



Beechcraft

BY TEXTRON AVIATION

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1973	Make: Cessna	Model: P337G
	Serial number: P337-0016		Registration: 337KN
Location: Gold Hill, CO		Date: 07-17-22	Time: 0938 MDT
Aircraft Owner		Aircraft Operator	
Bluebird Aviation [REDACTED] Broomfield, CO 80021-2505		Steven William Chase Not provided	
Report Information			
Senior Air Safety Investigator: Ernest C. Hall		Report #: ASI-22-BP-T	Report date: 02-08-23

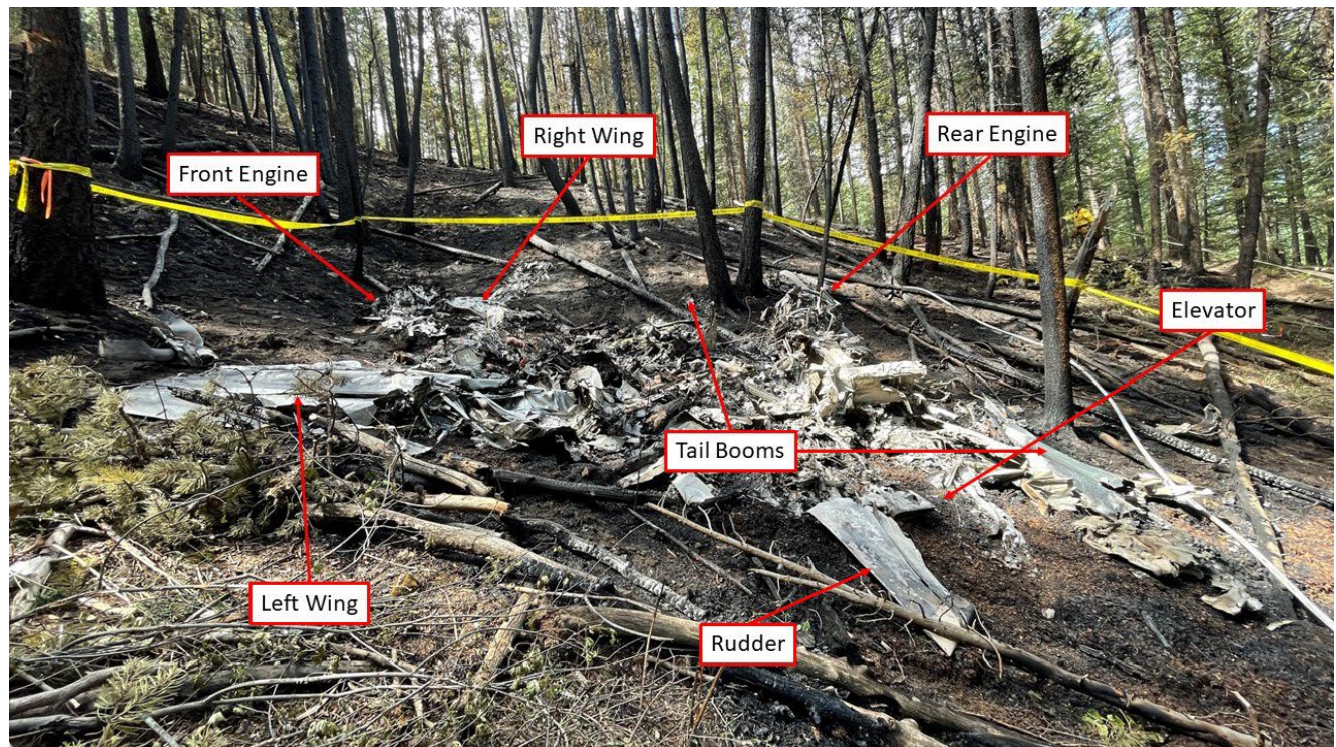
Airframe

Impact Sequence and Airframe Structure

The aircraft impacted the mountainous terrain on approximate magnetic heading of 283° in a nose down attitude. The first identified point of contact was a cluster of three trees that were severed/broken approximately 17' to 20' above the ground. The trees were grouped within an area of trees that were approximately 75' to 100' in height.

The aircraft came to rest mostly upright on a magnetic heading of approximately 019°. The rear engine and the tail booms came to rest inverted. The wreckage was contained within an area of approximately 30' x 40'. The area around the wreckage was fire damaged.

All four corners of the aircraft were accounted for at the accident site. Majority of the aircraft was thermally damaged.



NTSB – Accident Site Diagram

Airframe Systems

Flight Control System Information		
Control lock: Not installed		
Flight Control Cable Continuity		
Ailerons: See below	Elevators: See below	Rudder: See below
Aileron tab: Not applicable	Elevator tab: See below	Rudder tab: Not applicable
Flap and Trim Positions		
Flap indicator: Thermally damaged	Flap handle: Thermally damaged	Flap actuator: UP
Elevator trim: Indicator: Unknown due to damage	Actuator: Thermally damaged	
Rudder trim: Indicator: Not applicable	Actuator: Not applicable	

Remarks:

Due to impact damage and the post-impact fire, flight control cable continuities were only confirmed from the respective flight control surface or bellcrank to approximately mid-cabin.

The flap actuator/motor exhibited thermal damage and the steel component remained. The flap motor/actuator was found in the UP position.



ASI-22-BP-061 – Flap Motor/Actuator

Airframe Fuel System Condition, Controls, and Read Outs					
Fuel strainer screen:		Front: Undetermined		Rear: Undetermined	
Fuel strainer bowl:		Front: Undetermined		Rear: Undetermined	
Main fuel tank gauge:		Left: Thermally damaged		Right: Thermally damaged	
Auxiliary fuel gauge:		Left: Thermally damaged		Right: Thermally damaged	
Fuel selector handle:	Front: Undetermined	Fuel selector valve:	Front: See below	Fuel boost pump:	Front: Undetermined
	Rear: Undetermined		Rear: See below		Rear: Undetermined

Remarks:

Both fuel selector handles were thermally damaged. Due to the thermal damage of the aircraft, the two fuel selector valves could not be determined which wing the fuel selector valve was installed. Both valves were found in ON (LH or RH Tank) position.



ASI-22-BP-095 – Fuel Selector Valve



ASI-22-BP-097 – Fuel Selector Valve

Landing Gear System Condition and Controls			
Gear position:	Nose: Undetermined	Left: Undetermined	Right: Undetermined
Actuator position:	Nose: Undetermined	Left: Undetermined	Right: Undetermined
Landing gear selector:	Undetermined		Aux gear control: Undetermined
Environmental System Controls and Read Outs			
Cabin heater:	Undetermined	Cabin vent:	Undetermined
		Defrost:	Undetermined
Air conditioner:	Undetermined	Oxygen system:	Undetermined
		Oxygen quantity:	Undetermined
Pressurization System Controls and Read Outs			
Cabin pressurization:	Undetermined		Cabin VSI: Undetermined
Differential pressure:	Undetermined		Cabin altitude: Undetermined
Cabin altitude selector:	Undetermined		Ram air control: Undetermined
Left air control:	Undetermined		Source selector knob: Undetermined
Icing System Information and Switches			
Certified into known icing?	No		De-ice boots installed? Yes
Pitot heat:	Undetermined		Stall heat: Undetermined
De-ice:	Surface: Undetermined	Propeller: Undetermined	Windshield: Not applicable
Anti-ice:	Surface: Not applicable	Propeller: Undetermined	Windshield: Not applicable
ELT Information			
Installed? Undt	Manufacturer: Undetermined	Model: Undetermined	Type: Undetermined
Serial number: Undt	Battery due date: Undetermined	Armed: Undetermined	Activated: Undetermined

Remarks:

The environmental, pressurization, and icing systems were thermally damaged. The ELT was thermally damaged.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	2nd seat stop
1	Yes	Undetermined	Undt	Thermally damaged	Undetermined	Undetermined
2	Yes	Undetermined	Undt	Thermally damaged	Undetermined	Undetermined
3	Yes	Undetermined	Undt	Thermally damaged	Undetermined	Not applicable
4	Yes	Undetermined	Undt	Thermally damaged	Undetermined	Not applicable
5	No	Undetermined	Undt	Thermally damaged	Undetermined	Not applicable

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	See below	See below	See below	See below
2	Forward facing	See below	See below	See below	See below
3	Forward facing	See below	See below	See below	See below
4	Forward facing	See below	See below	See below	See below
5	Forward facing	See below	See below	See below	See below

Remarks:

The safety restraints and the seats exhibited thermal damage.

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: Undetermined			
Suction gage: Undetermined		Magnetic compass: Undetermined		Clock: Undetermined			
	Left side				Left side		
Airspeed:	Undetermined		Turn coordinator (airplane):	Undetermined			
Attitude (pitch):	Undetermined		Turn coordinator (ball):	Undetermined			
Attitude (roll):	Undetermined		Heading indicator:	Undetermined			
Altimeter:	Undetermined		Heading "bug":	Undetermined			
Altimeter setting:	Undetermined		Vertical speed indicator:	Undetermined			
Stand-by:	Airspeed: Undetermined		Attitude (pitch): Undetermined		Attitude (roll): Undetermined		
	Altimeter: Undetermined		Altimeter setting: Undetermined				
Communication and Navigation Radios							
Radio	Control	Active frequency	Stand-by frequency	Radio	Control	Active frequency	Stand-by frequency
Com 1:	Undt.	Undetermined	Undetermined	Com 2:	Undt.	Undetermined	Undetermined
Nav 1:	Undt.	Undetermined	Undetermined	Nav 2:	Undt.	Undetermined	Undetermined
Obs 1:	Undetermined			Obs 2:	Undetermined		
Transponder:	Mode: Undetermined		Active code: Undetermined		Stand-by code: Undetermined		
Electrical Switch Positions							
Master battery: Undetermined				Stand-by battery: Undetermined			
Left alternator: Undetermined				Right alternator: Undetermined			
Avionics 1: Undetermined				Avionics 2: Undetermined			
Lighting Switch Positions							
Navigation: Undetermined		Rotating beacon: Undetermined		Landing: Undetermined			
Taxi: Undetermined		Strobe: Undetermined		Instrument: Undetermined			
Wing Ice: Undetermined							
Ignition Switch Positions							
Front engine:	Left magneto: Undetermined			Right magneto: Undetermined			
Rear engine:	Left magneto: Undetermined			Right magneto: Undetermined			

Remarks:

The navigation instruments, communication and navigation radios, electrical switches, lighting switches, and ignition switches exhibited thermal damage.

Powerplant Description

Engine Instruments					
Hour meter: Undetermined					
	Front engine	Rear engine		Front engine	Rear engine
Tach RPM:	Undetermined	Undetermined	CHT:	Undetermined	Undetermined
Manifold press:	Undetermined	Undetermined	Fuel press:	Undetermined	Undetermined
Oil press:	Undetermined	Undetermined	Fuel flow:	Undetermined	Undetermined
Oil temp:	Undetermined	Undetermined	Ammeter:	Undetermined	Undetermined
EGT:	Undetermined	Undetermined	Voltmeter:	Undetermined	Undetermined
Front engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Undetermined	Undetermined	Cowl flaps:	Undetermined	Undetermined
Mixture:	Undetermined	Undetermined	Alt air:	Undetermined	Undetermined
Propeller:	Undetermined	Undetermined		Undetermined	
Rear engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Undetermined	Undetermined	Cowl flaps:	Undetermined	Undetermined
Mixture:	Undetermined	Undetermined	Alt air:	Undetermined	Undetermined
Propeller:	Undetermined	Undetermined		Undetermined	
Engine Condition					
	Front engine		Rear engine		
Engine attached to airframe:	Partially		Partially		
Propeller attached to engine:	No		Yes		
Engine compression:	Undetermined		Undetermined		
Vacuum pump drive shaft:	Undetermined		Undetermined		
Valve train continuity:	Undetermined		Undetermined		
Engine Fuel System Condition					
	Front engine		Rear engine		
Fuel pump drive shaft:	Undetermined		Undetermined		
Fuel injectors:	Undetermined		Undetermined		
Fuel control inlet screen:	Undetermined		Undetermined		
Distribution valve screen:	Undetermined		Undetermined		

Engine Magneto Condition						
		Front engine			Rear engine	
Left magneto attached:		Undetermined			Undetermined	
Left magneto spark:		Undetermined			Undetermined	
Right magneto attached:		Undetermined			Undetermined	
Right magneto spark:		Undetermined			Undetermined	
Front engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined
Bottom	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined
Rear engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined
Bottom	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined

Remarks:

The throttle quadrant exhibited impact and thermal damage.



Cropped – ASI-22-BP-108 – Throttle Quadrant

Both engines will be examined at a later date. At the writing of this report, the NTSB has not set a date and time.

The front engine exhibited impact and thermal damage and was found upright. The induction system exhibited post-impact damage. The throttle cable remained attached to the throttle body.



ASI-22-BP-128 – Front Engine

The rear engine exhibited heat, thermal, and post-impact damage and was found inverted. The oil sump was partially burned away exposing the internal components of the engine. The #1-, #3-, and #5-cylinder heads exhibit post-impact damage. The turbo charger exhibited post-impact and thermal damage.



Cropped and Lighten - ASI-22-BP-075 – Rear Engine

Propellers

Both propeller assemblies exhibited impact and thermal/heat damage. The front 2-bladed propeller separated from the engine crankshaft flange. Both propeller blades exhibited varying degrees of “S” bending, leading edge nicks, and polishing. The rear 2-bladed propeller remained attached to the engine crankshaft flange. Both propeller blades appeared to be in the feathered position. One blade, approximately mid-section outboard, exhibited a slight bend to the non-camber side. The other was unremarkable. Both propeller assemblies are targeted to be examined at McCauley. At the writing of this report, a date and time has not been set.



NTSB – Front Propeller



NSTB – Rear Propeller

Research & Testing

A GoPro camera was found near the right wingtip. The camera exhibited thermal damage and was sent to the NTSB Recorders Lab for evaluation. According to the NTSB-IIC, the NTSB Recorders Lab reported back to him that there was no data that could be pulled from the thermally damaged camera.