



National Transportation Safety Board Aviation Accident Final Report

Location:	BRIDGEPORT, California	Accident Number:	LAX92FA054
Date & Time:	November 27, 1991, 23:21 Local	Registration:	N146RM
Aircraft:	AEROSPATIALE SA 316B	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Fatal
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Unspecified)		

Analysis

THE AEROMEDICAL EVACUATION (EMS-MEDEVAC) FLT WAS MADE AT NGT OVR MTN TRRN. THE PLT INTERRUPTED HIS NORMAL PSN RPRT & BROADCAST 'MAYDAY' 3 TIMES, GIVING HIS PSN TO A COMPANY DISPATCHER. HE DID NOT STATE THE NATURE OF THE EMERGENCY. NO FURTHER COMM WAS RECORDED. WITNESSES IN A SOUTHBOUND AUTO SAW THE HELICOPTER FLYING TOWARD THEM FROM THE SOUTH. THEY STATED THE HELICOPTER'S FUSELAGE STARTED ROTATING COUNTER-CLOCKWISE. IT THEN VEERED TO THE WEST, WENT OUT OF SIGHT, AND CRASHED. ALL MAJ COMPONENTS, EXCEPT ABOUT 33 INCHES OF THE TAIL ROTOR DRIVE SHAFT & ITS #5 BRG, WERE LOCATED. THE TAIL BOOM WAS FOUND IN 3 SECTIONS. ROTATIONAL & LONGITUDINAL SCORING DAMAGE WAS NOTED ON THE TAIL BOOM IN THE VCNTY OF THE #3 & #5 BRG SUPPORTS. A LAB RPRT STATED THAT THE ROTATIONAL DMG OCCURRED BEFORE THE GROSS DEFORMATION OF THE TAIL BOOM & SUBSEQUENT IN-FLT BREAKUP OF THE HELICOPTER.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE HELICOPTER'S TAIL ROTOR DRIVE SHAFT AND DRIVE SHAFT BEARING DUE TO UNDETERMINED REASON(S).

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CRUISE

Findings

1. (C) ROTOR DRIVE SYSTEM, TAIL ROTOR DRIVE SHAFT BEARING - FAILURE, TOTAL
 2. (C) ROTOR DRIVE SYSTEM, TAIL ROTOR DRIVE SHAFT - FAILURE, TOTAL
 3. (C) REASON FOR OCCURRENCE UNDETERMINED
-

Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: CRUISE

Findings

4. LIGHT CONDITION - DARK NIGHT
 5. AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND
-

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

Pilot Information

Certificate:	Airline transport	Age:	44, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	July 1, 1991
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	11095 hours (Total, all aircraft), 2163 hours (Total, this make and model), 11095 hours (Pilot In Command, all aircraft), 76 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AEROSPATIALE	Registration:	N146RM
Model/Series:	SA 316B SA 316B	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1614
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	October 25, 1991 AAIP	Certified Max Gross Wt.:	4850 lbs
Time Since Last Inspection:	53 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	7525 Hrs	Engine Manufacturer:	TURBOMECA
ELT:	Installed, not activated	Engine Model/Series:	ARTOUSTE IIIB
Registered Owner:		Rated Power:	858 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	DYRA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Unknown	Visibility	3 miles
Lowest Ceiling:	Unknown	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-11°C
Precipitation and Obscuration:	N/A - Blowing - Snow		
Departure Point:	BRIDGEPORT , CA (Q18)	Type of Flight Plan Filed:	Company VFR
Destination:	RENO , NV (NONE)	Type of Clearance:	None
Departure Time:	23:05 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:	None

Wreckage and Impact Information

Crew Injuries:	3 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Fatal	Latitude, Longitude:	38.270641,-119.32965(est)

Administrative Information

Investigator In Charge (IIC):	Childress, Richard
Additional Participating Persons:	SAM BRODIE; FT. WORTH , TX CLARENCE BOHARTZ; RENO , NV DEL LIVINGSTON; GRAND PRAIRIE , TX STEPHEN IVES; GRAND PRAIRIE , TX
Original Publish Date:	January 27, 1993
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=27392

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](#).