



# Aviation Investigation Final Report

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<b>Location:</b>	Santa Fe, New Mexico	<b>Accident Number:</b>	DEN07CA084
<b>Date &amp; Time:</b>	April 11, 2007, 08:00 Local	<b>Registration:</b>	N9253T
<b>Aircraft:</b>	Cessna 180C	<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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## Analysis

According to the pilot, he was taking off on runway 02. The airplane weathervaned to the left and the right wing tip contacted the runway. The airplane nosed over and the propeller struck the runway. The right wing rear spar and aileron were bent, and the engine cowling was buckled. SAF wind was reportedly from 320 degrees at 11 knots. An examination of the airplane's systems conducted by the FAA revealed no anomalies. The Pilot's Operating Handbook (POH) for the 1960 Cessna 180C does not give a maximum demonstrated crosswind component. However, the 1977 Cessna 180K POH lists the maximum demonstrated crosswind component as 12 knots. The computed crosswind component at the time of the accident was 13 knots (headwind component 8 knots).

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Exceeding the airplane's maximum demonstrated crosswind component during the takeoff roll. A contributing factor was the crosswind.

## Findings

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Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) CROSSWIND COMPONENT - EXCEEDED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - CROSSWIND

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

3. AIRPORT FACILITIES, RUNWAY/LANDING AREA CONDITION - RUNWAY

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Occurrence #3: NOSE DOWN  
Phase of Operation: TAKEOFF - ROLL/RUN

## Factual Information

According to the pilot, he was taking off on runway 02. The airplane weathervaned to the left and the right wing tip contacted the runway. The airplane nosed over and the propeller struck the runway. The right wing rear spar and aileron were bent, and the engine cowling was buckled. SAF wind was reportedly from 320 degrees at 15 knots. An examination of the airplane's systems conducted by the FAA revealed no anomalies. The Pilot's Operating Handbook (POH) for the 1960 Cessna 180C does not give a maximum demonstrated crosswind component. However, the 1977 Cessna 180K POH lists the maximum demonstrated crosswind component as 12 knots. The computed crosswind component at the time of the accident was 13 knots (headwind component 8 knots).

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	60, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	April 1, 2006
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	November 1, 2005
<b>Flight Time:</b>	1220 hours (Total, all aircraft), 642 hours (Total, this make and model), 1083 hours (Pilot In Command, all aircraft), 51 hours (Last 90 days, all aircraft), 29 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N9253T
<b>Model/Series:</b>	180C	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	50753
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	October 1, 2006 Annual	<b>Certified Max Gross Wt.:</b>	2650 lbs
<b>Time Since Last Inspection:</b>	103 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	7604 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, activated, did not aid in locating accident	<b>Engine Model/Series:</b>	O-470-R25U
<b>Registered Owner:</b>	John A. Ranweiler	<b>Rated Power:</b>	230 Horsepower
<b>Operator:</b>	John L. Ranweiler	<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>	SAF,6348 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	07:53 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>	11 knots / 21 knots	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	320°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.94 inches Hg	<b>Temperature/Dew Point:</b>	3°C / -19°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Santa Fe, NM (SAF )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Taos, NM (SKX )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	08:00 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Santa Fe Municipal SAF	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	6348 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	02	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	8342 ft / 150 ft	<b>VFR Approach/Landing:</b>	None

## 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>	35.617221,-105.534721

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Scott, Arnold
<b>Additional Participating Persons:</b>	Bryan C Hanson; FAA Flight Standards District Office; Albuquerque, NM
<b>Original Publish Date:</b>	June 27, 2007
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=65567">https://data.nts.gov/Docket?ProjectID=65567</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](#).