



Aviation Investigation Final Report

Location:	EMMAUS, Pennsylvania	Accident Number:	NYC82DA056
Date & Time:	March 18, 1982, 10:50 Local	Registration:	N8565F
Aircraft:	BELL 47J-2A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 2 None
Flight Conducted Under:	Part 91: General aviation		

Analysis

WHILE MANEUVERING AT APPROXIMATELY 200 FEET AGL FOR AN AERIAL PHOTOGRAPHY MISSION A SUDDEN AND COMPLETE POWER FAILURE OCCURRED. THE PILOT INITIATED AUTOROTATION PROCEDURES AND SET A COURSE FOR THE ONLY OPEN AREA, A SMALL FIELD WITH A 15 DEGREE UPSLOPE. A FLARE WAS PERFORMED DOWNWIND AND THE AIRCRAFT LANDED HARD. THE ENGINE TEARDOWN EXAMINATION DID NOT REVEAL ANY EXPLANATION FOR THE LOSS OF POWER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings
1. (C) MISCELLANEOUS - UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: MANEUVERING

Findings

2. (F) AUTOROTATION - PERFORMED - PILOT IN COMMAND

Occurrence #3: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (F) TERRAIN CONDITION - HIGH OBSTRUCTION(S)

Factual Information

Pilot Information

Certificate:	Airline transport; Flight instructor	Age:	36,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	January 28, 1982
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	8173 hours (Total, all aircraft), 8000 hours (Pilot In Command, all aircraft), 30 hours (Last 90 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N8565F
Model/Series:	47J-2A 47J-2A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:		Serial Number:	3712
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	2950 lbs
Time Since Last Inspection:	43 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	3118 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	VP-540-B1B3
Registered Owner:	SKY KING AIRWAYS, INC.	Rated Power:	260 Horsepower
Operator:	SKY KING AIRWAYS, INC.	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:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	150°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ALLENTOWN , PA	Type of Flight Plan Filed:	None
Destination:	ALLENTOWN , PA	Type of Clearance:	None
Departure Time:	09:50 Local	Type of Airspace:	

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious, 2 None	Latitude, Longitude:	40.529529,-75.489105(est)

Administrative Information

Investigator In Charge (IIC):

**Additional Participating
Persons:**

Original Publish Date: March 18, 1983

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=70591>

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

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](#).