



# Aviation Investigation Preliminary Report

<b>Location:</b>	Twisp, WA	<b>Accident Number:</b>	WPR24FA001
<b>Date &amp; Time:</b>	October 1, 2023, 10:30 Local	<b>Registration:</b>	N56DV
<b>Aircraft:</b>	CUBCRAFTERS INC CCK-1865	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

On October 1, 2023, about 1030 Pacific standard time, an experimental amateur-built Cub Crafters CCK-1865, N56DV, was substantially damaged when it was involved in an accident near Twisp, Washington. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

The pilot planned to take a local flight with his friend, who owned the same make of airplane. They departed a private airfield in their respective airplanes and flew directly to a hillside located about 2 nm away. The friend landed uphill on the slope of the hillside and positioned his airplane to the west of a tree. Using the radio, he communicated to the pilot that he should land his airplane in between his airplane and the tree. The pilot made two low passes over the ridge, performing reconnaissance over the landing area. The friend observed the airplane touchdown on the slope further to the east of his location and land upslope. After a short landing roll, the pilot appeared to abort the landing and the airplane became airborne again. The airplane then collided with a large rock resulting in the airplane’s left landing-gear folding under the fuselage.

The friend observed the airplane continued over the ridge to the east (the presumed bail-out path) and then he lost sight. He asked the pilot if he was okay and the pilot replied “I’m flying, but I’m having problems.” The airplane collided with terrain shortly thereafter. The airplane came to rest about 1,700 ft to the northeast of the rock with an approximate 3,430 peak between the locations (Figure 1).

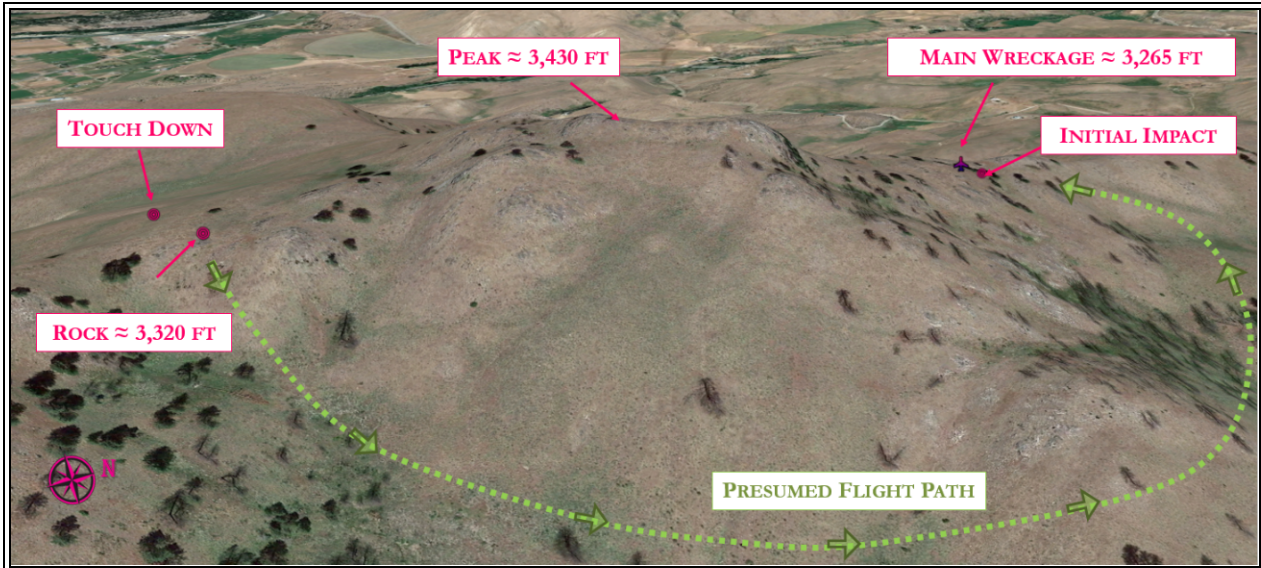


Figure 1: Initial Landing Area in Reference to the Accident Site

The wreckage was found distributed over a 90 ft distance on a median magnetic bearing of about 250°. The first identified points of contact consisted of disrupted dirt on the upslope of a hillside making up the far northeastern end of the debris field. The disruption in the terrain contained chips of silver paint and small pieces of fabric. The disrupted dirt widened into a crater that continued toward the wreckage with numerous vortex generators in the dirt and outboard wingtip structure. A large portion of the forward left-wing tip was 25 ft from the wreckage and pieces of plexiglass and splinters of propeller led up to the wreckage. There were fragments of the wooden propeller surrounding the accident site, and made up the farthest debris to the south.

The fuselage came to rest on its left side with the right wing folded forward over the engine (see Figure 2). The left wing sustained crush deformation and came to rest inverted. The left forward and aft lift struts had separated, but remained attached to their respective fittings on the fuselage and wing. An approximate 1.5 ft piece of the left aft-lift strut remained attached to the airframe; the trailing edge of both portions of that strut contained black marks consistent with the rubber from the tire. The flaps appeared to be partially down and the fuel selector was in the off position (it could not be confirmed if this was done by first responders).

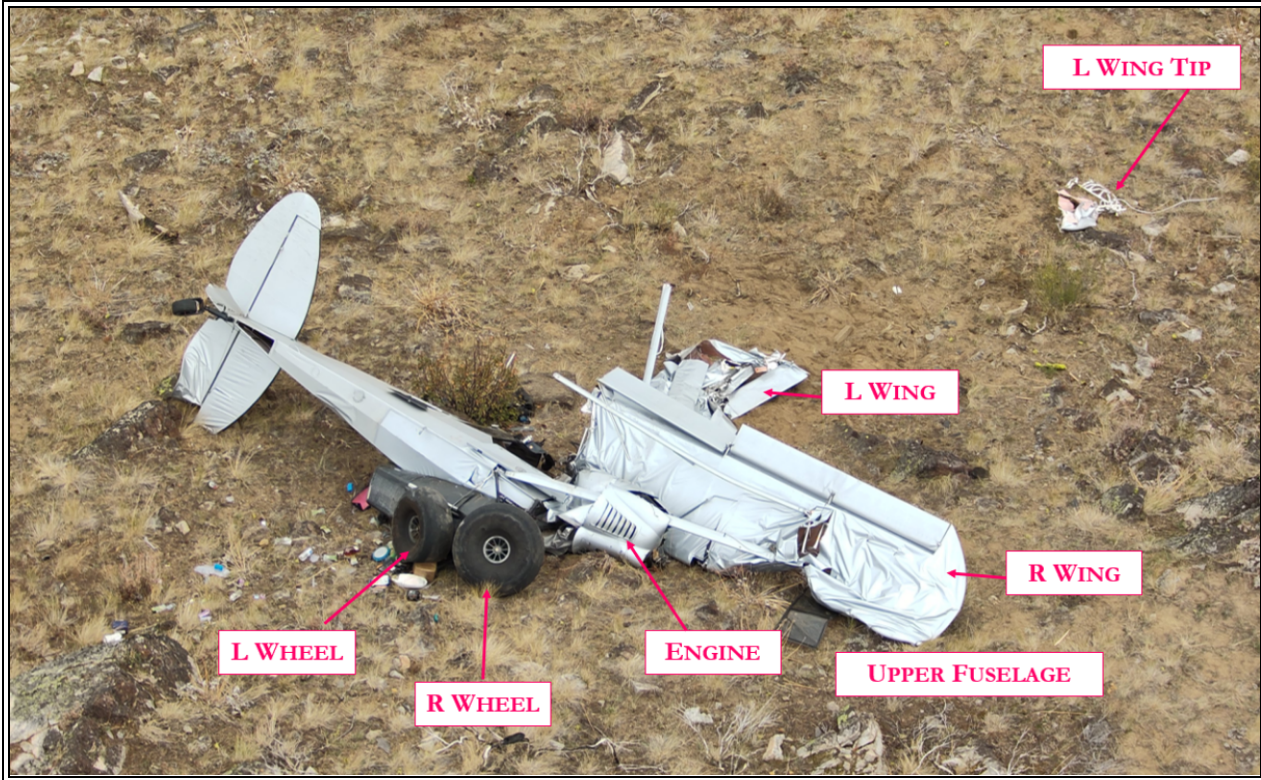


Figure 2: Wreckage

Both tires came to rest on near the belly pod. The left tire was flat and showed several gouges and scrapes on the rubber; the metal hub was bent and folded over itself in one area (see Figure 3). The landing gear struts were collapsed the bottom of the left struts were separated and appeared to have been worn from being dragged across terrain.





Figure 3: Left Tire

The fuselage frame behind the left lift-strut fork and gear-strut connection fittings was deformed. The left-aileron pulley, located adjacent to the deformed frame, would not move. The aileron cable was trapped between the frame and the pulley and could not move (see Figure 4). Removal of the pulley hardware revealed that pulley bracket was bent and there was evidence of the cable rubbing against the bracket and part of the airframe. The phenolic pulley had a groove for the cable that extended around the pulley. The groove contained a peak edge on each side. One side of the peak edge was fractured, consistent with overstress. The side face of the pulley, adjacent to the fractured peak edge) contained a long, imprinted streak consistent to the location where the cable had pulled out/de-railed from the groove.



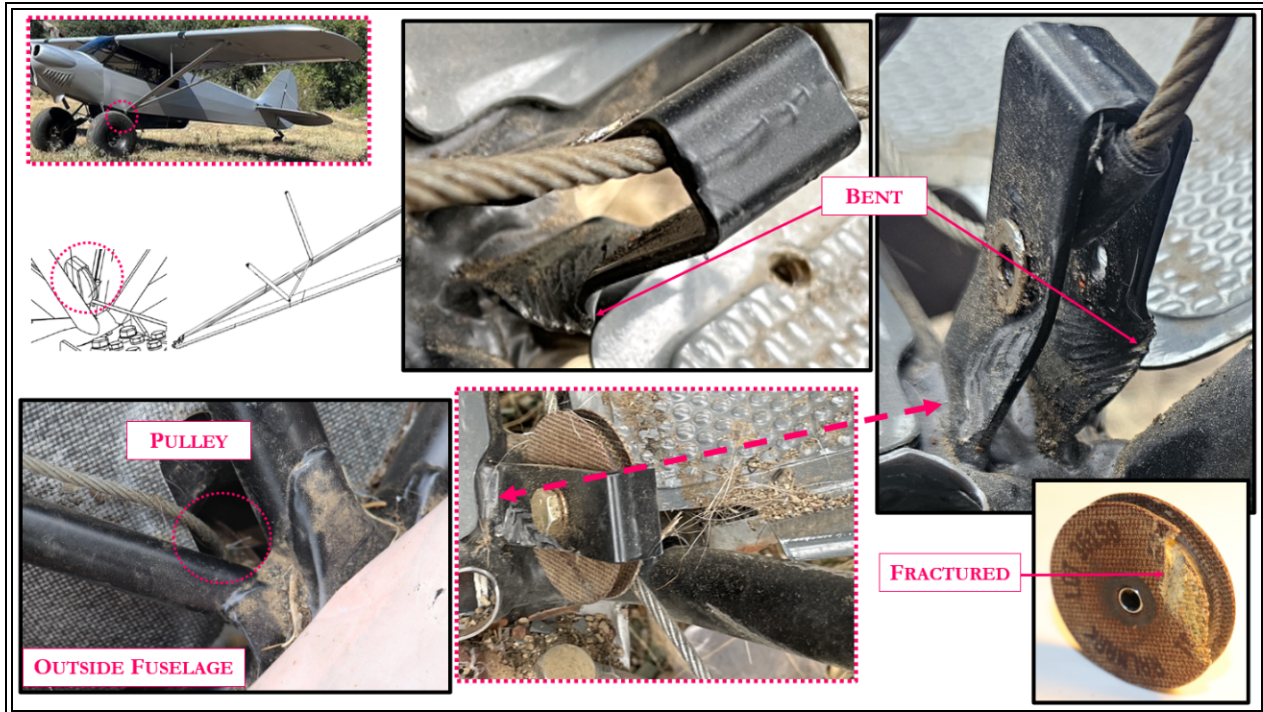


Figure 4: Left Aileron Pulley

The initial touchdown area could not definitely be determined, but tracks in the dry grass were found on the slope consistent with the landing direction. A large rock was located on the saddle of the hill. There were numerous marks and scrapes found on the south rock face and on the top of the rock (see Figure 5). In the surrounding area, there was several silver chips of paint and a zip-tie that would have been on the landing gear.

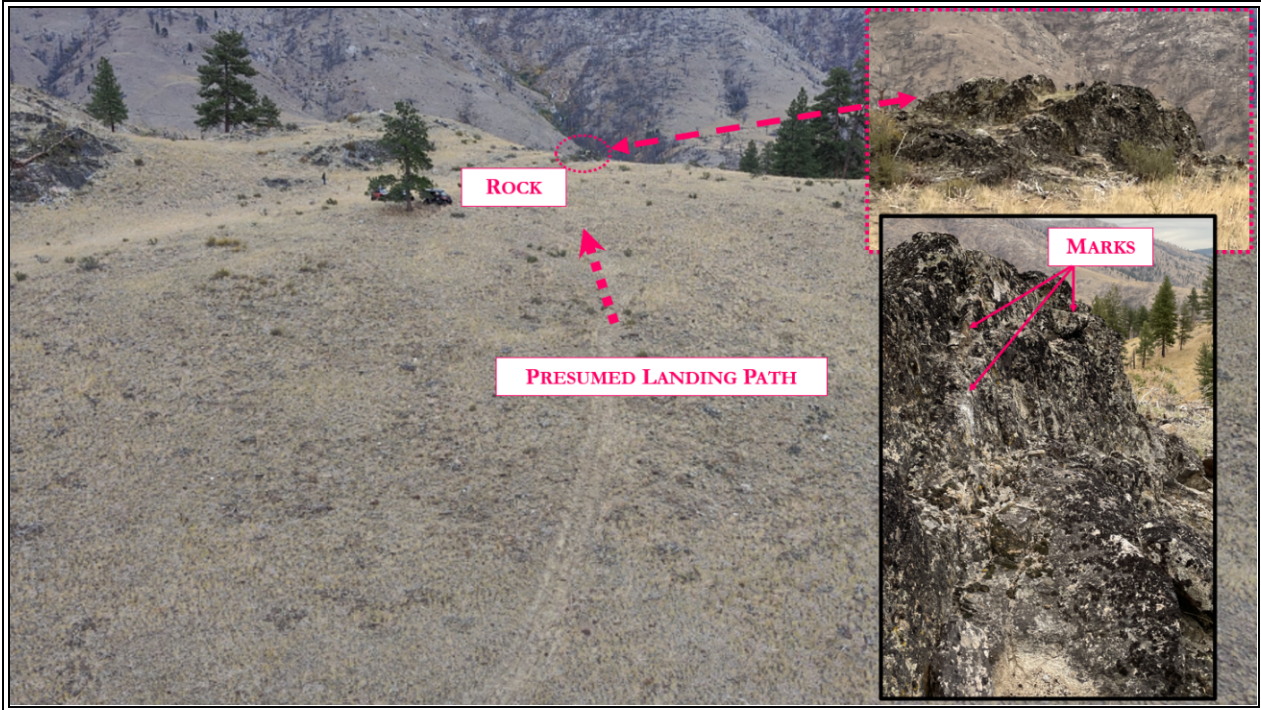


Figure 5: Accident Site Overview

The Dynon primary flight display was sent to the NTSB laboratory for download.

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	CUBCRAFTERS INC	<b>Registration:</b>	N56DV
<b>Model/Series:</b>	CCK-1865	<b>Aircraft Category:</b>	Airplane
<b>Amateur Built:</b>	Yes		
<b>Operator:</b>	TESLA SUNSETS LLC	<b>Operating Certificate(s) Held:</b>	None
<b>Operator Designator Code:</b>			

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	VMC	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KOMK,1304 ft msl	<b>Observation Time:</b>	12:53 Local
<b>Distance from Accident Site:</b>	24 Nautical Miles	<b>Temperature/Dew Point:</b>	20°C /6°C
<b>Lowest Cloud Condition:</b>	Clear	<b>Wind Speed/Gusts, Direction:</b>	11 knots / , 10°
<b>Lowest Ceiling:</b>	None	<b>Visibility:</b>	10 miles
<b>Altimeter Setting:</b>	30.05 inches Hg	<b>Type of Flight Plan Filed:</b>	None
<b>Departure Point:</b>	Twisp, WA	<b>Destination:</b>	Twisp, WA

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	48.329474,-120.01195 (est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Keliher, Zoe
<b>Additional Participating Persons:</b>	Chad Anderson; FAA; Spokane, WA Pete Dougherty; Cub Crafters; Yakima, WA
<b>Investigation Class:</b>	<a href="#">Class 3</a>
<b>Note:</b>	