



# Aviation Investigation Final Report

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<b>Location:</b>	Murrieta, California	<b>Accident Number:</b>	LAX05LA089
<b>Date &amp; Time:</b>	February 5, 2005, 11:00 Local	<b>Registration:</b>	N23LL
<b>Aircraft:</b>	Smith Aerostar 601	<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

The airplane touched down short of the runway pavement edge and collapsed the right landing gear. The pilot reported no problems with the approach. After touchdown, the right main landing gear was sheared off due to traversing over a 6-inch lip at the approach end of the runway. The airplane skidded off the right side of the runway into the grassy area of the airport. A construction crew was working on the approach end of the runway, but did not see the actual touchdown of the airplane. Impressions consistent with the airplane's landing gear were noted in the dirt just before the pavement edge that became skid marks in the asphalt runway surface and continued to the airplane's point of rest. According to the Airport/Facilities Directory the runway is 4,600 feet long; however, the airport had a planned runway extension and construction was underway that resulted in a runway length reduction along runway 18/36. A notice of the construction and the length reduction was recorded onto the AWOS system. The AWOS notice stated in part "Runway length 18/36 will be 4,100 [feet] until further notice." A 500-foot displaced threshold was clearly marked with orange work cones.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's misjudgment of distance/altitude on final approach, which resulted in an undershoot of the runway.

## Findings

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Occurrence #1: UNDERSHOOT

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) DISTANCE/ALTITUDE - MISJUDGED - PILOT IN COMMAND
2. (C) PROPER TOUCHDOWN POINT - NOT ATTAINED - PILOT IN COMMAND

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Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER

Phase of Operation: LANDING - ROLL

Findings

3. AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - EXPOSED RUNWAY LIP/EDGE

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Occurrence #3: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - ROLL

Findings

4. LANDING GEAR,MAIN GEAR STRUT - OVERLOAD

## Factual Information

On February 5, 2005, at 1100 Pacific standard time, a Smith Aerostar 601, N23LL, landed short of runway 36, hit a raised asphalt lip on the edge of the runway and collapsed the right landing gear at French Valley Airport (F70), Murrieta/Temecula, California. The runway was under construction at the time and the first 500 feet of runway 36 was closed. The private pilot/owner operated the airplane under the provisions of 14 CFR Part 91. The airplane sustained substantial damage. The pilot, the sole occupant, was not injured. Visual meteorological conditions prevailed for the local area flight that departed Chino Airport (CNO), Chino, California, about 1030. No flight plan had been filed.

The National Transportation Safety Board investigator-in-charge (IIC) interviewed the pilot. The pilot stated that there were no problems with the approach to runway 36, and said "everything was perfect." The winds were light and variable out of the north. At the approach end of the runway was a small 6-inch lip. The pilot stated that the right landing gear struck the lip after touchdown and the airplane skidded off to the right side of the runway into the grassy area of the airport. The pilot stated that there were no cones marking the area.

According to the airport supervisor for Riverside County airports, the automated weather observing system (AWOS) reported construction for planned runway extension for runway 36 that would result in a runway length reduction along runway 18/36. The AWOS notification stated:

"Runway length 18/36 will be 4,100 [feet] until further notice. The south end of taxiway alpha will be closed on weekdays; however, it will open on Friday's at 4:30pm and closed on Monday's at 7:30am through construction. It will also be open on holidays. Further information to follow as it becomes available."

The Airport/ Facility Directory, Southwest U. S., indicated runway 36 was 4,600 feet long and 75 feet wide. The runway surface was composed of asphalt.

Maintenance personnel, working on the west side of the approach end of runway 36, did not see the airplane touchdown, but heard it skidding off to the east of the runway. The maintenance crew had been working on delineators from the runway between the existing runway and the planned extension. The maintenance supervisor reported to the Safety Board IIC that the planned extension would lengthen the existing runway, and orange work cones marked a 500-foot displaced threshold to the existing runway. The supervisor found witness marks in the dirt area just prior to the threshold. He further observed three equidistant skid marks on the runway that continued onto the grassy portion of the runway where the airplane came to rest.

The Safety Board IIC mailed the pilot the Pilot/Operator Aircraft Accident/Incident Report

(NTSB Form 6120.1/2) on two separate occasions by certified mail. Once on February 9, 2005, and the second time, after speaking with the pilot to confirm the mailing address, on April 25, 2006. The pilot did not return the accident report form.

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	83, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Unknown
<b>Other Aircraft Rating(s):</b>	None	<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 3	<b>Last FAA Medical Exam:</b>	June 1, 2004
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2100 hours (Total, all aircraft)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Smith	<b>Registration:</b>	N23LL
<b>Model/Series:</b>	Aerostar 601	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	61-0252-100
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	Unknown	<b>Certified Max Gross Wt.:</b>	5700 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	T10-540
<b>Registered Owner:</b>	John F. Firestone	<b>Rated Power:</b>	350 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>	Day
<b>Observation Facility, Elevation:</b>	RAL,818 ft msl	<b>Distance from Accident Site:</b>	27 Nautical Miles
<b>Observation Time:</b>	10:53 Local	<b>Direction from Accident Site:</b>	325°
<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>	3 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	350°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.94 inches Hg	<b>Temperature/Dew Point:</b>	15°C / 4°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Chino, CA (CNO )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(F70 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:30 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	FRENCH VALLEY F70	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	36	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4100 ft / 75 ft	<b>VFR Approach/Landing:</b>	Full stop

## 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>	33.582221,-117.116668

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Cornejo, Tealeye
<b>Additional Participating Persons:</b>	Steve Groover; Federal Aviation Administration; Riverside, CA
<b>Original Publish Date:</b>	December 28, 2006
<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=60994">https://data.ntsb.gov/Docket?ProjectID=60994</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](#).