



# Aviation Investigation Final Report

<b>Location:</b>	HEPHZIBAH, Georgia	<b>Accident Number:</b>	ATL94LA144
<b>Date &amp; Time:</b>	July 24, 1994, 13:00 Local	<b>Registration:</b>	N4030S
<b>Aircraft:</b>	HILLER UH-12E	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

THE COMMERCIAL AG PILOT WAS ABOUT 5 MINUTES INTO HIS FLIGHT WHEN THE ENGINE LOST POWER AND QUIT. DURING THE AUTOROTATION, THE HELICOPTER LANDED HARD, AND THE TAIL BOOM CONTACTED THE GROUND. THE PILOT REPORTED THAT HE BEGAN THE FLIGHT WITH ABOUT 10 GALLONS OF FUEL, WHICH HE MEASURED WITH A DIP STICK THAT HE CARRIED IN THE COCKPIT. HE STATED THAT THE EXPECTED FUEL CONSUMPTION WAS ABOUT 15 GALLONS PER HOUR. THE FUEL SYSTEM SURVIVED THE ACCIDENT INTACT. FAA INSPECTORS FOUND NO EVIDENCE OF FUEL IN THE TANK OR IN THE LINES. THE FUEL GAUGE INDICATED EMPTY.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S INADEQUATE PREFLIGHT OF THE AIRCRAFT, RESULTING IN FUEL EXHAUSTION, AND HIS IMPROPER FLARE OF THE HELICOPTER DURING THE AUTOROTATION, RESULTING IN A HARD LANDING.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: CRUISE

### Findings

1. (C) FLUID,FUEL - EXHAUSTION

2. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND

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Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - UNCONTROLLED

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Occurrence #3: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (C) FLARE - IMPROPER - PILOT IN COMMAND

## Factual Information

On July 24, 1994, at 1300 eastern daylight time, a Hiller UH-12E, N4030S, was substantially damaged following an engine power loss and autorotation in Hephzibah, Georgia. The commercial pilot was not injured. The helicopter was operated under 14 CFR Part 137 by Custom Air Brewton, Inc. of Brewton, Alabama. Visual meteorological conditions existed at the time, and no flight plan was filed for the aerial application flight. The flight originated in Wrens, Georgia at 1255.

The pilot reported that he had completed spraying operations at one site, and was in transit to another field (an estimated 6 to 8 minute flight). He estimated his fuel on board to be about 10 gallons. He used a dip stick that he carried in the cockpit to gauge the fuel quantity. He also reported that the normal fuel consumption was about 15 gallons per hour. During low altitude cruise, about 5 minutes into the flight, the engine lost power and quit. An autorotation was attempted. The helicopter landed hard, and the tail rotor contacted the ground.

Inspectors from the Federal Aviation Administration visited the accident site and inspected the helicopter. They reported that the aircraft fuel system was not damaged, and that there was no evidence of fuel in the tank or in any fuel line. The fuel quantity gauge indicated empty.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	31, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Center
<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-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	December 30, 1993
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2450 hours (Total, all aircraft), 725 hours (Total, this make and model), 100 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	HILLER	<b>Registration:</b>	N4030S
<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>	Restricted (Special)	<b>Serial Number:</b>	HA-3082
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	
<b>Date/Type of Last Inspection:</b>	January 11, 1994 Annual	<b>Certified Max Gross Wt.:</b>	3100 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	VO-540-C2A
<b>Registered Owner:</b>	CUSTOM AIR BREWTON, INC.	<b>Rated Power:</b>	305 Horsepower
<b>Operator:</b>	CUSTOM AIR BREWTON, 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>	AGS ,145 ft msl	<b>Distance from Accident Site:</b>	8 Nautical Miles
<b>Observation Time:</b>	13:17 Local	<b>Direction from Accident Site:</b>	60°
<b>Lowest Cloud Condition:</b>	Scattered / 2900 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	4 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	250°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	31°C / 24°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	WRENS , GA (NONE)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	12:55 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

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

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	33.280075,-82.100746(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hicks, Ralph
<b>Additional Participating Persons:</b>	CHARLES H GALLOWAY; COLLEGE PARK , GA JAMES D STRICKLAND; COLLEGE PARK , GA DUDLEY BOONE; COLLEGE PARK , GA
<b>Original Publish Date:</b>	November 14, 1994
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=3422">https://data.nts.gov/Docket?ProjectID=3422</a>

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