Aviation Investigation Final Report

Location:	GRANTS, New Mexico	**Accident Number:**	FTW98LA081
Date & Time:	December 30, 1997, 11:00 Local	**Registration:**	N87358
Aircraft:	Cessna 310R	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Minor, 3 None
Flight Conducted Under:	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

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

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

Certificate:	Private	**Age:**	54,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	November 14, 1997
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	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

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

Airport Information

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

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	Struhsaker, James
Additional Participating Persons:	KARRY D RAY; ALBUQUERQUE , NM
Original Publish Date:	August 27, 1999
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=20507