



# Aviation Investigation Factual Report

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<b>Location:</b>	Carrabelle, Florida	<b>Accident Number:</b>	MIA07LA039
<b>Date &amp; Time:</b>	January 14, 2007, 18:15 Local	<b>Registration:</b>	N29888
<b>Aircraft:</b>	Cessna 177	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

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## Factual Information

On January 14, 2007, about 1830 eastern standard time, a Cessna 177, N29888, registered to and operated by Sunburst Aviation, Inc., collided with trees during a forced landing near Carrabelle, Florida. Visual meteorological conditions prevailed at the time and no flight plan was filed for the 14 Code of Federal Regulations Part 91 personal flight from Pensacola Regional Airport, Pensacola, Florida, to Clearwater Air Park, Clearwater, Florida. The airplane was substantially damaged and the private-rated pilot, the sole occupant, was not injured. The flight originated about 1730, from Pensacola Regional Airport.

The pilot stated that during cruise flight at 5,500 feet, with the engine operating at 2,500 rpm, he felt a "violent shaking of the aircraft." He reduced the throttle and mixture controls and noted that one of the propeller blades was broken. Unable to communicate, he set the transponder code to 7700 and pushed "ident" to notify air traffic control. Using an on-board global positioning system (GPS) receiver he located the nearest airport, and proceeded towards it. He further stated there were no lights (runway or beacon) at the airport, and by the time he visually located it and flew to approach end of the runway, there was insufficient altitude to land there. He landed in the tops of trees approximately 100 yards short of the runway, exited and walked away from the airplane due to leaking fuel.

Examination of the propeller revealed approximately 2/3 length of one propeller blade separated and was not located. The propeller was sent to the NTSB Materials Laboratory for further examination.

Examination of the propeller at the NTSB Materials Laboratory revealed the fractured blade was missing approximately 18 inches. The fracture surface was oriented chordwise and exhibited 2 distinct features/zones. The first zone which was relatively smooth (consistent with fatigue) started at the trailing edge, and extended towards the leading edge for about 60 percent of the blade chord. The remainder of the blade chord (about 40 percent) exhibited inclined planes consistent with overstress. Further examination of the fatigue fracture surface revealed a discolored area (consistent with oxidation) emanating from the trailing edge and from the cambered surface of the blade. Closer examination of the cambered surface of the blade in the area of the discoloration revealed an indentation consistent with hard particle impact. Blisters consistent with corrosion were located on the cambered surface of the blade adjacent to the trailing edge.

Review of the maintenance records revealed the propeller was overhauled last on December 20, 1997, and installed on the airplane on March 3, 1999. The propeller blades were "dressed and painted" on August 10, 2000. Routine inspections occurred from that point to the last inspection, which occurred on October 13, 2006. The airplane had been operated for 31.57 hours since and 668.63 hours since last inspection and propeller overhaul respectively, at the

time of the accident.

At the time of the accident, the medium intensity runway lights and rotating beacon at the airport were out of service; this information was listed in the current version of the Southeast U.S. version of the Airport/Facility Directory.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	55, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<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>	No
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	October 1, 2006
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	November 1, 2006
<b>Flight Time:</b>	790 hours (Total, all aircraft), 32 hours (Total, this make and model), 32 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N29888
<b>Model/Series:</b>	177	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	17701015
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	October 1, 2006 Annual	<b>Certified Max Gross Wt.:</b>	2350 lbs
<b>Time Since Last Inspection:</b>	31.57 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3821.63 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-320-E2D
<b>Registered Owner:</b>	Sunburst Aviation, Inc.	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>		<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>	Night
<b>Observation Facility, Elevation:</b>	KAAF,20 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	17:56 Local	<b>Direction from Accident Site:</b>	
<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>	4 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	90°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.2 inches Hg	<b>Temperature/Dew Point:</b>	19°C / 17°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Pensacola, FL (KPNS)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Clearwater, FL (KCLW)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	17:30 Local	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<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 None	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Monville, Timothy
<b>Additional Participating Persons:</b>	Robert Blake; FAA Flight Standards District Office; Tampa, FL
<b>Report Date:</b>	April 15, 2008
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=65221">https://data.nts.gov/Docket?ProjectID=65221</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](#).