



# Aviation Investigation Final Report

<b>Location:</b>	SPIRIT LAKE, Washington	<b>Accident Number:</b>	SEA82DA164
<b>Date &amp; Time:</b>	September 15, 1982, 09:36 Local	<b>Registration:</b>	N513HA
<b>Aircraft:</b>	HILLER-SOLOY UH-12E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 133: Rotorcraft ext. load		

## Analysis

PILOT PERFORMED AUTOROTATION FROM 2000 FEET TO CHECK RPM. AT 200-300 FEET WHEN COLLECTIVE WAS ADDED POWER LOSS OCCURRED. AIRCRAFT LANDED HARD AND SEVERED TAIL BOOM. LOGGING SUPPORT OPERATIONS.

## 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  
Phase of Operation: OTHER

#### Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED  
-----

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

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	36, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	March 8, 1982
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1825 hours (Total, all aircraft), 245 hours (Total, this make and model), 848 hours (Pilot In Command, all aircraft), 148 hours (Last 90 days, all aircraft), 62 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	HILLER-SOLOY	<b>Registration:</b>	N513HA
<b>Model/Series:</b>	UH-12E UH-12E	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>		<b>Serial Number:</b>	5013
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	2750 lbs
<b>Time Since Last Inspection:</b>	7 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	3123 Hrs	<b>Engine Manufacturer:</b>	ALLISON
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	250-C20
<b>Registered Owner:</b>	SILLER BROTHERS INC.	<b>Rated Power:</b>	420 Horsepower
<b>Operator:</b>	SILLER BROTHERS INC.	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PDX	<b>Distance from Accident Site:</b>	47 Nautical Miles
<b>Observation Time:</b>	09:50 Local	<b>Direction from Accident Site:</b>	210°
<b>Lowest Cloud Condition:</b>	Scattered / 30000 ft AGL	<b>Visibility</b>	40 miles
<b>Lowest Ceiling:</b>	Unknown	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	340°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	60°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	SPIRIT LAKE , WA	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	SPIRIT LAKE , WA	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	09:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	0 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	0 ft / 0 ft	<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	46.19067,-122.129898(est)

## Administrative Information

**Investigator In Charge (IIC):**

**Additional Participating Persons:**

**Original Publish Date:** September 15, 1983

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=72667>

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](#).