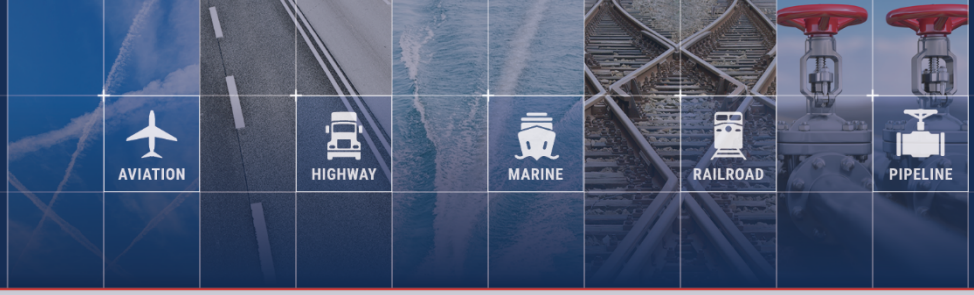

Aviation Investigation Final Report

Location:	Colusa, California	**Accident Number:**	WPR23LA212
Date & Time:	June 4, 2023, 09:05 Local	**Registration:**	N6750K
Aircraft:	GRUMMAN ACFT ENG COR-SCHWEIZER G-164B	**Aircraft Damage:**	Substantial
Defining Event:	Collision during takeoff/land	**Injuries:**	1 Serious
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The pilot reported this was the eighth aerial application flight of the day spraying rice fields. He had made all takeoff's flying low under a power line about 3/4 mile from the departure end of the runway. He stated that due to the monotony of the flights combined with fatigue and a bi-plane wing configuration, he lost sight of the power line and struck it. The airplane impacted the ground and cartwheeled sustaining substantial damage to the wings, fuselage, vertical and horizontal stabilizer. The pilot reported no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operations.

Probable Cause and Findings

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

The pilot's failure to maintain clearance from a power line during a low-level aerial application flight. Contributing to the accident was the pilot's fatigue.

Findings

Personnel issues	Boredom - Pilot
Personnel issues	Fatigue due to work schedule - Pilot
Environmental issues	Wire - Compliance w/ procedure
Environmental issues	Wire - Contributed to outcome

Factual Information

History of Flight

Prior to flight	Miscellaneous/other
Takeoff	Collision during takeoff/land (Defining event)

Pilot Information

Certificate:	Commercial; Flight instructor	**Age:**	73,Male
Airplane Rating(s):	Single-engine land; Multi-engine sea	**Seat Occupied:**	Center
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	4-point
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Helicopter	**Toxicology Performed:**	
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	November 10, 2022
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	December 31, 2021
Flight Time:	(Estimated) 28000 hours (Total, all aircraft), 8000 hours (Total, this make and model), 225 hours (Last 90 days, all aircraft), 225 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN ACFT ENG COR-SCHWEIZER	**Registration:**	N6750K
Model/Series:	G-164B	**Aircraft Category:**	Airplane
Year of Manufacture:	1978	**Amateur Built:**	
Airworthiness Certificate:	Restricted (Special)	**Serial Number:**	449-B
Landing Gear Type:	Tailwheel	**Seats:**	1
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	6000 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Pratt and Whitney
ELT:	Not installed	**Engine Model/Series:**	R-1340
Registered Owner:	Valley Air	**Rated Power:**	600 Horsepower
Operator:	Valley Air	**Operating Certificate(s) Held:**	Agricultural aircraft (137)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	KMYV,62 ft msl	**Distance from Accident Site:**	20 Nautical Miles
Observation Time:	15:53 Local	**Direction from Accident Site:**	90°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	/	**Turbulence Type Forecast/Actual:**	None /
Wind Direction:		**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.82 inches Hg	**Temperature/Dew Point:**	24°C / 12°C
Precipitation and Obscuration:			
Departure Point:	Colusa, CA (O08)	**Type of Flight Plan Filed:**	None
Destination:	Colusa, CA	**Type of Clearance:**	None
Departure Time:	09:00 Local	**Type of Airspace:**	Class E

Wreckage and Impact Information

Crew Injuries:	1 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:		**Aircraft Explosion:**	None
Total Injuries:	1 Serious	**Latitude, Longitude:**	39.241597,-121.90951(est)

Preventing Similar Accidents

Preventing Obstacle Collisions in Agricultural Operations (SA-035)

The Problem

Accidents involving collisions with obstacles, including poles, wires, guy wires, meteorological evaluation towers (MET), or trees, are among the most common types of agricultural aircraft accidents. Some collisions involved obstacles that the pilots did not see (even during survey flights) but others involved obstacles that were known to the pilot and/or had characteristics that would make them visibly conspicuous.

What can you do?

- Maintain a quick-reference document (paper or electronic) at the operations base that contains field maps, charts, photographs, and details of all known obstacles.Frequently review current aeronautical charts for information about obstacles.
- Before you leave the ground, spend time becoming familiar with all available information about the target field and programming navigation equipment. Such preflight action can help reduce the potential for confusion or distraction in flight.
- Conduct aerial surveys of the target field but do not rely solely on an aerial survey to identify potential obstacles.
- Conduct regular ground surveys of fields. Some towers can be erected in hours, and obstacles can change since you last worked that field.

- When possible, use ground crews. They may be in a better position to see certain obstacles and help you ensure that your aircraft remains clear of them.
- Watch for shadows and irregularities in growth patterns to help identify obstacles.
- Speak with farmers and land owners to raise awareness about obstacle hazards.
- Use GPS and other technology to maintain awareness of obstacle locations.
- Be aware that workload, fatigue, sun glare, and distractions in the cockpit can adversely affect your ability to see, avoid, or remember obstacles.
- Understand the performance limitations and requirements for your aircraft, particularly when operating with heavier loads and at higher density altitudes.
- The National Agricultural Aviation Association's Professional Aerial Applicators' Support System reminds pilots that, when ferrying an aircraft or transitioning between sites, flying above 500 feet reduces obstacle collision risks: "Ferry Above Five and Stay Alive."

See https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-035.pdf for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

Administrative Information

Investigator In Charge (IIC):	Blum, Contessa
Additional Participating Persons:	Tim Snyder; SAC FSDO; Sacramento, CA
Original Publish Date:	October 20, 2023
Last Revision Date:	
Investigation Class:	Class 4
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=192307