



National Transportation Safety Board Aviation Accident Final Report

Location:	SAN JUAN, PR	Accident Number:	ATL97LA093
Date & Time:	06/30/1997, 0745 EDT	Registration:	N344MM
Aircraft:	Convair 240-53	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Minor, 2 None
Flight Conducted Under:	Part 125: 20+ Pax, 6000+ lbs		

Analysis

After departing from runway 08, the airplane climbed to 400 feet above ground level (agl) where the left engine lost power. After confirming a loss of power, the pilot feathered the left propeller, and called for maximum 'dry' thrust on the right engine. Wet power was available which would have provided 450 additional horsepower, however, the pilot elected not to use it. The airplane was unable to maintain altitude, collided with a palm tree, and came to rest on the beach in the surf line. The reason for the left engine malfunction was not determined due to salt water damage. The airplane was 600 pounds over maximum weight.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: a loss of engine power for undetermined reasons, the pilot's improper emergency procedure after the power loss, and the overloading of the airplane, resulting in an inability to maintain altitude and terrain clearance.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
2. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

Findings

3. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
4. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
5. OBJECT - TREE(S)

Factual Information

On June 30, 1997, at 0745 eastern daylight time, a Convair 240-53, N344MM, collided with a tree and the ground after departing Luiz Munoz Marin International Airport, San Juan, Puerto Rico. The airplane was operated by Silver Express Co. as a non-scheduled, international, cargo flight, under the provisions of Title 14 CFR Part 125 and visual flight rules. Although the prevailing weather was visual meteorological conditions, an instrument flight plan was filed. The airline transport pilot in command and his commercial copilot were not injured, but the jumpseat rider received minor injuries. The airplane sustained substantial damage. The flight was originating at the time of the accident.

According to the FAA inspector, the pilot stated the airplane began its takeoff with the water/alcohol injection system on. After departing from runway 08 at Luiz Munoz Marin International Airport, the airplane climbed to 400 feet above ground level (agl) where the pilot began his first power reduction. At this time, the pilot stated, the engine began "backfiring" and emitting black smoke. After confirming a loss of power with his instruments, the pilot feathered the left propeller. He called "high lights" and told the co-pilot to increase the right throttle to maximum "dry power", or engine power without the use of water injection. This gave the right engine 53" of manifold pressure, as opposed to the 59" of manifold pressure available with water injection. According to a Convair Study Guide, when taking off with "wet" power, the pilot should use maximum "wet" power if losing an engine at the first power reduction. This "wet" power was limited to the first five minutes after take-off. The term "high lights" is not clear. According to the Convair Study Guide, the water injection system has two lights that indicate when the system is in operation. According to personnel at Silver Express, Co., "high lights" refers to maximum revolutions per minute (RPM).

The airplane was not able to maintain altitude, so the crew decided to land on the beach to "get away from populated areas". The crew prepared to ditch the aircraft. It descended until it struck a palm tree, and came to rest on the beach, in the surf line. Both the wings and engines were separated from the aircraft by the impact. Also, the horizontal stabilizer was damaged.

The left engine was later examined. The reason for the loss of engine power could not be determined because of salt water damage. The salt water corroded the carburetor and magneto casings precluding any determination of their operating capability.

According to the report provided by the inspector from the San Juan, PR, Flight Standards District Office, who interviewed the flight crew and examined the airplane, the airplane was 600 pounds overweight. He also stated that the flight crew did not comply with the airplane flight manual in that they failed to use all available engine power.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	40, 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):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	12/31/1996
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	9000 hours (Total, all aircraft), 6970 hours (Total, this make and model), 8500 hours (Pilot In Command, all aircraft), 157 hours (Last 90 days, all aircraft), 49 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Convair	Registration:	N344MM
Model/Series:	240-53 240-53	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	5326
Landing Gear Type:	Retractable - Tricycle	Seats:	3
Date/Type of Last Inspection:	04/03/1997, Continuous Airworthiness	Certified Max Gross Wt.:	41790 lbs
Time Since Last Inspection:	96 Hours	Engines:	2 Reciprocating
Airframe Total Time:	24793 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	R2800
Registered Owner:	SILVER EXPRESS CO.	Rated Power:	2500 hp
Operator:	SILVER EXPRESS CO.	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	S1XB

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SJU, 10 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	0800 EDT	Direction from Accident Site:	80°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28° C / 24° C
Precipitation and Obscuration:			
Departure Point:	(SJU)	Type of Flight Plan Filed:	IFR
Destination:	SANTO DOMINGO, OF (SDO)	Type of Clearance:	IFR
Departure Time:	0740 EDT	Type of Airspace:	Class C

Airport Information

Airport:	LUIZ MUNOZ MARIN INTL (SJU)	Runway Surface Type:	Asphalt
Airport Elevation:	10 ft	Runway Surface Condition:	Dry
Runway Used:	8	IFR Approach:	
Runway Length/Width:	10002 ft / 200 ft	VFR Approach/Landing:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	PRESTON E HICKS	Report Date:	09/05/1997
Additional Participating Persons:	ED WARMOTH REGAN H CAMPBELL		
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/ .		

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