



Aviation Investigation Final Report

Location:	BILLINGSLEY, Alabama	Accident Number:	ATL94LA009
Date & Time:	October 25, 1993, 11:30 Local	Registration:	N866Z
Aircraft:	BELL 47G2	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

THE PILOT REPORTED THAT AS HE ATTEMPTED TO TAKEOFF FROM A TRANSPORT TRAILER, THE RIGHT SKID HOOKED A BRACKET. DYNAMIC ROLL- OVER WAS INDUCED AND THE HELICOPTER ROLLED UNTIL THE MAIN ROTOR BLADES IMPACTED THE GROUND.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S IMPROPER VERTICAL LIFTOFF WHICH RESULTED IN DYNAMIC ROLL-OVER AND THE MAIN ROTOR'S IMPACT WITH THE GROUND.

Findings

Occurrence #1: ROLL OVER
Phase of Operation: TAKEOFF

- Findings
1. (C) VERTICAL TAKEOFF - IMPROPER - PILOT IN COMMAND

Factual Information

On October 25, 1993, about 1130 central daylight time, a Bell 47G2 helicopter, N866Z, rolled over during takeoff from a transport trailer near Billingsley, Alabama. The helicopter was registered to and operated by Precision Air Services, Inc. It was operated under 14 CFR Part 137 and visual flight rules. A flight plan was not filed for the agricultural operation. The commercial pilot was not injured while the helicopter was substantially damaged. The flight was originating at the time of the accident.

According to the pilot the right skid hooked a bracket on the trailer as lift off occurred. The helicopter rolled over onto its right side, which allowed the main rotor to contact the ground. The pilot stated that there were no mechanical malfunctions.

Pilot Information

Certificate:	Commercial	Age:	48, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical—no waivers/lim.	Last FAA Medical Exam:	October 1, 1993
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	10000 hours (Total, all aircraft), 300 hours (Total, this make and model), 10000 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N866Z
Model/Series:	47G2 47G2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	C-5006
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	September 2, 1993 Annual	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:	36 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	2172 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-435-A1D
Registered Owner:	PRECISION AIR SERVICES, INC	Rated Power:	240 Horsepower
Operator:		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:	MGM ,221 ft msl	Distance from Accident Site:	30 Nautical Miles
Observation Time:	10:50 Local	Direction from Accident Site:	95°
Lowest Cloud Condition:	Scattered / 4000 ft AGL	Visibility	7 miles
Lowest Ceiling:	Overcast / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	70°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	19°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	11:30 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:	None

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:	32.659156,-86.699974(est)

Administrative Information

Investigator In Charge (IIC):	Hicks, Preston
Additional Participating Persons:	ROGER HOLMSTROM; BIRMINGHAM , AL
Original Publish Date:	December 2, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=3320

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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](#).