



Aviation Investigation Final Report

Location:	SIOUX FALLS, South Dakota	Incident Number:	CHI93IA060
Date & Time:	December 29, 1992, 03:50 Local	Registration:	N31SV
Aircraft:	BEECH B90	Aircraft Damage:	Minor
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

THE NIGHT POSITIONING FLIGHT WAS IN CRUISE FLIGHT AT 14,000 FEET WHEN THE MAIN CABIN DOOR SEPARATED FROM THE AIRPLANE. AN EXAMINATION OF THE DOOR REVEALED THAT THE DOOR LATCH MECHANISM WAS CAPABLE OF PROPER OPERATION WHEN SECURED PROPERLY. AN EXAMINATION OF THE ANNUNCIATOR DOOR WARNING LIGHT SYSTEM REVEALED THAT WHEN THE DIMMING RHEOSTAT WAS FULL DIM, THE 'DOOR OPEN' LIGHT WENT OUT. ONE OF THE TWO BULBS WAS BURNT OUT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: THE PILOT-IN-COMMAND'S INADEQUATE PREFLIGHT.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: STANDING - PRE-FLIGHT

Findings

1. (F) ANNUNCIATOR PANEL LIGHT(S) - FAILURE,PARTIAL
 2. (F) DOOR,ENTRANCE STAIR - UNLATCHED
 3. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
-

Occurrence #2: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: CRUISE - NORMAL

Findings

4. DOOR, ENTRANCE STAIR - SEPARATION

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	34, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	April 7, 1992
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	3135 hours (Total, all aircraft), 835 hours (Total, this make and model), 2625 hours (Pilot In Command, all aircraft), 195 hours (Last 90 days, all aircraft), 52 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BEECH	Registration:	N31SV
Model/Series:	B90 B90	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	LJ362
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	June 9, 1992 AAIP	Certified Max Gross Wt.:	9650 lbs
Time Since Last Inspection:	63 Hrs	Engines:	2 Turbo prop
Airframe Total Time:	8098 Hrs	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT6-20
Registered Owner:	SIOUX VALLEY HOSPITAL ASSN.	Rated Power:	550 Horsepower
Operator:	SIOUX VALLEY HOSPITAL ASSN.	Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	SVBA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	FSD ,1429 ft msl	Distance from Accident Site:	40 Nautical Miles
Observation Time:	03:50 Local	Direction from Accident Site:	90°
Lowest Cloud Condition:	Unknown / 1000 ft AGL	Visibility	1 miles
Lowest Ceiling:	Overcast / 1000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-17°C / -18°C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	MISSION , SD (0V6)	Type of Clearance:	IFR
Departure Time:	03:35 Local	Type of Airspace:	Class E

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Minor
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	43.550834,-96.689079(est)

Administrative Information

Investigator In Charge (IIC):	Wilson, Stephen
Additional Participating Persons:	LYLE ALEXANDER; RAPID CITY , SD
Original Publish Date:	September 28, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=15591

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).