



Aviation Investigation Final Report

Location:	Oklahoma City, Oklahoma	Accident Number:	CEN23LA224
Date & Time:	June 4, 2023, 12:15 Local	Registration:	N9169Q
Aircraft:	Beech A36	Aircraft Damage:	Substantial
Defining Event:	Unknown or undetermined	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that he flew west of the departure airport and practiced several turns before returning to perform several landings. During the descent to the airport, he switched fuel tanks from the left to the right fuel tank. The left fuel tank indication was just above the yellow arc, and the right fuel tank indication was about 3/8 of a tank. While the airplane was on the base leg for landing, the engine began to run rough and sustained a loss of engine power. The pilot switched fuel tanks, turned the boost pump on, and tried the ignition, but he was unable to restore engine power. The pilot then performed a forced landing to a road about one mile south of the airport. The airplane sustained substantial damage to both wings and the horizontal stabilizer.

A postaccident examination of the airplane revealed that the airplane fuel selector was in the left fuel tank position, the auxiliary fuel pump was on, and the mixture was full rich. The left and right fuel tanks contained about 10 gallons of fuel, which indicated in the yellow arc of both fuel gauges. A postaccident engine run was performed at engine speeds of 1,800 rpm and 2,300 rpm with the fuel selector positioned to the right fuel tank, and there were no anomalies that precluded engine operation. The fuel selector operated normally. The engine-driven pump, fuel control assembly, injector distributor valve, fuel injector lines, and fuel injectors were then removed for functional testing; no anomalies were noted.

Probable Cause and Findings

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

A loss of engine power during approach for landing for undetermined reasons.

Findings

Not determined	(general) - Unknown/Not determined
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Factual Information

History of Flight

Approach-VFR pattern base	Unknown or undetermined (Defining event)
Approach-VFR pattern base	Attempted remediation/recovery
Landing	Collision with terr/obj (non-CFIT)

On June 4, 2023, at 1215 central daylight time, a Beech A36, N9169Q, was involved in an accident near Oklahoma City, Oklahoma. The airline transport pilot and a passenger were uninjured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 as a personal flight.

The pilot stated that upon takeoff from the departure airport both fuel tank gauges indicated “a little less” than ½ tank. The pilot flew the airplane about 12-15 miles west of the departure airport and practiced a few turns. About 10-15 minutes elapsed before the pilot returned to the departure airport, where he planned to perform landings. The pilot stated that during the descent check, he switched fuel tanks from the left to the right fuel tank. The left fuel tank indication was just above the yellow arc and the right fuel tank indication was about 3/8 of a tank. While the airplane was on the base leg for landing, the engine began to run rough and sustained a loss of engine power. The pilot switched fuel tanks, turned the boost pump on, and tried the ignition, but he was unable to restore engine power. The pilot then performed a forced landing to a road about one mile south of the airport. The airplane sustained substantial damage to both wings and the horizontal stabilizer.

The pilot stated that, during recovery of the airplane from the accident site, he turned the battery on and the left fuel tank quantity gauge indicated about 1/4 full; the right fuel tank quantity gauge indicated about 3/8 full.

A postaccident examination of the airplane revealed the fuel selector was in the left fuel tank position, the auxiliary fuel pump was on, and the mixture was full rich. The left and right fuel tanks contained about 10 gallons of fuel. The Beech A36 type certificate data sheet stated the unusable fuel for the left and right tanks was 3 gallons per tank. A postaccident engine run was performed at engine speeds of 1,800 rpm and 2,300 rpm with the fuel selector positioned to the right fuel tank and there were no anomalies that precluded engine operation. The fuel selector operated normally. The engine driven pump, fuel control assembly, injector distributor valve, fuel injector lines, and fuel injectors were then removed for functional testing; no anomalies were noted.

The Pilot’s Operating Handbook (POH), Section VII, Systems Description, Fuel Required for Flight, states that it is the pilot’s responsibility to ascertain that the fuel quantity indicators are

functioning and maintaining a reasonable degree of accuracy. This section states that takeoff is prohibited if the fuel quantity indicators do not indicate above the yellow arc (13 gallons). The POH does not discuss operation of the airplane at fuel indications below the yellow arc for other phases of flight.

The POH, Section III, Emergency Procedures, Engine Discrepancy Checks, Condition – Loss of Power, states to turn the auxiliary fuel pump on and lean the mixture as required. The auxiliary fuel pump is to be turned off if there is no performance improvement in a few moments. The Air Start procedure states to leave the auxiliary fuel pump on if the engine-driven pump is inoperative.

Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	61, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	June 1, 2023
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 19, 2023
Flight Time:	20000 hours (Total, all aircraft), 173 hours (Total, this make and model), 17000 hours (Pilot In Command, all aircraft), 245 hours (Last 90 days, all aircraft), 78 hours (Last 30 days, all aircraft), 0.4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N9169Q
Model/Series:	A36	Aircraft Category:	Airplane
Year of Manufacture:	1970	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	E-253
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	July 21, 2022 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	5689.84 Hrs as of last inspection	Engine Manufacturer:	CONT MOTOR
ELT:	Installed, not activated	Engine Model/Series:	IO-520-BB
Registered Owner:	YELLE FLYERS LLC	Rated Power:	285 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	HSD, 1193 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	12:15 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.98 inches Hg	Temperature/Dew Point:	24°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Oklahoma City, OK	Type of Flight Plan Filed:	None
Destination:	Oklahoma City, OK	Type of Clearance:	VFR
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	SUNDANCE HSD	Runway Surface Type:	Asphalt
Airport Elevation:	1192 ft msl	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	35.601833,-97.706167(est)

Administrative Information

Investigator In Charge (IIC):	Gallo, Mitchell
Additional Participating Persons:	Melvin Devore; Federal Aviation Administration, OKC FSDO; Oklahoma City, OK
Original Publish Date:	April 18, 2024
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=192311

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](#).