



Aviation Investigation Final Report

Location:	Vernal, Utah	Accident Number:	DEN03LA041
Date & Time:	February 7, 2003, 09:09 Local	Registration:	CFLHA
Aircraft:	Aerospatiale AS-350BII	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 Serious
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

The pilot performed a normal helicopter departure with a longline attached. He reported he forgot that the longline was attached and he did a normal takeoff. He felt a jerk and heard a bang, and the helicopter began to rotate. Postimpact examination of the tail rotor assembly revealed that the longline was entangled in its shaft. Additionally, the tail rotor drive shaft was found separated.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate planning resulting in his inattentiveness of the attached longline. Contributing factors were the entanglement of the longline in the tail rotor, failure of the tail rotor drive shaft, and subsequent inability of the pilot to control the aircraft.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
2. INATTENTIVE - PILOT IN COMMAND
3. (C) ROTOR SYSTEM, TAIL ROTOR - ENTANGLED
4. (F) ROTOR DRIVE SYSTEM, TAIL ROTOR DRIVE SHAFT - FAILURE, TOTAL

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: DESCENT - UNCONTROLLED

Findings

5. (F) AIRCRAFT CONTROL - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - OPEN FIELD

Factual Information

On February 7, 2003, at 0909 mountain standard time, an Aerospatiale AS-350BII helicopter, CFLHA, was substantially damaged when it impacted terrain following loss of in flight control near Vernal, Utah. The commercial pilot and his passenger were seriously injured. Abitibi Helicopters, of La Sarre, Quebec (Canada), was operating the aircraft under Title 14 CFR Part 133. Visual meteorological conditions prevailed for the cross-country flight that was originating at the time of the accident. No flight plan had been filed.

The Canadian pilot had been conducting geophysical operations. The pilot stated that he and his engineer [A&P mechanic] had been performing mechanical tests on the aircraft. After refueling the aircraft, they hooked up a long line and performed an out of ground effect flight test. They landed at the main staging area. The pilot said that he forgot that the longline was attached, and performed a normal takeoff to the north. The pilot reported feeling a jerk at about 25 feet above the ground (forward speed 10 to 20 knots), and then a loud bang. Subsequently, he lost anti-torque control of the aircraft. The helicopter came to rest listing towards its right side,

Postaccident examination revealed the long line was entangled in the tail rotor assembly. Further examination revealed that the tail rotor drive had separated, the right landing skid was broken, the fuselage and tail boom were distorted, and the fuel cell was compromised.

Pilot Information

Certificate:	Commercial	Age:	47, Male
Airplane Rating(s):	None	Seat Occupied:	Right
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	June 6, 2002
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 23, 2002
Flight Time:	7054 hours (Total, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aerospatiale	Registration:	CFLHA
Model/Series:	AS-350BII	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2480
Landing Gear Type:	Skid	Seats:	6
Date/Type of Last Inspection:	January 19, 2003 100 hour	Certified Max Gross Wt.:	4961 lbs
Time Since Last Inspection:	87 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	7275 Hrs at time of accident	Engine Manufacturer:	Turbomeca
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	Arriel IDI
Registered Owner:	Les Helicopteres Abitibi Ltd.	Rated Power:	625 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:	Abitibi Helicopters	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	VEL,5278 ft msl	Distance from Accident Site:	50 Nautical Miles
Observation Time:	10:53 Local	Direction from Accident Site:	350°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.32 inches Hg	Temperature/Dew Point:	-9°C / -17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Vernal , UT (NONE)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	1 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Serious	Latitude, Longitude:	39.767776,-109.558891

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	Lewis C Olson; FAA SLC FSDO; Salt Lake City, UT
Original Publish Date:	November 25, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=56459

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