



Aviation Investigation Final Report

Location:	Cheyenne, Wyoming	Accident Number:	CEN18LA225
Date & Time:	June 14, 2018, 14:45 Local	Registration:	N4954W
Aircraft:	Rockwell International 112TC	Aircraft Damage:	Substantial
Defining Event:	Loss of engine power (total)	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport pilot and his passenger departed on a short personal flight from an airpark to a local airport. The entire flight was conducted with the fuel selector valve selected to BOTH. During the flight, the engine rpm decreased and then increased several times before decreasing to idle. The pilot attempted to restore engine power but was not successful. The pilot performed a forced landing to a field, during which the airplane sustained substantial damage to the right wing and fuselage. The pilot stated that each fuel tank contained about 1/4 tank of fuel based on the reading on the fuel gauges and his knowledge of the fuel burn and the previous day's flight. He did not have a calibrated fuel stick for the airplane to visually verify the level of fuel. A postaccident examination of the airframe, engine, and fuel system revealed no evidence of preimpact mechanical malfunctions or failures that would have precluded normal operation. Thus, the reason for the loss of engine power could not be determined.

Probable Cause and Findings

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

A loss of engine power for reasons that could not be determined because postaccident examination did not reveal any evidence of preimpact mechanical malfunctions or failures that would have precluded normal operation.

Findings

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

History of Flight

Enroute	Loss of engine power (partial)
Enroute	Loss of engine power (total) (Defining event)
Emergency descent	Off-field or emergency landing

On June 14, 2018, about 1445 mountain daylight time, a Rockwell International 112TC airplane, N4954W, was substantially damaged during a forced landing near Cheyenne Regional Airport/Jerry Olson Field (KCYS), Cheyenne, Wyoming. The pilot and passenger were not injured. The personal flight was conducted under the provisions of 14 Code of Federal Regulations Part 91. Visual meteorological conditions prevailed and no Federal Aviation Administration (FAA) flight plan was filed for the flight. The airplane departed Skyview Airpark (WY05), Cheyenne, Wyoming, and was en route to KCYS at the time of the accident.

According to the written statement provided by the pilot, he preflighted the airplane and confirmed about ¼ tank of fuel for each wing fuel tank, using the indication on the fuel gauges and knowledge from fuel burn and the previous day's flight. He did not have a fuel stick calibrated for the airplane. No contamination was noted in the fuel sump samples. The engine started and ran during the engine runup without issues. The entire flight was conducted with the fuel selector valve selected to BOTH.

About 5 miles from KCYS, the engine rpms dropped, and the pilot adjusted the mixture and throttle setting which resulted in an increase in engine power. About a minute later, the engine rpms decreased again, and the pilot went through the checklist to restore power and requested to land straight in at KCYS. The power increased for 10 seconds and then went to idle. During a forced landing to the field, just east of the approach end to runway 27, the outboard portion of the right wing impacted the ground and separated, and the empennage and fuselage were bent and wrinkled.

Measurable fuel was documented in the left-wing fuel tank and trace fuel was documented in the fuel lines for the right-wing fuel tank. The right-wing fuel line was impact separated and the right-wing fuel tank was empty. An examination of the airframe, engine, and fuel system, conducted by the National Transportation Safety Board, revealed no preaccident mechanical anomalies that would have precluded normal operations.

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	44,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:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	April 20, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	March 29, 2018
Flight Time:	7260 hours (Total, all aircraft), 6.5 hours (Total, this make and model), 3745 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Rockwell International	Registration:	N4954W
Model/Series:	112TC	Aircraft Category:	Airplane
Year of Manufacture:	1976	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	13084
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	June 7, 2018 Annual	Certified Max Gross Wt.:	2850 lbs
Time Since Last Inspection:	21 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2228.7 Hrs as of last inspection	Engine Manufacturer:	Lycoming
ELT:	C126 installed, activated	Engine Model/Series:	TO-360-C1A6D
Registered Owner:		Rated Power:	210 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:	KCYS,6159 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	14:53 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	19 knots / 25 knots	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	290°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	29.93 inches Hg	Temperature/Dew Point:	29°C / -3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Cheyenne, WY (WY05)	Type of Flight Plan Filed:	None
Destination:	Cheyenne, WY (KCYS)	Type of Clearance:	None
Departure Time:	14:15 Local	Type of Airspace:	Class D

Airport Information

Airport:	Cheyenne Regional Airport KCYS	Runway Surface Type:	
Airport Elevation:	6159 ft msl	Runway Surface Condition:	Dry;Rough;Vegetation
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	9270 ft / 150 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:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.154445,-104.785003(est)

Administrative Information

Investigator In Charge (IIC):	Rodi, Jennifer
Additional Participating Persons:	Carl M Miller; Federal Aviation Administration; Denver, CO
Original Publish Date:	November 6, 2019
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97481

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](#).