



Aviation Investigation Final Report

Location:	FARMINGTON, California	Accident Number:	LAX91LA388
Date & Time:	September 11, 1991, 07:58 Local	Registration:	N43921
Aircraft:	TEXAS HELICOPTER M74	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 137: Agricultural		

Analysis

AFTER THE HELICOPTER WAS RELOADED WITH 500 LBS OF SULFUR, THE PILOT TOOK OFF & DEPARTED TO THE NORTHWEST AT AN ALTITUDE OF ABOUT 100 FT TO CONTINUE THE APPLICATION MISSION. THE GROUND CREW REPORTED THAT SHORTLY AFTER DEPARTURE, THE ENGINE BACKFIRED SEVERAL TIMES & THE HELICOPTER BEGAN SETTLING TAIL FIRST TO THE GROUND. GROUND CONTACT SEPARATED THE TAIL BOOM FROM THE HELICOPTER & IT ROTATED TO THE LEFT. THE SKIDS SEPARATED & THE RIGHT SULFUR TANK RUPTURED. A SULFUR FIRE ERUPTED. THE PILOT EXITED THE COCKPIT ON THE RIGHT SIDE & WAS STRUCK BY THE MAIN ROTOR. THE HELICOPTER WAS LOADED 69 LBS OVER ITS MAXIMUM ALLOWABLE GROSS WEIGHT. NO PREIMPACT PART FAILURE OF THE HELICOPTER OR ENGINE WAS FOUND. TESTS OF THE PILOT'S BLOOD SHOWED 0.009 UG/ML OF 11-NOR-DELTA-9-TETRAHYDRO-CANNABINOL & 0.012 UG/ML OF 11-NOR-DELTA-9-THC-9-CARBOXYLIC ACID. A TEST OF HIS URINE DETECTED 0.129 UG/ML OF 11-NOR-DELTA-9-CARBOXYLIC ACID.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: LOSS OF ENGINE POWER FOR AN UNDETERMINED REASON. FACTORS RELATED TO THE ACCIDENT WERE: THE EXCESSIVE GROSS WEIGHT OF THE HELICOPTER, AND THE PILOT'S IMPROPER USE OF FLIGHT CONTROLS DUE TO IMPAIRMENT FROM USE OF A DRUG (MARIJUANA).

Findings

Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

2. AUTOROTATION - PERFORMED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: LANDING

Findings

3. (F) AIRCRAFT WEIGHT AND BALANCE - EXCEEDED - PILOT IN COMMAND

4. (F) FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND

5. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND

Occurrence #4: PROPELLER/ROTOR CONTACT TO PERSON

Phase of Operation: OTHER

Factual Information

Pilot Information

Certificate:	Commercial	Age:	39, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Invalid Medical for flight	Last FAA Medical Exam:	July 25, 1990
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	7000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	TEXAS HELICOPTER	Registration:	N43921
Model/Series:	M74 M74	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	76-003
Landing Gear Type:	Skid	Seats:	1
Date/Type of Last Inspection:	January 2, 2000 Unknown	Certified Max Gross Wt.:	2450 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	VO-435
Registered Owner:	AG AIR, INC	Rated Power:	240 Horsepower
Operator:	AG-AIR, INC	Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	MBDG

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	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	07:57 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:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	37.960289,-120.869049(est)

Administrative Information

Investigator In Charge (IIC):	Rich, Jeff
Additional Participating Persons:	RAY MURPHY; OAKLAND , CA
Original Publish Date:	September 29, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=27354

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](#).