



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	BLACK MOUNTAIN, Nevada	<b>Accident Number:</b>	LAX84FA095
<b>Date &amp; Time:</b>	December 7, 1983, 12:29 Local	<b>Registration:</b>	N57901
<b>Aircraft:</b>	AEROSPATIALE AS 355F	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	3 Fatal
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Unspecified)		

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## Analysis

THE HELICOPTER TOOKOFF ON AN AIR AMBULANCE FLT AT ABOUT 1219 PST. ACCORDING TO TOWER PERSONNEL, THE DEPARTURE APPEARED NORMAL. RADAR SERVICE WAS TERMINATED AT 1227 & THERE WAS NO FURTHER RADIO CONTACT WITH THE HELICOPTER. LATER, THE HELICOPTER WAS FOUND WHERE IT HAD CRASH LANDED ON STEEP MOUNTAINOUS TERRAIN, ROLLED OVER & BURNED. AN INVESTIGATION REVEALED AN OPEN LOGBOOK ENTRY THAT THE #1 TORQUE TRANSMITTER WAS INOP. A PERSON NEAR THE DEPARTURE POINT NOTICED THE L ENG COWLING WAS LOOSE. A SHORT TIME LATER, A 3' X 4' PIECE OF ENG COWLING WAS OBSERVED TO FALL FROM THE HELICOPTER. THERE WAS NO INDICATION IN THE AIRCREW'S RADIO TRANSMISSIONS THAT THEY WERE AWARE OF THE COWLING PROBLEM. AN EXAM REVEALED EVIDENCE THAT THE COWLING STANDOUT TUBE FOR THE L ENG HAD RUBBED AGAINST THE FREE WHEELING TURBINE GOVERNOR CABLE. AEROSPATIALE PSNL SAID THIS COULD DECREASE FUEL FLOW TO THE L ENG; AT HI POWER, THE R ENG GOVERNOR WOULD THEN INCREASE ITS FUEL FLOW & EXCEED LIMITS UNLESS PLT COMPENSATED. R FUEL SHUTOFF VALVE WAS FOUND NEAR ITS CLOSED POSITION.

## Probable Cause and Findings

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

### Findings

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Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) ENGINE INSTRUMENTS, TORQUEMETER - INOPERATIVE
2. (F) MAINTENANCE, REPLACEMENT - NOT PERFORMED
3. (F) COOLING SYSTEM, COWLING - UNDETERMINED
4. (F) COOLING SYSTEM, COWLING - SEPARATION
5. (F) TURBOSHAFT ENGINE, FREE TURBINE GOVERNOR - FALSE INDICATION

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Occurrence #2: FORCED LANDING

Phase of Operation: LANDING

Findings

6. (C) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
7. (C) WRONG ENGINE SHUTDOWN - PERFORMED - PILOT IN COMMAND
8. AUTOROTATION - PERFORMED - PILOT IN COMMAND

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Occurrence #3: ROLL OVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

9. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
10. (F) TERRAIN CONDITION - ROUGH/UNEVEN

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline transport; Flight instructor	<b>Age:</b>	39, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Helicopter	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane multi-engine	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	March 4, 1983
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5300 hours (Total, all aircraft), 400 hours (Total, this make and model), 5200 hours (Pilot In Command, all aircraft), 90 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AEROSPATIALE	<b>Registration:</b>	N57901
<b>Model/Series:</b>	AS 355F AS 355F	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	AS-355F
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	December 6, 1983 Annual	<b>Certified Max Gross Wt.:</b>	5070 lbs
<b>Time Since Last Inspection:</b>	2 Hrs	<b>Engines:</b>	2 Turbo shaft
<b>Airframe Total Time:</b>	961 Hrs	<b>Engine Manufacturer:</b>	ALLISON
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	250-C20F
<b>Registered Owner:</b>		<b>Rated Power:</b>	420 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>	HELICOPTER WEST, INC.[EMS]	<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	LAS	Distance from Accident Site:	
Observation Time:	19:49 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Unknown / 25000 ft AGL	Visibility	75 miles
Lowest Ceiling:	Overcast / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	9°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LAS VEGAS , NV (NV53)	Type of Flight Plan Filed:	Company VFR
Destination:	NEEDLES , CA	Type of Clearance:	None
Departure Time:	12:19 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:	3 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	In-flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	36.159759, -115.430442(est)

## Administrative Information

Investigator In Charge (IIC): Dickinson, Al

Additional Participating  
Persons:

Original Publish Date:

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=23914>

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).