Aviation Investigation Final Report

Location:	Rialto, California	**Accident Number:**	WPR09LA115
Date & Time:	February 14, 2009, 10:00 Local	**Registration:**	N86242
Aircraft:	Cessna T337	**Aircraft Damage:**	Substantial
Defining Event:	Loss of engine power (partial)	**Injuries:**	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Shortly after takeoff the twin-engine airplane's climb performance deteriorated. The airplane climbed to 300-400 feet above ground level, then made a right turn. The pilot said that the airplane was not climbing sufficiently to clear the rising terrain that was ahead. He executed a forced landing into a dirt field 1/2 mile north of the departure airport. The pilot did not state that he executed the published engine out emergency procedures before executing the landing. The forward engine propeller exhibited damage consistent with the production of power; the rear engine propeller exhibited very little damage. Investigators were able to start and run the rear engine. Using the flight manual the calculated single-engine performance (rear engine out) was determined to be 550 feet per minute rate of climb.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A partial loss of engine power to one engine during initial climb for undetermined reasons.

Findings

Not determined	(general) - Unknown/Not determined

Factual Information

History of Flight

Initial climb	Loss of engine power (partial) (Defining event)

On February 14, 2009, about 1000 Pacific standard time, a Cessna T337/D, N86242, made a forced landing 0.5 miles north of Rialto Municipal Airport, Rialto, California. The airplane was operated by the owner under Title 14 Code of Federal Regulations Part 91. The private pilot received minor injuries, and the airplane was substantially damaged. Visual meteorological conditions prevailed and no flight plan had been filed.

The pilot reported to the National Transportation Safety Board investigator that shortly after takeoff the airplane's climb performance deteriorated, and it felt like the airplane had lost thrust. The airplane climbed to 300 - 400 feet above ground level (agl), then made a right turn. The pilot said that the airplane was not climbing sufficiently to clear the rising terrain that was ahead. He executed a forced landing into a dirt field 1/2 mile north of the airport. The pilot did not state that he executed the published engine out emergency procedures.

The nearest aviation weather recording station was San Bernardino International Airport, which recorded at 1053: calm winds; 10 miles visibility; clouds scattered at 3,000 feet; and the temperature was 48 degrees F.

On February 25, 2009, the Safety Board investigator-in-charge (IIC), and a Federal Aviation Administration (FAA) inspector examined the airplane. The front engine propeller exhibited chordwise scratches and blade tip curling, consistent with power production. The rear engine propeller exhibited a single gouge on one blade, and light chordwise scratches on the tip of the other blade. The top spark plugs were removed from the rear engine and thumb compression was achieved on all cylinders. The rear engine was rotated by hand and audible clicking of the magnetos could be heard. Fuel was observed in the engine driven fuel pump fuel input line. The spark plugs were replaced. The flap lever was set to 1/3 in the cockpit, and engine control continuity was established from the cockpit to both engines. The pilot reported that the weight of the airplane at the time of the accident was 3,836 pounds.

The area was cleared and the rear engine was started on the second attempt. The engine was run at 1,700 rpm for over 2 minutes, then ran up to 2,000 rpm, and the propeller cycled. Oil pressure was stable at 45 psi, and both magnetos were checked with a corresponding 50 rpm drop on each.

The Cessna 337 owner's manual states that at an aircraft weight of 3,800 pounds, outside air temperature of 59 degrees F, and sea level, the single engine climb performance (rear engine out) is 550 feet per minute rate of climb. The procedures for a continued takeoff with an

engine out include retracting the flaps, retracting the landing gear, and feathering the propeller of the inoperative engine.

Pilot Information

Certificate:	Private	**Age:**	70,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 2 With waivers/limitations	**Last FAA Medical Exam:**	October 7, 2008
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	March 15, 2002
Flight Time:	1801 hours (Total, all aircraft), 560 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N86242
Model/Series:	T337 D	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	337-1126
Landing Gear Type:	Retractable - Tricycle	**Seats:**	4
Date/Type of Last Inspection:	October 1, 2008 Annual	**Certified Max Gross Wt.:**	4400 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:	1842 Hrs as of last inspection	**Engine Manufacturer:**	Teledyne Continental Motors
ELT:	Installed	**Engine Model/Series:**	TSIO360
Registered Owner:	Donald A. Benart	**Rated Power:**	210 Horsepower
Operator:	Donald A. Benart	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KSBD,1159 ft msl	**Distance from Accident Site:**	9 Nautical Miles
Observation Time:	10:53 Local	**Direction from Accident Site:**	90°
Lowest Cloud Condition:	Scattered / 3000 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Broken	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	/
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.12 inches Hg	**Temperature/Dew Point:**	9°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Rialto, CA (KL67)	**Type of Flight Plan Filed:**	Unknown
Destination:	Rialto, CA (KL67)	**Type of Clearance:**	None
Departure Time:	10:43 Local	**Type of Airspace:**	

Airport Information

Airport:	Rialto Municipal Airport KL67	**Runway Surface Type:**	
Airport Elevation:	1455 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor	**Latitude, Longitude:**	34.136943,-117.407218(est)

Administrative Information

Investigator In Charge (IIC):	McKenny, Van
Additional Participating Persons:	John P Schaper; Federal Aviation Administration; Riverside, CA
Original Publish Date:	March 3, 2010
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=73353