



Aviation Investigation Final Report

Location:	LUKA, Mississippi	Accident Number:	ATL84LA293
Date & Time:	September 24, 1984, 18:30 Local	Registration:	N74107
Aircraft:	GRUMMAN AA5-B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

DURING NORMAL CRUISE FLIGHT THE NUMBER ONE CYLINDER EXHAUST VALVE HEAD SEPARATED FROM THE VALVE STEM CAUSING A SIGNIFICANT POWER LOSS. THE PILOT SET UP A LANDING APPROACH TO A FARM FIELD. ON FINAL APPROACH THE PILOT NOTICED THAT ROUGH AND RISING TERRAIN EXISTED IN THE FIELD. DURING A SLIGHT RIGHT TURN AT 10 FT ABOVE THE GROUND THE WING CAUGHT IN SOME WEEDS AND THE ACFT GROUND LOOPED. THE REASON FOR THE EXHAUST VALVE HEAD SEPARATION COULD NOT BE DETERMINED.

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: CRUISE - NORMAL

Findings

1. (C) ENGINE ASSEMBLY, VALVE, INTAKE - SEPARATION

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: DRAGGED WING, ROTOR, POD, FLOAT OR TAIL/SKID
Phase of Operation: LANDING

Findings

2. (F) TERRAIN CONDITION - HIGH VEGETATION
3. (F) TERRAIN CONDITION - ROUGH/UNEVEN
4. (F) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Private	Age:	25, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	February 2, 1983
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	183 hours (Total, all aircraft), 83 hours (Total, this make and model), 170 hours (Pilot In Command, all aircraft), 51 hours (Last 90 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN	Registration:	N74107
Model/Series:	AA5-B AA5-B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal; Utility	Serial Number:	AA5B-0143
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 21, 1984 100 hour	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:	72 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	703 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-360-A4K
Registered Owner:	MARVIN F. SMITH, JR.	Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	TUP ,361 ft msl	Distance from Accident Site:	42 Nautical Miles
Observation Time:	18:46 Local	Direction from Accident Site:	45°
Lowest Cloud Condition:	Scattered / 5500 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 12000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	170°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	29°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	ALMYRA , AK (M73)	Type of Flight Plan Filed:	None
Destination:	GASDEN , AL (GAD)	Type of Clearance:	None
Departure Time:	15:00 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	Grass/turf
Airport Elevation:		Runway Surface Condition:	Dry
Runway Used:	0	IFR Approach:	None
Runway Length/Width:		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:	34.799755,-88.189338(est)

Administrative Information

Investigator In Charge (IIC): Henderson, Dennis

Additional Participating Persons: JIMMY S JAMES; MEMPHIS , TN

Original Publish Date:

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=6548>

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](#).