



National Transportation Safety Board Aviation Accident Final Report

Location:	CHANTILLY, VA	Accident Number:	BFO88FA010
Date & Time:	12/17/1987, 1936 EST	Registration:	N23AZ
Aircraft:	SWEARINGEN SA-226	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 1 Minor, 6 None

Flight Conducted Under: Part 135: Air Taxi & Commuter - Scheduled

Analysis

THE ACFT HAD DESCENDED THROUGH A CLOUD LAYER ENROUTE FOR THE SCHEDULED LNDG AT IAD AND ACCORDING TO THE CREW HAD PICKED UP SOME TRACE RIME ICE ON ITS WING SURFACES. ALTHOUGH PITOT AND SAS (STALL AVOIDANCE SYSTEM) HEAT WERE USED THE CAPTAIN ELECTED NOT TO USE ENGINE INLET ANTI-ICE. JUST INSIDE THE OUTER MARKER THE LEFT ENGINE LOST POWER FOLLOWED SHORTLY BY THE RIGHT ENGINE. THE CAPTAIN WAS ABLE TO SET THE ACFT DOWN IN AN OPEN FIELD WHERE THE GEAR COLLAPSED DURING THE LANDING ROLL. THE ENGINES WERE SUCCESSFULLY RUN-UP AT THE GARRETT FACILITY. THE FLT MANUAL CONTAINS A WARNING AND A NOTE STATING THAT ENGINE HEAT AND CONTINUOUS IGNITION MUST BE USED AFTER LEAVING ICING CONDITIONS UNTIL THE PLT IS CONFIDENT THAT ANY SIGNIFICANT RESIDUAL ICE WILL NOT BE INJECTED INTO THE ENGINES. ICE WAS FOUND LYING BENEATH THE RT WING WHICH MATCHED THE CURVATURE OF THE LEADING EDGE OF THE WING. A ROUND CONICAL SHAPED PIECE OF ICE WAS FOUND ALONG THE WRECKAGE PATH WHICH MATCHED THE NOSE OF THE PROPELLER SPINNER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

1. ALL ENGINES
2. (F) WEATHER CONDITION - ICING CONDITIONS
3. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
4. (C) ANTI-ICE/DEICE SYSTEM - NOT USED - PILOT IN COMMAND
5. (C) INADEQUATE INITIAL TRAINING - CHECK PILOT
6. (C) INADEQUATE CERTIFICATION/APPROVAL,AIRMAN - COMPANY/OPERATOR MGMT
7. (F) WING,SKIN - ICE

Occurrence #3: GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

8. (F) TERRAIN CONDITION - OPEN FIELD
9. (F) TERRAIN CONDITION - DOWNHILL
10. (F) LIGHT CONDITION - DARK NIGHT

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	31, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last Medical Exam:	11/30/1987
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	7200 hours (Total, all aircraft), 400 hours (Total, this make and model), 7080 hours (Pilot In Command, all aircraft), 142 hours (Last 90 days, all aircraft), 6 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	SWEARINGEN	Registration:	N23AZ
Model/Series:	SA-226 SA-226	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	TC-260
Landing Gear Type:	Retractable - Tricycle	Seats:	19
Date/Type of Last Inspection:	12/10/1987, AAIP	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	38 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	12820 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	TPE331-10UA-5
Registered Owner:	SURBURBAN FUNDING CORP.	Rated Power:	840 hp
Operator:	AVAIR INCORPORATED	Air Carrier Operating Certificate:	Commuter Air Carrier (135)
Operator Does Business As:	AIR VIRGINIA	Operator Designator Code:	FAVA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	IAD, 313 ft msl	Observation Time:	1953 EST
Distance from Accident Site:	4 Nautical Miles	Direction from Accident Site:	12°
Lowest Cloud Condition:	Unknown / 0 ft agl	Temperature/Dew Point:	2° C / -7° C
Lowest Ceiling:	Overcast / 4200 ft agl	Visibility	20 Miles
Wind Speed/Gusts, Direction:	8 knots, 330°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	NEWARK, NJ (EWR)	Type of Flight Plan Filed:	IFR
Destination:	CHANTILLY, VA (IAD)	Type of Clearance:	IFR
Departure Time:	1831 EST	Type of Airspace:	Class D; Class E

Airport Information

Airport:	WASHINGTON/DULLES INTL (IAD)	Runway Surface Type:	Concrete
Airport Elevation:	313 ft	Runway Surface Condition:	Dry
Runway Used:	1R	IFR Approach:	Visual
Runway Length/Width:	11500 ft / 150 ft	VFR Approach/Landing:	Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious, 5 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 1 Minor, 6 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ALFRED W DICKINSON	Adopted Date:	10/05/1988
Additional Participating Persons:	EDWARD O'NEILL; RALEIGH, NC JACK MORGAN; SAN ANTONIO, TX STEVEN GREEN; WASHINGTON, DC		
Publish Date:			
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/ .		

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