



Aviation Investigation Final Report

Location:	MC RAE, Georgia	Incident Number:	ATL86IA098
Date & Time:	March 14, 1986, 22:30 Local	Registration:	N408EX
Aircraft:	CESSNA 404	Aircraft Damage:	None
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

DURING CRUISE FLIGHT PILOT HEARD LOUD BANG FROM RIGHT ENGINE AND RIGHT PROPELLER FEATHERED. AIRCRAFT WAS DIVERTED AND LANDED WITH NO FURTHER DAMAGE AND NO INJURIES TO THE PILOT. SUBSEQUENT TEARDOWN OF ENGINE REVEALED FRACTURED CONNECTING ROD. EXAMINATION OF ROD REVEALED FATIGUE FRACTURE DUE TO SURFACE INCLUSION IN ROD SHANK. INCLUSION RESULTED FROM OXIDES WHICH FORMED DURING HEAT TREATMENT AND WERE NOT COMPLETELY REMOVED PRIOR TO SHOT PEENING.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings

1. (C) ENGINE ASSEMBLY,CONNECTING ROD - FAILURE,TOTAL
2. (C) ENGINE ASSEMBLY,CONNECTING ROD - FATIGUE

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

Factual Information

Pilot Information

Certificate:	Commercial	Age:	Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	February 24, 1986
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	2260 hours (Total, all aircraft), 437 hours (Total, this make and model), 152 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N408EX
Model/Series:	404 404	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	404-0431
Landing Gear Type:	Retractable - Tricycle	Seats:	1
Date/Type of Last Inspection:	February 23, 1986 100 hour	Certified Max Gross Wt.:	8400 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	6079 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	GTSIO-520-M
Registered Owner:	NAPIER AIR SERVICE	Rated Power:	375 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	MCN ,354 ft msl	Distance from Accident Site:	45 Nautical Miles
Observation Time:	22:52 Local	Direction from Accident Site:	135°
Lowest Cloud Condition:	Scattered / 25000 ft AGL	Visibility	12 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	220°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	13°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	JACKSONVILLE , FL (JAX)	Type of Flight Plan Filed:	IFR
Destination:	DOTHAN , AL (DHN)	Type of Clearance:	IFR
Departure Time:	00:00 Local	Type of Airspace:	Class E

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	32.059928,-82.899291(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Preston
Additional Participating Persons:	DENNIS D HENDERSON; ATLANTA , GA JIM WILDE; WASHINGTON , DC HUGH GORDON; MOBILE , AL VERNON HAINES; DOTHAN , AL
Original Publish Date:	
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=7013

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