



National Transportation Safety Board Aviation Accident Final Report

Location:	Beef Island, VI	Accident Number:	ATL04LA153
Date & Time:	07/12/2004, 0715 EDT	Registration:	N4826C
Aircraft:	Convair Div. of Gen. Dynamics 440	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal, 1 Serious
Flight Conducted Under:	Part 125: 20+ Pax, 6000+ lbs		

Analysis

The co-pilot stated that the pre-flight and run-up before takeoff were performed with no discrepancies noted. After leveling off at 5,500 feet they noticed that the right engine cylinder head temperature and oil temperature was about 10 degrees above the normal parameter for that engine. Shortly after, both pilot's noticed a sharp decrease in the right engine mean effective pressure followed by vibration in the engine. The co-pilot looked at the right engine and informed the pilot that it was on fire around the front lower cylinders. Attempts by the pilot to extinguish the engine fire were unsuccessful. The pilot advised Air Traffic Control of their intention to ditch due to the right engine uncontrolled fire. The co-pilot, handed a life jacket to the pilot and then put his on. The pilot placed his life preserver to the side and did not put it on. While descending the co-pilot opened his side window, but the pilot did not. According to the co-pilot, shortly before ditching the pilot requested 10-degrees of flaps but the flaps did not move. Both pilots were at the controls of the airplane for the ditching. A review of maintenance records revealed that the right engine was installed on the airframe on May 14, 2003 at 45,660.5 hours total airframe time. A complete "C" Check was accomplished on June 15, 2004 at a total time of 45,741.8 hours with no discrepancies noted. The airplane ditched into the Caribbean Ocean 29 miles southeast of Beef Island, Virgin Islands, in an undetermined depth of water, neither the pilot or the airplane wreckage was recovered.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The in-flight fire on the number two engine, for undetermined reasons.

Findings

Occurrence #1: FIRE

Phase of Operation: CRUISE - NORMAL

Findings

1. (C) POWERPLANT - FIRE

Occurrence #2: LOSS OF ENGINE POWER

Phase of Operation: CRUISE - NORMAL

Findings

2. 1 ENGINE

3. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #3: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #4: DITCHING

Phase of Operation: EMERGENCY DESCENT/LANDING

Factual Information

HISTORY OF FLIGHT

On July 12, 2004, at 0715 eastern daylight time a Convair 440, N4826C, registered to and operated by Dodita Air Cargo, ditched into the Caribbean Ocean 29 miles southeast of Beef Island, Virgin Islands. The cargo flight was operated under the provisions of Title 14 CFR Part 125, and visual flight rules. Visual meteorological conditions prevailed and a Visual/Instrument flight plan was filed. The pilot received fatal injuries, the co-pilot received serious injuries, and the airplane sank into 1,000 feet of water and is presumed to have sustained substantial damage. The flight originated in San Juan, Puerto Rico, on July 12, 2004, at 0600.

The co-pilot stated that the pre-flight and run-up before take off checks were performed with no discrepancies noted. After leveling off at 5,500 feet, they noticed that the right engine cylinder head temperature and oil temperature was about 10 degrees above the normal parameter for that engine. Shortly after, both pilot's noticed a sharp decrease in the right engine mean effective pressure followed by vibration in the engine. The co-pilot looked at the right engine and informed the pilot that it was on fire around the front lower cylinders. Immediately afterwards the right engine fire warning light came on along with the fire bell sound,

The pilot proceeded to feather the right engine propeller and pull the emergency handle . The right engine propeller feathered and then the pilot fired the main and reserve fire extinguishing bottles. When the co-pilot looked again at the right engine, the fire had extended to the whole front of the engine cylinders.

The pilot began turning the airplane in a westerly direction and began a descent in order to ditch the airplane. The pilot advised Air Traffic Control of their intention to ditch due to the right engine uncontrolled fire. While descending from 5,500 feet and while passing through 3,000 feet, the right engine, still on fire, began to droop down from the engine mounts. Seconds later, and while in the emergency descent the engine departed the wing. The co-pilot, handed a life jacket to the pilot and then put his on. The pilot placed his life preserver to the side and did not put it on. While descending the co-pilot opened his side window, but the pilot did not. At 300 feet, and still on a westerly heading, the co-pilot recalled that the airplane's indicated airspeed was around 135 to 140 knots, and the right wing leading edge was on fire and was melting.

According to the co-pilot, shortly before ditching the airplane the pilot requested 10-degrees of flaps but the flaps did not move. Both pilot's were at the controls of the airplane for the ditching. The airplane's back cargo compartment section touched the water first in a level attitude. After hitting the water surface the cockpit section also contacted the water and sank for a short time. The cockpit surfaced once and the water was above both pilot's shoulders. The co-pilot stated that this was the last time that he saw the pilot, as the cockpit was sinking in the water. The co-pilot, stated that he felt the cockpit separating from the fuselage while sinking and that at that time he was able to get out through a big opening forward of his co-pilots seat. After he got out, he felt disoriented and finally was able to see a glow of light and he followed it to the surface. He believes he was under the water for about 30-seconds. On the water surface he saw the fuselage of the Convair floating in the water along with the right wing of the airplane still on fire. He said that the wing was on fire for about two or three minutes before flaming out.

The co-pilot climbed on top of two aluminum panels floating in the water and was able to inflate his lifejacket. He remained on the high seas for almost two hours before he was rescued by a U.S. Coast Guard helicopter. He never saw the Pilot again after he left the cockpit during his escape.

PERSONNEL INFORMATION

A review of information on file with the Federal Aviation Administration Airman's Certification Division, Oklahoma City, Oklahoma, revealed the pilot was issued a Airline Transport Pilot Certificate with ratings for airplane multiengine land, with type ratings in the DC-B26, L-18, L-B34, CY-240, CY-340, CY-440, IA-Jet and HS-125, airplanes. The pilot also held commercial privileges for airplane single engine land. A review of records on file with the FAA Aero Medical Records revealed the pilot held a second class medical certificate issued on October 1, 2003, with a restriction that he must wear lenses for far vision and shall carry glasses for near vision. The pilot reported on his application for the medical certificate that he had accumulated 27,200 total flight hours. A review of Dodita Air Cargo pilot records revealed that the pilot had logged 924 hours in the Convair 440, with 112 hours logged within the last 90 days.

A review of information on file with the Federal Aviation Administration Airman's Certification Division, Oklahoma City, Oklahoma, revealed the co-pilot was issued a Commercial Pilot Certificate on January 16, 2004 with ratings for airplane single, multiengine land, instrument airplane. A review of records on file with the FAA Aero Medical Records revealed the co-pilot held a third class medical certificate issued on January 7, 2004, with a restriction that he must wear corrective lenses. The co-pilot reported on his application for the medical certificate that he had accumulated 256 total flight hours.

AIRCRAFT INFORMATION

A review of maintenance records revealed that the right engine was installed on the airframe on May 14, 2003 at 45,660.5 hours total airframe time. A complete "C" Check was accomplished on June 15, 2004 at a total airframe time of 45,741.8 hours with no discrepancies noted. The time since overhaul for the right engine was listed as 1,093.3 hours. The left engine also had a complete "C" Check on June 15, 2004 with no discrepancies noted. The time since overhaul for the left engine was listed as 700.2 hours.

METEOROLOGICAL INFORMATION

The nearest weather reporting facility at the time of the accident was Saint Martins, in the Virgin Islands. The 1200 surface weather observation was: scattered clouds at 1600 feet, visibility 10 statute miles, temperature 29-degrees Celsius, dew point temperature 24-degrees Celsius, winds were 110-degrees at 11 knots, and altimeter was 30.04. Visual meteorological conditions prevailed at the time of the accident.

WRECKAGE AND IMPACT INFORMATION

The wreckage sank into about 1,000 feet of water and was never recovered.

MEDICAL AND PATHOLOGICAL INFORMATION

The pilot's body was not recovered. There was no autopsy or toxicology performed.

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	81, 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 2 With Waivers/Limitations	Last FAA Medical Exam:	10/01/2003
Occupational Pilot:		Last Flight Review or Equivalent:	06/01/2004
Flight Time:	27200 hours (Total, all aircraft), 924 hours (Total, this make and model), 27200 hours (Pilot In Command, all aircraft), 112 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Co-Pilot Information

Certificate:	Commercial; Private	Age:	25, 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):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With Waivers/Limitations	Last FAA Medical Exam:	01/01/2004
Occupational Pilot:		Last Flight Review or Equivalent:	01/01/2004
Flight Time:	256 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Convair Div. of Gen. Dynamics	Registration:	N4826C
Model/Series:	440	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal; Transport	Serial Number:	391
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	06/01/2004, AAIP	Certified Max Gross Wt.:	47200 lbs
Time Since Last Inspection:	228.9 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	45771.9 Hours as of last inspection	Engine Manufacturer:	Pratt & Whitney
ELT:	Not installed	Engine Model/Series:	R2800-CB3
Registered Owner:	Dodita Air Cargo	Rated Power:	2500 hp
Operator:	Dodita Air Cargo	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dawn
Observation Facility, Elevation:	SXM, 13 ft msl	Distance from Accident Site:	29 Nautical Miles
Observation Time:	1200 EDT	Direction from Accident Site:	150°
Lowest Cloud Condition:	Scattered / 1600 ft agl	Visibility	10 Miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	29° C / 24° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Juan, PR (TSJU)	Type of Flight Plan Filed:	VFR/IFR
Destination:	Saint Martin, VI (TSXM)	Type of Clearance:	VFR
Departure Time:	0600 EDT	Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Serious	Latitude, Longitude:	18.080000, -65.080000

Administrative Information

Investigator In Charge (IIC): Butch Wilson **Report Date:** 09/13/2005

Additional Participating Persons: Ramon L Ruiz; San Juan FSDO; 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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).