



Aviation Investigation Final Report

Location:	Wichita, Kansas	Accident Number:	CEN21LA302
Date & Time:	July 1, 2021, 19:08 Local	Registration:	N10HK
Aircraft:	Piper AEROSTAR 600A	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 in the multiengine airplane when, about 8 miles north of the intended destination, the right engine began “sputtering and popping,” and he shut it down and feathered the propeller. Shortly thereafter, the left engine began “slowly spooling down” and the airplane was not able to maintain airspeed and altitude. The pilot performed a forced landing to a flat, muddy wheat field, resulting in substantial damage.

A postaccident examination of the airplane revealed no anomalies. There was no evidence of fuel at the accident site or in the airplane. During the recovery of the airplane from the field, no fuel was found in the three intact fuel tanks nor in any of the engine fuel lines. The pilot later stated that he ran the airplane out of fuel.

Probable Cause and Findings

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

The pilot’s improper fuel planning and management, which resulted in a total loss of engine power due to fuel exhaustion.

Findings

Aircraft	Fuel - Fluid level
Aircraft	Fuel - Fluid management
Personnel issues	Use of equip/system - Pilot
Personnel issues	Monitoring equip/instruments - Pilot

Factual Information

History of Flight

Approach	Fuel exhaustion (Defining event)
Approach	Loss of engine power (partial)
Approach	Off-field or emergency landing
Approach	Collision during takeoff/land

On July 1, 2021, about 1908 central daylight time, a Piper Aerostar 600A, N10HK, was substantially damaged when it was involved in an accident near Wichita, Kansas. The commercial pilot sustained serious injuries. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot was conducting a cross-country flight when, about 8 miles north of his intended destination, he reduced engine power, pitched for level flight, and waited for indicated airspeed to drop below 174 kts to add 20° of flaps. As soon as the drag was introduced, the airplane began to “buck back and forward,” and the two engines were “throttling up and down on their own.” He noted that the right engine seemed to be “sputtering and popping” more than the left engine, so he decided to raise the flaps and to shut down and feather the right engine. He declared an emergency to air traffic control. The pilot then noticed that the left engine was “slowly spooling down” and the airplane was not able to maintain airspeed and altitude. The pilot performed a forced landing to a flat, muddy wheat field about 4 nautical miles from the airport. The airplane sustained substantial damage to the fuselage and to both wings.

A Federal Aviation Administration inspector traveled to the accident site to examine the airplane. Flight control and engine control continuity were confirmed. The master switch was turned on and the fuel gauges showed a zero indication. There was no evidence of fuel at the accident site or in the airplane. During the recovery of the airplane from the field, no fuel was found in the three intact fuel tanks, nor in any of the engine fuel lines. The pilot later stated that he ran the airplane out of fuel during the accident flight.

The pilot reported that, during the preflight checks and twice during the accident flight, he activated the low fuel warning light, and no anomalies were noted. Postaccident testing of the low fuel warning light in an exemplar Piper Aerostar 602P revealed no anomalies.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	30, 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 multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	July 11, 2019
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 28, 2020
Flight Time:	420 hours (Total, all aircraft), 95 hours (Total, this make and model), 340 hours (Pilot In Command, all aircraft), 80 hours (Last 90 days, all aircraft), 47 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N10HK
Model/Series:	AEROSTAR 600A NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	1980	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	6007158061222
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	May 6, 2021 Annual	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	2744.9 Hrs as of last inspection	Engine Manufacturer:	Lycoming Engines
ELT:	C91 installed, activated, did not aid in locating accident	Engine Model/Series:	IO-540-K1J5
Registered Owner:	JA MACH 3 LLC	Rated Power:	290 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None
Operator Does Business As:	None	Operator Designator Code:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KAAO,1421 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	18:54 Local	Direction from Accident Site:	177°
Lowest Cloud Condition:	Few / 3600 ft AGL	Visibility	
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	26°C / 20°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sioux Falls, SD (FSD)	Type of Flight Plan Filed:	None
Destination:	Wichita, KS	Type of Clearance:	VFR flight following
Departure Time:	17:23 Local	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:		Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	37.819516,-97.226232(est)

Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	William Thornton; FAA Wichita FSDO; Wichita, KS
Original Publish Date:	November 1, 2022
Last Revision Date:	
Investigation Class:	Class 3
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=103403

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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](#).