



Aviation Investigation Final Report

Location:	WINTON, North Carolina	Accident Number:	ATL91LA163
Date & Time:	August 16, 1991, 13:30 Local	Registration:	N1MH
Aircraft:	BELL 47D1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE AG PILOT WAS LANDING HIS HELICOPTER ON A FIELD ROAD FOLLOWING A LOCAL FLIGHT. UPON TOUCHDOWN, THE RIGHT SKID SETTLED INTO A DITCH. A MAIN ROTOR BLADE CONTACTED THE GROUND, THEN IT STRUCK THE TAIL BOOM, SEVERING THE T/R DRIVE SHAFT. THE AIRCRAFT THEN BEGAN TO SPIN DUE TO THE LOSS OF T/R CONTROL. THE PILOT SET THE HELICOPTER DOWN WHILE STILL SPINNING, AND THE SKIDS COLLAPSED. THE HELICOPTER ROLLED ONTO ITS LEFT SIDE, AND THE PILOT EGRESSED UNINJURED. HE TRUCKED THE WRECKAGE TO HIS HOME IN ARKANSAS PRIOR TO REPORTING THE ACCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S SELECTION OF UNSUITABLE TERRAIN FOR LANDING THE HELICOPTER.

Findings

Occurrence #1: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. TERRAIN CONDITION - DITCH
2. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Occurrence #3: COMPLETE GEAR COLLAPSED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	45, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 4, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	9500 hours (Total, all aircraft), 5500 hours (Total, this make and model), 9300 hours (Pilot In Command, all aircraft), 400 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N1MH
Model/Series:	47D1 47D1	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	473
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:	0 Hrs	Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	6V-350A
Registered Owner:	MOON, ALFRED N.	Rated Power:	235 Horsepower
Operator:	MOON, ALFRED N.	Operating Certificate(s) Held:	
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:	ECG ,12 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	14:00 Local	Direction from Accident Site:	110°
Lowest Cloud Condition:	Scattered / 3500 ft AGL	Visibility	4 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-18°C / -18°C
Precipitation and Obscuration:	N/A - None - Haze		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	13:15 Local	Type of Airspace:	

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 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	36.37952,-76.929306(est)

Administrative Information

Investigator In Charge (IIC):	Hicks jr, Ralph
Additional Participating Persons:	L. LAMBERT; RALEIGH , NC
Original Publish Date:	March 24, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=8460

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The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).