



National Transportation Safety Board Aviation Accident Final Report

Location:	LAKE BUTLER, FL	Accident Number:	MIA90FA090
Date & Time:	03/15/1990, 2245 EST	Registration:	N7443S
Aircraft:	BUTLER AEROSTAR 601	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Minor
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

SHORTLY AFTER LEVELING OFF AT 14,000 FT THE LEFT ENGINE QUIT. THE PILOT DIVERTED TO TAMPA, AND 34 MINUTES LATER THE RIGHT ENGINE QUIT. DURING THE SUBSEQUENT FORCED LANDING THE AIRPLANE COLLIDED WITH THE ROOF OF A COVERED SIDEWALK AND THEN TREES. TEARDOWN OF THE LEFT ENG REVEALED THAT THE SEAL BETWEEN THE EXHAUST FLANGE & TURBOCHARGER WAS NOT INSTALLED; BOLT CLAMP WAS FINGER TIGHT. HEAT HAD MELTED WIRING HARNESS & MAG GROUNDING LEADS INSULATION; BOTH 'P' LEADS WERE GROUNDED. PILOT STATED THAT AFTER LOSING THE LEFT ENG HE INITIATED A LEFT TANK TO RIGHT ENGINE CROSSFEED, AND AFTER 20 MINUTES OF SINGLE ENG FLIGHT IN THIS CONFIGURATION THE RIGHT ENG QUIT. FLIGHT MANUAL STATES TO LAND AS SOON AS POSSIBLE IN CASE OF ONE ENG FAILURE. IN ADDITION, IT WARNS THAT WHEN FLYING ON ONE ENG & CROSSFEEDING FUEL, ABSOLUTE COORDINATED FLIGHT MUST BE MAINTAINED TO PREVENT UNPORTING OF THE TANK'S FUEL PICKUP TUBE WHEN THE TANK IS NOT FULL.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INFLIGHT FAILURE OF THE LEFT ENGINE WHICH WAS CAUSED BY INADEQUATE MAINTENANCE AND INSPECTION BY COMPANY MAINTENANCE PERSONNEL RESULTING IN HEAT DAMAGED MAGNETO LEADS AS A RESULT OF A MISSING EXHAUST FLANGE-TO-TURBOCHARGER SEAL. IN ADDITION, THE INFLIGHT POWER LOSS OF THE RIGHT ENGINE WAS CAUSED BY THE PILOT'S FAILURE TO FOLLOW THE PROCEDURES IN THE AIRPLANE OPERATING HANDBOOK AND LAND AS SOON AS POSSIBLE RESULTING IN FUEL STARVATION OF THE RIGHT ENGINE. DARKNESS WAS A RELATED FACTOR.

Findings

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

Phase of Operation: CRUISE - NORMAL

Findings

1. 1 ENGINE
2. (C) EXHAUST SYSTEM,GASKET - NOT INSTALLED
3. (C) MAINTENANCE,INSTALLATION - IMPROPER - COMPANY MAINTENANCE PERSONNEL
4. (C) EXHAUST SYSTEM,TURBOCHARGER - LEAK
5. (C) IGNITION SYSTEM,MAGNETO GROUNDING LEAD (P-LEAD) - SHORTED

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: CRUISE - NORMAL

Findings

6. 1 ENGINE
7. (C) FLUID,FUEL - STARVATION
8. (C) FLIGHT MANUALS - NOT FOLLOWED - PILOT IN COMMAND

Occurrence #3: FORCED LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Occurrence #4: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

9. (F) LIGHT CONDITION - DARK NIGHT
10. OBJECT - OTHER
11. OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	26, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	11/02/1990
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	4548 hours (Total, all aircraft), 2024 hours (Total, this make and model), 3835 hours (Pilot In Command, all aircraft), 350 hours (Last 90 days, all aircraft), 109 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	BUTLER	Registration:	N7443S
Model/Series:	AEROSTAR 601 AEROSTAR 6	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	61-0063
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	02/07/1990, AAIP	Certified Max Gross Wt.:	6000 lbs
Time Since Last Inspection:	42 Hours	Engines:	2 Reciprocating
Airframe Total Time:	3234 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, aided in locating accident	Engine Model/Series:	IO-540-AA1A5
Registered Owner:	TOP FLIGHT AIR SERVICE	Rated Power:	290 hp
Operator:	TOP FLIGHT AIR SERVICE	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	HZTA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	GNV, 152 ft msl	Distance from Accident Site:	29 Nautical Miles
Observation Time:	2258 EST	Direction from Accident Site:	5°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	7 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	21° C / 14° C
Precipitation and Obscuration:			
Departure Point:	JACKSONVILLE, FL (CRG)	Type of Flight Plan Filed:	IFR
Destination:	ATLANTA, GA	Type of Clearance:	IFR
Departure Time:	2150 EST	Type of Airspace:	Class E

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ANDREW A ALSTON	Report Date:	09/10/1992
Additional Participating Persons:	PAUL LEHMAN; VERO BEACH, FL JESSEE BARRINGTON; ORLANDO, FL JAMES STABLEY; WILLIAMSPORT, PA		
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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