



# Aviation Investigation Final Report

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<b>Location:</b>	Ft. Lupton, Colorado	<b>Accident Number:</b>	CEN10LA339
<b>Date &amp; Time:</b>	June 23, 2010, 11:45 Local	<b>Registration:</b>	N55857
<b>Aircraft:</b>	Airborne WINDSPORT EDGE	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Aircraft structural failure	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Analysis

A witness observed the weight-shift aircraft performing aerobatic maneuvers, notably “loops and wingovers,” for about five minutes. The witness stated that during the last maneuver the pilot, who was not certificated, performed what looked like a wingover. The aircraft was at about 1,000 feet above ground level when the wing folded and the aircraft spiraled down, impacting the ground. A postcrash examination of the aircraft at the accident scene showed that the carriage wing attachment hang point was broken. The fracture was consistent with a failure prior to impact. No other anomalies with the aircraft were found. The aircraft’s operating instructions stated that all aerobatic maneuvers including spinning are prohibited.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot intentionally performed prohibited aerobatic maneuvers that damaged the carriage wing attachment hang point and collapsed the wing.

## Findings

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<b>Personnel issues</b>	Incorrect action selection - Pilot
<b>Aircraft</b>	Attach fittings (on wing) - Failure
<b>Personnel issues</b>	Qualification/certification - Pilot
<b>Personnel issues</b>	Decision making/judgment - Pilot

## Factual Information

### History of Flight

<b>Maneuvering-aerobatics</b>	Aircraft structural failure (Defining event)
<b>Uncontrolled descent</b>	Collision with terr/obj (non-CFIT)

### HISTORY OF FLIGHT

On June 23, 2010, about 1145 mountain daylight time, an Airborne Windsport Edge weight-shift aircraft, N55857, was substantially damaged when it impacted terrain while performing aerobatic maneuvers near Fort Lupton, Colorado. The pilot, the sole occupant, sustained fatal injuries. The aircraft was registered to and operated by the pilot. Visual meteorological conditions prevailed and no flight plan was filed for the 14 Code of Federal Regulations Part 91 local flight. The pilot departed a private airstrip at an unknown time.

An eyewitness reported that he observed the weight-shift aircraft performing “loops and wingovers” for about five minutes. The eyewitness continued that during the last maneuver the pilot performed what looked like a wingover; however, the wing folded, approximately 1,000 feet above ground level, and the aircraft spiraled down and impacted terrain.

### PERSONNEL INFORMATION

A review of the Federal Aviation Administration (FAA) database failed to show that the 86 year old pilot possessed a pilot certificate. Additionally, no FAA medical records on the pilot were found.

### AIRCRAFT INFORMATION

The aircraft was a 2000 Airborne Windsport Edge, serial number 582-560. It was registered as an experimental, weight-shift aircraft. The aircraft was powered by a Rotax 582 two-stroke engine, rated at 65 horsepower.

Several requests were made of the pilot's family to provide pilot and aircraft records, however the family failed to reply to the requests.

### WRECKAGE AND IMPACT INFORMATION

A postcrash examination of the aircraft at the accident scene showed that the carriage wing attachment hang point was broken. The fracture was consistent with a failure not caused by impact with the ground. No other anomalies with the aircraft were found.

## MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was conducted by the Weld County Office of the Coroner/Medical Examiner, in Greeley, Colorado, on June 24, 2010. The cause of death was attributed to multiple blunt force injuries.

The FAA's Civil Aeromedical Institute performed forensic toxicology on specimens from the pilot. The report stated that Amlodipine, Atenolol, and Triamterene were detected in liver and blood.

Atenolol is a beta-adrenergic receptor antagonist or beta blocker used for treatment of hypertension and certain arrhythmias.

Amlodipine is a calcium channel blocker used to treat hypertension.

Triamterene is a potassium sparing diuretic used to treat hypertension.

The FAA Aviation Medical Examiner's Guide states that medications acceptable to the FAA for treatment of hypertension in airmen include all Food and Drug Administration (FDA) approved diuretics, alpha-adrenergic blocking agents, beta-adrenergic blocking agents, calcium channel blocking agents, angiotension converting enzyme (ACE) inhibitors, and direct vasodilators.

## ADDITIONAL INFORMATION

The aircraft's operating instructions state that all aerobatic "manoeuvres" (maneuvers) including spinning is prohibited.

Flight load factor limits for the aircraft show the maximum positive maneuvering load factor is 4.0 G. Load factors below 1.0 G are "to be avoided", and negative load factors are prohibited.

### Pilot Information

<b>Certificate:</b>	None	<b>Age:</b>	86, Male
<b>Airplane Rating(s):</b>	None	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<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	<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Airborne	<b>Registration:</b>	N55857
<b>Model/Series:</b>	WINDSPORT EDGE	<b>Aircraft Category:</b>	Weight-shift
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Experimental (Special)	<b>Serial Number:</b>	582-560
<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>	582
<b>Registered Owner:</b>	WENZEL JONATHON	<b>Rated Power:</b>	65 Horsepower
<b>Operator:</b>	WENZEL JONATHON	<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>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<b>Lowest Cloud Condition:</b>		<b>Visibility</b>	
<b>Lowest Ceiling:</b>		<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Ft. Lupton, CO	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Ft. Lupton, CO	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	

## 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>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Fatal	<b>Latitude, Longitude:</b>	40.845832,-104.8125(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	LeBaron, Timothy
<b>Additional Participating Persons:</b>	Mark L Schmidt; Federal Aviation Administration; Denver, CO
<b>Original Publish Date:</b>	June 14, 2012
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=76415">https://data.ntsb.gov/Docket?ProjectID=76415</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](#).