

# **Aviation Investigation Final Report**

Location: Powder River, Wyoming Accident Number: DEN01LA057

Date & Time: February 27, 2001, 14:30 Local Registration: C-GEYN

Aircraft: Eurocopter France AS-350-B2 Aircraft Damage: Substantial

**Defining Event:** 1 None

Flight Conducted Under: Part 91: General aviation - Other work use

### **Analysis**

The pilot had just completed a mission repositioning seismic equipment and was landing the helicopter on a snow and ice covered field in a confined staging area. He locked the collective control lever in the full down position, reduced power to 70 percent and opened the door to see if he had landed on one of his long lines. He inadvertently bumped the cyclic resulting in the helicopter turning to the right approximately 70 degrees allowing the lower vertical fin on the tail boom to come in contact with a metal gear/equipment cage. The structural integrity of the fin was compromised and required replacement.

### **Probable Cause and Findings**

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain aircraft control during aircraft shut down procedures. Contributing factors were: the snow and ice covered field and the confined landing areas unsuitable obstacle clearance.

### **Findings**

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER

Phase of Operation: STANDING - IDLING ROTORS

#### Findings

1. (C) CYCLIC - INADVERTENT ACTIVATION - PILOT IN COMMAND

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Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT

Phase of Operation: STANDING - IDLING ROTORS

#### **Findings**

2. (F) TERRAIN CONDITION - SNOW COVERED

- 3. (F) TERRAIN CONDITION ICY
- 4. (F) TERRAIN CONDITION CONGESTED/CONFINED AREA
- 5. (F) CLEARANCE NOT MAINTAINED PILOT IN COMMAND

Page 2 of 6 DEN01LA057

#### **Factual Information**

On February 27, 2001, at approximately 1430 mountain standard time, a Eurocopter-France AS-350-B2 helicopter, C-GEYN, operated by Venture Helicopters Ltd., Calgary, Alberta, sustained substantial damage when it collided with a utility box while landing on an snow and ice covered field near Powder River, Wyoming. The commercial pilot and sole occupant on board was not injured. Visual meteorological conditions prevailed and no flight plan had been filed for this local flight being operated under Title 14 CFR Part 91. The flight originated at approximately 1330.

According to the pilot, he had just completed a mission repositioning seismic equipment and was landing on a snow and ice covered field in a confined staging area. He locked the collective control lever in the full down position, reduced power to 70 percent and opened the door to see if he had landed on one of his long lines. He inadvertently bumped the cyclic resulting in the helicopter turning to the right approximately 70 degrees allowing the lower vertical fin on the tail boom to come in contact with a metal gear/equipment cage. The structural integrity of the fin was compromised and required replacement.

#### **Pilot Information**

Certificate:	Commercial	Age:	36,Male
Airplane Rating(s):		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 Without waivers/limitations	Last FAA Medical Exam:	May 15, 2000
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 6, 2001
Flight Time:	2200 hours (Total, all aircraft), 700 hours (Total, this make and model), 1900 hours (Pilot In Command, all aircraft), 98 hours (Last 90 days, all aircraft), 26 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Page 3 of 6 DEN01LA057

## **Aircraft and Owner/Operator Information**

Aircraft Make:	Eurocopter France	Registration:	C-GEYN
Model/Series:	AS-350-B2	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	2732
Landing Gear Type:	Skid	Seats:	6
Date/Type of Last Inspection:	January 30, 2001 Continuous airworthiness	Certified Max Gross Wt.:	4961 lbs
Time Since Last Inspection:	57 Hrs	Engines:	1 Turbo shaft
Airframe Total Time:	1419 Hrs at time of accident	Engine Manufacturer:	Arriel
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IDI
Registered Owner:	Venture Helicopters Limited	Rated Power:	700 Horsepower
Operator:		Operating Certificate(s) Held:	

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	CPR,5348 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	14:55 Local	Direction from Accident Site:	100°
<b>Lowest Cloud Condition:</b>	Scattered / 16 ft AGL	Visibility	10 miles
Lowest Ceiling:	Overcast / 20 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots / 0 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	320°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	7°C / 9°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:		Type of Airspace:	Class E

Page 4 of 6 DEN01LA057

## **Wreckage and Impact Information**

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	43.279628,-107.150543(est)

Page 5 of 6 DEN01LA057

#### **Administrative Information**

Investigator In Charge (IIC):	Wiemeyer, Norman
Additional Participating Persons:	Owen R Jones; FAA FSDO; Casper, WY
Original Publish Date:	September 30, 2003
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=51827

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 Code of Federal Regulations section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 United States Code section 1154(b)). A factual report that may be admissible under 49 United States Code section 1154(b) is available here.

Page 6 of 6 DEN01LA057