



National Transportation Safety Board Aviation Accident Final Report

Location:	TULARE, CA	Accident Number:	LAX92LA274
Date & Time:	07/01/1992, 1010 PDT	Registration:	N8636H
Aircraft:	GRUMMAN G-164A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 137: Agricultural		

Analysis

WITNESSES SAW THE ACFT APCH THE ACDNT SITE AT LOW ALT TRAILING A HVY VOLUME OF SPRAY OR SMOKE. THE ACFT SUDDENLY ALTERED COURSE, AND THE PLT SEEMED TO BE TURNING TO LND ON A ROAD. SOME WITNESSES SAID THEY SAW FLAMES COMING FM THE ENG COMPARTMENT AREA; OTRS SAID THE ENG 'BURST INTO FLAMES' WHILE THE ACFT WAS AIRBORNE. AS THE ACFT TURNED TWD THE ROAD, IT COLLIDED WITH PWR LINES & CRASHED. A POST-CRASH FIRE CONSUMED THE ACFT. AN EXAM OF THE ENG, WHICH SEPD FM THE FUSELAGE DRG IMPACT, REVEALED NO EVIDENCE OF A FIRE. ALL HOSES WERE NOTED TO BE INTACT. THE WOODEN HOPPER DOOR HAD SEPD FM THE FUSELAGE & IT WAS FND ALONG THE FLT PATH. IT WAS FND HEAVILY CHARRED ON THE INTERIOR SIDE WITH NO EVIDENCE OF FIRE ON THE EXTERIOR SIDE. RECORDS SHOWED THE ACFT HAD BEEN LOADED WITH POTASSIUM PERMANGANATE AFTER SULFUR HAD BEEN HAULED ON A PREVIOUS FLT. CHEMICAL MANUFACTURER RPRTD THAT POTASSIUM PERMANGANATE WAS AN OXIDIZER, WHICH WAS REACTIVE WITH EVEN SMALL AMOUNTS OF SULFUR.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: AN INFLIGHT HOPPER COMPARTMENT FIRE DUE TO THE INCOMPATIBILITY OF THE CHEMICAL LOADS, AND, THE FAILURE OF THE OPERATOR FOLLOW THE CAUTIONARY DIRECTIVES OF THE CHEMICAL MANUFACTURER.

Findings

Occurrence #1: FIRE
Phase of Operation: CRUISE

Findings

1. (C) MISCELLANEOUS
2. (C) PROCEDURES/DIRECTIVES - NOT FOLLOWED - COMPANY/OPERATOR MANAGEMENT

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

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

3. OBJECT - WIRE, TRANSMISSION

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial	Age:	40, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/03/1992
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	7796 hours (Total, all aircraft), 7249 hours (Total, this make and model), 7600 hours (Pilot In Command, all aircraft), 250 hours (Last 90 days, all aircraft), 180 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN	Registration:	N8636H
Model/Series:	G-164A G-164A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	1440
Landing Gear Type:	Tailwheel	Seats:	1
Date/Type of Last Inspection:	02/18/1992, Annual	Certified Max Gross Wt.:	4500 lbs
Time Since Last Inspection:	50 Hours	Engines:	1 Reciprocating
Airframe Total Time:	5595 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-985-AN1
Registered Owner:	SAN JOAQUIN HELICOPTERS	Rated Power:	450 hp
Operator:	SAN JOAQUIN HELICOPTERS	Operating Certificate(s) Held:	
Operator Does Business As:	MCFARLAND CROPDUSTERS	Operator Designator Code:	CUFG

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	30 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	330°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	21 °C
Precipitation and Obscuration:			
Departure Point:	DELANO, CA (DLO)	Type of Flight Plan Filed:	None
Destination:	(DLO)	Type of Clearance:	None
Departure Time:	0945 PDT	Type of Airspace:	Class G

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight and On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Jeff Rich	Report Date:	03/09/1993
Additional Participating Persons:	FRANK J MILLER; FRESNO, CA GENE SWEET; FRESNO, CA		
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 pubinq@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](#).