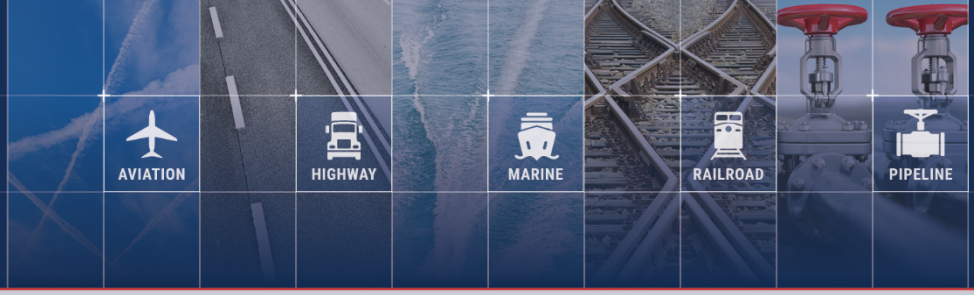

Aviation Investigation Final Report

Location:	MIAMI, Florida	**Accident Number:**	MIA90LA077
Date & Time:	March 3, 1990, 14:50 Local	**Registration:**	N4837
Aircraft:	BELL 47G	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 Minor, 1 None
Flight Conducted Under:	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

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

Findings
4. AUTOROTATION - PERFORMED - PILOT IN COMMAND

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

Certificate:	Airline transport; Flight engineer	**Age:**	56,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	**Toxicology Performed:**	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	May 10, 1989
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	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

Aircraft Make:	BELL	**Registration:**	N4837
Model/Series:	47G 47G	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1453
Landing Gear Type:	Float	**Seats:**	3
Date/Type of Last Inspection:	February 16, 1990 100 hour	**Certified Max Gross Wt.:**	2350 lbs
Time Since Last Inspection:	12 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	10557 Hrs	**Engine Manufacturer:**	FRANKLIN
ELT:	Not installed	**Engine Model/Series:**	6V-335
Registered Owner:	GOLD COAST HELICOPTERS	**Rated Power:**	210 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:	MIA ,12 ft msl	**Distance from Accident Site:**	6 Nautical Miles
Observation Time:	14:55 Local	**Direction from Accident Site:**	220°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Broken / 12000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	18 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	270°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	26°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MIAMI , FL	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	14:30 Local	**Type of Airspace:**	Class G

Airport Information

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

Wreckage and Impact Information

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

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