



Aviation Investigation Final Report

Location:	Denver, Colorado	Accident Number:	GAA18CA544
Date & Time:	September 9, 2018, 12:10 Local	Registration:	N514RH
Aircraft:	HALLADAY ROY LOCKHEED	Aircraft Damage:	Substantial
Defining Event:	Part(s) separation from AC	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The pilot reported that, upon landing, he activated the canopy motor to open the canopy about 2 inches, but the canopy continued to open, separated from the airframe, and struck the empennage. He added that it was standard procedure upon landing to open the canopy slightly to aid in slowing the airplane and egress in a runway excursion event.

The airplane sustained substantial damage to the empennage.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation. The pilot added that the emergency canopy release, which anchors the canopy to the airframe when the canopy motor was turned on, was inadvertently released during the flight.

Probable Cause and Findings

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

The pilot's failure to verify that the emergency canopy release was in the correct position when opening the canopy during landing, which resulted in the canopy separating from the airplane and subsequently impacting the empennage.

Findings

Aircraft	Passenger/crew doors - Incorrect use/operation
Personnel issues	Incorrect action selection - Pilot
Aircraft	Passenger/crew doors - Design

Factual Information

History of Flight

Landing-landing roll	Part(s) separation from AC (Defining event)
Landing-landing roll	Miscellaneous/other

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	67,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
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:	May 1, 2018
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	June 30, 2018
Flight Time:	(Estimated) 25050 hours (Total, all aircraft), 220 hours (Total, this make and model), 22000 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	HALLADAY ROY	Registration:	N514RH
Model/Series:	LOCKHEED T-33	Aircraft Category:	Airplane
Year of Manufacture:	2000	Amateur Built:	
Airworthiness Certificate:	Other; Experimental (Special)	Serial Number:	001
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	May 22, 2018 Condition	Certified Max Gross Wt.:	15000 lbs
Time Since Last Inspection:		Engines:	1 Turbo jet
Airframe Total Time:	207.8 Hrs	Engine Manufacturer:	Allison
ELT:	C91A installed, not activated	Engine Model/Series:	J33-A35
Registered Owner:		Rated Power:	5200 Lbs thrust
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBJC, 5595 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	18:47 Local	Direction from Accident Site:	179°
Lowest Cloud Condition:	Scattered / 10000 ft AGL	Visibility	30 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	7 knots / 14 knots	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.06 inches Hg	Temperature/Dew Point:	29°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Denver, CO (APA)	Type of Flight Plan Filed:	None
Destination:	Denver, CO (BJC)	Type of Clearance:	None
Departure Time:	12:45 Local	Type of Airspace:	Class D

Airport Information

Airport:	ROCKY MOUNTAIN METROPOLITAN BJC	Runway Surface Type:	Asphalt
Airport Elevation:	5673 ft msl	Runway Surface Condition:	Dry
Runway Used:	12L	IFR Approach:	None
Runway Length/Width:	9000 ft / 100 ft	VFR Approach/Landing:	Full stop; Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	39.908889,-105.117225(est)

Administrative Information

Investigator In Charge (IIC):	Nepomuceno, Eleazar
Additional Participating Persons:	John Berens; FAA; Denver, CO
Original Publish Date:	March 20, 2020
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=98276

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](#).