



National Transportation Safety Board Aviation Accident Data Summary

Location:	Broomfield, CO	Accident Number:	CEN13FA182
Date & Time:	03/01/2013, 1545 MST	Registration:	N93AA
Aircraft:	AERO COMMANDER 500B	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Analysis

The pilot stated that, during the preflight inspection of the airplane, he checked the fuel gauge, and it indicated 65 gallons. Due to the design of the fuel system, it is not possible to visually check the fuel level to confirm that the fuel gauge indication is accurate. During takeoff and as he reduced power for enroute climb, the left engine began to surge and lose power. He immediately turned left back toward the airport and contacted the control tower to advise that he was making a single-engine, straight-in approach to land. When he lowered the landing gear, the right engine began to surge and lose power. Subsequently, the pilot declared an emergency, and, realizing he had insufficient engine power and altitude to return to the airport, he retracted the landing gear and made a no-flap, gear-up landing on a nearby golf course. Postaccident application of battery power to the airplane confirmed that the fuel gauge indicated 65 gallons; however, when the airplane's fuel system was drained, only about 1/2 gallon of fuel was recovered. Thus, the engines lost power due to fuel exhaustion.

Flight Events

Initial climb - Loss of engine power (partial)
Emergency descent - Off-field or emergency landing

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Loss of engine power due to fuel exhaustion. Contributing to the accident was the failure of the fuel gauge to indicate the actual amount of fuel on board the airplane and the design of the airplane's fuel system, which precluded a visual confirmation of the fuel level.

Findings

Aircraft-Aircraft systems-Fuel system-(general)-Design - F
Aircraft-Aircraft systems-Fuel system-Fuel quantity sensor-Malfunction - F
Aircraft-Fluids/misc hardware-Fluids-Fuel-Fluid level - C
Organizational issues-Management-Policy/procedure-Adequacy of policy/proc-Operator

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	69
Airplane Rating(s):	Multi-engine Land; Single-engine Land; Single-engine Sea	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	Glider	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Glider; Instrument Airplane
Flight Time:	15000 hours (Total, all aircraft), 414 hours (Total, this make and model), 14000 hours (Pilot In Command, all aircraft), 34 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	AERO COMMANDER	Registration:	N93AA
Model/Series:	500B	Engines:	2 Reciprocating
Operator:	American East Airways Corporation	Engine Manufacturer:	Lycoming
Air Carrier Operating Certificate:	On-demand Air Taxi (135)	Engine Model/Series:	IO-540-E1B5
Flight Conducted Under:	Part 91: General Aviation - Flight Test		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KBJC, 5673 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	Broken / 22000 ft agl
Condition of Light:	Day	Wind Speed/Gusts, Direction:	Calm
Temperature:	7°C / -8°C	Visibility:	40 Miles
Precipitation and Obscuration:			
Departure Point:	Broomfield, CO (KBKC)	Destination:	Broomfield, CO (KBKC)

Airport Information

Airport:	Rocky Mountain Metropolitan (KBJC)	Runway Surface Type:	
Runway Used:	N/A	Runway Surface Condition:	
Runway Length/Width:			

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC): Arnold W Scott

Adopted Date: 12/11/2013

Investigation Docket: <http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=86335>

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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.