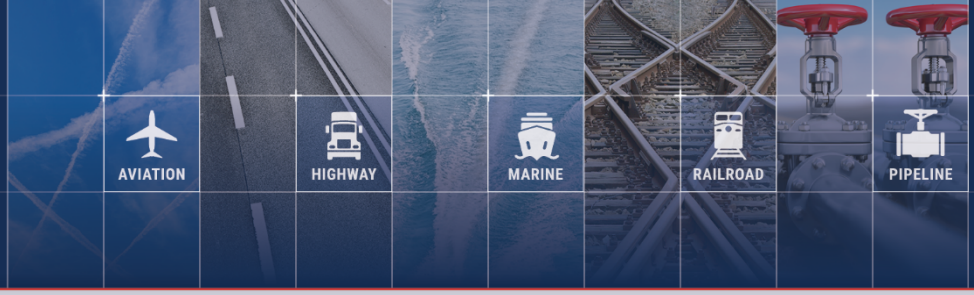

Aviation Investigation Final Report

Location:	Alturas, California	**Accident Number:**	WPR10LA275
Date & Time:	June 1, 2010, 19:00 Local	**Registration:**	N354MB
Aircraft:	Airborne Windsports PTY LTD Edge X	**Aircraft Damage:**	Substantial
Defining Event:	Sys/Comp malf/fail (non-power)	**Injuries:**	1 Minor, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The certified flight instructor (CFI) and a student pilot were performing touch-and-go and full stop landings. The CFI reported that during the final landing roll at 30 miles per hour, the wing rolled severely to the left, and struck the ground. The wing crumpled, and dug into the surface rolling the airplane onto its left side. Postaccident examination revealed that the right rear mast support cable fractured about 3 inches above its lower attachment point where the cable enters a swedge. A Federal Aviation Administration inspector examined the wreckage and confirmed the break to the cable and also noted that there appeared to be some bluish green corrosion on the copper compression swedge.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Fracture of a mast support cable due to corrosion, which resulted in a loss of control during the landing roll.

Findings

Aircraft	Attach fittings (on wing) - Fatigue/wear/corrosion
Aircraft	Directional control - Attain/maintain not possible

Factual Information

History of Flight

Landing-landing roll	Sys/Comp malf/fail (non-power) (Defining event)
Landing-landing roll	Loss of control on ground

On June 1, 2010, about 1900 Pacific daylight time, an experimental Airborne Windsports PTY LTD Edge X, N354MB, collided with terrain during landing at Alturas, California. The student pilot/owner was operating the airplane under the provisions of 14 Code of Federal Regulations (CFR) Part 91. The student pilot sustained minor injuries, and the certified flight instructor (CFI) was not injured. The airplane sustained substantial damage to the wing and wire support bracing. The local instructional flight departed Alturas about 1800. Visual meteorological conditions prevailed, and no flight plan had been filed.

The CFI stated that the student had been practicing touch-and-go landings, and this was to be a final full stop landing. The airplane touched down safely, and was rolling straight at 30 miles per hour. Suddenly and without warning, the wing rolled severely to the left, and struck the ground. The wing crumpled, and dug into the surface. The airplane rolled onto its left side, and skidded to a stop on the runway. The CFI then shut off the ignition, magnetos, and fuel valve.

The CFI indicated that post flight examination revealed that the right rear mast support cable snapped about 3 inches above its lower attachment point. This was at a point where the cable enters a swedge. The cable is covered by the manufacturer with an opaque plastic cover, similar to shrink tubing. He stated that they observed no discrepancies on the cables, welds, engine, wing, suspension, or other components during preflight. They had completed about 12 landings during the day with no indications of a potential problem.

A Federal Aviation Administration (FAA) inspector examined the wreckage, and observed that the right mast to landing gear support cable was broken at the copper compression swedge. There appeared to be some bluish green corrosion on the swedge.

Flight instructor Information

Certificate:	Commercial; Flight instructor	**Age:**	43,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Rear
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	Yes
Instructor Rating(s):	Sport pilot	**Toxicology Performed:**	No
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	April 17, 2009
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 11, 2009
Flight Time:	3212 hours (Total, all aircraft), 38 hours (Total, this make and model), 2805 hours (Pilot In Command, all aircraft), 180 hours (Last 90 days, all aircraft), 80 hours (Last 30 days, all aircraft), 9 hours (Last 24 hours, all aircraft)		

Student pilot Information

Certificate:	Student	**Age:**	53,Male
Airplane Rating(s):	None	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	Yes
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Sport pilot Unknown	**Last FAA Medical Exam:**	May 26, 2009
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	38 hours (Total, all aircraft), 38 hours (Total, this make and model), 38 hours (Last 90 days, all aircraft), 31 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Airborne Windsports PTY LTD	**Registration:**	N354MB
Model/Series:	Edge X	**Aircraft Category:**	Weight-shift
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	582-912
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	November 27, 2009 Annual	**Certified Max Gross Wt.:**	884 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	188 Hrs at time of accident	**Engine Manufacturer:**	Rotax
ELT:	Not installed	**Engine Model/Series:**	582
Registered Owner:	Thomas Parnow	**Rated Power:**	64 Horsepower
Operator:	Thomas Parnow	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KAAT,4378 ft msl	**Distance from Accident Site:**	0 Nautical Miles
Observation Time:	18:55 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Few / 5500 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 7000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	260°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.01 inches Hg	**Temperature/Dew Point:**	15°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Alturas, CA (AAT)	**Type of Flight Plan Filed:**	None
Destination:	Alturas, CA (AAT)	**Type of Clearance:**	None
Departure Time:	18:00 Local	**Type of Airspace:**	

Airport Information

Airport:	Alturas AAT	**Runway Surface Type:**	Asphalt
Airport Elevation:	4377 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	31	**IFR Approach:**	None
Runway Length/Width:	4377 ft / 50 ft	**VFR Approach/Landing:**	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor, 1 None	**Latitude, Longitude:**	41.483055,-120.565277(est)

Administrative Information

Investigator In Charge (IIC):	Plagens, Howard
Additional Participating Persons:	Lee Oscar; FAA FSDO; Reno, CA
Original Publish Date:	July 12, 2011
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=76193