

Cessna Aircraft Company Aircraft Incident/Accident Technical Report

Aircraft and Incident/Accident Information			
Year: 1962	Model: 182E	Serial number: 18254087	Registration: N3087Y
Location: Delta, CO		Date: 11-29-13	Time: 0750 MST
Aircraft Owner		Aircraft Operator	
Ray Veatch Agency, Inc. [REDACTED] [REDACTED]		Same as Aircraft Owner	
Report Information			
Senior Air Safety Investigator: Peter J. Basile		Report #: 13-CZGA-T	Report date: 02-28-14

Airframe

Impact Sequence and Airframe Structure

The debris field was approximately 445' long on a 340° heading. The engine and wings separated from the fuselage. The left wing was located approximately 82' to the right (east) of the fuselage. The right wing was approximately 26' behind (southeast of) the fuselage. The fuselage was broken into three large sections; the instrument panel with forward floor assembly, the aft seats with floor assembly, and the tail cone. The fuselage sections remained loosely connected via the flight control cables. The engine came to rest approximately 60' in front (north) of the fuselage.

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: Established	Elevators: Established	Rudder: Established
Aileron tab: Not applicable	Elevator tab: Established	Rudder tab: Not applicable
Flap and Trim Positions		
Flap actuator: 0.25" = Retracted	Flap indicator: 0 degrees	Flap handle: Undt
Elevator trim:	Actuator: 1.15" = ~5 degrees tab down	Indicator: Undetermined
Rudder trim:	Actuator: Undetermined	Indicator: Undetermined

Remarks:

Control cable continuity was established for all flight control surfaces through tension overload separations in the front door posts and at the wing roots.

Airframe Fuel System Condition, Controls, and Read Outs			
Fuel strainer screen: Clean		Fuel strainer bowl: Clean	
Main fuel tank gauge:	Left: 1/8	Right: 1/2	
Fuel selector handle: Right	Fuel selector valve: Right		

Remarks:

Fuel was observed leaking from the impact damaged right wing at the accident site.

Landing Gear System Condition and Controls				
Gear position:	Nose: Fixed		Left: Fixed	
			Right: Fixed	
Actuator position:	Nose: Not applicable		Left: Not applicable	
			Right: Not applicable	
Landing gear selector: Not applicable				
Environmental System Controls and Read Outs				
Cabin heater: On		Cabin vent: Off		Defrost: Not applicable
Air conditioner: Not applicable		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: Off			Stall heat: Not applicable	
Anti-ice:	Surface: Not applicable		Propeller: Not applicable	
			Windshield: Not applicable	
ELT Information				
Installed? Yes	Manufacturer: Ameri-King		Model: AK-450	
			Type: AF, AP	
Serial number: 471705		Battery due date: 02-14		Armed: Yes
			Activated: No	

Remarks:

None.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	2nd seat stop
1	Yes	3-Point	Yes	See Below	Non-Cessna	No
2	No	3-Point	N/A	See Below	Non-Cessna	No
3	No	2-Point	N/A	Intact	Undetermined	Not applicable
4	No	2-Point	N/A	Intact	Undetermined	Not applicable

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	Partially	Yes	Yes	Partially
2	Forward facing	Partially	Yes	Yes	Partially
3	Forward facing	Yes	Yes	Yes	Not applicable
4	Forward facing	Yes	Yes	Yes	Not applicable

Remarks:

The front seats had AmSafe 3-point, dual-shoulder harness restraints installed. The seat #1 and seat #2 left and right safety restraint floor attachment points were torn from the damaged fuselage. The seat #1 restraint was found buckled.

Instrument Panel

Navigation Instruments							
Analog primary instruments					Autopilot type: None		
Suction gage: 0			Magnetic compass: Undetermined		Clock: 07:34		
	Left side		Right side		Left side		Right side
Airspeed:	0			Turn coordinator (airplane):	Left		
Attitude (pitch):	Undt			Turn coordinator (ball):	Left		
Attitude (roll):	Undt			Heading indicator:	345		
Altimeter:	6,335'			Heading "bug":	N/A		
Altimeter setting:	30.26			Vertical speed indicator:	-2,000'		
Communication and Navigation Radios							
Radio	Control	Active frequency	Stand-by frequency	Radio	Control	Active frequency	Stand-by frequency
Com 1:	Undt	Digital	Undt	Com 2:	Undt	134.000	N/A
Nav 1:	Undt	Undt	Undt	Nav 2:	Undt	Undt	Undt
Obs 1:	030			Obs 2:	Undt		
Transponder:	Mode: Destroyed		Active code: Undt		Stand-by code: Undt		
Electrical Switch Positions							
Master battery: On			Alternator: On		Avionics 1: Off		
Lighting Switch Positions							
Navigation: Off			Rotating Beacon: On		Landing: On		
Taxi: On			Strobe: Off		Instrument: On		
Ignition Switch Position							
Key: Both							

Remarks:

None.

Powerplant Description

Engine Instruments						
Hour meter:	N/A	Tach RPM:	2,100	Tach hours:	2,985.48	
Oil press:	0	Oil temp:	0	EGT:	Undt	
Fuel press:	Digi	Fuel flow:	Digi	Ammeter:	Digi	
Manifold press: Undt						
CHT: 0						
Voltmeter: Digi						
Engine Control Positions						
	Cockpit	Engine		Cockpit	Engine	
Throttle:	Full	Undt	Cowl flaps:	Undt	Undt	
Mixture:	Rich	Undt	Carburetor heat:	Off		
Propeller:	Low RPM	Undt	Primer:	Locked		
Engine Condition						
Engine attached to airframe: No			Propeller attached to engine: No			
Engine compression: Yes			Valve train continuity: Yes			
Vacuum pump drive shaft: Intact						
Engine Fuel System Condition						
Fuel pump drive shaft: Not applicable			Carburetor inlet screen: Undetermined			
Magnetos Condition						
Left magneto attached: Yes			Right magneto attached: Yes			
Left magneto spark: Some leads			Right magneto spark: Some leads			
Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	Normal	Normal	Normal	Normal	Normal	Normal
Bottom	Normal	Normal	Normal	Normal	Normal	Normal

Remarks:

Engine compression and continuity were established by the CMI investigator. Magneto sparks were observed at all of the top spark plug leads; the bottom leads were not checked. The spark plugs appeared normally worn with light gray deposits. The carburetor was partially disassembled and residual fuel was observed in the float bowl. The oil pump and oil filter element appeared normal. The vacuum pump was disassembled and the vanes and rotor appeared normal. The directional gyro, attitude indicator gyro, and electric turn and bank gyro all displayed signatures indicative of rotation at the time of impact.

Propeller

Both propeller blades were bent aft and twisted with chordwise scoring on the cambered surface.

Research & Testing

None.