



National Transportation Safety Board Aviation Accident Final Report

Location:	Omro, WI	Accident Number:	CEN14LA336
Date & Time:	07/02/2014, 1900 CDT	Registration:	N2725T
Aircraft:	NORTHWING DESIGN APACHE SPORT	Aircraft Damage:	Substantial
Defining Event:	Loss of control in flight	Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The student pilot had installed a smaller, higher performance wing on the weight-shift control trike just before the accident flight. A witness reported seeing the trike in a descending spiral about 1 hour after it had taken off. The trike impacted terrain in a field along the final approach course for the airstrip at the departure airport.

The installation of the smaller wing increased the stall speed of the trike. It is likely that the student did not account for this increase as he slowed the trike in preparation to land, which resulted in an inadvertent stall from which he did not recover. There were no records located during the investigation to determine the pilot's experience in this or any other aircraft. A postaccident examination of the airframe, wing, and engine did not reveal any preimpact failure or malfunction.

Toxicology testing revealed that the pilot had recently used tramadol and amphetamine, but there was insufficient evidence to determine whether the drugs contributed to the cause of the accident.

Probable Cause and Findings

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

The pilot's failure to maintain adequate airspeed to compensate for a newly installed wing, which resulted in the aircraft stalling and the subsequent loss of control.

Findings

Aircraft	Airspeed - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Pilot (Cause) Use of medication/drugs - Not specified

Factual Information

On July 2, 2014, at 1900 central daylight time, N2725T, a weight-shift-control experimental North Wing Design Apache Sport aircraft, experienced a loss of control and collided with the terrain in Omro, Wisconsin. The student pilot was fatally injured and the aircraft was substantially damaged. The aircraft was registered to the pilot and was operated as a 14 Code of Federal Regulations Part 91 personal flight. Visual meteorological conditions prevailed and no flight plan was filed. The flight originated about 1800 from Wilke Field, a private airstrip, in Omro, Wisconsin.

A witness stated to a Federal Aviation Administration (FAA) inspector that he saw the aircraft in a descending spiral which continued until impact with the terrain.

Personnel Information

The pilot held a student pilot certificate that was issued on May 26, 2011. The pilot did not hold, nor had he ever been issued, a FAA medical certificate. A pilot logbook was not located during the investigation; therefore, the pilot's flight experience could not be determined.

Aircraft Information

The aircraft was a North Wing Apache Sport, serial number Mustang II 17.M Wing #5412. It was an experimental light sport, weight-shift control aircraft, with tricycle landing gear and a braced fabric wing. The two-place tandem cockpit frame is constructed of welded steel framing with a fiberglass cockpit fairing encompassing the frame. The aircraft was equipped with a ballistic recovery chute (BRS).

The aircraft was originally configured with a 17M wing. The pilot reportedly installed a high performance wing just prior to the accident flight. The accident occurred during the first flight after the installation. The new wing was about 1/3 smaller in size than the original wing. Both the cruise speed and the stall speeds were increased with the installation of the new wing.

The aircraft was powered by a 65 horsepower Rotax 582E engine that was installed in a pusher configuration.

The pilot purchased the aircraft in May 2011. FAA records show that the aircraft registration number (N-number) was canceled in November 2012 because the pilot failed to register the aircraft. The pilot subsequently registered the aircraft and the N-number was reinstated in May 2013.

Aircraft and engine logbooks were not located during the investigation.

Meteorological Information

The closest weather reporting station was located at the Wittman Regional Airport (OSH), Oshkosh, Wisconsin about 12 miles southeast of the accident location. The weather recorded at 1853 was: Wind calm; visibility 10 miles or greater; overcast ceiling at 12, 000 feet above ground level; temperature 18 degrees Celsius; dew point 11 degrees Celsius; altimeter 29.92 inches-of-mercury.

Wreckage and Impact Information

The FAA conducted the on-scene investigation. The aircraft impacted an open field about ¾ mile west of the departure airport. The accident location was aligned with the final approach for runway 09 at Wilke Field. The aircraft damage was consistent of the aircraft impacting the terrain in a nose down attitude with a counterclockwise rotation. The debris field was contained in one area. The BRS had not been deployed. An examination of the tubular cockpit and wing frame did not reveal any evidence of a preimpact failure of the structure.

The propeller was free to turn by hand. Fuel was found in one carburetor. The second carburetor did not contain fuel. There was a strong odor of fuel in area around the wreckage. An examination of the engine did not reveal any preimpact failure/malfunction.

All three propeller blades were uniformly broken off and they were located about 20 feet from the main wreckage.

Medical and Pathological Information

An autopsy was performed on the pilot at the Fond du Lac County Medical Examiner's Office, Fond du Lac, Wisconsin, on July 3, 2014. The pilot's death was attributed to multiple blunt force injuries sustained as a result of the accident.

A Forensic Toxicology Fatal Accident Report was prepared for the pilot by the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma.

The toxicology results were:

6.057 (ug/mL, ug/g) Amphetamine detected in Urine
0.265 (ug/mL, ug/g) Amphetamine detected in Liver
0.27 (ug/mL, ug/g) Amphetamine detected in Spinal Fluid
0.197 (ug/mL, ug/g) Amphetamine detected in Blood (Cavity)
0.841 (ug/ml, ug/g) O-Desmethyltramadol detected in Liver
0.127 (ug/ml, ug/g) O-Desmethyltramadol detected in Blood (Cavity)
3.432 (ug/ml, ug/g) Tramadol detected in Liver
0.779 (ug/ml, ug/g) Tramadol detected in Blood (Cavity)

According to the brother, the pilot had a history of drug addiction problems and the pilot suffered from headaches. A prescription bottle of pills was found at the pilot's residence which was labeled as being Tramadol hcl 50 mg.

According to the NTSB medical officer, Tramadol is a centrally acting sedating opioid analgesic used to treat moderate to severe pain. The Federal Drug Administration has scheduled Tramadol as a controlled substance (Schedule IV) as it has some potential for abuse. Tramadol may impair one's mental and/or physical ability required for the performance of potentially hazardous tasks.

Amphetamine is used for the treatment of narcolepsy and attention deficit disorder with hyperactivity. At levels consistent with abuse, it may also heighten alertness and concentration, but can cause euphoria and overconfidence in one's skills.

History of Flight

Unknown	Loss of control in flight (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

Pilot Information

Certificate:	Student	Age:	57
Airplane Rating(s):	None	Seat Occupied:	Front
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Sport Pilot	Last Medical Exam:	
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	NORTHWING DESIGN	Registration:	N2725T
Model/Series:	APACHE SPORT	Aircraft Category:	Weight-Shift
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Experimental Light Sport	Serial Number:	MUSTANG II 17.M
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:	582DCDI
Registered Owner:	On file	Rated Power:	65 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KOSH, 808 ft msl	Observation Time:	1853 CDT
Distance from Accident Site:	10 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	113°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:		Temperature/Dew Point:	18° C / 11° C
Lowest Ceiling:	Overcast / 12000 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	
Altimeter Setting:	29.92 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Omro, WI	Type of Flight Plan Filed:	None
Destination:	Omro, WI	Type of Clearance:	None
Departure Time:	1800 CDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal		

Administrative Information

Investigator In Charge (IIC):	Pamela S Sullivan	Adopted Date:	11/29/2016
Additional Participating Persons:	Jurg Grossenbacher; FAA; Milwaukee, WI Mike Pieczynski; FAA; Milwaukee, WI		
Publish Date:	11/29/2016		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=89594		

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