



National Transportation Safety Board Aviation Accident Final Report

Location:	GILROY, CA	Accident Number:	LAX83LA207
Date & Time:	05/01/1983, 0750 PDT	Registration:	N1785S
Aircraft:	AERO COMMANDER 600 S-2D	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

PRIOR TO TAKEOFF, THE ACFT WAS FULLY FUELED WITH 100 GAL OF AVIATION GASOLINE & WAS LOADED WITH 300 GAL OF NON-TOXIC FUNGICIDAL MIX. THE PLT TOOK OFF, FLEW APRX 5 MI TO A FIELD, AND AFTER CIRCLING OVER THE FIELD, MADE 2 SWATH RUNS. DURING A PROCEDURE TURN AFTER THE 2ND SWATH RUN, THE ENGINE LOST POWER. SUBSEQUENTLY, THE ACFT CRASHED IN A STEEP, NOSE DOWN ATTITUDE. AN INVESTIGATION REVEALED THAT A PORTION OF THE #5 CYLINDER WAS MISSING & WAS NOT WITH THE MAIN WRECKAGE. A VISUAL EXAM OF THE FRACTURE SURFACE INDICATED EVIDENCE OF FATIGUE.

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(TOTAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - AERIAL APPLICATION

Findings

1. (C) ENGINE ASSEMBLY,CYLINDER - FATIGUE

Occurrence #2: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

2. (C) AIRSPEED - INADEQUATE - PILOT IN COMMAND
3. (C) STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial	Age:	27, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):		Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):		Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	10/20/1982
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	540 hours (Total, all aircraft), 132 hours (Total, this make and model), 450 hours (Pilot In Command, all aircraft), 100 hours (Last 90 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AERO COMMANDER	Registration:	N17855
Model/Series:	600 S-2D 600 S-2D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	600-1406D
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	12/08/1982, Annual	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:	80 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6000 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-1340-AN1
Registered Owner:	SHELTON CROPDUSTING, INC.	Rated Power:	600 hp
Operator:	SHELTON CROPDUSTING, INC.	Operating Certificate(s) Held:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	SJC, 56 ft msl	Distance from Accident Site:	28 Nautical Miles
Observation Time:	0746 PDT	Direction from Accident Site:	310°
Lowest Cloud Condition:	Scattered / 5000 ft agl	Visibility	20 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	140°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	12° C / 10° C
Precipitation and Obscuration:			
Departure Point:	SAN MARTIN, CA (Q99)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0740 PDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	WAYNE POLLACK	Report Date:	
Additional Participating Persons:			
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).