



National Transportation Safety Board Aviation Accident Factual Report

Location:	SPOKANE, WA	Accident Number:	SEA96LA181
Date & Time:	08/01/1996, 0000	Registration:	N2839V
Aircraft:	Beech 35	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None

Flight Conducted Under: Part 91: General Aviation - Personal

On August 1, 1996, a Beech 35, N2839V, encountered turbulence and experienced a subsequent airframe vibration at 160 to 165 knots airspeed and 6,500 feet altitude approximately five minutes after takeoff from Felts Field, Spokane, Washington, en route to Colville, Washington. The private pilot, who was not injured in the occurrence, reduced airspeed (which eliminated the vibration) and returned to Felts Field, where he landed without further incident. A subsequent airframe examination revealed that the fuselage station 256.9 bulkhead, located directly below the leading edge of the V-tail, was cracked at all four corners. The pilot reported to an FAA inspector from Spokane, Washington, that visual meteorological conditions prevailed at the time of the turbulence encounter. The time of the occurrence was not reported.

The FAA aircraft registry indicated that the airplane was manufactured in 1947. FAA inspectors determined that the aircraft's ruddervators were removed in 1995 for reskinning due to corrosion. Reskinning was accomplished with Beech factory replacement skins and the ruddervators were then painted with several layers of paint, necessitating an additional pound of lead weight to be added to the outboard tip of each ruddervator in order to achieve correct control surface balance. Discussions with the Spokane FAA inspector assigned to the accident indicated that the one-pound weights were installed in addition to the parts specified by the aircraft maintenance manual for balancing the ruddervators, and were not an approved installation per the aircraft maintenance manual. The aircraft maintenance manual allows up to 11 lead washers of unspecified weight to be used in balancing the ruddervators. The Spokane FAA inspector reported that an examination of the ruddervators revealed them to be correctly balanced with the non-approved one-pound weights installed.

Pilot Information

Certificate:	Private	Age:	39, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	03/26/1996
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	698 hours (Total, all aircraft), 680 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N2839V
Model/Series:	35 35	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	D-244
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	07/31/1996, Annual	Certified Max Gross Wt.:	2650 lbs
Time Since Last Inspection:	56 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6212 Hours	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	E-185-11
Registered Owner:	A-1 AERO SALES OF SPOKANE	Rated Power:	205 hp
Operator:	A-1 AERO SALES OF SPOKANE	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	Condition of Light:	Not Reported
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Unknown / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	, WA (SFF)	Type of Flight Plan Filed:	None
Destination:	COLVILLE, WA (63S)	Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	GREGG NESEMEIER
Additional Participating Persons:	LARRY RICHARDS; SPOKANE, WA
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .