



Aviation Investigation Final Report

Location:	MACK, Colorado	Accident Number:	DEN89DTM02
Date & Time:	May 13, 1989, 07:48 Local	Registration:	N5594N
Aircraft:	HILLER UH-12E	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PILOT STATED THAT DURING A SWATH RUN HE LET THE HELICOPTER GET TOO LOW AND THE SKIDS CONTACTED THE ALFALFA CROP FOLLOWED BY THE SPRAY APPARATUS. THE PILOT WAS UNABLE TO GAIN ALTITUDE AND THE HELICOPTER CONTINUED TO DESCEND INTO THE GROUND AND ROLLED OVER. AN EYE-WITNESSES CONCURRED WITH THE PILOT'S STATEMENT BUT DECLINED TO GIVE A WRITTEN STATEMENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S FAILURE TO MAINTAIN PROPER ALTITUDE DURING A SWATH RUN.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. TERRAIN CONDITION - CROP
 2. (C) PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
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Occurrence #2: NOSE OVER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Factual Information

Pilot Information

Certificate:	Commercial	Age:	48, 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):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 23, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	298 hours (Total, all aircraft), 8 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N5594N
Model/Series:	UH-12E UH-12E	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	1453
Landing Gear Type:	Ski	Seats:	3
Date/Type of Last Inspection:	January 22, 1989 Annual	Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:	6 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	4313 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-540-C2A
Registered Owner:	GARLITZ AND SERVE, INC.	Rated Power:	305 Horsepower
Operator:		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:	GJT ,4586 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	07:52 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 6000 ft AGL	Visibility	9 miles
Lowest Ceiling:	Broken / 9000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	9°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MACK , CO	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	00:00 Local	Type of Airspace:	Class G

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 Serious	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	39.219779,-108.870918(est)

Administrative Information

Investigator In Charge (IIC): Shearer, Donald

Additional Participating Persons:

Original Publish Date: May 22, 1990

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=17560>

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](#).