



Aviation Investigation Final Report

Location:	HICKMAN, Kentucky	Accident Number:	ATL90DLQ01
Date & Time:	April 24, 1990, 10:15 Local	Registration:	N2134
Aircraft:	BELL 47D1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

AFTER APPLICATION OF CHEMICALS TO A WHEAT FIELD, THE PILOT COMPLETED A TURN-AROUND MANEUVER IN A DOWNWIND DIRECTION & BEGAN ANOTHER SWATH RUN. HE SAID HE ENTERED A SETTling-WITH-POWER CONDITION, WHICH CONTINUED TO IMPACT WITH THE GROUND. THE TALL WHEAT WRAPPED AROUND THE BOOMS CAUSING THE HELICOPTER TO ROLL OVER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: IMPROPER IN-FLIGHT PLANNING/DECISION BY THE PILOT. THE RESULTANT TAILWIND WAS A RELATED FACTOR.

Findings

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

Findings

1. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) WEATHER CONDITION - TAILWIND
3. LEVEL OFF - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	47, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical—no waivers/lim.	Last FAA Medical Exam:	January 8, 1990
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	9266 hours (Total, all aircraft), 1200 hours (Total, this make and model), 9027 hours (Pilot In Command, all aircraft), 57 hours (Last 90 days, all aircraft), 57 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N2134
Model/Series:	47D1 47D1	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	208
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	March 19, 1990 Annual	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:	57 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3529 Hrs	Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	O-335-5D
Registered Owner:	PAUL D. PROPST	Rated Power:	210 Horsepower
Operator:	DENNIS M. HOPPE	Operating Certificate(s) Held:	
Operator Does Business As:	CROP AIR	Operator Designator Code:	HDOG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 25000 ft AGL	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	200°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28°C / 18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	HICKMAN , KY	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	10:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:	0 ft / 0 ft	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:	36.560916,-89.179977(est)

Administrative Information

Investigator In Charge (IIC): Arnold, David

Additional Participating Persons:

Original Publish Date: March 5, 1993

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=8093>

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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](#).