



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

LOG M-3916

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Date: February 23, 1995

In reply refer to: M-95-1 and -2

Major Larry Rhinehart  
President  
National Association of State Boating  
Law Administrators  
ICGS, Room W225-D  
402 W. Washington Street  
Indianapolis, Indiana 46204

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On July 31, 1994, at 1550 Pacific daylight time, a float-equipped Piper PA-12, N2368M, collided with a 16-foot canoe on the Willamette River 10 miles north of Salem, Oregon. Two adults in the canoe were fatally injured; two children in the canoe were not injured.

The pilot reported that after departing Newberg, Oregon, he followed the Willamette River southbound toward Independence, Oregon, performing several touch-and-go landings on the river.<sup>1</sup> He landed on the river near the Wheatland Ferry Terminal and taxied at 30 to 35 mph through a swimming, boating, and ferry terminal area. About 200 feet south of the ferry terminal, the airplane collided with the canoe and then took off. The pilot stated that he was unaware that his seaplane had struck the canoe. When he saw the overturned canoe from aloft, he radioed authorities and returned for a landing. Witnesses estimated that at the time of the accident, the canoe was just west of the centerline of the river, which is about 500 feet wide at the accident site. Witnesses and law enforcement officers estimated that 200 people were in or near the water at the time of the collision.<sup>2</sup>

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<sup>1</sup> The Willamette River is one of many waterways in the United States that falls within both Federal and State jurisdictions.

<sup>2</sup> For more detailed information, read Brief of Accident, File #0009, Salem, Oregon, July 31, 1994 (attached).

Since 1974, the National Transportation Safety Board and the Federal Aviation Administration (FAA) have investigated 37 accidents and incidents in the United States involving collisions between seaplanes and other vessels. These collisions resulted in 10 fatalities and 22 injuries. Of the 37 occurrences, 21 were classified as accidents and 16 were classified as incidents in which the airplane received minor or no damage. During the same period, an additional 16 accidents and 9 incidents were investigated in which a seaplane had difficulty as a result of the wake created by another vessel, such as a recreational boat. In 11 other accidents and 2 incidents since 1973, a seaplane has had to maneuver to avoid colliding with another vessel.

Various Federal rules and regulations apply to seaplanes and their operation. According to the Federal Inland Navigational Rules Act of 1980 (33 USC Sec. 2003), the word "vessel" encompasses every kind of watercraft, including nondisplacement craft and seaplanes, used or capable of being used as a means of transportation on navigable water. This same statute addresses right-of-way issues (lookout, safe speed, risk of collision, and action to avoid collision, for example) that pertain to seaplanes when operating as vessels. Rule 18 addresses responsibilities between vessels and states: "A seaplane on the water shall, in general, keep well clear of all vessels and avoid impeding their navigation. In circumstances, however, where risk of collision exists, she shall comply with the Rules of this Part."

FAA Regulations contained in Title 14 of the Code of Federal Regulations (14 CFR) Part 91 address seaplane right-of-way rules and require that seaplane operators follow navigation rules when operating on water. However, 14 CFR Part 91, "Definitions," defines neither "seaplane" nor "vessel." The *Airman's Information Manual* (AIM) notes that "a seaplane is considered a vessel when on the water for the purposes of these collision avoidance rules." The AIM continues, "In general, a seaplane on the water shall keep well clear of all vessels and avoid impeding their navigation." It further states, "While on the surface with an engine running, an aircraft must give way to all non-powered vessels." However, FAA Advisory Circular (AC) 91-69, *Seaplane Safety for FAR Part 91 Operators*, states that "according to the...USCG [U.S. Coast Guard], a seaplane is not a vessel once it lands on the water. Consequently, the seaplane is not required to comply with USCG regulations while on the water."

This contradiction in Federal aviation rules and guidance concerning a seaplane's status when operating as a vessel can confuse pilots and compromise the safety of seaplane operations on water. The Safety Board believes that the FAA should amend 14 CFR Part 91 to clarify that the U.S. Coast Guard classifies a seaplane operating on water as a vessel. Further, the FAA should also revise AC 91-69 to provide seaplane pilots comprehensive information concerning operational hazards and responsibilities when navigating on the water. This information should include all applicable FAA and Coast Guard requirements.

The continuing occurrence of accidents involving seaplanes and other vessels highlights a need to better educate seaplane pilots about operating on water. The National Association of State Boating Law Administrators (NASBLA) comprises State, commonwealth, district, and territorial officials responsible for administering and enforcing State boating laws. The Safety Board believes that the NASBLA, in conjunction with the Seaplane Pilots Association and the FAA, should develop and distribute materials to educate seaplane operators about revised Federal Aviation Regulations, Advisory Circulars, and various State requirements regarding operating their planes on water.

According to NASBLA representatives, including the Director of the Oregon State Marine Board, many State laws do not define seaplanes as vessels partly because these laws are derived from the Federal Boat Safety Act of 1971 (Public Law 92-75), which excluded seaplanes from its definition of a vessel for the purpose of meeting certain registration, marking, manufacturing and safety equipment carriage requirements. (This law was repealed in 1983 and its provisions modified and incorporated in the U.S. Code.) While this exclusion does not eliminate the U.S. Coast Guard requirement that seaplanes adhere to Federal rules for navigation while on navigable waters of the United States, it creates confusion and may have caused States to exclude seaplanes from any navigation laws on waters of concurrent jurisdiction as well as sole State waters. Further, according to the Director of the Oregon State Marine Board, the U.S. Coast Guard, which shares jurisdiction with the State over the Willamette River and other rivers in Oregon, maintains virtually no presence on many of these waters with concurrent jurisdiction. This is not uncommon elsewhere in the United States. Therefore, it often falls to the States to oversee operations, including those of seaplanes, on these waters as well as on waters solely under State jurisdiction. States that do not include seaplanes in their definition of "boat" or "vessel" inhibit their ability to promote safe seaplane operations on solely State waters and on waters of concurrent jurisdiction. To improve the safety of seaplane operations, States need to have laws that adequately address their operations. The Safety Board believes that NASBLA should strongly encourage each State to determine if its existing laws adequately address the safety of seaplane operations on waters under its jurisdiction, and to enact or amend legislation, as appropriate.

Therefore, as a result of its investigation of this accident, the National Transportation Safety Board recommends that the National Association of State Boating Law Administrators:

Strongly encourage each State to determine whether its existing laws adequately address the safety of seaplane operations, and to enact or amend legislation, as appropriate. (Class II, Priority Action) (M-95-1)

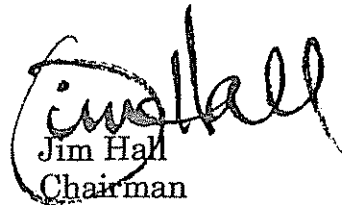
Develop and distribute, in conjunction with the Federal Aviation Administration and the Seaplane Pilots Association, materials to educate seaplane operators about revised Federal Aviation Regulations, Advisory Circulars, and various State requirements regarding operating their planes on water. (Class II, Priority Action) (M-95-2)

The Safety Board also issued recommendations to the Federal Aviation Administration and the Seaplane Pilots Association.

The National Transportation Safety Board is an independent Federal Agency with the statutory responsibility "to promote transportation safety by conducting independent accident investigations and by formulating safety improvement recommendations" (Public Law 93-633). The Safety Board is vitally interested in any response from you regarding action taken or contemplated with respect to the recommendations in this letter. Please refer to Safety Recommendations M-95-1 and -2 in your reply.

Chairman HALL, Vice Chairman FRANCIS, and Member HAMMERSCHMIDT concurred in these recommendations.

By:



Jim Hall  
Chairman

National Transportation Safety Board  
Washington, D.C. 20594

Brief of Accident

File No. - 0009      7/31/94      SALEM, OR      A/C Reg. No. N2368M      Time (LcL) - 1550 PDT

-----Basic Information-----  
Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL  
Flight Conducted Under -14 CFR 91  
Accident Occurred During -TAXI

Aircraft Damage	Fatal	Minor	Injuries	None
MINOR	0	0	0	1
Fire	0	0	0	0
NONE	2	0	0	2
Crew				
Pass				
Other				

-----Aircraft Information-----  
Make/Model - PIPER PA-12  
Landing Gear - FLOAT  
Max Gross Wt - 1858  
No. of Seats - 2

Eng Make/Model - LYCOMING O-320-A2B      ELT Installed/Activated - YES/NO  
Number Engines - 1      Stall Warning System - NO  
Engine Type - RECIPROCATING-CARBURETOR  
Rated Power - 150 HP

-----Environment/Operations Information-----  
Weather Data

Wx Briefing - NO RECORD OF BRIEFING  
Method - N/A  
Completeness - N/A  
Basic Weather - VMC  
Wind Dir/Speed- CALM      75.0 SM  
Visibility -  
Lowest Sky/Clouds - CLEAR  
Lowest Ceiling - NONE  
Obstructions to Vision- NONE  
Precipitation - NONE  
Condition of Light - DAYLIGHT

Airport Proximity  
OFF AIRPORT/STRIP

Airport Data

Runway Ident - N/A  
Runway Lth/Wid - N/A  
Runway Surface - N/A  
Runway Status - N/A

Itinerary  
Last Departure Point  
NEWBERG,OR  
Destination  
INDEPENDENCE,OR

ATC/Airspace  
Type of Flight Plan - NONE  
Type of Clearance - NONE  
Type Apch/Lndg - STRAIGHT-IN

-----Personnel Information-----

Pilot-In-Command  
Certificate(s)/Rating(s)  
COMMERCIAL, ATP, CFI  
SE LAND, ME LAND, SE SEA  
HELICOPTER, GLIDER

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT  
Flight Time (Hours)  
Total - 5000      Last 24 Hrs - 6  
Make/Model- 100      Last 30 Days- 40  
Instrument- 267      Last 90 Days- 100  
Multi-Eng - 850      Rotorcraft - 1850

Instrument Rating(s) - AIRPLANE

-----Narrative-----

THE PILOT OF THE FLOAT PLANE STATED THAT WHILE EN ROUTE, HE WAS MAKING TOUCH-AND-GO LANDINGS ON A RIVER. A LANDING WAS MADE AS THE AIRCRAFT APPROACHED THE AREA OF A FERRY TERMINAL, WHICH HAD SWIMMERS AND BOATING NEARBY. AFTER TOUCHDOWN, THE PILOT PROCEEDED TO STEP TAXI THE FLOAT PLANE THROUGH THE AREA. JUST PAST THE FERRY TERMINAL, THE FLOAT PLANE HIT A CANOE WITH 2 ADULTS AND 2 CHILDREN THAT WAS MOVING PARALLEL WITH THE RIVER. THE PILOT STATED THAT HE NEVER SAW THE CANOE, AND THAT WHEN HE FELT A BUMP, HE THOUGHT THAT A FLOAT HAD COLLIDED WITH A ROCK. THE 2 ADULTS IN THE BOAT WERE FATALLY INJURED.

Brief of Acciuent (Continued)

File No. - 0009      7/31/94      SALEM, OR      A/C Reg. No. N2368M      Time (Lcl) - 1550 PDT

Occurrence #1      ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation      TAXI

Finding(s)

1. PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. TAXISPEED - EXCESSIVE - PILOT IN COMMAND
3. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
4. OBJECT - OTHER
5. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

-----Probable Cause-----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident was:  
FAILURE OF THE PILOT TO SEE-AND-AVOID THE OCCUPIED CANOE. FACTORS RELATED TO THE ACCIDENT WERE: THE PILOT'S IMPROPER  
PLANNING/DECISION AND EXCESSIVE TAXI SPEED.