

National Transportation Safety Board
Washington, DC 20594

Printed on : 11/22/2013 7:58:34 AM

Brief of Accident

Adopted 06/14/2012

ERA11LA344 File No. 29851	06/15/2011	Gray, TN	Aircraft Reg No. N15L	Time (Local): 14:05 EDT		
Make/Model:	Beech / A100			Fatal	Serious	Minor/None
Engine Make/Model:	P&w Canada / PT6A-34		Crew	0	0	2
Aircraft Damage:	Substantial		Pass	0	0	0
Number of Engines:	2					
Operating Certificate(s):	None					
Type of Flight Operation:	Positioning					
Reg. Flight Conducted Under:	Part 91: General Aviation					
Last Depart. Point: Bridgewater, VA			Condition of Light: Day			
Destination: Wichita, KS			Weather Info Src: Weather Observation Facility			
Airport Proximity: Off Airport/Airstrip			Basic Weather: Instrument Conditions			
			Lowest Ceiling: 25000 Ft. AGL, Broken			
			Visibility: 10.00 SM			
			Wind Dir/Speed:			
			Temperature (°C): 25			
			Precip/Obscuration: No Obscuration; No Precipitation			
Pilot-in-Command	Age: 39		Flight Time (Hours)			
Certificate(s)/Rating(s)			Total All Aircraft: 4837			
Flight Instructor; Commercial; Multi-engine Land; Single-engine Land; Helicopter			Last 90 Days: 78			
			Total Make/Model: 87			
Instrument Ratings			Total Instrument Time: 310			
Airplane; Helicopter						

*** Note: NTSB investigators may not have traveled in support of this investigation and used data provided by various sources to prepare this aircraft accident report. ***

The airplane was flying in instrument meteorological conditions at flight level 200 (about 20,000 feet), and a large area of thunderstorm activity was located to the northwest. About 20 miles from the thunderstorm activity, the airplane began to encounter moderate turbulence and severe icing conditions. The pilot deviated to the south; however, the turbulence increased, and the airplane entered an uncommanded left roll and dive. The autopilot disengaged, and the pilot's attitude indicator dropped. The pilot leveled the airplane at an altitude of 8,000 feet and landed without further incident. Subsequent examination revealed that one-third of the outboard left elevator separated in flight and that the empennage was substantially damaged. Meteorological and radar data revealed the airplane entered an area of rapidly intensifying convective activity, which developed along the airplane's flight path, and likely encountered convectively-induced turbulence with a high probability of significant icing. The effect of icing conditions on the initiation of the upset could not be determined; however, airframe structural icing adversely affects an airplane's performance and can result in a loss of control.

Updated at Jun 14 2012 10:00AM

Brief of Accident (Continued)

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OCCURRENCES

Enroute-cruise - Windshear or thunderstorm
Enroute-cruise - Turbulence encounter
Enroute-cruise - Structural icing
Enroute-cruise - Inflight upset

FINDINGS

Environmental issues-Conditions/weather/phenomena-Convective weather-Thunderstorm-Effect on equipment - C
Environmental issues-Conditions/weather/phenomena-Turbulence-Convective turbulence-Effect on equipment - C
Aircraft-Aircraft oper/perf/capability-Performance/control parameters-(general)-Not specified
Environmental issues-Conditions/weather/phenomena-Temp/humidity/pressure-Conducive to structural icing-Effect on equipment - C

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident to be:
An encounter with convectively-induced turbulence and icing, which resulted in an in-flight upset and a loss of airplane control.