



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Grand Ridge, FL	<b>Accident Number:</b>	MIA06FA039
<b>Date &amp; Time:</b>	01/01/2006, 1900 CST	<b>Registration:</b>	N442DH
<b>Aircraft:</b>	Robinson R44	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal

**Flight Conducted Under:** Part 91: General Aviation - Ferry

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## Analysis

The commercial pilot was ferrying a helicopter with two passengers/friends under Title 14, CFR Part 91 when the helicopter collided with trees and terrain in a wooded area at night, in instrument meteorological conditions. Witnesses related that the helicopter had landed near a hotel and truck stop, and the pilot and passengers had inquired about renting rooms. The pilot and passengers elected not to rent rooms, but walked to the truck stop and had a meal. After the meal, the helicopter was seen departing to the south. The helicopter did not arrive at its destination, and a search was initiated. A witness in a car on a nearby freeway, about 6 miles from the truck stop, reported to the local sheriff's office three days after the accident, that he had seen an explosion south of the freeway the night of the accident. Searchers located the helicopter in thick woods, in trees about 60 feet tall. The wreckage was extensively fragmented, consistent with a high speed impact with the trees. An on-site examination of the helicopter disclosed no evidence of any preimpact mechanical anomalies. Weather in the vicinity at the time of the accident was reported as 300 feet overcast, visibility 1.75 miles in mist, with thunderstorms nearby. The pilot did not have an instrument rating, and the helicopter was not equipped with instrumentation for flight into instrument meteorological conditions. Toxicological samples from the pilot disclosed extremely high levels of methamphetamine. Methamphetamine is a rarely prescribed drug, and its use is not approved for pilots. Methamphetamine is highly addictive, and is most widely used as an illegal recreational drug. The amount of methamphetamine in the pilot's system was approximately 50 times higher than expected from a single dose of a prescription drug. Use of methamphetamine can result in marked personality changes, psychosis, irrational and impulsive behavior, irritability, hyperactivity, and other symptoms.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's continued flight into known adverse weather, and his impairment, which resulted in an in-flight collision with trees and terrain during cruise flight.

## Findings

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Occurrence #1: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: CRUISE

### Findings

1. OBJECT - TREE(S)
2. LIGHT CONDITION - NIGHT
3. (C) FLIGHT INTO KNOWN ADVERSE WEATHER - CONTINUED - PILOT IN COMMAND
4. (C) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

### Findings

5. TERRAIN CONDITION - GROUND

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Occurrence #3: FIRE

Phase of Operation: OTHER

## Factual Information

### HISTORY OF FLIGHT

On January 1, 2006, about 1900 central standard time, a Robinson R44 helicopter, N442DH, registered to a private individual, was destroyed by impact and a postcrash fire when it collided with trees and terrain, about 6 miles south-southwest of Grand Ridge, Florida. Instrument meteorological conditions prevailed in the area at the time, and no flight plan was filed for the Title 14, CFR Part 91 ferry flight. The helicopter was destroyed by impact and the postcrash fire. The commercial pilot and two passengers were fatally injured. The flight originated about 5 minutes earlier, from a parking lot of a hotel near Grand Ridge, on Highway 69.

Witnesses reported to Jackson County Sheriff's Office that the helicopter landed in a parking lot of a hotel about 1800, and the occupants inquired at the hotel about the price of a room. After being told about the price, the occupants walked to a restaurant at a truck stop across the street from the hotel. The occupants ate at the restaurant, and then went to the helicopter. The helicopter was seen departing south from the hotel parking lot.

A witness contacted the Jackson County Sheriff's Office on January 4th, between 1000 and 1030 hours, and reported that on the day of the accident, about 1900, while driving on Highway I-10, he saw an explosion. The witness pointed out the area where he saw the explosion, and the wreckage was located.

According to one of the three owners of the helicopter, it had been in Mississippi to provide hurricane relief, and the accident pilot was tasked with ferrying the helicopter from Mississippi, to North Palm Beach County General Aviation Airport, West Palm Beach, Florida. The owner said that on the day of the accident at an unknown time, the pilot contacted him and advised the flight was north of Pensacola, Florida. The owner contacted the pilot between 1800 and 1900 hours, and the pilot said he had landed near Tallahassee, Florida, due to adverse weather, and he would call before he left there. The owner did not hear again from the pilot, and assumed he had spent the night near Tallahassee. The next day, January 2nd, he attempted to contact the pilot, but was unsuccessful. He knew the weather was bad, and believed the pilot spent the day in Tallahassee. On January 3rd, when the pilot had not contacted him, he contacted the Cross City and Tallahassee Commercial airports to see if the pilot had landed there. He also contacted Miami Automated Flight Service Station (AFSS) and inquired if there had been a flight plan or weather briefing. He was advised there was no flight plan on file or a weather briefing. He remained in contact with the Miami AFSS, and was advised on January 4th, that the wreckage was located.

### INJURIES TO PERSONS

The pilot and two passengers, both neighbors/friends of the pilot, were fatally injured.

### DAMAGE TO AIRCRAFT

The helicopter was destroyed by impact and a postcrash fire.

### PERSONNEL INFORMATION

The pilot held a commercial helicopter certificate. He did not have an instrument rating, or additional pilot certificates. He was reportedly employed by a construction company as a

helicopter pilot, and according to his last FAA application for a flight medical dated January 31, 2005, he had acquired approximately 1200 helicopter flight hours. Family members stated that he had accrued about 1,400 helicopter flight hours at the time of the accident. No personal logbooks for the pilot were discovered during the investigation.

#### AIRCRAFT INFORMATION

The helicopter was a 1994 model year Robinson R44. It was equipped with four seats, including the pilot's station. The helicopter was not certified for instrument flight, and did not have the basic instruments, such as an attitude indicator, for flight into instrument weather conditions.

The last annual inspection was completed in February 2005, at a Hobbs meter reading of 1,299 hours. The last airframe/engine logbook entry was on July 29, 2005, with a Hobbs meter reading of 1347.9 hours. No additional logbook entries were discovered or provided to the NTSB investigator-in-charge (IIC) during the investigation.

#### METEOROLOGICAL INFORMATION

An Aviation Routine Weather report (METAR) from the Marianna Airport, Marianna, Florida, about 10 miles west-northwest of the accident site at 1904, about the time of the accident, reported a 300-foot overcast ceiling, with 1.75 miles visibility in mist. Thunderstorms and lightning were reported to the southwest and north.

#### COMMUNICATIONS

There were no known communications during the accident flight, either received from, or transmitted to the pilot, by any air traffic control facility or any other aircraft.

#### WRECKAGE AND IMPACT INFORMATION

The onsite investigation began on January 5, 2006, about 1625. Parties assisting the NTSB IIC were two FAA aviation safety inspectors from the Alabama Flight Standards District Office, and an investigator each from the helicopter and engine manufacturer.

The accident site was in a thick grove of approximately 60-foot tall trees, roughly 12-14 inches in diameter, about 576 feet south of the southbound lane of Highway I-10. The elevation of the principally flat terrain was about 150 feet msl. An initial impact scar was seen near the top of one damaged tree, about 40 feet above the ground, with impact marks at a descending angle on other trees along the crash path. The crash path was oriented on a magnetic heading of approximately 020 degrees, and extended for about 140 feet to the final resting point. An accident scene diagram is contained in the public docket of this report.

The cabin and fuselage section of the helicopter had sustained extensive damage/fragmentation during the impact and postcrash fire.

Examination of the engine, remaining flight controls and linkages, main rotor blades, rotor head assembly, blade grips, tail rotor blades, transmission, all drive train components, and fuselage structure, disclosed no evidence of any preimpact mechanical failures or malfunctions.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy on the pilot was conducted by the Chief Medical Examiner, Dr. Charles Siebert, District 14, 3737 Frankford Avenue, Panama City, Florida, 32405, on January 5, 2006. The cause of death was listed as "Multiple Blunt Trauma."

Toxicological samples were harvested and analyzed at the University of Florida laboratories, and the FAA's Civil Aeromedical Institute (CAMI), Oklahoma City, Oklahoma.

Results from the University of Florida disclosed the samples tested positive for a prohibited drug in the blood and bile, Methamphetamine, 0.92 mg/L.

The CAMI results also tested positive for prohibited drugs: Amphetamine 0.136 (ug/ml, ug/g) in blood; 0.808 (ug/ml, ug/g) in liver, and Methamphetamine 0.857 (ug/ml, ug/g) in blood, and 4.298 (ug/ml, ug/g) in liver.

Toxicological samples were also taken from both passengers, and tested by the University of Florida. The samples from both passengers also tested positive for Methamphetamine.

## FIRE

There was a localized, postcrash fire that self extinguished.

## ADDITIONAL DATA/INFORMATION

According to a witness at the Brewton Municipal Airport, the pilot landed to refuel the helicopter at the Brewton Airport about 1500 on the day of the accident. The witness, who operated the fuel concession, said he commented to the pilot about the convective weather south of the airport, and asked the pilot what the weather was like along his proposed route. According to the witness, the pilot said he didn't care, as he could land anywhere, and wait out any bad weather.

The NTSB did not retain any parts or structure of the helicopter. It was released to the owner's agent, CTC Services, on January 18.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	28, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Without Waivers/Limitations	<b>Last FAA Medical Exam:</b>	01/01/2005
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1400 hours (Total, all aircraft), 1200 hours (Total, this make and model), 1300 hours (Pilot In Command, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Robinson	<b>Registration:</b>	N442DH
<b>Model/Series:</b>	R44	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	0098
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	02/01/2005, Annual	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	Reciprocating
<b>Airframe Total Time:</b>	1299 Hours as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-540
<b>Registered Owner:</b>	Francisco Rodriguez	<b>Rated Power:</b>	205 hp
<b>Operator:</b>	Francisco Rodriguez	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night
Observation Facility, Elevation:	KMAI, 110 ft msl	Distance from Accident Site:	8 Nautical Miles
Observation Time:	1904 EST	Direction from Accident Site:	300°
Lowest Cloud Condition:		Visibility	1.75 Miles
Lowest Ceiling:	Overcast / 300 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.98 inches Hg	Temperature/Dew Point:	21 °C / 19 °C
Precipitation and Obscuration:	Mist		
Departure Point:	Grand Ridge, FL	Type of Flight Plan Filed:	None
Destination:	North Palm Ba., FL (F45)	Type of Clearance:	None
Departure Time:	1855 CST	Type of Airspace:	

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	30.667222, -85.060000

## Administrative Information

Investigator In Charge (IIC):	Timothy W Monville	Report Date:	12/20/2007
Additional Participating Persons:	Robert L Bullock; FAA, Alabama FSDO; Vestavia Hills, AL David Hargett; FAA, Alabama FSDO; Vestavia Hills, AL Ken Martin; Robinson Helicopter; Torrance, CA Edward Rogalski; Lycoming Engines; Williamsport, PA		
Publish Date:			
Investigation Docket:	NTSB accident and incident docket serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).