

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1963	Make: Cessna	Model: 182F
	Serial number: 18254771		Registration: N3371U
Location: Goodyear, AZ		Date: 12-21-19	Time: 1822 MST
Aircraft Owner		Aircraft Operator	
Ben E Preusser [REDACTED] Litchfield Park, AZ 85340-9579		Same as Aircraft Owner	
Report Information			
Air Safety Investigator: Jennifer D. Barclay		Report #: ASI-19-DH-T	Report date: 07-27-20

Airframe

Impact Sequence and Airframe Structure

The aircraft impacted powerlines in a left-wing low attitude followed by terrain in a nearly vertical descent. Powerline striations were observed along the entire length of the left wing leading edge. The left wingtip was separated and observed with burn marks and multiple pieces of wire on the ground. The right horizontal stabilizer was observed with wire striations at the inboard leading edge and skin separation along the leading edge. The empennage separated at approximately Fuselage Station (FS) 209.



Wreckage overview, ASI-19-DH-007

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 indicator: 0	Flap handle: Neutral	Flap actuator: 5.2"=between 30°-40°
Elevator trim: Indicator: Full nose down	Actuator: 1.8" = 20° tab UP	

Remarks:

All flight control surfaces remained attached. The elevator push-pull link was fractured at the separation of the empennage at approximately FS 209. The elevator trim tab actuator was pulled inboard from its mounting position. The chain was observed fractured. The elevator trim tab push-pull tube was fractured at the attach point to the trim tab. The bolt, castellated nut and cotter pin remained installed.



Elevator trim tab actuator, ASI-19-DH-076



Elevator trim tab push-pull tube attach point, ASI-19-DH-079



Elevator trim tab push-pull tube, ASI-19-DH-080

Airframe Fuel System Condition, Controls, and Read Outs			
Fuel strainer screen: Clean		Fuel strainer bowl: Clean	
Main fuel tank gauge:	Left: 0	Right: 1/4	
Fuel selector handle: Both	Fuel selector valve: Both		

Remarks:

More than 40 gallons of blue aviation fuel was drained from the aircraft by recovery personnel. A sample of the fuel tested negative for water using Sar-Gel.

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: Off	Cabin vent: Off	Defrost: Not applicable	
Air conditioner: Not applicable	Oxygen system: See below	Oxygen quantity: 2200 PSI	
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: Narco	Model: ELT 10	Type: P/AP/AF
Serial number: 23407	Battery due date: 08-20	Armed: See below	Activated: Undetermined

Remarks:

A portable oxygen bottle was observed in the recovered wreckage. Its installed location in the aircraft was undetermined.

The ELT was in the 'Armed' position at the accident site. It was actuated to 'Off' by recovery personnel.

Cabin and Equipment/Furnishings

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

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

Remarks:

Cabin, ASI-19-DH-104

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: None			
Suction gage: 0		Magnetic compass: 235°		Clock: 4:28			
	Left side	Right side		Left side	Right side		
Airspeed:	0		Turn coordinator (airplane):	Level			
Attitude (pitch):	Loose		Turn coordinator (ball):	Left			
Attitude (roll):	Loose		Heading indicator:	237°			
Altimeter:	9,320'		Heading "bug":	N/A			
Altimeter setting:	30.16		Vertical speed indicator:	100' Down			
Communication and Navigation Radios							
Radio	Control	Active frequency	Stand-by frequency	Radio	Control	Active frequency	Stand-by frequency
Com 1:	Digital	Digital	Digital	Com 2:	Digital	Digital	Digital
Nav 1:	Digital	Digital	Digital	Nav 2:	Digital	Digital	Digital
Obs 1:	334°			Obs 2:			
Transponder:	Mode: Digital		Active code: Digital		Stand-by code: Digital		
Electrical Switch Positions							
Master battery: On		Alternator: On		Avionics 1: On			
Lighting Switch Positions							
Navigation: See below		Rotating Beacon: See below		Landing: Off			
Taxi: Not applicable		Strobe: Not applicable		Instrument: On			
Ignition Switch Position							
Key: Both							

Remarks:

The Navigation and Rotating Beacon switches were broken, and their position could not be determined.

The attitude indicator was disassembled and showed little evidence of rotational scoring.



Instrument panel, ASI-19-DH-112

Powerplant Description

Engine Instruments					
Hour meter:	N/A	Tach RPM:	0	Tach hours:	823.66
Manifold press:	2900	Oil press:	0	Oil temp:	0
EGT:	Undt	CHT:	0	Fuel press:	Undt
Fuel flow:	Undt	Ammeter:	0		
Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Full	Idle	Cowl flaps:	See below	Undt
Mixture:	Rich	Rich	Carburetor heat:	Off	Undt
Propeller:	High RPM	Mid-range	Primer:	Closed & locked	
Engine Condition					
Engine attached to airframe:	Partially	Propeller attached to engine:	Yes		
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:	Clean		
Fuel distribution valve screen:	Not applicable	Fuel injectors:	Not applicable		
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
Top	Normal	Normal	Normal	Normal	Normal
Bottom	Normal	Normal	Normal	Normal	Normal

Remarks:

The handle for the cowl flaps was observed halfway between open and closed.

Propeller

Blade 1 was observed with slight S-bending and two trailing edge gouges near the tip. Blade 2 was observed bent aft near the root.



Propeller, ASI-19-DH-057

Research & Testing

The Insight engine monitor, Garmin GTX345 Transponder and the ACK altitude encoder were retained by the NTSB for further examination. At the time this report was written, the examination had not been completed.