



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

# Aviation Investigation Final Report

<b>Location:</b>	Scottsmoor, Florida	<b>Accident Number:</b>	ERA23LA151
<b>Date &amp; Time:</b>	March 14, 2023, 10:06 Local	<b>Registration:</b>	N5714K
<b>Aircraft:</b>	Beech 35-B33	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Fuel exhaustion	<b>Injuries:</b>	1 Serious
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot was flying to an airport that was about 33 nautical miles away from the departure airport, and after takeoff climbed to an altitude of 2,000 ft before descending to 1,500 ft. About 8 minutes into the flight the airplane's engine "coughed and stopped running." In response, the pilot switched the fuel selector to the other tank, turned on the boost pump and wingtip fuel tank pumps, and attempted to restart the engine, but was unsuccessful. He then returned the fuel selector back to the original tank and made another attempt to restart the engine, but that effort was similarly unsuccessful. The pilot then selected a field and performed a forced landing. During the landing the airplane struck a tree, seriously injuring the pilot and substantially damaging the fuselage and left wing.

A Federal Aviation Administration Inspector examined the airplane at the accident site and reported that he found the fuel selector on the right tank position and that both the right main and wingtip fuel tanks were empty. He found a small amount of fuel in the left main fuel tank (later determined to be about 2 gallons) and no fuel in the left wingtip fuel tank. The inspector otherwise found no evidence of fuel leakage at the accident site. A post recovery examination of the wreckage also found that there was no fuel in the fuel pump or fuel injector lines. The pilot reported that there were no preimpact mechanical malfunctions or failures of the airplane, and in a postaccident telephone interview stated that the airplane, "...just didn't have enough fuel."

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's inadequate preflight fuel planning, which resulted in fuel exhaustion.

## Findings

<b>Personnel issues</b>	Fuel planning - Pilot
<b>Aircraft</b>	Fuel - Fluid management

## Factual Information

### History of Flight

Enroute-cruise	Fuel exhaustion (Defining event)
Enroute-descent	Off-field or emergency landing

### Pilot Information

Certificate:	Airline transport; Flight engineer; Flight instructor	Age:	79,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	
Medical Certification:	BasicMed Without waivers/limitations	Last FAA Medical Exam:	July 29, 2021
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	July 8, 2022
Flight Time:	(Estimated) 21764 hours (Total, all aircraft), 605 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N5714K
Model/Series:	35-B33	Aircraft Category:	Airplane
Year of Manufacture:	1964	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	CD-784
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	September 14, 2022 100 hour	Certified Max Gross Wt.:	3650 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	6070 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed	Engine Model/Series:	IO-470
Registered Owner:	HONOUR AVIATION LLC	Rated Power:	260 Horsepower
Operator:	HONOUR AVIATION LLC	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KTIX,33 ft msl	<b>Distance from Accident Site:</b>	3 Nautical Miles
<b>Observation Time:</b>	09:47 Local	<b>Direction from Accident Site:</b>	180°
<b>Lowest Cloud Condition:</b>	Few / 10000 ft AGL	<b>Visibility</b>	7 miles
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	350°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.09 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 11°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Titusville, FL (TIX)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	New Smyrna Beach, FL (EVB)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:00 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious	<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>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	28.766667,-80.861667(est)

## Preventing Similar Accidents

## Manage Risk: Good Decision-making and Risk Management Practices are Critical (SA-023)

### The Problem

Although few pilots knowingly accept severe risks, accidents can also result when several risks of marginal severity are not identified or are ineffectively managed by the pilot and compound into a dangerous situation. Accidents also result when the pilot does not accurately perceive situations that involve high levels of risk. Ineffective risk management or poor aeronautical decision-making can be associated with almost any type of fatal general aviation accident.

### What can you do?

- Develop good decision-making practices that will allow you to identify personal attitudes that are hazardous to safe flying, apply behavior modification techniques, recognize and cope with stress, and effectively use all resources. Understand the safety hazards associated with human fatigue and strive to eliminate fatigue contributors in your life.
- Understand that effective risk management takes practice. It is a decision-making process by which you can systematically identify hazards, assess the degree of risk, and determine the best course of action.
- Be honest with yourself and your passengers about your skill level and proficiency. Refuse to allow external pressures, such as the desire to save time or money or the fear of disappointing passengers, to influence you to attempt or continue a flight in conditions in which you are not comfortable.
- Be honest with yourself and the FAA about your medical condition. If you have a medical condition or are taking any medication, do not fly until your fitness for flight has been thoroughly evaluated.
- Plan ahead with flight diversion or cancellation alternatives, and brief your passengers about the alternatives before the flight.

See <https://www.nts.gov/Advocacy/safety-alerts/Documents/SA-023.pdf> for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Alleyne, Eric
<b>Additional Participating Persons:</b>	Joseph W. Gramzinski; FAA/FSDO; Orlando, FL
<b>Original Publish Date:</b>	June 23, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=106894">https://data.ntsb.gov/Docket?ProjectID=106894</a>

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](#).