



Aviation Investigation Final Report

Location:	CHANDLER, Arizona	Accident Number:	LAX88DUJ06
Date & Time:	July 22, 1988, 10:00 Local	Registration:	N66890
Aircraft:	GRUMMAN G-164B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

DURING AN AERIAL APPLICATION FLIGHT, THE ENGINE EXPERIENCED A LOSS OF POWER. A FORCED LANDING WAS MADE IN AN OPEN FIELD AND DURING THE LANDING ROLL THE AIRPLANE NOSED OVER. INSPECTION OF THE ENGINE REVEALED THAT THE NUMBER FIVE CYLINDER DOME SEPARATED FROM THE LOWER PORTION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) ENGINE ASSEMBLY,CYLINDER - FAILURE,TOTAL

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

Occurrence #3: NOSE OVER
Phase of Operation: LANDING - FLARE/TOUCHDOWN

Factual Information

Pilot Information

Certificate:	Commercial	Age:	37,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Front
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 2 Unknown	Last FAA Medical Exam:	May 1, 1988
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	8450 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN	Registration:	N66890
Model/Series:	G-164B G-164B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Restricted (Special)	Serial Number:	3268
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	July 22, 1988 Annual	Certified Max Gross Wt.:	4500 lbs
Time Since Last Inspection:	44 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	5508 Hrs	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-985-AN1
Registered Owner:	SAN TAN DUSTER, INC.	Rated Power:	450 Horsepower
Operator:		Operating Certificate(s) Held:	
Operator Does Business As:		Operator Designator Code:	ZCDG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	PRC ,1235 ft msl	Distance from Accident Site:	3 Nautical Miles
Observation Time:	10:47 Local	Direction from Accident Site:	180°
Lowest Cloud Condition:	Clear	Visibility	35 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	4 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	39°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	CHANDLER (P-10)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	09:30 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Dirt
Airport Elevation:	0 ft msl	Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:	0 ft / 0 ft	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:	33.320827,-111.870895(est)

Administrative Information

Investigator In Charge (IIC): Prentice, Edward

Additional Participating Persons:

Original Publish Date: December 29, 1989

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=25727>

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](#).