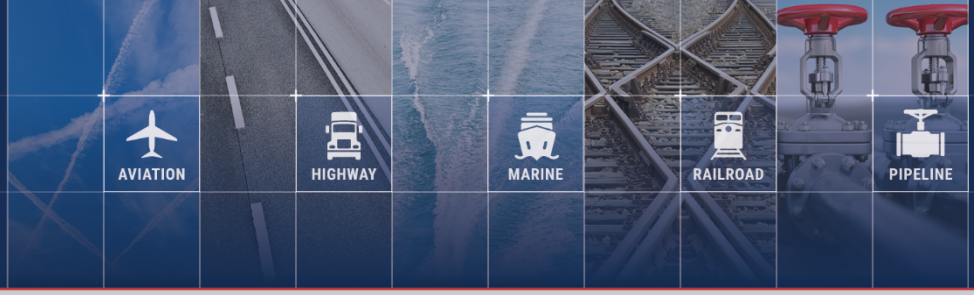

Aviation Investigation Final Report

Location:	DESTIN, Florida	**Accident Number:**	ATL97LA099
Date & Time:	July 6, 1997, 09:00 Local	**Registration:**	N222WE
Aircraft:	Cessna P210N	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that they were on the initial climbout, between 500 and 800 feet, when the engine developed a partial loss of power. When the engine RPM dropped to 1500, the pilot realized that he could not return to the shore line for an emergency landing. During the examination of the engine, a stainless steel flex fuel line was against the induction elbow on the left side of the engine. There was a hole in the induction elbow at the point where the braided fuel line crossed over the intake manifold. During the functional examination of the induction elbow, the left induction elbow, with the hole, was installed on another IO-520 engine, and the engine was mounted in an engine test cell. A functional run of the engine disclosed that the manifold pressure at full power was the same as the manifold pressure at full power for an induction elbow without a hole.

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.

Findings

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

Findings
1. ENGINE ASSEMBLY,OTHER - CHAFED

2. (C) REASON FOR OCCURRENCE UNDETERMINED

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

Occurrence #3: DITCHING
Phase of Operation: EMERGENCY LANDING

Findings
3. TERRAIN CONDITION - WATER

Factual Information

On July 6, 1997, at 0900 central daylight time, a Cessna P210N, N222WE, collided with the water during an emergency landing following what the pilot reported as a loss of engine power after takeoff from the Destin/Fort Walton Beach Airport in Destin, Florida. The pilot stated that the personal flight operated under the provisions of Title 14 CFR Part 91 with an instrument flight plan filed. The pilot said visual weather conditions prevailed at the time of the accident. The on site examination of the airplane by a mechanic disclosed that the airframe had sustained substantial airframe damage. The pilot reported that he and his passenger received minor injuries. The pilot said that the accident occurred during the initial climb out from Destin, Florida.

The pilot stated that they were on the initial climb out, between 500 and 800 feet, when the engine developed a partial loss of power. When the engine RPM dropped to 1500, the pilot realized that he could not return to the shore line for an emergency landing. The pilot ditched the airplane in the Gulf Of Mexico. The pilot stated that they were rescued by jet skiers in the vicinity of the accident site.

Several days after the accident, the aircraft was recovered from the water. During the examination of the engine, a stainless steel flex fuel line was found against the induction elbow on the left side of the engine (see attached FAA Inspector's Statement). There was a hole in the induction elbow at the point where the braided fuel line crossed over the intake manifold.

The initial examination disclosed that the internal engine components would not rotate. During the engine examination, there was no metallic debris found in the oil sump. All cylinders displayed deposits of rust like materials. The piston rings were partially stuck to the grooves of the pistons. All intake and exhaust valves were seated. The crankcase main bearings exhibited normal wear. Both magnetos assemblies exhibited corrosion damage to the housing and the internal components were exposed (see attached report of engine examination).

The left induction elbow, with the hole, was installed on another IO-520 engine, and the engine was mounted on an engine test cell. A functional run of the engine disclosed that the manifold pressure at full power was the same as the manifold pressure at full power for an induction elbow without a hole.

Pilot Information

Certificate:	Airline transport; Flight engineer	**Age:**	32,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):		**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	November 27, 1996
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	9000 hours (Total, all aircraft), 1400 hours (Total, this make and model), 8200 hours (Pilot In Command, all aircraft), 35 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N222WE
Model/Series:	P210N P210N	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	155
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	March 30, 1997 100 hour	**Certified Max Gross Wt.:**	4000 lbs
Time Since Last Inspection:	37 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2690 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	TSIO-520P
Registered Owner:	STARVATION AVIATION	**Rated Power:**	310 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	VPS	**Distance from Accident Site:**	
Observation Time:	09:55 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Scattered / 2500 ft AGL	**Visibility**	7 miles
Lowest Ceiling:	Overcast / 12000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	0°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	29°C / 24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(DST)	**Type of Flight Plan Filed:**	IFR
Destination:	BOCA ROTAN , FL (BCT)	**Type of Clearance:**	IFR
Departure Time:	09:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	DESTIN/FT.WALTON BEACH 81J	**Runway Surface Type:**	
Airport Elevation:	22 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	0	**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Minor	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	2 Minor	**Latitude, Longitude:**	30.400508,-86.490234(est)

Administrative Information

Investigator In Charge (IIC):	Powell, Phillip
Additional Participating Persons:	EMIL CIRCONE; BIRMINGHAM , AL
Original Publish Date:	May 4, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=3870