



National Transportation Safety Board Aviation Accident Final Report

Location:	WILMINGTON, NC	Accident Number:	ATL87FA123
Date & Time:	04/23/1987, 1935 EDT	Registration:	N505LB
Aircraft:	SWEARINGEN SA-226TC	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

THE RIGHT ENGINE FAILED DURING TAKEOFF IMMEDIATELY AFTER ROTATION 3000' DOWN THE 7,002' RWY 16. THE PLT CONTINUED THE FLT AND THE LANDING GEAR REMAINED EXTENDED. THE UNAUTHORIZED PLT RATED PAX MADE XMISSIONS TO THE TOWER. WITNESSES RPTED THAT THE ACFT REACHED APPROX. 150' THEN DESCENDED INTO TREES 20 DEGREES TO THE RIGHT OF RWY CENTERLINE AND 3,000' SOUTH OF THE ARPT. THE PRE- 1979 3RD STAGE STATOR ASSY IN THE RIGHT ENGINE DID NOT HAVE THE LATEST MANUFACTURE WELDING PROCESS/INSPECTION AND FAILED CAUSING THE UNCONTAINED TURBINE FAILURE. INSTRUMENTS IN THE WRECKAGE INDICATED THAT AN UNDETERMINABLE LOSS OF ELECTRICAL POWER OCCURRED AT THE TIME OF ENGINE FAILURE. PERFORMANCE DATA INDICATED THAT A SAFE LANDING COULD HAVE BEEN MADE ON THE REMAINING RWY PAST THE POINT OF ENGINE FAILURE.

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(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) TURBINE ASSEMBLY,NOZZLE RETENTION - INADEQUATE
 2. (F) ACFT/EQUIP,INADEQUATE DESIGN - MANUFACTURER
 3. (F) TURBINE ASSEMBLY,TURBINE WHEEL - BURST
 4. (F) ELECTRICAL SYSTEM - UNDETERMINED
-

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. (F) OBJECT - TREE(S)
 6. (C) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND
 7. (F) PRESSURE INDUCED BY OTHERS - PILOT IN COMMAND
 8. (C) EMERGENCY PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND
 9. (C) ALL AVAILABLE RUNWAY - NOT USED - PILOT IN COMMAND
-

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

10. TERRAIN CONDITION - GROUND

Factual Information

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	32, 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:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	10/28/1986
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	6160 hours (Total, all aircraft), 1860 hours (Total, this make and model), 5460 hours (Pilot In Command, all aircraft), 120 hours (Last 90 days, all aircraft), 43 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	SWEARINGEN	Registration:	N505LB
Model/Series:	SA-226TC SA-226TC	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	TC202
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	03/04/1987, Continuous Airworthiness	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	50 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	7667 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	TPE 331-3UW
Registered Owner:	AIR-LIFT ASSOCIATES, INC.	Rated Power:	840 hp
Operator:	AIR-LIFT ASSOCIATES, INC.	Operating Certificate(s) Held:	Commuter Air Carrier (135); On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	WPKA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	ILM, 32 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1936 EDT	Direction from Accident Site:	360°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	19° C / 18° C
Precipitation and Obscuration:			
Departure Point:	WILMINGTON, NC (ILM)	Type of Flight Plan Filed:	IFR
Destination:	LUMBERTON, NC (LBT)	Type of Clearance:	IFR
Departure Time:	1934 EDT	Type of Airspace:	Class D; Class E

Airport Information

Airport:	NEW HANOVER (ILM)	Runway Surface Type:	Asphalt
Airport Elevation:	32 ft	Runway Surface Condition:	Dry
Runway Used:	16	IFR Approach:	None
Runway Length/Width:	7002 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	BEN R COLEMAN	Report Date:	08/31/1988
Additional Participating Persons:	WALT RIGSBEE; RALEIGH, NC JACK D MORGAN; SAN ANTONIO, TX PETER BAKER; PHOENIX, AZ TIM LUCKWALDT; NORRISVILLE, NC		
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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).