



# Aviation Investigation Final Report

<b>Location:</b>	Holliday, Texas	<b>Accident Number:</b>	CEN23LA351
<b>Date &amp; Time:</b>	August 6, 2023, 20:00 Local	<b>Registration:</b>	N2005J
<b>Aircraft:</b>	TAYLORCRAFT AVIATION CORP. F21	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Unknown or undetermined	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot was landing the airplane at a private runway when he added additional engine power to clear trees and reach the runway. The pilot started to apply the throttle, but the airplane continued to sink. The pilot then applied full engine power to execute a go-around, but realized the engine was not producing power. The pilot observed that the engine did not stop operating but was not responsive to his throttle inputs. The pilot did not hear any abnormal noises from the engine, noting “[t]here were no coughing or sputtering noises to my recollection.”

The left wing impacted a tree about 30 ft short of the runway and the airplane came to rest upright on a grass field. The pilot shut down the airplane and the two occupants egressed without further incident. The airplane sustained substantial damage to the fuselage and both wings.

Postaccident examination of the airframe and engine found no mechanical anomalies. The pilot reported that the throttle cable might have been the potential cause for the lack of response from the engine, as there was a previous problem with the throttle cable “slipping.” During the postaccident examination, the throttle was found installed, intact, and there were no signs of any missing hardware. Although the pilot reported that he was not using carburetor heat on the approach, he indicated that on the final approach he was “carrying some power.” Additionally, the weather conditions at the time of the accident were not conducive to carburetor icing. Accordingly, the reason for the loss of engine power and the engine’s unresponsiveness to the pilot’s throttle inputs could not be determined.

## Probable Cause and Findings

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

A loss of engine power for reasons that could not be determined, which resulted in impact with terrain.

### Findings

<b>Not determined</b>	(general) - Unknown/Not determined
<b>Aircraft</b>	(general) - Unknown/Not determined

# Factual Information

## History of Flight

Approach-VFR pattern final	Unknown or undetermined (Defining event)
Approach-VFR pattern final	Attempted remediation/recovery
Landing	Collision with terr/obj (non-CFIT)

On August 6, 2023, about 2000 central daylight time, a Taylorcraft Aviation Corporation F21 airplane, N2005J, sustained substantial damage when it was involved in an accident near Holliday, Texas. The pilot and the passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot departed from a private grass airstrip near Holliday, Texas, for the local flight. While established on the approach to the airstrip, the pilot felt the airplane needed additional engine power to clear trees and reach the runway. The pilot started to apply the throttle, but the airplane continued to sink. The pilot then applied full engine power to execute a go-around but realized that the engine was not producing power. The pilot observed that the engine did not stop operating but was not responsive to his throttle inputs. The pilot did not hear any abnormal noises from the engine, noting “[t]here were no coughing or sputtering noises to my recollection.”

The left wing impacted a tree about 30 ft short of the airstrip and the airplane came to rest upright on a grass field. The pilot shut down the airplane and the two occupants egressed without further incident. The airplane sustained substantial damage to the fuselage and both wings.

Postaccident examination of the airframe revealed flight control continuity. The two wing fuel tanks were found intact. The wing tanks fed into a header tank, which appeared to be intact and full of fuel. Engine control continuity was established from the cockpit. Examination of the engine found no mechanical anomalies. The pilot reported that he was not using carburetor heat on the approach. He stated that he was on a mile final and was carrying some power. Comparison of the weather conditions at the time of the accident to the Federal Aviation Administration’s Special Airworthiness Information Bulletin CE-09-35 indicated that the conditions were not conducive to carburetor icing.

The pilot reported that the throttle cable might have been the potential cause for the lack of response from the engine, as there was a previous problem with the throttle cable “slipping.” The throttle cable was adjusted by a mechanic on March 18, 2023, about four and a half months before the accident, and the pilot reported that the maintenance work corrected the

slippage issue. During the postaccident examination, the throttle was found installed, intact, and there were no signs of any missing hardware.

When the pilot purchased the airplane in September 2022, the most recent annual inspection had been completed in November 2011. A mechanic performed an annual inspection on the airframe and the engine on October 28, 2022.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	21, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	March 8, 2023
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	May 2, 2023
<b>Flight Time:</b>	(Estimated) 535.4 hours (Total, all aircraft), 281.7 hours (Total, this make and model), 454.6 hours (Pilot In Command, all aircraft), 100.1 hours (Last 90 days, all aircraft), 39.5 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	TAYLORCRAFT AVIATION CORP.	<b>Registration:</b>	N2005J
<b>Model/Series:</b>	F21 NO SERIES	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1981	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal; Utility	<b>Serial Number:</b>	F-1014
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	October 28, 2022 Annual	<b>Certified Max Gross Wt.:</b>	1500 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	1388.77 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming Engines
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-235-L2C
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	115 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>	On file	<b>Operator Designator Code:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Dusk
<b>Observation Facility, Elevation:</b>	KCWC,998 ft msl	<b>Distance from Accident Site:</b>	20 Nautical Miles
<b>Observation Time:</b>	19:55 Local	<b>Direction from Accident Site:</b>	60°
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	Broken / 11000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	170°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.86 inches Hg	<b>Temperature/Dew Point:</b>	41°C / 15°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Holliday, TX	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Holliday, TX	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	19:45 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	33.688055,-98.825541(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Hodges, Michael
<b>Additional Participating Persons:</b>	Steven White; FAA Lubbock FSDO; Lubbock, TX
<b>Original Publish Date:</b>	April 18, 2024
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 3</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=192814">https://data.nts.gov/Docket?ProjectID=192814</a>

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](#).