



Aviation Investigation Final Report

Location:	GROVELAND, California	Accident Number:	LAX93LA174
Date & Time:	April 9, 1993, 14:16 Local	Registration:	N3532G
Aircraft:	CESSNA T310R	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

A CESSNA T310R LANDED GEAR UP ON THE RUNWAY. THE PILOT ENTERED THE AIRPORT TRAFFIC PATTERN MIDWAY ON THE DOWNWIND LEG AND FORGOT TO EXTEND THE LANDING GEAR. THE PILOT DID NOT RECALL HEARING THE AIRPLANE'S GEAR WARNING HORN. AS THE AIRPLANE PROPELLERS STRUCK THE GROUND, THE PILOT ATTEMPTED TO GO AROUND BUT WITHOUT SUCCESS. THE PILOT REPORTED THAT THE AIRPLANE DID NOT EXPERIENCE ANY MECHANICAL FAILURES OR MALFUNCTIONS WITH THE AIRPLANE BEFORE THE ACCIDENT.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: FAILURE OF THE PILOT TO FOLLOW THE AIRPLANE'S CHECKLIST WHICH RESULTED IN AN INADVERTENT GEAR UP LANDING.

Findings

Occurrence #1: GEAR NOT EXTENDED
Phase of Operation: LANDING - FLARE/TOUCHDOWN

- Findings
1. (C) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND
 2. (F) WHEELS UP LANDING - INADVERTENT - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING - ROLL

Findings

3. TERRAIN CONDITION - RUNWAY

Factual Information

On April 9, 1993, at 1416 hours Pacific daylight time, a Cessna T310R, N3532G, landed gear up on Runway 27 at the Pine Mountain Lake Airport, Groveland, California. The pilot was completing a visual flight rules personal flight. The airplane, registered to and operated by the pilot, sustained substantial damage. The certificated private pilot and passenger were not injured. Visual meteorological conditions prevailed at the time. The flight originated at the Nut Tree Airport, Vacaville, California, at about 1345 hours.

The pilot indicated during a telephone interview that he entered the airport traffic pattern midway on the downwind leg and forgot to extend the landing gear. The pilot did not recall hearing the airplane's gear warning horn. As the airplane propellers struck the ground, the pilot attempted to go around. The airplane veered off the runway before coming to a stop.

The pilot stated on his pilot accident report that there were no mechanical failures or malfunctions with the airplane before the accident.

Pilot Information

Certificate:	Private	Age:	60, 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:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	November 3, 1992
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	2861 hours (Total, all aircraft), 1338 hours (Total, this make and model), 2791 hours (Pilot In Command, all aircraft), 37 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N3532G
Model/Series:	T310R T310R	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	0863
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	June 5, 1992 Annual	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:	93 Hrs	Engines:	2 Reciprocating
Airframe Total Time:	1915 Hrs	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, not activated	Engine Model/Series:	TSIO-520B
Registered Owner:	FRICKE, LOUIS E.	Rated Power:	285 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SCK ,30 ft msl	Distance from Accident Site:	50 Nautical Miles
Observation Time:	13:47 Local	Direction from Accident Site:	255°
Lowest Cloud Condition:	Scattered / 2000 ft AGL	Visibility	20 miles
Lowest Ceiling:	Broken / 20000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	16 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	270°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	19°C / 5°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	VACAVILLE , CA (045)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	14:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	PINE MOUNTAIN LAKE Q68	Runway Surface Type:	Asphalt
Airport Elevation:	2930 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	3625 ft / 50 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	37.849208,-120.009414(est)

Administrative Information

Investigator In Charge (IIC):	Wilcox , Thomas
Additional Participating Persons:	JAMES SHAMP; FRESNO , CA
Original Publish Date:	June 30, 1994
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=28364

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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](#).