



# Aviation Investigation Final Report

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<b>Location:</b>	WESTON, Florida	<b>Accident Number:</b>	MIA97LA083
<b>Date &amp; Time:</b>	February 10, 1997, 05:00 Local	<b>Registration:</b>	N115WL
<b>Aircraft:</b>	Cessna 210L	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

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## Analysis

After the flight departed, the pilot heard noises coming from the engine and elected to make a forced landing in a swampy area. The pilot stated that before departure he performed a preflight inspection, and had 47 gallons total fuel onboard, with 22 gallons in the left wing tank and 25 gallons in the right wing tank. He elected not to refuel because the FBO had run out of fuel, and decided to refuel at the destination airport since he had 'plenty of reserve.' About 25 miles northwest of the departure airport, at an altitude of 5000 to 6000 feet, the pilot heard a 'thud.' He said, '...I realized that I was experiencing a mechanical problem...it seemed at first that I lost a cylinder.' He turned southeast and notified ATC that he was having engine problems. The pilot stated 'my gauges were showing normal indications: 23 inches of manifold pressure, 2500 RPM, 120 pounds of fuel flow.' He then attempted to restart by 'switch[ing] fuel to the left side, turned on [the] fuel pump to prime lines, checked the magnetos on left and right, verified mixture rich, with no re-start successful.' The engine was test run under the supervision of the Safety Board. The engine was run with all the parts that were on the engine at the time of the accident, with the exception of the magnetos, and no discrepancies were noted. Both magnetos were examined under the supervision of the FAA. The magnetos were tested through 3500 RPM with no discrepancies observed.

## 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. A factor was the lack of suitable terrain for the forced landing.

## Findings

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Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CRUISE

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

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Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

2. WEATHER CONDITION - FOG

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. (C) TERRAIN CONDITION - NONE SUITABLE

4. TERRAIN CONDITION - SWAMPY

## Factual Information

On February 10, 1997, about 0500 eastern standard time, a Cessna 210L, N115WL, registered to Flight Express Inc., was substantially damaged during a forced landing, near Weston, Florida. The commercial-rated pilot was not injured. Instrument meteorological conditions (IMC) prevailed in the vicinity, and an IFR flight plan had been filed. The on-demand, cargo flight was being conducted in accordance with Title 14 CFR Part 135.

The flight had departed Opa-Locka, Florida, en route to Tampa, when the pilot heard noises coming from the engine, and elected to make a forced landing, in foggy weather conditions, and impacted in a swampy area.

The pilot stated that before departure he performed a preflight inspection. He noted "47 gallons" total fuel onboard, with "22 gallons" in the left wing fuel tank and "25 gallons" in the right wing fuel tank. He stated, "when I found out that the FBO [fixed base operator]...ran out of fuel, I decided to refuel in Tampa since I had plenty of reserve."

The flight departed about 0436, and at a location about 25 miles northwest of Opa-Locka, at an altitude of 5,000 to 6,000 feet the pilot said he heard a "thud." He said, "...I realized that I was experiencing a mechanical problem...it seemed at first that I lost a cylinder." He turned southeast, and notified ATC that he was having engine problems. The pilot stated, "my gauges were showing normal indications: 23 inches of manifold pressure, 2500 RPM, 120 pounds of fuel flow." He then attempted to "restart," by "switch[ing] fuel to the left side, turned on [the] fuel pump to prime lines, checked the magnetos on left and right, verified mixture rich, with no re-start successful."

On February 18, 1997, the engine from N115WL was test run at the facilities of Certified Engines Inc., Opa-Locka, Florida, under the supervision of the NTSB. The engine was run with all the parts that were on the engine at the time of the accident, with the exception, of the magnetos, and no discrepancies were noted.

On March 4, 1997, both magnetos from N115WL's were examined at Continental Motors, Magneto Division, Atlanta, Georgia, under the supervision of the FAA. The magnetos were tested through 3500 rpm, with no discrepancies observed.

## Pilot Information

<b>Certificate:</b>	Commercial; Flight instructor	<b>Age:</b>	27, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Instrument airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	August 1, 1996
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1554 hours (Total, all aircraft), 205 hours (Total, this make and model), 1464 hours (Pilot In Command, all aircraft), 219 hours (Last 90 days, all aircraft), 87 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N115WL
<b>Model/Series:</b>	210L 210L	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	21060949
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	April 11, 1996 Annual	<b>Certified Max Gross Wt.:</b>	3800 lbs
<b>Time Since Last Inspection:</b>	674 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	6578 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	IO-520-L
<b>Registered Owner:</b>	FLIGHT EXPRESS	<b>Rated Power:</b>	285 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	FPIA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Night/dark
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>	Unknown	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	Overcast / 100 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	310°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	18°C / 17°C
<b>Precipitation and Obscuration:</b>	N/A - None - Fog		
<b>Departure Point:</b>	OPA-LOCKA , FL (OPF)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	TAMPA , FL (TPA)	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	04:36 Local	<b>Type of Airspace:</b>	Class D

## Airport Information

<b>Airport:</b>		<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	On-ground
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	26.110231,-80.390747(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Yurman, Alan
<b>Additional Participating Persons:</b>	RAYMOND SCHOLL; FORT LAUDERDALE, FL
<b>Original Publish Date:</b>	August 25, 1997
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=38220">https://data.nts.gov/Docket?ProjectID=38220</a>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).