



Beechcraft

BY TEXTRON AVIATION

Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1985	Make: Beechcraft	Model: 58
	Serial number: TH-1458		Registration: N142DR
Location: Galt, CA		Date: 09-04-22	Time: 1245 PDT
Aircraft Owner		Aircraft Operator	
HJ & L Air LLC [REDACTED]		[REDACTED] e	
Report Information			
Air Safety Investigator: [REDACTED]		Report #: ASI-22-CA-T	Report date: 02-09-23

Airframe

Impact Sequence and Airframe Structure

The aircraft descended vertically into a water filled slough in a wings level and nose low attitude with no impact signatures indicating forward momentum and became partially submerged. The aircraft remained intact. All flight control and stabilizer surfaces remained attached and intact. The fuselage was segmented by recovery personnel at approximate fuselage stations 72, 151, and 233.



Law Enforcement On-scene Photo Provided by NTSB-IIC (Cropped)

Airframe Systems

Flight Control System Information		
Control lock: Not installed		
Flight Control Cable Continuity		
Ailerons: Established	Elevators: Established	Rudder: Established
Aileron tab: Established	Elevator tab: Established	Rudder tab: Established
Flap and Trim Positions		
Flaps:	Indicator: Damaged	Handle: Damaged
	Left actuator: Fully Retracted	Right actuator: Fully Retracted
Elevator trim:	Indicator: Between neutral and full nose up	
	Left actuator: .9" = Neutral	Right actuator: See Below
Rudder trim:	Indicator: Neutral	Actuator: 3.85" ~ Near Neutral
Aileron trim:	Indicator: Full left	Actuator: 1.2" ~ 5 Degrees Tab Up

Remarks:

Flight control continuity was established from the cockpit to all flight control surfaces by tracing the control cables from the cockpit controls to the control surface. The elevator and rudder cables were cut in multiple locations by aircraft recovery personnel common to the fuselage cuts. The elevator and rudder trim control cables were cut in the same locations as the primary control cables. The elevator down cable was fractured approximately one foot from the elevator control column bellcrank attach point. The cable fracture exhibited signatures consistent with tension overload. The right elevator trim actuator was not measured but the tab was observed in the same approximate position as the left.

The aileron control cables remained continuous through the wings. They were cut by recovery personnel at approximate fuselage station 72. The aileron control cable chains remained engaged with the aileron control column sprockets.

Airframe Fuel System Condition, Controls, and Read Outs					
Fuel strainer screen:		Left: Clean		Right: Clean	
Fuel strainer bowl:		Left: Clean		Right: Clean	
Main fuel tank gauge:		Left: 1/4		Right: 1/2	
Auxiliary fuel gauge:		Left: NA		Right: NA	
Locker fuel gauge:		Left: NA		Right: NA	
Locker transfer:		Left: Not applicable		Right: Not applicable	
Fuel selector handle:	Left: Left	Fuel selector valve:	Left: Left	Fuel boost pump:	Left: See below
	Right: Right		Right: Right		Right: See below
Crossfeed shutoff: Not applicable					

Remarks:

The fuel boost pump switches were impact damaged to the extent the detents could not be felt when moving the switch. The switch position could not be determined.

The wing bladder type fuel tanks were breached. The tank sump drains were removed and approximately one gallon of mud, water, and fuel drained from the right tank. Approximately one pint of mud, water, and fuel drained from the left tank fuel sump. The lower wing skins were compression deformed upward, reducing wing tank volume. The fuel cap seals were clean and pliable.

The fuel vent system was not examined.



ASI-22-CA-019 (Lower Wing Skin Compression)

Landing Gear System Condition and Controls			
Gear position:	Nose: Retracted	Left: Retracted	Right: Retracted
Actuator position:	Nose: Retracted	Left: Retracted	Right: Retracted
Landing gear selector:	Retracted		Aux gear control: Stowed
Environmental System Controls and Read Outs			
Cabin heater:	Off	Cabin vent:	On
Air conditioner:	Off	Oxygen system:	Not applicable
		Defrost:	Off
		Oxygen quantity:	NA
Icing System Information and Switches			
Certified into known icing?	No		
Pitot heat:	Undetermined		
De-ice boots installed?	No		
Stall heat:	Undetermined		
De-ice:	Surface: Undetermined	Propeller: Undetermined	Windshield: Undetermined
Anti-ice:	Surface: Undetermined	Propeller: Undetermined	Windshield: Undetermined
ELT Information			
Installed?	Yes	Manufacturer: Dorne & Margolin	Model: DM ELT 8.1
Type:	AF		
Serial number:	2098E	Battery due date:	02-22
Armed:	Yes		Activated: Yes

Remarks:

The landing gear was observed retracted on scene. The landing gear was manually extended during examination to facilitate access to the fuel selector valve and fuel strainers located in the main landing gear wells.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	2nd seat stop
1	Yes	3-Point	Partial	Intact	Beechcraft	Not applicable
2	Yes	3-Point	Partial	Intact	Beechcraft	Not applicable
3	No	3-Point	N/A	Intact	Beechcraft	Not applicable
4	No	3-Point	N/A	Intact	Beechcraft	Not applicable
5	No	2-Point	N/A	Intact	Beechcraft	Not applicable
6	No	2-Point	N/A	Intact	Beechcraft	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	Yes
4	Forward facing	Yes	Yes	Yes	Yes
5	Forward facing	Yes	Yes	Yes	Yes
6	Forward facing	Yes	Yes	Yes	Yes

Remarks:

None.

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: Undetermined			
Suction gage: N/A			Magnetic compass: Undt			Clock: Undt	
	Left side			Left side			
Airspeed:	Digital		Turn coordinator (airplane):	Damaged			
Attitude (pitch):	Digital		Turn coordinator (ball):	Damaged			
Attitude (roll):	Digital		Heading indicator:	Digital			
Altimeter:	45"		Heading "bug":	Digital			
Altimeter setting:	Digital		Vertical speed indicator:	Digital			
Stand-by:	Airspeed: 0		Attitude (pitch): Damaged		Attitude (roll): Damaged		
	Altimeter: 45"		Altimeter setting: 29.72"				
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:	Digital			Obs 2:	Digital		
Transponder:	Mode: Digital		Active code: Digital		Stand-by code: Digital		
Electrical Switch Positions							
Master battery: Off				Stand-by battery: Not applicable			
Left alternator: On				Right alternator: On			
Avionics 1: Undetermined				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 Positions							
Left engine:	Left magneto: On			Right magneto: On			
Right engine:	Left magneto: On			Right magneto: On			

Remarks:

None.



Examination ASI-22-CA-044 (Instrument Panel)

Powerplant Description

Engine Instruments					
Hour meter: Damaged					
	Left engine	Right engine		Left engine	Right engine
Tach RPM:	0	0	CHT:	0	Damaged
Manifold press:	35	<10	Fuel press:	NA	NA
Oil press:	0	0	Fuel flow:	0	0
Oil temp:	Undt	Damaged	Ammeter:	Damaged	Damaged
EGT:	0	0	Voltmeter:	Damaged	Damaged
Left Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	See Below	Open	Cowl flaps:	Closed	Undt
Mixture:	See Below	Undt	Alt air:	Undt	Undt
Propeller:	See Below	Undt			
Right Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	See Below	Open	Cowl flaps:	Closed	Undt
Mixture:	See Below	Undt	Alt air:	Undt	Undt
Propeller:	See Below	Undt			
Engine Condition					
	Left engine		Right engine		
Engine attached to airframe:	Partially		Partially		
Propeller attached to engine:	No		Yes		
Engine compression:	Yes		Yes		
Vacuum pump drive shaft:	Undetermined		Undetermined		
Valve train continuity:	Yes		Yes		
Engine Fuel System Condition					
	Left engine		Right engine		
Fuel pump drive shaft:	Intact		Intact		
Fuel injectors:	Clean		Clean		
Fuel control inlet screen:	Clean		Debris found		
Distribution valve screen:	Clean		Clean		

Engine Magneto Condition						
	Left engine			Right engine		
Left magneto attached:	Yes			Yes		
Left magneto spark:	All leads			All leads		
Right magneto attached:	Yes			Yes		
Right magneto spark:	All leads			All leads		
Left Engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	Normal	Normal	Normal	Normal	Normal	Normal
Bottom	Not examined	Not examined	Not examined	Not examined	Not examined	Not examined
Right Engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	Normal	Normal	Normal	Normal	Normal	Normal
Bottom	Not examined	Not examined	Not examined	Not examined	Not examined	Not examined

Remarks:

The throttle quadrant structure was deformed during the impact sequence. Engine control settings were not reliable due to impact damage.



ASI-22-CA-128 (Throttle Quadrant)

Propellers

Both propellers appeared to be in the feathered position. The right propeller remained attached to the engine. Blade A and B remained straight. Blade C was bent aft approximately 30 degrees, midspan. The left propeller impact separated at the crankshaft propeller flange. All left propeller blades remained straight.



ASI-22-CA-014 (Left Propeller) (Cropped)



ASI-22-CA-148 (Right Propeller)

Research & Testing

A JPI-760, GLN-750, and GLN-650 were removed and retained for further examination. The SD cards for the GLN-650 and the upper and lower two-screen displays were removed and retained for NTSB Lab analysis. Test results have not been provided at the time of this writing.