



National Transportation Safety Board Aviation Accident Final Report

Location:	BIG TIMBER, Montana	Accident Number:	DEN89MA130
Date & Time:	June 1, 1989, 23:35 Local	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

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: TAKEOFF

Findings

9. TERRAIN CONDITION - MOUNTAINOUS/HILLY

Factual Information

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	47, Male
Airplane Rating(s):	Single-engine land; Multi-engine land; Multi-engine sea	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
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:	January 16, 1989
Occupational Pilot:	Yes	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:	
Airworthiness Certificate:	Normal	Serial Number:	51103
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	May 22, 1989 AAIP	Certified Max Gross Wt.:	4150 lbs
Time Since Last Inspection:	20 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	1816 Hrs	Engine Manufacturer:	ALLISON
ELT:	Installed, not activated	Engine Model/Series:	250-C30P
Registered Owner:		Rated Power:	650 Horsepower
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 (VMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	BIL ,3650 ft msl	Distance from Accident Site:	35 Nautical Miles
Observation Time:	23:00 Local	Direction from Accident Site:	100°
Lowest Cloud Condition:	Scattered / 5000 ft AGL	Visibility	20 miles
Lowest Ceiling:	Broken / 10000 ft AGL	Visibility (RVR):	
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:	No Obscuration; No Precipitation		
Departure Point:	(NONE)	Type of Flight Plan Filed:	None
Destination:	BILLINGS , MT (NONE)	Type of Clearance:	VFR
Departure Time:	22:08 Local	Type of Airspace:	Class G

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:	45.959381,-109.850463(est)

Administrative Information

Investigator In Charge (IIC):	Feith, Gregory		
Additional Participating Persons:	MIKE	MORRISON; BILLINGS	, MT
	RICK	MARTZ; WASHINGTON	, DC
	DAVID	DOSKER; FT. WORTH	, TX
	JON	BARRIE; PROVO	, UT
Original Publish Date:	December 10, 1990		
Note:			
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=17790		

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