



Aviation Investigation Final Report

Location:	PARKER, Florida	Accident Number:	MIA93FA121
Date & Time:	May 16, 1993, 09:25 Local	Registration:	N970B
Aircraft:	BELL 47-G	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	2 Fatal
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

The pilot-in-command who was not certificated to fly helicopters struck a tree with the main rotor while on approach. The blades shattered and the helicopter crashed and burst into flames.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the misjudgement of the distance by the nonrated pilot-in-command and subsequent collision with a tree. Contributing to the accident was the lack of helicopter experience of the pilot-in-command.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH

Findings

1. OBJECT - TREE(S)
2. (C) DISTANCE - MISJUDGED - PILOT IN COMMAND
3. (C) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED



Factual Information

HISTORY OF FLIGHT

On May 16, 1993, about 0925 central daylight time, N970B, a Bell 47-G helicopter registered to Rogers International Corporation, crashed in Parker, Florida, while on a 14 CFR 91 personal flight. Visual meteorological conditions prevailed at the time and no flight plan was filed. The pilot and one passenger were fatally injured and the helicopter was destroyed. There was a postcrash fire. The flight had originated from a small field about 13 minutes earlier.

Witnesses stated they observed the helicopter land and the pilot removed the right door from the helicopter. The reported purpose of the flight was to allow the passenger to photograph land nearby. The helicopter was observed to take off and about 13 minutes later witnesses observed the helicopter main rotor blades strike a tree while on approach to the same small field that it had departed earlier. The helicopter then rolled to the right and crashed beneath the tree. A fire erupted immediately and the helicopter was destroyed. Local fire personnel extinguished the fire shortly after their arrival.

PERSONNEL INFORMATION

The pilot William C. Rogers was the holder of a private pilots certificate with ratings for airplane single engine land. The pilot had received some instruction in helicopter flight but was not rated in any category of rotorcraft. The pilot's logbooks were not located. The pilot had obtained a class III medical certificate on May 10, 1991, with the restriction that he possess corrective lenses. The pilot stated on his application for this medical certificate that he had 5,600 hours of logged flight time. Interviews with the pilot's friends revealed that the pilot had undergone aortic graft surgery since May 1991.

AIRCRAFT INFORMATION

N970B, was a Bell 47-G helicopter manufactured in 1954. A review of available manufacturer and FAA records revealed that the helicopter was destroyed in 1968. The helicopter was then rebuilt with overhauled components in 1987 by Coastal Helicopters and sold to the pilot. Additional aircraft information is located within this report.

METEOROLOGICAL INFORMATION

The weather reporting station at Tyndall Air Force Base is located about 8 miles southeast of the accident site. The recorded weather at 0946 was: 2,000 feet scattered clouds, 7 miles visibility, temperature 74 degrees, dewpoint 64 degrees, winds 260 degrees magnetic at 8 knots, altimeter 30.06 inHg.

WRECKAGE AND IMPACT INFORMATION

The wreckage of N970B was located beneath a tree resting on the right side of the helicopter. The cabin area and instruments were destroyed by fire. The wood main rotor blade root ends were installed in the rotor hub and pieces of the blades were scattered over 140 yards ahead of the wreckage. Examination of the leading edges of the shattered blades revealed compression gouges with bark and tree wood imbedded in the compressions. The tree above the wreckage had multiple broken limbs which were strewn around the field. The main rotor flight controls were burned away and the rod ends of each control rod were found still attached to their correct position. The tail rotor flight controls were examined and found to be functional and still attached. The cyclic and collective cockpit controls were destroyed by fire. The engine and transmission were removed and transported to a shop for examination. The transmission was opened and found to exhibit normal wear with all components in their proper location. The internal freewheeling clutch was found functional. A cold compression check of the engine was accomplished using 200 psi shop regulated compressed air. The results were: No. 1 200/200, No. 2 150/200, No. 3 155/200, No. 4 90/200 No. 5 70/200 No. 6 145/200. The No. 5 cylinder had valve leakage around the burned exhaust valve.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination of the pilot was conducted by Dr. G.D. Cumberland on May 16, 1993. Dr. Cumberland reported that the cause of death was blunt force injury and asphyxiation due to carbon monoxide poisoning. The results of a toxicological examination were negative for alcohol and positive for temazepam in the blood and urine. Metoclopramide and acetaminophen were found in the urine.

ADDITIONAL INFORMATION

The wreckage of N970B was released to Mr. Greg Clubbs at the request of the pilot's company personnel on May 18, 1993.

Pilot Information

Certificate:	Private	Age:	60, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	None Expired	Last FAA Medical Exam:	May 10, 1991
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	5600 hours (Total, all aircraft), 25 hours (Total, this make and model), 60 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N970B
Model/Series:	47-G 47-G	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	1311
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	June 24, 1992 Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	6V335
Registered Owner:	ROGERS INTL. CORP.	Rated Power:	160 Horsepower
Operator:	ROGERS INTL. CORP.	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:	PFN ,14 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	09:40 Local	Direction from Accident Site:	340°
Lowest Cloud Condition:	Scattered / 2000 ft AGL	Visibility	7 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	23°C / 18°C
Precipitation and Obscuration:			
Departure Point:	PANAMA CITY , FL (PFN)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:10 Local	Type of Airspace:	Class G

Airport Information

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

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	On-ground
Total Injuries:	2 Fatal	Latitude, Longitude:	30.169824,-85.669654(est)

Administrative Information

Investigator In Charge (IIC):	Alston, Andrew
Additional Participating Persons:	JACK SUTTLE; FORT WORTH , TX MASTRO JOE; BIRMINGHAM , AL
Original Publish Date:	June 30, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=37339

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