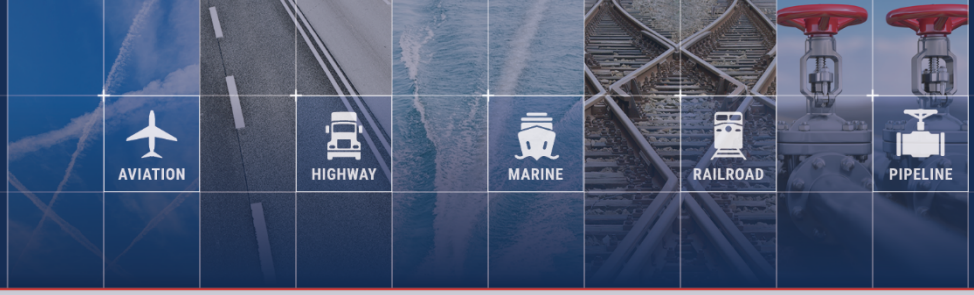

Aviation Investigation Final Report

Location:	LOST HILLS, California	**Accident Number:**	LAX96LA287
Date & Time:	July 23, 1996, 10:45 Local	**Registration:**	N7885S
Aircraft:	Bell 47-G5	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot landed to take on enough fuel to ferry the helicopter back to the home base. After liftoff at 100 to 150 feet agl he lost all engine power. A postaccident examination revealed that the carburetor air box had been installed with the wrong gasket and mispositioned so that one of four attachment bolts was missing. The gasket was partially ingested into the carburetor throat along with a foreign material determined to be a dusting product that coated the carburetor throat area through the gasket void.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: improper installation of the carburetor air box.

Findings

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

Findings
1. (C) CARBURETOR HEAT,AIR BOX - OBSTRUCTED
2. (C) MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PERSONNEL

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

Occurrence #3: HARD LANDING
Phase of Operation: EMERGENCY LANDING

Factual Information

On July 23, 1996, about 1045 hours Pacific daylight time, a Bell 47-G5, N7885S, was substantially damaged during landing after a power loss near Lost Hills, California. The pilot was not injured. Visual meteorological conditions prevailed for the agricultural spraying operation and no flight plan was filed. The flight originated at Shafter, California, at 0700 on the morning of the accident.

The pilot landed to take on enough fuel to ferry the helicopter back to the home base. After liftoff at 100 to 150 feet agl he lost all engine power.

An FAA inspector conducted a postaccident examination of the engine. The examination determined there was adequate fuel onboard at the time of the accident. The engine was test run with noted roughness. The carburetor was removed for inspection and an incorrect gasket was found between the carburetor and the air box. The incorrect gasket had been improperly installed with one of the four mounting bolts/cap screws missing. The gasket had been ingested into the carburetor throat. Additionally, there was foreign matter that was ingested through the gasket void and coated the carburetor throat. The material was determined to be a chemical powder used in agricultural spraying.

Pilot Information

Certificate:	Commercial	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**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:**	February 16, 1996
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	2500 hours (Total, all aircraft), 600 hours (Total, this make and model), 2400 hours (Pilot In Command, all aircraft), 102 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	**Registration:**	N7885S
Model/Series:	47-G5 47-G5	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Restricted (Special)	**Serial Number:**	7873
Landing Gear Type:	Skid	**Seats:**	1
Date/Type of Last Inspection:	March 9, 1996 Annual	**Certified Max Gross Wt.:**	2750 lbs
Time Since Last Inspection:	60 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3757 Hrs	**Engine Manufacturer:**	Lycoming
ELT:	Not installed	**Engine Model/Series:**	VO-435-B1A
Registered Owner:	DIANE CONRADI	**Rated Power:**	260 Horsepower
Operator:		**Operating Certificate(s) Held:**	
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:	KBF	**Distance from Accident Site:**	
Observation Time:	11:56 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	280°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	32°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	LOST HILLS , CA (NONE)	**Type of Flight Plan Filed:**	None
Destination:	SHAFTER , CA	**Type of Clearance:**	None
Departure Time:	10:40 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	Rough
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	35.53997,-118.910873(est)

Administrative Information

Investigator In Charge (IIC):	Petterson, George
Additional Participating Persons:	CLIFFORD D GIBBONS; FRESNO , CA
Original Publish Date:	August 25, 1997
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=29521