



# National Transportation Safety Board Aviation Accident Final Report

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

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## 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

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Occurrence #1: LOSS OF ENGINE POWER  
Phase of Operation: TAKEOFF - INITIAL CLIMB

### Findings

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

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Occurrence #2: FORCED LANDING  
Phase of Operation: EMERGENCY LANDING AFTER TAKEOFF

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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

<b>Certificate:</b>	Airline Transport; Flight Instructor	<b>Age:</b>	40, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last Medical Exam:</b>	12/31/1996
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	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

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

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SJU, 10 ft msl	Observation Time:	0800 EDT
Distance from Accident Site:	1 Nautical Miles	Direction from Accident Site:	80°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	28° C / 24° C
Lowest Ceiling:	None / 0 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	6 knots, Variable	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
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	Adopted 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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