



National Transportation Safety Board Aviation Accident Final Report

Location:	Coolidge, AZ	Accident Number:	WPR12LA107
Date & Time:	03/01/2012, 1220 MST	Registration:	N197LE
Aircraft:	BELL AH-1F	Aircraft Damage:	Substantial
Defining Event:	Flight control sys malf/fail	Injuries:	2 Minor
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The pilot reported that he was conducting flybys to film a segment for a documentary. During his last run, he initiated a 150- to 180-degree climbing right turn to about 200 ft above the ground. After the turn, he attempted to neutralize the flight controls in preparation for a normal approach to land, but he was unable to move them. The helicopter remained in the same turn rate with the same collective pitch and cyclic input until ground impact. A postaccident examination of the helicopter revealed no evidence of preimpact mechanical malfunctions or failures that would have precluded normal operation. The reason for the flight control malfunction could not be determined.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A flight control malfunction while maneuvering for reasons that could not be determined because postaccident examination revealed no evidence of a mechanical malfunction or failure that would have precluded normal operation.

Findings

Not determined

Not determined - Unknown/Not determined (Cause)

Factual Information

On March 01, 2012, at 1220 mountain standard time, N197LE, an experimental exhibition Bell AH-1F helicopter experienced a loss of directional control during maneuvering flight and impacted the ground at Coolidge Municipal Airport (PO8), Coolidge, Arizona. The helicopter was operated by the Army Aviation Heritage Foundation and Museum, Inc., under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The pilot and mechanic received minor injuries; the helicopter sustained substantial damage. Visual meteorological conditions prevailed for the local area flight that departed PO8 at an undetermined time.

The pilot stated that the purpose of the flight was to film a segment for a documentary. The first flight of the filming sequence was uneventful. It lasted approximately 10 minutes and included helicopter flybys. The next filming sequence consisted of the accident helicopter and a vehicle in a race simulation. At 1205, a practice run began that terminated at the start/finish line. After crossing the finish line, the pilot initiated a climbing 150- to 180-degree right turn to an altitude of about 200 feet above the ground. He attempted to neutralize the controls in preparation for a normal approach for landing but was unable to move them. The helicopter remained in the same rate of turn, with the same collective pitch and cyclic input, until impact with the ground. The pilot further stated that, at impact, he tried to activate the emergency hydraulic switch.

A postaccident examination by the Federal Aviation Administration airworthiness inspector revealed no mechanical failures or malfunctions that would have precluded normal operation.

Neither the pilot nor the operator provided a completed NTSB Pilot/Operator Aircraft Accident Report Form 6120.1.

History of Flight

Maneuvering	Flight control sys malf/fail (Defining event)
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Pilot Information

Certificate:	Commercial	Age:	63
Airplane Rating(s):	None	Seat Occupied:	Unknown
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last Medical Exam:	04/04/2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	BELL	Registration:	N197LE
Model/Series:	AH-1F	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Experimental	Serial Number:	83-24197
Landing Gear Type:	Skid	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Turbo Shaft
Airframe Total Time:		Engine Manufacturer:	LYCOMING
ELT:	Not installed	Engine Model/Series:	T53L-703
Registered Owner:	On file	Rated Power:	1400 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	CGZ, 1464 ft msl	Observation Time:	1215 MST
Distance from Accident Site:	17 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	274°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	18° C / -4° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	7 knots, 200°	Visibility (RVR):	
Altimeter Setting:	30.03 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Coolidge, AZ (P08)	Type of Flight Plan Filed:	Unknown
Destination:	Coolidge, AZ (P08)	Type of Clearance:	Unknown
Departure Time:	MST	Type of Airspace:	

Airport Information

Airport:	Coolidge Municipal Airport (P08)	Runway Surface Type:	
Airport Elevation:	1574 ft	Runway Surface Condition:	
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	1 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Minor		

Administrative Information

Investigator In Charge (IIC):	Tealeye Cornejo	Adopted Date:	07/13/2015
Additional Participating Persons:	Ken Fenning; Federal Aviation Administration; Scottsdale, AZ		
Publish Date:	07/13/2015		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=82915		

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