



# National Transportation Safety Board

Washington, D.C. 20594

## Safety Recommendation

Log 2536

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Date: February 23, 1995

In reply refer to: A-95-14 through -16

Honorable David R. Hinson  
Administrator  
Federal Aviation Administration  
Washington, D.C. 20591

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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>

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

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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).

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 Seaplane Pilots Association (SPA) promotes water flying among aviation and nonaviation groups and protects the rights of seaplane operators with regard to national, State, and local access to lakes, rivers, and waterways throughout the United States and Canada. 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 FAA, in conjunction with the SPA and the NASBLA, should develop and distribute materials to educate seaplane operators about revised Federal Aviation Regulations, Advisory Circulars, and various State requirements regarding operating these planes on water.

Therefore, as a result of its investigation of this accident, the National Transportation Safety Board recommends that the Federal Aviation Administration:

Amend 14 CFR Part 91 to clarify that the U.S. Coast Guard classifies a seaplane operating on water as a vessel. (Class II, Priority Action)  
(A-95-14)


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Revise Advisory Circular 91-69, *Seaplane Safety for FAR Part 91 Operators*, to provide comprehensive information concerning operational hazards and the responsibilities of seaplane operators when navigating on the water. This information should include all applicable Federal Aviation Administration and U.S. Coast Guard requirements. (Class II, Priority Action) (A-95-15)

Develop and distribute, in conjunction with the Seaplane Pilots Association and the National Association of State Boating Law Administrators, 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) (A-95-16)

The Safety Board also issued recommendations to the Seaplane Pilots Association and the National Association of State Boating Law Administrators.

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

By:   
Jim Hall  
Chairman

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

MINOR  
Fire NONE  
Crew Pass Other

Fatal 0  
Serious 0  
Minor 0  
Injuries Serious 0  
Minor 0  
None 1  
None 0  
None 2

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  
Number Engines - 1  
Engine Type - RECIPROCATING-CARBURETOR  
Rated Power - 150 HP

ELT Installed/Activated - YES/NO  
Stall Warning System - NO

Environment/Operations Information-----

Weather Data  
Wx Briefing - NO RECORD OF BRIEFING  
Method - N/A  
Completeness - N/A  
Basic Weather - VMC  
Wind Dir/Speed- CALM  
Visibility - 75.0 SM  
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

Personnel Information-----  
Pilot-In-Command

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

Age - 30

Biennial Flight Review - YES  
Current - YES  
Months Since - 9  
Aircraft Type - PA-22

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Total Flight Time (Hours) - 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 Accident (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.