



Aviation Investigation Final Report

Location:	Lubbock, Texas	Accident Number:	FTW01LA205
Date & Time:	September 8, 2001, 13:45 Local	Registration:	N7472F
Aircraft:	Hughes 269-C	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

Several witnesses near the accident site observed smoke and fire trailing from the helicopter while on an aerial application flight. The pilot also felt heat and saw smoke in the cockpit, which was followed by a loss of engine power. A witness, who was driving in a truck next to the cotton field, reported that he observed the helicopter flying about 20-25 feet in the air when it "suddenly fell at a slight angle, fell from the sky, and hit the ground, sending white smoke and dust." After the accident, the pilot stated that he thought that the spray system had malfunctioned which resulted in chemicals being pumped into the engine. A detailed examination of the helicopter and the engine did not reveal a reason for the loss of engine power. There was no evidence found on the airframe of an in-flight fire, however, there was some thermal damage found on the spray system. The reason for the loss of engine power was not determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power while maneuvering for undetermined reasons. A contributing factor was a malfunction of the spray system.

Findings

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

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. SPRAY/DUSTING EQUIPMENT - MALFUNCTION

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY LANDING

Findings

3. TERRAIN CONDITION - CROP

Factual Information

On September 8, 2001, approximately 1345 central daylight time, a Hughes 269C helicopter, N7472F, registered to and operated by Aero Management Inc., of Olton, Texas, was destroyed when it impacted terrain following a loss of engine power in the vicinity of Lubbock, Texas. The commercial pilot, who was the sole occupant of the helicopter, was not injured. Visual meteorological conditions prevailed and a flight plan was not filed for the 14 Code of Federal Regulations Part 137 aerial application flight. The local flight originated from the Town and Country Airpark, Lubbock, Texas, at 1320.

The pilot reported that he saw smoke and felt heat in the cockpit which was followed by a loss of engine power while he was applying pesticides to a cotton field. In the enclosed NTSB Pilot/Operator Report, the pilot added that "the spray system broke, pumped chemicals into hot engine, causing fire and smoke which suffocated the engine and resulted in loss of engine power." A witness, who was driving in a truck next to the cotton field, reported that he observed the helicopter flying about 20-25 feet in the air when it "suddenly fell at a slight angle, fell from the sky, and hit the ground, sending white smoke and dust."

Several witnesses near the accident site reported smoke trailing from the engine compartment and 2 witnesses reported flames coming from the rear of the helicopter. Four witnesses provided written statements.

The wreckage of the helicopter was recovered to a secured location at the Town and Country Airport for a detailed examination under the supervision of an FAA inspector. No fuel or oil leaks were found. No evidence of an engine malfunction or powerplant anomalies were found. Fuel was found in the fuel cell. There was no evidence of a post-impact fire. Also, the FAA inspector who examined the wreckage did not find evidence of an in-flight fire on the airframe. However, components of the spray system showed some thermal damage. The reason for the loss of engine power was not conclusively determined.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	44, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane; Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	March 13, 2001
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 4, 1999
Flight Time:	15400 hours (Total, all aircraft), 100 hours (Total, this make and model), 15204 hours (Pilot In Command, all aircraft), 235 hours (Last 90 days, all aircraft), 105 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N7472F
Model/Series:	269-C	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Restricted (Special)	Serial Number:	
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	1300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:	Not installed	Engine Model/Series:	IO-360
Registered Owner:	Aero Management Inc.	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	S8PG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	LBB,1657 ft msl	Distance from Accident Site:	
Observation Time:	13:53 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.86 inches Hg	Temperature/Dew Point:	27°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Lubbock, TX (F81)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	13:20 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	33.525001,-101.783332

Administrative Information

Investigator In Charge (IIC):	Lemishko, Alexander
Additional Participating Persons:	William J Fitzgerald; FAA; Lubbock, TX
Original Publish Date:	April 29, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=53435

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](#).