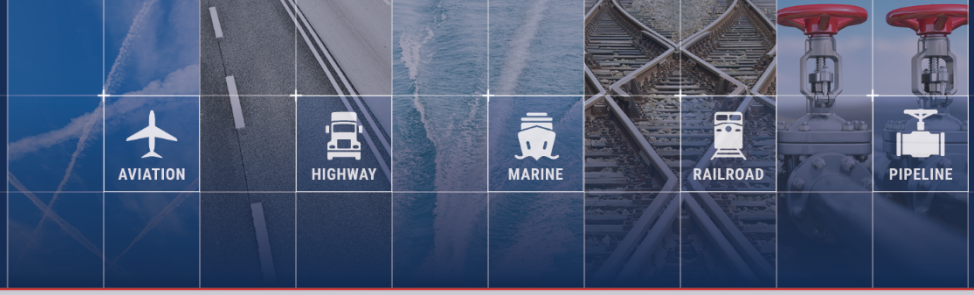

Aviation Investigation Final Report

Location:	CRYSTAL BEACH, Texas	**Accident Number:**	FTW94LA147
Date & Time:	May 7, 1994, 20:40 Local	**Registration:**	N6417V
Aircraft:	HILLER UH-12B	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	3 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

THE AIRCRAFT EXPERIENCED A PARTIAL ENGINE POWER LOSS DURING INITIAL CLIMB AFTER TAKEOFF. THE PILOT STATED THAT LANDING STRAIGHT AHEAD WOULD HAVE BEEN HAZARDOUS AND HE ELECTED TO TURN DOWN WIND AND ATTEMPTED TO MANEUVER BACK INTO THE WIND AT LOW ALTITUDE. DURING TOUCHDOWN, THE HELICOPTER LANDED HARD, TOUCHED DOWN SIDEWAYS, ROCKED ON THE SKIDS, AND ROLLED ONTO ITS LEFT SIDE. INVESTIGATION REVEALED NO EVIDENCE OF PRE-ACCIDENT MECHANICAL FAILURE OR MALFUNCTION WITHIN THE ENGINE OR ITS ACCESSORIES. HOWEVER, ANALYSIS OF THE FUEL TAKEN FROM THE SYSTEM REVEALED THAT IT WAS CONTAMINATED WITH WATER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER AUTOROTATION TOUCHDOWN, WHICH RSULTED IN THE HARD LANDING. A FACTOR WAS THE POWER LOSS DUE TO WATER CONTAMINATED FUEL.

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings
1. (F) FLUID,FUEL - CONTAMINATION

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

Findings
2. (C) TOUCHDOWN - IMPROPER - PILOT IN COMMAND

Occurrence #3: ROLL OVER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

On May 7, 1994, at 2040 central daylight time, a Hiller UH-12B helicopter, N6417V, was substantially damaged during landing near Crystal Beach, Texas. There was no flight plan filed for the local sightseeing flight and visual meteorological conditions prevailed. Neither the commercial pilot nor the two passengers were injured.

According to the pilot, the aircraft lost partial power during initial climb after takeoff. The pilot stated that he felt that landing straight ahead would have been hazardous and he elected to turn down wind and attempted to maneuver back into the wind at low altitude. The pilot reported that an excessive rate of descent developed prior to touchdown. The helicopter touched down sideways, rocked on the skids, and rolled onto its left side. Investigation revealed no evidence of pre-accident mechanical failure or malfunction within the engine or its accessories. However; an analysis of fuel taken from the system revealed that it was contaminated with water.

Pilot Information

Certificate:	Commercial; Flight instructor; Private	**Age:**	27,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	Helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	September 1, 1993
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	654 hours (Total, all aircraft), 156 hours (Total, this make and model), 572 hours (Pilot In Command, all aircraft), 109 hours (Last 90 days, all aircraft), 46 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HILLER	**Registration:**	N6417V
Model/Series:	UH-12B UH-12B	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	417
Landing Gear Type:	Skid	**Seats:**	3
Date/Type of Last Inspection:	November 1, 1993 Annual	**Certified Max Gross Wt.:**	2500 lbs
Time Since Last Inspection:	85 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3633 Hrs	**Engine Manufacturer:**	FRANKLIN
ELT:	Not installed	**Engine Model/Series:**	O335-5D
Registered Owner:	BEAUMONT WINGS, INC.	**Rated Power:**	210 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
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:	GLS	**Distance from Accident Site:**	
Observation Time:	20:50 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 10000 ft AGL	**Visibility**	12 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	14 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	170°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	26°C / 23°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	20:40 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:	2 None	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 None	**Latitude, Longitude:**	28.680107,-99.819923(est)

Administrative Information

Investigator In Charge (IIC):	Wandel, Warren
Additional Participating Persons:	RUEY COLLINS; HOUSTON , TX
Original Publish Date:	November 14, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=19050