Aviation Investigation Final Report

Location:	Mammoth Lake, California	**Accident Number:**	ANC06LA041
Date & Time:	March 30, 2006, 09:00 Local	**Registration:**	N6744P
Aircraft:	Piper PA-24-250	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The commercial certificated pilot was conducting a cross-country flight under Title 14, CFR Part 91. The pilot said when he arrived at his destination airport, he did not get a green down and locked light for the landing gear, and elected to go-around. He said he cycled the landing gear up and down twice, saw the green down and locked light both times, and proceeded to land. He reported that upon touchdown, the right main landing gear collapsed, and the airplane exited the right side of the runway and struck a snowbank. The pilot stated that there were no known preaccident mechanical anomalies with the airplane. Postaccident inspection of the airplane by an independent aviation mechanic hired to repair the airplane, disclosed that the main landing gear maintenance did not appear to be in compliance with an applicable FAA airworthiness directive (AD), AD 77-13-21, Amendment 39-3093, effective December 16, 1977. That AD defines the actions/inspections necessary to maintain the landing gear in an airworthy condition, and to preclude a malfunction or collapse. A review of the airplane's maintenance logbooks indicated only partial compliance with the AD. The aviation mechanic repairing the airplane said that numerous landing gear components were worn well beyond the limits set forth in the AD and associated service letter.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The collapse of the right main landing gear during landing, which resulted in a loss of directional control and an on-ground encounter with a snowbank. A factor associated with the accident was other maintenance personnel's inadequate inspection of the landing gear system.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings
1. (C) LANDING GEAR,MAIN GEAR - COLLAPSED
2. (F) MAINTENANCE,INSPECTION - INADEQUATE - OTHER MAINTENANCE PERSONNEL

Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings
3. DIRECTIONAL CONTROL - NOT POSSIBLE

Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings
4. TERRAIN CONDITION - SNOWBANK

Factual Information

On March 30, 2006, about 0900 pacific standard time, a Piper PA-24-250 airplane, N6744P, sustained substantial damage during landing when the right main landing gear collapsed. The airplane was being operated by the pilot as a visual flight rules (VFR) cross-country personal flight under Title 14, CFR Part 91, when the accident occurred. The solo private pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed. The airplane departed Gillespie Field, San Diego, California, about 0600.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC) on March 30, the pilot said when he approached the airport for landing, he did not get a green down and locked light for the landing gear, and proceeded to go-around. He said he cycled the landing gear up and down, and saw a green down and locked light. He again cycled the landing gear, and again saw the green down and locked light. The pilot said he elected to land, and upon touchdown, the right main landing gear collapsed. He said the airplane exited the right side of the runway and struck a snow bank, collapsing the nose gear. He indicated that prior to the accident there were no known mechanical anomalies with the airplane. He said the right wing received structural damage, in addition to damaging the landing gear and propeller.

Federal Aviation Administration (FAA) Airworthiness Directive (AD) AD 77-13-21, Amendment 39-3093, effective December 16, 1977, specifies the actions necessary to maintain the accident airplane's landing gear extension/retraction system in a serviceable and airworthy condition. The AD specifies the inspection of landing gear components, and the replacement of unserviceable components, in order to help prevent landing gear collapse. Paragraph (a) specifies the inspection and replacement of landing gear components that exceed specified wear limits as referenced in Piper Service Letter No. 782B. Paragraph (b) specifies the condition inspection, and replacement interval for the landing gear bungees. The criteria for paragraphs (a) and (b) differ, and require separate logbook entries, or at least separate notations to show full compliance with the AD. An inspection of the accident airplane's maintenance logbook by the IIC noted continued replacement of the landing gear bungees at the specified interval in accordance with paragraph (b). However, there were no entries regarding the inspections of the landing gear components required in accordance with paragraph (a). An independent aviation mechanic hired to affect the repairs, said numerous components were worn well beyond the limits set forth in the Piper Service Letter.

Pilot Information

Certificate:	Commercial	**Age:**	78,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Without waivers/limitations	**Last FAA Medical Exam:**	January 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	October 1, 2005
Flight Time:	3500 hours (Total, all aircraft), 2500 hours (Total, this make and model), 6 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N6744P
Model/Series:	PA-24-250	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	24-1872
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	October 1, 2005 Annual	**Certified Max Gross Wt.:**	2500 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	5088 Hrs at time of accident	**Engine Manufacturer:**	Lycoming
ELT:	Installed, not activated	**Engine Model/Series:**	O-540
Registered Owner:	Edward Esteb	**Rated Power:**	250 Horsepower
Operator:		**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:		**Distance from Accident Site:**	
Observation Time:		**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	15 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.02 inches Hg	**Temperature/Dew Point:**	-1°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Diego, CA (SEE)	**Type of Flight Plan Filed:**	Unknown
Destination:	Mammoth Lake, CA (MMH)	**Type of Clearance:**	None
Departure Time:	06:00 Local	**Type of Airspace:**	

Airport Information

Airport:	Mammoth Lakes KMMH	**Runway Surface Type:**	Asphalt
Airport Elevation:	7300 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	27	**IFR Approach:**	None
Runway Length/Width:	7000 ft / 50 ft	**VFR Approach/Landing:**	Full stop;Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	37.623889,-118.837776

Administrative Information

Investigator In Charge (IIC):	Lewis, Lawrence
Additional Participating Persons:	Ken Kelley; Reno; Reno, NV
Original Publish Date:	February 26, 2007
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=63422