



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	BLANCHARD, Idaho	<b>Accident Number:</b>	DEN89FA202
<b>Date &amp; Time:</b>	August 27, 1989, 22:04 Local	<b>Registration:</b>	N132SH
<b>Aircraft:</b>	AEROSPATIALE AS-350D	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	4 Fatal
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Medical emergency)		

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## Analysis

THE EMERG MED SVC (EMS/MEDEVAC) HELICOPTER WAS EN ROUTE WITH A PLT, 2 MED PSNL & A PATIENT. THE PATIENT (A FUGITIVE WITH A GUNSHOT WOUND) WAS HANDCUFFED TO THE STRETCHER. DRG FLT, THE PLT RPRTD A PROBLEM WITH THE PATIENT & REQUESTED POLICE ASSISTANCE DRG ARRIVAL AT THE HOSPITAL. THE PLT THEN TRANSMITTED AN EXPLETIVE & RADAR CONTACT WAS LOST WITH THE ACFT. WRECKAGE WAS FOUND OVER A 1 MI AREA WITH EVIDENCE OF AN IN-FLT BREAKUP & MAIN ROTOR CONTACT WITH THE COCKPIT & TAIL CONE. INV SHOWED EVIDENCE OF SWASHPLATE BRG SEIZURE. THE PITCH CHG LINK RODS & ROTATIONAL SCISSORS WERE BRKN IN THEDRCTN OF MAIN ROTOR ROTATION & CTC MARKS WERE FND ON THE FWD EARS OF THE ROTATING SWASHPLATE LUGS. DISASSEMBLY REVEALED FAILURE OF THE INNER & OUTER RACE LOCKS & SPALLING OF THE BRG RACES. LACK OF GREASE WAS NOTED IN THE BRG & THE BALL BRG SWERE DISCOLORED BLUE. WEAR MARKS ON THE BALL BRGS INDCD SCUFFING; 1 BALL BRG WAS FLUTED. THE BRG ASSEMBLY HAD ACCRUED 1.23 HRS OF OPN SINCE THE LAST 100 HR INSPN. LUBE REQUIRED EACH 400 HRS, COMPANY POLICY WAS TO LUBE AT 100 HR INTERVALS.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: OVERHEATING AND SEIZURE OF THE SWASHPLATE BEARING, WHICH RESULTED IN AN INFLIGHT BREAKUP OF THE HELICOPTER AND SUBSEQUENT IMPACT WITH THE GROUND.

## Findings

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

Phase of Operation: CRUISE - NORMAL

### Findings

1. DISTURBANCE - INTENTIONAL - PASSENGER
2. (C) ROTORCRAFT FLIGHT CONTROL,SWASHPLATE ASSEMBLY - OVERTEMPERATURE
3. (C) ROTORCRAFT FLIGHT CONTROL,SWASHPLATE ASSEMBLY - SEIZED

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Commercial; Private	<b>Age:</b>	30, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	Helicopter	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 2 Valid Medical--no waivers/lim.	<b>Last FAA Medical Exam:</b>	August 26, 1988
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	5000 hours (Total, all aircraft), 200 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AEROSPATIALE	<b>Registration:</b>	N132SH
<b>Model/Series:</b>	AS-350D AS-350D	<b>Aircraft Category:</b>	Helicopter
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1335
<b>Landing Gear Type:</b>	Skid	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	August 25, 1989 100 hour	<b>Certified Max Gross Wt.:</b>	4300 lbs
<b>Time Since Last Inspection:</b>	1 Hrs	<b>Engines:</b>	1 Turbo shaft
<b>Airframe Total Time:</b>	3486 Hrs	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	LTS-101-600A2
<b>Registered Owner:</b>		<b>Rated Power:</b>	531 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)
<b>Operator Does Business As:</b>	HEARTFLITE	<b>Operator Designator Code:</b>	IOAA

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	SFF ,1953 ft msl	Distance from Accident Site:	27 Nautical Miles
Observation Time:	21:47 Local	Direction from Accident Site:	206°
Lowest Cloud Condition:	Scattered / 7000 ft AGL	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	16° C / 10° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	EASTPORT , ID	Type of Flight Plan Filed:	None
Destination:	SPOKANE , WA (09WA)	Type of Clearance:	None
Departure Time:	21:26 Local	Type of Airspace:	Class E

## Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:	0 ft msl	Runway Surface Condition:	
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	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:	48.040271,-116.960517(est)

## Administrative Information

Investigator In Charge (IIC):	Scott, Arnold
Additional Participating Persons:	HAROLD C HUTCHINS; SEATTLE , WA DENNIS A HANSON; SPOKANE , WA GARY B ROACH; FORT WORTH , TX JAMES T MORAN; GRAND PRAIRIE , TX
Original Publish Date:	September 5, 1990
Note:	
Investigation Docket:	<a href="https://data.nts.gov/Docket?ProjectID=17605">https://data.nts.gov/Docket?ProjectID=17605</a>

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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](#).