



# Aviation Investigation Final Report

<b>Location:</b>	OCOTILLO WELLS, California	<b>Accident Number:</b>	LAX98LA216
<b>Date &amp; Time:</b>	June 28, 1998, 19:15 Local	<b>Registration:</b>	N4803E
<b>Aircraft:</b>	Cessna 180H	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

An intermediate stop was made at another airport to pickup a passenger before continuing on to the accident airport. No discrepancies were noted with the landing at the intermediate stopover. On touchdown at the accident airport, both the pilot and passenger heard a snap sound, followed shortly by the left main landing gear turning under the fuselage and departing the aircraft. Both the pilot and passenger stated that the landing was normal. Examination of the landing gear revealed that the failed landing gear attach bolt was distorted, with the threads on the bolt and the associated nut stripped. The examination further revealed that the landing gear attachment hole was elongated. Examination of the dirt runway surface revealed no ruts, potholes, or other defects. No unusual tracks or markings were found on the surface until just before the resting point of the airplane.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the left main landing gear due to a probable hard landing at an undetermined time.

## Findings

Occurrence #1: GEAR COLLAPSED  
Phase of Operation: LANDING - ROLL

### Findings

1. (C) LANDING GEAR, MAIN GEAR - OVERLOAD

2. (C) LANDING GEAR,MAIN GEAR ATTACHMENT - DISTORTED
3. (C) LANDING GEAR,MAIN GEAR ATTACHMENT - STRIPPED THREAD
4. (C) TOUCHDOWN - EXCESSIVE - UNKNOWN

## Factual Information

On June 28, 1998, at 1915 hours Pacific daylight time, a Cessna 180H, N4803E, sustained a collapsed left main landing gear during rollout following landing on a dirt strip at the Ocotillo Wells, California, airport. The airplane, owned and operated by the pilot under 14 CFR Part 91, sustained substantial damage. The airline transport pilot/owner and pilot rated passenger were not injured. Visual meteorological conditions existed for the personal flight and no flight plan was filed. The flight had originated from Fallbrook, California, at an unknown time, with an intermediate stop at Gillespie Field, San Diego, California, to pick up the passenger before continuing on to Ocotillo Wells.

The pilot stated that they arrived at Ocotillo Wells, a dry lake bed, at approximately 1915. He stated that on touchdown he heard a "snap sound." On the landing rollout, at 20 knots, the left main landing gear turned under the fuselage and departed the airplane. The pilot reported that the airplane made a slight turn to the right before falling on the left wing.

The passenger noted that no discrepancies were noted with any portion of the flight; however, right after touchdown he heard a snap or pop sound, then the airplane rolled to the left.

Review of the airplane logbook by a Safety Board Investigator revealed that the last annual maintenance was performed on July 24, 1997, with no discrepancies noted.

The landing gear was inspected by a Federal Aviation Administration (FAA) inspector. He noted that the landing gear attach bolt was distorted, and the threads on the bolt and nut were stripped. He was able to view through the access hole the left-hand attachment hole for the landing gear attachment bolt. He noted that the attachment hole was "slightly elongated." The FAA inspector reported that the nut was not found attached to the landing gear attach bolt, but at the bottom of the airplane.

The airplane was recovered from the accident site by Aircraft Recovery Services, Compton, California, and interviews were conducted with the retrieval crew. According to their statements, the runway was a dirt surface that did not have ruts, potholes, or other defects. While working on recovery, the crew examined portions of the runway and did not observe any unusual tracks or markings on the surface until just before the resting point of the airplane.

According to a Cessna representative, the landing gear is visually inspected annually or the 100-hour inspection. The inspection includes checking for cracks, metal distortion, loose or missing rivets, screws, and bolts and evidence of excessive loads. (See appended file).

Federal Aviation Regulation Part 43(e) states that at the annual or 100-hour inspection; linkages, trusses and members will be inspected for undue or excessive wear fatigue and

distortion.

## Pilot Information

<b>Certificate:</b>	Airline transport; Commercial; Flight engineer; Flight instructor	<b>Age:</b>	52, Male
<b>Airplane Rating(s):</b>	Single-engine land; Single-engine sea; Multi-engine land; Multi-engine sea	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane single-engine	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 18, 1998
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	19425 hours (Total, all aircraft), 1220 hours (Total, this make and model), 15000 hours (Pilot In Command, all aircraft), 210 hours (Last 90 days, all aircraft), 70 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N4803E
<b>Model/Series:</b>	180H 180H	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	18052033
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 24, 1997 Annual	<b>Certified Max Gross Wt.:</b>	2800 lbs
<b>Time Since Last Inspection:</b>	165 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	10366 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	O-470-R13
<b>Registered Owner:</b>	JAMES B. & NANCY MCSHEEHY	<b>Rated Power:</b>	230 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Dusk
<b>Observation Facility, Elevation:</b>	PSP ,462 ft msl	<b>Distance from Accident Site:</b>	90 Nautical Miles
<b>Observation Time:</b>	21:53 Local	<b>Direction from Accident Site:</b>	290°
<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>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	130°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29 inches Hg	<b>Temperature/Dew Point:</b>	32°C / 14°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	GILLESPIE , CA (SEE )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	(L90 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	00:00 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	OCOTILLO L90	<b>Runway Surface Type:</b>	Dirt
<b>Airport Elevation:</b>	160 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	13	<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>	4210 ft / 150 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>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	32.719486,-115.880432(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Cornejo, Tealeye
<b>Additional Participating Persons:</b>	DON SCARFONE; SAN DIEGO , CA
<b>Original Publish Date:</b>	September 28, 2000
<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=30134">https://data.nts.gov/Docket?ProjectID=30134</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](#).