



National Transportation Safety Board Aviation Accident Final Report

Location:	LOXAHATCHEE, FL	Accident Number:	MIA90LA023
Date & Time:	11/02/1989, 0930 EST	Registration:	N93067
Aircraft:	BELL 47D1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PLT RPRTD THAT AFTER COMPLETING A SWATH RUN, HE 'PULLED UP AND HELD BACK LONGER TO CLEAR TREES AT THE END OF THE FIELD.' THE HELICOPTER LOST AIRSPEED FASTER THAN THE PLT REALIZED. HE STATED THAT AT THE TOP OF THE TURN, THE HELICOPTER FELT LIKE IT WOULD SLIDE BACKWARDS, SO HE PUSHED THE CYCLIC FORWARD, APPLIED FULL POWER & TRIED TO FLY OUT OF THE SITUATION. HOWEVER, THE HELICOPTER CONTD TO DESCEND. SUBSEQUENTLY, IT IMPACTED WITH TREES & WAS DAMAGED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT TO MAINTAIN ROTOR RPM AFTER PULLING UP FROM A SWATH RUN. A RELATED FACTOR WAS THE PRESENCE OF TREES.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. PULL-UP - PERFORMED
2. (C) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND
3. LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - UNCONTROLLED

Findings

4. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Commercial	Age:	27, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	12/02/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	370 hours (Total, all aircraft), 70 hours (Total, this make and model), 300 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N93067
Model/Series:	47D1 47D1	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:		Serial Number:	5501
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2200 lbs
Time Since Last Inspection:	0 Hours	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	6V4
Registered Owner:	UNKNOWN	Rated Power:	210 hp
Operator:	UNKNOWN	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	1 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	315°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0915 EST	Type of Airspace:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	TIMOTHY W MONVILLE	Report Date:	12/10/1990
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets 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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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](#).