



National Transportation Safety Board Aviation Accident Final Report

Location:	GRANITE, Colorado	Accident Number:	FTW94FA224
Date & Time:	July 9, 1994, 19:48 Local	Registration:	N95LG
Aircraft:	AEROSPATIALE 350B-2	AS	Aircraft Damage: Destroyed
Defining Event:		Injuries:	2 Fatal, 3 Minor
Flight Conducted Under:	Part 91: General aviation		

Analysis

THE AIR AMBULANCE (EMS) HELICOPTER WAS DISPATCHED TO PICK UP AN INJURED HIKER ON A 14,000' MOUNTAIN. TERRAIN AT THE PICKUP POINT WAS AT AN ELEVATION OF ABOUT 12,200' AND SLOPED APPROXIMATELY 35 DEGREES. GROUND RESCUE PERSONNEL SAID THE PILOT ADVISED THEM HE WOULD PLACE THE HELICOPTER'S RIGHT SKID ON THE MOUNTAIN SLOPE TO ALLOW THEM TO LOAD THE PATIENT ON THE DOWNHILL SIDE. AS THE HELICOPTER HOVERED ABOVE THEM, THE MAIN ROTOR BLADES STRUCK ROCKS. THE HELICOPTER THEN WENT OVER THEIR HEADS, CRASHED, AND SUBSEQUENTLY TUMBLED ABOUT 800' DOWN THE MOUNTAIN.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT TO ASSURE MAIN ROTOR CLEARANCE FROM SLOPING TERRAIN WHILE IN A HOVER. THE TERRAIN CONDITION WAS A RELATED FACTOR.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: HOVER

Findings

1. (F) TERRAIN CONDITION - MOUNTAINOUS/HILLY
2. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On July 9, 1994, at 1948 mountain daylight time, N95LG, an Aerospatiale AS350 B2 Ecureuil, was destroyed during hover 10 miles southwest of Granite, Colorado. The commercial pilot and a flight nurse were fatally injured, and three ground personnel received minor injuries. Visual meteorological conditions prevailed for the CFR part 135 flight.

The following is based on the pilot/operator report and interviews with ground rescuers. The helicopter, operating as an air ambulance, was dispatched from Provenant Medical Center in Frisco, Colorado, to 14,003-foot Mount Huron, near Granite, to pick up an injured hiker.

Ground rescue personnel said the pilot was in radio contact with them as he made his approach at the 12,200 foot level. The pilot advised them he would place the helicopter's right skid on the mountain slope to allow them to load the patient on the downhill side. Rescuers said they were beneath the rotor disc and were shielding their faces from flying debris when they heard "chopping" noises. They saw the main rotor blades strike the rocks and saw the helicopter flip over their heads and tumble down the mountain, coming to rest 800 feet away at the 11,400 foot level.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy (report P-94-84) was performed on the pilot by Pathologists Professional Corporation, Pueblo, Colorado. FAA's Civil Aeromedical Institute also performed a toxicological screen, the results of which are attached to this report.

TESTS AND RESEARCH

Examination of the accident site revealed the slope to be approximately 35 degrees. Using the flight manual's three dimensional scale drawing, three lines were drawn from the center of the helicopter, the center of the pilot's seat, and the edge of the right skid, and extended to the tip of the rotor blade. Angles formed by the intersection of these lines with the horizontal plane measured approximately 28 degrees, 28.5 degrees, and 29 degrees, respectively.

ADDITIONAL INFORMATION

The wreckage was released to the operator on July 10, 1994.

Pilot Information

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	May 16, 1994
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	15207 hours (Total, all aircraft), 175 hours (Total, this make and model), 31 hours (Last 90 days, all aircraft), 17 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AEROSPATIALE	Registration:	N95LG
Model/Series:	AS 350B-2 AS 350B-2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2389
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	June 29, 1994 AAIP	Certified Max Gross Wt.:	4961 lbs
Time Since Last Inspection:	12 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	2905 Hrs	Engine Manufacturer:	TURBOMECA
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	ARRIEL 1D1
Registered Owner:		Rated Power:	625 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:	FLIGHT FOR LIFE	Operator Designator Code:	DYRA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	LXV ,9927 ft msl	Distance from Accident Site:	18 Nautical Miles
Observation Time:	17:45 Local	Direction from Accident Site:	10°
Lowest Cloud Condition:	Unknown	Visibility	30 miles
Lowest Ceiling:	Broken / 7500 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	23° C / -2° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	FRISCO , CO (91CO)	Type of Flight Plan Filed:	Company VFR
Destination:		Type of Clearance:	None
Departure Time:	19:17 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:	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	3 Minor	Aircraft Explosion:	None
Total Injuries:	2 Fatal, 3 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	MONTY F TAYLOR; DENVER , CO
Original Publish Date:	July 11, 1995
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=18910

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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](#).