



# Aviation Investigation Final Report

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<b>Location:</b>	Summerville, Oregon	<b>Accident Number:</b>	WPR19FA159
<b>Date &amp; Time:</b>	June 4, 2019, 19:43 Local	<b>Registration:</b>	N4362V
<b>Aircraft:</b>	Titan TITAN II	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>	Low altitude operation/event	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

The non-certificated pilot was seen by witnesses flying at low altitude, which they described as near treetop and powerline level. One witness reported that the airplane entered a “straight up” climb about 300 ft, then dove to the ground and leveled the airplane about 50 ft above ground; the pilot did this three times before the accident occurred during the fourth maneuver. Another witness reported that, during the last maneuver, at the top of the climb, the airplane aerodynamically stalled, spun to the left, and impacted the ground.

Postaccident examination of the airframe and engine revealed no mechanical anomalies that would have precluded normal operation. Given the available evidence, it is likely that the pilot exceeded the airplane’s critical angle of attack, and the airplane entered an aerodynamic stall and spin.

## Probable Cause and Findings

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

The noncertificated pilot’s exceedance of the airplane’s critical angle of attack while maneuvering at low altitude, which resulted in an aerodynamic stall/spin and impact with terrain.

## Findings

<b>Aircraft</b>	Angle of attack - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Aircraft</b>	Altitude - Not specified

## Factual Information

### History of Flight

<b>Maneuvering-low-alt flying</b>	Low altitude operation/event (Defining event)
<b>Maneuvering-low-alt flying</b>	Aerodynamic stall/spin

On June 4, 2019, about 1943 Pacific daylight time, an experimental Titan II airplane, N4362V, was substantially damaged when it was involved in an accident near Summerville, Oregon. The pilot was fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

Family members reported that the pilot recently purchased the airplane and completed its assembly three days before the accident. They stated that the accident flight was the pilot's third flight since assembly.

Witnesses in the area of the accident site reported seeing the airplane flying at treetop or power line level. One witness reported that he watched the airplane climb "straight up" about 300 ft, then dive to the ground and level out about 50 ft above ground level three times before the accident maneuver. Another witness reported observing similar maneuvers with the pilot "gunning the engine hard, then backing off." This witness reported that, during the last maneuver, at the top of the climb to 300 ft, the airplane aerodynamically stalled, spun to the left, and impacted the ground.

### Pilot Information

<b>Certificate:</b>	None	<b>Age:</b>	29, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	4-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	None None	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	(Estimated)		

The pilot did not hold a Federal Aviation Administration pilot or medical certificate. The pilot's family reported that the pilot did not keep track of any flight hours.

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Titan	<b>Registration:</b>	N4362V
<b>Model/Series:</b>	TITAN II Undesignat	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2010	<b>Amateur Built:</b>	Yes
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	D969112COHK0203
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Rotax
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	912UL
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KLGD,2717 ft msl	<b>Distance from Accident Site:</b>	12 Nautical Miles
<b>Observation Time:</b>	02:56 Local	<b>Direction from Accident Site:</b>	178°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	3 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	290°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	30.04 inches Hg	<b>Temperature/Dew Point:</b>	22°C / 2°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	La Grande, OR (LGD )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	La Grande, OR (LGD )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	19:12 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

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<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	45.490833,-118.00888(est)

The wreckage was located in a flat, open field. All major structural components were located with the main wreckage. Flight control continuity was established for the elevator, ailerons, and rudder.

Examination of the engine revealed that all four spark plugs exhibited signatures consistent with normal wear. The crankshaft was manually rotated by hand at the propeller. Rotational continuity was established throughout the engine valve train. Thumb compression was obtained on all four cylinders. No anomalies were revealed with the engine driven fuel pump, or the carburetors. The fuel filter appeared free of debris.

## Medical and Pathological Information

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The FAA Forensic Sciences Laboratory performed toxicological testing on the pilot's tissue, with negative findings for all tested-for drugs.

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Eckrote, Debra
<b>Additional Participating Persons:</b>	James Clay; FAA; Boise, ID
<b>Original Publish Date:</b>	May 27, 2021
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 3</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=99550">https://data.ntsb.gov/Docket?ProjectID=99550</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](#).