



# Aviation Investigation Final Report

<b>Location:</b>	Lone Pine, California	<b>Accident Number:</b>	WPR23LA322
<b>Date &amp; Time:</b>	August 18, 2023, 19:10 Local	<b>Registration:</b>	N4537Y
<b>Aircraft:</b>	GRUMMAN AMERICAN AVN. CORP. AA-5B	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Collision with terr/obj (non-CFIT)	<b>Injuries:</b>	1 Serious, 1 Minor
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot reported that, while conducting a low pass over an off-airport landing strip at an altitude of 100 ft above the ground, the airplane encountered a downdraft. The pilot felt the airplane was unable to climb out of the valley without stalling, so he maintained airspeed, but the airplane descended and impacted the ground. The airplane subsequently rebounded and came to a rest in an upright position, which resulted in substantial damage to both wings, fuselage, and empennage. The pilot reported that there were no preaccident mechanical malfunctions or failures with the airplane that would have precluded normal operation.

## Probable Cause and Findings

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

The pilot's inability to maintain altitude after encountering a downdraft, which resulted in collision with terrain.

## Findings

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<b>Personnel issues</b>	Identification/recognition - Pilot
<b>Aircraft</b>	Climb rate - Capability exceeded
<b>Aircraft</b>	Altitude - Not attained/maintained
<b>Environmental issues</b>	Mountainous/hilly terrain - Effect on operation
<b>Environmental issues</b>	Downdraft - Ability to respond/compensate
<b>Environmental issues</b>	Downdraft - Contributed to outcome

## Factual Information

### History of Flight

<b>Approach</b>	Other weather encounter
<b>Maneuvering</b>	Loss of control in flight
<b>Approach</b>	Collision with terr/obj (non-CFIT) (Defining event)

### Pilot Information

<b>Certificate:</b>	Private	<b>Age:</b>	61, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	Glider	<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>	None	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>	Class 3 With waivers/limitations	<b>Last FAA Medical Exam:</b>	August 17, 2023
<b>Occupational Pilot:</b>	No	<b>Last Flight Review or Equivalent:</b>	August 10, 2023
<b>Flight Time:</b>	1097 hours (Total, all aircraft), 16 hours (Total, this make and model), 1023 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 32 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

### Passenger Information

<b>Certificate:</b>		<b>Age:</b>	
<b>Airplane Rating(s):</b>		<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>		<b>Restraint Used:</b>	3-point
<b>Instrument Rating(s):</b>		<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>		<b>Toxicology Performed:</b>	
<b>Medical Certification:</b>		<b>Last FAA Medical Exam:</b>	
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>			

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	GRUMMAN AMERICAN AVN. CORP.	<b>Registration:</b>	N4537Y
<b>Model/Series:</b>	AA-5B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	1979	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	AA5B1292
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	4
<b>Date/Type of Last Inspection:</b>	July 11, 2023 Annual	<b>Certified Max Gross Wt.:</b>	2400 lbs
<b>Time Since Last Inspection:</b>	25 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2209.8 Hrs as of last inspection	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	A4K
<b>Registered Owner:</b>	On file	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>	On file	<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KNID,2231 ft msl	<b>Distance from Accident Site:</b>	40 Nautical Miles
<b>Observation Time:</b>	11:56 Local	<b>Direction from Accident Site:</b>	144°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	None / None
<b>Wind Direction:</b>	140°	<b>Turbulence Severity Forecast/Actual:</b>	N/A / N/A
<b>Altimeter Setting:</b>	29.92 inches Hg	<b>Temperature/Dew Point:</b>	36°C / 2°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Santa Monica, CA (KSMO)	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Santa Monica, CA (KSMO)	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	11:11 Local	<b>Type of Airspace:</b>	Class G

## Wreckage and Impact Information

<b>Crew Injuries:</b>	N/A	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 Serious	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>		<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious	<b>Latitude, Longitude:</b>	36.226698,-118.16611

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Rho, Paul
<b>Additional Participating Persons:</b>	Julien Roark; Federal Aviation Administration; Fresno, CA Jeremy Alexander; Federal Aviation Administration; Fresno, CA
<b>Original Publish Date:</b>	November 30, 2023
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class 4</a>
<b>Note:</b>	The NTSB did not travel to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=192924">https://data.ntsb.gov/Docket?ProjectID=192924</a>

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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](#).