



National Transportation Safety Board Aviation Accident Final Report

Location:	JUSTIN, TX	Accident Number:	FTW93LA047
Date & Time:	12/02/1992, 1700 CST	Registration:	N1048P
Aircraft:	HILLER UH12B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None

Flight Conducted Under: Part 91: General Aviation - Personal

Analysis

THE COMMERCIAL PILOT REPORTED THAT THE HELICOPTER DEVELOPED A SEVERE VERTICAL VIBRATION WHILE ON HIS TURN TO FINAL APPROACH WHILE ON A TEST FLIGHT FOR COMPLETION OF AN ANNUAL INSPECTION. THE PILOT ELECTED TO MAKE AN IMMEDIATE PRECAUTIONARY LANDING TO AN OPEN FIELD SHORT OF HIS INTENDED LANDING POINT. WHILE ON AN EXAGGERATED FLARE TO AVOID IMPACTING LARGE BALES OF HAY, THE TAIL ROTOR STRUCK THE GROUND AND THE MAIN ROTOR BLADES IMPACTED THE TAILBOOM. THE LEFT LANDING GEAR SKID FOLDED PRIOR TO THE HELICOPTER COMING TO A STOP. THE SOURCE OF THE VERTICAL VIBRATION WAS NOT IDENTIFIED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE MAIN ROTOR SYSTEM FOR UNDETERMINED REASONS. A FACTOR WAS THE LACK OF SUITABLE TERRAIN AT THE PILOT'S DISPOSAL.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: APPROACH - VFR PATTERN - FINAL APPROACH

Findings

1. ROTOR SYSTEM - VIBRATION
 2. (C) REASON FOR OCCURRENCE UNDETERMINED
 3. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND
 4. (F) TERRAIN CONDITION - NONE SUITABLE
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - EMERGENCY

Findings

5. LANDING GEAR,SKID ASSEMBLY - COLLAPSED
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Occurrence #3: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

6. OBJECT - FENCE POST

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	59, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Seat Occupied:	Center
Other Aircraft Rating(s):	Glider; Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Glider; Helicopter; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	08/20/1991
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	10822 hours (Total, all aircraft), 15 hours (Total, this make and model), 10 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	Registration:	N1048P
Model/Series:	UH12B UH12B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	635
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	12/01/1992, Annual	Certified Max Gross Wt.:	3100 lbs
Time Since Last Inspection:	1 Hours	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	VO-335-B
Registered Owner:	CLARK, LANDIS E.	Rated Power:	210 hp
Operator:	CLARK, LANDIS E.	Operating Certificate(s) Held:	None
Operator Does Business As:	CLARK'S AIRCRAFT SALES	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	AFW, 722 ft msl	Distance from Accident Site:	10 Nautical Miles
Observation Time:	1047 CST	Direction from Accident Site:	178°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	20 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	11° C / -6° C
Precipitation and Obscuration:			
Departure Point:	(3TX6)	Type of Flight Plan Filed:	None
Destination:	(3TX6)	Type of Clearance:	None
Departure Time:	1655 CST	Type of Airspace:	Class G

Airport Information

Airport:	CLARK'S AIRPORT (3TX6)	Runway Surface Type:	Asphalt
Airport Elevation:	705 ft	Runway Surface Condition:	Dry
Runway Used:	35	IFR Approach:	
Runway Length/Width:	1800 ft / 22 ft	VFR Approach/Landing:	Precautionary Landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	HECTOR R CASANOVA	Report Date:	06/30/1993
Additional Participating Persons:	STANDLEY H COBB; FORT WORTH, TX		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).