



# Aviation Investigation Final Report

<b>Location:</b>	GRANTS, New Mexico	<b>Accident Number:</b>	FTW98LA081
<b>Date &amp; Time:</b>	December 30, 1997, 11:00 Local	<b>Registration:</b>	N87358
<b>Aircraft:</b>	Cessna 310R	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 Minor, 3 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot serviced the right engine with oil prior to departure. While in flight, oil was observed coming from the rear of the right engine. The pilot feathered the right engine; however, the aircraft was not able to maintain altitude, and he brought the right engine back on line. Prior to landing, the pilot lowered the landing gear and feathered the propeller. The right engine stopped at approximately 100 feet short of the approach end of the runway and the aircraft stalled approximately 15 feet above the ground. The aircraft dropped suddenly, then impacted the ground. Postaccident examination of the aircraft by an FAA inspector revealed that the oil cap was not properly secured on the right engine. As a result, oil was being siphoned from the oil filler tube.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain adequate airspeed, which resulted in a stall. A factor related to the accident was the pilot's inadequate preflight inspection, which failed to secure the right engine oil cap, resulting in oil exhaustion and the loss of engine power.

## Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL  
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

1. 1 ENGINE
2. (F) LUBRICATING SYSTEM,OIL FILLER CAP - NOT SECURED
3. (C) AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
4. (F) FLUID,OIL - LOSS,TOTAL
5. ENGINE ASSEMBLY - SEIZED

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Occurrence #2: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: EMERGENCY LANDING

Findings

6. (F) AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
7. (F) STALL - INADVERTENT - PILOT IN COMMAND

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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: EMERGENCY LANDING

Findings

8. TERRAIN CONDITION - GRASS

## Factual Information

On December 30, 1997, at 1100 mountain standard time, a Cessna 310R, N87358, was substantially damaged following landing short of runway 31 at Grants-Milan Municipal Airport, Grants, New Mexico. The private pilot and two of the passengers were not injured; however, a third passenger received minor injuries. The airplane was owned and being operated by the pilot under Title 14 CFR Part 91. Visual meteorological conditions prevailed for the cross-country flight which originated from Los Lunas, New Mexico, approximately 30 minutes before the accident. No flight plan was filed.

According to the pilot, he serviced the right engine with oil prior to departure. While in flight, a passenger reported seeing oil coming from the rear of the right engine. The pilot noticed a rise in oil temperature and a drop in oil pressure. He feathered the right engine; however, the aircraft "was not holding altitude and began to descend at approximately 150 feet per minute. . .and [he] decided to bring the right engine back on line."

When the aircraft was approximately 5 minutes from the Grants-Milan Municipal Airport, the pilot "lower[ed] the landing gear and feather[ed] the propeller, and suddenly the right engine stopped, leaving [him] approximately 100 feet short of the approach end of the runway. [The] aircraft appeared to stall approximately 15 feet above the ground and then dropped suddenly," impacting the ground. It is unknown at what altitude above the ground the pilot lowered the landing gear.

According to the aircraft operating manual, the procedures for a single-engine approach and landing are mixture full rich, propeller full forward, an approach speed of 97 knots, and landing gear down only within glide distance of the field. According to the maximum glide chart, with flaps up, landing gear up, and the propeller of the failed engine feathered, the aircraft should glide 1 nautical mile per 1000 feet.

According to the performance chart for single-engine service ceiling at a maximum gross weight of 5,500 lbs., the aircraft was capable of maintaining an altitude of 7,975 feet, given the temperature of 21 degrees F., the altimeter setting of 30.26 Hg., and an indicated airspeed of 100 knots. The manual does not provide a chart indicating the altitude capability of single-engine operation with the gear down.

Postaccident examination of the aircraft by an FAA inspector revealed that the oil cap was not properly secured on the right engine. As a result, oil was being siphoned from the oil filler tube.

## Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	54, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	November 14, 1997
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	1678 hours (Total, all aircraft), 534 hours (Total, this make and model), 1511 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N87358
<b>Model/Series:</b>	310R 310R	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	0529
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	6
<b>Date/Type of Last Inspection:</b>	March 3, 1997 Annual	<b>Certified Max Gross Wt.:</b>	5500 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	3500 Hrs	<b>Engine Manufacturer:</b>	Continental
<b>ELT:</b>	Installed, not activated	<b>Engine Model/Series:</b>	IO-520-M
<b>Registered Owner:</b>	BENNIE DURAN	<b>Rated Power:</b>	285 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>	Day
<b>Observation Facility, Elevation:</b>	GNT ,6520 ft msl	<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>	09:53 Local	<b>Direction from Accident Site:</b>	
<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>	8 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	330°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30 inches Hg	<b>Temperature/Dew Point:</b>	-6°C / -7°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	LOS LUNAS , NM (E98 )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	RAMONA , CA (L39 )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	10:30 Local	<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	GRANTS-MILAN MUNICIPAL GNT	<b>Runway Surface Type:</b>	Asphalt
<b>Airport Elevation:</b>	6520 ft msl	<b>Runway Surface Condition:</b>	Dry
<b>Runway Used:</b>	31	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>	5300 ft / 80 ft	<b>VFR Approach/Landing:</b>	Simulated forced landing

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Minor, 2 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Minor, 3 None	<b>Latitude, Longitude:</b>	35.150886,-107.829589(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Struhsaker, James
<b>Additional Participating Persons:</b>	KARRY D RAY; ALBUQUERQUE , NM
<b>Original Publish Date:</b>	August 27, 1999
<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=20507">https://data.nts.gov/Docket?ProjectID=20507</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](#).