



National Transportation Safety Board Aviation Accident Final Report

Location:	SAN JUAN, PR	Accident Number:	MIA97LA174
Date & Time:	05/22/1997, 1530 EDT	Registration:	N355T
Aircraft:	Convair CV-240	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Analysis

The pilot stated that during cruise flight, the flight crew noticed that the left engine had high temperature and that its oil pressure started to fluctuate. A precautionary engine shutdown was performed. A short time later, the right engine started to fail, and the airplane would not maintain altitude. The left engine was restarted, but the flight crew could not maintain altitude. A forced landing was made on a beach; however, the airplane came to rest in 5 feet of water in the Atlantic Ocean. Examination of the left engine revealed a failure of the front master rod bearing. Examination of the right engine revealed a failure of the aft master rod.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: failure of the aft master rod in the right engine, and failure of the front master rod bearing in the left engine, which resulted in a forced landing on a beach and a subsequent encounter with ocean water.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. ALL ENGINES
2. (C) ENGINE ASSEMBLY,BEARING - FAILURE,TOTAL
3. (C) ENGINE ASSEMBLY,MASTER ROD - FAILURE,TOTAL

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: EMERGENCY LANDING

Findings

4. TERRAIN CONDITION - NONE SUITABLE
5. TERRAIN CONDITION - WATER

Factual Information

On May 22, 1997, about 1530 eastern daylight time, a Convair CV240, N355T, registered to TOL-AIR Services Inc., operating as a 14 CFR Part 91 positioning flight, made a forced landing to the Atlantic Ocean next to a beach in the vicinity of San Juan, Puerto Rico. Visual meteorological conditions prevailed and no flight plan was filed. The airplane sustained substantial damage. The airline transport pilot-in-command (PIC), airline transport-rated first officer (FO), and a pilot-rated passenger on the jump seat reported no injuries. The flight originated from St. Thomas, U.S. Virgin Islands, about 20 minutes before the accident.

The PIC stated they were in cruise flight at 3,000 feet with the FO flying the airplane when the left engine temperature indicated 100 degrees and the oil pressure started to fluctuate. The left engine was shut down as a precautionary measure and they informed ATC. As they were passing Fajardo, Puerto Rico, the right engine started banging, quit producing power, and the airplane started losing altitude. The PIC took over the flight controls and restarted the left engine. The airplane was at 500 feet and still descending. A Mayday call was made, and a forced landing was made to a beach coming to a complete stop in 5 feet of water.

Disassembly of left engine revealed a failure of the front master rod bearing. Disassembly of the right engine revealed a failure of the master rod resulting in a catastrophic failure of the power section. For additional information see the FAA Inspector's statement.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	58, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last Medical Exam:	01/03/1997
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	3200 hours (Total, all aircraft), 29000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Convair	Registration:	N355T
Model/Series:	CV-240 CV-240	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	281
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	05/12/1997, AAIP	Certified Max Gross Wt.:	41790 lbs
Time Since Last Inspection:	50 Hours	Engines:	2 Reciprocating
Airframe Total Time:	14239 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	R-2800
Registered Owner:	TOL-AIR CORPORATION	Rated Power:	2400 hp
Operator:	TOL-AIR CORPORATION	Air Carrier Operating Certificate:	
Operator Does Business As:		Operator Designator Code:	WNRB

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SJU, 10 ft msl	Observation Time:	1456 EDT
Distance from Accident Site:	20 Nautical Miles	Direction from Accident Site:	110°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	31 °C / 21 °C
Lowest Ceiling:	None / 0 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	17 knots, 70°	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	ST THOMAS, VI (STT)	Type of Flight Plan Filed:	None
Destination:	, PR (SJU)	Type of Clearance:	None
Departure Time:	0000	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Destroyed
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC): CARROL A SMITH **Adopted Date:** 09/30/1997

Additional Participating Persons: PEDRO M SAN ANTONIO; SAN JUAN, PR

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/>.

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.