Aviation Investigation Final Report

Location:	Edenville, Michigan	**Accident Number:**	CHI07LA024
Date & Time:	November 15, 2006, 15:30 Local	**Registration:**	N4159K
Aircraft:	Maule MX-7-180B	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The amphibious float equipped airplane crashed while attempting to land on a lake. A witness reported seeing the airplane approaching to land; however, there were no witnesses to the accident. About 40 minutes later, a boater contacted local authorities to report an over turned sailboat in the lake. Upon arrival at the scene, emergency crews observed the accident airplane inverted in the water. A witness located in a wooded area approximately 3 miles south of the accident site reported that he saw a propeller-driven airplane with floats flying northbound between 1430 and 1500. He noted that it appeared to be in level flight and the "engine was running very smoothly." A post accident examination of the airframe and engine did not reveal any anomalies that would have prevented normal operation. The landing gear was retracted and the gear selector handle was in the up position.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's loss of control during landing on a lake resulting in the amphibian aircraft flipping over inverted.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING

Findings

1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. TERRAIN CONDITION - WATER

Occurrence #2: NOSE OVER
Phase of Operation: LANDING

Factual Information

On November 15, 2006, about 1530 eastern standard time, a Maule MX-7-180B, N4159K, equipped with amphibious floats, piloted by a private pilot, was substantially damaged while landing on Wixom Lake near Edenville, Michigan. The personal flight was being conducted under 14 CFR Part 91 without a flight plan. Visual meteorological conditions prevailed at the time of the accident. The pilot drowned. The exact flight itinerary was not determined. The airplane was based at Jack Barstow Airport (3BS), Midland, Michigan.

A witness reported seeing the airplane approaching to land on Wixom Lake about 1520. There were no witnesses to the accident. At 1602, a boater contacted local authorities to report an over turned sailboat in the lake. Upon arrival at the scene, emergency crews observed the accident airplane inverted in the water. The pilot was subsequently recovered from the airplane.

A witness located in a wooded area approximately 3 miles south of the accident site reported that he saw a propeller-driven airplane with floats flying northbound between 1430 and 1500. He noted that it appeared to be in level flight and the "engine was running very smoothly." He stated that approximately 5 minutes prior to seeing that airplane, he observed three military airplanes fly over at "tree top level." One was maneuvering, apparently to join formation with the other two. The flight of three aircraft proceeded northbound. He stated that the propeller-driven airplane was "considerably higher" than the military airplanes.

A post accident examination of the airframe and engine did not reveal any anomalies that would have prevented normal operation. At the time of the examination, the landing gear on the amphibious floats was in the retracted position and the landing gear selector handle was in the up position.

The aircraft maintenance logbooks were normally kept in the airplane and were not recovered.

Weather conditions recorded at the MBS International Airport (MBS), located 21 nautical miles (nm) southeast of the accident site, at 1553, were: Winds from 040 degrees at 7 knots, 7 statute miles (sm) visibility, and clear skies.

Conditions recorded at the Mount Pleasant Municipal Airport (MOP), located 20 nm southwest of the accident site, at 1535, were: Winds from 050 degrees at 5 knots, 10 sm visibility, and clear skies.

The pilot's logbook was reviewed. The logbook indicated that the pilot accumulated a total flight time of 134 hours. He added a single-engine sea airplane rating to his pilot certificate on September 11, 1999. The log indicated a total of 6.4 hours of seaplane flight time at the time

of the checkride. His next logged flight was on August 31, 2006, in the accident airplane. He logged 13 flights, totaling 24.3 hours, between August 31st and November 12th, all in the accident airplane. Of those flights, the initial 8 were logged as "Dual Received", with a total flight time of 17.0 hours. The final 5 flights were logged as "Pilot in Command" only, with a total flight time of 7.3 hours.

Wixom Lake is located about 1 mile north of Edenville, Michigan. The main portion of the lake extends northeast approximately 4 miles and measures about 1/2 mile wide at the south end.

The Federal Aviation Administration Aeronautical Information Manual (AIM), Chapter 7 - Section 3, noted the characteristics and avoidance procedures for aircraft wake turbulence. It noted that vortex avoidance procedures include avoiding flight below a large aircraft's flight path, and ensuring at least a 2-minute separation interval for landings or takeoffs.

Pilot Information

Certificate:	Private	**Age:**	62,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 3 With waivers/limitations	**Last FAA Medical Exam:**	June 1, 2005
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	November 1, 2006
Flight Time:	134 hours (Total, all aircraft), 24 hours (Total, this make and model), 87 hours (Pilot In Command, all aircraft), 24 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Maule	**Registration:**	N4159K
Model/Series:	MX-7-180B	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	22015C
Landing Gear Type:	Amphibian	**Seats:**	
Date/Type of Last Inspection:		**Certified Max Gross Wt.:**	
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:		**Engine Manufacturer:**	Lycoming
ELT:	Installed	**Engine Model/Series:**	0-360-C1F
Registered Owner:	On file	**Rated Power:**	180 Horsepower
Operator:	On file	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	MBS,668 ft msl	**Distance from Accident Site:**	21 Nautical Miles
Observation Time:	15:53 Local	**Direction from Accident Site:**	135°
Lowest Cloud Condition:	Clear	**Visibility**	7 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	40°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29.87 inches Hg	**Temperature/Dew Point:**	6°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Midland, MI (3BS)	**Type of Flight Plan Filed:**	None
Destination:	Edenville, ME	**Type of Clearance:**	None
Departure Time:		**Type of Airspace:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	43.650001,-84.383331

Administrative Information

Investigator In Charge (IIC):	Sorensen, Timothy
Additional Participating Persons:	Carolyn Remol; FAA-Grand Rapids FSDO; Grand Rapids, MI
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Last Revision Date:	
Investigation Class:	Class
Note:	
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