Aviation Investigation Final Report

Location:	Redlands, California	**Accident Number:**	LAX01LA131
Date & Time:	March 31, 2001, 11:33 Local	**Registration:**	N8158K
Aircraft:	Stinson 108-1	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Serious
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

Prior to taking off for the accident flight the fuel tanks had been refueled. While cruising about 13 minutes later, the pilot experienced a total loss of engine power. The pilot reported that no vibration was felt prior to the power loss. In an attempt at restoring engine power, the pilot applied the carburetor heat, changed the mixture setting, and repositioned the ignition key. None of his actions were successful, and he made a forced landing about 1.5 miles north-northeast of his destination. During the landing rollout in rough terrain, the airplane collided with a berm. The airplane was subsequently examined. During the teardown inspection of the engine and accessories, no evidence of any preimpact malfunction was noted. Both the carburetor finger screen and the gascolator fuel screen were observed clear. The magnetos were functional. The carburetor heat control worked. The reason for the non-mechanical total loss of engine power was not determined. The airplane was manufactured in 1946.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A total loss of engine power during cruise flight over rough terrain for undetermined non-mechanical reasons.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED - NOT IDENTIFIED - UNKNOWN

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
2. REMEDIAL ACTION - ATTEMPTED - PILOT IN COMMAND
3. REMEDIAL ACTION - NOT SUCCESSFUL - PILOT IN COMMAND

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

Findings
4. (F) TERRAIN CONDITION - BERM

Factual Information

On March 31, 2001, about 1133 hours Pacific standard time, a Stinson 108-1, N8158K, experienced a total loss of engine power during cruise flight. The pilot made a forced landing about 1.5 miles north-northeast of the Redlands Municipal Airport, Redlands, California. During the landing rollout, the airplane collided with a dirt berm. The airplane was substantially damaged, and the private pilot was seriously injured. The personal flight was performed under 14 CFR Part 91. Visual meteorological conditions prevailed, and no flight plan was filed. The flight originated from Banning about 1120.

The pilot reported to the National Transportation Safety Board investigator that he had purchased the airplane a few weeks prior to the accident flight, and he was familiar with its operation. Prior to taking off on the accident flight, both of the wing fuel tanks had been filled. The pilot also stated that no vibration was felt prior to the loss of engine power. In an attempt at restoring power, he applied the carburetor heat, changed the mixture setting, and repositioned the ignition key. However, none of his actions were successful in restoring power to his airplane's engine. Thereafter, he made a forced landing on the underlying rough terrain. A deputy sheriff responded to the accident site. The sheriff reported to the Safety Board investigator that upon arrival he observed fuel streaming from the wing tanks of the impact-damaged airplane.

The airplane was manufactured in 1946. The airplane was subsequently recovered, inspected, and partially repaired by a Federal Aviation Administration certificated airframe and powerplant mechanic. The mechanic who performed the work verbally reported to the Safety Board investigator that the engine was completely torn down. No evidence of any preimpact malfunction was noted. The accessories were also examined, and no evidence of malfunction was noted. Both the carburetor finger screen and the gascolator fuel screen were observed clear. The magnetos were functional. The carburetor heat control worked. One of the propeller blades was noted bent in an aft direction indicating the crankshaft was not rotating during the impact sequence. The mechanic indicated that he could not ascertain the reason for the non-mechanical total loss of engine power.

Pilot Information

Certificate:	Private	**Age:**	59,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Unknown
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 3 With waivers/limitations	**Last FAA Medical Exam:**	January 25, 2001
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	March 19, 2001
Flight Time:	436 hours (Total, all aircraft), 182 hours (Total, this make and model), 14 hours (Last 90 days, all aircraft), 14 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Stinson	**Registration:**	N8158K
Model/Series:	108-1	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	108-1158
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	February 19, 2001 Unknown	**Certified Max Gross Wt.:**	2100 lbs
Time Since Last Inspection:	17 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3508 Hrs at time of accident	**Engine Manufacturer:**	Franklin
ELT:	Installed, not activated	**Engine Model/Series:**	6A4-150-B3
Registered Owner:	Chester M. Ugalde	**Rated Power:**	150 Horsepower
Operator:	John Sultzbaugh	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	BUO,2219 ft msl	**Distance from Accident Site:**	13 Nautical Miles
Observation Time:	11:50 Local	**Direction from Accident Site:**	120°
Lowest Cloud Condition:	Scattered / 25000 ft AGL	**Visibility**	25 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	360°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	26°C / 14°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	BANNING, CA (BNG)	**Type of Flight Plan Filed:**	None
Destination:	REDLANDS, CA (L12)	**Type of Clearance:**	None
Departure Time:	11:20 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Riverside Municipal RAL	**Runway Surface Type:**	Asphalt
Airport Elevation:	818 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	26	**IFR Approach:**	None
Runway Length/Width:	4505 ft / 75 ft	**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	34.109443,-117.139999

Administrative Information

Investigator In Charge (IIC):	Pollack, Wayne
Additional Participating Persons:	Tony Constanza; WP-FSDO; Riverside, CA
Original Publish Date:	June 3, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=51997