



Beechcraft

BY TEXTRON AVIATION

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1960	Make: Cessna	Model: 210
	Serial number: 57422		Registration: N9622T
Location: Lubbock, TX		Date: 10-26-20	Time: 1602 CDT
Aircraft Owner		Aircraft Operator	
Donald Glenn Eakin [REDACTED] Hallsville, TX 75650		Same as owner	
Report Information			
Air Safety Investigator: Casey J. Love		Report #: ASI-20-CM-T	Report date: 03-25-21

Airframe

Impact Sequence and Airframe Structure

From photographs provided by the FAA, the aircraft appears to have impacted in a nose down attitude and ignited a fire. The inboard portion of the left wing was consumed by fire. The cabin section of the fuselage was mostly consumed by fire. Both wings impact separated from the fuselage. The right wing separated into two segments outboard of the flap. Both flaps and ailerons remained attached. The tail separated aft of the baggage compartment. The empennage remained intact.

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: Undetermined	Elevators: Undetermined	Rudder: Undetermined
Aileron tab: Not applicable	Elevator tab: Undetermined	Rudder tab: Not applicable
Flap and Trim Positions		
Flap indicator: Undt	Flap handle: Undt	Flap actuator: Hydraulic / Undt
Elevator trim: Indicator: Undetermined	Actuator: 1.2" outside normal range tab down	
Rudder trim: Indicator: Not applicable	Actuator: NA	

Remarks:

Flight control cable continuity was not established through the cabin due to the amount of thermal damage. Elevator, elevator trim, and rudder cables were cut by first responders aft of the baggage compartment. The rudder moved when the cables were pulled at the location they were cut by first responders. The autopilot pitch servo was attached to the fuselage mount structure. The servo cables were in place on the capstan. The servo cables were securely attached to the elevator cables via the bridle cable clamps. The servo motor sustained significant fire damage. The autopilot pitch computer and altitude aneroid were not observed in the wreckage and are believed to have been consumed by fire. The autopilot controller was also not identified in the wreckage exam. The autopilot roll servo was

located in the left wing and was in place in the mount structure. The servo cables were in place on the capstan. The servo cable was attached securely to the aileron cable via the bridle cable clamp and the other was attached via hardware to the aileron bellcrank. The left aileron movement was restricted by impact damage and the cables were attached to the aileron bellcrank. The right aileron cables exhibited overload separation outboard of the flap, where the outboard portion of the wing was impact separated. The right wing aileron moved when the cables were pulled. Aileron cables were observed attached at the left aileron bellcrank.

Airframe Fuel System Condition, Controls, and Read Outs			
Fuel strainer screen: Undetermined		Fuel strainer bowl: Undetermined	
Main fuel tank gauge:	Left: Undt		Right: Undt
Fuel selector handle: Undetermined	Fuel selector valve: Undetermined		Fuel boost pump: Undetermined
Firewall fuel shutoff: Undetermined			

Remarks:

The majority of the fuel system was consumed by fire. The fuel selector was not examined.

Landing Gear System Condition and Controls					
Gear position:		Nose: Undt		Left: Retracted	
				Right: Undt	
Environmental System Controls and Read Outs					
Cabin heater: Undt		Cabin vent: Undt		Defrost: Undt	
Air conditioner: Undt		Oxygen system: Undetermined		Oxygen quantity: Undt	
Icing System Information and Switches					
Certified into known icing? No			De-icing boots installed? No		
Pitot heat: Undetermined			Stall heat: Undetermined		
De-ice:	Surface: Not applicable		Propeller: Not applicable		Windshield: Not applicable
Anti-ice:	Surface: Not applicable		Propeller: Not applicable		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 nose and right main landing gear were impact separated from the fuselage. The left main gear was attached and in the retracted position. The gear doors were not observed.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	2nd seat stop
1	Yes	Undetermined	Undt	Destroyed by fire	Undetermined	Undetermined
2	No	Undetermined	Undt	Destroyed by fire	Undetermined	Undetermined
3	No	Undetermined	Undt	Destroyed by fire	Undetermined	Not applicable
4	No	Undetermined	Undt	Destroyed by fire	Undetermined	Not applicable

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
2	Forward facing	Undetermined	Undetermined	Undetermined	Undetermined
3	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined
4	Undetermined	Undetermined	Undetermined	Undetermined	Undetermined

Remarks:

Seat cushions and foam were consumed by fire, only the frames remained. The seat belt webbing and buckles were not observed.

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: S-Tec			
Suction gage: Undetermined		Magnetic compass: Undetermined		Clock: Undetermined			
	Left side	Right side		Left side	Right side		
Airspeed:	Undt	Undt	Turn coordinator (airplane):	Undt	Undt		
Attitude (pitch):	Undt	Undt	Turn coordinator (ball):	Undt	Undt		
Attitude (roll):	Undt	Undt	Heading indicator:	Undt	Undt		
Altimeter:	Undt	Undt	Heading "bug":	Undt	Undt		
Altimeter setting:	Undt	Undt	Vertical speed indicator:	Undt	Undt		
Stand-by:	Airspeed: Undt		Attitude (pitch): Undt		Attitude (roll): Undt		
	Altimeter: Undt		Altimeter Setting: Undt				
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		Master alternator: Undetermined		Avionics 1: Undetermined			
Stand-by battery: Undetermined		Alternator 2: 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 Position							
Key: Undetermined							

Remarks:

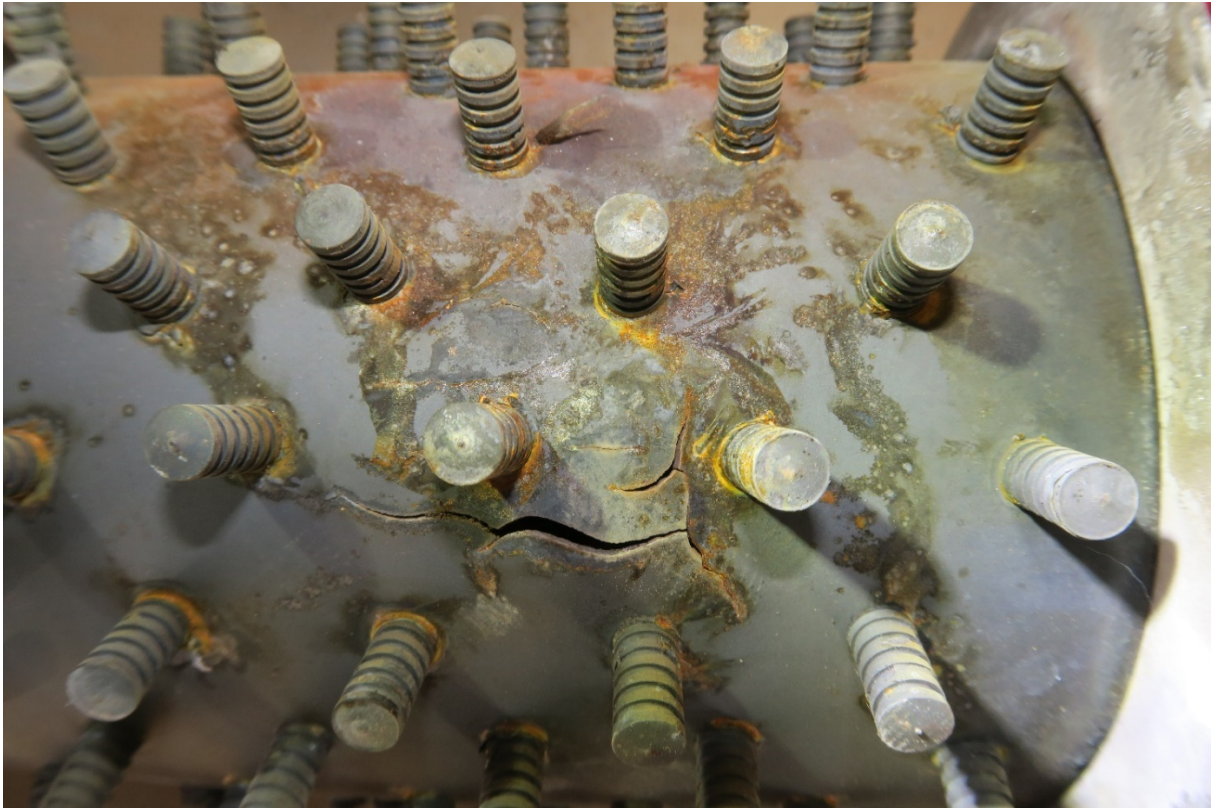
All observed instruments sustained substantial fire damage and were unreliable.

Powerplant Description

Engine Instruments						
Hour meter:	Undt	Tach RPM:	Undt	Tach hours:	Undt	
Oil press:	Undt	Oil temp:	Undt	EGT:	Undt	
Fuel press:	Undt	Fuel flow:	Undt	Ammeter:	Undt	
Manifold press: Undt						
CHT: Undt						
Voltmeter: Undt						
Engine Control Positions						
	Cockpit	Engine		Cockpit	Engine	
Throttle:	Undetermined	Undetermined	Cowl flaps:	Undetermined	Undetermined	
Mixture:	Undetermined	Undetermined	Alternate air:	Undetermined	Undetermined	
Propeller:	Undetermined	Undetermined	Primer:	Undetermined		
Engine Condition						
Engine attached to airframe: No			Propeller attached to engine: No			
Engine compression: Undetermined			Valve train continuity: No			
Vacuum pump drive shaft: Undetermined						
Engine Fuel System Condition						
Fuel pump drive shaft: Undetermined			Carburetor inlet screen: Undetermined			
Fuel distribution valve screen: Undetermined			Fuel injectors: Undetermined			
Magneto Condition						
Left magneto attached: Partially			Right magneto attached: Yes			
Left magneto spark: Undetermined			Right magneto spark: Undetermined			
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 engine was separated from the mounts and remained attached to the fuselage by the engine control cables. There was no evidence of preimpact abnormalities to the engine cylinders or crank case. The oil sump was crushed on impact. The mufflers were separated from the exhaust stacks. The stacks sustained crush damage but remained attached to the cylinder heads. The induction tubes and fuel control were separated from the engine. The fuel control sustained fire damage. The cabin heat muffler heat exchanger exhibited numerous cracks in an approximate two inch area where a bulge protruded outward from the muffler. The engine data tag was unreadable.



(ASI-20-CM-060) Muffler Crack)

Propeller

The propeller was impact separated from the crankshaft at the prop flange. Blade A and B exhibited similar damage. They were bent aft midspan and twisted. The blade tips were curled aft. The face of each blade exhibited polishing. The leading edges were gouged in a similar pattern approximately 4 inches inboard from the tip.



ASI-20-101 (cropped) (propeller damage)

Research & Testing

The muffler heat exchanger was in the custody of the FAA inspector for possible future examination.