft:	HILLER UH-12E	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PILOT OF THE ACCIDENT HELICOPTER REPORTED A COMPLETE LOSS OF ENGINE POWER WHILE PERFORMING AERIAL APPLICATION OF AGRICULTURAL CHEMICALS. THE FAILURE OCCURRED AS HE WAS TURNING TO REVERSE DIRECTION BETWEEN SWATH RUNS. THE PILOT STATED HE RETURNED TO LEVEL FLIGHT AND ENTERED AUTOROTATION. HE STATED HIS MAIN ROTOR RPM WAS LOW WHEN HE APPLIED COLLECTIVE PITCH TO CUSHION THE AUTOROTATIVE LANDING AND THE HELICOPTER LANDED HARD. DURING TOUCHDOWN THE SKID LANDING GEAR COLLAPSED AND THE HELICOPTER ROLLED ONTO ITS RIGHT SIDE. NO MECHANICAL DEFECTS WERE DISCOVERED WHEN THE ENGINE WAS EXAMINED AFTER THE ACCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A TOTAL LOSS OF ENGINE POWER FOR AN UNDETERMINED REASON AS THE HELICOPTER WAS PERFORMING AERIAL APPLICATION MANEUVERS.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: HARD LANDING
Phase of Operation: DESCENT - UNCONTROLLED

Findings

2. (F) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial	Age:	22, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	September 23, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	625 hours (Total, all aircraft), 325 hours (Total, this make and model), 500 hours (Pilot In Command, all aircraft), 54 hours (Last 90 days, all aircraft), 27 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N8286
Model/Series:	UH-12E UH-12E	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	1543
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	September 16, 1991 100 hour	Certified Max Gross Wt.:	6800 lbs
Time Since Last Inspection:	63 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4278 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-540
Registered Owner:	BONANZA VALLEY AVIATION	Rated Power:	310 Horsepower
Operator:	WARREN JACKSON	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	PVMG

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:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	07:15 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.320549,-95.150146(est)

Administrative Information

Investigator In Charge (IIC): Young, Larry

Additional Participating Persons:

Original Publish Date: July 26, 1993

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=15208>

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](#).