



Aviation Investigation Final Report

Location:	SALISBURY, North Carolina	Accident Number:	ATL95LA055
Date & Time:	February 25, 1995, 10:29 Local	Registration:	N28815
Aircraft:	GRUMMAN AA-5B	Aircraft Damage:	Substantial
Defining Event:		Injuries:	3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

THE PILOT REPORTED THAT, SHORTLY AFTER TAKE-OFF, HE SMELLED SOMETHING HOT. A SCAN OF THE ENGINE INSTRUMENTS REVEALED THAT THERE WAS NO OIL PRESSURE. THE PILOT CONTINUED TO THE DESTINATION, SALISBURY; HOWEVER, THE ENGINE LOST POWER AND SUBSEQUENTLY SEIZED. THE PILOT MADE AN EMERGENCY LANDING IN A FIELD. AN INSPECTION OF THE AIRCRAFT REVEALED THAT THE OIL LINE FROM THE BOTTOM OF THE OIL COOLER TO THE ENGINE HAD SEPARATED FROM THE FITTING AT THE ENGINE. THE OIL LINE HAD BEEN REPLACED DURING AN ANNUAL INSPECTION. THE AIRCRAFT HAD FLOWN APPROXIMATELY 14 HOURS SINCE THE OIL LINE WAS CHANGED.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE SEPARATION OF THE OIL LINE TO THE OIL COOLER WHICH RESULTED IN A LOSS OF ENGINE OIL AND SUBSEQUENT ENGINE SEIZURE.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE

Findings

1. (C) LUBRICATING SYSTEM,OIL LINE - SEPARATION
2. FLUID,OIL - EXHAUSTION

3. POWERPLANT - SEIZED

Occurrence #2: NOSE GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

4. TERRAIN CONDITION - OPEN FIELD

Factual Information

On February 25, 1995, about 1029 eastern standard time, a Grumman AA-5B, N28815, collided with the ground during a forced landing near Salisbury, North Carolina. The airplane was operated under the provisions of 14 CFR Part 91, and visual flight rules. A flight plan was not filed for the personal flight. There were no injuries to the private pilot nor his two passengers, and the airplane was substantially damaged. Origination of the flight was Gold Hill, North Carolina, about 1020 on the same day.

Shortly after take-off, the pilot reported that he detected a burning odor, and noted that the engine oil pressure was at zero. The pilot attempted to make it to Salisbury Airport, however, the engine began to vibrate and subsequently seized. A forced landing was made in an empty field. Upon landing the nose wheel collapsed. The pilot also reported that, as the airplane was being moved, a loose oil line was found. The line had been replaced during the last annual inspection in September 1994. The aircraft had been flown approximately 14 hours since the oil line had been changed. The pilot reported that during pre-flight examination of the aircraft, no oil was found in the engine compartment or on the ground.

Upon examination of the aircraft, oil was found all over the belly of the aircraft. Additional inspection revealed that the oil line from the bottom of the oil cooler to the engine had separated from the fitting at the engine. The last couple of threads on the fitting appeared to be shiny. The fitting was removed and examined for possible cross threading. The threads were normal and contained no evidence of being cross threaded. The hose nut also contained shiny threads, and the last thread was pulled out of the nut. The inspector reported that the hose nut had come loose and the engine vibration caused it to wear against the fitting until the oil pressure forced the hose off and pulled the last thread with it.

Pilot Information

Certificate:	Private	Age:	46, 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-w/ waivers/lim	Last FAA Medical Exam:	September 10, 1993
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	1615 hours (Total, all aircraft), 401 hours (Total, this make and model), 1475 hours (Pilot In Command, all aircraft), 7 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	GRUMMAN	Registration:	N28815
Model/Series:	AA-5B AA-5B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	AA5B0836
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	September 18, 1994 Annual	Certified Max Gross Wt.:	2000 lbs
Time Since Last Inspection:	15 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1795 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed	Engine Model/Series:	O-360-A4K
Registered Owner:	MURPHY, LARRY J.	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:	CLT ,749 ft msl	Distance from Accident Site:	40 Nautical Miles
Observation Time:	14:50 Local	Direction from Accident Site:	30°
Lowest Cloud Condition:	25000 ft AGL	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	60°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	7°C / -8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	GOLD HILL , NC (NC25)	Type of Flight Plan Filed:	None
Destination:	(6A6)	Type of Clearance:	None
Departure Time:	10:20 Local	Type of Airspace:	Class G

Airport Information

Airport:		Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
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:	2 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 None	Latitude, Longitude:	35.660697,-80.480949(est)

Administrative Information

Investigator In Charge (IIC): Hicks, Preston
Additional Participating Persons: ROBERT J SCHILLING;

Original Publish Date: August 23, 1995

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=3525>

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](#).