



National Transportation Safety Board Aviation Accident Final Report

Location:	Big Spring, Texas	Accident Number:	CEN20TA071
Date & Time:	January 29, 2020, 17:10 Local	Registration:	N50JR
Aircraft:	Beech 60	Aircraft Damage:	Substantial
Defining Event:	Fuel exhaustion	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot was conducting a cross-country flight at a cruise altitude of 10,500 ft mean sea level when the left engine lost all power. He secured the engine and elected to continue to his destination. Shortly thereafter, the right engine lost all power. After selecting an airport for a forced landing, he overflew the runway and entered the pattern. The pilot stated that on short final, after extending the landing gear, "the plane quit flying and the airspeed went to nothing." The airplane landed 200 to 300 yards short of the runway threshold, resulting in substantial damage to the wings and fuselage.

During a postaccident examination, only tablespoons of fuel were drained from the left tank. Due to the position of the airplane, the right tank could not be drained; however, when power was applied to the airplane, both fuel quantity gauges indicated empty fuel tanks. Neither fuel tank was breached during the accident, and there was no discoloration present on either of the wings or engine nacelles to indicate a fuel leak; therefore, the loss of engine power is consistent with fuel exhaustion.

Probable Cause and Findings

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

A total loss of engine power in both engines due to fuel exhaustion, which resulted in a landing short of the runway.

Findings

Aircraft

Fuel - Fluid level

Personnel issues

Decision making/judgment - Pilot

Factual Information

On January 29, 2020, about 1710 central standard time, a Beechcraft BE60 airplane, N50JR, sustained substantial damage when it was involved in an accident about ½ mile southwest of Edwards Lucian Wells Ranch Airport (TX31), Big Spring, Texas. The commercial pilot and sole occupant received minor injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, before departing Abilene Regional Airport (KABI), Abilene, Texas for Odessa Airport (KODO), Odessa, Texas, he asked the fixed base operator (FBO) to add 20 gallons of 100LL aviation gasoline to both fuel tanks. Fuel receipts and statements from FBO personnel confirm that the fuel requested was added to the airplane.

A review of Federal Aviation Administration (FAA) archived air traffic control (ATC) communications revealed that after departing KABI, the pilot climbed to a cruising altitude of 10,500 ft. At 1656, the pilot advised ATC of left engine issues and indicated they may have to land at Big Spring, Texas (KBPG). At 1659, the pilot confirmed that he intended to land at KBPG. At 1700, the pilot informed ATC that the right engine was running and the left engine was shut down. He stated that he was able to maintain altitude and wished to continue to KODO. About one minute later, the pilot, once again, advised ATC that he would continue to KODO and would not need assistance upon arrival. Shortly thereafter, the pilot requested a heading for KBPG and stated that the right engine had failed.

At 1703, ATC asked the pilot if he would make it to the airport, to which he replied that he may not, but was trying. After being offered an alternate airport by ATC, the pilot stated that he preferred KBPG and reported the airport in sight. At 1704, the pilot called ATC and told them the engine was failing and he saw a different airport that he would attempt a landing at. About 1705, the pilot notified ATC that he was over the airport and would try to land. About a minute later, the pilot stated that he was entering the traffic pattern for the runway and was going to be able to make it. About 1707, the pilot stated that he was on left downwind for the airport and was 90% sure he could make the airport. About two minutes later, another airplane on the same frequency told ATC that he was hearing the broadcast of an emergency locator transmitter and heard a transmission, "I'm going to crash."

The wreckage was located about 10 minutes later 200 to 300 yards before the threshold of runway 02. The airplane came to rest upright and sustained substantial damage to the wings and fuselage.

The pilot later reported to the NTSB that about 10 miles east of KBPG, both engines lost power due to a "lack of fuel flow." Following the loss of engine power, he looked for a place to land and saw TX31 that appeared to be within gliding distance. He overflew the airport and turned onto final for the north runway. On short final, he lowered the landing gear and "the plane quit flying, the airspeed went to nothing and the plane landed short of the runway."

When the FAA aviation safety inspector arrived on scene, they attempted to drain fuel from the fuel tanks. They were able to drain "a couple tablespoons" of fuel from the left tank, but were unable to drain the right tank due to the terrain and the position of the airplane. There was no blue discoloration present on either of the wings or engine nacelles and neither fuel tank was breached. The battery remained

connected, and when power was applied to the electrical system, both fuel quantity gauges indicated empty.

History of Flight

Enroute	Fuel exhaustion (Defining event)
Landing	Landing area undershoot
Landing	Off-field or emergency landing

Pilot Information

Certificate:	Commercial	Age:	72, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Lap only
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	December 17, 2018
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	May 1, 2019
Flight Time:	(Estimated) 25000 hours (Total, all aircraft), 7 hours (Total, this make and model), 21000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N50JR
Model/Series:	60 B60	Aircraft Category:	Airplane
Year of Manufacture:	1974	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	P-303
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	December 1, 2019 Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Installed	Engine Model/Series:	TIO540
Registered Owner:		Rated Power:	380
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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	Abilene, TX (ABI)	Type of Flight Plan Filed:	None
Destination:	Odessa, TX (ODO)	Type of Clearance:	Traffic advisory;VFR flight following
Departure Time:	18:22 Local	Type of Airspace:	Class E;Class G

Airport Information

Airport:	EDWARDS LUCIAN WELLS RANCH TX31	Runway Surface Type:	Asphalt
Airport Elevation:	2505 ft msl	Runway Surface Condition:	Unknown
Runway Used:	2	IFR Approach:	None
Runway Length/Width:	5200 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	32.059722,-101.58583(est)

Administrative Information

Investigator In Charge (IIC):	Williams, David		
Additional Participating Persons:	Albert Hilliard; Federal Aviation Administration; Lubbock, TX		
Original Publish Date:	May 5, 2021	Investigation Class:	3
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=100888		

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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).