



Aviation Investigation Final Report

Location:	Tynan, Texas	Accident Number:	CEN17LA055
Date & Time:	December 10, 2016, 11:30 Local	Registration:	N5776
Aircraft:	Hiller OH 23B	Aircraft Damage:	Destroyed
Defining Event:	Tailstrike	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The student pilot departed on his second solo flight in the helicopter. Before the accident, he completed two takeoffs and landings without incident. During a subsequent practice autorotation, the tail rotor struck the ground, the helicopter entered a spin, and it then came to rest near the place of initial impact. The student pilot reported that there were no mechanical or system malfunctions with the helicopter before the accident. The flight instructor who witnessed the accident stated that the deceleration/flare was executed too low.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The student pilot's delayed and improper landing flare during a practice autorotation, which resulted in the tail rotor striking terrain.

Findings

Personnel issues	Aircraft control - Student/instructed pilot
Personnel issues	Delayed action - Student/instructed pilot
Aircraft	Landing flare - Incorrect use/operation

Factual Information

History of Flight

Landing-flare/touchdown	Tailstrike (Defining event)
Landing-flare/touchdown	Collision with terr/obj (non-CFIT)

On December 10, 2016, about 1130 central standard time, a Hiller OH-23B helicopter, N5776, impacted terrain during a practice autorotation near Tynan, Texas. The student pilot, who was the sole occupant, sustained serious injuries, and the helicopter was destroyed due to a post-impact fire. The helicopter was registered to Tynan Flyers, LLC, Tynan, Texas, and operated by a private individual as a 14 Code of Federal Regulations Part 91 instructional flight. Visual meteorological conditions prevailed at the time of the accident and a flight plan was not filed. The local flight departed a private residence about 1000.

The student pilot reported he departed a private residence on his second solo flight. Prior to the accident, he completed two takeoffs and landings without incident. During a practice autorotation, the tail rotor struck the ground, the helicopter entered a spin, and came to rest near the place of initial impact. The student pilot reported there were no mechanical or system malfunctions with the helicopter prior to the accident.

According to the student pilot's flight instructor who witnessed the accident, the student pilot appeared to be conducting a practice autorotation with a power recovery. The instructor reported the deceleration/flare was executed too low and the tail rotor struck the ground. The helicopter then spun 180 degrees and rolled over onto its left side. A small fire was noted near the engine and the student pilot was pulled from the helicopter by another witness. The helicopter was destroyed by a post-impact fire.

Student pilot Information

Certificate:	Commercial; Student	Age:	55, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 With waivers/limitations	Last FAA Medical Exam:	November 29, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 11, 2014
Flight Time:	(Estimated) 1659 hours (Total, all aircraft), 18 hours (Total, this make and model), 1590 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Hiller	Registration:	N5776
Model/Series:	OH 23B NO SERIES	Aircraft Category:	Helicopter
Year of Manufacture:	1943	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	534
Landing Gear Type:	Skid	Seats:	3
Date/Type of Last Inspection:	November 28, 2016 Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4647.5 Hrs as of last inspection	Engine Manufacturer:	Franklin
ELT:	Not installed	Engine Model/Series:	6V-350-B
Registered Owner:	On file	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BEA,272 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	10:55 Local	Direction from Accident Site:	360°
Lowest Cloud Condition:	3800 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 4400 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.42 inches Hg	Temperature/Dew Point:	11°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Tynan, TX (PVT)	Type of Flight Plan Filed:	None
Destination:	Tynan, TX (PVT)	Type of Clearance:	None
Departure Time:	10:00 Local	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	28.171388,-97.760559(est)

Administrative Information

Investigator In Charge (IIC):	Sauer, Aaron
Additional Participating Persons:	Ryan Newman; Federal Aviation Administration; San Antonio, TX
Original Publish Date:	May 1, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=94498

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