



Aviation Investigation Final Report

Location:	OLYMPIA, Washington	Incident Number:	SEA90IA085
Date & Time:	May 23, 1990, 08:30 Local	Registration:	N27442
Aircraft:	FAIRCHILD SA227	Aircraft Damage:	Minor
Defining Event:		Injuries:	1 Minor, 19 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Scheduled		

Analysis

WHILE DESCENDING FROM 14,000 FEET, THE SECOND ROW RIGHT SIDE CABIN WINDOW SUDDENLY BLEW OUT. AN EMERGENCY DESCENT WAS INITIATED TO THE AIRPORT WHERE THE AIRPLANE LANDED WITHOUT FURTHER INCIDENT. THE WINDOW AND FRAME WERE INSPECTED AND NOTED THAT THE FRAME AND CONNECTING BOLTS APPEARED UNDAMAGED. TWO INDENTATIONS WERE NOTED ON THE FUSELAGE JUST FORWARD OF THE WINDOW AND AFT OF THE ICE PROTECTION PLATE. PASSENGERS REPORTED THAT PRIOR TO THE WINDOW BLOW OUT, LOUD BUMPS OR THUMPS WERE HEARD.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: DUE TO AN ICE BUILD-UP DEPARTING THE PROPELLER AND STRIKING THE CABIN WINDOW.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: DESCENT - NORMAL

Findings

1. (F) WINDOW, CABIN - PENETRATED
2. (C) WEATHER CONDITION - ICING CONDITIONS

Factual Information

Pilot Information

Certificate:	Airline transport; Commercial	Age:	46, 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):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	March 8, 1990
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	5100 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	FAIRCHILD	Registration:	N27442
Model/Series:	SA227 SA227	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	AC-750
Landing Gear Type:	Retractable - Tricycle	Seats:	20
Date/Type of Last Inspection:	May 17, 1990 Continuous airworthiness	Certified Max Gross Wt.:	14500 lbs
Time Since Last Inspection:	36 Hrs	Engines:	2 Turbo prop
Airframe Total Time:	675 Hrs	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE311
Registered Owner:	INVESTORS ASSET HOLDING CORP.	Rated Power:	1591 Horsepower
Operator:	HORIZON AIRLINES	Operating Certificate(s) Held:	Commuter air carrier (135)
Operator Does Business As:		Operator Designator Code:	QXEA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	PORTLAND , OR (PDX)	Type of Flight Plan Filed:	IFR
Destination:	SEATTLE , WA (SEA)	Type of Clearance:	IFR
Departure Time:	08:05 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 Minor, 17 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 19 None	Latitude, Longitude:	46.97089,-122.870971(est)

Administrative Information

Investigator In Charge (IIC): Eckrote, Debra

Additional Participating Persons: JOSE PAGAN; SEATTLE , WA
FRANK CHRIST; SAN ANTONIO , TX

Original Publish Date: December 30, 1992

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=41133>

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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](#).