



National Transportation Safety Board Aviation Accident Factual Report

Location:	Queen Creek, AZ	Accident Number:	WPR16LA080
Date & Time:	03/05/2016, 1346 MST	Registration:	N242WT
Aircraft:	NORTH WING APACHE	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

On March 5, 2016, about 1346 mountain standard time, an experimental, North Wing Apache, N242WT, weight-shift-control trike, was substantially damaged when it collided with terrain following takeoff from a field, southeast of Queen Creek, Arizona. The non-certified pilot, the sole occupant, sustained serious injuries. The aircraft, which was recently purchased, was not yet registered. The pilot was operating the aircraft under the provisions of Title 14 *Code of Federal Regulations* (CFR) Part 91 as a local personal flight. Visual meteorological conditions prevailed and no flight plan was filed.

The pilot reported that after the owner assembled the aircraft, he performed a pre-flight inspection and then accomplished a short test flight to, an altitude of about 10 ft above ground level (agl). Following the successful test flight, with no reported abnormalities, the pilot departed on a subsequent flight. During climb-out, about 200 ft agl, he heard a "popping" sound and the aircraft yawed to the right. The aircraft remained in level flight, but was crabbing with the nose pointed to the right. The aircraft "popped again" and turned hard right. The wing lost lift and the aircraft started to dive to the right. The pilot applied full power in an attempt to recover and gain lift, so he could deploy the ballistic parachute. However, the aircraft did not recover and collided with the ground in a nose down attitude.

One witness, stated he observed the aircraft about 200 ft agl, flying straight and level. The engine sounded normal. The aircraft then banked 20° right, and then continued to bank until it reached about 85°. During the turn, a witness heard something snap twice. Subsequently, the aircraft impacted the ground in a nose down attitude.

The postaccident examination of the aircraft did not reveal any anomalies that would preclude normal operation. Although a Federal Aviation Administration inspector, did notice a broken rod on the right wing's internal strut sprog assembly, which attached to the leading edge.

According to a design expert for the make and model aircraft involved in the accident, the sprog provides a positive twist to the leading edge during zero lift flight; and therefore, would not have been under load during the flight. Additionally, examination of the fracture surfaces of the sprog's assembly and support tubes by the National Transportation Safety Board

material laboratory determined that the separation was a result of overload failure, as no corrosion or pre-existing cracks were observed. The investigation was unable to determine the source of the sounds heard during the accident sequence.

The owner had purchased the 2-seat aircraft about four days before the accident and had not registered it nor documented a current annual inspection.

The pilot was not a certified pilot, but reported 160 hours in single engine aircraft and several hours in single seat weight shift ultralight aircraft. No hours had been accumulated in the make and model aircraft involved in the accident.

Pilot Information

Certificate:	None	Age:	44, Male
Airplane Rating(s):	None	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	None	Last FAA Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	(Estimated) 160 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	NORTH WING	Registration:	N242WT
Model/Series:	APACHE NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	2005	Amateur Built:	No
Airworthiness Certificate:		Serial Number:	4488
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Rotax
ELT:	Not installed	Engine Model/Series:	582 CGI
Registered Owner:	Jeff Nielson	Rated Power:	
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KIWA, 1383 ft msl	Distance from Accident Site:	6 Nautical Miles
Observation Time:	1347 MST	Direction from Accident Site:	290°
Lowest Cloud Condition:	Scattered / 15000 ft agl	Visibility	45 Miles
Lowest Ceiling:	Broken / 20000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.96 inches Hg	Temperature/Dew Point:	26 °C / -6 °C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Queen Creek, AZ	Type of Flight Plan Filed:	None
Destination:	Queen Creek, AZ	Type of Clearance:	None
Departure Time:	1343 MST	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	33.271667, -111.573611 (est)

Administrative Information

Investigator In Charge (IIC):	Albert P Nixon
Additional Participating Persons:	Scott Hutson; Federal Aviation Administration; Scottsdale, AZ
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=92808