



Aviation Investigation Final Report

Location:	SUN, Louisiana	Accident Number:	FTW91DRD05
Date & Time:	May 26, 1991, 17:00 Local	Registration:	N339MC
Aircraft:	BELL 47-D1	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Aerial observation		

Analysis

THE PILOT HAD JUST DEPARTED A LOCAL FAIR GROUNDS WITH TWO PAYING PASSENGERS ON BOARD. AT APPROXIMATELY 300 FEET, A TOTAL LOSS OF ENGINE POWER WAS EXPERIENCED. THE PILOT INITIATED A 180 DEGREE AUTOROTATION IN ORDER TO CLEAR THE POPULATED AREA. THE AVAILABLE TERRAIN FOR LANDING WAS NOT LEVEL. DURING THE TOUCHDOWN, ROTOR RPM DECREASED DUE TO THE DIFFICULTY OF CONDUCTING A SLOPE LANDING. THE MAIN ROTOR BLADES SEVERED THE TAILBOOM OF THE HELICOPTER

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE TOTAL LOSS OF POWER FOR UNDETERMINED REASONS AND THE FAILURE OF THE PILOT TO MAINTAIN ROTOR RPM. A FACTOR WAS THE LACK OF SUITABLE TERRAIN.

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: CLIMB

Findings

1. (C) POWERPLANT - FAILURE, TOTAL
2. REASON FOR OCCURRENCE UNDETERMINED
3. LOAD JETTISON - INITIATED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Findings

4. MISC ROTORCRAFT, TAIL BOOM - SEPARATION
5. (C) ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND
6. (F) TERRAIN CONDITION - NONE SUITABLE

Occurrence #3: HARD LANDING
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	40, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	December 17, 1990
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	3230 hours (Total, all aircraft), 397 hours (Total, this make and model), 3044 hours (Pilot In Command, all aircraft), 112 hours (Last 90 days, all aircraft), 49 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N339MC
Model/Series:	47-D1 47-D1	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	T121
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	May 6, 1991 100 hour	Certified Max Gross Wt.:	2350 lbs
Time Since Last Inspection:	21 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5468 Hrs	Engine Manufacturer:	FRANKLIN
ELT:	Not installed	Engine Model/Series:	6V335A
Registered Owner:	COOK AVIATION, INC.	Rated Power:	210 Horsepower
Operator:	COOK AVIATION, INC.	Operating Certificate(s) Held:	None
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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Scattered	Visibility	10 miles
Lowest Ceiling:	Broken / 2500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	27°C / -18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	
Runway Length/Width:		VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	30.660148,-89.899299(est)

Administrative Information

Investigator In Charge (IIC): Munn, Samuel

Additional Participating Persons:

Original Publish Date: May 3, 1993

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=23224>

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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](#).