



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	Hawthorne, CA	<b>Accident Number:</b>	LAX02LA074
<b>Date &amp; Time:</b>	02/02/2002, 1119 PST	<b>Registration:</b>	N300PS
<b>Aircraft:</b>	Aviat Pitts S-2B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	2 None

**Flight Conducted Under:** Part 91: General Aviation - Instructional

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## Analysis

On the landing rollout the airplane veered to the right of runway centerline and struck a taxi light with the left wing. The purpose of the flight was to practice full stall touch-and-go takeoffs and landings. The student had conducted five touch-and-go takeoffs and landings to a full stall with no discrepancies noted. The sixth touch-and-go landing was the accident landing. The CFI observed that the student had the control stick full aft and was applying left rudder to correct for the drift to the right. As the airplane continued to drift to the right the CFI applied full left rudder; however, the left wing struck the taxi light. During the airplane inspection it was observed that the tension of the right main landing gear bungee cord was slack. No further mechanical anomalies were noted.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Failure of the student to maintain directional control of the airplane on the landing rollout and failure of the CFI to adequately supervise the flight. A contributing factor was the decreased tension of the right main landing gear shock cord/bungee.

## Findings

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

### Findings

1. (F) MISCELLANEOUS, BOLT/NUT/FASTENER/CLAMP/SPRING - WORN
  2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - DUAL STUDENT
  3. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND (CFI)
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Occurrence #2: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: LANDING - ROLL

### Findings

4. OBJECT - TAXIWAY LIGHT

## Factual Information

On February 2, 2002, at 1119 Pacific standard time, an Aviat Pitts S-2B, N300PS, veered off runway 25 and ground looped after landing at the Jack Northrop Field/Hawthorne Municipal Airport (HHR), Hawthorne, California. The airplane was operated by Hart Air of Long Beach, California, as an instructional flight under the provisions of 14 CFR Part 91. The certified flight instructor (CFI) and the CFI student were not injured. The airplane sustained substantial damage. Visual meteorological conditions prevailed for the local area flight that departed the Long Beach/Daugherty Field Airport (LGB), Long Beach, California, about 1030. No flight plan had been filed.

The Safety Board Investigator-in-Charge (IIC) interviewed the CFI student pilot. The CFI student stated that there was no wind. The landing was normal, and on centerline, when the airplane started to drift to the right of centerline. He moved the control stick to the full aft position and engaged the left rudder; however, the airplane continued off the runway, ground looped, and struck a taxi light.

In the CFI's written statement, he reported that this was a training flight with a student who had accumulated about 15 hours of dual instruction from him in this airplane. The purpose of the flight was to perform full stall landings at LGB and HHR. They performed three touch-and-go landings at LGB with no discrepancies noted. On the third touch-and-go landing they requested a straight out departure for HHR.

Upon reaching HHR they were given permission by the local tower controller to remain in left traffic for the touch-and-go's. The CFI reported that the first two landings were uneventful. Initially the third landing was also uneventful. The touchdown was at a full stall with the tail wheel contacting the runway first, followed by the main landing gear.

The CFI stated that as the airplane transitioned to the landing rollout, the airplane began to turn to the right. He did not think this was unusual, and verified that the student had the control stick full aft, and was applying left rudder to correct the turn to the right. About 8 degrees from centerline the airplane was still departing to the right of the runway. The CFI began to apply left rudder; however, the airplane continued to the right and the left wing struck a runway light.

After securing the airplane, the CFI and student got out of the airplane to inspect it. The CFI noted that the right bungee door was extended open about 2 inches. They got back into the airplane and taxied to a local fixed based operator (FBO). After getting out of the airplane, the CFI again looked at the right wing. He lifted up and pulled down on the wing to check the wing tension. He stated that the bungee "did not act in a normal manner, and did not provide stiffness to the right gear."

A Federal Aviation Administration (FAA) inspector examined the airplane and landing gear assembly. According to the FAA inspector, he did note that the right landing gear assembly had more "play" than the left side. He further stated that there were no mechanical anomalies noted with the airplane.

In reviewing the Aviat maintenance manual, there is not a time life specified on the bungee cord. However, the manual does make reference to checks of the shock cords/bungees on a daily basis when the airplane is in operation, and at the 50-, 100-, 1000-hour inspections. The maintenance manual also indicated that on every flight and every 50-hour inspection the shock

cords/bungees should be inspected for proper tension. At the 100-hour inspection the landing gear should be serviced.

Prior to the accident Hart Air had ordered a new set of bungee cords; however, they had not received them at the time of the accident.

### Flight Instructor Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	58, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Front
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	07/23/2001
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	04/03/2001
<b>Flight Time:</b>	15000 hours (Total, all aircraft), 600 hours (Total, this make and model), 15500 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

### Pilot Information

<b>Certificate:</b>	Flight Instructor	<b>Age:</b>	67, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Rear
<b>Other Aircraft Rating(s):</b>	Glider; Helicopter	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<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 2 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	11/26/2001
<b>Occupational Pilot:</b>		<b>Last Flight Review or Equivalent:</b>	04/06/2001
<b>Flight Time:</b>	5500 hours (Total, all aircraft), 9 hours (Total, this make and model), 4500 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 20 hours (Last 30 days, all aircraft)		

## Aircraft and Owner/Operator Information

Aircraft Make:	Aviat	Registration:	N300PS
Model/Series:	Pitts S-2B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Aerobatic	Serial Number:	5340
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	04/01/2001, Annual	Certified Max Gross Wt.:	1700 lbs
Time Since Last Inspection:	76 Hours	Engines:	1 Reciprocating
Airframe Total Time:	313 Hours as of last inspection	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	AEIO-540
Registered Owner:	HART PITTS GROUP	Rated Power:	260 hp
Operator:	HART AIR	Operating Certificate(s) Held:	None

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HHR, 66 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1120 PST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.14 inches Hg	Temperature/Dew Point:	17° C / -6° C
Precipitation and Obscuration:			
Departure Point:	Long Beach, CA (LGB)	Type of Flight Plan Filed:	None
Destination:	HAWTHORNE, CA (HHR)	Type of Clearance:	VFR
Departure Time:	1030 PST	Type of Airspace:	Class D

## Airport Information

Airport:	HAWTHORNE MUNI (HHR)	Runway Surface Type:	Concrete
Airport Elevation:	66 ft	Runway Surface Condition:	Dry
Runway Used:	25	IFR Approach:	None
Runway Length/Width:	4956 ft / 100 ft	VFR Approach/Landing:	Full Stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	2 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<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>	33.926944, -118.336389

## Administrative Information

<b>Investigator In Charge (IIC):</b>	TEALEYE C CORNEJO	<b>Report Date:</b>	09/30/2003
<b>Additional Participating Persons:</b>	MIKE MARCHON; FEDERAL AVIATION ADMINISTRATION; EL SEGUNDO, CA		
<b>Publish Date:</b>			
<b>Investigation Docket:</b>	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.ntsbt.gov/pubdms/">http://dms.ntsbt.gov/pubdms/</a> .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).