



# National Transportation Safety Board Aviation Accident Data Summary

---

<b>Location:</b>	FOLEY, MN	<b>Accident Number:</b>	CHI94LA144
<b>Date &amp; Time:</b>	05/01/1994, 2020 CDT	<b>Registration:</b>	N4104D
<b>Aircraft:</b>	Helio H-800	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

---

## Analysis

THE PILOT-IN-COMMAND HAD FLOWN APPROXIMATELY 2.3 HOURS AFTER HIS INITIAL DEPARTURE WITH 45 GALLONS OF FUEL IN THE AMPHIBIOUS FLOAT EQUIPPED AIRPLANE. HIS ESTIMATION OF FUEL CONSUMPTION WAS 39 GALLONS PER HOUR (GPH) AT TAKEOFF POWER AND 23 GPH AT CRUISE. SEVERAL TOUCH AND GO LANDINGS WERE PERFORMED DURING THE FLIGHT. WHILE IN CRUISE FLIGHT A TOTAL LOSS OF ENGINE POWER OCCURRED AND A FORCED LANDING WAS MADE ON A GRAVEL ROAD. DURING LANDING, THE FLOAT NOSE WHEELS DUG INTO SOFT GRAVEL AND THE AIRPLANE FLIPPED OVER. POST CRASH INVESTIGATION REVEALED NO ENGINE ANOMOLIES, NO EVIDENCE OF FUEL IN THE TANKS, NOR ANY INDICATION OF FUEL SPILLAGE ON THE GROUND. THE PILOT STATED HE BELIEVED HE EXHAUSTED HIS FUEL SUPPLY.

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND'S FAILURE TO PERFORM ACCURATE FUEL CONSUMPTION CALCULATIONS. A FACTOR WAS THE SOFT GRAVEL ROAD LANDING AREA.

## Findings

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

### Findings

1. FLUID,FUEL - EXHAUSTION
2. (C) FUEL CONSUMPTION CALCULATIONS - INACCURATE - PILOT IN COMMAND

-----

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

-----

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

### Findings

3. (F) AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - LOOSE GRAVEL/SANDY

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	39
<b>Airplane Rating(s):</b>	Single-engine Land; Single-engine Sea	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	None	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	446 hours (Total, all aircraft), 74 hours (Total, this make and model), 25 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Helio	<b>Registration:</b>	N4104D
<b>Model/Series:</b>	H-800 H-800	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	THOMAS J. HAMMER	<b>Engine Manufacturer:</b>	LYCOMING
<b>Operating Certificate(s) Held:</b>	None	<b>Engine Model/Series:</b>	IO-720 A/B
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	STC, 1024 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Lowest Ceiling:</b>	None / 0 ft agl	<b>Wind Speed/Gusts, Direction:</b>	Calm / ,
<b>Temperature:</b>	5°C	<b>Visibility</b>	15 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	PRINCETON, MN (PNM)	<b>Destination:</b>	LONG LAKE, MN

## Wreckage and Impact Information

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

## Administrative Information

<b>Investigator In Charge (IIC):</b>	MATTHEW L THOMAS	<b>Adopted Date:</b>	12/07/1994
<b>Investigation Docket:</b>	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 <a href="mailto:pubinquiry@ntsb.gov">pubinquiry@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

---

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.