

BY TEXTRON AVIATION

Air Safety Investigations

Aircraft Incident/	Year: 1968	Make: Bee	chcraft	Model: V35A			
Accident Information	Serial number: D-8847		Registration: N35DC				
Location: Slidell, LA		Date: 10-21-20 Time: 1421 CD					
Aircrat	ft Owner	Aircraft Operator					
James E. Blazek		Sherman Gene Fendler					
Lacome, LA 70445		Metairie, LA 70005					
Report Information							
Chief Air Safety Investigate	or: Andrew L. Hall	Report #: ASI-20-CJ-T Report date: 03-22-					

Airframe

Impact Sequence and Airframe Structure

The wreckage energy indicated that the aircraft contacted the ground in a nose low, slightly left-wing low attitude and then rebounded out of the initial impact crater approximately 20 feet and came to rest upright. The fuselage left wing and empennage were observed with significant fire damage. The cabin door was observed separated and approximately 15' from the main wreckage. Inspection of the door latching mechanism revealed the door handle appeared to be in the latched position. The upper hook was fractured, and the aft latch was displaced inward and down.

Airframe Systems

Flight Control System Information								
Control	Control lock: Undetermined							
			Flight Control Cab	le Continuity				
Ailerons: Established Elevators: Establishe				ł	Rudder: Established			
Aileron tab: Not applicable			Elevator tab: Established		Rudder tab: Not applicable			
	Flap and Trim Positions							
Flama	Indicate	or: See below		Handle: See below				
riaps.	Left act	uator: See below		Right actuator: See below				
Flovete	u tuine .	Indicator: See below						
Left actuator: N/A				Right actu	ator: N/A			
Rudder trim: Indicator: Not applica			ble Actuator: N/A		N/A			
Aileron trim: Indicator: Not applic			able	e Actuator: N/A				

Remarks:

All of the cockpit indications were compromised by the post impact fire. The aircraft was delivered with a dual control yoke, however it had been changed to a throw-over style yoke. Both of the flap actuators were observed with fire damage and position could not be determined. The right flap was observed in the up position and the left flap had extensive fire damage. The right aileron was observed attached to

the wing and moved when control cables in the center of the wreckage were pulled. The left aileron exhibited extensive fire damage. The control cables were observed attached at the wing aileron bellcrank. All of the rudder and elevator cables were observed attached to the rudder and elevator control bellcranks in the aft fuselage. The elevator trim actuator located in the empennage was observed in a retracted position beyond full travel in the tab down position. The elevator trim tabs were observed at the site in a tab up position. The control cables continuity from the actuator to the trim tabs was established.

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

Remarks:

The fuel gages were compromised during the post impact fire. The fuel selector valve was observed in the right tank position; the fuel screen was observed compromised with fire damage. The fuel boost pump switch was not observed in the burned cockpit area. Both fuel tank caps were observed installed in their respective filler necks. The fuel lines and vents were compromised during the post impact fire.

Landing Gear System Condition and Controls										
Gear posit	tion:	Nose: I	Retracted	Left: Ret	racte	d	Right: Retracted			
Actuator p	osition:	Nose: I	Retracted	Left: Ret	racte	d	Rig	ht: Retracted		
Landing g	ear selec	tor: Und	etermined		Eme	r gear handle:	Undeter	mined		
Environmental System Controls and Read Outs										
Cabin hea	ter: Und	letermine	d	Cabin vent: Undet	ermin	ied	Defrost:	Undetermined		
Air conditi	oner: N/	A		Oxygen system: N	lot ap	plicable	Oxygen quantity: Not applicable			
			lcir	ng System Inform	natio	n and Switc	hes			
Certified in	nto know	n icing?	No		De-icing boots installed? No					
Pitot heat:	Undete	rmined			Stall heat: Undetermined					
De-ice:	Surface	: Not app	olicable	Propeller:	Not applicable Windshield: Not applicable					
Anti-ice:	i-ice: Surface: Not applicable Propeller:					Not applicable Windshield: Not applicable				
	-			ELT Info	orma	ition	-			
Installed? Yes Manufacturer: Undetermined				etermined	Model: Undetermined Type: Undetermined					
Serial number: Undt Battery due date: Undt				ue date: Undt		Armed: Unde	etermined	Activated: Undetermined	t	
Remarks:	Remarks:									

None.

	Restraint System Information									
Seat	Occupied	Manufacturer								
1	Yes	See below	Undt	Burned	Undetermined					
2	No	See below	N/A	Burned	Undetermined					
3	No	See below	N/A	Burned	Undetermined					
4	No	See below	N/A	Burned	Undetermined					

Cabin and Equipment/Furnishings

	Seat Condition Information										
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact						
1	Forward facing	No	No	No	No						
2	Forward facing	No	No	No	No						
3	Forward facing	No	No	No	No						
4	Forward facing	No	No	No	No						

Remarks:

The current owner reported to the NTSB that the aircraft was equipped with a 4-Point restraint system, however, the only buckles observed in the wreckage were of the 2-point style. The FAA Airworthiness File did not indicate the installation of any 4-point restraint systems. All of the seats and seat tracks were compromised by the post impact fire.

Instrument Panel

Navigation Instruments											
Analog pi	rimary ir	nstru	ments				Autopilot type: S-Tec				
Instrumer	nt air ga	ge:	Undetermine	d I	Magnetic co	mpas	mpass: Undetermined Clo			ock: Undetermine	ed
Left side Right side									Left side	Right side	
Airspeed		Un	ndt	Und	t	Turn	coordinate	or (airplane	e):	Undt	Undt
Attitude (pitch):	Un	ndt	Und	t	Turn	coordinate	or (ball):		Undt	Undt
Attitude (roll):	Un	ndt	Und	t	Head	ing indica	tor:		Undt	Undt
Altimeter		Un	ndt	Und	t	Head	ing "bug":			Undt	Undt
Altimeter	setting:	30	.04	Und	t	Vertic	al speed	indicator:		Undt	Undt
				Con	nmunicatio	on an	d Navig	ation Ra	dios	S	
Radio	Contro	I	Active freque	ency	Stand-by frequency		Radio	Control	ļ	Active frequency	Stand-by frequency
Com 1:	Undt		Undetermine	ed	Undetermi	ned	Com 2:	Undt	ι	Undetermined	Undetermined
Nav 1:	Undt		Undetermine	ed	Undetermi	ned	Nav 2:	Undt	ι	Undetermined	Undetermined
Obs 1:	Undete	ermin	ed				Obs 2:	Obs 2: Undetermined			
Transpon	der:	Mod	e: Undeterm	ined	ŀ	Active	code: Un	determine	d	Stand-by code	: Undetermined
	-				Electric	al Sv	vitch Pos	sitions		-	
Master ba	attery: l	Jnde	termined	I	Master alter	nator:	Undeterr	Undetermined Avionics 1: Undetermined			mined
Stand-by	battery	Un	determined	/	Alternator 2:	: Und	etermined	etermined Avionics 2: Undetermined			
					Lightin	ig Sw	itch Pos	itions	-		
Navigatio	n: Und	etern	nined	Rota	ating Beaco	n: Un	determine	d	La	anding: Undetermined	
Taxi: Undetermined Strobe: Undetermine						d		Ins	strument: Undete	rmined	
Wing Ice: Undetermined											
					Ignitic	on Sw	itch Pos	sition			
Key: Und	Key: Undetermined										

Remarks:

All of the cockpit instrumentation was compromised by the post impact fire.

Powerplant Description

Engine Instruments										
Hour mete	er: Undt	Tach RPN	1: Un	dt	Tach	Tach hours: Undt		Manifold press:		Undt
Oil press:	il press: Undt Oi		Un	dt	EGT:	U	ndt	CHT:		Undt
Fuel pres	s: Undt	Fuel flow:	Un	dt	Amm	eter: U	ndt	Voltmeter		Undt
		<u>.</u>	E	ingine C	ontrol	Position	S			-
	Cockpit	Engi	ne				Cockpit		Engi	ne
Throttle:	Burned but forw	vard Und	termir	ned	Cowl f	laps:	Undeter	mined	Unde	etermined
Mixture:	Burned but forw	vard Und	termir	ned	Alterna	ate air:	Undeter	mined	Unde	etermined
Propeller:	Burned but forw	vard Und	termir	ned	Primer	r:	Undeter	mined		
	Engine Condition									
Engine attached to airframe: Yes Propeller attached to engine: Yes										
Engine co	mpression:	Undete	mined		Val	Valve train continuity: See below				
Vacuum p	oump drive shaft:	Undete	mined							
			Eng	ine Fue	l Syste	em Condi	tion			
Fuel pum	o drive shaft:	Unde	ermine	ed		Fuel contr	ol inlet sc	reen: See b	elow	
Fuel distri	bution valve scree	en: See b	elow			Fuel injec	tors:	See b	elow	
				Magn	eto Co	ondition				
Left magr	eto attached:	Yes				Right mag	neto attao	ched: Yes		
Left magr	eto spark:	See b	elow			Right mag	ineto spar	k: See b	elow	
	Spark Plug Condition (per Champion Check-A-Plug Card)									
	1	2	2 3			4	4	5		6
Тор	See below	See be	ow	See I	below	See b	below	See below	v	See below
Bottom	See below	See be	ow	See I	below	See b	below	See below	v	See below

Remarks:

On 12-09-20 FAA inspector David M. Gutowski accomplished an engine examination on the TCM IO-520-BB engine serial number 809507, the following are his notes.

A post-accident visual examination of the powerplant revealed the following observations:

1) Nearly all externally installed components to include Cool Air Baffling, external wiring, fuel hoses, crankcase breather tubes, ignition system wiring, Oil Filter, Propeller, Spinner, Air Intake tubing, Exhaust pipes, etc. exhibited varying levels of damage consistent with high velocity impact, smoke and fire.

2) Essential externally installed components appeared to be present and in their proper locations except where affected by damaged as noted above.

3) The spark plugs appeared to have been very recently replaced with wear patterns consistent with normal operation. Note: Oil residue on plugs in 1B, 3B and 5B positions was apparently due to post accident oil migration. This was evidenced by the engine orientation during storage at the salvage warehouse and no carbon buildup. Spark Plug in 6B position was irretrievable due to being pinned beneath the bent exhaust.

4) The crankshaft was free to turn by hand via the propeller indicating that the engine was not seized.5) Cylinder Valve Rocker Arms, pistons and accessory gearbox/drive splines appeared to move in a manner consistent with normal operation when the Propeller was turned by hand.

6) Both the Left and Right Magnetos were removed and turned by a drill motor with strong consistent spark observed from all distribution points. The timing clamp flange on both Magnetos was cracked off (apparently during impact) at the clamps preventing a proper identification of Magneto to engine timing.
7) The fuel distribution manifold atop the crankcase was inspected for integrity of the diaphragm and debris captured by the mesh screen. No anomalies detected with the exception of smoke and ash residue from the burned delivery hose.

8) The propeller spinner was severely crushed against the propeller hub and the blades bent backward in a manner consistent with a high angle, high velocity impact. Power settings were suspected to be on the lower side but could not be easily determined due to this type of impact.

Propeller

The propeller spinner was not removed during the on-site investigation and the propeller hub serial number was not obtained. Both propeller blades were observed displaced towards the flat side of the blade. Neither blade exhibited significant chordwise scratching or leading edge gouges. The propeller spinner was compressed around the propeller hub and did not exhibit rotational damage. Several small tree limbs were observed with diagonal cuts similar to a rotating propeller.

Research & Testing

None.