



# Aviation Investigation Final Report

<b>Location:</b>	WICHITA FALLS, Texas	<b>Accident Number:</b>	FTW89LA043
<b>Date &amp; Time:</b>	January 21, 1989, 10:15 Local	<b>Registration:</b>	N88785
<b>Aircraft:</b>	HILLER OH-23B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

THE PLT RPRTD THAT AFTER HE HAD FLOWN ABOUT 45 MIN, HE LANDED AT THE WICHITA VALLEY ARPT, THEN TOOK OFF FOR A RTRN FLT TO HOLLIDAY, TX. SHORTLY AFTER DEPARTING THE WICHITA VALLEY ARPT, WHILE EN ROUTE AT ABOUT 500' AGL, THE ENG 'MISSED A FEW TIMES.' THE PLT TURNED TO LAND AT THE ARPT, BUT THE ENG SUBSEQUENTLY LOST ALL POWER. THE PLT MADE AN AUTOROTATIVE LANDING IN A WHEAT FIELD; HOWEVER, DRG THE LANDING, THE HELICOPTER TOUCHED DOWN HARD & WAS DAMAGED. THE LANDING WAS ON A NORTHERLY HEADING. THE 1001 CST WIND AT WICHITA FALLS WAS FROM 180 DEG AT 10 KTS. NO PREIMPACT MECHANICAL PROBLEM WAS FOUND DRG THE INVESTIGATION. THE TEMP & DEW POINT WERE 49 & 24 DEG, RESPECTIVELY. ACCORDING TO CARB ICING CHARTS, CONDITIONS WERE CONDUCIVE FOR CARB ICING. THE PLT RPRTD HE WAS OPERATING WITH THE CARB HEAT APRX 1/4 'ON.'

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER USE OF THE CARBURETOR HEAT DURING FLIGHT AND HIS IMPROPER FLARE DURING AN AUTOROTATIVE LANDING. CONTRIBUTING FACTORS WERE: CARBURETOR ICING CONDITIONS, IMPROPER IN-FLIGHT PLANNING/DECISION BY THE PILOT, A TAILWIND DURING THE LANDING, AND THE PILOT'S LACK OF RECENT EXPERIENCE.

## Findings

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

### Findings

1. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS
2. (C) CARBURETOR HEAT - INADEQUATE - PILOT IN COMMAND

-----

Occurrence #2: FORCED LANDING  
Phase of Operation: DESCENT - EMERGENCY

### Findings

3. AUTOROTATION

-----

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

### Findings

4. (F) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
5. (F) WEATHER CONDITION - TAILWIND
6. (C) FLARE - IMPROPER - PILOT IN COMMAND
7. (F) LACK OF RECENT EXPERIENCE - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	30, Male
<b>Airplane Rating(s):</b>	None	<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>		<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 3 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	January 12, 1987
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	53 hours (Total, all aircraft), 50 hours (Total, this make and model), 1 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	HILLER	<b>Registration:</b>	N88785
<b>Model/Series:</b>	OH-23B OH-23B	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	560
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	2500 lbs
<b>Time Since Last Inspection:</b>	0 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	FRANKLIN
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-335-6
<b>Registered Owner:</b>	S & F HELICOPTER SERVICE INC	<b>Rated Power:</b>	210 Horsepower
<b>Operator:</b>	S & F HELO SERVICE, INC.	<b>Operating Certificate(s) Held:</b>	None
<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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Scattered / 10000 ft AGL	<b>Visibility</b>	25 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	10 knots / 15 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	180°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	13°C / -18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	WICHITA FALLS , TX (F14)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	HOLLIDAY , TX (NONE)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:05 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	WICHITA VALLEY F14	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	1005 ft msl	<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>	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>	

## Administrative Information

**Investigator In Charge (IIC):** Wandel, Warren

**Additional Participating Persons:** WARREN V WANDEL;  
RUSS HOLSCLAW;

**Original Publish Date:** September 5, 1990

**Last Revision Date:**

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

**Note:**

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=22829>

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](#).