



# Aviation Investigation Final Report

<b>Location:</b>	MIAMI, Florida	<b>Accident Number:</b>	MIA90LA077
<b>Date &amp; Time:</b>	March 3, 1990, 14:50 Local	<b>Registration:</b>	N4837
<b>Aircraft:</b>	BELL 47G	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 Minor, 1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation		

## Analysis

THE PILOT OF THE HELICOPTER PLANNED A SIGHTSEEING FLIGHT AND ESTIMATED HE HAD 8 GALLONS OF FUEL ON BOARD. THE ENGINE LOST POWER DUE TO FUEL EXHAUSTION ABOUT 12 MIN AFTER TAKEOFF. AS THE PILOT ATTEMPTED TO STRETCH THE GLIDE TO A CLEARING TO AVOID TREES, THE ROTOR RPM DECAYED AND A HARD LANDING OCCURRED.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE PREFLIGHT BY THE PILOT, WHICH RESULTED IN FUEL EXHAUSTION DUE TO AN INADEQUATE SUPPLY OF FUEL. THE LOCATION OF TREES WAS A RELATED FACTOR IN THAT THE PILOT WAS UNABLE TO MAINTAIN ROTOR RPM WHILE ATTEMPTING TO REACH A SUITABLE LANDING AREA DURING THE AUTOROTATION.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: CRUISE - NORMAL

### Findings

1. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. (C) FLUID,FUEL - EXHAUSTION
3. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

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

Findings

4. AUTOROTATION - PERFORMED - PILOT IN COMMAND

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Occurrence #3: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. (F) OBJECT - TREE(S)

6. ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight engineer	<b>Age:</b>	56, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane; Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine; Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	May 10, 1989
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	8000 hours (Total, all aircraft), 7000 hours (Total, this make and model), 7800 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 4 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	BELL	<b>Registration:</b>	N4837
<b>Model/Series:</b>	47G 47G	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1453
<b>Landing Gear Type:</b>	Float	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	February 16, 1990 100 hour	<b>Certified Max Gross Wt.:</b>	2350 lbs
<b>Time Since Last Inspection:</b>	12 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	10557 Hrs	<b>Engine Manufacturer:</b>	FRANKLIN
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	6V-335
<b>Registered Owner:</b>	GOLD COAST HELICOPTERS	<b>Rated Power:</b>	210 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	MIA ,12 ft msl	<b>Distance from Accident Site:</b>	6 Nautical Miles
<b>Observation Time:</b>	14:55 Local	<b>Direction from Accident Site:</b>	220°
<b>Lowest Cloud Condition:</b>	Scattered / 4000 ft AGL	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 12000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	18 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	270°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	26°C / 18°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	MIAMI , FL	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>		<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	14:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	GOLD COAST	<b>Runway Surface Type:</b>	Grass/turf
<b>Airport Elevation:</b>	5 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	200 ft / 200 ft	<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

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

## Administrative Information

**Investigator In Charge (IIC):** Alston, Andrew

**Additional Participating Persons:** SOWERS; MIAMI , FL

**Original Publish Date:** March 5, 1993

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:**

**Investigation Docket:** <https://data.ntsb.gov/Docket?ProjectID=32629>

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