



National Transportation Safety Board Aviation Accident Final Report

Location:	MANSFIELD, OH	Accident Number:	ATL88FA052
Date & Time:	12/03/1987, 2159 EST	Registration:	N500TS
Aircraft:	PIPER PA-60-600	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Serious
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

THE PILOT DEPARTED LOUISVILLE, KY REPORTEDLY WITH A KNOWN OIL LEAK IN THE RIGHT ENGINE AND WAS ON THE SECOND LEG OF AN ON-DEMAND AIR TAXI CARGO FLIGHT. ABOUT 14 MINUTES AFTER ENTERING MANSFIELD APPROACH CONTROL AIRSPACE, THE PILOT REQUESTED AND RECEIVED AN ALTITUDE CHANGE FROM 5,000 TO 3,000 FT BECAUSE HE 'WAS PICKING UP A LOT OF ICE.' AFTER ENTERING CLEVELAND APPROACH AIRSPACE HE REPORTED THE RIGHT ENGINE HAD FAILED AND REQUESTED TO RETURN TO MANSFIELD. THE PILOT WAS INFORMED OF MANSFIELD WEATHER. HE THEN INDICATED HE WANTED TO TRY CLEVELAND, THEN REPORTED HE COULD NOT MAINTAIN ALTITUDE AND WANTED TO GO TO MANSFIELD. THE PILOT WAS RECEIVING VECTORS FROM MANSFIELD FOR AN ASR APPROACH TO RUNWAY 23 AND AT ABOUT 1 1/2 MILES FROM THE THRESHOLD THE PILOT REPORTED HE WAS LOWERING THE LANDING GEAR. THE AIRCRAFT THEN DISAPPEARED FROM THE RADAR SCOPE. INVESTIGATION REVEALED IMPROPER WELD REPAIRS TO THE RIGHT ENGINE CASE AND SEPARATION OF THE NUMBER SIX CYLINDER FROM THE CASE DUE TO FATIGUE CRACKING IN THE THROUGH BOLTS AND STUDS.

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(TOTAL) - MECH FAILURE/MALF
Phase of Operation: CRUISE - NORMAL

Findings

1. 1 ENGINE - FAILURE,TOTAL
2. ENGINE ASSEMBLY,CRANKCASE - CRACKED
3. (C) MAINTENANCE,MAJOR REPAIR - IMPROPER - OTHER MAINTENANCE PERSONNEL
4. (C) ENGINE ASSEMBLY,OTHER - FATIGUE
5. (C) ENGINE ASSEMBLY,CYLINDER - SEPARATION
6. (F) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - CONTINUED - PILOT IN COMMAND
7. (F) COMPANY-INDUCED PRESSURE - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

8. (F) OBJECT - TREE(S)
9. (F) WEATHER CONDITION - ICING CONDITIONS
10. (F) WEATHER CONDITION - BELOW APPROACH/LANDING MINIMUMS
11. (F) LIGHT CONDITION - DARK NIGHT
12. (C) IN-FLIGHT PLANNING/DECISION - DELAYED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	07/08/1987
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	6870 hours (Total, all aircraft), 1170 hours (Total, this make and model), 6370 hours (Pilot In Command, all aircraft), 337 hours (Last 90 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	PIPER	Registration:	N500TS
Model/Series:	PA-60-600 PA-60-600	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	60500162
Landing Gear Type:	Retractable - Tricycle	Seats:	2
Date/Type of Last Inspection:	11/14/1987, AAIP	Certified Max Gross Wt.:	5500 lbs
Time Since Last Inspection:	67 Hours	Engines:	2 Reciprocating
Airframe Total Time:	5176 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-540-K1J5
Registered Owner:	TRI-STAR	Rated Power:	290 hp
Operator:	AIR CONTINENTAL, INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	DRNA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	MFD, 1297 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	2150 EST	Direction from Accident Site:	230°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	0 Miles
Lowest Ceiling:	Obscured / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	0° C / 0° C
Precipitation and Obscuration:			
Departure Point:	CINCINNATI, OH (LUK)	Type of Flight Plan Filed:	IFR
Destination:	CLEVELAND, OH (CLE)	Type of Clearance:	IFR
Departure Time:	2110 EST	Type of Airspace:	

Airport Information

Airport:	MANSFIELD LAHM MUNICIPAL (MFD)	Runway Surface Type:	Asphalt
Airport Elevation:	1297 ft	Runway Surface Condition:	Dry
Runway Used:	23	IFR Approach:	ASR
Runway Length/Width:	6795 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	WALTER G STINER	Report Date:	12/27/1988
Additional Participating Persons:	ROBERT BOOB; VERO BEACH, FL JAMES R STABLEY; WILLIAMSPORT, PA GARY R KROMER THOMAS J DUDDY; 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 pubinquiry@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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