



National Transportation Safety Board Aviation Accident Final Report

Location:	BIG TIMBER, MT	Accident Number:	DEN89MA130
Date & Time:	06/01/1989, 2335 MDT	Registration:	N76KM
Aircraft:	BELL 206L-3	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled - Air Medical (Unspecified)		

Analysis

AT ABT 2158 MDT, THE EMERG MED SVC (EMS/MEDEVAC) HELICOPTER (HEL) PLT CTCD BILLINGS TWR & ADZD HE WOULD BE MAKING APCHS TO SAINT VINCENTS HOSP FOR (NGT) CURRENCY. APRX 9 MIN LATER, HE CTCD THE TWR AGAIN & ADZD HE WAS BEING DISPATCHED ON AN EMS FLT. THE EMS FLT WAS TO A RANCH (WNW OF BILLINGS). THE PLT HAD DIFFICULTY FINDING THE RANCH AT NGT, BUT ARRIVED AT 2238 MDT. THE PATIENT WAS LOADED & THE PLT WAS ADZD OF TRRN CONDS. A WITNESS SAID THE HEL LIFTED OFF FAST, THEN SWIVELEDARND QUICKLY (TOWARD EAST) & TOOK OFF W/O HESITATION. AFTER DEPG, THE HEL CROSSED A HILL & CRASHED AT HI SPD ON LWR TRRNIN A SLGT NOSE LOW, RGT BANK ATTITUDE, HDG 330 DEG. NO PREIMPACT MECH PRBLM WAS FND. THE PLT HAD BEEN RECENTLY HIRED BY THE OPERATOR; PREV EMPLOYMENT INVOLVED FLYING A DISSIMILAR HEL (BK-105) IN THE GULF OF MEXICO AREA, LIMITED TO DAY VFR. THE PLT'S LAST RECORDED NGT FLT WAS ON 6/16/87; HIS LAST RECORDED INST FLT WAS PRIOR TO JUNE 1984. NO RECORD WAS FND OF FAMILIARIZATION TRAINING FOR THE GEOGRAPHICAL AREA. RELATIVES OF THE PATIENT DESCRIBED THE ACDNT AREA AS A BLACK HOLE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT TO MAINTAIN CONTROL OF THE AIRCRAFT DURING TAKEOFF, DUE TO SPATIAL DISORIENTATION, WHICH RESULTED IN A COLLISION WITH THE TERRAIN. CONTRIBUTING FACTORS WERE: DARK NIGHT, PILOT'S VISUAL PERCEPTION, INADEQUATE INITIAL TRAINING OF THE PILOT BY THE OPERATOR, THE PILOT'S LACK OF FAMILIARITY WITH THE GEOGRAPHICAL AREA, AND THE COMPANY'S INSUFFICIENT STANDARDS/REQUIREMENTS.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: TAKEOFF

Findings

1. (F) LIGHT CONDITION - DARK NIGHT
 2. (F) VISUAL/AURAL PERCEPTION - PILOT IN COMMAND
 3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
 4. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND
 5. LACK OF RECENT INSTRUMENT TIME - PILOT IN COMMAND
 6. (F) INADEQUATE INITIAL TRAINING - COMPANY/OPERATOR MANAGEMENT
 7. (F) LACK OF FAMILIARITY WITH GEOGRAPHIC AREA - PILOT IN COMMAND
 8. (F) INSUFFICIENT STANDARDS/REQUIREMENTS,AIRMAN - COMPANY/OPERATOR MGMT
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF

Findings

9. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	47, Male
Airplane Rating(s):	Multi-engine Land; Multi-engine Sea; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	01/16/1989
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	9036 hours (Total, all aircraft), 915 hours (Total, this make and model), 51 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BELL	Registration:	N76KM
Model/Series:	206L-3 206L-3	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	51103
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	05/22/1989, AAIP	Certified Max Gross Wt.:	4150 lbs
Time Since Last Inspection:	20 Hours	Engines:	1 Turbo Shaft
Airframe Total Time:	1816 Hours	Engine Manufacturer:	ALLISON
ELT:	Installed, not activated	Engine Model/Series:	250-C30P
Registered Owner:	ROCKY MOUNTAIN HELICOPTER, INC	Rated Power:	650 hp
Operator:		Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:	HELP FLIGHT	Operator Designator Code:	DYRA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	BIL, 3650 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	2300 MDT	Direction from Accident Site:	100°
Lowest Cloud Condition:	Scattered / 5000 ft agl	Visibility	20 Miles
Lowest Ceiling:	Broken / 10000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	17° C / 9° C
Precipitation and Obscuration:			
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:	BILLINGS, MT (NONE)	Type of Clearance:	VFR
Departure Time:	2208 MDT	Type of Airspace:	Class G

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:	

Administrative Information

Investigator In Charge (IIC):	GREGORY A FEITH	Report Date:	12/10/1990
Additional Participating Persons:	MIKE MORRISON; BILLINGS, MT RICK MARTZ; WASHINGTON, DC DAVID DOSKER; FT. WORTH, TX JON BARRIE; PROVO, UT		
Publish Date:			
Investigation Docket:	NTSB accident and incident docket serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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