# Aviation Investigation Final Report

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| **Location:** | Scottsmoor, Florida | **Accident Number:** | ERA23LA151 |
| **Date & Time:** | March 14, 2023, 10:06 Local | **Registration:** | N5714K |
| **Aircraft:** | Beech 35-B33 | **Aircraft Damage:** | Substantial |
| **Defining Event:** | Fuel exhaustion | **Injuries:** | 1 Serious |
| **Flight Conducted Under:** | 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

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| **Personnel issues** | Fuel planning - Pilot |
| **Aircraft** | Fuel - Fluid management |

# Factual Information

## History of Flight

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

## Pilot Information

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| **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

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| **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

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

## Wreckage and Impact Information

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| **Crew Injuries:** | 1 Serious | **Aircraft Damage:** | Substantial |
| **Passenger Injuries:** | N/A | **Aircraft Fire:** | None |
| **Ground Injuries:** | N/A | **Aircraft Explosion:** | None |
| **Total Injuries:** | 1 Serious | **Latitude, Longitude:** | 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.ntsb.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

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