



Aviation Investigation Final Report

Location:	MASON CITY, Iowa	Accident Number:	MKC82DA158
Date & Time:	August 26, 1982, 18:30 Local	Registration:	N1345Q
Aircraft:	FAIRCHILD HILLER FH 1100	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

DURING A SWATH RUN, THE ENGINE RPM DROPPED TO FLIGHT IDLE AND THE HELICOPTER WAS LANDED HARD IN A CLEAR AREA BESIDE THE FIELD. AN INVESTIGATION REVEALED THAT A SENSING LINE FOR THE FUEL CONTROL SYSTEM HAD FAILED. THIS PREVENTED THE ENGINE FROM OPERATING ABOVE IDLE POWER.

Probable Cause and Findings

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

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) FUEL SYSTEM,FUEL CONTROL - FAILURE,PARTIAL

Occurrence #2: FORCED LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. AUTOROTATION - PERFORMED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	50, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 10, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	16000 hours (Total, all aircraft), 3700 hours (Total, this make and model), 210 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FAIRCHILD HILLER	Registration:	N1345Q
Model/Series:	FH 1100 FH 1100	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	168
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2330 lbs
Time Since Last Inspection:	25 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	6800 Hrs	Engine Manufacturer:	ALLISON
ELT:	Not installed	Engine Model/Series:	250-C18
Registered Owner:	COUNTY OF NASSAU	Rated Power:	274 Horsepower
Operator:	JERRY LEE ALLEY	Operating Certificate(s) Held:	
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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	235°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	87°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CLEAR LAKE , IA	Type of Flight Plan Filed:	None
Destination:	CLEAR LAKE , IA	Type of Clearance:	None
Departure Time:	18:25 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	Dirt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	None

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:	43.15044,-93.189186(est)

Administrative Information

Investigator In Charge (IIC):

Additional Participating Persons:

Original Publish Date: August 26, 1983

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=71605>

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](#).