



National Transportation Safety Board Aviation Accident Data Summary

Location:	BOCA RATON, FL	Accident Number:	MIA99LA117
Date & Time:	04/02/1999, 1557 EST	Registration:	N820MM
Aircraft:	Waco YMF-5	Injuries:	1 Serious, 1 Minor
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The pilot reported that during maneuvering flight, at about 500 feet agl, and 1/2 mile offshore, the engine and cowling began to shake, the engine began to sputter, and the windscreens became covered with oil. He made a turn westbound toward land, and declared an emergency, intending to land at the nearest airport. He reported the engine power available would not sustain level flight, and he started a slow descent. Neither the pilot nor his front seat passenger acquired a visual on the airport. The pilot overflew the airport and forced landed in a residential area 2 miles west of the airport. Examination of the engine revealed failure of the 12 cylinder holddown studs of the No. 7 cylinder.

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to select a suitable forced landing site following a partial loss of engine power due to failed cylinder holdddown studs, and the subsequent collision with trees. A factor in the accident was the reduced forward visibility from the dual open cockpits due to windshield obscuration by engine oil.

Findings

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

Findings

1. ENGINE ASSEMBLY, OTHER - FRACTURED
2. REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: FORCED LANDING
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. (F) VISUAL LOOKOUT - RESTRICTED - PILOT IN COMMAND
4. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings

5. OBJECT - TREE(S)

Pilot Information

Certificate:	Private	Age:	64
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:	2228 hours (Total, all aircraft), 547 hours (Total, this make and model), 2088 hours (Pilot In Command, all aircraft), 36 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Waco	Registration:	N820MM
Model/Series:	YMF-5 YMF-5	Engines:	1 Reciprocating
Operator:	MD AERO, INC.	Engine Manufacturer:	Jacobs
Operating Certificate(s) Held:	None	Engine Model/Series:	R755B2M
Flight Conducted Under:	Part 91: General Aviation - Personal		

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PBI, 17 ft msl	Weather Information Source:	Weather Observation Facility
Lowest Ceiling:	Broken / 6000 ft agl	Wind Speed/Gusts, Direction:	10 knots / , 130°
Temperature:	28° C	Visibility:	10 Miles
Precipitation and Obscuration:			
Departure Point:	FT. LAUDERDALE, FL (FXE)	Destination:	

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	ALAN C STONE	Adopted Date:	04/19/2001
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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accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

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