



Aviation Investigation Final Report

Location:	OTSEGO, Ohio	Accident Number:	CHI82DA150
Date & Time:	May 4, 1982, 17:00 Local	Registration:	N16861
Aircraft:	SIKORSKY S-55B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PILOT WAS SPREADING FERTILIZER BY USING EXTERNAL BUCKETS. AS HE WAS UNHOOKING A BUCKET, THE ENGINE LOST POWER. HE DID A HOVERING AUTOROTATION, BUT THE HELICOPTER SETTLED ON A BUCKET, TIPPED OVER AND ALLOWED THE MAIN ROTOR BLADES TO HIT THE GROUND. AN EXAMINATION REVEALED THAT THE ENGINE HAD MECHANICAL CONTINUITY AND THE FUEL SYSTEM WAS CLEAN AND WORKING PROPERLY. HOWEVER, EVIDENCE OF ARCING WAS FOUND IN THE MAGNETO SWITCH CASE. ALSO, SIGNS WERE FOUND THAT INDICATED MOISTURE HAD BEEN PRESENT IN THE SWITCH. REPORTEDLY, THE ENGINE OPERATED NORMALLY AFTER THE SWITCH WAS REPLACED.

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(TOTAL) - MECH FAILURE/MALF
Phase of Operation: HOVER

Findings

1. (C) IGNITION SYSTEM,IGNITION SWITCH - FAILURE,PARTIAL

Occurrence #2: FORCED LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

2. AUTOROTATION - PERFORMED - PILOT IN COMMAND

Occurrence #3: ROLL OVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (F) OBJECT

Factual Information

Pilot Information

Certificate:	Commercial	Age:	36, 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):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	June 5, 1981
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	3300 hours (Total, all aircraft), 1032 hours (Total, this make and model), 3182 hours (Pilot In Command, all aircraft), 4 hours (Last 90 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SIKORSKY	Registration:	N16861
Model/Series:	S-55B S-55B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	55-729
Landing Gear Type:	Skid	Seats:	12
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	7200 lbs
Time Since Last Inspection:	4 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4675 Hrs	Engine Manufacturer:	WRIGHT
ELT:	Not installed	Engine Model/Series:	C7BA
Registered Owner:	HARRAL HELICOPTER	Rated Power:	800 Horsepower
Operator:	HARRAL HELICOPTER	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	7 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	78°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	OTSEGO , OH	Type of Flight Plan Filed:	None
Destination:	OTSEGO , OH	Type of Clearance:	None
Departure Time:	16:58 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
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:	

Administrative Information

Investigator In Charge (IIC):

Additional Participating Persons:

Original Publish Date: May 4, 1983

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=72120>

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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](#).