



Beechcraft

BY TEXTRON AVIATION

Air Safety Investigations Aircraft Incident/Accident Technical Report

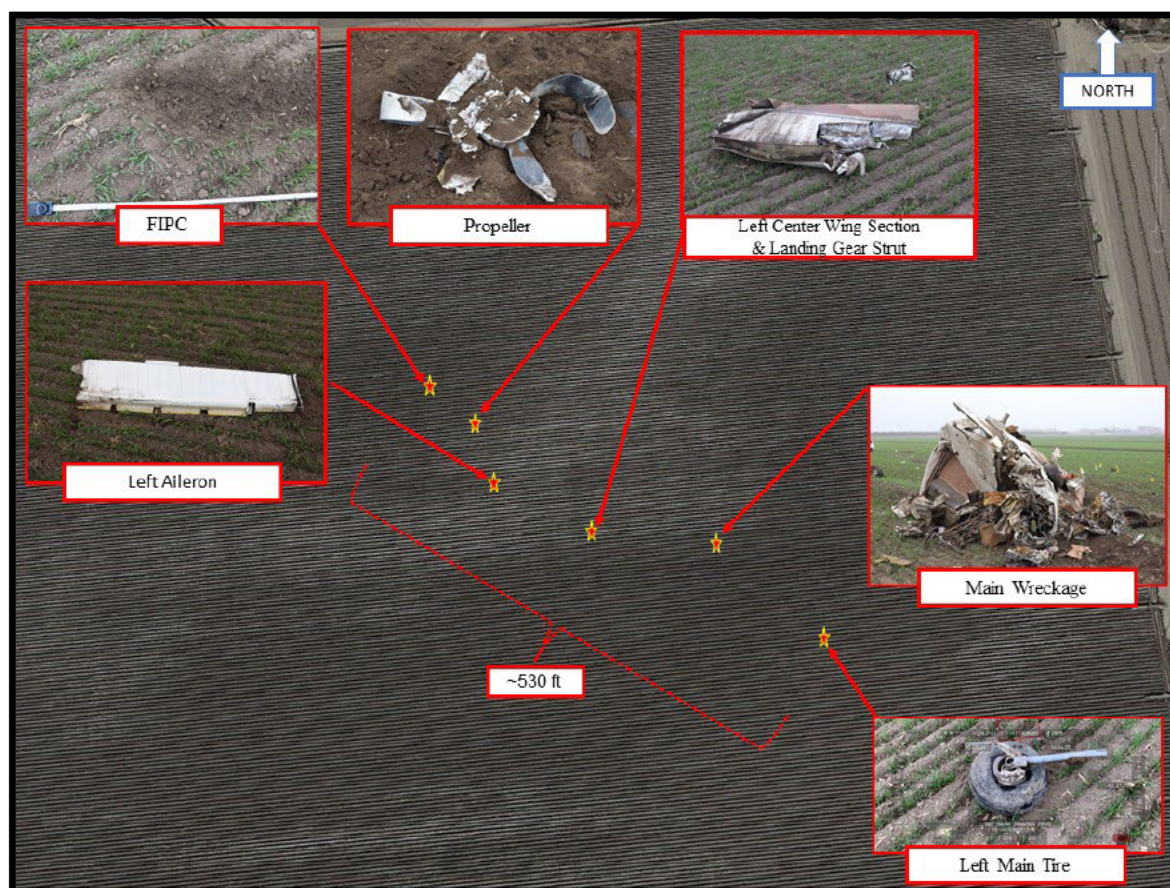
Aircraft Incident/ Accident Information	Year: 1966	Make: Beechcraft	Model: V35
	Serial number: D-8265		Registration: N7933M
Location: Visalia, CA		Date: 12-04-S21	Time: 1840 PST
Aircraft Owner		Aircraft Operator	
David Joseph Chelini [REDACTED] Sacramento, CA 95822-3634		Same as Aircraft Owner.	
Report Information			
Senior Air Safety Investigator: Ernest C. Hall		Report #: ASI-22-AE-T	Report date: 03-23-22

Airframe

Impact Sequence and Airframe Structure

According to the NTSB-IIC, the aircraft collided with open, flat terrain approximately 1 mile southwest of the departure end of Runway 30. The ground scars and debris field were on an approximate magnetic heading of 285°. The main wreckage, consisting of the fuselage, right wing, fragmented left wing, and empennage, came to rest on its left side on a magnetic heading of approximately 265°. The ground scars/debris field extended approximately 530'.

The first aircraft wreckage in the debris field was the propeller assembly located about 330' from the main wreckage. Continuing in the debris field toward the main wreckage was the left aileron and then a mid-section of the left wing. The left main landing gear (MLG) oleo struct connected to the wheel/brake assembly traveled beyond the main wreckage.



Provided by NTSB-IIC

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: See below	Elevators: See below	Rudder: See below
Aileron tab: See below	Elevator tab: See below	Rudder tab: See below
Flap and Trim Positions		
Flaps:	Indicator: Zero position	Handle: Undetermined
	Left actuator: $1 \frac{5}{8}'' = 0^\circ$	Right actuator: $1 \frac{5}{8}'' = 0^\circ$
Elevator trim:	Indicator: Undetermined	
	Left actuator: See below	Right actuator: See below
Rudder trim:	Indicator: See below	Actuator: See below
Aileron trim:	Indicator: Not applicable	Actuator: Not applicable

Remarks:

The left aileron exhibited impact damage and was separated from the left wing. The left-wing aileron bellcrank was separated. Attached to each separated bellcrank sections were the LH aileron UP control

cable and the aileron balance control cable. The right aileron exhibited impact damage and remained attached to the RH wing via the inboard hinge attachment point. The RH wing aileron push/pull tube remained attached to the RH aileron and the RH wing aileron bellcrank. The aileron bellcrank remained attached to the RH wing and attached to the bellcrank were the RH aileron UP control cable and the aileron balance control cable. The LH and RH aileron UP control cables were continuous from their respective wing bellcrank to the cockpit except for the aileron chain being separated in the cockpit and the RH aileron UP cable was separated at the RH wing root. The aileron balance control cable was continuous from each respective wing bellcrank except for the cable being separated at the RH wing root. All aileron control cable separations either exhibited splayed ends and individual filaments that were consistent with signatures of tensile overload and/or the cables exhibited a straight (recovery) cut.

The LH and RH ruddervators remained attached to their respective stabilizer attachment points. The LH and RH ruddervator push/pull tubes remained attached their respective flight control surface and their respective attachment to the differential mechanism. The elevator primary control cables were continuous from their respective differential mechanism attachment points to the cockpit except for the cables were separated between FS 207.00 and FS 233.50 and at the bobweight. The elevator control cables separations either exhibited splayed ends and individual filaments that were consistent with signatures of tensile overload and/or the cables exhibited a straight (recovery) cut. The rudder primary control cables were continuous from their respective differential mechanism attachment points to the cockpit except for the cables were separated between FS 207.00 and FS 233.50. The rudder control cables separations between FS 207.00 and FS 233.50 exhibited a straight (recovery) cut.

The elevator trim control cables were continuous from the cockpit to the trim actuator except for the trim cables were separated between FS 207.00 and FS 233.50 and in the cockpit. The elevator trim control cable separations either displayed splayed ends and individual filaments that were consistent with signatures of tensile overload and straight (recovery) cuts.

The left-wing flap exhibited impact damage and was separated from the left wing. The left flap actuator remained attached to the left-wing attachment point and remnants of the left flap attachment bracket separated from the left wing. The right-wing flap remained attached to the right-wing attachment points. The right flap actuator remained attached to the right-wing and the right flap attachment points.

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

Remarks:

The fuel selector valve handle was observed in the right-wing tank position. An unknown amount of air pressure was applied to the right-wing tank fitting/port and air flow/pressure was felt at the fitting/port to the engine. The fuel selector valve handle was rotated to the left-wing tank position and an unknown amount of air pressure was applied to the left-wing tank fitting/port and air flow/pressure was felt at the fitting/port to the engine. The fuel selector valve handle was rotated to the off position. An unknown amount of air pressure was applied to the left- and right-wing tank fittings/ports and no air flow/pressure was felt at the fitting/port to the engine. The fuel selector valve filter assembly was not disassembled.

The left- and right-wing fuel tank caps remained installed in their respective fuel tanks with each lock/open lever tabs flush with their respective fuel cap. Each fuel cap lock/open lever tab were

exercised and found to rotate to the open and closed positions by hand force. Both fuel cap o-rings had no visible cracking or cuts.

Landing Gear System Condition and Controls			
Gear position:	Nose: Undetermined	Left: Undetermined	Right: Retracted
Actuator position:	Nose: See below	Left: See below	Right: See below
Landing gear selector: Undetermined		Emer gear handle: Undetermined	
Environmental System Controls and Read Outs			
Cabin heater: Undetermined	Cabin vent: Undetermined	Defrost: Undetermined	
Air conditioner: Undetermined	Oxygen system: Not applicable	Oxygen quantity: Not applicable	
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: Undetermined	Windshield: Not applicable
Anti-ice:	Surface: Not applicable	Propeller: Not applicable	Windshield: Not applicable
ELT Information			
Installed? Yes	Manufacturer: Larago Electronic MFG, Inc.	Model: LELT-1005	Type: AP
Serial number: 1820	Battery due date: 07- 22	Armed: Undetermined	Activated: Undetermined

Remarks:

The nose and left main landing gear were separated from the aircraft. The landing gear motor assembly remained attached to its respective attachment points. The motor was found in the full retracted position. The left and nose main landing gear torque arms and tubes were separated from the landing gear motor assembly.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	
1	Undt	2-Point	Undt	Impact damaged	Beechcraft	
2	Undt	2-Point	Undt	Impacted damaged	Beechcraft	
3	Undt	2-Point	Undt	Impacted damage	Beechcraft	
4	Undt	2-Point	Undt	Impacted damaged	Beechcraft	
5	Undt	2-Point	Undt	Impacted damaged	Undetermined	
6	Undt	2-Point	Undt	Impacted damaged	Undetermined	

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	Yes	Yes	Yes	Partially
2	Forward facing	Yes	Yes	Yes	Partially
3	Forward facing	Undetermined	Partially	Undetermined	Undetermined
4	Forward facing	No	Partially	No	Undetermined
5	Forward facing	Not applicable	Partially	Yes	Not applicable
6	Forward facing	Not applicable	Partially	Yes	Not applicable

Remarks:

It was undetermined if the pilot and passengers were wearing the available seat restraints.

One cockpit seat and one cabin seat lap belts were found buckled.

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.	Undt.	Undt.	Com 2:	Undt.	Undt.	Undt.
Nav 1:	Undt.	Undt.	Undt.	Nav 2:	Undt.	Undt.	Undt.
Obs 1:	Undt.			Obs 2:	Undt.		
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: Not applicable		Avionics 2: Not applicable			
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:

The instrument panels were separated from the aircraft. Several instruments were separated from their respective panel and exhibited impact damage. An instrument with impact damage contained a gyro gimble with rotational scoring.

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:	Full Forward	Undetermined	Cowl flaps:	Undetermined	Undetermined	
Mixture:	Full Forward	Undetermined	Alternate air:	Undetermined	Undetermined	
Propeller:	Full Forward	Undetermined	Primer:	Undetermined		
Engine Condition						
Engine attached to airframe: No			Propeller attached to engine: No			
Engine compression: See below			Valve train continuity: Yes			
Vacuum pump drive shaft: Intact						
Engine Fuel System Condition						
Fuel pump drive shaft: Intact			Fuel control inlet screen: Undetermined			
Fuel manifold valve screen: Clean			Fuel injectors: See below			
Magnetos Condition						
Left magneto attached: Yes			Right magneto attached: Yes			
Left magneto spark: All leads			Right magneto spark: All leads			
Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	Normal	Normal	Normal	Normal	Normal	Normal
Bottom	See below	See below	See below	See below	See below	See below

Remarks:

The NTSB-IIC performed the engine examination.

According to the NTSB-IIC, valve train continuity was confirmed, and thumb compression was obtained on cylinders 1 through 5. Due to impact damage, thumb compression and suction was not obtained on the #6-cylinder. Fuel injector nozzles for cylinders 1 through 4 and 6 were found to be free of debris or restrictions. The #5-cylinder fuel injector nozzle exhibited impact damage. The bottom spark plugs exhibited deposits within the electrode area and were oil soaked.

Propeller

The NTSB-IIC performed the propeller examination. The propeller assembly separated from the engine at the propeller flange. The propeller blades remained attached to propeller hub. Each blade was identified with A, B, and C for documentation purposes. Blade A exhibited S-bending about mid span, with polishing along the leading edge, and along with unidirectional striations on the cambered side of

the blade. Additionally, blade A exhibited 2 distinct striations on the cambered side of the blade about mid span. Blade B exhibited aft bending about mid span, with unidirectional striations on the cambered side of the blade. Blade C was separated about mid span, with polishing along the leading edge and chordwise striations on the cambered side of the blade. The separated blade section of the propeller exhibited polishing along the leading edge and chordwise striations on the cambered side of the blade.



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Research & Testing

None at the writing of this report.