



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Ackerly, Texas	Accident Number:	CEN13LA461
Date & Time:	August 5, 2013, 09:15 Local	Registration:	N8688F
Aircraft:	Hughes 369D	Aircraft Damage:	None
Defining Event:	Low altitude operation/event	Injuries:	2 Fatal, 1 None
Flight Conducted Under:	Part 133: Rotorcraft ext. load		

Analysis

The helicopter was being used to hoist linemen onto power transmission towers. The helicopter was equipped with a 100-foot external cargo long-line. Shortly after departure, as the helicopter was climbing toward the transmission tower, the long-line collided with a shield wire suspended between transmission towers. The operator reported that the long-line severed about 5 feet above the linemen. The two linemen, who were being hoisted on the long-line, were fatally injured after falling about 200 feet to the ground after the collision. The pilot returned to the landing zone and made an uneventful landing. The operator did not report any malfunction or failures with the helicopter that would have prevented normal operation. The pilot stated that the shield wire installed on the tower had not been identified or discussed during the preflight briefing. He reported that the clear sky condition and the morning light made the shield wire impossible to see from the ground. Additionally, he stated that it was uncommon for shield wire to be installed on the upper tower structures before the lower line work had been completed.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to identify and maintain adequate distance from a shield wire suspended between power transmission towers.

Findings

Personnel issues	Monitoring environment - Pilot
Environmental issues	Wire - Awareness of condition

Factual Information

History of Flight

Maneuvering-low-alt flying	Low altitude operation/event (Defining event)
Maneuvering-low-alt flying	External load event (Rotorcraft)

On August 5, 2013, at 0915 central daylight time, a Hughes model 369D helicopter, N8688F, was not damaged when its external cargo long-line was severed after colliding with a shield wire suspended between power transmission towers near Ackerly, Texas. The two linemen who were being hoisted on the long-line were fatally injured after falling about 200 feet to the ground after the collision. The helicopter was registered to and operated by Haverfield Aviation Inc., under the provisions of 14 Code of Federal Regulations Part 133 as an external load flight, without a flight plan. Day visual meteorological conditions prevailed for the local flight, which was operating from a landing zone situated near the accident site.

According to the operator, the helicopter was equipped with a 100-foot long external cargo long-line that was being used to hoist linemen onto power transmission towers. Shortly after departure, as the helicopter was climbing toward the transmission tower, the long-line collided with a shield wire suspended between transmission towers. The operator reported that the long-line severed about 5 feet above the linemen. The pilot returned to the landing zone and made an uneventful landing. The operator did not report any malfunction or failures with the helicopter that would have prevented normal operation.

The pilot reported that during his repositioning flight he noticed that there were multiple power lines and shield cables erected on the tower structures located to the north and west of the tower to be serviced. After landing, he completed a preflight briefing with the two linemen assigned to his helicopter. After the briefing, the helicopter was brought into a 100-foot hover above the landing zone while the two linemen secured themselves to the long-line below. The pilot reported that as he maneuvered toward the tower he briefly noticed a slight kink in the long-line carrying the linemen before it was severed. The pilot stated that the shield wire installed on the tower had not been identified or discussed during the preflight briefing. He reported that the clear sky condition and the morning light made the shield wire impossible to see from the ground. Additionally, he stated that it was uncommon for shield wire to be installed on the upper tower structures before the lower line work had been completed.

The nearest aviation weather reporting station was located at Big Spring McMahon-Wrinkle Airport (KBPG), Big Spring, Texas, about 20 miles southeast of the accident site. At 0915, the KBPG automated surface observing system reported: wind from 160 degrees at 11 knots, visibility 10 miles, sky clear, temperature 28 degrees Celsius, dew point 16 degrees Celsius, and an altimeter setting of 30.10 inches of mercury.

Pilot Information

Certificate:	Commercial; Flight instructor	Age:	24, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	No
Instructor Rating(s):	Helicopter; Instrument helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	January 10, 2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 28, 2012
Flight Time:	(Estimated) 4500 hours (Total, all aircraft), 500 hours (Total, this make and model), 4450 hours (Pilot In Command, all aircraft), 190 hours (Last 90 days, all aircraft), 82 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hughes	Registration:	N8688F
Model/Series:	369D	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	1070208D
Landing Gear Type:	Skid	Seats:	4
Date/Type of Last Inspection:	July 19, 2013 Continuous airworthiness	Certified Max Gross Wt.:	3550 lbs
Time Since Last Inspection:		Engines:	1 Turbo shaft
Airframe Total Time:	6273 Hrs at time of accident	Engine Manufacturer:	Rolls Royce
ELT:	C126 installed	Engine Model/Series:	M250-C20B
Registered Owner:	Haverfield Aviation, Inc.	Rated Power:	425 Horsepower
Operator:	Haverfield Aviation, Inc.	Operating Certificate(s) Held:	Rotorcraft external load (133)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KBPG, 2573 ft msl	Distance from Accident Site:	20 Nautical Miles
Observation Time:	09:15 Local	Direction from Accident Site:	145°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.1 inches Hg	Temperature/Dew Point:	28°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ackerly, TX (None)	Type of Flight Plan Filed:	None
Destination:	Ackerly, TX (None)	Type of Clearance:	None
Departure Time:	09:15 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	2 Fatal, 1 None	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 Fatal, 1 None	Latitude, Longitude:	32.481109,-101.716941(est)

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew
Additional Participating Persons:	William J Fitzgerald; Federal Aviation Administration - Lubbock; Lubbock, TX
Original Publish Date:	December 2, 2013
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=87681

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