Boat Accident Reporting Manual

Produced By

National Association of State Boating Law Administrators

First Edition
2007

Produced under a grant, administered by the U.S. Coast Guard, from the Sport Fish Restoration and Boating Trust fund

Introduction

This manual provides direction and information for decisions regarding reporting recreational boating accidents. The U S Coast Guard's "*Standard Method of Reporting (Boating Accidents) CG 449*" outlines the specific information to be reported as well as the time frames for reporting. Appendices provide the Federal: code, the reporting form, policy statements and memos, a dictionary of terms, a matrix to assist in determining the reporting status of an accident as well as examples of accident scenarios. As new policies are issued, forms updated or terms clarified they should be inserted into the manual.

A section has been included to insert your state's statues, forms and policies. This will provide a single location for the background information and forms needed in reporting boating accidents.

This manual does not provide instruction for using the electronic *BARD Web* program. Assistance for BARD Web users can be found on the website https://bard.cns-inc.com.

Boating Accident Reporting Manual
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Standard Method of Reporting (Boating Accidents),
CG 449

STANDARD METHOD OF REPORTING
(BOATING ACCIDENTS)

CG-449 – WORKING DRAFT

LETTER OF PROMULGATION

1. Purpose. This **XXX** edition of the Standard Method of Reporting (Boating Accidents) is issued as a guide for the reporting and processing of recreational boating accidents (herein called boating accidents) from all States and Jurisdictions, in implementing **Title 46, United States Code (USC), Chapter 61 – Reporting Marine Casualties, Section 6102. State marine casualty reporting system** and regulations promulgated pursuant thereto in **Title 33 Code of Federal Regulations (CFR) Parts 173 and 174**.

This guide should reduce administrative processing, be of benefit in defining reportable boating accidents, and assist in the resolution of questionable accidents as to the requirement for reporting.

2. Updates. Updates, comments, and information in regard to errors or omissions should be addressed to the Commandant (CG-3PCB).

Chief, Office of Boating Safety

CG-449 – WORKING DRAFT

1. INTRODUCTION

a. A need exists for a common standard to be followed by all agencies involved in the reporting and processing of boating accident reports. With an additional emphasis now placed on enforcing a Standard (Uniform) State Marine Casualty Reporting System, the requirement for such a common standard is clearly indicated.

b. The Standard Method of Reporting (Boating Accidents) provides information on the reporting procedures for boating accidents with definitions and examples of what does and what does not constitute a boating accident.

c. Each agency designated as the "Reporting Authority" under the State Marine Casualty Reporting System should use this Standard Method of Reporting (Boating Accidents). Such use will aid in reducing many issues in the processing of boating accident reports and enhance the accuracy in reporting.

2. MANDATE FOR REPORTING

a. **The Federal Boat Safety Act (FBSA) of 1971 (Public Law 92-75)** was passed in response to an unacceptably high number of recreational boating fatalities. The Act provided broad statutory authority for a comprehensive National Recreational Boating Safety (RBS) Program. The Coast Guard was designated as coordinator of this national program. In 1983, Public Law 98-89 repealed the FBSA of 1971 and recodified and amended sections that were in the Act. The FBSA has been recodified in **Title 46, USC**.

b. **Title 46, USC, Chapter 61 – Reporting Marine Casualties, Section 6102. State marine casualty reporting system**, contains the following requirement: (a) The Secretary shall prescribe regulations for a uniform State marine casualty reporting system for vessels. Regulations shall prescribe the casualties to be reported and the manner of reporting. A State shall compile and submit to the Secretary reports, information, and statistics on casualties reported to the State, including information and statistics concerning the number of casualties in which the use of alcohol contributed to the casualty.

c. Implementing regulations are contained in **Title 33 CFR Subchapter S – Boating Safety, Part 173** – Vessel Numbering and Casualty and Accident Reporting, **Subpart C -** Casualty and Accident Reporting and **Part 174** – State Numbering and Casualty Reporting Systems, **Subpart C** - Casualty Reporting System Requirements, and **Subpart D** - State reports.

d. The State Marine Casualty Reporting System provides that:
   (1) An operator is required to make an "Immediate Notification" as prescribed by *33 CFR 173.53* to the proper reporting authority whenever death or disappearance of a person results from a boating accident.
   (2) The State agency designated as the "Reporting Authority" in *33 CFR 173.59* must require accidents that satisfy the reporting requirements contained in *33 CFR 173.55* to be reported.
   (3) A boating accident must be reported by the operator/owner of the vessel involved in an accident, submitting all information required by *33 CFR 173.57*. *Coast Guard Form CG-3865* is (1) based on the information required by *33 CFR 173.57 (a) – (z)* and (2) provides the minimum amount and type of information that must be collected, if available, by the reporting authority from each operator/owner involved in a boating accident.
   (4) The State agency receiving the required accident and casualty reports has the responsibility to review these reports for completeness and accuracy.
   (5) The State agency reviewing these reports is required to determine the cause or causes of casualties or accidents reported.

e. The Coast Guard may issue safety regulations and standards for boats and associated equipment. The determination and notification to the Coast Guard of safety-related defects will depend upon the ability and efforts by each State agency involved in accident reporting to obtain such information and promptly notify the Coast Guard. The Coast Guard will endeavor to examine and inquire into such safety-related defects involving vessels or their associated equipment.

   At a minimum, the following examples of safety-related defects should be reported:
   (1) Electric wiring failure
   (2) Bow railing failure
   (3) Hull failure
   (4) Seat failure
   (5) Steering failure
   (6) Fuel tank failure
   (7) Fuel line failure
   (8) Stability, lack of
   (9) Flotation failure
   (10) Liquefied petroleum gas (LPG) refrigerator lack of venting
   (11) LPG refrigerator pilot light failure
   (12) LPG automatic (thermostatically controlled) oven failure
   (13) LPG (catalytic heater) failure

3. BOATING ACCIDENTS

a. Reporting Procedure

(1) Casualty and Accident Reporting Applicability (*33 CFR 173.51*)
Casualty and accident reporting applies to each vessel used on waters subject to the jurisdiction of the United States and on the high seas beyond the territorial seas for vessels owned in the United States.

Casualty and accident reporting ***also*** applies to each vessel used on waters subject to the jurisdiction of a State or a U.S. Territory.[1]

If Federal and/or State jurisdiction is exercised over a particular body of water, a report of a boating accident on this body of water is required to be forwarded to the Coast Guard.

Casualty and accident reporting applies to each vessel that:

(1) Is used by its operator for recreational purposes; **OR**

(2) Is required to be numbered.

Casualties or accidents involving **vessels that are subject to inspection** under Title 46 U.S.C. Chapter 33 **are EXCLUDED** from reporting requirements.

Clarification –*Vessel*:
Casualty and accident reporting applies to each *vessel* as defined by **1 USC 3** – *The term vessel includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water*.

In 1983, Public Law 98-89 repealed the FBSA of 1971 and recodified and amended the sections that were in the FBSA. A distinct amendment was the statutory repeal of the term "boat" and the enhanced usage of the term "vessel". The definition of the term "vessel" in the FBSA was repealed; and the Coast Guard was redirected to use the definition of the term "vessel" provided in **1 USC 3**.

The term "transportation" has often been discussed as to its meaning in the definition of the term "vessel." To clarify, the definition of the term "transportation" includes "the movement of goods or persons from one place to another by a carrier." This definition does not include a distance or a speed or a specific destination. Thus, it is deemed to include movement from one location on the water to another location on the water, even if launching and retrieving a vessel

from one point of land, as well as moving across the water from one point of land to another point of land.

A device may or may not always be a "vessel." Certain devices may be a "vessel" only when they are being used as a means of transportation on the water.[2] An example includes a device that may not have been constructed with the intent to be used in this manner, but is at a specific time.

The Coast Guard utilizes five criteria to assist in making a determination of whether a device is a "vessel." While there is no specific formula for how many of these criteria must be determined to be in the affirmative for a device to be considered a "vessel," and while these criteria may not be the only determining factors, each of these criteria are to be considered and include:

(a) Whether the watercraft is "practically capable" of carrying persons or property beyond the narrow limits of a swimming, surfing, or bathing area;
(b) Whether the useful operating range of the device is limited by the physical endurance of its operator;
(c) Whether the device presents a substantial hazard to navigation or safety not already present;
(d) Whether the normal objectives sought to be accomplished by the regulation of a device as a "vessel" are present; and
(e) Whether the operator and/or cargo would no longer be safe in the water if the device became disabled.

Clarification –*Numbered Vessel*
Numbering requirements apply to vessels equipped with propulsion machinery of any type used on waters subject to the jurisdiction of the United States and on the high seas beyond the territorial seas for vessels owned in the United States.[3]

Casualties or accidents involving vessels that are required to be numbered are to be reported to the appropriate State reporting authority as prescribed by *33 CFR 173.59*.

An operator using a numbered vessel for *commercial service* (e.g., *commercial fishing, carrying passengers for hire*) is required to report the accident as prescribed by *33 CFR Part 173 – Vessel Numbering and Casualty and Accident Reporting; Subpart C – Casualty and Accident Reporting*.

Clarification –*Vessel Subject to Inspection Engaged in Commercial Service*
Casualties or accidents that occur upon the navigable waters of the United States, or its Territories involving *vessels subject to inspection that are engaged in commercial service* are required by other statutes and regulations to report directly

to the nearest Coast Guard Marine Safety Office, Marine Inspection Office or Group Office.[4]

(2) **Immediate Notification of Death or Disappearance** (*33 CFR 173.53*)
An operator is required to make immediate notification to the nearest reporting authority, without delay and by the quickest means available, when a person dies or disappears from a vessel as a result of an occurrence that involves a vessel or its equipment. At a minimum, the following information is required to be provided: (1) the date, time and exact location of the occurrence; (2) the name of each person who died or disappeared; (3) the registration number and name of the vessel; and (4) the names and addresses of the owner and operator. When the operator of a vessel cannot give the notice, each person on board the vessel shall notify the reporting authority or determine that the notice has been given.

(3) **Report of Casualty or Accident** (*33 CFR 173.55*)
The operator of a *vessel* shall submit the casualty or accident report prescribed in *33 CFR 173.57* to the reporting authority where the accident occurred when, as a result of an occurrence that involves the *vessel* or its equipment:

(a) A person dies; or
(b) A person is injured and requires medical treatment beyond first aid; or
(c) Damage to vessels and other property totals $2,000 or more or there is a complete loss of any vessel; or
(d) A person disappears from the vessel under circumstances that indicate death or injury.

Required reports are to be made within 48 hours of the occurrence if a person dies within 24 hours of the occurrence, or requires medical treatment beyond first aid, or disappears from the vessel.

Reports of occurrences involving only damage to the vessel and/or property are to be submitted within ten (10) days of the occurrence.

(4) **Contents of Report** (*33 CFR 173.57*)
Each report required by *33 CFR 173.55* must be in writing, dated upon completion, and signed by the person who prepared it and must contain, if available, at least the following information about the casualty or accident:

(a) The numbers and names of each vessel involved.
(b) The name and address of each owner of each vessel involved.
(c) The name of the nearest city or town, the county, the State, and the body of water.
(d) The time and date the casualty or accident occurred.

(e) The location on the water.
(f) The visibility, weather, and water conditions.
(g) The estimated air and water temperatures.
(h) The name, address, age, or date of birth, telephone number, vessel operating experience, and boating safety training of the operator making the report.
(i) The name and address of each operator of each vessel involved.
(j) The number of persons on board or towed on skis by each vessel.
(k) The name, address, and date of birth of each person injured or killed.
(l) The cause of each death.
(m) Weather forecasts available to, and weather reports used by, the operator before and during the use of the vessel.
(n) The name and address of each owner of property involved.
(o) The availability and use of personal flotation devices.
(p) The type and amount of each fire extinguisher used.
(q) The nature and extent of each injury.
(r) A description of all property damage and vessel damage with an estimate of the cost of all repairs.
(s) A description of each equipment failure that caused or contributed to the cause of the casualty.
(t) A description of the vessel casualty or accident.
(u) The type of vessel operation (cruising, drifting, fishing, hunting, skiing, racing, or other), and the type of accident (capsizing, sinking, fire, or explosion or other).
(v) The opinion of the person making the report as to the cause of the casualty, including whether or not alcohol or drugs, or both, was a cause or contributed to causing the casualty.
(w) The make, model, type (open, cabin, house, or other), beam width at widest point, length, depth from transom to keel, horsepower, propulsion (outboard, inboard, inboard out-drive, sail, or other), fuel (gas, diesel, or other), construction (wood, steel, aluminum, plastic, fiberglass, or other), and year built (model year), of the reporting operator's vessel.
(x) The name, address, and telephone number of each witness.
(y) The manufacturer's hull identification number, if any, of the reporting operator's vessel.
(z) The name, address, and telephone number of the person submitting the report.

Coast Guard Form CG-3865 is based on the information required by *33 CFR 173.57 (a) – (z)* and provides the minimum amount and type of information that must be collected, if available, by the reporting authority from each operator/owner involved in a boating accident.

If a reporting authority uses their own version of *Coast Guard Form CG-3865*, the contents of their form must contain (at a minimum) the information contained in *Coast Guard Form CG-3865*.

b. Submission of Boating Accident Reports

(1) **Report of Casualty or Accident** (*33 CFR 173.55*)
In every casualty or accident involving a vessel subject to the reporting requirements, the operator of the vessel is required to submit the written report, except, when the operator cannot, the owner shall submit the report.

The Coast Guard recognizes a number of reporting authorities prepare and complete the report for the vessel operator/owner using information submitted verbally or in writing by the operator/owner. Thus, the operator/owner does not submit a written report on their own; rather, the written report is prepared by reporting authorities based on information provided by the operator/owner.

Clarification:
Preparing and completing the report for the vessel operator/owner now places the burden on the State reporting authority for providing all data required by *Coast Guard Form CG-3865* to Coast Guard Headquarters within 30 days of the initial receipt of casualty or accident report information provided by the operator/owner.

Under a Memorandum of Agreement (MOA) between the agency designated as the State reporting authority and the Coast Guard, if both the operator and owner are unable to submit the report, the State reporting authority collects the information required by *Coast Guard Form CG-3865* and submits that information to the Coast Guard. The reporting authority shall review the report for accuracy and completeness and shall determine the cause and circumstances surrounding each reportable accident.

(2) **Where To Submit Report** (*33 CFR 173.59*)
Each Report of Casualty or Accident required by regulations (*33 CFR 173.55*) must be submitted to:

(a) The reporting authority where the vessel number was issued, or, if the vessel has no number, where the vessel is principally used; **OR**
(b) The reporting authority where the casualty or accident occurred, if it occurred outside the State where the vessel is numbered or principally used.

Clarification -- In casualties or accidents occurring outside the State where the vessel is numbered or principally used, the report is to be submitted to the reporting authority where the casualty or accident occurred. Accidents on the high seas must

be reported to the reporting authority where the vessel is numbered or principally used.

c. Forwarding of Boating Accident Reports

(1) **Forwarding of Casualty or Accident Reports** (*33 CFR 174.121*)
Within 30 days of the receipt of a casualty or accident report, each State that has an approved numbering system must forward a copy of that report to the Commandant (CG-3PCB), U.S. Coast Guard, 2100 Second Street, SW., Washington, DC 20593–0001.

Clarification -- An electronic copy of the accident report data shall be forwarded to Coast Guard Headquarters via the BARD-Web System within 30 days of the receipt of the casualty or accident report.

4. DOCUMENTED VESSEL REPORTING REQUIREMENTS

a. Certain documented vessels, specifically those that DO NOT hold a "Certificate of Inspection", whose use is for recreation or pleasure are subject to the accident reporting requirements prescribed by *33 CFR 173, Subpart C – Casualty and Accident Reporting*.

b. The form for reporting these occurrences to the State reporting authority must contain the contents of *Coast Guard Form CG-3865*.

c. This method of processing reports from *documented vessels that are not subject to inspection under Title 46 U.S.C. Chapter 33 and are being used for recreational purposes* will enable both the State and Coast Guard to carry out its responsibilities for accidents and casualties subject to its jurisdiction.

5. NOTIFICATION OF SAFETY-RELATED DEFECTS

a. If the reporting authority determines that a defect has been found or may have contributed to a boating accident or casualty, they are to notify Commandant (CG-3PCB-3), U.S. Coast Guard Recreational Boating Product Assurance Division, at (202) 372-1076.

b. Prompt notification will permit the designation of trained personnel to examine or inquire into the reported safety-related defect to determine its effect on boating safety.

6. DEFINITIONS

a. ***Vessel***: Includes every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water (*1 USC 3*).

b. ***Numbered Vessel***: An *undocumented vessel* equipped with propulsion machinery of any kind having a number issued by the proper issuing authority in the State in which the vessel principally is operated (*46 USC Chapter 123*).

c. ***Documented Vessel***: A *vessel* for which a certificate of documentation has been issued under *Title 46 USC Chapter 121*. A documented vessel can not be numbered.

d. ***Recreational Vessel***: Means a *vessel* (**a**) being manufactured or operated primarily for pleasure; **or** (**b**) leased, rented, or chartered to another for the latter's pleasure (*46 USC Chapter 21*).

e. ***Commercial Service***: (*46 USC § 2101*) includes any type of trade or business involving the transportation of goods or individuals (except service performed by a combatant vessel).

f. ***Associated Equipment***: (*46 USC § 2101*) means: (**a**) (**i**) A system, accessory, component, or appurtenance (something added or attached) of a recreational vessel; **or** (**ii**) a marine safety article intended for use on board a recreational vessel; but (**b**) *does not include* radio equipment.

g. ***Boat*** (*33 CFR § 183.3*) means any *vessel* –
- **(1)** Manufactured or used primarily for noncommercial use;
- **(2)** Leased, rented, or chartered to another for the latter's noncommercial use; or
- **(3)** Operated as an uninspected passenger vessel subject to the requirements of 46 CFR Chapter I, subchapter C.

h. ***Jurisdiction***: Means the right to say and the power to act; and as between agencies of the government, jurisdiction is the power of that particular agency to administer and enforce the law.

Various States differ on waters over which they exercise jurisdiction.

Vessels required to report accidents to a State reporting authority will on occasion be beyond the jurisdiction of that State. As an example, a vessel numbered in a coastal State may sail from that State and travel beyond its territorial waters on to the high seas. *The requirement to report an accident is not affected*. *However*, *the authority to investigate the accident by the reporting authority would be affected*. Such a casualty or accident,

when the needs of boating safety or law require such to be *investigated*, *may be accomplished by the Coast Guard under its statutory authority*.

Another example would be the use of a vessel on a private pond or lake. Jurisdiction may or may not be granted the reporting authority by the laws of that State, dependent upon the individual State laws. When jurisdiction does exist, boating accidents that occur on such waters must be reported.

i. ***Accident***: An event or occurrence that takes place without one's foresight or expectation, which is sudden or unexpected.

j. ***Boating Accident:*** A collision, grounding, sinking or other casualty that involves a vessel, its equipment or appendages (*something added or attached to the vessel*). A vessel is considered to be involved in a "Boating Accident" whenever the occurrence results in –

(a) Loss of life or disappearance of any person from on board under circumstances that indicate the possibility of death or injury;
(b) A person is injured and requires medical treatment beyond first aid;
(c) Damage to the vessel or its equipment, or other vessels, or other property that totals $2,000 or more; or disappearance of the vessel other than by theft.

Clarification:
The accident must occur on board – **OR** – must involve the vessel or its equipment or appendages.

Death or injury:
Incurred while scuba diving or *swimming from* a *vessel* where the *vessel does not contribute in any way to the casualty*, other than as a platform from which the person safely departs, *does not* constitute a boating accident.

However, *after departing safely*, if the swimmer or diver swims under the *vessel* and *injury results from striking or fouling on any part of the vessel or its associated equipment, such as the propeller, does constitute a boating accident that must be reported*.

Medical Treatment Beyond First Aid:
Any injury where medical treatment is indicated (not necessarily received) by a medical practitioner (e.g., physician, nurse, emergency medical technician) who is trained to practice medicine or to administer treatment. Any case where the injured person is bed-ridden or hospitalized in excess of 24 hours is considered to be an accident resulting in an injury that must be reported.

Estimate of Property Damage:
The costs to repair or restore the damaged property to its original condition, which is estimated or made by the operator, owner or other person in whose opinion such cost is necessary.

7. REPORTABLE BOATING ACCIDENTS

The following are examples of "reportable boating accidents" that must be reported as prescribed by *33 CFR Part 173 – Vessel Numbering and Casualty and Accident Reporting; Subpart C – Casualty and Accident Reporting:*

a) A person dies, is injured, or property damage results from any occurrence or incident that was caused by or contributed to by the vessel, its equipment or appendages.

b) A person dies or is injured ***while swimming*** *after departing a vessel that is underway* ***and*** *the vessel drifts away from the swimmer and the swimmer is unable to get back to the vessel because the vessel IS NOT anchored or moored.*

c) A person dies or is injured ***while swimming*** because of carbon monoxide poisoning.

d) A person dies or is injured ***while swimming*** because a vessel is improperly connected to shore power and resultant stray electrical current enters the water causing electrocution.

e) A person dies, is injured, or property damage occurs involving a **numbered vessel that is being used for commercial service** (e.g., *commercial fishing, carrying passengers for hire*).

f) A person dies, is injured, or property damage occurs involving a **vessel that is being used for commercial service that is NOT equipped with propulsion machinery** *(such as a vessel being used for a commercial whitewater rafting trip).*

g) A person dies, is injured, or property damage occurs while preparing a vessel for launching or retrieval; provided the vessel is **on** the water and is capable/ready for its intended use.

h) A fire, explosion, sinking or other occurrence involving a vessel, if the vessel, its installed or associated equipment or appendages failed, malfunctioned or otherwise caused or contributed to the accident or casualty.

i) A vessel (e.g., sailboat) capsizes; in righting the sailboat, the person suffers a heart attack and dies.

j) An oar or other item is lost from a vessel and a person *dies or is injured in an attempt to retrieve the lost item*.

k) A person is injured or dies *from exposure or immersion* which is the result of an accident involving the vessel or its appendages where the vessel or its appendages contributed to the accident or casualty.

8. NON-REPORTABLE BOATING ACCIDENTS

Every occurrence involving a vessel subject to reporting requirements *must be reported* as prescribed by *33 CFR Part 173 – Vessel Numbering and Casualty and Accident Reporting; Subpart C – Casualty and Accident Reporting.* However, it does not mean that every such occurrence is within the scope of a boating safety program (i.e., accidents that may have been prevented through completion of a boating safety program).

The examples below are occurrences directly or indirectly involving a vessel that are generally considered to be outside the scope of a boating safety program.

While the occurrences may be reported and captured by the Boating Accident Report Database (BARD) System, they are considered "*non-reportable boating accidents*" for the purposes of being compiled and published in the annual Coast Guard *Boating Statistics* report (*COMDTPUB P16754*); a publication that focuses on recreational boating accidents.

a) A person dies or is injured from self-inflicted wounds, alcohol poisoning, ingestion of drugs, controlled substances or poison; or from gunshot wounds.

b) A person dies or is injured from assault by another person or persons while aboard a vessel.

c) A person dies or is injured from natural causes while aboard a vessel.

d) A person dies, or is injured after falling, jumping, or swimming from a *swim raft that is moored or anchored for use as a swimming platform or other purpose*.

e) A person dies or is injured in swimming to retrieve an object or a vessel that is adrift from its mooring or dock, *having departed from the shore or pier*.

f) Damage, injury or death results from a fire on shore or a pier that spreads to a vessel or vessels.

g) A person dies, is injured, or property damage results from an "ice boat" accident. An ice boat is a sail-powered device that rides on runners/blades over the ice on frozen lakes and rivers and carries at least the operator. It cannot be used as a conventional sailboat on open water.

h) Damage, injury or death on a docked or moored vessel resulting from storms, unusual tidal, sea or swell conditions; or when a vessel gets underway in those conditions in an attempt to rescue persons put in peril.

i) Damage to a docked or moored vessel due to theft or any vandalism.

j) A person dies, is injured or property damage occurs on a docked or moored or anchored non-propelled houseboat or other vessel used primarily as a permanent residence.

k) A person dies or is injured while using underwater breathing apparatus (i.e., snorkeling or scuba diving) and the vessel did not contribute to the casualty.

9. COAST GUARD BOATING ACCIDENT REPORT FORM (CG-3865)

10. CHECKLIST FOR AN APPROVED STATE MARINE CASUALTY REPORTING SYSTEM

END NOTES

[1] Casualty and accident reporting is required on waters subject to the jurisdiction of a State or a U.S. Territory under the authority of Title 46 USC 13102 State recreational boating safety program acceptance (a) The Secretary shall make a contract with and allocate and distribute amounts from the Sport Fish Restoration and Boating Trust Fund established by section 9504 of the Internal Revenue Code of 1986 to, a State that has an approved State recreational boating safety program, if the State demonstrates to the Secretary's satisfaction that – (1) the program submitted by that State is consistent with this chapter and chapters 61 and 123 of this title; (2) amounts distributed will be used to develop and carry out a State recreational boating safety program containing the minimum requirements of subsection (c) of this section; …(c) The Secretary shall approve a State recreational boating safety program, and the program is eligible to receive amounts authorized to be expended under section 13106 of this title, if the program includes – (1) …; *(5) a system, approved by the Secretary, for reporting marine casualties required under section 6102 of this title*.

[2] STEWART v. DUTRA CONSTRUCTION COMPANY (February 22, 2005 Supreme Court decision). Select points made in that decision include:

a) "A watercraft is not "capable of being used" for maritime transport in any meaningful sense if it has been permanently moored or otherwise rendered practically incapable of transportation or movement;"
b) "the term "vessel" … requires only that a watercraft be "used, or capable of being used, as a means of transportation on water" to qualify as a vessel; it does not require that a watercraft be used primarily for that purpose;"
c) "A watercraft need not be in motion to qualify as a "vessel;" and
d) The determination of a device being a "vessel" according to 1 U.S.C. 3 was not based on the device's speed, distance moved or type of propulsion.
e)

[3] Title 33 CFR 173; Subpart B – Numbering; § 173.11

[4] Title 46 CFR Part 4 – Marine Casualties and Investigations; Subpart 4.03 – Definitions, § 4.03–1 Marine casualty or accident; Subpart 4.05—Notice of Marine Casualty and Voyage Records; § 4.05–1 Notice of marine casualty.

General Terms and Definitions

General Terms

Term	Description	Source
Accident	An event or occurrence that takes place without one's foresight or expectation, which is undesigned, sudden or unexpected.	1973 Manual
Alcohol Use	An accident that results from: Alcoholic beverages are consumed and the investigating official has determined that the operator was impaired or affected while operating the boat --or-- the boat's occupants were impaired.	BARD Web
Boating Accident	An allision, collision, grounding, sinking or other casualty that involves a vessel, its equipment or appendages. A vessel is involved in a "boating accident" when the occurrence results in one of the following: (a) loss of life or disappearance of any person from on board under circumstances which indicates the possibility of death or injury (b) Injury that causes any person to lose consciousness or receives medical treatment from trained personnel or is disabled for more than 24 hours (c) damage to the vessel or its equipment, or other vessels, or other property in excess of $2,000 or disappearance of the vessel other than by theft.	1973 Manual, added 'allision',
Capsizing	An accident where: The vessel overturns, the bottom must become uppermost, except in the case of a sailboat which lays on its side.	Investigator Manual
Carbon Monoxide Poisoning	An accident where: death or injury resulting from an odorless, colorless gas generated from auxiliary boat equipment (stoves, heaters, refrigerators, generators, hot water heaters, etc.), another boat's exhaust or the exhaust of the vessel on which the person was either aboard or in close proximity.	BARD Web
Careless/Reckless Operation	An accident that results from: A person operating a vessel in a negligent or grossly negligent manner and/or interfering with the safe operation of a vessel, so as to endanger the life, limb or property of a person.	BARD Web
Collision with Fixed Object	An accident where: The striking together of a vessel with any fixed object, above or below the surface of the water except the bottom.	1973 manual

Collision with Floating Object	An accident where: The striking of any waterborne object, which is above or on the surface of the water that is free to move with the tide, current or wind, except another vessel.	BARD Web, Investigator
Collision with Vessel	An accident where: Any striking together of two or more vessels regardless of operation at the time of the accident, This also includes colliding with the tow of another vessel, regardless of the nature of the tow (i.e. surfboard, ski ropes, skier, tow lines, etc) A vessel does not have to be underway to be involved in a collision.	Investigator manual
Congested Waters	An accident that results from: The body of water is either too small or narrow to safely accommodate the number of boats on it.	BARD Web
Dam/Lock	An accident that results from: A boat is (1) operated near a barrier built across a body of water that prevents water flow or impounds water or (2) being raised or lowered within a gate enclosure as it passes from level to level.	BARD Web
Documented Vessel	A vessel of five or more net tons owned by a citizen of the United States and used exclusively for pleasure with a valid marine documentation issued by the US Coast Guard.	Investigator manual
Drug Use	An accident that results from: When non-prescription and/or prescription drugs are consumed in a boat and the investigating official has determined that the operator was impaired or affected while operating the boat-- or--the occupant was impaired.	BARD Web
Electrocution	An accident where: Death or injury resulting from swimming around a vessel that was improperly connected to shore power and resultant stray electrical current entered the water causing electrocution of the victim.	BARD Web
Excessive Speed	An accident that results from: Speed above that which a reasonable and prudent person would have operated under the circumstances that existed. It is not necessarily a speed in excess of a posted limit.	BARD Web

Failure to Vent	An accident that results from: Prior to starting the engine, failure to turn on the powered ventilation system that brings in "fresh air" and expels gasoline vapors from the engine compartment.	BARD Web
Fall in Boat	An accident where: Any slip, trip or fall on board or with in the vessel resulting in injury or death.	BARD Web
Falls Overboard	An accident where: A person unintentionally spills out into the water without completely overturning the vessel.	Investigator manual + 1973
Fire/Explosion (fuel)	An accident where: Accidental combustion of vessel fuel: liquids, including their vapors, or other substances such as wood or coal.	BARD Web, Investigator
Fire/Explosion (other than fuel)	An accident where: Accidental burning or explosion of any material on board except vessel fuels or their vapors.	BARD Web, Investigator
Flooding/Swamping	An accident where: Filling with water, regardless of method of ingress, but retaining sufficient buoyancy to remain on the surface.	1973 manual, Investigator
Grounding	An accident where: The vessel runs aground, strikes or pounds on rocks, reefs, shoals or the bottom so that the vessel ceases to be completely waterborne, stranding.	BARD Web + Investigator
Hazardous Waters	An accident that results from: Rapid tidal flows (vertical movement of water) and /or currents (horizontal flow of water) resulting in a hazardous condition in which to operate a boat.	BARD Web
Hull Failure	An accident that results from: Defect or failure of the structural body of a vessel (i.e., hull material, design or construction) not including superstructure, masts or rigging.	BARD Web

Ignition of Spilled Fuel of Vapor	An accident that results from: Accidental combustion of vessel fuel, liquids and/or their vapors	BARD Web
Improper Anchoring	An accident that results from: Where a boat is either in the process of being anchored incorrectly or incorrectly held in place in the water by an anchor. This may include dropping anchor at the stern, improperly mooring to a buoy or an anchored vessel.	BARD Web
Improper Loading	An accident that results from: Loading, including weight shifting, of the vessel causing instability, limited maneuverability or dangerously reduced freeboard.	BARD Web, Investigator
Injury	A person loses consciousness, receives aid or attention by a physician or other person trained to practice medicine or administer treatment, or is disables for more than 24 hours so as to be unable to perform normal functions or usual occupational activities.	1973 manual discussion
Jurisdiction	The right to say and the power to act. Between agencies of government, jurisdiction is the power to that particular agency to administer and enforce the law. Jurisdiction may or may not be granted to the reporting authority by the laws of that State on waters such as private pond or lake. When jurisdiction does exist, reportable boating accidents that occur on such waters must be reported. Vessels required to report accidents to a reporting authority will on occasion be beyond the jurisdiction of that State.	1973 manual, shortened from
Lack of or Improper Boat Lights	An accident that results from: Insufficient and/or improper lights shown by a boat that indicate course, position and occupation (such as fishing or towing).	BARD Web
Machinery Failure	An accident that results from: Defect and/or failure in the machinery or material, design, or construction or components installed by the manufacturer involved in the mechanical propulsion of the boat. Describe each type of machinery failure that caused or contributed to the accident, such as: electric system, engine, fuel system, shift, steering system, throttle or ventilation system.	BARD Web
No Proper Lookout	An accident that results from: No proper watch, the failure of the operator to perceive danger because no one was serving as lookout, or the person so serving failed in that regard.	BARD Web

Numbered Vessel	Any undocumented vessel that is numbered by: 91) A State with an approved numbering system under the Federal Boating Act of 1958 or the Federal Boat Safety Act of 1971 (2) The Coast Guard is those State jurisdictions not having an approved numbering system.	1973 Manual, Do all states now
Off Throttle Steering	An accident that results from: When an operator releases the throttle and then attempts to execute an unsuccessful turn because there is little or not steering capability when the throttle is not engaged.	BARD Web
Operator Inattention	An accident that results from: Failure on the part of the operator to pay attention to the vessel, its occupants or the environment in which the vessel is operating.	BARD Web
Operator Inexperience	An accident that results from: Lack of practical experience or knowledge in operating the boat involved in the accident.	BARD Web
Overloading	An accident that results from: Excessive loading of the vessel causing instability, limited maneuverability and dangerously reduced freeboard.	BARD Web, Investigator
Passenger/Skier Behavior	An accident that results from: Behavior by any of the boats passengers as well as those being towed that interferes with the safe operation of a vessel so as to endanger life, limb or property of a person.	BARD Web
Reporting Authority		
Restricted Vision	An accident that results from: Limited vision of the environment in which the vessel is operating due to: the boat's bow in the air, sun glare, bright lights, etc.	BARD Web

Rules of the Road Infraction	An accident that results from: Violation of the statutory and regulatory rules governing the navigation of vessels.	BARD Web
Sanctioned Race	A marine event utilizing professional operators on a course closed to other recreational boaters that is authorized by a national boating organization	Work group discussion
Sharp Turn	An accident that results from: An immediate or abrupt change in the boat's course or direction	BARD Web
Sinking	An accident where: Losing enough buoyancy to settle below the surface of the water; for the vessel to become submerged.	1973 manual, Investigator
Skier Mishap	An accident where: An accident involving a person being towed behind a vessel on a device such as; water ski, aquaplane, kneeboard or tube who suffers injury or death. These may include: falling off the device, striking a fixed or submerged object or becoming entangled or struck by the tow line.	BAR Web, Investigator
Standing/Sitting on Gunwales, Bow or Transom	An accident that results from: Standing/ sitting on the upper edge of the side of a boat, usually on a small projection above the deck; and/or standing/sitting on the most forward part of the boat; and/or standing/sitting on the back of the boat.	BARD Web
Starting in Gear	An accident that results from: The boat's engine is started in a position op operation that propels the boat wither forward or backwards.	BARD Web
Struck by Boat	An accident where: A boat strikes a person who is located inside or outside of the boat	BARD Web
Struck by Propeller/Propulsion Unit	An accident where: The propeller, propulsion unit or steering machinery strikes a person who is located inside or outside of the boat.	BARD Web

Struck Submerged Object	An accident where: Striking of any fixed object or a collision with any waterborne object that is below the surface of the water.	BARD Web
Vessel	Every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water. [Title 1 CFR 3] Written accident reports are required when a vessel "a(1) is used by its operator for recreational purposes; or (2) is required to be numbered under this part. (b) This subpart does not apply to a vessel subject to inspection under Title 46 U.S.C. Chapter 33." [Title 33 CFR Ch 1Subpart C 173.51] All 'vessel' determinations will be rendered by the Coast Guard. The Coast Guard uses these criteria in making determinations (1) whether the watercraft is "practically capable" of carrying persons or property beyond the narrow limits of a swimming, surfing or bathing area (2) whether the useful operating range of the device is limited by the physical endurance of its operator (3)wheather the device presents a substantial hazard to navigation or safety not already present (4) whether the normal objectives sought to be accomplished by regulation of a device as a "vessel" are present and/or (5) whether the operator and/or cargo would no longer be safe in the water if the device became disabled.	Title 1 US Code 3, Title 33 CFR,
Wake	The disturbance of the water (waves) resulting from the passage of a boat's hull, the track in the water of a moving boat.	BARD Web
Waters	Water in its ordinary liquid state [USCG Chief Counsel Opinion 29 April 1969], subject to the jurisdiction of the United States, a state or a U.S. territory or the high seas when a vessel owned in the United States is involved. [Title 33 CFR 2.38].	Title 33 CFR 2.38
Water-skiing	The use of water-skis, surf-boards, sleds, discs, inflatable tubes, kneeboard or any other device, used for flotation of a person, including one's own feet, that is provided motion through the water by a vessel, such as being towed. The physical act of being towed.	1973 manual, Investigator
Weather(Heavy)	An accident that results from: Stormy windy weather, usually connoting rough or high seas and dangerous operating conditions.	BARD Web

Accident Reporting

DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-3865	**BOATING ACCIDENT REPORT** CASE NUMBER	FORM APPROVED OMB NO. 1625-0003

THE OPERATOR OF A VESSEL THAT IS BEING USED FOR RECREATIONAL PURPOSES IS REQUIRED TO FILE THIS REPORT IMMEDIATELY TO THE REPORTING AUTHORITY IN THE STATE WHERE THE ACCIDENT OCCURRED WHENEVER AN ACCIDENT RESULTS IN: LOSS OF LIFE OR DISAPPEARANCE OF A PERSON; AN INJURY WHICH REQUIRES MEDICAL TREATMENT BEYOND FIRST AID; PROPERTY DAMAGE OF $2,000 OR MORE; OR COMPLETE LOSS OF THE VESSEL. STATE AUTHORITIES MAY REQUIRE REPORTS OF PROPERTY DAMAGE LESS THAN 2,000. THE OWNER OF THE VESSEL SHALL FILE THE REPORT IF THE OPERATOR CANNOT.

COMPLETE ALL BLOCKS (INDICATE THOSE NOT APPLICABLE BY "NA")

ACCIDENT DATA

NUMBER OF PERSONS DECEASED	NUMBER INJURED BEYOND FIRST AID	NUMBER DISAPPEARED
NUMBER OF VESSELS INVOLVED	TOTAL PROPERTY DAMAGE AMOUNT $	WAS VESSEL A TOTAL LOSS ☐ YES ☐ NO
DATE OF ACCIDENT	TIME ☐ AM ☐ PM	LATITUDE
LOCATION NAME / STATE / COUNTY		LONGITUDE
NAME OF BODY OF WATER	NEAREST CITY OR TOWN	ALCOHOL INVOLVED ☐ YES ☐ NO
NUMBER OF MILES OFF-SHORE ____ ☐ ATLANTIC OCEAN ☐ GULF OF MEXICO ☐ PACIFIC OCEAN	REPORT STATUS ☐ STATE REPORTABLE ☐ USCG REPORTABLE ☐ RECREATIONAL ☐ COMMERCIAL ☐ USCG NON-REPORTABLE	

WEATHER (CHECK ALL APPLICABLE)	WATER CONDITIONS	WIND	TEMPERATURE	VISIBILITY
☐ CLEAR ☐ RAIN ☐ CLOUDY ☐ SNOW ☐ FOG ☐ HAZY	☐ CALM (WAVES LESS THAN 6") ☐ CHOPPY (WAVES 6" TO 2') ☐ ROUGH (WAVES 2' TO 6') ☐ VERY ROUGH (GREATER THAN 6') ☐ STRONG / SWIFT CURRENT	☐ NONE ☐ LIGHT (0 - 12 MPH) ☐ MODERATE (13 - 24 MPH) ☐ STRONG (25 - 54 MPH) ☐ STORM (55 MPH AND OVER)	AIR (____) °F WATER (____) °F	DAY NIGHT ☐ GOOD ☐ ☐ FAIR ☐ ☐ POOR ☐

OPERATOR / OWNER INFORMATION

OPERATOR NAME LAST	FIRST		MIDDLE INITIAL
ADDRESS STREET	CITY	STATE	ZIP
TELEPHONE NUMBER (____)_____	DATE OF BIRTH (MO/DAY/YR)		AGE IN YEARS

	OPERATOR EXPERIENCE WITH THIS VESSEL	OPERATOR INSTRUCTION IN BOATING SAFETY
☐ MALE ☐ FEMALE	☐ UNDER 10 HOURS ☐ OVER 500 HOURS ☐ 10 TO 100 HOURS ☐ OTHER ☐ 100 TO 500 HOURS	☐ STATE COURSE ☐ INTERNET COURSE (SPECIFY) ☐ NONE ☐ USCG AUXILIARY ☐ OTHER (SPECIFY) ☐ US POWER SQUADRONS

OWNER NAME LAST	FIRST		MIDDLE INITIAL
ADDRESS STREET	CITY		
TELEPHONE NUMBER (____)_____	STATE		ZIP

VESSEL A (THIS VESSEL)

NUMBER DECEASED FOR THIS VESSEL ____	OPERATOR DECEASED ☐ YES ☐ NO	NUMBER INJURED BEYOND FIRST AID FOR THIS VESSEL ____
AMOUNT OF DAMAGE FOR THIS VESSEL $_____	DESCRIBE VESSEL DAMAGE	
AMOUNT OF DAMAGE TO OTHER PROPERTY $_____	DESCRIBE OTHER PROPERTY DAMAGE	
VESSEL REGISTRATION NUMBER	STATE	VESSEL NAME
HULL IDENTIFICATION NUMBER (HIN)		VESSEL MODEL
VESSEL DOCUMENTATION NUMBER	YEAR BUILT	VESSEL LENGTH IN FEET AND INCHES
NAME OF VESSEL MANUFACTURER	VESSEL SAFETY CHECK (VSC) NUMBER	

RENTED VESSEL ☐ YES ☐ NO	OPERATOR LIVED AT VESSEL OWNER'S RESIDENCE ☐ YES ☐ NO VESSEL OWNER WAS ☐ OCCUPANT ☐ OPERATOR ☐ NOT PRESENT	BUI ARREST ☐ YES ☐ NO OPERATOR BAC ____

COAST GUARD (USCG) APPROVED PERSONAL FLOTATION DEVICES (PFDS)	OPERATOR	FIRE EXTINGUISHERS
VESSEL EQUIPPED WITH USCG APPROVED PFDS ☐ YES ☐ NO USCG APPROVED PFDS ACCESSIBLE ☐ YES ☐ NO	WEARING USCG PFD ☐ YES ☐ NO USED SAFETY LANYARD ☐ YES ☐ NO	ON BOARD ☐ YES ☐ NO USED ☐ YES ☐ NO

VESSEL A (CONTINUED)

TYPE OF VESSEL

- ☐ AIR BOAT
- ☐ AUXILIARY SAIL
- ☐ CABIN MOTORBOAT
- ☐ CANOE
- ☐ HOUSEBOAT
- ☐ KAYAK
- ☐ JET BOAT
- ☐ OPEN MOTORBOAT
- ☐ PERSONAL WATERCRAFT (PWC)
- ☐ PONTOON BOAT
- ☐ ROWBOAT
- ☐ SAIL (ONLY)
- ☐ OTHER (SPECIFY)

VESSEL HULL MATERIAL

- ☐ FIBERGLASS
- ☐ ALUMINUM
- ☐ RUBBER/VINYL/CANVAS
- ☐ RIGID HULL INFLATABLE
- ☐ KEVLAR
- ☐ PLASTIC (ROYALEX, POLYETHYLENE)
- ☐ WOOD
- ☐ STEEL
- ☐ OTHER (SPECIFY)

ENGINE

- ☐ OUTBOARD ☐ NONE
- ☐ STERNDRIVE - INBOARD (I/O)
- ☐ INBOARD

NUMBER OF ENGINES _____

ENGINE MAKE _____

PROPULSION

- ☐ PROPELLER
- ☐ WATER JET
- ☐ MANUAL
- ☐ SAIL
- ☐ AIR THRUST

FUEL ☐ GASOLINE ☐ DIESEL ☐ ELECTRIC

TOTAL HORSEPOWER FOR PRIMARY ENGINE (S) _____

ENGINE SERIAL NUMBER (S) _____

ACCIDENT EVENTS AND CONTRIBUTING FACTORS

OPERATION AT TIME OF ACCIDENT

- ☐ AT ANCHOR
- ☐ BEING TOWED
- ☐ CHANGING DIRECTION
- ☐ CHANGING SPEED
- ☐ CRUISING
- ☐ DOCKING/UNDOCKING
- ☐ DRIFTING
- ☐ LAUNCHING
- ☐ ROWING/PADDLING
- ☐ SAILING
- ☐ TIED TO DOCK/MOORING
- ☐ TOWING ANOTHER VESSEL
- ☐ OTHER (SPECIFY)

ACTIVITY AT TIME OF ACCIDENT

- ☐ COMMERCIAL ACTIVITY
- ☐ FISHING
- ☐ FUELING
- ☐ HUNTING
- ☐ MAKING REPAIRS
- ☐ RACING
- ☐ STARTING ENGINE
- ☐ SWIMMING
- ☐ SCUBA DIVING / SNORKLING
- ☐ FISHING TOURNAMENT
- ☐ TUBING
- ☐ WATER SKIING
- ☐ WHITEWATER BOATING

TYPE OF ACCIDENT (NUMBER BY ORDER OF OCCURRENCE)

- ____ CAPSIZING
- ____ CARBON MONOXIDE EXPOSURE
- ____ COLLISION WITH FIXED OBJECT
- ____ COLLISION WITH FLOATING OBJECT
- ____ COLLISION WITH VESSEL
- ____ ELECTROCUTION
- ____ FALL WITHIN A VESSEL
- ____ FALL ON A VESSEL
- ____ FALLS OVERBOARD
- ____ FIRE OR EXPLOSION (OTHER)
- ____ FIRE/EXPLOSION (FUEL)
- ____ FLOODING/SWAMPING
- ____ GROUNDING
- ____ PERSON LEAVES A VESSEL
- ____ PERSON EJECTED FROM A VESSEL
- ____ SINKING
- ____ SKIER MISHAP
- ____ STRUCK BY VESSEL
- ____ STRUCK BY PROPELLER OR PROPULSION UNIT
- ____ STRUCK SUBMERGED OBJECT
- ____ OTHER

BOATING CITATIONS ISSUED ☐ YES ☐ NO

OPERATOR REPORT STATUS ☐ NO OPERATOR ☐ COMPLETE ☐ INCOMPLETE

DID THE ACCIDENT RESULT IN A HIT AND RUN? ☐ YES ☐ NO

NUMBER OF PEOPLE ON BOARD

NUMBER OF PEOPLE BEING TOWED

ESTIMATED SPEED AT TIME OF ACCIDENT

☐ NOT MOVING ☐ UNDER 10 MPH ☐ 10-20 MPH ☐ 21-40 MPH ☐ OVER 40 MPH

☐ IDLING ☐ PLOWING ☐ ACCELERATING ☐ PLANING (ON PLANE) ☐ DECELERATING

CONTRIBUTING FACTORS (CHECK ALL THAT APPLY)

- ☐ ALCOHOL USE
- ☐ CARELESS/RECKLESS OPERATION
- ☐ CONGESTED WATERS
- ☐ DAM / LOCK
- ☐ DRUG USE
- ☐ EQUIPMENT FAILURE
- ☐ EXCESSIVE SPEED
- ☐ FAILURE TO VENT
- ☐ HAZARDOUS WATERS
- ☐ VESSEL HULL FAILURE
- ☐ IGNITION OF SPILLED FUEL OR VAPOR
- ☐ MACHINERY FAILURE
- ☐ OPERATOR INATTENTION
- ☐ IMPROPER ANCHORING
- ☐ IMPROPER LOADING
- ☐ LACK OF / IMPROPER BOAT LIGHTS
- ☐ OPERATOR INEXPERIENCE
- ☐ OVERLOADING
- ☐ PASSENGER / SKIER BEHAVIOR
- ☐ RESTRICTED VISION
- ☐ RULES OF THE ROAD VIOLATION
- ☐ SHARP TURN
- ☐ STANDING / SITTING ON GUNWHALE, BOWS, AND TRANSOM
- ☐ STARTING IN GEAR
- ☐ WAKE
- ☐ WEATHER (HEAVY)
- ☐ NO PROPER LOOKOUT
- ☐ OFF-THROTTLE STEERING
- ☐ NAVIGATION AID MISSING
- ☐ NAVIGATION AID NOT PERFORMING PROPERLY

SPECIFY "EQUIPMENT FAILURE"

- ☐ AUXILIARY EQUIPMENT FAILUIRE
- ☐ COMMUNICATION EQUIPMENT FAILURE
- ☐ FIRE EXTINGUISHER NOT SERVICEABLE
- ☐ SAIL DISMASTING
- ☐ SEAT BROKE LOOSE
- ☐ SOUND PRODUCING EQUIPMENT FAILURE
- ☐ VISUAL DISTRESS SIGNALS FAILED

SPECIFY "MACHINERY FAILURE"

- ☐ ELECTRIC SYSTEM FAILURE
- ☐ ENGINE FAILURE
- ☐ FUEL SYSTEM FAILURE
- ☐ SHIFT FAILURE
- ☐ STEERING SYSTEM FAILURE
- ☐ THROTTLE FAILURE
- ☐ VENTILATION SYSTEM FAILURE

ACCIDENT DESCRIPTORS

☐ BOAT FOUND CAPSIZED
☐ COLLISION WITH COMMERCIAL VESSEL
☐ PARASAILING ACCIDENT
☐ BOAT STRUCK BY LIGHTNING
☐ VICTIM STRUCK BY BOOM
☐ RUNAWAY BOAT
☐ BOAT FOUND UPRIGHT, DRIFTING, OCCUPANTS DISAPPEARED
☐ VICTIM ENTANGLED IN LINES

ESTIMATED NUMBER OF DAYS VESSEL USED THIS YEAR	TYPICAL NUMBER OF HOURS VESSEL USED EACH DAY THIS YEAR

TYPICAL NUMBER OF PERSONS (INCLUDING YOURSELF) ON BOARD VESSEL EACH DAY THIS YEAR

OTHER PEOPLE ON BOARD THIS VESSEL (IF MORE THAN 2 PEOPLE, ATTACH ADDITIONAL FORMS)

NAME	LAST	FIRST	MIDDLE INITIAL
ADDRESS	STREET	CITY	
DATE OF BIRTH	☐ MALE ☐ FEMALE	STATE	ZIP

WAS PFD WORN ☐ YES ☐ NO	PFD WORN PRIOR TO ACCIDENT ☐ YES ☐ NO	PFD WORN AS A RESULT OF ACCIDENT ☐ YES ☐ NO	WAS PFD WORN INFLATABLE ☐ YES ☐ NO

NAME	LAST	FIRST	MIDDLE INITIAL
ADDRESS	STREET	CITY	
DATE OF BIRTH	☐ MALE ☐ FEMALE	STATE	ZIP

WAS PFD WORN ☐ YES ☐ NO	PFD WORN PRIOR TO ACCIDENT ☐ YES ☐ NO	PFD WORN AS A RESULT OF ACCIDENT ☐ YES ☐ NO	WAS PFD WORN INFLATABLE ☐ YES ☐ NO

IF TWO (2) OR MORE VESSELS WERE INVOLVED – DID THE OPERATOR (S) OF THE VESSEL (S) FILE A REPORT ☐ YES ☐ NO

VESSEL B (SECOND VESSEL – EACH OPERATOR IS REQUIRED TO FILE A SEPARATE REPORT)

OPERATOR NAME	LAST	FIRST	MIDDLE INITIAL

VESSEL REGISTRATION NUMBER	STATE
PROPERTY DAMAGE FOR THIS VESSEL (S) AND CONTENTS $	DESCRIBE PROPERTY DAMAGE

WITNESSES NOT ON THIS VESSEL (IF MORE THAN 2 LIST ON SEPARTATE SHEET)

NAME	LAST	FIRST	PHONE NO. (___)
ADDRESS	STREET	CITY / STATE / ZIP	
NAME	LAST	FIRST	PHONE NO. (___)
ADDRESS	STREET	CITY / STATE / ZIP	

PERSON COMPLETING REPORT

NAME	LAST	FIRST	PHONE NO. (___)
ADDRESS	STREET	CITY / STATE / ZIP	

STATUS OF PERSON COMPLETING REPORT ☐ OPERATOR ☐ OWNER ☐ INVESTIGATOR ☐ OTHER (SPECIFY)

SIGNATURE	DATE SUBMITTED

FOR AGENCY USE ONLY

CAUSES BASED ON (CHECK ONE) ☐ THIS REPORT ☐ INVESTIGATION ☐ INVESTIGATION AND THIS REPORT ☐ OTHER (SPECIFY)

NAME OF REVIEWING STATE REPORTING AUTHORITY	DATE RECEIVED
SIGNATURE OF REVIEWING OFFICIAL	DATE REVIEWED

INVESTIGATOR'S NAME	LAST	FIRST	PHONE NO. (___)

PRIMARY CAUSE	SECONDARY CAUSE	TERTIARY CAUSE

ACCIDENT DESCRIPTION

DESCRIBE WHAT HAPPENED (SEQUENCE OF EVENTS) AND CONTRIBUTING FACTORS. INCLUDE FAILURE OF MACHINERY OR EQUIPMENT. INCLUDE A DIAGRAM AND CONTINUE ON ADDITIONAL SHEETS IF NECESSARY. INCLUDE ANY INFORMATION REGARDING THE INVOLVEMENT OF ALCOHOL AND / OR DRUGS IN CAUSING OR CONTRIBUTING TO THE ACCIDENT. INCLUDE ANY DESCRIPTIVE INFORMATION ABOUT THE USE OF PERSONAL FLOATATION DEVICES (PFDS).

PLEASE DO NOT LIST ANY PERSONAL IDENTIFIERS IN THIS SECTION -- SUCH AS NAMES OF INDIVIDUALS, TELEPHONE NUMBERS, STREET ADDRESSES, ETC. REFER TO INDIVIDUALS AS OPERATOR A, OPERATOR B, VICTIM 1, VICTIM 2, ETC. AND TO THE VESSEL(S) INVOLVED AS VESSEL A, VESSEL B, ETC.

FOR EXAMPLE: OPERATOR OF VESSEL (A) DID NOT HAVE A PROPER LOOKOUT AND RAN INTO VESSEL (B) INJURING VICTIMS (1) AND (2) ON VESSEL (B).

INJURED VICTIMS (IF MORE THAN 2 INJURIES, ATTACH ADDITIONAL FORMS)

VICTIM 1 NAME	LAST	FIRST	MIDDLE INITIAL
ADDRESS OF VICTIM 1	STREET	CITY	
AGE OF VICTIM	DATE OF BIRTH	STATE	ZIP

MEDICAL TREATMENT BEYOND FIRST AID? ☐ YES ☐ NO
ADMITTED TO HOSPITAL? ☐ YES ☐ NO

WAS PFD WORN? ☐ YES ☐ NO
PRIOR TO ACCIDENT? ☐ YES ☐ NO
AS A RESULT OF ACCIDENT? ☐ YES ☐ NO

PFD WORN WAS ☐ INHERENTLY BUOYANT ☐ INFLATABLE

ALCOHOL USE APPARENT
☐ NO ☐ YES BAC_____

TYPE OF PFD WORN
☐ TYPE I
☐ TYPE II
☐ TYPE III
☐ TYPE V

USCG PFD APPROVAL NUMBER
160._____

INJURY CAUSED BY (CHECK ALL THAT APPLY)

IMPACT WITH VESSEL	☐ YES	☐ NO
IMPACT WITH WATER	☐ YES	☐ NO
IMPACT WITH FIXED / FLOATING OBJECT	☐ YES	☐ NO
STRUCK BY VESSEL	☐ YES	☐ NO
STRUCK BY PROPULSION SYSTEM	☐ YES	☐ NO
EXPOSURE TO ELEMENTS	☐ YES	☐ NO

INJURED STATUS
☐ OPERATOR ☐ PASSENGER ☐ SWIMMER ☐ WATER SKIER

TYPE OF INJURY (CHECK ALL THAT APPLY)

	PRIMARY	SECONDARY
AMPUTATION	☐	☐
BACK INJURY	☐	☐
BROKEN BONE(S)	☐	☐
BURNS	☐	☐
CARBON MONOXIDE POISONING	☐	☐
CONTUSION	☐	☐
DISLOCATION	☐	☐
ELECTROCUTION	☐	☐
HEAD INJURY	☐	☐
HYPOTHERMIA	☐	☐
INTERNAL INJURIES	☐	☐
LACERATION	☐	☐
NECK INJURY	☐	☐
SHOCK	☐	☐
SPINAL INJURY	☐	☐
SPRAIN / STRAIN	☐	☐
TEETH	☐	☐

VICTIM 2 NAME	LAST	FIRST	MIDDLE INITIAL
ADDRESS OF VICTIM 2	STREET	CITY	
AGE OF VICTIM	DATE OF BIRTH	STATE	ZIP

MEDICAL TREATMENT BEYOND FIRST AID? ☐ YES ☐ NO
ADMITTED TO HOSPITAL? ☐ YES ☐ NO

WAS PFD WORN? ☐ YES ☐ NO
PRIOR TO ACCIDENT? ☐ YES ☐ NO
AS A RESULT OF ACCIDENT? ☐ YES ☐ NO

PFD WORN WAS ☐ INHERENTLY BUOYANT ☐ INFLATABLE

ALCOHOL USE APPARENT
☐ NO ☐ YES BAC_____

TYPE OF PFD WORN
☐ TYPE I
☐ TYPE II
☐ TYPE III
☐ TYPE V

USCG PFD APPROVAL NUMBER
160._____

INJURY CAUSED BY (CHECK ALL THAT APPLY)

IMPACT WITH VESSEL	☐ YES	☐ NO
IMPACT WITH WATER	☐ YES	☐ NO
IMPACT WITH FIXED / FLOATING OBJECT	☐ YES	☐ NO
STRUCK BY VESSEL	☐ YES	☐ NO
STRUCK BY PROPULSION SYSTEM	☐ YES	☐ NO
EXPOSURE TO ELEMENTS	☐ YES	☐ NO

INJURED STATUS
☐ OPERATOR ☐ PASSENGER ☐ SWIMMER ☐ WATER SKIER

TYPE OF INJURY (CHECK ALL THAT APPLY)

	PRIMARY	SECONDARY
AMPUTATION	☐	☐
BACK INJURY	☐	☐
BROKEN BONE(S)	☐	☐
BURNS	☐	☐
CARBON MONOXIDE POISONING	☐	☐
CONTUSION	☐	☐
DISLOCATION	☐	☐
ELECTROCUTION	☐	☐
HEAD INJURY	☐	☐
HYPOTHERMIA	☐	☐
INTERNAL INJURIES	☐	☐
LACERATION	☐	☐
NECK INJURY	☐	☐
SHOCK	☐	☐
SPINAL INJURY	☐	☐
SPRAIN / STRAIN	☐	☐
TEETH	☐	☐

DECEASED VICTIMS (IF MORE THAN 2 FATALITIES, ATTACH ADDITIONAL FORMS)

VICTIM 1 NAME | LAST | FIRST | MIDDLE INITIAL

ADDRESS OF VICTIM 1 | STREET | CITY

AGE OF VICTIM | **DATE OF BIRTH** | STATE | ZIP

ALCOHOL USE APPARENT ☐ NO ☐ YES BAC ____ | DRUG USE APPARENT ☐ NO ☐ YES TYPE ____

CAUSE OF DEATH
- ☐ CARBON MONOXIDE POISONING
- ☐ DROWNING
- ☐ HYPOTHERMIA
- ☐ TRAUMA
- ☐ ELECTROCUTION
- ☐ OTHER (SPECIFY)

VICTIM STRUCK BY VESSEL
☐ YES ☐ NO

VICTIM STRUCK BY PROPULSION UNIT
☐ YES ☐ NO

DISAPPEARANCE ☐ **YES** ☐ NO

DECEASED STATUS
- ☐ OPERATOR
- ☐ OTHER (SPECIFY)
- ☐ PASSENGER
- ☐ SWIMMER
- ☐ WATER SKIER

VICTIM ACTIVITY
- ☐ FISHING
- ☐ HUNTING
- ☐ SCUBA DIVING / SNORKLING
- ☐ SWIMMING
- ☐ TUBING
- ☐ WATER SKIING
- ☐ OTHER (SPECIFY)

PFD WORN
☐ YES ☐ NO

PFD WORN WAS
- ☐ INHERENTLY BUOYANT
- ☐ INFLATABLE

PFD USED – BUT NOT WORN
- ☐ YES TYPE _____
- ☐ NO

PFD WAS NOT WORN AND NOT USED
- ☐ YES ☐ NO
- ☐ UNKNOWN

TYPE OF PFD WORN
- ☐ TYPE I
- ☐ TYPE II
- ☐ TYPE III
- ☐ TYPE V

PFD PERFORMANCE
- ☐ SUCCESSFUL
- ☐ FAILED
- ☐ IMPROPER WEAR / USE

COMMENTS

USCG PFD APPROVAL NUMBER
160.

PHYSICAL CONDITION
- ☐ UNKNOWN ☐ NORMAL ☐ ILL ☐ HANDICAPPED
- ☐ UNDER INFLUENCE OF ALCOHOL / DRUGS
- ☐ OTHER (SPECIFY) –

VICTIM SWIMMING ABILITY
- ☐ YES
- ☐ NO
- ☐ UNKNOWN

VICTIM 2 NAME | LAST | FIRST | MIDDLE INITIAL

ADDRESS OF VICTIM 2 | STREET | CITY

AGE OF VICTIM | **DATE OF BIRTH** | STATE | ZIP

ALCOHOL USE APPARENT ☐ NO ☐ YES BAC ____ | DRUG USE APPARENT ☐ NO ☐ YES TYPE ____

CAUSE OF DEATH
- ☐ CARBON MONOXIDE POISONING
- ☐ DROWNING
- ☐ HYPOTHERMIA
- ☐ TRAUMA
- ☐ ELECTROCUTION
- ☐ OTHER (SPECIFY)

VICTIM STRUCK BY VESSEL
☐ YES ☐ NO

VICTIM STRUCK BY PROPULSION UNIT
☐ YES ☐ NO

DISAPPEARANCE ☐ **YES** ☐ **NO**

DECEASED STATUS
- ☐ OPERATOR
- ☐ OTHER (SPECIFY)
- ☐ PASSENGER
- ☐ SWIMMER
- ☐ WATER SKIER

VICTIM ACTIVITY
- ☐ FISHING
- ☐ HUNTING
- ☐ SCUBA DIVING / SNORKLING
- ☐ SWIMMING
- ☐ TUBING
- ☐ WATER SKIING
- ☐ OTHER (SPECIFY)

PFD WORN
☐ YES ☐ NO

PFD WORN WAS
- ☐ INHERENTLY BUOYANT
- ☐ INFLATABLE

PFD USED – BUT NOT WORN
- ☐ YES TYPE _____
- ☐ NO

PFD WAS NOT WORN AND NOT USED
- ☐ YES ☐ NO
- ☐ UNKNOWN

TYPE OF PFD WORN
- ☐ TYPE I
- ☐ TYPE II
- ☐ TYPE III
- ☐ TYPE V

PFD PERFORMANCE
- ☐ SUCCESSFUL
- ☐ FAILED
- ☐ IMPROPER WEAR / USE

COMMENTS

USCG PFD APPROVAL NUMBER
160.

PHYSICAL CONDITION
- ☐ UNKNOWN ☐ NORMAL ☐ ILL ☐ HANDICAPPED
- ☐ UNDER INFLUENCE OF ALCOHOL / DRUGS
- ☐ OTHER (SPECIFY) –

VICTIM SWIMMING ABILITY
- ☐ YES
- ☐ NO
- ☐ UNKNOWN

Required Fields

Term	Description	Source
Accident Date Title 33 CFR Subpart C 173.57(d)	The month, day and year when the accident occurred	BARD Web
Accident Description Title 33 CFR Subpart C 173.57(t)	A narrative of the events just before and during the accident.	
Accident Time Title 33 CFR Subpart C 173.57(d)	The local time of day when the accident occurred.	
Accident Type Title 33 CFR Subpart C 173.57(u)	The chain of events in the accident such as: capsizing, collision with a fixed object, collision with a floating object, collision with a vessel, fall in boat, fall overboard, person leaves a vessel, fire or explosion involving fuel, fire or explosion involving other than fuel, flooding or swamping, grounding, sinking, skier mishap, person struck by boat, person struck by propeller or propulsion unit, struck submerged object, carbon monoxide poisoning, electrocution.	BARD Web
Air Temperature Title 33 CFR Subpart C 173.57(g)	An estimate of the air temperature in degrees Fahrenheit at the time of the accident.	BARD Web+
Body of Water Title 33 CFR Subpart C 173.57(c)	Name of the body of water where the accident occurred.	BARD Web
Cause of Death Title 33 CFR Subpart C 173.57(l)	Death was caused by: drowning, hypothermia, trauma, carbon monoxide poisoninghear attack, electrocution or some other stated cause	
County Title 33 CFR Subpart C 173.57(c)	County of jurisdiction where the accident occurred.	
Equipment Failure Title 33 CFR Subpart C 173.57(s)	Describe each type of equipment failure that caused or contributed to the accident, such as: auxiliary (i.e. stoves, heaters, refrigerators or generators), communication (i.e. radio, EPIRBs, cell phone or GPS), fire extinguisher not serviceable, sail demasting, seat broke loose, sound producing equipment failed, visual distress signal failed.	BARD Web +
Fire Extinguisher Number Used Title 33 CFR Subpart C 173.57(p)	The number of extinguishers used in the accident. MISSING ON PROPOSED FORM	
Fire Extinguisher Type Used Title 33 CFR Subpart C 173.57(p)	The type of marine USCG approved extinguisher used: A, B or C MISSING ON PROPOSED FORM	
Fuel Type	The primary type of fuel used for engine types of propulsion: gasoline, diesel, electric or other.	

Title 33 CFR Subpart C 173.57(w)		
Horsepower Title 33 CFR Subpart C 173.57(w)	The combined amount of horsepower, for all engines used in the propulsion of the boat.	BARD Web
Hull Material Title 33 CFR Subpart C 173.57(w)	The primary material used to construct the hull of the boat: wood, aluminum, steel, fiberglass, rubber, vinyl,canvas, plastic or kevlar.	BARD Web, form
Hull Number Title 33 CFR Subpart C 173.57(y)	The unique twelve character manufacturer's hull identification number.	
Injury Type Title 33 CFR Subpart C 173.57(q)	Indicate the type and location of the injuries suffered: abrasion/contusion, amputation, carbon monoxide poisoning, concussion/brain injury, dislocation, fracture/broken bone, heart attak, internal organ injury, laceration/cut, spinal cord injury or sprain/strain.	
Life Jacket Availability Title 33 CFR Subpart C 173.57(o)	Were Coast Guard approved Personal Floatation Devices (PFDs) accessible for the passengers on board?(BARD Web). Where USCG Approved life jackets on board the vessel?... Life jackets accessible (capable of being reached)? (form CG3865)	BARD Web, form
Life Jacket Use Title 33 CFR Subpart C 173.57(o)	The number of boat occupants wearing approved Personal Floatation Devices.(BARD Web) At the time of the accident was the operator wearing a USCG Approved life jacket? … Number of vessel occupants (operator and passengers) wearing lofe jackets at the time of the accident ….Life Jacket worn by the victim(form CG3865)	BARD Web, form
Nearest City Title 33 CFR Subpart C 173.57(c)	City or town closest to the accident location.	BARD Web
Number of Persons on Board Title 33 CFR Subpart C 173.57(j)	Total number of people in the boat (on board) at the time of the accident. Do not include persons being towed by the boat.	BARD Web
Number of Persons Towed Title 33 CFR Subpart C 173.57(j)	Total number of people being towed (tethered or attached) behind the boat at the time of the accident.	BARD Web+
Operator Address Title 33 CFR Subpart C 173.57(h)	Street address, city, state and zip code of the person who was operating the boat at the time of the accident	
Operator Age/Date of Birth Title 33 CFR Subpart C 173.57(h)	The age of the operator on the day of the accident. The month, day and year of the operator's birth may be used.	
Operator Boating Safety Training Title 33 CFR Subpart C 173.57(h)	The type of boating safety education course the operator has completed: State, USCG Auxiliary or US Power Squadron provided courses, Internet provided NASBLA approved course or informal training	BARD Web+

Operator Name Title 33 CFR Subpart C 173.57(h)	First and last name of the person who was operating the boat at the time of the accident	
Operator Telephone Number Title 33 CFR Subpart C 173.57(h)	Telephone number to contact the operator at the time of the accident	
Operator Vessel Experience Title 33 CFR Subpart C 173.57(h)	The total hours of experience operating the type of boat involved in the accident BARD Web). Total hours of experience operating the vessel involved in the accident. (form CG 3865)	BARD Web
Operator Weather Forecast Title 33 CFR Subpart C 173.57(m)	Where weather forecast or reports available to the operator before and during the use of the boat?	
Other Operator Address Title 33 CFR Subpart C 173.57(i)	Street address, city, state and zip code of each operator of a vessel involved in the accident.	
Other Operator Names Title 33 CFR Subpart C 173.57(i)	First and last name of each operator of a vessel involved in the accident.	
Owner Address Title 33 CFR Subpart C 173.57(b)	Address of the owner of the vessel involved	
Owner Name Title 33 CFR Subpart C 173.57(b)	Name of the owner of the vessel involved	
Property Damage Amount (or Estimate of Property Damage) Title 33 CFR Subpart C 173.57(r)	The estimated cost to repair or restore the damaged property to its original condition.	
Property Damage Description Title 33 CFR Subpart C 173.57(r)	Explain the damage to property, not boats, that occurred as a result of the accident.	
Property Owner Address Title 33 CFR Subpart C 173.57(n)	Street address, city, state and zip code of owners of property, not boats, involved in the accident.	
Property Owner Name Title 33 CFR Subpart C 173.57(n)	First and last name of owners of property, not boats, involved in the accident.	
Propulsion Type Title 33 CFR Subpart C 173.57(w)	The type of engine or other method of movement used by the boat: propeller engines may be outboard, inboard or inboard/sterndrive. Other means of propulsion may be : water jet, air thrust, manual (oars, paddles or poles) or sail.	BARD Web

Reporter Address Title 33 CFR Subpart C 173.57(z)	Street address, city, state and zip code of the person completing the report.	
Reporter Name Title 33 CFR Subpart C 173.57(z)	The first and last name of the person completing the report.	
Reporter Telephone Number Title 33 CFR Subpart C 173.57(z)	The telephone number to contact the person completing the report.	
Reporter's Accident Cause Title 33 CFR Subpart C 173.57(v)	In the opinion of the person completing the report was caused or contributed to the accident: alcohol use, careless/reckless operation, congested waters, dam/lock, drug use, equipment failure, excessive speed, failure to vent, hazardous waters, hull failure, ignition of spilled fuel or vapor, improper anchoring, improper loading, lack of or improper boat lights, machinery failure, no proper lookout, off throttle steering, operator inattention, operator inexperience, overloading, passenger/skier behavior, restricted vision, rules of the road infraction, sharp turn, standing or sitting on the gunwales, bow or transom, starting in gear, wake from another boat, heavy weather.	BARD Web
State Title 33 CFR Subpart C 173.57(c)	The state or US Territory's jurisdiction where the accident occurred.	
Vessel Damage Amount (or Estimate of Vessel Damage) Title 33 CFR Subpart C 173.57(r)	The estimated cost to repair or restore the damaged boat it its original condition.	
Vessel Damage Description Title 33 CFR Subpart C 173.57(r)	Explain the damage to the boat related to the accident.	
Vessel Depth Title 33 CFR Subpart C 173.57(w)	The measurement from transom to keel measured in feet and inches.	
Vessel Length Title 33 CFR Subpart C 173.57(w)	The straight line horizontal measurement of the overall length, from the foremost part of the boat to the aftmonst part of the boat. Measured from end to end over the deck and parallel to the centerline of the boat. Measured in feet and inches.	BARD Web
Vessel Make Title 33 CFR Subpart C 173.57(w)	Name of the company that manufactured the boat.	BARD Web
Vessel Model Title 33 CFR Subpart C 173.57(w)	The model name of the boat	BARD Web
Vessel Name Title 33 CFR Subpart C 173.57(a)	Name given to the boat by the owners, typically displayed on the stern (transom) on the boat.	BARD Web
Vessel Number Title 33 CFR Subpart C 173.57(a)	The State registration number or Federal documentation number displayed on the boat.	BARD Web

Vessel Operation Title 33 CFR Subpart C 173.57(u)	The type of activity that was being done on board the boat at the time of the accident: cruising, swimming, fishing, fueling, hunting, racing, repairs, water skiing or tubing, starting engine, tournament, whitewater sports.(the proposed form listes these options under "Activity at the time of accident")	
Vessel Type Title 33 CFR Subpart C 173.57(w)	Description of the boat type such as: open motorboat, cabin motorboat, auxiliary sail, sail only, rowboat, canoe, kayak, personal watercraft (PWC), pontoon, houseboat, jet boat or airboat	BARD Web
Vessel Width Title 33 CFR Subpart C 173.57(w)	Beam measurement at the boat's widest point, measured in feet and inches.	
Vessel Year Title 33 CFR Subpart C 173.57(w)	The year the boat was built.	
Victim Address Title 33 CFR Subpart C 173.57(k)	Street address, city, state and zip code of the deceased or person requiring medical treatment that was on board, towed or struck by this boat.	
Victim Date of Birth Title 33 CFR Subpart C 173.57(k)	The month, day and year of birth for the deceased or person requiring medical treatment that was on board, towed or struck by this boat.	
Victim Name Title 33 CFR Subpart C 173.57(k)	The first and last name of the deceased or person requiring medical treatment that was on board, towed or struck by this boat.	
Visibility Title 33 CFR Subpart C 173.57(f)	How well could objects be identified with the naked eye at the time of the accident: good, fair or poor?	BARD Web
Water Conditions Title 33 CFR Subpart C 173.57(f)	Description of the waters surface at the time of the accident: calm (waves less than 6"), choppy (waves 6" to 2'), rough (waves 2' to 6'), very rough (waves over 6')	BARD Web
Water Location Title 33 CFR Subpart C 173.57(e)	Description of where on the body of water the accident occurred. Latitude and Longitude may be used	BARD Web
Water Temperature Title 33 CFR Subpart C 173.57(g)	An estimate of the water temperature in degrees Fahrenheit at the time of the accident.	BARD Web+
Weather Title 33 CFR Subpart C 173.57(f)	The conditions at the time of the accident: Clear, cloudy, fog, rain, snow or haze	BARD Web
Witness Address Title 33 CFR Subpart C 173.57(x)	Street address, city, state and zip code of the persons that witnessed the event.	

Witness Name Title 33 CFR Subpart C 173.57(x)	First and last name of persons that witnessed the event.
Witness Telephone Number Title 33 CFR Subpart C 173.57(x)	Telephone number to contact the person that witnessed the event.

NATIONAL ASSOCIATION OF STATE BOATING LAW ADMINISTRATORS

October 9, 2006

Mr. James P. Muldoon, Chairman
National Boating Safety Advisory Council
1500 K Street, NW, Suite 350
Washington, DC 20005-1209

Dear Chairman Muldoon:

The National Association of State Boating Law Administrators (NASBLA) is pleased to submit the proposed "Recreational Boating Accident and Casualty Reporting Decision Matrix" as our preferred method of determining which boat-involved incidents should be captured by the Recreational Boating Safety (RBS) Program. This document was unanimously supported by our members during our annual business meeting held on September 27, 2006, and we forward it to you with the recommendation that it be adopted as a standard for recreational boating accident reporting nationwide.

While efforts to develop and implement a strategic plan for the Office of Boating Safety are still underway, never before has the establishment of thorough and easy-to-use reporting guidelines been so critical. Many RBS Program goals and measures are directly linked to boating accident data gathered and reported by the states. Prompt action upon this request will help both state and federal partners clearly identify program parameters and ensure consistency in accident report data. The adoption of the Decision Matrix will lay the proper foundation for many future boating safety efforts.

Since its promulgation in 1973, CG-449, known as the "Standard Method of Reporting [Boating Accidents]," has been the U.S. Coast Guard's formal written policy on this topic. However, both written and verbal alterations to this policy have been issued which have contributed to unnecessary confusion among state investigators and boating safety program managers. This has led to inconsistent accident reporting. This proposal is offered in an effort to assist the U.S. Coast Guard's movement toward improved consistency of RBS Program data.

Some of the noteworthy changes in the Decision Matrix that differ from the most recent reporting criteria published by the U.S. Coast Guard in "*Boating Statistics – 2005*" include:

- A clear statement is made to ensure that accidents involving "recreational vessels" are identified as the focus of the RBS Program. A specific exclusion of "water toys" from this program's purview is also provided to ensure that these devices, already defined in the Code of Federal Regulation, are not inadvertently confused with recreational vessels.

- The geographic location of the accident for reporting purposes was appropriately expanded to include those waters subject to state and/or territorial jurisdiction.

- A definition of "medical treatment beyond first aid" was created to offer a simplified interpretation of this occurrence.

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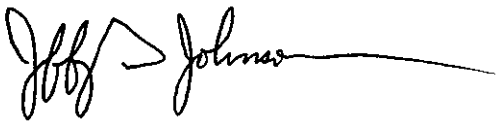
• "A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from a vessel" was moved to the list of occurrences **excluded** from accident reporting. These occurrences were clearly excluded and classified as swimming incidents prior to being re-classified in 2001, primarily as a result of concerns over stray current and carbon monoxide poisonings that may not have been getting reported. Investigators, medical examiners, and the boating public are better informed on these topics today. In addition, it is the belief of NASBLA members that such an occurrence where the vessel does not contribute to the casualty, except to serve as a vehicle or platform from which the person safely departs, does not constitute a boating accident.

• Another change to the list of **excluded** occurrences is when "a person dies, is injured, or is missing as a result of swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from a place of inherent safety, such as the shore, a pier, or another vessel." It is the belief of our membership that departing from a place of inherent safety, including a vessel, crosses the line between swimming incidents and boating accidents.

We believe you will find this document to be a simplified method of making a determination whether or not an occurrence involving a vessel qualifies as a reportable boating accident. Although some minor modifications may be necessary as a result of legal review, we trust that our intent of keeping it as simple and non-technical as possible will be held in high regard. Should such a thorough review lead to a conclusion that change to the Code of Federal Regulations is required, please consider this our petition to initiate such action.

Thank you for taking the time to review this material and for engaging in the efforts necessary to implement these changes. By clearly identifying the reach of the RBS Program, especially in this critical area of accident reporting, we will be able to focus on the areas of greatest need for intervention and better equip the states to be the most effective National Recreational Boating Safety Program partners possible. If further discussion or clarification is necessary, please let me know.

Sincerely,

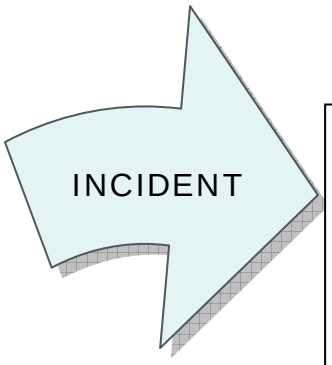


Jeffrey S. Johnson
President

Enclosures

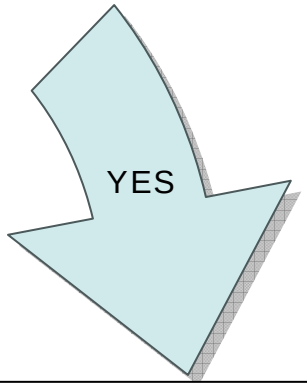
C: Jeffrey Hoedt, Chief
Office of Boating Safety

Recreational Boating Accident and Casualty Reporting Decision Matrix



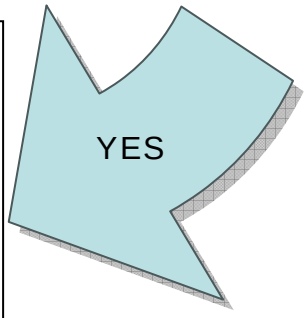
1 – Did an incident occur involving at least one recreational vessel?

A "recreational vessel" is any vessel manufactured or operated for pleasure; or leased/rented to another for the latter's pleasure that is propelled or controlled by machinery, sails, oars, paddles, poles, or another vessel.



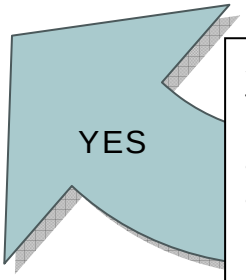
2 – Was a qualifying vessel either:

- Upon the waters subject to the jurisdiction of the United States, a state or a U. S. territory, or
- Owned in the United States and on the high seas beyond U.S. territorial seas?

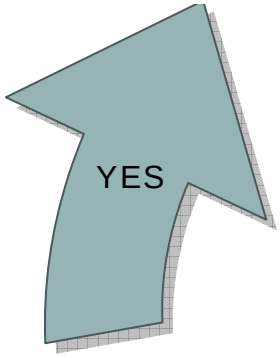


3 – Did one or more of the following result from the incident?

- A person dies;
- A person is missing and presumed injured or deceased;
- A person is injured and requires medical treatment beyond first aid;
- Aggregate property damage totals $2,000 or more or there is complete loss of a vessel.



4 – Was the death, missing person, injury, property damage, or total vessel loss a result of the vessel's operation, construction, seaworthiness, equipment, or machinery?



REPORT

A "No" response = Not Reportable

Recreational Boating Accident and Casualty Reporting Decision Matrix

Clarification for Question 1

A "recreational vessel" is any vessel manufactured or operated for pleasure; or leased/rented to another for the latter's pleasure that is propelled or controlled by machinery, sails, oars, paddles, poles, or another vessel.

This will not include vessels subject to inspection under Title 46 U.S.C. Chapter 33 or any water toys such as an air mattress, inner tube, float tube, boogie board, surf board, beach raft, or other similar device designed to be used by bathers at beaches, lakes, or in swimming pools.

Clarification for Question 2

This includes launching and retrieving a vessel provided it is in the water and capable/ready for its intended use.

Clarification for Question 3

"Medical treatment beyond first aid" requires that medical treatment is or should have been provided by a medical practitioner; such as a doctor, nurse, or emergency medical technician.

Also note that state property damage thresholds vary.

Clarification for Question 4

*A list of **included** occurrences includes, but is not limited to:*

- *Grounding, capsizing, sinking, flooding or swamping.*
- *Falls within or overboard a vessel.*
- *Persons ejected from a vessel.*
- *Fire or explosion.*
- *Skiing or other mishap with a towable device.*
- *Collision with another vessel or object.*
- *Striking a submerged object.*
- *A person is struck or injured by a vessel, propeller, propulsion unit, steering machinery, or another vessel-related item.*
- *Carbon monoxide exposure related to a vessel.*
- *Electrocution due to stray current related to a vessel.*

*A list of **excluded** occurrences is as follows:*

• A person dies, is injured, or is missing as a result of self-inflicted wounds, alcohol poisoning, gunshot wounds, or the ingestion of drugs, controlled substances or poison.
• A person dies, is injured, or is missing as a result of assault by another person or persons while aboard a vessel.
• A person dies or is injured from natural causes while aboard a vessel.
• A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from a vessel.
• A person dies, is injured, or is missing as a result of swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from a place of inherent safety, such as the shore, a pier, or another vessel.
• Property damage occurs or a person dies, is injured, or is missing while preparing a vessel for launching or retrieving and the vessel is not in the water and capable/ready for its intended use.
• Property damage occurs or a person dies, is injured, or is missing as a result of a fire on shore or a pier that spreads to a vessel or vessels.
• Property damage occurs to a docked or moored vessel or a person dies, is injured, or is missing from such a vessel as a result of storms, or unusual tidal or sea conditions.
• Property damage occurs or a person dies, is injured, or is missing when a vessel gets underway in stormy or unusual tidal or sea conditions to rescue persons in peril.
• Property damage occurs to a vessel due to theft or vandalism.
• Property damage occurs to, a person dies or is injured on, or a person is missing from a non-propelled houseboat or other vessel used primarily as a residence when such vessel is not underway.
*• A person dies, is injured, or is missing while swimming, snorkeling, or diving and a vessel **did not** contribute to the casualty.*

Federal Government Policies, Codes, Recommendations and Legal Opinions

Fred 12/12

U.S. Department of Transportation
United States Coast Guard

Commandant
United States Coast Guard

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COMDTINST 16750.8A
SEP 14 1999

COMMANDANT INSTRUCTION 16750.8A

Subj: FEDERAL/STATE RELATIONS - RECREATIONAL BOATING SAFETY

1. PURPOSE. This Instruction sets forth policies and guidelines for district commanders to enter into cooperative agreements and other arrangements with the States and local subdivisions to carry out the purposes of the State recreational boating safety program authorized by Chapter 131 of Title 46, United States Code.

2. ACTION. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants for directorates, Chief Counsel, and special staff offices at Headquarters shall comply with the contents of this Instruction.

3. DIRECTIVES AFFECTED. Federal/State Relations - Recreational Boating Safety, COMDTINST M16750.8 is cancelled.

4. OBJECTIVE. Chapter 131 of Title 46, United States Code, authorizes Federal financial assistance to States having accepted boating safety programs. To be eligible to receive Federal assistance, a State must have a cooperative boating safety assistance program with the Coast Guard. The use of written agreements with the States is required. The goal of cooperative agreements between the States and the Coast Guard is to encourage the States to assume the major role in carrying out boating safety activities within their jurisdictions. This Instruction is a reference to elements that may be included in boating safety cooperative agreements with States.

5. DISCUSSION.

   a. The major purposes of the national recreational boating safety program are to encourage greater State participation and uniformity in boating safety efforts, and particularly to permit the States to assume the greater share of boating education, assistance, and enforcement activities.

b. Commandant (G-OP) is responsible for administration of the State Recreational Boating Safety financial assistance program. Within Headquarters, the day-to-day administration is managed by the Program Development and Implementation Division (G-OPB-2) of the Office of Boating Safety (G-OPB). State applications for Federal financial assistance and the associated financial reports are submitted to Commandant (G-OPB-2) for review to ensure accuracy, and to determine program compliance and certification of eligibility. Copies of applications are provided to the cognizant district upon approval.

c. The States have the greater share of recreational boating safety education and on-the-water enforcement activities. The primary role of the Coast Guard in relation to boating safety education and enforcement is coordination, training, liaison, monitoring program effectiveness, and public information.

d. This Instruction contains enclosures that promulgate procedures and policies to accomplish the purposes set forth in paragraph 1.

6. PROCEDURES. District commanders shall:

a. Conduct Federal/State boating safety relations in accordance with the procedures and policies contained herein.

b. Ensure that all personnel assigned to duties affecting the boating public are familiar with the contents of this Instruction.

c. Advise Commandant (G-OPB) of additional subjects that should be included in future changes to this Instruction.

TERRY M. CROSS
Director of Operations Policy

Encl: (1) Federal/State Relationships
(2) Federal/State Recreational Boating Safety Cooperative Agreement
(3) Responsible District Commanders for State Boating Liaison Activities

FEDERAL / STATE RELATIONSHIPS

1. GENERAL.

   a. Purpose. Chapter 131 of Title 46, United States Code, charges the Secretary of Transportation with carrying out a national recreational boating safety program. The goal of the program is to encourage the States/Commonwealths/District of Columbia/Territories (hence forth referred to as States) to assume the major role in carrying out the boating safety mission and to foster greater development, use and enjoyment of all waters of the United States. The Secretary has delegated this authority to the Commandant, U.S. Coast Guard. The Coast Guard's emphasis is coordination of a national education effort, the training of State marine law enforcement personnel, maintaining liaison, monitoring program effectiveness, and providing public information. Federal financial assistance to the States is provided through the Boat Safety Account of the Aquatic Resources (Wallop-Breaux) Trust Fund from revenues collected on motorboat fuel taxes. Under the program, the Secretary may enter into agreements with, and allocate and distribute funds to, eligible States to assist them in developing and carrying out State recreational boating safety programs.

   b. Objective. To carry out the intent of Congress, it is necessary that a close relationship be established and maintained between the Coast Guard and the States. The district commander, through his/her Recreational Boating Safety Specialist, is the primary Coast Guard contact with the designated State agencies, usually the State Boating Law Administrator. In most cases, Commandant (G-OP) will deal with the States through the district commander. However, the authority to enter into financial agreements and provide oversight of the Federal financial assistance described in 46 U.S.C. 13101 is reserved for Commandant (G-OPB).

2. BOATING SAFETY COOPERATIVE AGREEMENTS WITH STATES.

   a. Purpose. This enclosure establishes guidelines for district commanders, under 46 U.S.C. 13109, to enter into cooperative agreements and other arrangements with the States, as defined in 46 U.S.C. 2101 and 2102, for the enforcement of boating laws and for coordinated joint efforts in such matters as search and rescue, issuing permits for regattas and marine parades, boating safety education, and training.

b. Discussion.

(1) The scope of the total effort required to effectively execute a national boating safety program presents communication and coordination problems often unique and complex in nature. The use of written agreements as authorized by 46 U.S.C. 13109, between or among the affected agencies, is the proper vehicle for the resolution of such problems.

(2) Provisions for a biennial review of the Federal/State agreements are necessary to ensure that the agreements are current.

c. Delegation of Authority. District commanders shall attempt to conclude cooperative agreements in conformity with this Instruction, and may redelegate this authority subject to any controls they consider necessary.

d. Guidelines.

(1) Each cooperative agreement shall be in writing. Enclosure (2) to this Instruction is furnished as a guide for developing agreements. It contains, in addition to the text, some "justifications" under each paragraph that may prove helpful. All outstanding assistance agreements [except as noted in paragraphs 2 d (4) and 2 d (5)] shall be combined into one comprehensive agreement as soon as possible. The agreement should be written in such a way as to combine as many activities as possible. District commanders shall continue to encourage the States to include any activities omitted. Such areas shall be specifically readdressed in each scheduled joint review of the agreement. Reference to separate and supplemental agreements shall be so noted in the Cooperative Agreement.

(2) Each State's enforcement programs and facilities must be adequate for the responsibilities assumed under the agreement. As a result, a State's enforcement authority and penalty scheme should not conflict with Federal requirements. If a State's enforcement activity is decentralized or if one State agency is not empowered to execute cooperative enforcement agreements, the district commander may enter into an agreement with more than one agency if satisfied that enforcement in support of State law is otherwise adequate.

(3) Agreements shall contain provisions for the following:

(a) The specific water areas in which each party will provide primary law enforcement and safety patrols or any other agreed activity.

(b) Mutually acceptable conditions whereby the agreement may be terminated, reconsidered, continued, or expanded.

(c) Identification of the legal authority and responsibilities of both parties and a provision that these are not abrogated by the agreement.

(d) Mutual recognition and honoring of the Coast Guard Report of Boarding Form (CG-4100) and local boat examination forms, and recognition of Coast Guard Auxiliary Courtesy Marine Examination decal, when examination includes State requirements, and similar State "safe boat" decals.

(e) Investigation and reporting of accidents involving recreational craft. [The Freedom of Information Act (FOIA) requires release of information from Agency files unless that information falls under one of FOIA's exemptions. Exemption (b) (3) of the FOIA requires an agency to withhold information that is specifically exempted from disclosure by a Federal statute. 46 U.S.C. 6102 (b) requires State casualty reports to be treated by the Coast Guard in the same manner State agencies would do so under State law. Accordingly, agreements shall refer to any applicable State law and where appropriate provide that the Coast Guard will handle all information received from the state in the manner required by State law. Since the State statute could be modified during the period of the agreements, reference to the State statute should be made rather than incorporating the specific limitations.]

(f) Training of personnel at both Federal and State facilities or through other agreed means.

(g) Coordination of search and rescue efforts on all waters.

(h) Issuing permits for marine parades and regattas.

(i) Coordination of public boating education efforts.

(j) Referral of numbering and other violations of State boating regulations to the States for civil penalty processing.

(k) Referral of manufacturer-related or other Federal violations to the Coast Guard for disposition.

(4) State Aids to Navigation agreements are governed by 33 CFR Part 66.05 and are normally separate from other cooperative agreements. Since Aids to Navigation agreements impinge on Coast Guard programs not directly related to boating safety, such agreements should not be made a part of this cooperative agreement. Aids to Navigation agreements, if needed, shall incorporate the provisions described in the Code of Federal Regulations and the Aids to Navigation Administration Manual (COMDTINST M16500.7). A copy of such agreements shall be filed with Commandant (G-OPB-2).

(5) Group commanders may be authorized to enter into supplementary agreements with local jurisdictions provided these agreements do not conflict with the District/State agreement. A copy of such agreements shall be filed with the district Recreational Boating Safety (RBS) Specialist and Commandant (G-OPB-2).

(6) District commanders may authorize personnel under their command who have observed violations of State or local boating laws to testify in court concerning the facts of such observations pursuant to existing instructions in 49 CFR Part 9. Coast Guard witnesses shall testify in their official capacity.

e. Responsibility. District commanders shall:

(1) Continue efforts to negotiate agreements with States having no agreement and to update existing agreements. Direct contact at the highest level of State government may be desirable in many cases, in addition to liaison with the State Boating Law Administrator.

(2) Be responsible for negotiation and legal review of agreements with States as listed in enclosure (3) to this Instruction.

(3) Coordinate agreement development negotiations with other district commanders if a State is within more than one Coast Guard District, and furnish appropriate district commander(s) a copy of each agreement made. Forward a copy of all agreements to Commandant (G-OPB-2) upon execution.

3. REVIEW OF STATE LAWS AND REGULATIONS.

a. Discussion. Commandant (G-OPB) will continually review State boating laws and regulations to ensure compliance with Federal requirements. With certain exceptions, 46 U.S.C. 4306 preempts State laws that establish recreational vessel or associated equipment performance or other safety standards or impose requirements for associated equipment that are not identical to regulations prescribed under 46 U.S.C. 4302. Even in those areas where there are no Federal regulations, States cannot regulate recreational vessels, associated performance, or other safety standards. However, 46 U.S.C. 4306 permits States to regulate the use or carrying of marine safety articles if there is a uniquely hazardous condition within the State and the Secretary (through the Commandant) does not object to that regulation. Finally, even absent a uniquely hazardous condition, 46 U.S.C. 4305 allows the Secretary (through the Commandant) to permit State regulations (waive preemption) of recreational vessel safety where the Secretary determines that recreational vessel safety will not be adversely affected by the regulations. The Commandant has waived preemption for State equipment carriage requirements in effect prior to 10 August 1971. Commandant (G-OPB) will advise the States in writing of any discrepancies in their laws, specifically pointing out those portions that are subject to 46 U.S.C.4306, and those areas that might make the States ineligible for Federal financial assistance. A copy of such correspondence shall be forwarded to the cognizant district commander(s).

b. Responsibility. District commanders (or their designees) shall, when deemed appropriate, attend State legislative hearings to testify [Depending on the circumstances of each request, a determination should be made based on who has relevant knowledge of the subject in question and allocation of resources].

4. FINANCIAL ASSISTANCE PROGRAM. State authorities will submit applications for Federal financial assistance and financial reports to Commandant (G-OPB-2). The participating States have copies of the Federal Regulations, Office of Management and Budget Circulars, and Coast Guard guidelines governing the administration of the National Recreational Boating Safety Federal Financial Assistance Program. Copies of these guides are available upon request. Commandant (G-OPB-2) is responsible for the determination of State allocations, approval of applications, execution of financial agreements, and actual payment of funds to the States.

5. NATIONAL ASSOCIATION OF STATE BOATING LAW ADMINISTRATORS (NASBLA).

a. Purpose. NASBLA is the recognized national body of State, the District of Columbia, and U.S. Territory representatives concerning boating safety matters. The stated purpose of the association is to promote boating safety by providing a medium for the exchange of views and experiences; by fostering interstate and Federal/State cooperation and coordination in boating safety problems; by promoting greater uniformity in laws and regulations; by increasing efficiency in administration and enforcement of boating laws and regulations; and, to the extent feasible and desirable, by promoting a consensus of State views on any subject within the purview of the association.

b. Regional Associations. There are three regional associations of State Boating Law Administrators that generally subscribe to the stated purpose of the national body. These associations were organized to address boating problems that frequently are only of regional interest, and to permit a closer, more direct relationship among the States in the various regions

c. Responsibility. The Coast Guard will be represented at the national meeting of NASBLA by personnel from Commandant (G-OP). Representation from the districts is essential to ensure a close working relationship between the States and districts. If possible, the district commander is encouraged to attend. Representation at regional meetings will generally consist of personnel from Commandant (G-OPB-2), Program Development and Implementation Division; and RBS (Recreational Boating Safety) Specialists from the districts within the region. Commandant (G-OPB) is the Headquarters contact for Headquarters/District coordination purposes.

FEDERAL/STATE RECREATIONAL BOATING SAFETY COOPERATIVE AGREEMENT

STATEMENT OF UNDERSTANDING BETWEEN THE STATE OF _____ AND THE UNITED STATES COAST GUARD.

1. PURPOSE: To define the relationship between the State of _____ and the United States Coast Guard in the conduct of recreational boating safety programs, including the mutual enforcement of laws relating to recreational boating safety on waters within the concurrent jurisdiction of the State and the United States. (Self-explanatory.)

2. BASIC GUIDELINES:

   a. The State and the United States exercise concurrent jurisdiction over those waters within the jurisdiction of the State that are also waters subject to the jurisdiction of the United States, except as to matters preempted by Federal law. (Reflects jurisdiction under 46 U.S.C. 4301 and Federal Water Pollution Control Act (FWPCA), as amended.)

   b. The State has exclusive jurisdiction over those waters within the State that are not waters subject to jurisdiction of the United States or waters of the United States. (Reflects jurisdiction under 46 U.S.C. 4301 and FWPCA, as amended.)

   c. This understanding does not abrogate or limit the jurisdiction of the State or the United States. (Reflects the intent of 46 U.S.C. 4301 and reemphasizes that jurisdiction cannot be modified by administrative agreement.)

   d. All vessels equipped with propulsion machinery, except vessels exempt under the provisions of 33 CFR Part 173.11 or vessels documented or required to be documented by the Coast Guard, that are principally operated on waters subject to the jurisdiction of the State of _____ are subject to the numbering laws of the State. (Self-explanatory.)

e. The State shall, to the fullest extent practicable, endeavor to conform its laws, rules and regulations with Federal law, subject to the Federal preemption provisions contained in 46 U.S.C. 4306. The Coast Guard (G-OPB-2) and the State shall promptly furnish to each other the text of any proposed or enacted law, rule or regulation having to do with numbering, titling, equipping or operating vessels that are the subject of this Agreement and any administrative interpretations thereof.
(The Coast Guard must work closely with State officials to achieve uniformity using Federal law as the standard.)

f. The Coast Guard and the State will provide each other a copy of statistical and other data pertinent to the matters agreed to herein.
(The transfer of information between parties of the Agreement will provide a means to assess overall the status of boating safety initiatives within each State.)

3. TERMS OF UNDERSTANDING.

a. **Law Enforcement.**

(1) The State has primary recreational boating safety law enforcement responsibility within concurrent jurisdiction areas. In these waters the United States has exclusive responsibility for the enforcement of vessel inspection and related Federal statutes applicable to non-recreational vessels.
(The core of the understanding permits States to plan orderly boating enforcement programs knowing Coast Guard will not duplicate their efforts. This section may be used to divide primary enforcement or alternating patrol areas as determined.)

(2) In order to provide the most effective law enforcement possible with the vessels and personnel available and to avoid duplication of efforts in a given area at a given time, the (State BLA) of the State of _____ and the district commander of the Coast Guard District shall coordinate or arrange for coordination of law enforcement patrols on waters subject to concurrent jurisdiction.

(3) Numbering violations observed by Coast Guard boarding officers will be referred to the State of _____ for processing. In addition, other recreational boating violations may be referred to the State at the discretion of the District Commander.

(4) Violations of Federal safety standards for boats and associated equipment detected by State marine law enforcement officers will be reported to the Coast Guard for disposition.
(Reflects the law.)

(5) Violations of vessel inspection or related Federal laws by non-recreational vessels that are observed by State marine law enforcement officers will be reported to the Coast Guard for disposition.
(Reflects the law.)

(6) When a complaint is made to the Coast Guard alleging an offense that is a violation of the State recreational boating laws or regulations, the Coast Guard will normally refer the complaint to the proper State or local authority in the appropriate State jurisdiction. Similarly, when a complaint is made to the State of a violation of any vessel laws or regulations within the exclusive jurisdiction of the United States, the State will refer the complaint to the Coast Guard.
(This permits complaints of negligent operation, operating a vessel while intoxicated, or other violations to be referred to State officials.)

(7) A State marine law enforcement officer or Coast Guard boarding officer will not normally board a vessel for inspection if the operator produces evidence of a recent satisfactory State or Coast Guard examination or the vessel displays a current Coast Guard Auxiliary Courtesy Marine Examination or State inspection decal. However, notwithstanding a recent satisfactory examination, boarding will be undertaken when there are indications of a violation of U.S. or State statutes or regulations, or as part of a special local enforcement operation.
(Encourages public acceptance of voluntary inspection programs and prevents harassment of boat operators. The portion to require honoring of the Auxiliary decal is highly desirable but may be omitted where such inclusion would preclude agreement because of State objections.)

(8) A Coast Guard boarding officer who has observed a violation of a State boating law or regulation, or a State marine law enforcement officer who has observed a violation of vessel inspection law or other regulations of the United States, will generally be made available to testify for the State or Federal prosecution for the observed offense or to testify in any other proceeding relating to the violation.

(Cases involving criminally negligent operation or operating a vessel while intoxicated are complicated to prosecute in Federal court and the Coast Guard civil penalty process can be time-consuming. Hence, State criminal prosecution offers many advantages in promoting safe boating. In other situations, the Federal penalty will be more in line with the facts of the case and it may serve justice to prosecute the case in Federal courts. In either case, close cooperation is needed to fully satisfy the requirement to enhance boating safety.)

b. **Boating Under the Influence.**

(1) A common goal of the Coast Guard and the State is to rid the waterways of boaters operating under the influence of alcohol or a dangerous drug in violation of a law of the United States. To this end, the State and the Coast Guard agree to coordinate their Boating Under the Influence (BUI) enforcement efforts so that the most effective enforcement option is executed in each case, and each will encourage the establishment of mutual assistance and cooperative agreements between Coast Guard and State law enforcement officials operating in the same area.

(2) In the course of normal operations, the Coast Guard may detect a boat operator suspected of BUI within State waters where concurrent jurisdiction exists. When this occurs, the Coast Guard may administer field sobriety tests to the operator, including a chemical analysis of the operator's breath if this is within State guidelines for prosecution.

(2) If the operator is alone and believed to be under the influence of alcohol or drugs, the Coast Guard will:

(a) Attempt to notify State enforcement officials, terminate the voyage and bring the vessel to the nearest safe mooring where a telephone is available. Ensure an operator under the influence does not operate a vessel (in order to resolve the threat of harm to self and others).

(b) Document the case completely for whichever jurisdictional prosecution is followed (State arrest, Federal arrest or civil penalty).

(c) Discuss enforcement options available for the particular case with State enforcement officials.

(d) Make a determination of which option(s) to select and proceed with prosecution.

(e) If the State enforcement official proceeds with prosecution, provide case documentation and appropriate witnesses to pursue prosecution.

(4) The Coast Guard will, as operations permit, respond to calls for assistance from State enforcement agencies with respect to BUI enforcement.

(5) Toward a common goal of removing a boat operator suspected of BUI from the waterways, State enforcement agents will, as operations permit:

(a) Respond to calls for assistance from the Coast Guard with respect to BUI enforcement.

(b) Determine the extent of assistance the State can offer and advise the Coast Guard.

(c) Provide appropriate assistance within the agency's operational, logistical and legal constraints.

(d) Provide local Coast Guard commands with a point of contact to facilitate and enhance mutual enforcement efforts and concerns.

c. **Public Education and Training.**

(1) The parties will cooperate in public education and safety information programs. The State will distribute any Federal boating publications as agreed upon through its home and field offices. The Coast Guard will distribute any State applications and forms for motorboat numbering, State casualty report forms, and State boating pamphlets which are made available for that purpose by the State of _____.

(2) The Coast Guard will furnish to the State information concerning the time and place of public education courses within the State that are sponsored by the U. S. Coast Guard Auxiliary. The State will advise the Coast Guard of public education courses offered to the boating public. The parties will cooperate in developing public boating safety education program(s) to be used within the State.
(This will provide the basis for educational understanding and may be expanded, or covered in a separate Cooperative Agreement with the Coast Guard Auxiliary.)

(3) The Coast Guard will provide boating safety instructor training for State law enforcement personnel through the National Boating Safety Instructors Course (NBSIC) located at Reserve Training Center, Yorktown, Virginia on an "as available" basis. Similarly, the State will provide to the Coast Guard, on an "as available" basis, instructors and facilities for the training of Coast Guard personnel. In addition, safe boating and/or boat handling programs may be arranged with Coast Guard Auxiliary resources.

(Provides a common training ground for Federal and State law enforcement personnel, and fosters a close working relationship among the various agencies involved with the enforcement of boating and related laws.)

d. **Boating Casualty/Accident Reports and Investigative Reports.**

(1) The State agrees to investigate all recreational boating fatalities. The Coast Guard may investigate accidents involving fatalities on vessels used on waters of joint or federal jurisdiction, including the high seas if, in the sole discretion of the Coast Guard, the case warrants further investigation.

(2) For the purposes of this agreement, a boating casualty or accident is defined as an incident involving a fatality, a disappearance, a personal injury that requires medical treatment beyond first aid, damage to a vessel and other property totaling more than $500, or the total loss of a vessel.

(3) The State shall review all accident reports for accuracy and completeness and shall determine the cause and circumstances surrounding each reportable accident, including whether or not alcohol or drugs were a factor.

(4) The State shall abstract accident data from each boating accident report form and enter such data into the boating accident report database (BARD), which was developed in cooperation with the National Association of State Boating Law Administrators (NASBLA). The State agrees to ensure the quality of data entry is accurate and complete, providing for a successful data transfer into the national BARD located at Coast Guard Headquarters.

(5) An electronic copy of the State's accident and investigative report data, including any alcohol/drug test results, shall be forwarded to the Office of Command and Control Architecture (G-OCC-2) at Coast Guard Headquarters within 30 days of receipt of the initial casualty or accident report. States without electronic data transfer technology may forward copies of the accident and investigative reports to G-OCC-2. The Coast Guard will review the reports and investigations received for appropriate action.

e. **Search and Rescue.**

(1) On State waters that are not within the jurisdiction of the United States, the State has exclusive responsibility for providing search and rescue service. On State waters subject to the jurisdiction of the United States, the State and the Coast Guard have joint responsibility. The Coast Guard will concentrate activity on coastal waters, harbor areas, and inland water areas in the vicinity of Coast Guard facilities. On other waters subject to concurrent jurisdiction, Coast Guard planners will look primarily to search and rescue facilities provided by the State and its political subdivisions.

(Clarifies the relationship of Coast Guard/State authority in search and rescue matters.)

(2) The State and the Coast Guard agree to coordinate their search and rescue operations so that the most effective assistance will be rendered to those in distress on the waters within the State. To this end, each will encourage the establishment of mutual assistance and cooperative arrangements between Coast Guard and State facilities that are established in the same area. The competent authority for providing Federal search and rescue assistance on the Federal waters within the State is the Commander, _____ Coast Guard District, (Address). This authority is exercised through Rescue Coordination Center (RCC) (Location), telephone number _____. The competent authority for exercising coordination of State search and rescue activities on waters within the State is _____, telephone number _____ (or other means of contact).
(Provides agreement on coordination of effort and identifies the SAR agents of the State and the Coast Guard.)

(3) The State and the Coast Guard agree to actively support and participate in local search and rescue workshops, water safety councils and other such organizations to foster closer cooperation and coordination among State and local agencies, Federal agencies and others who have an interest or responsibility in search and rescue matters.
(Provides agreement on joint support of local water safety bodies.)

f. **Coast Guard Auxiliary.**

(1) Under Section 141 of Title 14 United States Code, the services of members of the Coast Guard Auxiliary may be used to assist the State in the promotion of boating safety and other activities for which Auxiliarists are especially qualified, when requested by proper State authority. The State fully supports the Coast Guard Auxiliary's programs, in particular, those to do with Courtesy Marine Examination, safety patrols and public education. The State welcomes the presence of the Auxiliary on all waters for these purposes.

(2) On those occasions when assistance by the Coast Guard Auxiliary is expressly desired by the State for a specific purpose, such requests for assistance will be initiated by competent authority in the State (BLA or other designee) and will be directed to the Director of Auxiliary, (Coast Guard District). Such requests will be submitted not less than 14 days in advance to permit processing and coordination.

g. **Regattas and Marine Parades.**

(1) The authorization and regulation of regattas and marine parades upon navigable waters of the United States that are subject to the concurrent jurisdiction of the State shall be within the province of the State when, in the opinion of the district commander, the State is able to regulate, under State law, in such a manner as to ensure safety of life. However, the regulations issued by the State may not impede the operation of other vessels, commercial or recreational, operating on waters subject to the jurisdiction of the United States.

(2) For the purposes of this agreement, the terms "regatta" and "marine parade" both mean an organized water event of limited duration that is conducted according to a prearranged schedule.

(3) Regattas and marine parades shall be administered in accordance with 33 CFR Part 100. The Coast Guard will provide to the State a copy of any notice of event or permit application that it receives for all events occurring on waters of concurrent jurisdiction. In turn, the State will provide to the Coast Guard a copy of any notice of event or permit application that it receives for all events occurring on waters subject to concurrent jurisdiction.

(4) The district commander of the applicable Coast Guard district reserves the right to assume primary responsibility for any regatta or marine parade on navigable waters of the United States when he deems such action to be in the public interest. Events of this type may include, but are not limited to:

(a) Regattas or marine parades of such size as to require patrols that the district commander knows to be in excess of the resources available to the State, or

(b) Those events on waterways where commercial or other traffic will be substantially impeded.

4. LIAISON: Liaison shall be as follows:

FOR THE STATE OF _____
_____(NAME)_____
_____(TITLE)_____
_____(ADDRESS)_____
_____(TELEPHONE)_____
FOR THE UNITED STATES
_____(NAME)_____
RBS Specialist
_____ Coast Guard District
_____(ADDRESS)_____
_____(TELEPHONE)_____

(Self explanatory. The goal is three liaison visits with each State per year. This can be accomplished by personal visit to each State, meetings at the district office, or attendance at the regional and national conferences of NASBLA. Assistance in drafting or revising statutes, rules, and regulations should be supervised by the legal counsel of the liaison officers.)

5. DURATION OF AGREEMENT.

a. This agreement will be reviewed two years from the date signed and every two years there after. If the terms of the agreements remain acceptable to both parties, an endorsement, signed by both parties, will be attached. Parties can amend anytime by mutual written agreement. Every amendment is to be attached to the document, as well as a copy provided to Commandant G-OPB-2.

b. This agreement remains in effect until canceled by either party. The canceling party will provide the other party with at least 30 days notice.

(The representatives who review the agreement need not actually meet in person. A telephone conference confirmed by a brief written statement of review will suffice.)

STATE OF _____

_____

_____

By_____

TITLE_____

DATE_____

(The district commander shall attempt to have the agreement signed by the Governor or other high State official. This may add emphasis to the agreement and promote publicity to the boating public as to the existence of the Agreement.)

UNITED STATES OF AMERICA
DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

By_____
Rear Admiral, U.S. Coast Guard
Commander, _____ Coast Guard District

DATE_____

RESPONSIBLE DISTRICT COMMANDERS FOR STATE BOATING LIAISON ACTIVITIES

Responsible District Commander	States and Territories	
First Coast Guard District	Connecticut	
	Maine	
	Massachusetts	
	New Hampshire	
	New York	
	Rhode Island	
	Vermont	
Fifth Coast Guard District	Delaware	
	Maryland	
	New Jersey	
	North Carolina	
	Pennsylvania	
	Virginia	
	District of Columbia	
Seventh Coast Guard District	Florida	
	Georgia	
	South Carolina	
	Puerto Rico	
	Virgin Islands	
Eighth Coast Guard District	Alabama	Nebraska
	Arkansas	New Mexico
	Colorado	North Dakota
	Illinois	Oklahoma
	Indiana	South Dakota
	Iowa	Tennessee
	Kansas	Texas
	Kentucky	West Virginia
	Louisiana	Wyoming
	Mississippi	
	Missouri	

Responsible District Commander	States and Territories
Ninth Coast Guard District	Michigan
	Minnesota
	Ohio
	Wisconsin
Eleventh Coast Guard District	Arizona
	California
	Nevada
	Utah
Thirteenth Coast Guard District	Idaho
	Montana
	Oregon
	Washington
Fourteenth Coast Guard District	Hawaii
	Guam
	American Samoa
	Northern Marianas
	Trust Territory of the Pacific Islands
Seventeenth Coast Guard District	Alaska

It is recognized that some States are located in more than one district. In those cases, district commanders should be governed by paragraph 2.e.(3) of enclosure (1) of this Instruction.

U.S. Department of
Homeland Security

United States
Coast Guard

U.S. COAST GUARD MARITIME LAW ENFORCEMENT MANUAL (MLEM)

COMDTINST M16247.1D

FOR OFFICIAL USE ONLY

Public availability to be determined
Under 5 U.S.C. 552 and 552a

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Section D. Policy and Procedures

Introduction	This section contains policy and procedures that apply to the entire vessel safety mission area.
D.1. Voyage Termination	As discussed in *Section C* of this chapter, termination may be authorized for violation of certain offenses described in this chapter. Termination of a voyage is an order to the master or operator of a vessel to return to a safe anchorage, mooring or dock until an especially hazardous condition is corrected, or an order to cease specific operations until the especially hazardous condition is corrected. An order to cease specific operations may include not only halting certain activity, but also limiting the operation of the vessel to the specific geographic area for which it has the proper safety equipment.
D.1.a. Goal	The goal of termination is to protect the safety of the persons onboard the vessel and the maritime public. Once the decision to terminate a voyage has been made, Boarding Officers may need to consider additional actions necessary to alleviate the especially hazardous condition (e.g., removing passengers and/or cargo from the vessel, escorting or towing the vessel to port). An intoxicated operator shall not be directed or permitted to operate the vessel.
D.1.b. Reporting	Boarding Officers shall document an order of termination on the Report of Boarding Form (CG-4100) in accordance with *Appendix E* of this manual. Form CG-4100S should include a description of the specific unsafe conditions, time of termination, rationale for terminating the voyage and any specific instructions given to the operator. When terminating the voyage of a recreational vessel, units shall report the action to the District Commander by the most expeditious means. When terminating the voyage of a commercial vessel, units shall report the action via the chain of command to Commandant (G-MOC) by the most expeditious means.
D.1.c. Refusal to Comply with Order	When a vessel's voyage is terminated for violation of Titles 33 and 46 U.S.C. as described in *Section C.1* above, and the operator refuses to comply with the order to terminate, such refusal may constitute a willful violation of the statute(s), thereby subjecting the operator to arrest.
D.1.d. Commercial Fishing Industry Vessel Safety Act Violation	When a vessel's voyage is terminated for violation of CFIVSA as described in *Section C.3* above, and the vessel is directed to port as a result of termination, the cognizant District Commander shall ensure that a comprehensive CFIVSA inspection (to include all items listed on CG-4100F) is conducted upon the vessel's arrival. This inspection should be conducted in conjunction with the local commercial fishing vessel safety examiner or appropriate marine safety personnel. When a vessel's voyage is terminated for violation of CFIVSA as described in *Section C.3* above, and the operator refuses to comply with the order to terminate, such refusal may constitute a willful violation of the statute, thereby subjecting the operator to arrest.
D.2. Marine Casualty Reporting	As provided in 46 CFR Part 4, commercial vessel and inspected vessel owners/operators are required to report marine casualties and boating accidents to appropriate authorities.

D.2.a. Typical Casualties

Marine casualties are any casualty or accident involving any vessel other than a public vessel, if it occurs on U.S. navigable waters or in the waters of U.S. territories or possessions, or any casualty or accident anywhere involving a U.S. vessel that is not a public vessel. Typical casualties include, but are not limited to:

- Incidents resulting in personal injury or damage to property afloat.
- Fires.
- Groundings.
- Collisions.
- Strandings.
- Heavy weather damage.
- Failure of gear and equipment that might affect the seaworthiness of a vessel.
- Casualties involving loss of life or injury to any person diving from a vessel while using an underwater breathing apparatus.

D.2.b. Reporting Requirements

Marine casualty reporting requirements apply to:

- All U.S. vessels, except public vessels, wherever located.
- Any foreign vessel involved in a marine casualty on U.S. navigable waters.
- Foreign tankships in waters subject to the U.S. jurisdiction (including the Exclusive Economic Zone (EEZ)) for marine casualties resulting in material damage affecting the seaworthiness or efficiency of the vessel or posing significant harm to the environment.

Any information relating to a marine casualty should be forwarded to the cognizant OCMI for review by an Investigating Officer. If evidence indicates violation of U.S. law, the OCMI may initiate criminal action, civil penalty action or suspension or revocation of a mariner's license or document.

D.3. Boating Accident Reporting

As provided in 33 CFR Part 173, recreational vessel and uninspected vessel operators are required to report boating accidents to appropriate authorities under certain circumstances. Generally, reporting is required when the accident involves a death or disappearance, injury requiring medical treatment beyond first aid, property damage totaling more than $2000, or complete loss of the vessel. Many states have lower reporting threshold amounts. Vessels required to report incidents under 33 CFR Part 173 as boating accidents are exempt from marine casualty reporting requirements in 46 CFR Part 4.

- For units responding to boating accidents, the Boarding Officer shall inform the operator of each involved vessel of the reporting requirements (33 CFR 173.55 and 173.57), and provide the operator of each vessel a copy of the Boating Accident Report Form (either CG-3865 or the appropriate state form).
- For units responding to boating accidents occurring within waters with concurrent state jurisdiction, the Boarding Officer shall notify the cognizant state authority as soon as practical to facilitate a timely investigation and ensure inclusion of the information in the state Boating Accident Report Database (BARD) system. If there is any indication the accident was caused by a fault in boat construction or design, notify Commandant (G-PCB) expeditiously.
- For accidents involving a fatality, the Boarding Officer shall report the location and circumstances of the accident to the cognizant District Commander and Commandant (G-PCB) by message.
- Boating accident investigations are normally conducted by state or local agencies. The cognizant OCMI will investigate recreational boating accidents occurring seaward of state jurisdiction.

D.4. Foreign Flag Recreational Vessels

Foreign flag recreational vessels temporarily using waters subject to U.S. jurisdiction will typically be issued a U.S. Customs Cruising Permit, which is valid for up to six months and is renewable without restriction. While operating under this permit, such vessels are generally exempt from complying with U.S. recreational boating safety laws and regulations. However, foreign flag recreational vessels are required to comply with operational requirements, such as the COLREGs or Inland Rules of the Road. Additionally, such vessels must be documented or numbered in accordance with flag State law. In important cases, questions concerning the requirements for particular nations may be addressed by contacting Commandant (G-OPL) for referral to the flag State via diplomatic channels.

D.5. Disability and Safe Operation and Recreational Vessels

The Coast Guard is fully committed to the safety and security of all persons in the marine environment. It is well-settled that disabled people should be given an equal opportunity to obtain the same results in their life activities as non-disabled people. Accordingly, deafness alone shall not be a bar to getting a recreational vessel underway and operating it, and the Coast Guard will not normally engage in prior restraint of deaf recreational boaters.

All boaters, regardless of physical condition, are required to comply with Federal law and regulations regarding the safe operation of vessels, including the requirement of Rule 5 of the Inland and International Navigation Rules, which require all vessels at all times to maintain a proper lookout by sight and hearing as well as by all available means in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

It is the responsibility of all boaters, including hearing-impaired boaters, to comply with these and other applicable safety regulations. Likewise, all boaters must have the capability to perceive signals from LE vessels, particularly signals to stop and comply with lawful orders.

Boarding officers contemplating enforcement action focused on perceived unsafe operations arising from or related to a disability should contact the District LE Staff and servicing Staff Judge Advocate (SJA) via the chain of command for guidance before issuing any citation or taking further enforcement action.

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second St. S.W.
Washington, DC 20593-0001
Staff Symbol: G-RPR
Phone: (202) 267-1943

COMDTNOTE 16130
10 JAN 2006

COMMANDANT NOTICE 16130

CANCELLED: 9 JAN 2007

Subj: CH-1 TO THE U.S. COAST GUARD ADDENDUM TO THE UNITED STATES NATIONAL SEARCH AND RESCUE SUPPLEMENT (NSS) TO THE INTERNATIONAL AERONAUTICAL AND MARITIME SEARCH AND RESCUE MANUAL (IAMSAR), COMDTINST M16130.2D

1. PURPOSE. This Notice promulgates change one to the U.S. Coast Guard Addendum to the United States National Search and Rescue Supplement (NSS) to the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR), COMDTINST M16130.2D.

2. ACTION. Area and District Commanders and Commanding Officers shall ensure that the provisions of this Notice are followed, and that personnel performing SAR duties are familiar with the provisions of this change to COMDTINST M16130.2D. Internet release authorized.

3. DIRECTIVES AFFECTED. None.

4. SUMMARY OF MAJOR CHANGES.

   a. Preface and Program Overview:
      (1) PPO-3-4, section VI: SAR System Performance Benchmark.
   b. Chapter 1:
      (1) 1.2.5: Expands on Health Risks to Coast Guard personnel.
      (2) 1.2.5.2: Adds information on respiratory diseases and identifying disease threats.
      (3) 1.5.4.1: Includes the requirement to notify state or local officials of boating accidents or information the enter into the Boating Accident Database (BARD) System.
   c. Chapter 2:
      (1) 2.1.5.1: Adds further policy on the monitoring of 2182 MHz.
      (2) 2.1.5.8: Includes the INMARSAT decision to halt Inmarsat E beacon service.
      (3) 2.2.5.5: Clarifies action to be taken for VHF-FM DSC distress calls on both the legacy and R21 systems.
      (4) 2.5.7.a: Clarifies the circuit breakdown for each Remote Fixed Facility (RFF).
      (5) 2.5.7.c: Expands asset tracking policy.
      (6) 2.7.1.4: Adds cellular tower locator Policy.
      (7) 2.11: Adds Ship Security Alert Systems Policy.

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NON-STANDARD DISTRIBUTION:

1.5.3.6 **Exercise Planning Guidance and Sharing Lessons Learned.** The Coast Guard's Exercise Planning Manual provides guidance on how to plan and conduct an exercise, as well as reporting requirements for lessons learned. In addition, the Coast Guard Contingency Preparedness System (CPS) gives planning guidance. The purpose of CPS is to provide an efficient means of entering, integrating, managing, and monitoring Contingency Plans, Concept of Exercise reports, and capturing After Action Reports, Lessons Learned, and Best Practices from operations, contingency responses, and exercises. It can be found at http://llintra.comdt.uscg.mil/CPS/.

1.5.4 Information Sharing and Case Coordination

Coast Guard units will extend the maximum practicable cooperation to federal, state, local and private agencies in the prosecution of SAR missions.

1.5.4.1 The SAR Coordinator of any Coast Guard unit responding to a recreational boating accident (as described in 33 CFR 173.55) occurring within concurrent state jurisdiction shall notify the cognizant state authority as soon as practical to ensure inclusion of the information in the state Boating Accident Report Database (BARD) system.

1.5.4.2 Any Coast Guard unit receiving a request for SAR case information from a federal, state or local agency within their AOR will comply with that request unless there is a compelling reason to withhold it. Before the request is denied, concurrence will be obtained from the cognizant district commander.

1.5.4.3 Coast Guard commands, at all levels, shall establish sound working relationships with counterpart agencies within their AOR. Such relationships may take the form of formal agreements or MOU's. MOU's should be regularly reviewed for currency. This working relationship with other federal, state and local agencies must include timely and effective means of sharing SAR case information, as well as mission resources. This information is essential to these agencies to optimize their SAR case contribution, and for their investigative purposes, which ultimately benefit the Coast Guard.

1.5.5 SAR Assessments

A SAR assessment is intended to identify areas for improvement and to help assess needs of the SAR system.

1.5.5.1 The Coast Guard conducts two general types of assessment: internal and international. The internal (national) assessment is an evaluation of our national system as performed within the Coast Guard. Coast Guard personnel trained for this duty perform this type of assessment at a specific level (unit or RCC).

1.5.5.2 International SAR assessments are conducted by the U.S. Coast Guard at the request of a foreign government. Such requests from a foreign government may come directly to Coast Guard Headquarters SAR Program (G-OPR) or may come indirectly; e.g., through another U.S. agency, from IMO in accordance with an existing MOU, or to another part within the Coast Guard. An international SAR assessment is typically an evaluation of that country's overall SAR service. There are few people in the Coast Guard with experience in conducting this type of assessment.

1.5.5.3 All requests for an international SAR assessment shall be brought to the attention of Commandant (G-OPR). Such assessments shall be conducted under the guidance provided in reference (b), Volume I, Chapter 5, which provides broad guidance and Appendix H, *National Self-Assessment on Search and Rescue*, which is a general questionnaire on arrangements to develop and provide SAR services.

1.5.5.4 The U.S. SAR system has served as a model for many countries but should not be viewed as the exclusive way of providing SAR services. Any country requesting U.S. Coast Guard assistance in assessing their SAR system will be encouraged to complete the *National Self-Assessment on Search and Rescue* questionnaire contained in Volume I of the IAMSAR Manual before an on-site visit is conducted. The country will also be encouraged to provide an advance copy of the completed questionnaire since this document is very useful in preparing for the visit.

1.5.6 Sharing Computer SAR Applications

The authority to distribute SAR computer tools varies by application and agency and is different for domestic and

NATIONAL ASSOCIATION OF STATE BOATING LAW ADMINISTRATORS

October 9, 2006

Mr. James P. Muldoon, Chairman
National Boating Safety Advisory Council
1500 K Street, NW, Suite 350
Washington, DC 20005-1209

Dear Chairman Muldoon:

The National Association of State Boating Law Administrators (NASBLA) is pleased to submit the proposed "Recreational Boating Accident and Casualty Reporting Decision Matrix" as our preferred method of determining which boat-involved incidents should be captured by the Recreational Boating Safety (RBS) Program. This document was unanimously supported by our members during our annual business meeting held on September 27, 2006, and we forward it to you with the recommendation that it be adopted as a standard for recreational boating accident reporting nationwide.

While efforts to develop and implement a strategic plan for the Office of Boating Safety are still underway, never before has the establishment of thorough and easy-to-use reporting guidelines been so critical. Many RBS Program goals and measures are directly linked to boating accident data gathered and reported by the states. Prompt action upon this request will help both state and federal partners clearly identify program parameters and ensure consistency in accident report data. The adoption of the Decision Matrix will lay the proper foundation for many future boating safety efforts.

Since its promulgation in 1973, CG-449, known as the "Standard Method of Reporting [Boating Accidents]," has been the U.S. Coast Guard's formal written policy on this topic. However, both written and verbal alterations to this policy have been issued which have contributed to unnecessary confusion among state investigators and boating safety program managers. This has led to inconsistent accident reporting. This proposal is offered in an effort to assist the U.S. Coast Guard's movement toward improved consistency of RBS Program data.

Some of the noteworthy changes in the Decision Matrix that differ from the most recent reporting criteria published by the U.S. Coast Guard in "*Boating Statistics – 2005*" include:

- A clear statement is made to ensure that accidents involving "recreational vessels" are identified as the focus of the RBS Program. A specific exclusion of "water toys" from this program's purview is also provided to ensure that these devices, already defined in the Code of Federal Regulation, are not inadvertently confused with recreational vessels.

- The geographic location of the accident for reporting purposes was appropriately expanded to include those waters subject to state and/or territorial jurisdiction.

- A definition of "medical treatment beyond first aid" was created to offer a simplified interpretation of this occurrence.

1500 Leestown Road, Suite 330 • Lexington KY 40511-2047 • PH: 859.225.9487 • FAX: 859.231.6403 • www.nasbla.org • E-mail: info@nasbla.org

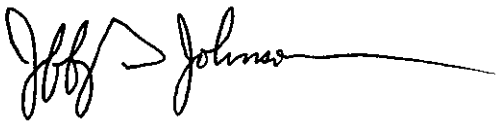
• "A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from a vessel" was moved to the list of occurrences **excluded** from accident reporting. These occurrences were clearly excluded and classified as swimming incidents prior to being re-classified in 2001, primarily as a result of concerns over stray current and carbon monoxide poisonings that may not have been getting reported. Investigators, medical examiners, and the boating public are better informed on these topics today. In addition, it is the belief of NASBLA members that such an occurrence where the vessel does not contribute to the casualty, except to serve as a vehicle or platform from which the person safely departs, does not constitute a boating accident.

• Another change to the list of **excluded** occurrences is when "a person dies, is injured, or is missing as a result of swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from a place of inherent safety, such as the shore, a pier, or another vessel." It is the belief of our membership that departing from a place of inherent safety, including a vessel, crosses the line between swimming incidents and boating accidents.

We believe you will find this document to be a simplified method of making a determination whether or not an occurrence involving a vessel qualifies as a reportable boating accident. Although some minor modifications may be necessary as a result of legal review, we trust that our intent of keeping it as simple and non-technical as possible will be held in high regard. Should such a thorough review lead to a conclusion that change to the Code of Federal Regulations is required, please consider this our petition to initiate such action.

Thank you for taking the time to review this material and for engaging in the efforts necessary to implement these changes. By clearly identifying the reach of the RBS Program, especially in this critical area of accident reporting, we will be able to focus on the areas of greatest need for intervention and better equip the states to be the most effective National Recreational Boating Safety Program partners possible. If further discussion or clarification is necessary, please let me know.

Sincerely,



Jeffrey S. Johnson
President

Enclosures

C: Jeffrey Hoedt, Chief
Office of Boating Safety

Recreational Boating Accident and Casualty Reporting Decision Matrix

Clarification for Question 1

A "recreational vessel" is any vessel manufactured or operated for pleasure; or leased/rented to another for the latter's pleasure that is propelled or controlled by machinery, sails, oars, paddles, poles, or another vessel.

This will not include vessels subject to inspection under Title 46 U.S.C. Chapter 33 or any water toys such as an air mattress, inner tube, float tube, boogie board, surf board, beach raft, or other similar device designed to be used by bathers at beaches, lakes, or in swimming pools.

Clarification for Question 2

This includes launching and retrieving a vessel provided it is in the water and capable/ready for its intended use.

Clarification for Question 3

"Medical treatment beyond first aid" requires that medical treatment is or should have been provided by a medical practitioner; such as a doctor, nurse, or emergency medical technician.

Also note that state property damage thresholds vary.

Clarification for Question 4

*A list of **included** occurrences includes, but is not limited to:*

- *Grounding, capsizing, sinking, flooding or swamping.*
- *Falls within or overboard a vessel.*
- *Persons ejected from a vessel.*
- *Fire or explosion.*
- *Skiing or other mishap with a towable device.*
- *Collision with another vessel or object.*
- *Striking a submerged object.*
- *A person is struck or injured by a vessel, propeller, propulsion unit, steering machinery, or another vessel-related item.*
- *Carbon monoxide exposure related to a vessel.*
- *Electrocution due to stray current related to a vessel.*

*A list of **excluded** occurrences is as follows:*

• A person dies, is injured, or is missing as a result of self-inflicted wounds, alcohol poisoning, gunshot wounds, or the ingestion of drugs, controlled substances or poison.
• A person dies, is injured, or is missing as a result of assault by another person or persons while aboard a vessel.
• A person dies or is injured from natural causes while aboard a vessel.
• A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from a vessel.
• A person dies, is injured, or is missing as a result of swimming to retrieve an object or a vessel that is adrift from its mooring or dock, having departed from a place of inherent safety, such as the shore, a pier, or another vessel.
• Property damage occurs or a person dies, is injured, or is missing while preparing a vessel for launching or retrieving and the vessel is not in the water and capable/ready for its intended use.
• Property damage occurs or a person dies, is injured, or is missing as a result of a fire on shore or a pier that spreads to a vessel or vessels.
• Property damage occurs to a docked or moored vessel or a person dies, is injured, or is missing from such a vessel as a result of storms, or unusual tidal or sea conditions.
• Property damage occurs or a person dies, is injured, or is missing when a vessel gets underway in stormy or unusual tidal or sea conditions to rescue persons in peril.
• Property damage occurs to a vessel due to theft or vandalism.
• Property damage occurs to, a person dies or is injured on, or a person is missing from a non-propelled houseboat or other vessel used primarily as a residence when such vessel is not underway.
*• A person dies, is injured, or is missing while swimming, snorkeling, or diving and a vessel **did not** contribute to the casualty.*

U. S. COAST GUARD

POLICY STATEMENT

SHARING ACCIDENT DATA BETWEEN THE COAST GUARD AND STATES

ISSUE: Timely sharing of accident information between the Coast Guard and the States.

BACKGROUND: Reporting authorities (States and their political subdivisions) have a regulatory requirement (33 CFR Parts 173 and 174) to forward all recreational boating accident reports to Coast Guard Headquarters (G-PCB) within 30 days of receipt of the accident report form from the boat operator or owner. The information the CFR and States require is information about each vessel involved, names and addresses of persons involved, where/when the incident occurred, extent of injuries, witness statements, etc. (see 33 CFR 173.57.) This data is used by the Coast Guard for statistical analysis, program planning, and regulatory efforts to effectively achieve the performance goals of the National Recreational Boating Safety Program.

DISCUSSION: In certain recreational boat accident situations, the Coast Guard is either the initial or sole responding agency to the accident. Coast Guard field unit staffs then gather vital accident data needed by the States for evidentiary, adjudication and statistical analysis purposes. In these cases, the State, as the primary recreational boating criminal enforcement agency and provider of accident data to the Boating Accident Report Database (BARD) System, the national database for recreational boating accidents in G-PCB, needs immediate access to the accident information gathered by the Coast Guard field units.

Currently, many of our Federal/State Recreational Boating Safety Cooperative Agreements are designed as per the U.S. Coast Guard Addendum to the National Search and Rescue Supplement, COMDTINST M16130.2 (series), to include a clause about immediately notifying each other when either becomes aware of an accident. Problems sometimes arise in the situations described above when the Coast Guard is the sole responder or when a State does not immediately send their investigator to the scene. The State must then rely on the Coast Guard immediately sharing the information that it has collected. Commandant Instruction M16130.2 (series) Chapter 1.5.4.2., and the Maritime Law Enforcement Manual, COMDTINST M16247.1 (series) Chapter 11.D.3 mandate the sharing of information.

POLICY: The Coast Guard has determined that the information required by State investigators to meet BARD reporting requirements should be classified *"For Official Use Only"* and, therefore, not subject to the provisions of the Privacy Act. Upon request from a State, the Coast Guard will provide Marine Information for Safety and Law Enforcement (MISLE) System data to those States with an amended Federal/State RBS Cooperative Agreement that has been posted on the MISLENET. Coast Guard District Recreational Boating Safety Specialists shall negotiate an amendment to the current Agreement to include the following language: *"Upon receiving a request from the State reporting authority for information from a USCG maritime casualty investigation or search and rescue operation, the USCG will provide*

information and data to the State reporting authority from the Marine Information for Safety and Law Enforcement (MISLE) System, as well as investigation materials and documentation available at the time of the request. Pages containing material that is not releasable to the public will be marked "FOR OFFICIAL USE ONLY." Pages from activities that are open or incomplete will be marked "DRAFT." The State reporting authority will not release to the public, or to any other agency, any information or data provided by the USCG that is marked "DRAFT" or "FOR OFFICIAL USE ONLY" without prior approval from the USCG." Requests for Incident Investigation Reports must be sent to Commandant (G-PRI). This policy will apply only to those States signing an amended Agreement and will be incorporated in the Federal/State Relations – Recreational Boating Safety COMDTINST 16750.8 (series).

JUL 24 2006

APPROVED: _____ **DATE:** _____

B. M. SALERNO
Rear Admiral, U.S. Coast Guard

TITLE 46--SHIPPING

Subtitle II--Vessels and Seamen

Part D--Marine Casualties

CHAPTER 61--REPORTING MARINE CASUALTIES

Sec. 6102. State marine casualty reporting system

(a) The Secretary shall prescribe regulations for a uniform State marine casualty reporting system for vessels. Regulations shall prescribe the casualties to be reported and the manner of reporting. A State shall compile and submit to the Secretary reports, information, and statistics on casualties reported to the State, including information and statistics concerning the number of casualties in which the use of alcohol contributed to the casualty.

(b) The Secretary shall collect, analyze, and publish reports, information, and statistics on marine casualties together with findings and recommendations the Secretary considers appropriate. If a State marine casualty reporting system provides that information derived from casualty reports (except statistical information) may not be publicly disclosed, or otherwise prohibits use by the State or any person in any action or proceeding against a person, the Secretary may use the information provided by the State only in the same way that the State may use the information.

(Pub. L. 98-89, Aug. 26, 1983, 97 Stat. 536; Pub. L. 98-557, Sec. 7(b)(2), Oct. 30, 1984, 98 Stat. 2862.)

Historical and Revision Notes

Revised section	Source section (U.S. Code)
6102	46:1486

Section 6102(a) requires the Secretary to prescribe regulations for a uniform State marine casualty reporting system for vessels. The Secretary may limit the scope and types of casualties to be investigated and reported by the State. It also requires the State to submit to the Secretary reports, information, and statistics on casualties reported to the State.

Subsection (b) requires the Secretary to analyze the information that is received from the State. It also prohibits the Secretary from disclosing the information, proceeding against any person based on this information, or otherwise using the information, if the State cannot use the information in the same way.

Amendments

1984--Subsec. (a). Pub. L. 98-557 inserted provisions relating to alcohol as a contributing factor to the casualty.

Plan To Increase Marine Casualty Reporting

Pub. L. 104-324, title III, Sec. 314(a), Oct. 19, 1996, 110 Stat. 3922, provided that: ``Not later than one year after enactment of this Act [Oct. 19, 1996], the Secretary of Transportation shall, in consultation with appropriate State agencies, submit to the Committee on Resources of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a plan to increase reporting of vessel accidents to appropriate State law enforcement officials.''

Section Referred to in Other Sections

This section is referred to in sections 6103, 13102 of this title.

Sec. 13101. State recreational boating safety programsUnited State Code
TITLE 46 - SHIPPING
Subtitle II - Vessels and Seamen
Part I - State Boating Safety Programs
CHAPTER 131 - RECREATIONAL BOATING SAFETY

U.S. Code as of: 01/26/1998
Sec. 13101. State recreational boating safety programs

(a) To encourage greater State participation and uniformity in boating safety efforts, and particularly to permit the States to assume the greater share of boating safety education, assistance, and enforcement activities, the Secretary shall carry out a national recreational boating safety program. Under this program, the Secretary shall make contracts with, and allocate and distribute amounts to, eligible States to assist them in developing, carrying out, and financing State recreational boating safety programs.

(b) The Secretary shall establish guidelines and standards for the program. In doing so, the Secretary -

(1) shall consider, among other things, factors affecting recreational boating safety by contributing to overcrowding and congestion of waterways, such as the increasing number of recreational vessels operating on those waterways and their geographic distribution, the availability and geographic distribution of recreational boating facilities in and among applying States, and State marine casualty and fatality statistics for recreational vessels;

(2) shall consult with the Secretary of the Interior to minimize duplication with the purposes and expenditures of the Land and Water Conservation Fund Act of 1965 (16 U.S.C. 460l-4 - 460l-11) the Federal Aid in Sport Fish Restoration Act of 1950 (16 U.S.C. 777-777k), and with the guidelines developed under those Acts; and

(3) shall maintain environmental standards consistent with the Coastal Zone Management Act of 1972 (16 U.S.C. 1451-1464) and other laws and policies of the United States intended to safeguard the ecological and esthetic quality of the waters and wetlands of the United States.

(c) A State whose recreational boating safety program has been approved by the Secretary is eligible for allocation and distribution of amounts under this chapter to assist that State in developing, carrying out, and financing its program. Matching amounts shall be allocated and distributed among eligible States by the Secretary as provided by section 13103 of this title.Source (Pub. L. 98-89, Aug. 26, 1983, 97 Stat. 592; Pub. L. 98-369, div. A, title X, Sec. 1011(b), July 18, 1984, 98 Stat. 1013; Pub. L. 101-595, title III, Sec. 312(a), Nov. 16, 1990, 104 Stat. 2987.)

Historical and Revision Notes

Revised section	Source section (U.S. Code)
13101	46:1474

Section 13101(a) authorizes the Secretary to make contracts with, and allocate amounts to eligible States to assist them in carrying out their recreational boating safety and facilities improvement programs.

Subsection (b) requires the Secretary to establish guidelines and standards for the program, and specifies specific conditions the Secretary must consider, requires consultation with the Secretary of the Interior, and to maintain environmental standards consistent with the Coastal Zone Management Act.

Subsection (c) makes the States who meet the standards prescribed by the Secretary eligible for the amounts authorized under this chapter.

REFERENCES IN TEXT

The Land and Water Conservation Fund Act of 1965, referred to in subsec. (b)(2), is Pub. L. 88-578, Sept. 3, 1964, 78 Stat. 897, as amended, which is classified generally to part B (Sec. 460l-4 et seq.) of subchapter LXIX of chapter 1 of Title 16, Conservation. For complete classification of this Act to the Code, see Short Title note set out under section 460l-4 of Title 16 and Tables.

The Federal Aid in Sport Fish Restoration Act of 1950, referred to in subsec. (b)(2), is act Aug. 9, 1950, ch. 658, 64 Stat. 430, as amended, also popularly known as the Federal Aid in Fish Restoration Act and as the Fish Restoration and Management Projects Act, which is classified generally to chapter 10B (Sec. 777 et seq.) of Title 16. For complete classification of this Act to the Code, see Short Title note set out under section 777 of Title 16 and Tables.

The Coastal Zone Management Act of 1972, referred to in subsec. (b)(3), is title III of Pub. L. 89-454 as added by Pub. L. 92-583, Oct. 27, 1972, 86 Stat. 1280, as amended, which is classified generally to chapter 33 (Sec. 1451 et seq.) of Title 16. For complete classification of this Act to the Code, see Short Title note set out under section 1451 of Title 16 and Tables.

AMENDMENTS

1990 - Subsec. (b)(2). Pub. L. 101-595 substituted ''the Federal Aid in Sport Fish Restoration Act of 1950 (16 U.S.C. 777-777k), and with the guidelines developed under those Acts; and'' for ''and with the guidelines developed under that Act; and''.

1984 - Subsec. (a). Pub. L. 98-369, Sec. 1011(b), struck out ''and facility improvement'' after ''in boating safety'', struck out ''and facilities improvement'' in two places after ''recreational boating safety'', and substituted ''shall'' for ''may'' in second sentence.

Subsec. (c). Pub. L. 98-369, Sec. 1011(b)(1)(B), struck out ''and facilities improvement'' after ''recreational boating safety''.

EFFECTIVE DATE OF 1984 AMENDMENT

Section 1013 of subpart A (Sec. 1010-1013) of part I of subtitle B of title X of division A of Pub. L. 98-369 provided that: ''The amendments made by this subpart (amending this section and sections 2102, 13102, 13103, 13105, 13106, 13108, and 13109 of this title and enacting a provision set out as a note under this section) shall take effect on October 1, 1984, and shall apply with respect to fiscal years beginning after September 30, 1984.''

SHORT TITLE OF 1986 AMENDMENT

Pub. L. 99-626, Sec. 1, Nov. 7, 1986, 100 Stat. 3504, provided that: ''This act (amending sections 13102, 13106, and 13110 of this title and section 1464 of Title 16, Conservation, and enacting provisions set out as notes under section 13110 of this title and section 1456a of Title 16) may be cited as the 'Recreational Boating Safety Act of 1986'.''

SURVEY OF FUEL USE BY RECREATIONAL VESSELS

Pub. L. 100-448, Sec. 6(d), Sept. 28, 1988, 102 Stat. 1841, provided that:

''(1) In general. - The Secretary of Transportation and the Secretary of the Interior shall jointly conduct a survey of -

''(A) the number, size, and primary uses of recreational vessels operating on the waters of the United States; and

''(B) the amount and types of fuel used by those vessels.

''(2) Authorization of contracts. - The Secretary of Transportation and the Secretary of the Interior may enter into contracts for the performance of a survey pursuant to this subsection.

''(3) Report. - The Secretary of the Interior and the Secretary of Transportation shall jointly submit a report to the Speaker of the House of Representatives and to the President pro tempore of the Senate which describes the results of the survey conducted pursuant to this section not later than November 15, 1992.

''(4) Funding. - Activities under this subsection may be carried out -

''(A) using amounts available to the Secretary of the Interior for administrative expenses under the Act entitled 'An Act to provide that the United States shall aid the States in fish restoration and management projects, and for other purposes' (64 Stat. 430; 16 U.S.C. 777 et seq.); and

''(B) subject to appropriations, using amounts available to the Secretary of Transportation under section 13106(a)(1) of title 46, United States Code (as amended by this Act).''

CONGRESSIONAL DECLARATION OF POLICY FOR 1984 AMENDMENT

Section 1010 of part I (Sec. 1010-1017) of subtitle B of title X of division A of Pub. L. 98-369 provided that: ''It is declared to be the policy of Congress and the purpose of this part (enacting sections 4162 and 9504 of Title 26, Internal Revenue Code, amending this section, sections 2102, 13102, 13103, 13105, 13106, 13108, and 13109 of this title, sections 777, 777b to 777e, 777g, and 777k of Title 16, Conservation, and sections 4161 and 9503 of Title 26, repealing section 13107 of this title, and enacting provisions set out as notes under this section, section 777 of Title 16, and sections 4161, 4162, and 9504 of Title 26) to improve recreational boating safety and to foster greater development, use, and enjoyment of all waters of the United States by encouraging and assisting participation by the States, the boating industry, and the boating public in activities related to increasing boating safety; by authorizing the establishment of national construction and performance standards for boats and associated equipment; by creating more flexible authority governing the use of boats and equipment; and by facilitating the provision of services by the United States Coast Guard on behalf of boating safety. It is further declared to be the policy of Congress to encourage greater and continuing uniformity of boating laws and regulations among the States and the Federal Government, to encourage and assist the States in exercising their authorities in boating safety, to foster

greater cooperation and assistance between the Federal Government and the States in administering and enforcing Federal and State laws and regulations pertaining to boating safety, and to equitably utilize taxes paid on fuel use in motor boats in a manner which enhances boating safety.''

(b) The certificate of number is invalid under paragraph (c) of §173.77; or

(c) The vessel is no longer principally used in the State where the certificate was issued.

§ 173.35 Coast Guard validation sticker.

No person may use a vessel except a vessel exempted in §173.13 that has a number issued by the Coast Guard unless it has the validation sticker issued with the certificate of number displayed within 6 inches of the number.

Subpart C—Casualty and Accident Reporting

§ 173.51 Applicability.

(a) This subpart applies to each vessel used on waters subject to the jurisdiction of the United States and on the high seas beyond the territorial seas for vessels owned in the United States that:

(1) Is used by its operator for recreational purposes; or

(2) Is required to be numbered under this part.

(b) This subpart does not apply to a vessel subject to inspection under Title 46 U.S.C. Chapter 33.

[CDG 72–54R, 37 FR 21399, Oct. 7, 1972, as amended by CDG 84–099, 52 FR 47533, Dec. 14, 1987]

§ 173.53 Immediate notification of death or disappearance.

(a) When, as a result of an occurrence that involves a vessel or its equipment, a person dies or disappears from a vessel, the operator shall, without delay, by the quickest means available, notify the nearest reporting authority listed in Appendix A of this part of:

(1) The date, time, and exact location of the occurrence;

(2) The name of each person who died or disappeared;

(3) The number and name of the vessel; and

(4) The names and addresses of the owner and operator.

(b) When the operator of a vessel cannot give the notice required by paragraph (a) of this section, each person on board the vessel shall notify the casualty reporting authority or determine that the notice has been given.

§ 173.55 Report of casualty or accident.

(a) The operator of a vessel shall submit the casualty or accident report prescribed in §173.57 to the reporting authority prescribed in §173.59 when, as a result of an occurrence that involves the vessel or its equipment:

(1) A person dies;

(2) A person is injured and requires medical treatment beyond first aid;

(3) Damage to vessels and other property totals $2,000 or more or there is a complete loss of any vessel;

(4) A person disappears from the vessel under circumstances that indicate death or injury.

(b) A report required by this section must be made:

(1) Within 48 hours of the occurrence if a person dies within 24 hours of the occurrence;

(2) Within 48 hours of the occurrence if a person is injured and requires medical treatment beyond first aid, or disappears from a vessel; and

(3) Within 10 days of the occurrence or death if an earlier report is not required by this paragraph.

(c) When the operator of a vessel cannot submit the casualty or accident report required by paragraph (a) of this section, the owner shall submit the casualty or accident report.

[CGD 72–54R, 37 FR 21399, Oct. 7, 1972, as amended by CGD 76–155, 44 FR 5308, Jan. 25, 1979; CGD 82–015, 54 FR 5610, Feb. 6, 1989; USCG–1999–6094, 66 FR 21675, May 1, 2001; 66 FR 33845, June 26, 2001; USCG–1999–6094, 67 FR 14645, Mar. 27, 2002]

§ 173.57 Contents of report.

Each report required by §173.55 must be in writing, dated upon completion, and signed by the person who prepared it and must contain, if available, at least the following information about the casualty or accident:

(a) The numbers and names of each vessel involved.

(b) The name and address of each owner of each vessel involved.

(c) The name of the nearest city or town, the county, the State, and the body of water.

(d) The time and date the casualty or accident occurred.

(e) The location on the water.

(f) The visibility, weather, and water conditions.

(g) The estimated air and water temperatures.

(h) The name, address, age, or date of birth, telephone number, vessel operating experience, and boating safety training of the operator making the report.

(i) The name and address of each operator of each vessel involved.

(j) The number of persons on board or towed on skis by each vessel.

(k) The name, address, and date of birth of each person injured or killed.

(l) The cause of each death.

(m) Weather forecasts available to, and weather reports used by, the operator before and during the use of the vessel.

(n) The name and address of each owner of property involved.

(o) The availability and use of personal flotation devices.

(p) The type and amount of each fire extinguisher used.

(q) The nature and extent of each injury.

(r) A description of all property damage and vessel damage with an estimate of the cost of all repairs.

(s) A description of each equipment failure that caused or contributed to the cause of the casualty.

(t) A description of the vessel casualty or accident.

(u) The type of vessel operation (cruising, drifting, fishing, hunting, skiing, racing, or other), and the type of accident (capsizing, sinking, fire, or explosion or other).

(v) The opinion of the person making the report as to the cause of the casualty, including whether or not alcohol or drugs, or both, was a cause or contributed to causing the casualty.

(w) The make, model, type (open, cabin, house, or other), beam width at widest point, length, depth from transom to keel, horsepower, propulsion (outboard, inboard, inboard outdrive, sail, or other), fuel (gas, diesel, or other), construction (wood, steel, aluminum, plastic, fiberglass, or other), and year built (model year), of the reporting operator's vessel.

(x) The name, address, and telephone number of each witness.

(y) The manufacturer's hull identification number, if any, of the reporting operator's vessel.

(z) The name, address, and telephone number of the person submitting the report.

[CGD 72–54R, 37 FR 21399, Oct. 7, 1972, as amended by CGD 84–099, 52 FR 47533, Dec. 14, 1987; USCG–2003–15404, 68 FR 37742, June 25, 2003]

§ 173.59 Where to submit report.

A report required by § 173.55 must be submitted to:

(a) The reporting authority listed in Appendix A of this part where the vessel number was issued, or, if the vessel has no number, where the vessel is principally used; or

(b) The reporting authority where the casualty or accident occurred, if it occurred outside the State where the vessel is numbered or principally used.

Subpart D—Issue of Certificate of Number

§ 173.71 Application for certificate of number.

Any person who is the owner of a vessel to which § 173.11 applies may apply for a certificate of number for that vessel by submitting to the issuing authority, listed in Appendix A of this part, where the vessel will principally be used:

(a) An application on a form and in a manner prescribed by the issuing authority; and

(b) The fee required by the issuing authority.

§ 173.73 Duplicate certificate of number.

If a certificate of number is lost or destroyed, the person whose name appears on the certificate as the owner may apply for a duplicate certificate by submitting to the issuing authority that issued the certificate:

(a) An application on a form or in a manner prescribed by the issuing authority; and

(b) The fee required by the issuing authority, if any.

§ 173.75 Temporary certificate.

A temporary certificate valid for not more than 60 days after it is issued may be issued by an issuing authority pending the issue of a certificate of number. A temporary certificate is not

board when the vessel is in use, rendering aid in a vessel accident, and reporting of vessel casualties and accidents.

(46 U.S.C. 1451, 1467, 1488; 49 CFR 1.46(n)(1))

[CGD 72–54R, 37 FR 21402, Oct. 7, 1972, as amended by CGD 77–117, 44 FR 42195, July 19, 1979; USCG–1999–5832, 64 FR 34715, June 29, 1999]

§ 174.21 Contents of temporary certificate.

A temporary certificate issued pending the issuance of a certificate of number must contain the following information:

(a) Make of vessel.

(b) Length of vessel.

(c) Type of propulsion.

(d) State in which vessel is principally used.

(e) Name of owner.

(f) Address of owner, including ZIP code.

(g) Signature of owner.

(h) Date of issuance.

(i) Notice to the owner that the temporary certificate is invalid after 60 days from the date of issuance.

§ 174.23 Form of number.

(a) Each number must consist of two capital letters denoting the State of the issuing authority, as specified in Appendix A of Part 173 of this chapter, followed by—

(1) Not more than four numerals followed by not more than two capital letters (example: NH 1234 BD); or

(2) Not more than three numerals followed by not more than three capital letters (example: WN 567 EFG).

(b) A number suffix must not include the letters ''I'', ''O'', or ''Q,'' which may be mistaken for numerals.

§ 174.25 Size of certificate of number.

Each certificate of number must be approximately 2½ by 3½ inches.

§ 174.27 Duration of certificate of number.

A certificate of number must not be valid for more than 3 years.

§ 174.29 Temporary certificate of number.

A State may issue a temporary certificate of number that is effective for not more than 60 days.

§ 174.31 Terms imposed by States for numbering of vessels.

A State numbering system may condition the issuance of a certificate of number on—

(a) Title to, or other proof of ownership of a vessel except a recreational-type public vessel of the United States; or

(b) Proof of liability insurance for a vessel except a recreational-type public vessel of the United States; or

(c) The payment of State or local taxes, except for a recreational-type public vessel of the United States.

[CGD 72–54R, 37 FR 21402, Oct. 7, 1972, as amended by USCG–2003–15708, 70 FR 13105, Mar. 18, 2005]

Subpart C—Casualty Reporting System Requirements

§ 174.101 Applicability of State casualty reporting system.

(a) A State casualty reporting system must require the reporting of vessel casualties and accidents involving vessels to which § 173.51 of this chapter applies.

(b) The State casualty reporting system may also require vessel casualty or accident reports for property damage in amounts less than that required under § 173.55 of this chapter.

(46 U.S.C. 1486; 49 CFR 1.46(n)(1))

[CGD 72–54R, 37 FR 21402, Oct. 7, 1972, as amended by CGD 76–155, 44 FR 5309, Mar. 25, 1979; CGD 82–015, 54 FR 5610, Feb. 6, 1989]

§ 174.103 Administration.

The State casualty reporting system must be administered by a State agency that—

(a) Will provide for the reporting of all casualties and accidents prescribed in § 173.55 of this chapter;

(b) Receives reports of vessel casualties or accidents required in § 174.101;

(c) Reviews each accident and casualty report to assure the accuracy and completeness of each report;

(d) Determines the cause of casualties and accidents reported based on information available and indicates the apparent cause on the casualty report or on an attached page;

(e) Notifies the Coast Guard, in writing, when a problem area in boating safety peculiar to the State is determined, together, with corrective measures instituted or recommended; and

(f) Reports on vessel numbering and vessel casualties and accidents as required in Subpart D of this part.

(46 U.S.C. 1486; 49 CFR 1.46(n)(1))

[CGD 72–54R, 37 FR 21402, Oct. 7, 1972, as amended by CGD 76–155, 44 FR 5309, Mar. 25, 1979]

§ 174.105 Owner or operator casualty reporting requirements.

A State casualty reporting system must contain the following requirements of Part 173 applicable to an owner or a person operating a vessel:

(a) Section 173.55 *Report of casualty or accident.*

(b) Section 173.57 *Casualty or accident report.*

(c) Section 173.59 *Where to report.*

(46 U.S.C. 1451, 1467, 1488; 49 CFR 1.46 (n)(1))

[CGD 77–117, 44 FR 42195, July 19, 1979]

§ 174.106 State casualty reporting system optional sections.

In addition to the requirements in §174.105, a State casualty reporting system may contain any of the other requirements applicable to a vessel owner or operator prescribed in Part 173.

(46 U.S.C. 1451, 1467, 1488; 49 CFR 1.46 (n)(1))

[CGD 77–117, 44 FR 42195, July 19, 1979, as amended by USCG–1999–5832, 64 FR 34715, June 29, 1999]

§ 174.107 Contents of casualty or accident report form.

Each form for reporting a vessel casualty or accident must contain the information required in §173.57 of this chapter.

Subpart D—State Reports

§ 174.121 Forwarding of casualty or accident reports.

Within 30 days of the receipt of a casualty or accident report, each State that has an approved numbering system must forward a copy of that report to the Commandant (G-OPB), U.S. Coast Guard, 2100 Second Street, SW., Washington, DC 20593–0001.

[USCG–1998–3799, 63 FR 35533, June 30, 1998, as amended by USCG–2004–18057, 69 FR 34926, June 23, 2004]

§ 174.123 Annual report of numbered vessels.

Before March 1 of each year, each State that has an approved numbering system must prepare and submit Coast Guard Form CGHQ–3923, Report of Certificates of Number Issued to Boats, to the Coast Guard.

§ 174.125 Coast Guard address.

The report required by §174.123 must be sent to the Office of Boating Safety, 2100 Second Street SW., Washington, DC 20593–0001.

[CGD 88–052, 53 FR 25122, July 1, 1988, as amended by CGD 96–026, 61 FR 33669, June 28, 1996]

PART 175—EQUIPMENT REQUIREMENTS

Subpart A—General

Sec.

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National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: March 16, 2006

In reply refer to: M-06-1 and M-06-2

Admiral Thomas H. Collins
Commandant (G-C)
U.S. Coast Guard
2100 Second Street, SW
Washington, D.C. 20593-0001

Background

On August 25, 2004, the National Transportation Safety Board conducted a public forum, *Personal Flotation Devices in Recreational Boating,* at its Academy in Ashburn, Virginia. At the forum, more than 80 participants from government and the recreational boating industry, including the U.S. Coast Guard, gathered to discuss policy issues related to the use of personal flotation devices (PFD) in recreational boating. The discussion highlighted a number of important issues discussed in this letter, including adult PFD use, boating safety education, and evaluating the effectiveness of recreational boating safety programs.

Recreational boating is increasing in popularity. Participation has increased from 78.3 million in 1999 to 91.1 million in 2003, according to a survey of recreational activities cited by the Coast Guard and the boating industry.[1] At the same time, the total number of accidents decreased by 30 percent, and the number of accidents per million participants declined more than 40 percent. However, the number of fatalities remained relatively constant from 1999 through 2004, varying less than 5 percent from an average of 714 per year (table 1). Coast Guard accident and fatality data[2] for 1999–2004 indicated that, on average, 71 percent of these deaths were due to drowning (table 2). In addition, statistics showed that the drownings per 100,000 registered boats remained constant during that period.

A prevalent factor among drowning victims is the lack of a PFD. Data presented during the public forum by the Coast Guard for 2003 showed that 416 of the 481 drowning victims were not wearing PFDs. The size of the boat also mattered; 7 of 10 people who drowned were in boats 21 feet or less in length. In addition, nearly 70 percent of all drownings (and more than 60 percent of all fatalities) occurred as the result of three very similar types of boating accidents that unexpectedly place boaters in the water—capsizing, falls overboard, and swamping (table 3).

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[1] U.S. Department of Agriculture, Forest Service *National Survey of Recreation and the Environment* (NSRE), *Recreation Statistics Update*, Update Report No. 2 (Washington, DC: 2004). Survey data for recreational boating participation are currently available only for years up to and including 2003. Consequently, there are no accident statistics based on survey estimates of recreational boating participation calculated for 2004.

[2] U.S. Department of Homeland Security, U.S. Coast Guard presentation to the public forum, *Personal Flotation Devices in Recreational Boating* (August 25, 2004), and *Boating Statistics–2004*, COMDTPUB P16754.18 (Washington, DC: 2005).

Small boats account for the largest proportion of the recreational boating fleet, and are also the kinds of boats most susceptible to capsizing and swamping. Using data for 1999–2003, the Coast Guard estimated that approximately 84 percent of the people who drowned would have been saved had they been wearing PFDs.

Table 1: Accidents, Accident Rates, and Participation in Recreational Boating, 1999-2004

Year	Number of Accidents	Total Fatalities	Number Drowning	Number of Participants (millions)	Accidents per 1.0 mil Participants	Fatalities per 1.0 mil Participants
1999	7,931	734	517	78.3	101.3	9.4
2000	7,740	701	519	77.6	99.7	9.0
2001	6,419	681	498	75.3	85.2	9.0
2002*	5,705	750	524	81.7	69.8	9.2
2003	5,438	703	481	91.1	59.7	7.7
2004**	4,904	676	484	n/a	n/a	n/a

* In 2002, the Coast Guard changed its criteria for reporting accidents by raising the damage limit for reporting from $500 to $2000. This could result in fewer accidents reported than in previous years.

** 2004 data released by the Coast Guard in September 2005.

Table 2: Fatalities and Rates in Recreational Boating, 1999-2003

Year	Number of Drownings	Percent Total Fatalities	Number of Registered Boats (mil)	Drownings per 100k Boats
1999	517	70.4%	12.7	4.1
2000	519	74.0%	12.8	4.1
2001	498	73.1%	12.9	3.9
2002	524	69.9%	12.9	4.1
2003	481	68.4%	12.8	3.8
2004	484	71.6%	12.8	3.8

Table 3: Most Frequent Accident Types in Recreational Boating in 2003

Type of Accident	Number of Accidents	Number of Injuries	Number of Fatalities	Number of Drownings
Collision with Vessel	1,469	1,063	70	9
Collision with Fixed Object	558	491	50	19
Capsizing	514	330	206	136
Falls Overboard	508	353	201	155
Skier Mishap	451	466	6	1
Swamping	274	61	41	36

The Safety Board's 1993 study of recreational boating accidents found similar results.[3] Of the fatalities reported in the study, 73 percent were due to drowning. A comparison of 1993 data to 2004 statistics shows that the adult PFD wear rate has not substantially increased in more than a decade, and that the proportion of deaths in recreational boating attributable to drowning has not declined. The results of a Coast Guard 6-year observational study completed in 2003 confirmed these findings, showing an increase in PFD wear by children and, to a lesser extent, their parents.[4] However, there was no observed change in general adult PFD wear, even in States with child wear requirements and mandatory boating safety courses. For instance, in 2003, less than 10 percent of the 28,982 boaters ages 18 and older, and not aboard personal watercraft (PWC), were observed wearing PFDs. The highest observed PFD wear was among boaters on PWCs (95 percent), sailboards (94 percent), and in kayaks (84 percent). Although the perceived risk of kayaking, sailboarding, and PWC use may influence those boaters to wear PFDs, the need for PFDs on small boats may not be so obvious to all boaters.

Previous Safety Recommendations

The consistent pattern of drownings found in the 1993 study led the Safety Board at that time to issue recommendations in several areas relevant to PFD use. For example, Safety Recommendation M-93-1 to the States called for them to implement minimum recreational boating safety standards to reduce the number and severity of accidents and to consider requirements such as mandatory use of personal flotation devices for children, demonstration of operator knowledge of safe boating rules and skills, and operator licensing.

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[3] National Transportation Safety Board, *Recreational Boating Safety*, Safety Study NTSB/SS-93/01 (Washington, DC: NTSB, 1993).

[4] T. Mangione, M. Rangel, and K. Watson, *National PFD Wear Rate Observational Study* (Boston: JSI Research & Training Institute, Inc., 2003).

Recommendations in the study were based, in part, on accident data showing that boaters involved in fatal boating accidents had not received any boating safety instruction. In fact, the study found that as few as 7 percent and no more than 22 percent of the persons operating a boat for the first time had taken a boating safety course. The Board also issued Safety Recommendations M-93-9 to the National Association of State Boating Law Administrators (NASBLA) and M-93-14 to the Coast Guard to develop guidelines to be used by the States to implement minimum safe boating standards, and to establish requirements for operators to demonstrate safe boating rules and skills.

NASBLA adopted resolutions and model acts that provided guidelines for vessel operator licensing and mandatory boating safety education, as well as PFD wear requirements for children 12 years of age and under. As a result, the Safety Board classified Safety Recommendation M-93-9 "Closed—Acceptable Action." Coast Guard participation in the NASBLA activities and its work with the States led the Safety Board to classify Safety Recommendation M-93-14 as "Closed—Acceptable Action."

With regard to mandatory PFD requirements for children, most States (45) have enacted mandatory PFD wear requirements for children since the Safety Board's 1993 study. For 32 of those States and the District of Columbia, Safety Recommendation M-93-1 was classified "Closed—Acceptable Action" or "Closed—Acceptable Alternative Action." However, at the time of the 1993 study, the Safety Board lacked the evidence it needed to support a specific age requirement for children. The Board therefore issued Safety Recommendations M-93-8 to NASBLA, M-93-12 to the Coast Guard, and M-93-16 to the American Academy of Pediatrics (AAP), all calling for a uniform standard establishing an age at or below which all children should be required by States to wear PFDs while in recreational boats. After a review of the data, a joint agreement was reached by the Coast Guard, NASBLA, and AAP to support, as a first step, a uniform national requirement all children under 13 years of age to wear a PFD. AAP stated that, ultimately, all persons on recreational boats, children as well as adults, should be required to wear PFDs. As a result of these efforts by NASBLA, the Coast Guard, and AAP, Safety Recommendations M-93-8, M-93-12, and M-93-16 were classified "Closed—Acceptable Action." In 1998, during the Coast Guard's consideration of Federal requirements for PFD use, the Board responded to the Coast Guard's request for comments in Docket Number CGD 97-059 by stating its support of the need for uniform and mandatory PFD wear requirements for all children aged 12 and under. The Coast Guard also took steps to protect children on waters subject to United States jurisdiction[5] by requiring any child under 13 to wear a PFD while the boat is underway (unless the child is below decks or in an enclosed cabin).[6] In those States without a child PFD wear requirement, the Coast Guard's under age 13 rule applied. The rule also provided for Coast Guard enforcement of each State statute or rule, even if the State age requirement did not meet the under age 13 requirement. The final rule was enacted in July 2004.

[5] See Title 33 *Code of Federal Regulations* (CFR) Part 2.38 for definitions of the waters over which the United States has jurisdiction.

[6] Title 33 CFR Part 175, Subpart B, *Personal Flotation Devices.*

PFD Requirements for Adults

Forum participants agreed that, with the exception of individuals using PWCs and kayaks, PFD wear among adult boaters remains low. When NASBLA put forth its 1988 resolution calling for mandatory PFD wear requirements for children, proponents believed that such a requirement would prompt more adults to wear PFDs.[7] Coast Guard observational data demonstrated that increased use among adults had not materialized; adult PFD use from 1999 through 2003 remained relatively constant at about 10 percent.[8] According to the Coast Guard's presentation at the public forum, [9] accident statistics indicate that the greatest risk appears to be for adults in small (that is, 21 feet or less in length), open motorboats. According to the Coast Guard's observational study, these are the boaters who are least likely to wear PFDs.

A representative from the Coast Guard's National Boating Safety Advisory Council (NBSAC) confirmed NBSAC's continuing support of its 2003 resolution calling for NASBLA to develop a model act that would require *all* boaters onboard recreational boats 21 feet or less in length to wear PFDs while underway.[10] When the organizers of the International Boating and Water Safety Summit in March 2005 surveyed attendees, they found that 65 percent of the 235 respondents agreed or strongly agreed with the statement that PFDs should be mandatory for those in boats under 22 feet in length.[11] Although BOAT/US survey data presented at the forum indicated considerable resistance to a general adult mandatory PFD wear requirement (86 percent of the respondents opposed such a requirement while underway in *all* boats), a majority (62 percent) supported an adult mandatory requirement for certain types of boats.[12]

Recreational boating accident data indicate that when mandatory requirements are put in place (as they have been for children and for all persons aboard PWCs), a significant increase in PFD wear—and the concomitant decrease in drowning—occurs. For example, before legislation was introduced requiring people aboard PWCs to wear PFDs, PWCs accounted for a disproportionate number of recreational boating deaths and injuries. By 2003, all States had enacted legislation requiring all operators of PWCs to wear PFDs. As a result, despite a more than 50 percent increase in the number of registered PWCs from 1997–2003, the number of injuries and deaths due to drowning and other causes declined (table 4). Further, the rates for drowning, other types of fatalities, and injuries in accidents per 100,000 registered PWCs in 2003 were less than half those of 1997. The Coast Guard's 1998–2002 observational study found that PFD wear among adults on PWCs was the highest among all boaters, ranging from 93 to

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[7] National Transportation Safety Board, *Recreational Boating Safety*, p. 39.

[8] Mangione, p. 5.

[9] U.S. Department of Homeland Security, U.S. Coast Guard presentation to the public forum, *Personal Flotation Devices in Recreational Boating* (August 25, 2004). See also U.S. Coast Guard, *Boating Statistics—2003.*

[10] Paper presented by the National Boating Safety Advisory Council to the public forum, *Personal Flotation Devices in Recreational Boating* (August 25, 2004), p. 7. The resolution was adopted by NBSAC at its 71st meeting on April 28 and 29, 2003, in Rosslyn, Virginia, which then issued the resolution to the U.S. Coast Guard. The resolution stated "Be it resolved that the National Boating Safety Advisory Council encourages NASBLA to develop a model act, requiring the wear of PFDs on all recreational vessels 21 feet and under while underway."

[11] International Boating and Water Safety Summit, *Results of the Audience Survey* (March 14, 2005).

[12] E. Mahoney and others, *Boater Attitudes Regarding Requirements for Adults to Wear Life Jackets While Underway in Recreational Boats* (Lansing, Michigan: Michigan State University Recreational Marine Research Center, 2004).

97 percent. The Personal Watercraft Industry Association (PWIA) presentation at the forum showed how the PWC industry responded to the need to increase PFD wear and PWC safety through equipment design, marketing, and education.

Table 4: Personal Watercraft (PWC) Fatalities, Injuries, and Registrations, 1997-2003

Year	Total Fatalities	Number of Drownings	Number Injured	Registered PWCs (in 1000s)	Fatalities per 100k PWCs	Number of Drownings per 100k PWCs	Number Injured per 100k PWCs
1997	84	22	1822	481.6	17.4	4.6	378.3
1998	78	13	1743	414.2	18.8	3.1	420.8
1999	66	15	1614	400.8	16.5	3.7	402.7
2000	68	24	1518	543.2	12.5	4.4	279.5
2001	50	11	1424	753.1	6.6	1.5	189.1
2002	71	21	1362	743.6	9.5	2.8	183.2
2003	57	15	1228	744.5	7.7	2.0	164.9

The Canadian Safe Boating Council (CSBC) commissioned a study to examine the feasibility of legislating mandatory PFD wear for all people in small recreational boats in Canada.[13] The study concluded that a mandatory PFD requirement was appropriate, and CSBC is now working on a strategy to legislate mandatory PFD wear requirements in Canada. The Safety Board believes that developing a legislative strategy in support of mandatory PFD wear is appropriate, and that the PWC experience shows how the States and the recreational boating industry can increase PFD use, integrate PFD technology into recreational boating, and properly educate and certify operators. Fundamental to the evaluation of any boating safety program are good data about boaters, boats, and boating activities. Without such data, the effectiveness of boating safety programs, or any action taken to reduce the risks in recreational boating, can be difficult to determine.

A case in point is the Coast Guard frequency data for 2003,[14] which indicated that most drownings were associated with motorboats 21 feet or less in length. An analysis of this finding would show that most recreational boats fall into this category. Reliance on frequency data can also hinder evaluation of the effectiveness of specific risk mitigation actions. For example, if the number of drownings decreases after institution of a mandatory PFD requirement for small boats, frequency data alone would not show if the decrease had been caused by the newly instituted PFD requirement or by a decrease in recreational boating activity in small boats. Without

[13] Paper presented by the Canadian Safe Boating Council to the public forum, *Personal Flotation Devices in Recreational Boating* (August 25, 2004).

[14] U.S. Department of Homeland Security, U.S. Coast Guard, *Boating Statistics–2003*, COMDTPUB P16754.17 (Washington, DC: 2004), page 4.

calculating accident and injury rates based on boater, fleet, or activity characteristics, verification of the effectiveness of an intervention strategy, such as requiring boaters to wear PFDs, is difficult.

Evaluating Recreational Boating Safety Programs

The Coast Guard uses boating accident reports and frequency data to assess the risks associated with recreational boating activity and to guide its Recreational Boating Safety Program. A risk-based approach that uses only frequency data, however, cannot adequately characterize the risks of a hazard or effectively evaluate risk mitigation strategies. As a result, the Safety Board is concerned that the Coast Guard's risk-based approach to recreational boating is not consistent with standard practice in system safety.[15] Such a program needs four basic elements: hazard identification, risk assessment, a plan for mitigating risks, and methods for evaluating the effectiveness of mitigation actions. Risk assessment is dependent upon a clear understanding of participants' exposure to hazards in recreational boating, which is obtained through the collection of data about the number of participants, the size and composition of the recreational boating fleet, and the frequency and duration of boating activities. These data can then be used in risk assessments to quantify exposure to risk. Without such data, the Coast Guard and the States cannot ensure that their recreational boating safety programs and intervention strategies are effective.

This point can be illustrated further by considering two very similar boating activities: canoeing and kayaking. American Canoe Association (ACA) fatality statistics for 2002 showed that more canoeists (39) were fatally injured in accidents than kayakers (28).[16] However, the U.S. Department of Agriculture Forest Service's *National Survey of Recreation and the Environment* (NSRE)[17] showed a different picture. When NSRE estimates of the number of participants in each type of activity were used to calculate exposure measures, kayakers appeared to be much more at risk than canoeists. NSRE 2002 estimates showed that kayakers suffered 3.5 fatalities per million participants while the fatality rate among canoeists was almost half that, or 1.9 fatalities per million participants.

Accident and injury data for canoeists and kayakers also illustrate the need for different risk mitigation actions. The Coast Guard observational study conducted from 1998–2002 found that, in general, more than 84 percent of kayakers wore PFDs, in contrast to only 27 percent of canoeists. These data implied that a requirement to wear PFDs would affect kayakers less than canoeists. In addition, the high rate of PFD wear among kayakers indicated that factors other than PFD use affect the outcome in such accidents. However, Coast Guard data showed that 48 percent of the kayakers who were fatally injured from 1996–2002 were not wearing PFDs,[18] indicating that the kayakers observed during the Coast Guard study may not have been

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[15] For example, U.S. Department of Defense MIL-STD-882D, *Standard Practice for System Safety* (2000).

[16] A. Snow-Jones and others, *Critical Judgment II: Understanding and Preventing Canoe and Kayak Fatalities, 1996–2002* (Springfield, VA: American Canoe Association, 2004), page 16.

[17] U.S. Department of Agriculture, Forest Service *National Survey of Recreation and the Environment* (NSRE) (Washington, DC: 2004).

[18] Snow-Jones, *Critical Judgment II*, page 19.

representative of the kayakers involved in fatal accidents. Such discrepancies suggest that surveys and observational studies must be carefully designed to ensure that the data collected are representative of the participants most at risk.

Measuring Participation, Activity, and Exposure

Although some measures of participation, activity, and exposure are available for recreational boating, using those measures to make risk-based decisions can be difficult for a number of reasons. First, documenting the number of recreational boats in the fleet and how they are used is difficult. The Coast Guard calculates accident and fatality rates based on the number of registered boats. Unfortunately, boat registration requirements differ considerably among States. Some, like Ohio and South Carolina, require registration of all watercraft; others, like Vermont and Maryland, limit registration to motorboats only. The Safety Board therefore concludes that accident or injury rates based on boat registration data may not adequately represent the size, composition, and use of the recreational boating fleet for risk assessment purposes and that a more uniform system for collecting data about the fleet is required.

Second, surveys and studies vary widely in their characterization of recreational boating participation and activity. NSRE, the most frequently cited survey for recreational boating participation, is a general survey of participation in recreational activities, including recreational boating, and represents a cross-section of the United States population over 16 years of age. Based on a survey of 57,868 people, NSRE estimated that in 2002, 77.1 million people (36.2 percent of the U.S. population age 16 or older) participated in recreational boating at least once in the previous 12 months.[19] NSRE found that motorboating (51.8 million), floating/rafting (20.7 million), canoeing (20.5 million), and PWC use (20.3 million) topped the list of recreational boating activities.

The Coast Guard also surveyed recreational boating for the 12 months beginning in September 2001.[20] Unlike NSRE, which used a cross-section of the general U.S. population, the Coast Guard survey targeted boating operators. The 25,547 boat operators surveyed in 2001 by questionnaire (approximately 500 from each State) were divided equally between operators of registered and non-registered boats. Estimates of participation were calculated using data weighted to reflect the population of each State. The Coast Guard estimated that 209 million people made 59.2 million boating trips, mostly in motorboats (59 percent), followed by canoes (30 percent) and personal watercraft (24 percent).

Difficulties arise when estimates of participation and activity from the two surveys are compared. NSRE estimated the total number of boating participants for 2002 to be only 77.1 million while the Coast Guard estimated that number at 209 million. Adjusting the Coast Guard estimate for frequency of activity (boat operators who took a boat out one or more times a year were counted as a participant with each trip) produces a measure of participation more like the NSRE estimate.

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[19] See <www.srs.fs.usda.gov/trends/Nsre/Rnd1t13weightrpt.pdf> for the *National Survey of Recreation and the Environment*, Table 1.

[20] Strategic Research Group, *2002 National Recreational Boating Survey Report* (Columbus, OH: 2003).

Finally, and perhaps most significantly, is that the NSRE and Coast Guard surveys do not obtain consistent estimates for specific boating activities. This problem is illustrated in table 5, which shows a significantly different proportion of boating participants by boat type for each survey. Such discrepancies undermine the validity of participation and activity measures, and, if used to calculate accident, injury, and fatality rates, can produce significantly different risk exposure rates.

Table 5. Proportion of Boaters for Each Type of Boat

Type of Boat	NSRE	Coast Guard Survey
Sailboat (includes auxiliary)	9.2%	5.2%
Kayak	17.0%	6.3%
Canoe	6.5%	14.6%
Rowboat	7.6%	6.8%
Motorboat (includes open, cabin, pontoon, houseboat)	42.9%	48.1%
Personal watercraft (PWC)	16.8%	10.2%

In addition, the methods used to select the type of boats, boaters, or boating activity for inclusion in a survey or study can significantly affect the outcome. For example, the Coast Guard observational study[21] showed a high rate of PFD use among kayakers, but Coast Guard accident statistics indicated that a large proportion of people fatally injured in kayaks were not wearing PFDs. Such results cast doubt on the boater selection methods used in observational studies and on the merits of applying the data to all types of boaters, boating locations, and boating activities.

In contrast to these findings, other Federal agencies have successfully collected participant and activity data that can be used with confidence in an analysis. The U.S. Fish and Wildlife Service has produced the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* every 5 years since 1955. The survey is conducted by the U.S. Census Bureau and is based on census data. The survey provides State-level estimates of participation and collects activity data on the number of participants, the type of activity they engage in, where and how often they participate, the type of wildlife they encounter, and the amounts of money they spend on these activities. The latest survey, conducted in 2000–2001, involved 52,508 households located in 754 geographic areas and was administered in two parts: an initial screening of 80,000 candidate households and a series of follow-up interviews.[22] The survey uses a design and methodology that allows, to the extent possible, compatibility with previous surveys and estimates at both the State and national levels.

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[21] Mangione, *National PFD Wear Rate Observational Study*, page 16.

[22] U.S. Department of Interior, U.S. Fish and Wildlife Service and U.S. Department of Commerce, U.S. Census Bureau, *2001 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, Appendix D, D-2 (Washington, DC: 2002).

A comparison of participation in similar recreational activities based on NSRE and the Fish and Wildlife survey is shown in table 6. In most cases, NSRE estimates of participation are two to three times greater than the Fish and Wildlife survey for comparable activities. Consequently, the Fish and Wildlife survey will produce more conservative accident, injury, or fatality rates and a potentially higher estimate of the risks involved in recreational boating. Such discrepancies among surveys not only raise questions about the validity of methods currently being used to assess recreational boating participation, but also illustrate the potential to underestimate actual risk, which complicates any attempt to evaluate intervention strategies.

Table 6. Estimates of Number of People (in Millions) Participating in Comparable Recreational Activities

Type of Recreational Activity	NSRE	Fish & Wildlife
Fishing	72.2	34.1
Freshwater	62.0	28.4
Saltwater	22.2	9.1
Hunting	23.7	13.0
Big Game	17.9	10.9
Small Game	15.1	5.4
Waterfowl/Migratory Bird	4.9	3.0
Wildlife Viewing/Bird Watching	161.7	85.5

A Risk-Based Approach to Recreational Boating Safety

The Safety Board believes that a risk-based approach is an appropriate strategy for reducing risks and enhancing safety in recreational boating, and that the Coast Guard's Recreational Boating Safety Program will help define performance measures that can be used to evaluate the effectiveness of program activities. Nevertheless, the Board is concerned that current Coast Guard data are not adequate to effectively identify, characterize, and eliminate or control hazards as part of an overall risk assessment and mitigation program. Without effective data collection methods, the Coast Guard's boating safety program cannot adequately determine the risks in boating nor determine how best to effectively reduce the number of accidents, fatalities, injuries, property damage, and healthcare costs associated with boating accidents. Furthermore, without an adequate risk assessment and mitigation program, the Board is concerned that the Coast Guard cannot adequately evaluate the potential benefits of mandatory and voluntary PFD wear programs for recreational boats. The Safety Board also believes that the Coast Guard's boating safety program would be most effective if States could use Coast Guard data to evaluate their own recreational boating safety activities.

Accordingly, the Safety Board concludes that an effective risk assessment program will help the Coast Guard identify intervention strategies that will reduce the number of accidents,

injuries, and fatalities in recreational boating. Effective assessment of risk mitigation strategies in recreational boating must be based on demonstrable reductions in measures that characterize the risks as a function of boater, boating, and boat characteristics. As previously mentioned, a more uniform system for collecting accurate data on the size, composition, and use of the recreational boating fleet is required.

The Safety Board also concludes that a risk assessment program will require development of new survey and research methods, at both the national and State levels, to collect, analyze, and disseminate data and information on recreational boating participation and activity. Established approaches that produce reliable and valid data (similar to the survey techniques used by the Fish and Wildlife Service) can be used as models for developing survey and research methods for collecting data to characterize boaters and boating activities. Such survey and research methods can also provide the basis for longitudinal studies of educational and licensing programs, identification of best practices at the State level, and ongoing observational studies of recreational boating activity and boater behavior. Therefore, the Safety Board recommends that the U.S. Coast Guard develop measures of recreational boating activities, boaters, and boats that can be used to identify and evaluate the risks in recreational boating. Once those measures have been developed, collect the appropriate data at the Federal and State levels, and use it to evaluate the effectiveness of recreational boating safety programs. Provide the data and the results of the evaluations to States for use in their own boating safety programs.

Many participants at the forum believed that PFD use could be increased through better boating safety education. As stated above, the Safety Board has issued several safety recommendations addressing the need for improved boating safety education, including M-93-1 to the States, M-93-9 to NASBLA, and M-93-14 to the Coast Guard. Since 1993, 32 States and the District of Columbia have enacted mandatory boating education statutes and regulations (in addition to PWC-specific requirements) that address some segment of the adult recreational boating population. Despite these efforts, 77 percent of the recreational boaters involved in fatal accidents in 2003 had not received any boating safety instruction,[23] and 18 States still have no education requirement.[24] As a result, the Board believes that the kinds of boating education and operator licensing requirements advocated in the 1993 recommendations are essential and if implemented by the States, would improve boating safety, decrease recreational boating accidents and injuries, and increase PFD use.

The Safety Board is concerned, however, that records of boater educational experience are inadequate. Such a record is necessary to assess the effectiveness of current education programs. In addition, the best practices and lessons learned from States that have introduced mandatory boating safety education need to be made available to other States and the Coast Guard for consideration. The lessons learned by the few States that have adopted operator licensing requirements (such as Connecticut, Maryland, and Alabama) also need to be made available for consideration. The Safety Board believes that the absence of such data limits the Coast Guard in its ability to plan, coordinate, and evaluate recreational boating education and licensing programs at both the Federal and State levels. Therefore, the Board recommends that

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[23] U.S. Coast Guard, *Boating Statistics—2003*, p. 19.

[24] Alaska, Arizona, California, Idaho, Indiana, Iowa, Maine, Massachusetts, Minnesota, Montana, New Mexico, North Carolina, Oklahoma, South Carolina, Utah, Virginia, Wisconsin, and Wyoming.

the Coast Guard ensure that the measures of recreational boater characteristics include documentation of boater educational experience that can be used at both the Federal and State levels to plan, coordinate, and evaluate recreational boating education and licensing programs.

Recommendations

Therefore, the National Transportation Safety Board recommends that the U.S. Coast Guard:

> Develop measures of recreational boating activities, boaters, and boats that can be used to identify and evaluate the risks in recreational boating. Once those measures have been developed, collect the appropriate data at the Federal and State levels, and use it to evaluate the effectiveness of recreational boating safety programs. Provide the data and the results of the evaluations to States for use in their own boating safety programs. (M-06-1)
>
> Ensure that the measures of recreational boater characteristics include documentation of boater educational experience that can be used at both the Federal and State levels to plan, coordinate, and evaluate recreational boating education and licensing programs. (M-06-2)

The Safety Board is also issuing one safety recommendation to the National Association of State Boating Law Administrators and one recommendation to the Marine Retailers Association of America and the National Marine Manufacturers Association. In your response to the recommendations in this letter, please refer to Safety Recommendations M-06-1 and M-06-2. If you need additional information, you may call (202) 314-6170.

Acting Chairman ROSENKER and Members ENGLEMAN CONNERS, HERSMAN, and HIGGINS concurred in this recommendation.

[Original Signed]

By: Mark V. Rosenker
Acting Chairman

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: March 16, 2006

In reply refer to: M-06-3

Mr. Charles A. Sledd, President
National Association of State Boating Law Administrators
1500 Leestown Road, Suite 330
Lexington, Kentucky 40511

The National Transportation Safety Board is an independent Federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We are providing the following information to urge your organization to take action on the safety recommendation in this letter. The Safety Board is interested in any action taken on this recommendation because it is designed to prevent accidents and save lives.

The recommendation in this letter addresses an issue raised at the public forum, *Personal Flotation Devices in Recreational Boating,* held by the Safety Board at its Academy in Ashburn, Virginia, on August 25, 2003. Information supporting the recommendation is discussed below. The Safety Board would appreciate a response from you within 90 days addressing the actions you have taken or intend to take to implement our recommendation.

Background

At the public forum, more than 80 participants from government and the recreational boating industry gathered to discuss policy issues related to the use of personal flotation devices (PFD) in recreational boating. The discussion highlighted a number of important issues, including adult PFD use, accident risk factors, and the effectiveness of boating education.

Recreational boating is increasing in popularity. Participation has increased from 78.3 million in 1999 to 91.1 million in 2003, according to a survey of recreational activities cited by the U.S. Coast Guard and the boating industry.[1] At the same time, the total number of accidents decreased by 30 percent, and the number of accidents per million participants declined more than 40 percent. However, the number of fatalities remained relatively constant from 1999 through 2003, varying less than 5 percent from an average of 714 per year (table 1). Coast Guard

[1] U.S. Department of Agriculture Forest Service, *National Survey of Recreation and the Environment* (NSRE), *Recreation Statistics Update*, Update Report No. 2 (Washington, DC: 2004). Survey data for recreational boating participation are currently available only for years up to and including 2003. Consequently, there are no accident statistics based on survey estimates of recreational boating participation calculated for 2004.

accident and fatality data for 1999–2003 presented at the forum[2] indicated that 71 percent of these deaths were due to drowning (table 2). In addition, Coast Guard statistics showed that the drownings per 100,000 registered boats remained constant during that period.[3]

Table 1: Accidents, Accident Rates, and Participation in Recreational Boating, 1999-2003

Year	Number of Accidents	Total Fatalities	Number Drowning	Number of Participants (millions)	Accidents per 1.0 mil Participants	Fatalities per 1.0 mil Participants
1999	7,931	734	517	78.3	101.3	9.4
2000	7,740	701	519	77.6	99.7	9.0
2001	6,419	681	498	75.3	85.2	9.0
2002*	5,705	750	524	81.7	69.8	9.2
2003	5,438	703	481	91.1	59.7	7.7

* In 2002, the Coast Guard changed its criteria for reporting accidents by raising the damage limit for reporting from $500 to $2000. This could result in fewer accidents reported than in previous years.

A prevalent factor among drowning victims is the lack of a PFD. Coast Guard data for 2003 showed that 416 of the 481 drowning victims were not wearing PFDs. The size of the boat also mattered; 7 of 10 people who drowned were in boats 21 feet or less in length. In addition, nearly 70 percent of all drownings (and more than 60 percent of all fatalities) occurred as the result of three very similar types of boating accidents that unexpectedly place boaters in the water—capsizing, falls overboard, and swamping (table 3). Using data for 1999–2003, the Coast Guard estimated that approximately 84 percent of the people who drowned would have been saved had they been wearing PFDs.

Table 2: Fatalities and Rates in Recreational Boating, 1999-2003

Year	Number of Drownings	Percent Total Fatalities	Number of Registered Boats (mil)	Drownings per 100k Boats
1999	517	70.4%	12.7	4.1
2000	519	74.0%	12.8	4.1
2001	498	73.1%	12.9	3.9
2002	524	69.9%	12.9	4.1
2003	481	68.4%	12.8	3.8

[2] U.S. Department of Homeland Security, U. S. Coast Guard, presentation to the public forum, *Personal Flotation Devices in Recreational Boating*, August 25, 2004.

[3] U.S. Department of Homeland Security, U.S. Coast Guard, *Boating Statistics–2003*, COMDTPUB P16754.17 (Washington, DC: 2004), p. 34.

Table 3: Most Frequent Accident Types in Recreational Boating in 2003

Type of Accident	Number of Accidents	Number of Injuries	Number of Fatalities	Number of Drownings
Collision with Vessel	1,469	1,063	70	9
Collision with Fixed Object	558	491	50	19
Capsizing	514	330	206	136
Falls Overboard	508	353	201	155
Skier Mishap	451	466	6	1
Swamping	274	61	41	36

These data indicate that increased PFD wear, especially among adults, could substantially reduce the number of boaters who drown every year; however, the effectiveness of various safety programs can be difficult to determine. A Coast Guard 6-year observational study completed in 2003 (and presented at the forum)[4] showed an increase in PFD wear by children and, to a lesser extent, their parents. However, this study showed no significant change in general adult PFD wear, even in States with child wear requirements and mandatory boating safety courses. For instance, in 2003, less than 10 percent of the 28,982 boaters ages 18 and older, and not aboard personal watercraft (PWC), were observed wearing PFDs. The highest observed PFD wear was among boaters on PWCs (95 percent), sailboards (94 percent), and in kayaks (84 percent). Although the perceived risk of kayaking, sailboarding, and PWC use may influence those boaters to wear PFDs, the risks of small boats may not be so obvious to all boaters. In fact, 77 percent of the recreational boaters involved in fatal accidents in 2003 had not received any boating safety instruction[5] although 32 States have enacted mandatory boating education statutes and regulations that address some segment of the adult recreational boating population.

Previous Safety Recommendations

The consistent pattern of drowning found in its 1993 study led the Safety Board to issue a recommendation to the National Association of State Boating Law Administrators (NASBLA) to require boaters to improve their operating knowledge and skills. Safety Recommendation M-93-9 to NASBLA (and M-93-14 to the Coast Guard) recommended that NASBLA cooperate with the Coast Guard to develop guidelines that would be used by the States to implement recreational boating standards to reduce the number and severity of accidents. The recommendation went on to state that development of the guidelines should consider requirements for operators to demonstrate knowledge of safe boating rules and skills, and

[4] T. *Mangione*, M. Rangel, and K. Watson, *National PFD Wear Rate Observational Study* (Boston: JSI Research & Training Institute, Inc., 2003).

[5] U.S. Coast Guard, *Boating Statistics—2003*, page 19.

operator licensing (the recommendation also included consideration of mandatory child PFD requirements). The recommendations were based in part on accident data showing that boaters involved in fatal boating accidents exhibited a lack of safe boating knowledge, practices, and skills, and the finding that as few as 7 percent and no more than 22 percent of the persons operating a boat for the first time had taken a boating safety course.

NASBLA adopted resolutions and model acts that provided guidelines for vessel operator licensing and mandatory boating safety education, as well as PFD wear requirements for children 12 years of age and under. As a result, the Safety Board classified Safety Recommendation M-93-9 "Closed—Acceptable Action." Coast Guard participation in the NASBLA activities and its work with the States led the Safety Board to classify Safety Recommendation M-93-14 as "Closed—Acceptable Action."

PFD Use and Boater Safety Education

Forum participants agreed that, with the exception of individuals using PWCs and kayaks, PFD wear among adult boaters remains low. According to Coast Guard statistics, the greatest risk appears to be for adults in small (that is, 21 feet or less), open motorboats. According to the Coast Guard's observational study, these are the boaters who are least likely to wear PFDs. Many participants at the forum believed that PFD use could be increased through boating safety education and mandatory licensing. As previously discussed, the Board—as a result of its 1993 study—issued Safety Recommendations M-93-9 to NASBLA and M-93-14 to the Coast Guard calling for minimum boating safety standards, such as education and licensing programs that require operators to demonstrate their knowledge of safe boating rules and skills.

Since 1993, 32 States have enacted mandatory boating education statutes and regulations (in addition to PWC-specific requirements) that address some segment of the adult recreational boating population.[6] Despite these efforts, 77 percent of the recreational boaters involved in fatal accidents in 2003 had not received any boating safety instruction,[7] and 18 States[8] still have no education requirement. The Safety Board continues to believe that boating education and/or operator licensing requirements would improve boating safety, decrease recreational boating accidents and injuries, and increase PFD use.

NASBLA's National Boating Education Standards provide States with the basis for acceptable recreational boating safety courses; PFD use is specifically addressed in Standard 2.3. This standard recognizes the need to inform boat operators that they should wear PFDs at all times and that they need to be alert to high-risk conditions such as high boat traffic, severe weather, dangerous water conditions, night operations, and boating alone. The standard does not, however, specifically require discussion of high-risk boating populations (such as adults in small boats), boats (less than 21 feet in length), or boating activities (such as the high-risk conditions

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[6] Most of the mandatory boating education laws enacted by States require recreational boat operators born after a specific date to take a boating safety course. For example, Missouri requires boat operators born after January 1, 1988, to complete a boating safety course.

[7] U.S. Coast Guard, *Boating Statistics—2003*, p. 19.

[8] Alaska, Arizona, California, Idaho, Indiana, Iowa, Maine, Massachusetts, Minnesota, Montana, New Mexico, North Carolina, Oklahoma, South Carolina, Utah, Virginia, Wisconsin, and Wyoming.

previously mentioned), or provide detailed descriptions of PFD types, applications, and effectiveness. In its presentation at the forum, the Personal Flotation Device Manufacturers' Association (PFDMA) described the variety of currently available PFD types, which address a wide range of comfort, performance, and effectiveness factors.[9] Forum participants agreed that discussions of recreational boating risks and PFD technologies are a necessary part of any safe boating education course, and the Safety Board concurs. Accordingly, the Board concludes that the current National Boating Education Standards do not adequately discuss high-risk boating populations, boats, or boating activities, or provide detail about the current range of PFD technologies available.

Recommendation

Therefore, the National Transportation Safety Board recommends that the National Association of State Boating Law Administrators (NASBLA):

> Modify National Boating Education Standard 2.3 to ensure that boating safety education courses adequately discuss high-risk boating populations, boats, and boating activities and present detail about the current range of personal flotation device technologies available. (M-06-3)

The Safety Board is also issuing two safety recommendations to the U.S. Coast Guard and one to the National Marine Manufacturers Association and the Marine Retailers Association of America. In your response to the recommendation in this letter, please refer to Safety Recommendation M-06-3. If you need additional information, you may call (202) 314-6170.

Acting Chairman ROSENKER and Members ENGLEMAN CONNERS, HERSMAN, and HIGGINS concurred in this recommendation.

[Original Signed]

By: Mark V. Rosenker
Acting Chairman

[9] Paper presented by the Personal Flotation Device Manufacturers' Association to the public forum *Personal Flotation Devices in Recreational Boating* (August 25, 2004).

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: December, 30 2002

In reply refer to: M-02-25 through -28

Admiral Thomas H. Collins
Commandant
U.S. Coast Guard
Washington, D.C. 20593-0001

On the evening of January 12, 2002, the 24-foot U.S. Coast Guard patrol boat *CG242513*, with two crewmembers on board, was on a routine recreational boating safety and manatee-zone patrol in Biscayne Bay, Florida, when it collided with the small passenger vessel *Bayside Blaster*, carrying 2 crewmembers and 53 passengers. Both Coast Guard crewmembers were ejected from their boat. The patrol boat continued running and struck the *Bayside Blaster* again, struck a moored recreational boat twice, and finally came to rest against pilings at nearby Palm Island. Police officers responding to the scene pinned the patrol boat to the pilings and shut off the engines. Five passengers who reported being injured were taken to Coast Guard Station Miami Beach. After triage, two passengers were transported to a hospital; the others did not request further medical treatment. The two Coast Guard crewmembers were triaged by paramedics on Palm Island, taken to a nearby hospital for further examination, and released the morning of January 13. No deaths resulted from the accident. Total damages were estimated at $184,722.[1]

The National Transportation Safety Board (Safety Board) determined that the probable cause of the collision between the Coast Guard patrol boat and the *Bayside Blaster* was the failure of the coxswain of the patrol boat to operate his vessel at a safe speed in a restricted-speed area frequented by small passenger vessels and in conditions of limited visibility due to darkness and background lighting. Contributing to the cause of the accident was the lack of adequate Coast Guard oversight of nonstandard boat operations. Based on its investigation, the Safety Board identified four safety issues related to Coast Guard operations: (1) operation of the Coast Guard patrol boat, (2) Coast Guard oversight of routine patrols, (3) kill switch operation on Coast Guard nonstandard boats, and (4) Coast Guard safety oversight of small passenger vessels in Miami.

[1] For further information, read National Transportation Safety Board, *Collision Between the U.S. Coast Guard Patrol Boat* CG242513 *and the U.S. Small Passenger Vessel* Bayside Blaster, *Biscayne Bay, Florida, January 12, 2002*, Marine Accident Report NTSB/MAR-02/05 (Washington, DC: NTSB, 2002).

At the time of the accident, the Coast Guard lacked guidelines on speed for routine patrols, which in the Safety Board's view allowed coxswains too much latitude in selecting patrol speeds. Most of Biscayne Bay has speed restrictions imposed by Florida to protect manatees, an endangered marine mammal. The Coast Guard boat was conducting a routine patrol, rather than an emergency operation, on the night of the accident, and so was not exempt from the manatee-zone speed restrictions. The coxswain testified to Safety Board investigators that he knew he was approaching a manatee-protection zone as his patrol boat rounded Hibiscus Island (about 400 yards from the accident location). He also testified that he knew there was a blind spot coming around the end of the island. Yet he entered the zone at full speed (32 knots). Even in daylight, the speed at which the coxswain was operating would have been illegal and inappropriate in the area. And even if there were no speed restrictions, the coxswain's speed was imprudent for the prevailing conditions of darkness, background lighting from various sources such as bridges and office buildings, and potential for encountering passenger and recreational vessels in the area of the accident.

Further, Safety Board investigators found that the coxswain had undertaken the patrol without completing a thorough predeparture check of the patrol boat and without ensuring that his port navigation light, a critical piece of equipment, was fully functional. According to the coxswain, when he got under way, the crew of another Coast Guard boat informed him that his port navigation light was not operating. The coxswain tapped the fixture and the light came on. In the Safety Board's opinion, the coxswain should have realized that the light might have been subject to intermittent operation and should have not taken the vessel on a nighttime patrol without ensuring that the light was showing steadily. In addition, the coxswain provided no details of his intended route (float plan) before departing, and the duty officer did not request one. Further, there was no discussion of speed issues or of the condition of the boat that was to be used for the patrol before the boat got under way. Those omissions indicated to the Safety Board that there was a lack of effective oversight of patrol operations at Coast Guard Station Miami Beach.

After the *Bayside Blaster* accident and as a result of an internal Coast Guard investigation of a fatal small boat accident in March 2001, the Coast Guard Commandant instructed the Assistant Commandant for Operations to ensure that small boat coxswains file a float plan before departing on patrol and that they notify their controlling station if they deviate from the plan. The float plan requirements, in the Safety Board's opinion, will provide a measure of oversight over Coast Guard small boat operations. But by themselves, they still fall short of the degree of oversight necessary to ensure operational safety. Oversight could be improved by various means, such as direct observation of coxswains' performance by station officials and solicitation of feedback from waterway users, as well as greater formality in the conduct of routine patrols. For example, if coxswains were required to complete a written checklist before getting under way, they might be more likely to conduct thorough predeparture checks. If detailed predeparture briefings were held, coxswains might be more mindful of operational restraints. And if detailed postpatrol debriefings were held, coxswains might be less likely to take actions they could be held accountable for.

Other changes made by the Coast Guard since the *Bayside Blaster* accident, such as issuing a *Non-standard Boat Operators Handbook* that cautions against operating vessels at excessive speed and requiring in the new *Navigation Standards Manual* that commanding officers impose specific operating restrictions (such as speed limits), should help improve the safety of nonstandard boat operations. Ongoing evaluation and the establishment of verification procedures are, however, essential to ensure compliance with the Coast Guard's policies and procedures regarding the operation of nonstandard boats.

One question in the Safety Board's investigation of the *Bayside Blaster* accident was why the Coast Guard patrol boat's engines continued to run after the coxswain was thrown overboard. The patrol boat was equipped with an engine kill switch mounted on the console. A plastic loop on one end of a coiled lanyard fit over the kill switch, and the other end of the lanyard was connected to a plastic clip on the coxswain's belt. The system was designed so that if the loop-and-lanyard assembly were pulled in any direction from the kill switch, the engines would stop. When the patrol boat lodged against the pilings at Palm Island, however, its engines were still running. If the kill switch lanyard and clip had operated properly, the engines would have shut down as soon as the coxswain was ejected from the patrol boat. If the engines had stopped, the patrol boat would not have struck the *Bayside Blaster* the second time, the other damages would not have occurred, and the Coast Guard crewmembers would not have been placed in jeopardy of being run over by their own vessel.

The Safety Board's Materials Laboratory examined the kill switch lanyard and the coxswain's belt clip, which was broken. The examination indicated that the belt clip was the weak link in the lanyard assembly, suggesting that either the belt clip was the wrong attachment or that the lanyard may have wrapped itself around another item on the console, such as the steering wheel, thereby transferring all the force to the belt instead of to the kill switch. The two Coast Guard crewmembers confirmed that the kill switch lanyard was connected both to the kill switch and to the coxswain, and the police saw the kill switch lanyard connected to the kill switch when the patrol boat came to rest against the pilings on Palm Island. The Safety Board concluded that it could not be determined why the kill switch did not activate when the coxswain was ejected or whether fouling of the kill switch lanyard on the steering wheel was a factor in the engines' failure to stop.

On January 30, 2002, two weeks after the accident, the Coast Guard sent a safety advisory to all Coast Guard units that appears to address most of the problems with kill switch malfunction. For example, the advisory requires that kill switches be attached to a metal D-ring on the coxswain's lifejacket or survival vest and that the switches be inspected daily and tested weekly. However, individual Coast Guard units are being tasked with evaluating the proper location and operation of kill switches, which may be beyond the technical qualifications of some units. Because the placement and arrangement of kill switches may require special knowledge of ergonomics and human engineering, engineers and technicians with those skills should be part of any effort to redesign the kill switch system. The actions by the Coast Guard to improve kill switch use could be enhanced by including kill switch manufacturers and ergonomic/human engineering experts in the redesign process.

The Safety Board's investigation revealed safety deficiencies in the *Bayside Blaster*'s equipment and operations that led the Board to conclude that the Coast Guard's marine safety inspection program for small passenger vessels in the Miami area may be less than adequate. For the *Bayside Blaster* to receive a certificate of inspection to carry passengers, the Coast Guard must inspect and certify that the vessel meets the small passenger regulations at 46 CFR 175-185. The *Bayside Blaster* was deficient in at least three respects:

- Safety Board investigators found that lifejackets were not readily available to passengers in the aft part of the vessel, although the *Bayside Blaster* had recently been inspected and approved for operation by the Coast Guard. As the oversight authority for marine safety, Coast Guard inspectors should not permit such arrangements. They should use inspections as an opportunity to review the purpose of the regulations with vessel owners and to improve the safety of passengers by ensuring that lifejackets are readily accessible in an emergency.
- After the accident, the Coast Guard in Miami advised the Safety Board that the navigation lights of the *Bayside Blaster* were not configured in accordance with the Inland Navigation Rules. The measurements taken by the Coast Guard after the accident should have been taken during its 2001 inspection, and corrections should have been made to ensure regulatory compliance.
- The master and operations manager of the *Bayside Blaster* stated that the vessel had repeatedly, though infrequently, operated shorthanded. Their statements indicate that a continuing safety deficiency regarding small passenger vessel operations in Biscayne Bay remained undetected by the Coast Guard. While the owner of the vessel has a primary responsibility for safety oversight, the Coast Guard has an equally important responsibility to maintain oversight of the operations of all small passenger vessels under its inspection authority.

In light of the issues discussed above, the National Transportation Safety Board makes the following safety recommendations to the U.S. Coast Guard:

> Establish oversight procedures for use by the commanding officers or officers-in-charge of Coast Guard stations to improve the safety of Coast Guard routine small boat operations, including the institution of in-depth predeparture briefings, thorough predeparture checks of boats, monitoring of coxswain performance, and thorough postpatrol debriefings. (M-02-25)

> Evaluate on an annual basis your program for reducing nonstandard boat accidents and for ensuring compliance with Coast Guard policies and procedures related to those vessels; publish the results annually for use by Coast Guard stations. (M-02-26)

Evaluate the adequacy of the design of present or future kill switch systems on Coast Guard small boats, giving full consideration to ergonomic/human engineering factors. (M-02-27)

Evaluate the adequacy of the marine safety inspection program in the Miami area to ensure that small passenger vessels are in compliance with applicable regulations, including the requirements for lifejacket stowage, navigation lights, and manning. (M-02-28)

As a result of this investigation, the Safety Board also issued safety recommendations to Boatrides International, Inc. (owner of the *Bayside Blaster*), and the Passenger Vessel Association. The Safety Board would appreciate a response from you within 90 days addressing actions you have taken or intend to take to implement our recommendations. In your response to the recommendations in this letter, please refer to M-02-25 through -28. If you need additional information, you may call (202) 314-6177.

Acting Chairman CARMODY and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in these recommendations.

Original Sighed

By: Carol J. Carmody
Acting Chairman

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: August 4, 2006

In reply refer to: M-06-16 and -17

Honorable George E. Pataki
Governor
State of New York
State Capitol
Albany, New York 12224

The National Transportation Safety Board (Safety Board) is an independent Federal agency charged by Congress with investigating transportation accidents, determining their probable cause, and making recommendations to prevent similar accidents from occurring. We urge you to take action on the safety recommendations in this letter. The Safety Board is vitally interested in these recommendations because they are designed to prevent accidents and save lives.

The recommendations address the need for New York State to discontinue its practice of using capacity plate data to determine passenger loading on public vessels that carry more than six passengers and to issue technical guidance on a number of matters to public vessel owners. The recommendations are derived from the Safety Board's investigation of the fatal accident involving the New York State-certificated public vessel *Ethan Allen* on October 2, 2005, and are consistent with the evidence we found and the analysis we performed.[1] The Safety Board would appreciate a response from you within 90 days addressing actions you have taken or intend to take to implement the recommendations.

On the afternoon of October 2, 2005, the New York State-certificated public vessel *Ethan Allen,* with a State-licensed operator and 47 passengers on board, departed the marina at Lake George, New York, for a narrated cruise of the lake. About 20 minutes into the cruise, as the operator was maneuvering around Cramer's Point, a wave or waves generated by one or more vessels impacted the *Ethan Allen* on its starboard side. The *Ethan Allen* rolled to port and overturned within a few seconds. Operators of recreational vessels nearby observed the accident, proceeded immediately to the site, and began rescuing survivors. Twenty passengers died, three passengers received serious injuries, and six passengers received minor injuries in the accident. The vessel operator and 18 passengers survived without injury.

[1] For additional information, read National Transportation Safety Board, *Capsizing of New York State-Certificated Public Vessel* Ethan Allen, *Lake George, New York, October 2, 2005*, Marine Accident Report NTSB/MAR-06/03 (Washington, D.C., 2006).

The National Transportation Safety Board determined that the probable cause of the capsizing of the *Ethan Allen* was the vessel's insufficient stability to resist the combined forces of a passing wave or waves, a sharp turn, and the resulting involuntary shift of passengers to the port side of the vessel. The vessel's stability was insufficient because it carried 48 persons where postaccident stability calculations demonstrated that it should have been permitted to carry only 14 persons. Contributing to the cause of the accident was the failure to reassess the vessel's stability after it had been modified because there was no clear requirement to do so. The Board's accident investigation found that the stability characteristics of the *Ethan Allen* had been changed throughout its history by the addition and modification of various canopy structures, and that because the vessel did not undergo a stability assessment after the addition or modification of each canopy, it was certificated to carry too many passengers.

Following this accident, on March 2, 2006, you proposed legislation to strengthen the State's regulations governing public vessels. In the area of stability, the proposed legislation included increasing the State passenger weight criterion to 174 pounds. The weight standard proposed by New York is based on a Federal Aviation Administration (FAA) weight standard identified in a safety recommendation (M-04-4) that the Safety Board issued to the U. S. Coast Guard in advance of the Board's final report on the 2004 *Lady D* capsizing in Baltimore Harbor. The specific weight value adopted by the FAA in 2004 was based on information available at that time.[2]

New York's proposed legislation to update the passenger weight criterion is a positive step toward ensuring that a vessel is properly certificated for the number of passengers it can safely carry. However, as current studies and sources show, weight is a variable that is subject to change. The Coast Guard has recommended that the passenger weight standard used in evaluating vessel stability be 185 pounds based on 2005 CDC studies.[3] The Safety Board has asked the Coast Guard to periodically review national studies and update the weight standard as necessary. The Board suggests that New York monitor the regulatory changes made by the Coast Guard and update its State regulations accordingly.

In the course of its investigation, the Safety Board found that New York State public vessels are not required to have a simple and ready means such as a mark on the hull by which operators can determine whether their vessels are overloaded. Even if the number of passengers permitted is based on an increased average weight standard, the problem persists that a vessel can become overloaded if many of the passengers on board are heavier than the standard weight. Operators need an easy way of identifying whether the passenger load they are preparing to carry will overload their vessels. If a mark is painted on the hull that corresponds to the waterline when the vessel is under maximum approved load, any crewmember can easily determine whether the vessel is overloaded simply by observing the vessel's draft in relation to that mark.

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[2] In October 2004, the Centers for Disease Control and Prevention (CDC) issued the report, "Mean Body Weight, Height, and Body Mass Index, United States 1960–2002," based on data collected annually since 1960 by the CDC's National Health and Nutrition Examination Survey program.

[3] *Federal Register*, vol. 71, no. 80 (April 26, 2006), pp. 24732-24735.

The regulatory changes you proposed also addresses other issues that were not causal to the capsizing. The Safety Board supports the quick enactment of the proposed legislation, including the following changes:

- Law enforcement officials must immediately test operators of public vessels that have been involved in an accident causing death, disappearance, or serious physical injury for alcohol or drug use before the accident.

- Public vessel operators must provide passengers with pretrip verbal safety briefings that include descriptions of the use and location of personal flotation devices and other safety equipment.

- Public vessels certified to carry 20 or more passengers must be equipped with at least two means of exit on each deck.

- Public vessels must not be operated with fewer than the required number of crewmembers specified in the certificate of inspection or temporary permit.

- Owners must inform the State before modifying vessels in a way that would affect the stability of the vessel.

The Safety Board notes the timely efforts that New York State is taking to make regulatory changes related to stability, passenger carriage, postaccident toxicological testing, and manning. If adopted, the proposed changes should ensure a higher level of safety for passengers on public vessels. Once the regulatory changes are enacted, owners and operators need to promptly receive guidance on the new rules.

In researching the number and passenger carriage of New York's public vessels, the Safety Board determined that State officials used manufacturers' capacity plates to establish the number of passengers permitted on 382 of the 447 public vessels. Of the 382 public vessels with capacity plates, 125 carried more than six passengers for hire.

The capacity plate standard, found in 33 *Code of Federal Regulations* Part 183, requires boat manufacturers to rate the total number of persons their boats can safely carry. The standard specifically applies to noncommercial vessels under 20 feet in length and is not intended to be applied to a commercial passenger vessel carrying more than six passengers for hire. The Coast Guard requires that any commercial passenger vessel carrying more than six passengers be inspected according to the small passenger vessel regulations found in 46 CFR Subchapter T. New York State's reliance on manufacturers' capacity plate data to determine passenger limits on public vessels that carry more than six passengers for hire is an inappropriate use of the Coast Guard noncommercial boat standard.

In summary, the Safety Board makes the following safety recommendations to New York State:

> Address safety deficiencies identified in the investigation of the *Ethan Allen* accident and issue technical guidance to vessel owners on inspection

requirements for modified vessels, stability assessments and criteria, means for determining maximum safe load condition, drug and alcohol testing, manning, and safety briefings. (M-06-16)

Discontinue the use of capacity plate data associated with the U.S. Coast Guard's noncommercial boating standards for determining passenger loading on public vessels that carry more than six passengers and adopt the Coast Guard small passenger vessel inspection standards. (M-06-17)

We urge you to take action on the safety recommendations in this letter. Please refer to Safety Recommendations M-06-16 and -17 in your reply. If you need additional information, you may call (202) 314-6174.

Acting Chairman ROSENKER and Members HERSMAN and HIGGINS concurred with these recommendations.

[Original Signed]

By: Mark V. Rosenker
Acting Chairman

Log M-229

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: 11/7/83

adopted 10/17/83

Forwarded to: the Governors of the States of Alaska, Arizona, Colorado, Louisiana, Maine, Maryland, Nebraska, Tennessee, Utah, and Wisconsin

SAFETY RECOMMENDATION(S)

M-83-78

The National Transportation Safety Board has long been concerned about the role of alcohol in the many recreational boating accidents, fatalities, and injuries that occur annually. As early as 1969, the Safety Board recommended that the Coast Guard and States use the same boating accident report and that it should include, as one important item, whether intoxication or other physical impairment was involved. 1/ Recent recreational boating accidents have heightened the Board's concern. Moreover, there is increased public awareness of the hazards of alcohol use in all modes of transportation. We know that your State shares the concern of the Safety Board for the protection of the recreational boating public and those involved in other water-related activities who are placed in life-threatening situations by those who dangerously operate boats while under the influence of alcohol. 2/

Two recent accidents have highlighted the problem. On July 27, 1983, two recreational boats, one 17 feet long and one 30 feet long, collided on the Severn River near Annapolis, Maryland, killing four persons. The 30-foot boat went through the hull and then over the small vessel. All four persons killed were on the small vessel. There was evidence that considerable amounts of alcohol had been consumed by the persons in the 17-foot boat; the operator of the boat had a blood alcohol concentration (BAC) of 0.21 percent.

In a similar occurrence on August 31, 1983, a 26-foot recreational boat collided with the 95-foot dinner vessel DANDY on the Potomac River, Washington, D.C. The DANDY has a 200-passenger capacity. Fortunately, none of the dinner guests were injured when the recreational boat struck the bow of the DANDY. However, the operator of the small recreational boat was fatally injured. It was determined that the operator of the recreational boat had a BAC of 0.23 percent.

1/ Safety Recommendation M-69-47 was issued February 13, 1969, in the National Transportation Safety Board's "Study of Recreational Boat Accidents, Boating Safety Programs, and Preventive Recommendations."

2/ For more detailed information, read Safety Study—"Recreational Boating Safety and Alcohol" (NTSB/SS-83/02).

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In both of these cases, the BAC was more than twice the generally accepted BAC of 0.10 percent established by the National Highway Traffic Safety Administration, the Congress, and most States, including the District of Columbia, as the level at which highway drivers are considered to be driving while intoxicated.

During its study of the role of alcohol in recreational boating accidents, fatalities, and injuries, the Safety Board found that the Coast Guard and State boating law authorities suspect alcohol use to be a major factor in the high number of recreational boating fatalities. However, representative and credible national statistics are not available. Several factors affect the national statistics issued by the Coast Guard, including:

- Not all accidents are reported to the States or to the Coast Guard.
- Only in the approximately 25 percent of the fatal accidents investigated by the Coast Guard is there any assurance of verification of injuries, property damage, or definitive primary and secondary causes.
- Compliance with reporting requirements varies from location to location and is influenced by Coast Guard and State enforcement practices and programs.
- Boating accident reports are usually completed by the person involved in the accident or next of kin, who may not provide accurate and objective information about the accident.

Nationally, there are no uniform reporting requirements or guidelines for collecting information on the use of alcohol in recreational boating accidents, fatalities, and injuries. For example, in 1982, the Coast Guard received reports on 5,377 recreational boating accidents which resulted in 1,178 fatalities, 2,682 injuries, and $15.3 million in property damage. Based on data available to the Coast Guard, only 95 of these recreational boating accidents involved alcohol as a primary or secondary cause, resulting in 70 fatalities, 22 injuries, and property damage of $46,700. This amounts to 1.8 percent of the accidents and 6 percent of the fatalities. However, based on some State data that have recently become available, the use of alcohol and its effects in recreational boating accidents, fatalities, and injuries appear to be grossly underreported. In two States, information received indicates that 35 to 38 percent of the fatalities in recreational boating accidents were "legally drunk" at the generally accepted BAC of 0.10 percent. Additionally, one State indicates that as high as 80 percent of the fatalities in 1 year were alcohol related, and in one State 75 percent of the accidents over a 3-year period were alcohol related.

Enforcement efforts for recreational boating are now primarily the responsibility of the States. However, a survey completed by the State of California's Department of Boating and Waterways revealed that in most States (39) and the District of Columbia, there was no defined BAC for intoxication, yet it is unlawful to operate a vessel under the influence of alcohol in 49 of the 51 jurisdictions which responded to the survey. The Safety Board believes that all States and the District of Columbia should establish a defined level of intoxication to strengthen and improve the States' marine programs to handle alcohol-related incidents and accidents. Ideally, that level should be, based on research, set a 0.035 percent BAC. However, as a beginning, it would seem realistic that

the level should be the same in each State as that set for driving a motor vehicle while intoxicated. Some States have levels as low as a 0.08 BAC, but most States have a level of 0.10 percent BAC. A 0.10 percent BAC has been generally accepted by the U.S. Congress, the States, and highway safety organizations, and is the level most generally accepted by the American public as "legally drunk." Moreover, the Safety Board believes that States should provide for chemical testing requirements to determine alcohol involvement in the event a recreational boat operator either is suspected of being intoxicated or is involved in an accident. Further, there are no Federal or uniform State requirements for toxicological tests in the event of a recreational boating fatality. Without these tests, it is very difficult for State boating law officials to obtain conclusive and objective information on the true impact of alcohol use in recreational boating accidents, fatalities, and injuries.

Therefore, the National Transportation Safety Board recommends that the Governor/Legislative Leaders of the States of Alaska, Arizona, Colorado, Louisiana, Maine, Maryland, Nebraska, Tennessee, Utah, and Wisconsin:

> Require procedures for toxicological tests in the event of a recreational boating fatality to document the role of alcohol in recreational boating accidents and fatalities. (Class II, Priority Action) (M-83-78)

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 (P.L. 93-633). The Safety Board is vitally interested in any actions taken as a result of our safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter.

BURNETT, Chairman, and McADAMS, BURSLEY, and ENGEN, Members, concurred in this recommendation. GOLDMAN, Vice Chairman, did not participate.

By: Jim Burnett
Chairman

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SP-20
Log M-320

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: September 2, 1986

In reply refer to: M-86-100

Admiral Paul A. Yost
Commandant
United States Coast Guard
Washington, D. C. 20593

Recently, the National Transportation Safety Board reviewed United States Coast Guard (USCG) boating accident data in an effort to determine the in-service effectiveness and performance of personal flotation devices (PFDs). The data, derived from Boating Accident Reports submitted to the USCG by the States, did not provide an adequate basis for such an analysis. An examination of the USCG Boating Accident Report form revealed that only limited information is recorded on PFD approval, accessibility, and use aboard recreational boats involved in accidents. However, the relationship of these data to actual PFD performance experienced by survivors or fatalities, and the specific type of PFD used by each, was not reported.

The Safety Board has previously identified safety issues in recreational boating and has issued recommendations concerning the implementation of uniform accident reporting and data collection by the USCG. In its 1969 study of recreational boat accidents, boating safety programs, and preventive recommendations, 1/ the Board recommended that the USCG and the States use a uniform boating accident report and conduct investigations to provide information vital to the prevention of similar casualties. Most recently, in its 1983 safety study on recreational boating safety and alcohol, 2/ the Board concluded that deficiencies in information reported to the USCG precluded accurate analysis of alcohol-related accident statistics. As a result of the study, the Board recommended that the USCG and the National Association of State Boating Law Administrators (NASBLA) cooperatively develop a model State boating accident report form to include a specific accident causal entry for alcohol involvement in recreational boating accidents. The USCG and NASBLA have developed such reporting format revisions and are expected to implement them soon.

1/ "Study of Recreational Boat Accidents, Boating Safety Programs, and Preventive Recommendations," February 13, 1969.
2/ Safety Study--"Recreational Boating Safety and Alcohol" (NTSB/SS-83/02).

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In 1985, the USCG received reports on 8,305 recreational boating accidents which resulted in 1,116 fatalities and 2,757 injuries. A significant number of the fatally injured persons reported in these statistics actually wore PFDs and, therefore, some of these deaths may be attributed to inadequate PFD performance. Data collected by the current Boating Accident Report form precludes analysis of accident-related factors, including PFD performance. The availability of amplified data would permit the accurate assessment of PFD performance and could lead to improvements in PFD effectiveness, thereby reducing injuries and the loss of life in recreational boating accidents.

Therefore, the National Transportation Safety Board recommends that the United States Coast Guard:

> In coordination with the National Association of State Boating Law Administrators, expedite revision of the Boating Accident Report form to include specific data entries that would enable the accurate assessment of personal flotation device performance. (Class II, Priority Action) (M-86-100)

BURNETT, Chairman, GOLDMAN, Vice Chairman, and LAUBER and NALL, Members, concurred in this recommendation.

By: Jim Burnett
Chairman

Log M-383E

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: MAY 25 1993

In reply refer to: M-93-6

To: The Governors and Legislative Leaders of Arizona, Arkansas, Iowa, Kentucky, Massachusetts, Missouri, New Hampshire, New York, North Dakota, Oklahoma, Pennsylvania, and Virginia
(see attached mailing list)

Recreational boating accidents currently result in the greatest number of transportation fatalities annually after highway accidents. Although the number of fatal recreational boating accidents and fatalities decreased each year from 1985 to 1990, the U.S. Coast Guard indicates that in 1991, the number of fatalities from recreational boating accidents increased to 924 from the 865 fatalities reported in 1990. According to the Coast Guard, the fatality rate—the number of fatalities per 100,000 estimated boats—also increased slightly during the same period. Information from the American Red Cross indicates that about 355,000 persons are injured from recreational boating accidents annually and that more than 40 percent of these injuries require medical treatment beyond first aid. The U.S. Coast Guard estimates that in 1991 there were about 20 million recreational boats on the Nation's waterways, with the number increasing steadily each year. Not only has the number of recreational boats increased, but the speed at which many of these recreational boats operate has also increased. Because of the number of fatalities and injuries and because recreational boating activities can be expected to continue to increase, the Safety Board believes that efforts to improve safety are needed in recreational boating. The Safety Board, therefore, initiated a safety study of recreational boating accidents to determine the circumstances of these accidents and the countermeasures needed to prevent or reduce their number and severity.[1]

For the study, the Safety Board reviewed U.S. Coast Guard data on recreational boating accidents that occurred between 1986 and 1991. The Safety Board also asked 18 States to provide copies of their 1991 fatal accident investigation

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[1] National Transportation Safety Board. 1993. Recreational boating safety. Safety Study NTSB/SS-93/01. Washington, DC.

reports, including witness statements, local investigation reports, and written narratives of the accidents. The Safety Board received 407 fatal accident reports, about 52 percent of the 779 fatal boating accidents that occurred nationally in 1991; 478 persons died in these accidents, about 52 percent of the 924 persons who died in boating accidents nationally in 1991.

A review of the accident data provided by the 18 States indicated that 107 boat operators (76 of whom were fatally injured) were tested for alcohol; that is, 24 percent of the 451 boat operators were tested. Test results were negative for 21 operators, not available for 19 operators, and positive for 67 of the operators. Thus, 76 percent of those tested and for whom test results were available had positive test results.

In addition to the operators who tested positive for alcohol (15 percent), another 101 boat operators (22 percent) were suspected by law enforcement officers of having been drinking while operating a boat.[2] Consequently, at least 168 of the 451 operators (37 percent) probably had some level of alcohol in their system at the time of the accident.[3] However, it is likely that some of the 252 operators in the "unknown" category—those for whom there was no indication on the accident report of having been drinking—also had some alcohol in their system. Thus, 37 percent is probably a conservative estimate of the number of operators who had alcohol in their system at the time of the accident.

In its 1983 study on the role of alcohol/drugs in recreational boating accidents, the Safety Board concluded that as many as 35 to 38 percent of the fatalities in the recreational boating accidents studied were "legally drunk" at the generally accepted blood alcohol concentration (BAC) of 0.10 percent. Prior to that time, boating while intoxicated (BWI) had not gained national attention as a serious safety issue, and only three States (Arizona, Louisiana, and Maryland) had statutes that specifically addressed BWI. As a result of its 1983 study, the Board recommended that the various States and the District of Columbia undertake legislative initiatives to

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[2] In some recreational boating cases, the on-site law enforcement officer may not have the necessary authority or equipment to require a boat operator to undergo a chemical test for alcohol and/or drug use. Several States, therefore, place a box on the accident forms to check if the responding officer observes or suspects from observation, witness statements, or evidence at the scene that an operator has been drinking. Consequently, 101 operators were suspected of having been drinking, but no information on blood alcohol concentration (BAC) was available.

[3] For purposes of this letter, if either (1) the person had a BAC of 0.02 or greater, or (2) the responding marine or law enforcement officer indicated that the operator had been drinking, the operator was considered to have alcohol in his or her system. It could not be concluded, however, that in all cases the operator was under the influence of alcohol.

complete a solid framework to address BWI. In short, the three elements of the Board's safety recommendations called on the various States to:

- Establish a defined level of intoxication to strengthen and improve State marine safety programs to handle alcohol-involved incidents and accidents. (M-83-76)

- Provide for a chemical test of blood, breath, or urine if a recreational boating operator is suspected of being intoxicated. (M-83-77)

- Require toxicological tests of recreational boating fatalities. (M-83-78)

The Safety Board also issued a safety recommendation (M-83-73) to the National Association of State Law Boating Administrators (NASBLA) to work with the States to develop a model enforcement program that would include a defined level of intoxication and toxicological and chemical testing requirements. Although it is illegal in all States to operate a vessel under the influence, 37 States and 2 Territories have passed and/or strengthened BWI laws since 1983. Although these laws vary from State to State, the majority of States define an illegal blood alcohol concentration standard. Some States define behavioral standards in addition to an illegal blood alcohol concentration; some States specify field test methods; and several States have instituted implied consent provisions.[4]

Defining the level of intoxication, conducting chemical tests if a recreational boater is suspected of being intoxicated, and requiring toxicological testing in the event of a fatality have enabled States to document more accurately the extent of alcohol use in recreational boating than they were able to do a decade ago. The Safety Board continues to believe that documenting the extent of the problem is a necessary first step before States can determine the appropriate countermeasures. The Safety Board further believes that all three of the legislative provisions outlined above are necessary to achieve an overall effective program. However, some States have defined the level of intoxication in terms of an illegal blood alcohol concentration but have not adopted a legislative provision allowing a chemical test of blood or urine if a recreational operator is suspected of being intoxicated. If enforcement officials are unable to conduct a chemical test, the extent of the alcohol involvement in recreational boating cannot be accurately determined nor can an upward or

[4] "Specified field test methods" means that the general method of determining a blood alcohol concentration, or other standard of intoxication, is prescribed in the law or regulation. "Implied consent" means that the refusal of the boater to submit to a test for intoxication (for example, breathalyzer, blood test, or other) may be introduced in court as evidence of intoxication. In some States, it may be considered a separate offense.

downward trend be determined. Other States have attempted to curb alcohol use in recreational boating through various programs but have yet to adopt legislative provisions to define the level of intoxication or to allow for a chemical test. Actions taken by enforcement officials through programs that lack legislative backing are less likely to be effective. Therefore, the Safety Board believes that the remaining States that have not yet enacted the legislative provisions outlined above should do so immediately. Safety Recommendations M-83-76 through -78 are being classified "Closed—Acceptable Action/Superseded" as a result of the new recommendations being issued to the States following the Board's safety study.

Therefore, as a result of the safety study, the National Transportation Safety Board recommends that each State:

> Enact legislation that would require toxicological testing of all recreational boating fatalities. (Class II, Priority Action) (M-93-6) (Supersedes M-83-78)

Also as a result of the study, the Safety Board issued safety recommendations to the U.S. Coast Guard; the National Association of State Boating Law Administrators; the U.S. Department of the Army, Corps of Engineers; and the American Academy of Pediatrics.

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 actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-93-6 in your reply.

Chairman VOGT, Vice Chairman COUGHLIN, and Members LAUBER, HART, and HAMMERSCHMIDT concurred in this recommendation.

By: Carl W. Vogt
Chairman

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National Transportation Safety Board
Washington, D.C. 20594

Safety Recommendation

Date: October 19, 1995

In Reply Refer To: M-95-34

Mr. Richard Schwartz
President
Boat Owner's Association of the U.S.
880 S. Pickett Street
Alexandria, Virginia 22304

About 0830 local time on June 18, 1994, three men, ages 31, 37, and 38, departed from the shore near Roosevelt Canal in Traders Bay on the southwest side of Leech Lake[1] near Walker, Minnesota. The men were aboard a 1988 18-foot-4-inch-long Champion bass boat (Minnesota State No. MN 3798 FG) owned by one of the occupants and apparently planned to go fishing for the day. The owner and one passenger were reported to be swimmers.

The weather was clear, the water was choppy (1/2 to 2-foot-high waves), the wind was 7 to 14 miles per hour from the northwest, the air temperature was about 65-70°F, and the water temperature was about 70°F. A Cass County employee, who had been fishing on Leech Lake about 0800 the same day, reported white caps on the water and winds of 16-17 miles per hour. No weather watches or warnings were in effect for Leech Lake on the morning of June 18.

About 1030, a couple boating on the lake noticed the unoccupied open fiberglass motorboat circling at slow speed between Pelican and Bear Islands, 10 to 12 miles east of Traders Bay. The boat was retrieved and the owner determined from State registration number records. After locating family members, the Cass County Sheriff Department learned that the boat's owner and two friends had been on the boat when it left shore. No witnesses saw the men in the boat after it got underway or witnessed the accident.

Shortly thereafter, a Civil Air Patrol aerial search and Cass County Sheriff Department water search commenced and continued until June 22, 1994, with no results. About 0800 on June 23, 1994, a boater found the body of one victim. A water search located the two other victims about 3 1/2 hours later. None were wearing personal flotation devices (PFDs), and all

[1]Leech Lake, which covers about 170 square miles, has a 630-mile shoreline and an average depth of 20 feet. Located in Cass County, the lake is about 190 miles north-northwest of Minneapolis/St. Paul.

were fully clothed. The autopsy did not indicate that alcohol or drugs were involved, nor was trauma indicated. All three men drowned.

On July 12, 1994, a Safety Board investigator and a Minnesota State Boating Safety Officer inspected the boat, with its outboard engine attached to the transom, at the police impound lot in Walker. They found that the steering wheel and the fast idle lever on the shift control were slightly bent and a small piece of the driver's left side plastic windshield was broken off and found in the boat. Neither the hull nor equipment on the boat had sustained any other damage. When the accelerator pedal was depressed fully and released, it did not return to the idle position, but remained partially depressed. It could not be determined if the conditions found were a result of this accident. A decal on the outboard engine cover read "150 hp," but the engine markings indicated a 200 hp outboard engine. The U.S. Coast Guard "maximum capacity" plate, permanently attached to the port console, showed a rating for 6 persons or 810 pounds and a 175 hp motor.[2] Fishing gear and five PFDs were found in seat lockers forward of the starboard console; one PFD had a cord with an engine kill clip attached to it.

Neither Coast Guard nor Minnesota regulations require that motorboats or watercraft be equipped with an engine kill switch. State law in Minnesota does mandate use of an engine kill switch if a personal watercraft, such as jet-skis, is equipped with one. Almost all personal watercraft manufacturers voluntarily install the switch on such equipment.

According to one passenger's brother, who had been on the motorboat when it was operated on the Mississippi River about 4 weeks before the accident, the boat tended to wobble, or rock from side to side, at a speed of 65 mph. The boat manufacturer's customer service manager stated that the boat was rated at 70 miles per hour with a 175 hp outboard motor. The person who sold the 200 hp motor to the boat owner on May 16, 1994, reported that a bass boat similar to the one involved in this accident tends to wobble ["chine[3] walk"] before planing. Until recently, when manufacturers began selling stock boats that are capable of speeds exceeding 50 mph, chine walking was associated only with racing boats.

In this accident, the motion of the boat that probably caused the three occupants to fall overboard could have come from: striking a wave while chine walking, a sudden turn by the operator at high speed, or a sudden pitch or roll in response to striking a wave at high speed. They may not have recovered from the impact of entering the water in time to prevent their drowning or, if they did recover, they may not have been able to board the boat because the sticking accelerator pedal caused the engine to continue to operate. Had the occupants worn PFDs, they may have survived.

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[2]The maximum safe horsepower plate required by Federal regulations does not prohibit a person from putting a larger engine on a boat. However, Minnesota law prohibits operating a boat equipped with a motor that exceeds the safe power capacity (as defined by the manufacturer or by formula if there is no plate).

[3]A chine is the intersection of the bottom and sides of a flat or V-bottomed boat.

This accident demonstrates that all persons may unexpectedly enter the water from a boat, leaving no one to stop the boat, and also the need to wear PFDs. The chine walking phenomenon occurs at high speeds when a boat reaches a point at which it experiences reduced dynamic stability, which is a comparatively new problem for recreational boaters. The Safety Board believes that additional safeguards are needed to stop a boat when all occupants are ejected from it and the engine continues to operate, and that recreational boaters need to know how to recognize and prevent chine walking.

Therefore, the National Transportation Safety Board recommends that the Boat Owner's Association of the U.S.:

> Publish the circumstances of this accident to your membership to stress the dangers of operating a boat at high speed and the phenomenon of "chine walking," the need to wear personal flotation devices, and the use of engine kill switches. (Class II, Priority Action) (M-95-34)

Also, the Safety Board issued Safety Recommendation M-95-35 to the U.S. Coast Guard.

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 action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-95-34. If you need additional information, please call (202) 382-6860.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT and GOGLIA concurred in this recommendation.

By: Jim Hall
Chairman

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

Marine Accident No. DCA94MM030

Vessel:	Champion bass motorboat, Minnesota State No. MN 3798 FG, HIN TSB112171788, 18 feet 4 inches long, built 1988, uninspected
Accident Type:	Fall Overboard
Location:	Vicinity of Pelican and Bear Islands, Leech Lake, Cass County, Minnesota (latitude 47° 8.1'N, longitude 94° 20.0'W)
Date:	June 18, 1994
Time:	1030
Owner:	John A. Klemke, Hastings, Minnesota
Property Damage:	Minimal (slightly bent steering wheel and idle lever, and a small portion of the left side of the driver's side plastic windshield broken off)
Injuries:	Three fatalities
Complement:	Three

Description of the Accident

About 0830 local time on June 18, 1994,[1] three men, ages 31, 37, and 38, departed from the shore near Roosevelt Canal in Traders Bay, on the southwest side of Leech Lake[2] near Walker, Cass County, Minnesota, aboard an 18-foot-4-inch-long Champion bass boat owned by one of the occupants. The men were apparently planning to go fishing for the day. The owner and one passenger were reported to be swimmers.

The weather was clear, the water was choppy (1/2 to 2-foot-high waves), the wind was 7 to 14 miles per hour from the northwest, the air temperature was about 65-70°F, and the water temperature was about 70°F. A Cass County employee, who had been fishing on Leech Lake about 0800 the same day, reported white caps on the water and winds of 16-17 miles per hour. No weather watches or warnings were in effect for Leech Lake on the morning of June 18.

About 1030, a couple boating on the lake noticed the unoccupied open fiberglass motorboat circling at slow speed between Pelican and Bear Islands, 10 to 12 miles east of Traders Bay. The boat was retrieved and the owner determined from State registration number records. After locating family members, the Cass County Sheriff Department learned that the

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[1]On July 8, 1994, the Minnesota Boat and Safety Coordinator asked the Safety Board to help investigate the June 18, 1994 boating accident on Leech Lake. The Safety Board dispatched an investigator from Washington, D.C., to the scene on July 11, 1994.

[2]Leech Lake, which covers about 170 square miles, has a 630-mile shoreline and an average depth of 20 feet. Located in Cass County, the lake is about 190 miles north-northwest of Minneapolis/St. Paul.

boat's owner and two friends had been on the boat when it left shore. No witnesses saw the men in the boat after it got underway or witnessed the accident.

Shortly thereafter, a Civil Air Patrol aerial search and Cass County Sheriff Department water search commenced and continued until June 22, 1994, with no results. About 0800 on June 23, 1994, a boater found the body of one victim. A water search located the two other victims about 3 1/2 hours later. None were wearing personal flotation devices (PFDs), and all were fully clothed. The autopsy did not indicate that alcohol or drugs were involved,[3] nor was trauma indicated. All three men drowned.

On July 12, 1994, a Safety Board investigator and a Minnesota State Boating Safety Officer inspected the boat, with its outboard engine attached to the transom, at the police impound lot in Walker. They found that the steering wheel and the fast idle lever on the shift control were slightly bent and a small piece of the driver's left side plastic windshield was broken off and found in the boat. Neither the hull nor equipment on the boat had sustained any other damage. When the accelerator pedal was depressed fully and released, it did not return to the idle position but remained partially depressed. It could not be determined positively if these conditions were a result of this accident. A decal on the outboard engine cover read "150 hp," but the engine markings indicated a 200 hp outboard engine. The U.S. Coast Guard "maximum capacity" plate, permanently attached to the port console, showed a rating for 6 persons or 810 pounds and a 175 hp motor.[4] Fishing gear and five PFDs were found in seat lockers forward of the starboard console; one PFD had a cord with an engine kill clip[5] attached to it.

Neither Coast Guard nor Minnesota regulations require that motorboats or watercraft be equipped with an engine kill switch. State law in Minnesota does mandate use of an engine kill switch if a personal watercraft, such as jet-skis, is equipped with one. Almost all personal watercraft manufacturers voluntarily install the switch on such equipment.

According to one passenger's brother, who had been on the motorboat when it was operated on the Mississippi River about 4 weeks before the accident, the boat tended to rock from side to side at a speed of 65 mph. The boat manufacturer's customer service manager stated that the boat was rated at 70 miles per hour with a 175 hp outboard motor. The person

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[3]If the victims had ingested alcohol or drugs before the accident, their bodies would not have had time to metabolize these chemicals in the 2 hours between departure from shore and retrieval of their boat.

[4]The maximum safe horsepower plate required by Federal regulations does not prohibit a person from putting a larger engine on a boat. However, Minnesota law prohibits operating a boat equipped with a motor that exceeds the safe power capacity (as defined by the manufacturer or by formula if there is no plate).

[5]The clip, which fits into the engine kill switch box next to the control console, stops the engine when removed. The boat operator can remove the clip either deliberately, by pulling it out of the switch box, or accidentally, by leaving the console with the clip attached to his person, for example, by a cord to his wrist or to a lifejacket he is wearing.

who sold the 200 hp motor to the boat owner on May 16, 1994, reported that a bass boat similar to the one involved in this accident tends to wobble ["chine[6] walk"] before planing.

Until recently, when manufacturers began selling stock boats that are capable of exceeding speeds of 50 mph, chine walking was associated only with racing boats. The phenomenon occurs at high speeds when a boat reaches a point at which it experiences reduced dynamic stability. At high speeds, boats are not always neutrally or positively stable in the fore-and-aft, port-and-starboard, and up-and-down motions. As a boat gains speed, it rides increasingly higher out of the water; when it becomes so high out of the water that the wetted hull area is small, the boat flops from one side or chine, giving it hydrodynamic lift, and then shifts to the other chine, dynamically shifting the stability of the boat. In other words, the boat chine walks. To stop chine walking, the boat must be slowed. Weight distribution of occupants and gear can also affect at what speed chine walking will occur. A boat that is chine walking while in a turn can capsize or spin out of control; if the bow catches a wave, the boat may make rapid 360-degree turns or the sudden deceleration can throw the occupants out.

In this accident, the motion of the boat that probably caused the three occupants to fall overboard could have come from: striking a wave while chine walking, a sudden turn by the operator at high speed, or a sudden pitch or roll in response to striking a wave at high speed. They may not have recovered from the impact of entering the water in time to prevent their drowning or, if they did recover, they may not have been able to board the boat because the sticking accelerator pedal caused the engine to continue to operate. Had the occupants worn PFDs, they may have survived.

Probable Cause

The National Transportation Safety Board was unable to determine the probable cause of the accident; however, it is likely that the accident was the result of (a) the boat striking a wave while chine walking, (b) a sudden turn by the operator at high speed, or (c) a sudden pitch or roll in response to striking a wave at high speed, or a combination of them, throwing the occupants overboard. Contributing to the accident was the operator's powering of the boat beyond the manufacturer's recommendation and the Coast Guard maximum guidelines. Contributing to the loss of life were the occupants' failure to wear personal floatation devices, the operator's failure to use the boat's installed engine kill switch, and a sticking accelerator pedal, which allowed the boat to continue to operate.

[6]A chine is the intersection of the bottom and sides of a flat or V-bottomed boat.

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

JAMES E. HALL
Chairman

ROBERT T. FRANCIS II
Vice Chairman

JOHN A. HAMMERSCHMIDT
Member

JOHN J. GOGLIA
Member

Log M-416A

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date. June 25, 1998

In reply refer to. M-98-87 through -91

Admiral James M Loy
Commandant
U S. Coast Guard
2100 Second Street, S.W.
Washington, D.C. 20593

Personal watercraft (PWC) are a type of recreational boat that has become increasingly popular in recent years. Manufacturers estimate that about 200,000 PWC are sold each year, and more than 1 million are in current operation PWC now account for more than one-third of the new recreational boat sales in the United States

Although the overall number of recreational boating fatalities has been declining in recent years, the number of personal watercraft-related fatalities has been increasing At the time of the National Transportation Safety Board's 1993 recreational boating safety study, there were only 26 personal watercraft fatalities a year, and the Safety Board did not believe that separate consideration of PWC was warranted However, in 1994, the number of PWC fatalities began to increase noticeably because the number of PWC in operation increased Preliminary numbers for 1997 indicate 83 PWC fatalities. PWC are the only type of recreational vessel for which the leading cause of fatalities is not drowning; in PWC fatalities, more persons die from blunt force trauma than from drowning The increase in fatalities and the distinctive way in which fatalities occur prompted the Safety Board to examine the nature of PWC accidents

The Safety Board initiated a study to more closely examine fatalities and injury in addition to accident characteristics associated with PWC accidents [1] The study was not designed to estimate how often PWC accidents occur. The Safety Board examined 1,739 PWC accident reports for accidents that occurred during an 18-month period, January 1996 through June 1997 For PWC accidents that occurred between January and June 1997, the Safety Board requested that State marine accident investigators provide the Safety Board with copies of their accident reports and complete a supplemental questionnaire prepared by the Safety Board specifically for this study. The goal of the supplemental questionnaire was to obtain additional information concerning the accident characteristics and details concerning personal injury that have not

[1] National Transportation Safety Board. 1998. Personal Watercraft Safety Safety Study NTSB/SS-98/01. Washington, DC.

previously been available from State boating accident reports. State accident reports and supplemental information were the sources of the Safety Board's accident information

For the January–June 1997 period, the Safety Board received boating accident reports and questionnaire responses from 37 participating States and Territories Boating accident reports were not always accompanied by supplemental questionnaires. Also, because of concerns over personal privacy issues, five States[2] did not provide the Safety Board with copies of their boating accident reports but did provide supplemental questionnaires. Consequently, the boating accident reports and the supplemental questionnaires represent two different but substantially overlapping sets of data, which contain information on a total of 814 PWC accidents involving 1,218 operators.

The Safety Board also reviewed State reports of PWC accidents that occurred in 1996 A total of 49 States and Territories provided either copies of their boating accident report forms, automated boating accident report database files, or summary information for 1996 and/or 1997.

Because the States voluntarily provided the Safety Board with accident reports and supplemental questionnaire information, and because of the incomplete nature of much of the information, the Safety Board does not claim that the results of the study are representative of all PWC accidents. The Safety Board analyzed 814 (one-third) of the 1997 reported accidents and examined all of the data for the 1996 reported accidents. Consequently, the Board believes that a substantial number of accidents was available to identify the most important safety issues associated with PWC accidents. Further, the Safety Board's analysis did not show any biases in the types of accidents in the half-year of 1997 accidents compared to the full year of 1996 accidents The Safety Board's interest in truncating the data collection period to 6 months was based on a goal of providing the results of this study prior to the 1998 summer boating season.

Based on the analysis of the data reviewed, the safety issues discussed in the Safety Board's report include the following: protecting personal watercraft riders from injury, operator experience and training, and boating safety standards The study also addressed the need for recreational boating exposure data.

Exposure Data

Riding time is an important factor in interpreting accident and injury information. To accurately compare PWC accidents to accidents involving other types of recreational boats, it is necessary to quantify the usage time by vessel type. If PWC are used more often than other types of boats, then their exposure time for incurring an accident would be higher.

A national boating survey conducted in 1988–89 by the American Red Cross occurred at a time when PWC were just becoming popular. The survey reported 45 passenger hours per year

[2] California, Delaware, Nevada, Washington, and the Territory of Puerto Rico

for PWC compared to 117 passenger hours per year for all recreational boats.[3] Since 1989, the number of PWC has increased nearly six-fold and now account for 36 percent of new boat sales The dramatic rise in popularity of PWC demonstrates that boating practices have changed in the intervening years since the Red Cross survey was completed and highlights the need for a current, unbiased measure of boat usage for all recreational boat types (for example, personal watercraft, sailboat, motorboat, canoe, and rowboat)

A PWC owner survey commissioned by the Personal Watercraft Industry Association (PWIA) documented a high usage time for PWC: an average of 7 days per month during the 1995 season.[4] Another source of information about usage, the National Recreational Boating Needs Assessment Survey, was prepared in response to 1997 Congressional hearings for the reauthorization of transportation trust funds.[5] Because the survey data were intended to be one tool to help in determining the allocation of monies derived from gasoline tax, the survey collected information only about motorboats, without an interest for other categories of recreational boats. The survey was conducted through telephone interviews to 1,000 U S households; the results were based on information provided by the 266 that were boating households (By comparison, the national boating survey conducted in 1989 by the American Red Cross surveyed 5,031 households) The National Recreational Boating Needs Assessment Survey, which distinguished only two categories for motorboat usage (motorboats 18 feet or less and motorboats 19 feet or more), found that motorboats 18 feet or less were used an average of 30 days a year and 5 hours a day (150 hours per year).

Estimates of usage time specifically comparing PWC and outboard motorboats were prepared by industry in 1996 and submitted to the Environmental Protection Agency (EPA) in support of rulemaking for marine engines.[6] Annual time of use for PWC was 77.3 hours per year compared to 34 8 hours per year for outboard vessels; using these measures of usage time, the exposure factor for PWC was 2 22 times higher than for outboard vessels. This is a substantially different estimate than the one developed by the National Recreational Boating Needs Assessment Survey Given the changes in boating practices since the 1989 Red Cross boating survey and the differences in estimates of PWC usage reported by industry, the Safety Board concludes that a

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[3] U S Department of Transportation, United States Coast Guard 1991 American Red Cross national boating survey: a study of recreational boats. boaters, and accidents in the United States Washington, DC; grant agreement 1801-82 350 p.

[4] Bowe Marketing Research 1996 PWIA owner usage, attitude, and demographic research Survey of PWC owners commissioned by the PWIA and presented at the PWIA Board of Directors meeting July 23, 1996. The survey response rate (2,800 replies from 11,500 mailed surveys) represents 26 percent of the deliverable mail-outs. The survey results did not indicate the proportion of rental agents included in the survey

[5] Hagler Bailly, Inc 1997 The national recreational boating needs assessment survey. Final report prepared for the International Association of Fish and Wildlife Agencies, Washington, DC. 36 p , plus appendixes. Project funded by the U S. Fish and Wildlife Service, Washington, DC; Sportfish Restoration Program grant agreement 14-48-98210-97-G067.

[6] Submission by Mercury Marine in response to EPA request for comments concerning Rule—Air pollution control, gasoline spark-ignition marine engines Federal Register. Vol 61, No 194, dated October 4, 1996, page 52088.

rate of injury for PWC in relation to all recreational boat types cannot be determined because accurate information on usage by boat type is not available

The Coast Guard has recognized the need for boat usage time and exposure data, and in 1997 issued a notice seeking application for grants to conduct a comprehensive national boating survey [7] The Safety Board commends the Coast Guard in recognizing this need and urges completion of the survey. Once this effort is completed, there is a continuing need to accurately assess recreational boat use. The Safety Board believes, therefore, that the U.S. Coast Guard should collect recreational boating exposure data such as "operational use time" or "vessel running time" and update this information on an annual basis or conduct periodic surveys.

Operator Experience and Training

For the January–June 1997 period, experience was reported for half (613) of the 1,218 PWC operators involved in the accidents.[8] Nearly a third of all operators (32 percent) reported that they had operated a PWC between zero and 10 times prior to the accident: 86 never, 75 once, and 225 between 2 and 10 times. PWC operators with experience of more than 10 times accounted for 18 percent (220 of the 1,218 operators).

The Safety Board's analysis of the 1997 State boating accident reports showed that 87 percent of the PWC operators had received no boating instruction [9] The NTSB supplemental questionnaire submitted by the States indicated a similar proportion: 84 percent had completed no type of boating instruction [10] The need for boating instruction was addressed in the Safety Board's 1993 safety study of recreational boating; 81 percent of the operators involved in fatal accidents in that study had received no boating safety instruction.[11] A review of 1996 Coast Guard boating statistics also illustrates that recreational boaters have a low exposure to safety education Of the 709 recreational boating fatalities, educational experience was known for 340: 50 (15 percent) had received operator education, and 290 (85 percent) were known not to have received operator education. Data for 1991 through 1996 reflect similar proportions regarding the fatally injured operators who had received boating safety education.

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[7] Federal Register, Vol. 62, No 193, dated October 6, 1997, page 52175

[8] The Safety Board recognizes that the data on this topic are based on self-report and may be an overestimate of the number of PWC operators with experience and training.

[9] Training information was reported for 471 of the 1,218 PWC operators: 413 had none, and 58 had completed State courses, Coast Guard Auxiliary training, Power Squadron training, Red Cross training, or other (military) training. The duration of the reported training or quality of the course content may have varied.

[10] Responses to a boater education question that was included on the supplemental questionnaire were reported for 712 of the 1,218 operators; of those responding, 600 (84 percent) had no training

[11] National Transportation Safety Board 1993 Recreational boating safety. Safety Study NTSB/SS-93/01. Washington, DC 104 p. The Safety Board's experience indicates that boating accidents involving a fatality are more likely to be reported than those involving less serious injury. Fatal accidents are also better documented. The Board used fatal accidents to illustrate the proportion of operators who had received boating education because it had greater confidence in the boating education data from that subset than from all accidents

On October 23, 1997, the Coast Guard issued a notice in the Federal Register requesting comments on a proposed Federal requirement for education in recreational boating On March 20, 1998, the Coast Guard extended the comment period until May 29, 1998.[12] The Safety Board submitted comments supporting the need for operator education and training for recreational boaters and PWC operators, and reiterating the conclusions and recommendations of its 1993 study on recreational boating safety. The Board's comments noted that the lack of education reported for the PWC operators in the current study provides further support for the need for education of recreational boat and PWC operators

The National Association of State Boating Law Administrators (NASBLA), BOAT/U S., the Coast Guard Auxiliary, the U.S. Power Squadrons, the National Safe Boating Council, and the National Water Safety Congress support recreational boating education. NASBLA's Education Committee has a review process designed to standardize training information by approving boating safety curriculums NASBLA has also developed a model PWC boating course. This course outline may be used by the individual States to pattern the courses they develop, and it serves as a guide to educational organizations that work within the local communities to provide training In addition to NASBLA's education efforts, the PWIA has also been developing model PWC education requirements. PWIA advocates mandatory education for PWC operators and has mandatory education as an element of its model legislation

PWC manufacturers provide safety information in printed and video formats with every PWC sold, and dealers are asked to review these safety techniques with customers. The PWIA has also developed classroom material used in several State safety education courses. One manufacturer recently introduced a PWC training program that requires dealers to deliver a boating safety presentation (video and law review) to all purchasers of new PWC [13] The product cannot be warranty-registered until the customer receives the information The Safety Board commends industry efforts to provide PWC owners with point-of-purchase education and training However, this point-of-purchase information may not reach relatives and friends of the PWC owner who may use the vessel. In its 1993 study on recreational boating, the Safety Board recommended that each State

> Implement minimum recreational boating safety standards to reduce the number and severity of accidents, consider requirements such as mandatory use of personal flotation devices for children, demonstration of operator knowledge of safe boating rules and skills, and operator licensing. (M-93-1).[14]

Although some progress has been made in responding to the Safety Board's recommendation, as shown by the 4 States that now require boater certification and the 20 that mandate boating education, the Safety Board continues to believe that if more recreational boaters

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[12] Federal Register, Vol 63, No 54, dated March 20, 1998, page 13585

[13] Polaris Industries, Inc

[14] Safety Recommendation M-93-1 has been classified "Closed—Acceptable Action" for 7 States, "Open—Acceptable Response" for 28 States, "Open—Response Received" for 4 States, "Open—Awaiting Response for 9 States, and "Closed—Unacceptable Action" for 4 States.

were trained, the number of persons killed and injured in recreational boating accidents, including those involving PWC, would be reduced Therefore, the Safety Board is reiterating Safety Recommendation M-93-1 in the report of its PWC study Because two-thirds of PWC owners also owned a powerboat prior to purchasing a PWC,[15] it is reasonable to believe that powerboat operators taking a recreational boating education course may someday be PWC owners or operators To reach the maximum number of persons who may operate a privately owned PWC, recreational boating education courses should provide some level of PWC training This is not to say that all boaters should take a PWC course, but rather that all recreational boating courses should address PWC safety issues. Therefore, the Safety Board is recommending that the States, the Coast Guard Auxiliary, BOAT/U.S., the U.S. Power Squadrons, and NASBLA include information on the safe operation of PWC in all recreational boating courses.

Accident data showed that operators of rented PWC in the study sample had less PWC experience than did operators of privately owned personal watercraft. Considering the unique operating characteristics of PWC, this lack of experience creates a safety risk. Given that the percentage of PWC accidents that occur within the first hour was almost twice as high for rented PWC as for nonrented PWC (73 percent compared to 39 percent), that half of the accident-involved rental operators had limited or no experience on a PWC, and that about two-thirds of accident-involved PWC renters had not had to demonstrate their ability to operate the vessel, the Safety Board is recommending that States should enact or revise their recreational boating laws, as necessary, to require rental businesses to provide safety instruction training to all persons who operate rented PWC; all the operators should be required to demonstrate their ability to operate and control PWC. The Safety Board also believes that the Coast Guard, in conjunction with NASBLA and the PWIA, should develop a checklist for boat rental businesses to use for evaluating a person's ability to operate a personal watercraft

Boating Safety Standards

Manufacturers of inboard and outboard motorboats must meet safety standards for the manufacture of boats and associated equipment (33 CFR Part 183), including requirements for certification and labeling (Part 181) and defect notification (Part 179). The standards and regulations of Part 183 specifically address capacity, loading, flotation, electrical systems, fuel systems, and ventilation. In addition to the provisions included in the regulations, many requirements are incorporated by reference [16]

[15] Bowe Marketing Research. 1996 PWIA owner usage, attitude, and demographic research. Survey of PWC owners commissioned by the PWIA and presented at the PWIA Board of Directors meeting July 23, 1996.

[16] Information incorporated by reference (as listed in Paragraph 183.5) includes recommended practices developed by the Institute of Electrical and Electronics Engineers, Inc., electrical code requirements of the National Fire Protection Association, recommended practices of the Society of Automotive Engineers, Inc., and the Underwriters Laboratory, Inc

Federal statutes authorize the Coast Guard to issue exemptions from safety standards for manufacturers of boats to which the application of a standard is impractical or unreasonable and when the manufacturer can show that granting the exemption will not adversely affect boating safety.[17] Manufacturers must petition the Coast Guard for exemption from safety standards The Coast Guard has granted exemptions to every petition received from PWC manufacturers, and for each model for which an exemption was requested.[18]

Personal watercraft, as a vessel design category, cannot comply with the Coast Guard standards as currently written, and thus the exemptions from the existing standards are unavoidable. The following examples are provided to explain why PWC need exemptions from the existing standards:

- The safe loading standard, as currently written, is based on the assumption that water will flow into the vessel If there is no load area into which water will flow, it is impossible to test a vessel in accordance with the safe loading standard; safe loading standards determine the weight limits appropriate for a particular vessel, and, by correlation, determine the person capacity.[19]
- In addition, if weight capacities cannot be determined in accordance with the safe loading standard, it becomes difficult to determine the required volume of flotation material for compliance with the flotation standard,[20] thus PWC are also exempted from the flotation standard and from requirements for labeling the capacity of the PWC [21]

[17] The Coast Guard's authorization was described in correspondence dated January 17, 1995, between U.S Coast Guard Chief, Recreational Boating Product Assurance Branch, and the Chairman of the National Association of State Boating Law Administrators

[18] The Coast Guard has issued exemptions from its standards for both inboard- and outboard-powered personal watercraft, hovercraft, airboats, raceboats, and submarines

[19] To receive an exemption, PWC manufacturers provide the Coast Guard with test data to show adequate flotation, boat weight and passenger capacity, and the amount of flotation material installed Based on this information, the Coast Guard determines whether each PWC model contains sufficient flotation to meet the intent of the standard.

[20] Basic flotation, as applied to inboard and inboard-outdrive boats, requires sufficient flotation material so that if the vessel capsizes or swamps, the boat will remain floating with some portion of its hull above the surface of the water

[21] Manufacturers are considering the use of a capacity label that would indicate the rated person capacity. The proposed capacity marking label would state that the vessel complies with ISO 13590 of the International Standards Organization and that it is certified by the National Marine Manufacturers Association

- Manufacturers of personal watercraft have also received exemptions from electrical and fuel systems standards and from the requirement for powered ventilation in the ventilation standard. The manufacturers' main justification for requesting these exemptions is that PWC design features minimize the possibility of arcing or sparks; specifically, fuel systems minimize the possibility of fuel vapor leakage, and the comparatively smaller size of the engine compartment compared to larger, more conventional boats limit the air supply and the PWC's ability to support combustion. Because PWC have a tendency to capsize and could take on water through their blowers, the powered ventilation standards, as currently written, cannot be applied.

Voluntary industry construction standards have been developed by the Society of Automotive Engineers (SAE) and the International Standards Organization (ISO); these standards are similar to the Coast Guard boat standards but are specific to PWC. SAE's Personal Watercraft Subcommittee of the Marine Technical Committee has developed standards to address personal watercraft flotation (Recommendation Practice J1973), electrical systems (J2120), fuel systems (J2046), and ventilation (J2034) In its rationale for issuing these standards, the SAE recognized that PWC cannot comply with the Coast Guard regulations for conventional boat system designs, and it recognized the specific differences that affect PWC system requirements. For example, the SAE fuel system standard is more stringent than Coast Guard requirements; the SAE standard requires that the PWC system not leak liquid fuel into the vessel when rotated through a 180-degree roll in either direction or overturned through 90 degrees of pitch in either direction The Safety Board recognizes that industry representatives serve on SAE committees and that all of the major PWC manufacturers voluntarily comply with the SAE standards. Industry representatives have also contributed to the development of ISO standards, which are similar to SAE standards

In May 1997, NASBLA asked the Coast Guard to consider developing standards for PWC. Based on this request, the Coast Guard noted the similarities between SAE and ISO standards and specifically identified the differences between SAE standards and the existing safety standards as defined in Part 183 In October 1997, the Coast Guard's Boating Safety Advisory Committee requested the Coast Guard to review how manufacturers determine capacity on multiple-occupant rated PWC models—how the lack of an industry-wide standard for determining and displaying "persons capacity" impacts rider safety, including consideration of accident data. Coast Guard staff, in a meeting with Safety Board staff on April 10, 1998, indicated that there was no compelling statistical evidence that PWC problems warrant modifying existing safety standards for flotation (capacity), electrical system, fuel systems, and ventilation.

The Safety Board notes that the Coast Guard's four standards were developed, in part, to address the most serious safety concerns of traditional motorboats: drowning, fire, and explosion. The Safety Board's study clearly points out, however, that these are not the most prevalent safety concerns for PWC PWC, as previously mentioned, is the only type of recreational vessel for which the leading cause of death is not drowning Also, in traditional boats, falling overboard and swamping would be considered emergency situations; however, for PWC, these are expected

events and, consequently, PWC are designed and constructed to different design criteria than traditional boats

The Safety Board questions the need for the Coast Guard to continue the exemption process for PWC, particularly given that industry standards exist (and in certain areas are more stringent than the Coast Guard's), that there is voluntary compliance with the standards, and that the standards appear to provide an equivalent level of safety as envisioned by the Coast Guard standards. The Safety Board concludes that the existing process of exempting PWC from standards that were defined for conventional boats is an inappropriate method for certifying the safety and seaworthiness of PWC. In the Safety Board's opinion, the exemption process does little in terms of evaluating possible safety risks that may be associated with the unique operating characteristics of PWC The Safety Board is aware that the Coast Guard is working with the PWIA to incorporate SAE standards by reference as an alternate method of compliance with existing Federal regulations. The fact that PWC do not "fit" existing standards for open-hull vessels does not release the Coast Guard from its responsibility to regulate the safety of these vessels, particularly since personal watercraft now represent more than one-third of the new recreational boats sold. The Safety Board believes, therefore, that the Coast Guard should eliminate the existing process of exempting PWC from standards that were defined for conventional boats and develop, with the PWC manufacturers, comprehensive standards that are specific to the safety risks of PWC.

The Safety Board notes, however, that industry has voluntarily complied only with those standards that address the existing Coast Guard boating safety standards (flotation, capacity, electrical, fuel, and ventilation) that were established for conventional boats The Safety Board is concerned that there are other safety issues associated with PWC that warrant attention. The need for improved steering control and prevention of "runaway" PWC once an operator is ejected serve as two prime examples of areas where improvements in design could result in a decrease in accidents

State marine accident investigators have recognized that steering issues are associated with many PWC accidents The Safety Board reviewed available accident reports for 1996 and 1997 and, based on narrative information contained in the accident reports, determined that more than 350 (20 percent) of the cases reviewed indicated steering or loss of control problems Accident reports reviewed for the Safety Board's study highlight problems of operator control during off-throttle steering situations. Some portion of operator control problems may be attributed to the operating design of personal watercraft

The narrative report of an accident that occurred in Illinois included the following investigator comment: "She (V1) stated that as they came close, she let off the throttle and then tried to turn but couldn't She stated that V2 hit her in the side of the Sea-Doo causing a tremendous amount of damage. . V2 advised that as she came close to V1 she turned to avoid her, but it didn't turn because she let off of the throttle " The report of a fatal Missouri accident included the following investigator comments. "He did not think that she knew that he was behind her He said that it was less than a second between when she turned and when he struck her. He let go of the throttle, but it did not help."

On September 10, 1997, NASBLA adopted a resolution (No. 97-3) petitioning the Coast Guard to evaluate off-throttle steering of jet-pump propelled craft and to develop appropriate standards. The Coast Guard issued a grant request in October 1997.[22] The objective of this work will be to identify the most effective of the available and emerging technologies/methodologies in the area of off-throttle steering. As part of the background information in the grant description, the Coast Guard stated: "A large percentage of accidents involving jet-pump propelled craft involve collisions with other craft or fixed objects. Because of the unique relationship between the amount of throttle and steering response on jet-pump propelled craft, there is concern that a sudden loss of engine power—either due to part failure or operator decision—may play a significant role in these collisions." Announcement of the grant award is anticipated in the near future. The Safety Board study data support the need for this research, and an evaluation of PWC steering design is warranted. The Safety Board is concerned that the Coast Guard has not taken a proactive role in assessing the safety risks of PWC. Therefore, the Safety Board believes that within 2 years the Coast Guard should determine, through research, the feasibility of providing PWC operators more control in an off-throttle steering situation. The Safety Board also believes that the Coast Guard should work with the PWIA to use the results of this research to develop appropriate standards for steering on jet-pump propelled vessels.

Therefore, the National Transportation Safety Board recommends that the U.S. Coast Guard:

> Eliminate the existing process of exempting personal watercraft from standards that were defined for conventional boats and develop, with the personal watercraft manufacturers, comprehensive standards that are specific to the risks of personal watercraft. (M-98-87)
>
> Determine within 2 years, through research, the feasibility of providing personal watercraft operators more control in an off-throttle steering situation. (M-98-88)
>
> Work with the Personal Watercraft Industry Association to use the results of off-throttle steering research described in Safety Recommendation M-98-88 to develop appropriate standards for steering on jet-pump propelled vessels. (M-98-89)
>
> Develop, in conjunction with the National Association of State Boating Law Administrators and the Personal Watercraft Industry Association, a checklist for boat rental businesses to use for evaluating a person's ability to operate a personal watercraft. (M-98-90)
>
> Collect recreational boating exposure data such as "operational use time" or "vessel running time" and update this information on an annual basis or conduct periodic surveys. (M-98-91)

[22] Federal Register, Vol. 62, No. 193, dated October 6, 1997, page 52176.

Also as a result of this study, the Safety Board issued safety recommendations to the manufacturers of personal watercraft (Kawasaki, Yamaha, Polaris, Bombardier, and Arctic Cat, Inc./Tiger Shark), the U.S Coast Guard Auxiliary, the National Association of State Boating Law Administrators, the Personal Watercraft Industry Association, the U.S Power Squadrons, BOAT/U.S , and the Governors of the States and Territories.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in these recommendations

By: Jim Hall
Chairman

Log H-411aB

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: June 25, 1998

In reply refer to: M-98-92

Commodore Everette L. Tucker, Jr.
National Commodore (NACO)
U.S. Coast Guard Auxiliary
610 Allen Mill Road
Yorktown, Virginia 23692-2238

Personal watercraft (PWC) are a type of recreational boat that has become increasingly popular in recent years. Manufacturers estimate that about 200,000 PWC are sold each year, and more than 1 million are in current operation. PWC now account for more than one-third of the new recreational boat sales in the United States

Although the overall number of recreational boating fatalities has been declining in recent years, the number of personal watercraft-related fatalities has been increasing. At the time of the National Transportation Safety Board's 1993 recreational boating safety study, there were only 26 personal watercraft fatalities a year, and the Safety Board did not believe that separate consideration of PWC was warranted. However, in 1994, the number of PWC fatalities began to increase noticeably because the number of PWC in operation increased. Preliminary numbers for 1997 indicate 83 PWC fatalities. PWC are the only type of recreational vessel for which the leading cause of fatalities is not drowning; in PWC fatalities, more persons die from blunt force trauma than from drowning The increase in fatalities and the distinctive way in which fatalities occur prompted the Safety Board to examine the nature of PWC accidents.

The Safety Board initiated a study to more closely examine fatalities and injury in addition to accident characteristics associated with PWC accidents.[1] The study was not designed to estimate how often PWC accidents occur. The Safety Board examined 1,739 PWC accident reports for accidents that occurred during an 18-month period, January 1996 through June 1997. For PWC accidents that occurred between January and June 1997, the Safety Board requested that State marine accident investigators provide the Safety Board with copies of their accident reports and complete a supplemental questionnaire prepared by the Safety Board specifically for this study. The goal of the supplemental questionnaire was to obtain additional information

[1] National Transportation Safety Board. 1998 Personal Watercraft Safety Safety Study NTSB/SS-98/01. Washington, DC.

concerning the accident characteristics and details concerning personal injury that have not previously been available from State boating accident reports. State accident reports and supplemental information were the sources of the Safety Board's accident information

For the January–June 1997 period, the Safety Board received boating accident reports and questionnaire responses from 37 participating States and Territories. Boating accident reports were not always accompanied by supplemental questionnaires. Also, because of concerns over personal privacy issues, five States[2] did not provide the Safety Board with copies of their boating accident reports but did provide supplemental questionnaires Consequently, the boating accident reports and the supplemental questionnaires represent two different but substantially overlapping sets of data, which contain information on a total of 814 PWC accidents involving 1,218 operators.

The Safety Board also reviewed State reports of PWC accidents that occurred in 1996. A total of 49 States and Territories provided either copies of their boating accident report forms, automated boating accident report database files, or summary information for 1996 and/or 1997.

Because the States voluntarily provided the Safety Board with accident reports and supplemental questionnaire information, and because of the incomplete nature of much of the information, the Safety Board does not claim that the results of the study are representative of all PWC accidents. The Safety Board analyzed 814 (one-third) of the 1997 reported accidents, and examined all of the data for the 1996 reported accidents Consequently, the Board believes that a substantial number of accidents was available to identify the most important safety issues associated with PWC accidents. Further, the Safety Board's analysis did not show any biases in the types of accidents in the half-year of 1997 accidents compared to the full year of 1996 accidents The Safety Board's interest in truncating the data collection period to 6 months was based on a goal of providing the results of this study prior to the 1998 summer boating season

Based on the analysis of the data reviewed, the safety issues discussed in the Safety Board's report include the following: protecting personal watercraft riders from injury, operator experience and training, and boating safety standards. The study also addresses the need for recreational boating exposure data The discussion in this letter is limited to operator experience and training.

Operator Experience and Training

Each year, many first-time PWC operators are exposed to the boating environment. In the Safety Board's 1997 sample of PWC accidents, nearly half (48 percent) of the operators of rented PWC had operated a PWC only once or never; 18 percent of the operators of privately owned PWC had previously operated a PWC only once or never. This lack of experience is particularly important for PWC because the vessels have special operating characteristics, such as the loss of

[2] California, Delaware, Nevada, Washington, and the Territory of Puerto Rico.

control during off-throttle steering and cut-off ("kill") switches activated by the use of safety lanyards to stop the vessel if the operator is ejected, that underscore the need for training.

Operating a PWC requires a high degree of vigilance Several PWC models can exceed 60 mph, but even at a speed of 40 mph, a PWC travels about 20 yards per second. As speeds increase, the time available to react decreases. PWC are highly maneuverable vessels that can change course quickly while under power, which presents a particular problem when several PWC are traveling together.[3] The timeframe for perceptually tracking another PWC can also be quite limited under these conditions. Operators of two PWC traveling at 40 mph on a head-on course will have a response time of 1.3 seconds to travel 50 yards. Even when the vessels are converging on a 45-degree angle, the response time is less than 2 seconds.[4] The response time must accommodate perceiving the other vessel, deciding which vessel is burdened to comply with rules of the road, determining the risk of collision, and executing a response to alter course. Under these conditions, inexperienced operators who are not aware of navigation rules[5] that dictate which vessels have the right of way and, therefore, what direction of turn can be expected for vessels on conflicting routes, are faced with split-second decisions.

The Safety Board's analysis of the 1997 State boating accident reports showed that 87 percent of the PWC operators had received no boating instruction.[6] The NTSB supplemental questionnaire submitted by the States indicated a similar proportion: 84 percent had completed no type of boating instruction.[7] The need for boating instruction was addressed in the Safety Board's 1993 safety study of recreational boating; 81 percent of the operators involved in fatal accidents in that study had received no boating safety instruction.[8] A review of 1996 Coast Guard boating statistics also illustrates that recreational boaters have a low exposure to safety education. Of the 709 recreational boating fatalities, educational experience was known for 340: 50 (15 percent) had received operator education, and 290 (85 percent) were known not to have received operator education. Data for 1991 through 1996 reflect similar proportions regarding the fatally injured operators who had received boating safety education.

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[3] State boating law administrators agree that PWC operations often involve riding close to other PWC

[4] 40 mph = 19 5 yd/sec On a direct course, each vessel traverses 25 yards; on a converging course, each vessel travels 35.35 yards before intersecting.

[5] PWC are subject to inland navigation rules as stated in USCG COMDTINST M16672 2B, dated August 17,1990

[6] Training information was reported for 471 of the 1,218 PWC operators: 413 had none, and 58 had completed State courses, Coast Guard Auxiliary training, Power Squadron training, Red Cross training, or other (military) training. The duration of the reported training or quality of the course content may have varied

[7] Responses to a boater education question that was included on the supplemental questionnaire were reported for 712 of the 1,218 operators; of those responding, 600 (84 percent) had no training.

[8] National Transportation Safety Board 1993. Recreational boating safety Safety Study NTSB/SS-93/01. Washington, DC. 104 p The Safety Board's experience indicates that boating accidents involving a fatality are more likely to be reported than those involving less serious injury. Fatal accidents are also better documented The Board used fatal accidents to illustrate the proportion of operators who had received boating education because it had greater confidence in the boating education data from that subset than from all accidents

Although no State or Territory requires a special boating license to operate a PWC, 16 jurisdictions have special boating education requirements to operate a PWC.[9] Effective June 23, 1993, PWC operators in Connecticut were required to take a safe handling course to obtain a certificate for PWC operation; there are no exceptions. Mandatory education requirements include 10 hours of basic boating safety and an additional 2.5 hours of instruction concentrating on PWC safety. Even though there has been a substantial increase in the number of PWC operations, there have been no fatalities attributable to PWC operations in Connecticut in the past 10 years. The boating law administrator for Connecticut indicates that accidents and injuries have decreased over the last 5 years. Training is typically offered by the States' marine safety officers. Michigan's marine education program[10] certified 50,554 students in classroom courses in 1996.[11] That State also conducts a PWC education/enforcement program that began in 1995; it involves 30 marine officers assigned to PWC patrol who review regulations, discuss safety, and give equipment demonstrations. Even with a growth in PWC operations, that State has seen a decrease in both PWC accidents and fatalities; PWC accidents in Michigan accounted for 45 percent of all boating accidents in 1995 and dropped to 41 percent in 1996.

On October 23, 1997, the Coast Guard issued a notice in the Federal Register requesting comments on a proposed Federal requirement for education in recreational boating. On March 20, 1998, the Coast Guard extended the comment period until May 29, 1998.[12] The Safety Board submitted comments supporting the need for operator education and training for recreational boaters and PWC operators, and reiterating the conclusions and recommendations of its 1993 study on recreational boating safety. The Board's comments noted that the lack of education reported for the PWC operators in the current study provides further support for the need for education of recreational boat and PWC operators.

The National Association of State Boating Law Administrators (NASBLA), BOAT/U.S., the U S Coast Guard Auxiliary, the U S Power Squadrons, the National Safe Boating Council, and the National Water Safety Congress support recreational boating education NASBLA's Education Committee has a review process designed to standardize training information by approving boating safety curriculums NASBLA has also developed a model PWC boating course. This course outline may be used by the individual States to pattern the courses they develop, and it serves as a guide to educational organizations that work within the local communities to provide training. In addition to NASBLA's education efforts, the Personal Watercraft Industry Association (PWIA) has also been developing model PWC education

[9] The following States and Territories require PWC education: Colorado, Connecticut, Delaware, Georgia, Idaho, Kansas, Massachusetts, Minnesota, Nevada, Rhode Island, Tennessee, Texas, Utah, Wisconsin, U.S. Virgin Islands, and American Samoa. Nevada requires PWC education only of PWC operators who rent the vessel. (National Association of State Boating Law Administrators. 1997. Reference guide to State boating laws. 3d ed. Lexington, KY (p. 21). 182 p., plus appendixes.)

[10] Michigan's course is only 1 hour long; most States require 6 to 8 hours of classroom instruction

[11] *Small Craft Advisory.* Dec. 1997/Jan 1998. Lexington, KY: National Association of State Boating Law Administrators; 13(2): 20.

[12] Federal Register, Vol. 63, No 54, dated March 20, 1998, page 13585.

requirements. PWIA advocates mandatory education for PWC operators and has mandatory education as an element of its model legislation

PWC manufacturers provide safety information in printed and video formats with every PWC sold, and dealers are asked to review these safety techniques with customers. The PWIA has also developed classroom material used in several State safety education courses. One manufacturer recently introduced a PWC training program that requires dealers to deliver a boating safety presentation (video and law review) to all purchasers of new PWC.[13] The product cannot be warranty-registered until the customer receives the information. The Safety Board commends industry efforts to provide PWC owners with point-of-purchase education and training However, this point-of-purchase information may not reach relatives and friends of the PWC owner who may use the vessel In its 1993 study on recreational boating, the Safety Board recommended that each State

> Implement minimum recreational boating safety standards to reduce the number and severity of accidents; consider requirements such as mandatory use of personal flotation devices for children, demonstration of operator knowledge of safe boating rules and skills, and operator licensing (M-93-1) [14]

Although some progress has been made in responding to the Safety Board's recommendation, as shown by the 4 States that now require boater certification and the 20 that mandate boating education, the Safety Board continues to believe that if more recreational boaters were trained, the number of persons killed and injured in recreational boating accidents, including those involving PWC, would be reduced Therefore, the Safety Board is reiterating Safety Recommendation M-93-1 in the report of its PWC study Because two-thirds of PWC owners also owned a powerboat prior to purchasing a PWC,[15] it is reasonable to believe that powerboat operators taking a recreational boating education course may someday be PWC owners or operators. To reach the maximum number of persons who may operate a privately owned PWC, recreational boating education courses should provide some level of PWC training. This is not to say that all boaters should take a PWC course, but rather that all recreational boating courses should address PWC safety issues. Therefore, the Safety Board believes that the Coast Guard Auxiliary, the States, BOAT/U S , the U.S. Power Squadrons, and NASBLA should include information on the safe operation of PWC in all recreational boating courses.

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[13] Polaris Industries, Inc.

[14] Safety Recommendation M-93-1 has been classified "Closed—Acceptable Action" for 7 States, "Open—Acceptable Response" for 28 States, "Open—Response Received" for 4 States, "Open—Awaiting Response for 9 States, and "Closed—Unacceptable Action" for 4 States

[15] Bowe Marketing Research 1996 PWIA owner usage, attitude, and demographic research Survey of PWC owners commissioned by the PWIA and presented at the PWIA Board of Directors meeting July 23, 1996.

Therefore, the National Transportation Safety Board recommends that the U S. Coast Guard Auxiliary:

Include information on the safe operation of personal watercraft in all recreational boating courses (M-98-92)

Also as a result of this study, the Safety Board issued safety recommendations to the manufacturers of personal watercraft (Kawaski, Yamaha, Polaris, Bombardier, and Arctic Cat, Inc./Tiger Shark), the U.S. Coast Guard, the National Association of State Boating Law Administrators, the U.S Power Squadrons, BOAT/U.S., the Personal Watercraft Industry Association, and the Governors of the States and Territories.

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 actions taken as a result of its safety recommendations and would appreciate a response from you regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-98-92 in your reply.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in this recommendation

By: Jim Hall
Chairman

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: Nov 23, 1999

In reply refer to: M-99-17

To the Governors of the States and Territories and to the Mayor of the District of Columbia

During the early morning hours of December 29, 1997, the 34-foot recreational sailing vessel *Morning Dew* struck the rock jetty on the north side of the shipping channel into the harbor of Charleston, South Carolina. The boat was later found about 15 yards south of the jetty, submerged in about 12 feet of water. The owner/operator of the vessel and his three passengers, all members of the same family, died as a result of the accident.[1]

The National Transportation Safety Board determined that the probable cause of the sinking of the *Morning Dew* was the operator's failure to adequately assess, prepare for, and respond to the known risks of the journey into the open ocean that culminated in the vessel's allision with the jetty at the entrance to Charleston Harbor. Contributing to the loss of life in this accident was the substandard performance of U.S. Coast Guard Group Charleston in initiating a search and rescue response to the accident.

The investigation of this accident revealed, in several instances, a lack of coordination between the Coast Guard and South Carolina agencies and individuals charged with boating safety responsibilities. Under the Federal Boat Safety Act of 1971, recreational boating safety became a shared responsibility of the Coast Guard and the States. The responsibilities of each party were typically spelled out in negotiated and periodically updated agreements between each Coast Guard district and each of the States within the district's area of responsibility. In the case of South Carolina, a memorandum of understanding (MOU) between the Seventh Coast Guard District and the State was signed in 1984 and reviewed in 1994.

The Boat Safety Act was enacted, in part, to foster cooperation between State and Federal governments in reducing deaths, injuries, and property damage from recreational boating accidents. The act specified cooperative agreements of the type in place between South Carolina and the Coast Guard as one method of ensuring the desired coordination. These agreements

[1] For more information, see Marine Accident Report—*Sinking of the Recreational Sailing Vessel* Morning Dew *at the Entrance to the Harbor of Charleston, South Carolina, December 29, 1997* (NTSB/MAR-99/01).

usually cover such subject areas as law enforcement, public education and training, boating casualty reporting and investigative reports, search and rescue, aids to navigation, and use of the Coast Guard Auxiliary.

The MOU the Coast Guard entered into with South Carolina states that the State has primary responsibility concerning recreational vessels on the waters subject to joint State/Federal jurisdiction. The MOU gives to South Carolina the responsibility for investigating recreational boating accidents involving one or more fatalities and requires State officials to forward a copy of the casualty report to the commanding officer of the Coast Guard Marine Safety Office in Charleston. The commanding officer of Coast Guard Group Charleston stated that he was unaware of the MOU. Had he known of the agreement and its provisions, the coordination between the Coast Guard and the SCDNR in the aftermath of this accident may have been significantly improved.

Two issues concern the Safety Board in regard to the agreements now in place between the Coast Guard and the States. First, with both State and Federal government boating safety programs responding to shifting responsibilities and sometimes erratic funding, the circumstances under which a particular MOU or statement of agreement was prepared can change. These changes need to be reflected in revised agreements. Second, turnover of personnel in State agencies, as well as in the Coast Guard, can lead to a situation such as that occurring in the *Morning Dew* accident in which a responsible Coast Guard individual was not aware that an agreement existed.

The Safety Board notes that at least some of the Coast Guard's agreements with the States delegating boating safety responsibilities have been updated since they were originally signed. For example, the MOU the Coast Guard signed with the State of South Carolina was reviewed in 1994. However, in the 5 years since that update, personnel changes have undoubtedly occurred in both State agencies and the Coast Guard, and relevant telephone numbers, points of contact, and agency responsibilities may also have changed. Such changes can quickly render agreements out of date, making them less effective in promoting the degree of cooperation and coordination envisioned when the agreements were originally prepared. And although the Coast Guard, in the wake of the *Morning Dew* accident, directed its district commanders to review existing agreements or MOUs for currency, that guidance did not provide a time frame for the completion of the reviews, not did it provide for follow-up periodic review and updating, which is necessary to ensure that the agreements are kept current.

The Safety Board concluded that in order to ensure effective coordination and cooperation between the Coast Guard and the States in boating accident cases, the agreements between the Coast Guard and the States that govern such cases must be jointly revised or updated on a regular basis to keep them current and to keep the appropriate personnel aware of their contents.

The National Transportation Safety Board therefore issues the following safety recommendation to the Governors of the States and Territories and to the Mayor of the District of Columbia:

Within 6 months, and at least biennially thereafter, work with the Coast Guard to review and revise, as necessary, all boating safety agreements between your State and the Coast Guard to ensure that those agreements accurately reflect current responsibilities and jurisdictions of each entity in such areas as boating casualty accident investigation and reporting, search and rescue, and related boating safety issues. (M-99-17)

Also, the Safety Board issued Safety Recommendations M-99-2 through 16 to the U.S. Coast Guard, M-99-18 to the National Association of Boating Law Administrators, M-99-19 to the U.S. Coast Guard Auxiliary, M-99-20 to the U.S. Power Squadrons, M-99-21 to the National Safe Boating Council, and M-99-22 to the Boat Owners Association of the United States..

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 action taken as a result of its safety recommendations. Therefore, it would appreciate a response from you within 90 days regarding action taken or contemplated with respect to the recommendation in this letter. Please refer to Safety Recommendation M-99-17 in your reply. If you need additional information, you may call (202) 314-6457.

Chairman HALL, Vice Chairman FRANCIS, and Members HAMMERSCHMIDT, GOGLIA, and BLACK concurred in this recommendation.

[Original Signed]

By: Jim Hall
Chairman

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: July 21, 2005

In reply refer to: M-05-9 through -11

Admiral Thomas H. Collins
Commandant
U.S. Coast Guard
2100 Second Street, S.W.
Washington, D.C. 20593

On June 14, 2003, the small passenger vessel *Taki-Tooo*, a U.S. charter fishing vessel with 2 crewmen and 17 passengers on board, was en route from Garibaldi, Oregon, to the Pacific Ocean for a day of fishing. A small craft advisory was in effect for the northern Oregon and southern Washington coasts, and personnel at U.S. Coast Guard Station Tillamook Bay, after assessing the hazardous conditions at the inlet, had activated the rough bar warning signs, restricting any transit attempts across the bar by recreational boats and uninspected passenger vessels. The restriction, however, did not apply to inspected small passenger vessels such as charter boats like the *Taki-Tooo*.

At the Tillamook Bay inlet, the *Taki-Tooo* operator waited in the channel for an opening in the ocean swells so that he could cross the bar. After the *Taki-Tooo* exited the inlet and proceeded around the north jetty, a wave struck and capsized the vessel. As a result of this accident, 11 vessel occupants died and 8 suffered minor injuries.[1]

In its analysis of events leading to the accident, the Safety Board concluded that the Coast Guard effectively communicated information about the rough bar conditions to mariners, including the master of the *Taki-Tooo*. The Board further concluded that, considering the dynamic operating environment at the bar, the decision of the *Taki-Tooo* master and the four other charter vessel masters to leave port at the Garibaldi marina and proceed to the bar area to make a first-hand assessment of conditions was appropriate. The conditions at the bar were subject to change, as evidenced by the statements of Coast Guard officials who indicated that, over the last 5 years, Station Tillamook Bay had imposed or lifted the bar restriction more than once on a given day.

[1] For further information, read: National Transportation Safety Board, *Capsizing of U.S. Small Passenger Vessel* Taki-Tooo, *Tillamook Bay Inlet, Oregon, June 14, 2003*, Marine Accident Report NTSB/MAR-05/02 (Washington, DC: NTSB, 2005).

Research evidence[2] suggests that, once at the inlet, each master would have made the decision to cross the bar based on such factors as his perception of his own personal experience and abilities, his knowledge of the capabilities of the vessel he was operating, as well as such situational factors as the size and frequency of the waves and swells. In addition, each master would have his own personal reason for deciding to transit the bar. In the case of the *Taki-Tooo* master, his decision to cross the bar was probably influenced by a host of factors, including the specific request of his passengers for his services, his observations of sea conditions comparable to those he had seen before, his previous experience making the bar transit with this vessel, and his observation of the crossings of the other vessels before him.

Notwithstanding the information that argued against making the crossing, notably the weather forecasts, the bar restriction, and his own knowledge of the potential hazards of making the effort, the *Taki-Tooo* master made the decision to cross the bar. The tragic consequences of his transit attempt demonstrate the faultiness of his personal decision-making and highlight the need for small passenger vessel owners and/or operators to use a systematic method for addressing the potential risks associated with bar crossings and to adopt a go/no-go operating standard after weighing the risk factors.

Most major marine entities, including the U.S. Navy, the Coast Guard, and industry carriers (passenger and freight vessels), have adopted policies and procedures based on risk-management principles to improve safety in operations. Risk management is a decision-making process that involves weighing the various factors relating to a potential hazard so that various response options can be identified. The process enables the owner and/or operator of a company to preselect the optimal response to a hazard, thus eliminating or mitigating the danger. For example, in the aviation industry, Federal regulations require operators of commercial air transport operating under 14 *Code of Federal Regulations* (CFR) Part 121 to develop operating specifications that strictly delineate the conditions under which their aircraft will be allowed to operate. Unless the aircraft has certain navigation and flight control equipment and the pilot has certain qualifications, passenger- and cargo-carrying commercial air transport aircraft are not permitted to take off or land in defined conditions of restricted visibility or adverse winds.

Risk management can be a highly formalized or a comparatively informal process, depending on the size and complexity of the operation. In the case of a small passenger boat operation such as a charter boat company, the owners and/or operators could identify waterway hazards and establish policies for eliminating or mitigating the risks involved. For example, on the day of the *Taki-Tooo* accident, another highly experienced charter operator whose vessel (the *Kerri Lin*) was 3 feet shorter but had more propulsive power than the accident boat cancelled his fishing trip because of the prevailing conditions. He later told Safety Board investigators that he had established an operating policy of not attempting the bar transit if the sea swell at Tillamook Bay bar was 10 feet or greater.

In the Safety Board's opinion, most small passenger vessel owners and/or operators are well aware of the risk factors that need to be considered for a hazardous bar transit: the sea state,

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[2]G. Klein, "Applied Decision Making," in P.A. Hancock (ed.), *Human Performance and Ergonomics* (San Diego, California: Academic Press, 1999).

the size and propulsive capability of the vessel, the extent of each master's experience in handling said vessel, and how often a particular master has crossed the bar with that vessel or comparable boats. Owners need to weigh such factors against possible unwanted outcomes, such as harmful effects on health and safety, potential damage to or loss of property, and so forth in developing a go/no-go policy for the bar transit.

Although the charter boat masters might be accomplished boat handlers, the decision to transit a potentially hazardous bar should not be left solely to their discretion. They might have outside factors to contend with at the time when making the crossing attempt as well as subtle influences such as the desire not to disappoint the passengers who chartered the fishing expedition. In developing vessel-specific operating standards for their masters, the boat owners could be assisted by Coast Guard personnel who have the knowledge of local conditions in evaluating whether the go/no-go policies developed and implemented by the small passenger vessel owners are appropriate to attain a sufficient level of operational safety.

Before the charter boat left the marina, the *Taki-Tooo* master conducted a safety briefing for his passengers, as required by Federal regulations. He discussed the donning of lifejackets, pointed out where they were located, and told his passengers that they could don them if they wished. None elected to do so. During the transit to the inlet area, the *Taki-Tooo* passed Station Tillamook Bay, where a small-craft advisory flag was raised and a rough bar advisory sign was illuminated, and the Coast Guard observation tower, where another rough bar advisory sign was illuminated. The master then witnessed the much larger *Norwester* encounter problems with the sea swells and received radio reports from other operators about the swells and waterway debris. Thus, despite receiving several indications that bar conditions were hazardous, the *Taki-Tooo* master did not don a lifejacket or direct the deckhand and the passengers to don lifejackets.

The results of the master's failure to mitigate the risk associated with the crossing attempt by having passengers and crew don lifejackets are telling. Of the 19 vessel occupants, 12 were not able to retrieve a lifejacket before the charter boat was swamped by a large wave. Of these individuals, only two survived. In contrast, six of the seven people who were able to retrieve lifejackets survived.

Coast Guard regulations at 46 CFR 185.508 stipulate that the master should require passengers to don lifejackets when possible hazardous conditions exist, such as when "transiting hazardous bars and inlets." The regulation followed a series of accidents in which the Safety Board recommended to the Coast Guard that passengers on the open decks of vessels be required to wear lifejackets when transiting areas of rough seas.[3] In response, the Coast Guard began the rulemaking process to change the applicable regulation. The Coast Guard ultimately issued a rule placing exclusive responsibility on the master for passengers to don lifejackets. At the time, the Safety Board agreed that the Coast Guard's action satisfied the intent of the recommendation; however, the Board never expected that the Coast Guard would not establish procedures for monitoring compliance with 46 CFR 185.508 and for citing masters or operators for noncompliance.

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[3] Safety Recommendation M-86-113.

After the *Taki-Tooo* accident, Safety Board investigators interviewed mariners who operated small passenger vessels across the Tillamook Bay bar, all of whom contended that passengers should not be compelled to don lifejackets when crossing the bar. They said that passengers found lifejackets to be uncomfortable and that requiring passengers to wear lifejackets could frighten them. The interviews revealed that the regulation puts masters in the position of acknowledging that they are exposing their passengers to hazardous conditions whenever they require them to don lifejackets, potentially increasing their perceived exposure to liability if something untoward occurs.

Of the vessel masters who crossed the bar on the morning of the accident, none required passengers to don lifejackets. Further, none had ever been cited by the Coast Guard for not adhering to the requirements of 46 CFR 185.508 and requiring their passengers to don lifejackets before crossing the hazardous bar. The Safety Board, therefore, concluded that the U.S. Coast Guard's failure to enforce regulations at 46 CFR 185.508 contributed to the loss of life in the *Taki-Tooo* accident.

On March 31, 2005, in response to a directive from Congress, the U.S. Department of Homeland Security delivered the Coast Guard's "Report on Small Passenger Vessel Safety," which indicated that no citations had ever been issued to vessels or masters for violations of the lifejacket regulation since it became effective, and that enforcement or compliance monitoring was complicated by the fact that the regulation contained "little metric guidance for determining when a bar or inlet is sufficiently hazardous, or weather sufficiently severe, to trigger the requirement for a given vessel" after taking into consideration "its capabilities and the experience of its master."

Given that the Coast Guard has taken the position that it is too complicated for its personnel to determine whether a bar or inlet is sufficiently hazardous to direct masters of small passenger vessels to require boat occupants to wear lifejackets, a revision of Federal regulations is warranted. At a minimum, the Coast Guard needs to address marine safety at inlets that it has deemed hazardous by installing surf stations and/or by designating them as regulated boating areas. In the Safety Board's opinion, charter boat operators should not be allowed to continue to put themselves and their passengers at risk in hazardous conditions. The Board recognizes that a regulatory change affecting all bars and inlets may not be warranted. The sea conditions at West Coast inlets are usually far more severe than the sea conditions at East Coast inlets because of the greater fetch of the incoming swells and the effects of the steep continental slope and the narrow continental shelf. Consequently, the regulations should be revised to mandate the use of lifejackets at surf stations and regulated boating areas on the West Coast.

The National Transportation Safety Board, therefore, makes the following recommendations to the U.S. Coast Guard:

> Require that owners of small passenger vessels operating within Coast Guard-designated surf stations and regulated boating areas on the West Coast develop and implement written go/no-go policies, based on risk-management principles, regarding transiting bars and inlets. (M-05-09)

Revise your regulations to require that small passenger vessels operating in Coast Guard-designated surf stations and regulated boating areas on the West Coast have all passengers and crew wear lifejackets while the vessels transit inlets where rough bar warnings are in effect. (M-05-10)

Until such time as your regulations are revised, issue guidance for mariners operating in Coast Guard-designated surf stations and regulated boating areas on the West Coast to require passengers and crew on small passenger vessels to wear lifejackets while transiting inlets where rough bar warnings are in effect. (M-05-11)

As a result of its investigation of the *Taki-Tooo* capsizing, the Safety Board has also issued safety recommendations to the small passenger vessel companies operating in the Tillamook Bay area and the National Marine Charter Association. In your response to this letter, please refer to M-05-09 through -11. If you need additional information, you may call (202) 314-6177.

Acting Chairman ROSENKER and Members ENGLEMAN CONNERS, HEALING, and HERSMAN concurred in these recommendations.

Original Signed

By: Mark V. Rosenker
Acting Chairman

Log 2596A

National Transportation Safety Board

Washington, D.C. 20594

Safety Recommendation

Date: February 23, 1995

In reply refer to: A-95-17

Mr. J. J. Frey
President
Seaplane Pilots Association
421 Aviation Way
Frederick, Maryland 21701

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.[1] 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.[2]

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

[1] The Willamette River is one of many waterways in the United States that falls within both Federal and State jurisdictions.

[2] For more detailed information, read Brief of Accident, File #0009, Salem, Oregon, July 31, 1994 (attached).

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 with 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 Safety Board believes that the SPA, in conjunction

with the FAA and the National Association of State Boating Law Administrators, 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.

Therefore, as a result of its investigation of this accident, the National Transportation Safety Board recommends that the Seaplane Pilots Association:

> Develop and distribute, in conjunction with the Federal Aviation Administration 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-95-17)

The Safety Board also issued recommendations to the Federal Aviation Administration and the National Association of State Boating Law Administrators.

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 recommendation in this letter. Please refer to Safety Recommendation A-95-17 in your reply.

Chairman HALL, Vice Chairman FRANCIS, and Member HAMMERSCHMIDT concurred in this recommendation.

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
MINOR
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	0
Other	2	0	0	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

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

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
Current - YES
Months Since - 9
Aircraft Type - PA-22

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

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.

U.S. Department of Homeland Security
United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-MP
Phone: (202) 267-1527
Fax: (202) 267-4496

16700
August 25, 2003

MEMORANDUM

From: J. F. Ahern, CAPT
COMDT (G-LMI)

Reply to Attn of: G-LMI
LT Darr
7-0095

To: T. Cherry
COMDT (G-MOC-1)

Subj: LEGAL DETERMINATION ON VESSEL STATUS; REQUEST FOR

Ref: (a) Your memo 16700 dated 9 July 2003

1. Reference (a) requested a legal opinion whether watercraft such as the AquaGlider X30 diver propulsion vehicle (DPV) are considered vessels. For the reasons detailed below, these watercraft can be considered vessels.

2. 1 U.S.C. §3 deems a vessel to be "every description of watercraft or other artificial contrivance used, or capable of being used, as a means of transportation on water." The courts have modified this expansive definition by determining that the word capable should be read "practically capable." *Evansville & Bowling Green Packet C. v. Chero Cola Bottling Co.*, 271 U.S. 19, 22, 46 S.Ct. 379, 380, 70 L.Ed. 805 (1926). In *Evansville*, the Court developed a test to determine whether a vessel was "practically capable" of being used as a means of transportation on water. The Court identified relevant criteria as whether the craft was: (1) used to carry freight from one place to another; (2) used as a means of transportation; (3) moved from place to place; and/or (4) exposed to the typical perils of navigation to which craft used for transportation are exposed. Id. at 380.

3. In making determinations on the status of watercraft the Coast Guard has developed several criteria to apply *Evansville*: (1) whether the watercraft is "practically capable" of carrying persons or property beyond the narrow limits of a swimming, surfing, or bathing area, G-L memo 5910 dtd 21 November 1974; (2) whether the useful operating range of the device is limited by the physical endurance of its operator, G-L memo 5910 dtd 21 April 1971; (3) whether the device presents a substantial hazard to navigation or safety not already present, Id. at 2; (4) whether the normal objectives sought to be accomplished by the regulation of a device as a "vessel" are present, Id. at 2; and/or (5) whether the operator and/or cargo would no longer be safe in the water if the device became disabled, Id. at 2.

4. These tests will not all be applicable to every watercraft for which there is a question of status and in the case of DPV's, using the criteria above, a colorable argument can be made both for and against characterization as a vessel. The analysis below shows enough of the criteria are met, for the Coast Guard to consider the AquaGlider X30 to be a vessel under 1 USC §3.

a. The AquaGlider X30 is "practically capable" of carrying persons or property beyond the narrow limits of a swimming, surfing, or bathing area. The manufacturer's web site claims that it can travel at 3 knots for 1.5 to 2 hours.

b. The AquaGlider X30's useful operating range is not limited by the physical endurance of its operator. The operating range is limited by its 36 volt battery storage capacity.

c. The AquaGlider X30 arguably does present a substantial hazard to navigation or safety not already present. It is capable of maneuvering on the same waterways as conventional vessels, adding to the presence of traffic and persons at risk of accidents.

d. The normal objectives sought to be accomplished by regulation as a vessel are present. These objectives include the protection of life and property. The AquaGlider X30 is a logical candidate for application of inland and international rules for preventing collisions, as well as regulations for safety of persons. Real persons will encounter very real hazards by use of this device.

e. The operator and/or cargo might not be safe in the water if the AquaGlider X30 became disabled. With a maximum projected range of 4.5 to 6 nautical miles, per the manufacturer's web site, an operator or passenger could be at significant risk if the device stranded them at an unsafe distance from shore, or in unsafe sea or weather conditions. Most individuals are not capable of swimming 4.5 to 6 nautical miles, and an operator or passenger could encounter sea or weather conditions that are beyond their ability to overcome.

5. Absent binding judicial precedent and for the reasons discussed above, the Coast Guard may legally regulate DPV's as vessels pursuant to applicable federal statutes and Coast Guard regulations. In making such a determination, the consequences of subjecting DPV's to existing requirements for motor vessels should be carefully considered. For example, whether the alternative compliance provisions of the international and inland navigation rules would provide relief from the practical problems of compliance with the requirement for lights and sound signals would depend on the alternative being considered, and would need to be separately addressed. You should also consider that while our position would not be determinative, it could impact on state requirements for numbering recreational vessels and be used to support assertions of admiralty jurisdiction, and petitions for limitation of liability, under admiralty law.

Copy: G-OPB
G-MS

U.S. Department of Transportation
United States Coast Guard

Memorandum

Subject: DEFINING THE TERM "VESSEL" UNDER 1 U.S.C. § 3 WHERE THE CONVEYANCE IS OPERATED ON FROZEN NAVIGABLE WATERS

Date: APR 30 1999

16001

From: Chief, Office of Maritime and International Law

Reply to Attn. of: G-LMI
LTjg Mike Barton
X 7 - 0098

To: Chief, Office of Boating Safety

Ref: (a) Chief Counsel's Opinion of 29 April 1969

1. In response to your request, I have reviewed reference (a). Reference (a) opined that the undefined term "water" in the definition of "vessel" in 1 U.S.C. § 3 means water in the ordinary liquid state and not in the form of ice, steam, vapor, or cloud. The opinion concluded that certain vehicles used as a means of transportation (conveyances) on the surface of frozen navigable waters of the United States (frozen surface or solid ice) are not vessels and, therefore, are not subject to Coast Guard jurisdiction.

2. After careful review, I have determined that the Chief Counsel's opinion remains valid. For the reasons set forth below, however, situations will arise where conveyances being used for transportation on solid ice will be considered vessels and within the Coast Guard's jurisdiction.

3. Under 1 U.S.C. § 3, the term "vessel" includes "every description of watercraft or other artificial contrivance used, or **capable** of being used, as a means of transportation on water." The term "water" means water in its ordinary liquid state.

4. Where a conveyance is used on a frozen surface, but it is not capable of being used as a conveyance on liquid water, that conveyance is not a vessel. For example, an ordinary truck that can't be used to move goods on the water is not a vessel. The Coast Guard does not have jurisdiction over the truck, even if the truck is used to move goods or passengers on a frozen lake to a nearby island. See Cf. Provost v. Huber, 594 F.2d 717 (8th Cir. 1979).

5. On the other hand, where a conveyance, capable of being used to transport persons or goods on liquid water, is also used to transport persons or goods on ice, the conveyance is a "vessel" and will fall within the Coast Guard's jurisdiction. This is because the navigable waterway does not lose its status as a navigable waterway simply because it is frozen over. See, Great American Ins. Co. v. the Cissi Reinauer, 933 F. Supp. 1205 (S.D.N.Y. 1996). Similarly, a "vessel" is not something other than a vessel simply because it is operating on solid ice instead of on the water.

6. For example, the Coast Guard will have jurisdiction over a truck with both hard surface and amphibious capabilities used to transport goods or passengers on a completely frozen lake to a nearby island. A conveyance operated on a frozen surface is a "vessel" and therefore subject to Coast Guard jurisdiction, where the operator can utilize the conveyance's special capabilities to operate on both solid and liquid surfaces. The operator of an amphibious truck is operating a vessel whether operating on solid ice, semi-solid ice or liquid water areas. The amphibious truck is a "vessel" subject to Coast Guard jurisdiction.

7. Undoubtedly, situations will arise where operators will be willing to take increased risks, secure in the knowledge that their conveyance has amphibious capabilities. Operators are likely to either intentionally use the conveyance on open water or be willing to operate on thin ice. In either situation, these conveyances will have the same safety and navigational concerns as any ordinary watercraft. In situations involving carrying passengers, these concerns are only exacerbated.

8. For the above reasons, the Coast Guard will consider conveyances operated on frozen navigable waters of the United States "vessels" as that term is defined in 1 U.S.C. § 3, if the conveyances can also be used as a means of transportation on water in its liquid form.

David J. Kantor

DAVID J. KANTOR
Acting

National Association of State Boating Law Administrators Documents

1993 Fatal Boat Accident Investigation

WHEREAS, accurate information is essential in developing quality education and information programs; and

WHEREAS, law enforcement agency reports are the best sources of quality information; and

WHEREAS, the U.S. Coast Guard prefers law enforcement agency reports over operator reports and provides specialized training in boat accident investigation and reconstruction; and

WHEREAS, this training is available in all regions of the National Association of State Boating Law Administrators; and

WHEREAS, virtually all boating fatalities are reported and an in-depth investigation by a trained law enforcement officer is preferred.

NOW, THEREFORE, BE IT RESOLVED,
that the National Association of State Boating Law Administrators meeting in Hartford, Connecticut this 29th day of September 1993, does hereby recommend that all states require a law enforcement investigation of all boating fatalities in their jurisdiction.

1996 Reporting of Commercial Small Craft Accidents

WHEREAS, it is essential for boating administrators to have complete and accurate data readily available concerning all accidents involving small craft that occur within state jurisdiction in order to plan state level boating safety programs and support requests for resources to effectively implement those programs; and

WHEREAS, boating accident data contained in the U.S. Coast Guard Commandant Publication P-16754 series, “Boating Statistics”, does not include accidents involving commercial vessels, although numbered by a state; and

WHEREAS, the aforementioned report does not provide essential information required by boating administrators concerning all of the reported accidents involving small craft, 20 meters or less in length; and

WHEREAS, state expenditures to provide safe facilities, aids to navigation, law enforcement and for other activities designed to improve small craft safety benefit all small craft equally whether documented or undocumented or used for recreation or commercial purposes; and

WHEREAS, it has been 25 years since this problem was identified and no action has been implemented by the U.S. Coast Guard; and

WHEREAS, investigations of commercial accidents by the U.S. Coast Guard may take longer to report, making a timely consolidated report impractical.

NOW, THEREFORE, BE IT RESOLVED,
that the National Association of State Boating Law Administrators, meeting this 2nd day of October, 1996, in Pittsburgh, Pennsylvania, does hereby request the U.S. Coast Guard to prepare an annual commercial small craft accident statistical report similar to the Recreational Boating Accident Statistical Report to be distributed to the several states.

BE IT FURTHER RESOLVED,,,
that a copy of this resolution be sent to Rear Admiral Saunders, U.S. Coast Guard, for his consideration and appropriate action.

State Documents

Tennessee Boating Accident Report

☐ Preliminary ☐ Supplemental ☐ Final

Type: ☐ Fatality ☐ Injury beyond first aid ☐ PWC involved ☐ Missing person ☐ Property damage over $500 ☐ Other

USCG Assigned #

Agency Case #

Estimated total damage $ .00

General and Geographic Information

County

Date of Accident / / Day of Week Time of Accident (mil) : Date/Time Officer Arrived (mil) / / :

Nearest City Body of Water

Exact Location Nearest River Mile ☐ or Point Marker ☐

Accident Site: ☐ Lake/Reservoir ☐ River ☐ Below Dam ☐ Agency Lake ☐ Creek ☐ Marina/Harbor ☐ Boat Ramp

Restricted Area

☐ No Wake ☐ Special Event (Permitted) ☐ Boats "Keep Out"

☐ Swimming Area ☐ PFD Wear Required ☐ Other _____

NAD 83 Latitude . Longitude .

Weather (Check all that apply.)

☐ Clear ☐ Cloudy ☐ Hazy ☐ Rain ☐ Fog ☐ Thunderstorm ☐ Sleet/Snow

Visibility

☐ Good ☐ Fair ☐ Poor

Light

☐ Dawn ☐ Day ☐ Dusk ☐ Night

Water Conditions

☐ Calm (waves less than 6") ☐ Choppy (waves 6" to 2') ☐ Rough (waves 2' to 6') ☐ Very rough (larger than 6') ☐ White water (river)

Wind

☐ Light (0-6 mph) ☐ Moderate (7-14 mph) ☐ Strong (15-25 mph) ☐ Storm (over 25 mph)

Temperature

Air deg F.

Water deg F.

Strong Current

☐ River Current ☐ Dam Generated

VESSEL NUMBER 1

Reg. or Doc. # HIN Documented Name Year Built

Length Make Model Name # of POB # Fatal # Injured # Skiers Being Towed

Estimated Speed

☐ Unknown ☐ 10-20 mph ☐ Over 40 mph ☐ Less than 10 mph ☐ 21-40 mph ☐ None

Federal Definition of Vessel

☐ Recreational ☐ Government ☐ Commercial

Est. Damage This Boat

$ .00

Operator Info

Driver's License or Boater ID #

Last First MI Age DOB / /

Street Home Ph. ( )

City State ZIP Cell Ph. ( )

Status

☐ Uninjured ☐ Injured ☐ Missing ☐ Fatality

Fill out injury/fatal data sheet as required.

Operator Experience

☐ Under 10 hrs ☐ Over 100 hrs ☐ 10-100 hrs

Operator Education

☐ USCG Aux. ☐ USPS ☐ Other ☐ Red Cross ☐ State ☐ None

BUI Info BAC

☐ Refused ☐ BUI arrest ☐ Been drinking ☐ Drugs ☐ No alcohol

Gender ☐ M ☐ F

☐ PFD used ☐ Person can swim ☐ Person was ejected

Owner Info: Fill in owner's name, address and phone number below. Check if also operator ☐ or occupant. ☐ If occupant, use occupant section.

Non-fatal or Uninjured Occupant Information: Attach injury/fatal data sheets for each injury or fatality.

	Name	Phone	DOB	Gender M	Gender F	Person was ejected	PFD used	Person can swim
Oc1		( )	/ /	☐	☐	☐	☐	☐
Oc2		( )	/ /	☐	☐	☐	☐	☐
Oc3		( )	/ /	☐	☐	☐	☐	☐
Oc4		( )	/ /	☐	☐	☐	☐	☐

Total Vessels Involved _____ **Total Injured** _____ **Total Fatalities** _____

Tennessee Boating Accident Report

VESSEL NUMBER 2

Reg. or Doc. #	HIN	Documented Name	Year Built

Length	Make	Model Name	# of POB	# Fatal	# Injured	# Skiers Being Towed

Estimated Speed
☐ Unknown ☐ 10-20 mph ☐ Over 40 mph
☐ Less than 10 mph ☐ 21-40 mph ☐ None

Federal Definition of Vessel
☐ Recreational ☐ Government
☐ Commercial

Est. Damage This Boat
$ .00

Operator Info Driver's License or Boater ID #

Last	First	MI	Age	DOB / /

Street	Home Ph. ( )

City	State	ZIP	Cell Ph. ( )

Status
☐ Uninjured ☐ Injured
☐ Missing ☐ Fatality
Fill out injury/fatal data sheet as required.

Operator Experience
☐ Under 10 hrs ☐ Over 100 hrs
☐ 10-100 hrs

Operator Education
☐ USCG Aux. ☐ USPS ☐ Other
☐ Red Cross ☐ State ☐ None

BUI Info **BAC**
☐ Refused
☐ BUI arrest ☐ Been drinking
☐ Drugs ☐ No alcohol

Gender ☐ M ☐ F
☐ PFD used
☐ Person can swim
☐ Person was ejected

Owner Info: Fill in owner's name, address and phone number below. Check if also operator ☐ or occupant. ☐ If occupant, use occupant section.

Non-fatal or Uninjured Occupant Information: Attach injury/fatal data sheets for each injury or fatality.

	Name	Phone	DOB	Gender M	Gender F	Person was ejected	PFD used	Person can swim
Oc1		( )	/ /	☐	☐	☐	☐	☐
Oc2		( )	/ /	☐	☐	☐	☐	☐
Oc3		( )	/ /	☐	☐	☐	☐	☐
Oc4		( )	/ /	☐	☐	☐	☐	☐

Type of Boat

V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	Airboat	☐	☐	Pontoon Boat
☐	☐	Cabin Motorboat	☐	☐	Raft
☐	☐	Canoe	☐	☐	Rowboat (Jon)
☐	☐	Houseboat	☐	☐	Sail (aux. power)
☐	☐	Kayak	☐	☐	Sail (only)
☐	☐	Open Motorboat	☐	☐	Other _____
☐	☐	Personal Watercraft			

of Engines

Vessel 1
Vessel 2

Total HP/CC

Vessel 1
Vessel 2

Propulsion

V-1	V-2	Vessel
☐	☐	Air Thrust
☐	☐	Manual
☐	☐	Propeller
☐	☐	Sail
☐	☐	Water Jet

Safety Equipment

V-1	V-2	Vessel
☐	☐	Required PFDs on board
☐	☐	PFDs accessible
☐	☐	Fire extinguisher on board
☐	☐	Fire extinguisher used
☐	☐	Navigation lights operational
☐	☐	Navigation lights turned on
☐	☐	Current safety exam

Hull Material

V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	Aluminum	☐	☐	Rigid Hull Inflatable
☐	☐	Fiberglass	☐	☐	Steel
☐	☐	Wood	☐	☐	Plastic/Vinyl
☐	☐	Rubber	☐	☐	Other _____

Fuel

V-1	V-2	Vessel
☐	☐	Diesel
☐	☐	Electric
☐	☐	Gasoline
☐	☐	Propane

Engine

V-1	V-2	Vessel
☐	☐	Airboat
☐	☐	Inboard
☐	☐	Outboard
☐	☐	I/O

Vessel was:

V-1	V-2	Vessel
☐	☐	Rented
☐	☐	Borrowed (not in household)

Operation at Time of Accident

Enter up to 3 for each vessel.

V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	At anchor	☐	☐	Docking/Undocking
☐	☐	Being towed	☐	☐	Drifting
☐	☐	Towing a boat	☐	☐	Launching/Loading
☐	☐	Changing direction	☐	☐	Rowing/Paddling
☐	☐	Changing speed	☐	☐	Sailing
☐	☐	Cruising	☐	☐	Wake/Surf jumping
☐	☐	Docked (moored)	☐	☐	Other _____

Activity at Time of Accident

Enter up to 3 for each vessel.

V-1	V-2	Vessel/Injured	V-1	V-2	Vessel/Injured
☐	☐	Commercial purpose	☐	☐	Scuba diving
☐	☐	Fishing (recreational)	☐	☐	Skiing (skurfing, etc.)
☐	☐	Fueling	☐	☐	Starting engine
☐	☐	Hunting	☐	☐	Swimming/Snorkling
☐	☐	Making repairs	☐	☐	Tournament fishing
☐	☐	Racing	☐	☐	Boat pulling tube
☐	☐	Racing (unpermitted)	☐	☐	Other _____
☐	☐	Recreational cruising			

Tennessee Boating Accident Report

Accident Type

You may enter a primary, secondary and tertiary accident type for each vessel by placing a 1, 2 or 3 in the appropriate box. Use boating accident supplemental sheet for additional vessels.

V-1	V-2	Vessel	V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	Capsizing	☐	☐	Fall on PWC	☐	☐	Struck by boat (person)
☐	☐	Carbon monoxide	☐	☐	Fire/Explosion (fuel)	☐	☐	Struck by skeg/prop (person)
☐	☐	Collision with fixed object	☐	☐	Fire/Explosion (non-fuel)	☐	☐	Struck underwater object
☐	☐	Collision with floating object or person	☐	☐	Flooding/Swamping	☐	☐	Vessel wake damage
☐	☐	Collision with vessel	☐	☐	Grounding	☐	☐	Other ________________
☐	☐	Fall in boat	☐	☐	Sinking			
☐	☐	Falls overboard	☐	☐	Skier hit object			

What contributed to the accident?

You may enter up to three contributing causes for each vessel.

V-1	V-2	Vessel	V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	Alcohol use	☐	☐	Ignition of fuel vapor	☐	☐	Standing/sitting on gunwale, bow or transom
☐	☐	Careless	☐	☐	Improper anchoring	☐	☐	Sharp turn
☐	☐	Congested waters	☐	☐	Improper loading	☐	☐	Skier or occupant behavior
☐	☐	Dam or lock	☐	☐	Lack of proper lights	☐	☐	Violation of navigation rule
☐	☐	Drug use	☐	☐	Machinery failure (below)	☐	☐	Vision obstructed
☐	☐	Equipment failure (below)	☐	☐	No proper lookout	☐	☐	Off throttle steering jet
☐	☐	Excessive speed	☐	☐	Operator inattention	☐	☐	Weather
☐	☐	Failure to vent fumes	☐	☐	Operator inexperience	☐	☐	Other ________________
☐	☐	Hazardous waters	☐	☐	Overloading			
☐	☐	Hull failure	☐	☐	Reckless			

Equipment Failure

Indicate the equipment that failed.

V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	Unknown	☐	☐	Sail demasting
☐	☐	Auxiliary equipment	☐	☐	Seat broke loose
☐	☐	Communications	☐	☐	Sound producing
☐	☐	Fire extinguisher	☐	☐	Visual distress
☐	☐	PFDs			

Machinery Failure

Indicate every system that failed for each vessel.

V-1	V-2	Vessel	V-1	V-2	Vessel
☐	☐	Unknown	☐	☐	Steering system
☐	☐	Electrical system	☐	☐	Throttle failure
☐	☐	Engine failure	☐	☐	Ventilation system
☐	☐	Fuel system	☐	☐	Starting engine in gear
☐	☐	Shift failure			

Non-vessel Property Damage

Describe damaged property.

Damage excluding the vessels involved or their contents? ☐ Yes ☐ No

If yes, the estimated amount is

$ .00

Property owner information	Last	First	MI	Home Ph. ( )
	Street			Cell Ph. ( )
	City		State	ZIP

Violations

Vessel Priority: Vessel # ☐ Stand on Vessel # ☐ Give way

Vess #	Violators Name (Just check box if operator.)	Statute #	Violation	Type		Citation/Case #
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	
Operator	☐			☐ Citation ☐ Warning	☐ No action ☐ Pending	

Tennessee Boating Accident Injury/Fatal Data

VESSEL INJURED

Type ☐ Injured ☐ Fatality ☐ Missing (body not located)

Victim Information ☐ Operator ☐ Swimmer ☐ On shore/dock ☐ Occupant ☐ Skier ☐ M ☐ F

Last	First	MI	Age	DOB / /
Street				Home Ph. ( )
City	State	ZIP		Cell Ph. ( )

Treatment
- ☐ Treated and released
- ☐ Admitted to hospital
- ☐ Refused treatment

Injury caused by
- ☐ Impact with boat
- ☐ Impact with water
- ☐ Impact with fixed object
- ☐ Impact with floating object
- ☐ Struck by boat
- ☐ Propeller or skeg
- ☐ Other _____

Victim activity
- ☐ Fishing
- ☐ Hunting
- ☐ Recreational cruising
- ☐ Scuba diving
- ☐ Snorkeling
- ☐ Swimming
- ☐ Waterskiing
- ☐ Other _____

Pri. and sec. injury
- ☐ Amputation
- ☐ Back injury
- ☐ Broken bone(s)
- ☐ Burns
- ☐ Contusions
- ☐ Dislocations
- ☐ Head injury
- ☐ Hypothermia
- ☐ Internal injuries
- ☐ Laceration
- ☐ Neck injury
- ☐ Shock
- ☐ Spinal injury
- ☐ Sprain/Strain
- ☐ Teeth/Jaw

PFD use
- ☐ Type I ☐ Type III ☐ Type V
- ☐ Type II ☐ Type IV ☐ Inflatable
- ☐ USCG Approved
- USCG Approval # _____

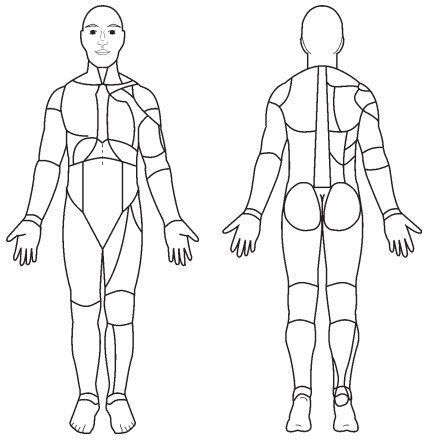
Physical condition
- ☐ Unknown ☐ Handicapped
- ☐ Normal ☐ Under inf. alcohol/drugs
- ☐ Other _____

Death caused by
- ☐ Drowning
- ☐ Hypothermia
- ☐ Trauma
- ☐ Other _____
- ☐ Alcohol involved

BAC

Synopsis
- ☐ Fatal
- ☐ Injury

Location of injury



VESSEL INJURED

Type ☐ Injured ☐ Fatality ☐ Missing (body not located)

Victim Information ☐ Operator ☐ Swimmer ☐ On shore/dock ☐ Occupant ☐ Skier ☐ M ☐ F

Last	First	MI	Age	DOB / /
Street				Home Ph. ( )
City	State	ZIP		Cell Ph. ( )

Treatment
- ☐ Treated and released
- ☐ Admitted to hospital
- ☐ Refused treatment

Injury caused by
- ☐ Impact with boat
- ☐ Impact with water
- ☐ Impact with fixed object
- ☐ Impact with floating object
- ☐ Struck by boat
- ☐ Propeller or skeg
- ☐ Other _____

Victim activity
- ☐ Fishing
- ☐ Hunting
- ☐ Recreational cruising
- ☐ Scuba diving
- ☐ Snorkeling
- ☐ Swimming
- ☐ Waterskiing
- ☐ Other _____

Pri. and sec. injury
- ☐ Amputation
- ☐ Back injury
- ☐ Broken bone(s)
- ☐ Burns
- ☐ Contusions
- ☐ Dislocations
- ☐ Head injury
- ☐ Hypothermia
- ☐ Internal injuries
- ☐ Laceration
- ☐ Neck injury
- ☐ Shock
- ☐ Spinal injury
- ☐ Sprain/Strain
- ☐ Teeth/Jaw

PFD use
- ☐ Type I ☐ Type III ☐ Type V
- ☐ Type II ☐ Type IV ☐ Inflatable
- ☐ USCG Approved
- USCG Approval # _____

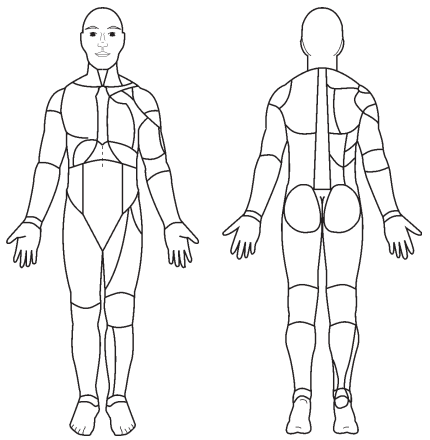
Physical condition
- ☐ Unknown ☐ Handicapped
- ☐ Normal ☐ Under inf. alcohol/drugs
- ☐ Other _____

Death caused by
- ☐ Drowning
- ☐ Hypothermia
- ☐ Trauma
- ☐ Other _____
- ☐ Alcohol involved

BAC

Synopsis
- ☐ Fatal
- ☐ Injury

Location of injury



Tennessee Boating Accident Report

Diagram of Accident: If applicable, diagram exactly what happened. Show the direction/location of boats involved before, during and after accident.

Diagram not to scale

Indicate North with an arrow.

Brief Synopsis of Accident: Synopsis for USCG database use.

Tennessee Boating Accident Report

Additional Witnesses

Name	Address	Phone #

Notes

Officer Completing Report

Case file? ☐ Yes ☐ No

Officer's Signature	Date	Supervisor's Signature	Date

Print Officer's Name and ID#	Print Supervisor's Name and ID#

Boating Division Use Only

Investigative Time: Include total hours for response, search and rescue, and investigation.

Officer's Hours	Supervisor's Hours	Investigator's Hours	Administrative Hours	Total Hours
.	.	.	.	.

DO NOT COMPLETE BELOW THIS LINE - STATE BOATING SAFETY REVIEWING AUTHORITY ONLY

Federal Accident Classification: For statistical use.

☐ Recreational ☐ Commercial ☐ Government ☐ Non-reportable _____

Primary Type	Secondary Type	Tertiary Type	Primary Cause	Secondary Cause	Tertiary Cause	Reviewed by: ID#

Tennessee Boating Accident Supplement

Agency Case #

VESSEL NUMBER

Reg. or Doc. #	HIN	Documented Name	Year Built

Length	Make	Model Name	# of POB	# Fatal	# Injured	# Skiers Being Towed

Estimated Speed
☐ Unknown ☐ 10-20 mph ☐ Over 40 mph
☐ Less than 10 mph ☐ 21-40 mph ☐ None

Federal Definition of Vessel
☐ Recreational ☐ Government
☐ Commercial

Est. Damage This Boat
$ .00

Operator Info Driver's License or Boater ID #

Last	First	MI	Age	DOB / /

Street	Home Ph. ( )

City	State	ZIP	Cell Ph. ( )

Status
☐ Uninjured ☐ Injured
☐ Missing ☐ Fatality
Fill out injury/fatal data sheet as required.

Operator Experience
☐ Under 10 hrs ☐ Over 100 hrs
☐ 10-100 hrs

Operator Education
☐ USCG Aux. ☐ USPS ☐ Other
☐ Red Cross ☐ State ☐ None

BUI Info **BAC**
☐ Refused
☐ BUI arrest ☐ Been drinking
☐ Drugs ☐ No alcohol

Gender ☐ M ☐ F
☐ PFD used
☐ Person can swim
☐ Person was ejected

Owner Info: Fill in owner's name, address and phone number below. Check if also operator ☐ or occupant. ☐ If occupant, use occupant section.

Non-fatal or Uninjured Occupant Information: Attach injury/fatal data sheets for each injury or fatality.

	Name	Phone	DOB	Gender M	Gender F	Person was ejected	PFD used	Person can swim
Oc1		( )	/ /	☐	☐	☐	☐	☐
Oc2		( )	/ /	☐	☐	☐	☐	☐
Oc3		( )	/ /	☐	☐	☐	☐	☐
Oc4		( )	/ /	☐	☐	☐	☐	☐

Type of Boat

V __ Vessel	V __ Vessel
☐ Airboat	☐ Pontoon Boat
☐ Cabin Motorboat	☐ Raft
☐ Canoe	☐ Rowboat (Jon)
☐ Houseboat	☐ Sail (aux. power)
☐ Kayak	☐ Sail (only)
☐ Open Motorboat	☐ Other _____
☐ Personal Watercraft	

# of Engines
Vessel __

Total HP/CC
Vessel __

Propulsion

V __ Vessel
☐ Air Thrust
☐ Manual
☐ Propeller
☐ Sail
☐ Water Jet

Safety Equipment

V __ Vessel
☐ Required PFDs on board
☐ PFDs accessible
☐ Fire extinguisher on board
☐ Fire extinguisher used
☐ Navigation lights operational
☐ Navigation lights turned on
☐ Current safety exam

Hull Material

V __ Vessel	V __ Vessel
☐ Aluminum	☐ Rigid Hull Inflatable
☐ Fiberglass	☐ Steel
☐ Wood	☐ Plastic/Vinyl
☐ Rubber	☐ Other _____

Fuel

V __ Vessel
☐ Diesel
☐ Electric
☐ Gasoline
☐ Propane

Engine

V __ Vessel
☐ Airboat
☐ Inboard
☐ Outboard
☐ I/O

Vessel was:

V __ Vessel
☐ Rented
☐ Borrowed (not in household)

Operation at Time of Accident
Enter up to 3 for each vessel.

V __ Vessel	V __ Vessel
☐ At anchor	☐ Docking/Undocking
☐ Being towed	☐ Drifting
☐ Towing a boat	☐ Launching/Loading
☐ Changing direction	☐ Rowing/Paddling
☐ Changing speed	☐ Sailing
☐ Cruising	☐ Wake/Surf jumping
☐ Docked (moored)	☐ Other _____

Activity at Time of Accident
Enter up to 3 for each vessel.

V __ Vessel/Injured	V __ Vessel/Injured
☐ Commercial purpose	☐ Scuba diving
☐ Fishing (recreational)	☐ Skiing (skurfing, etc.)
☐ Fueling	☐ Starting engine
☐ Hunting	☐ Swimming/Snorkling
☐ Making repairs	☐ Tournament fishing
☐ Racing	☐ Boat pulling tube
☐ Racing (unpermitted)	☐ Other _____
☐ Recreational cruising	

Tennessee Boating Injury/Fatal Data Supplement

Agency Case #

VESSEL INJURED

Type ☐ Injured ☐ Fatality ☐ Missing (body not located)

Victim Information ☐ Operator ☐ Swimmer ☐ On shore/dock ☐ Occupant ☐ Skier ☐ M ☐ F

Last	First	MI	Age	DOB / /
Street			Home Ph. ( )	
City	State	ZIP	Cell Ph. ( )	

Treatment
- ☐ Treated and released
- ☐ Admitted to hospital
- ☐ Refused treatment

Injury caused by
- ☐ Impact with boat
- ☐ Impact with water
- ☐ Impact with fixed object
- ☐ Impact with floating object
- ☐ Struck by boat
- ☐ Propeller or skeg
- ☐ Other _____

Victim activity
- ☐ Fishing
- ☐ Hunting
- ☐ Recreational cruising
- ☐ Scuba diving
- ☐ Snorkeling
- ☐ Swimming
- ☐ Waterskiing
- ☐ Other _____

Pri. and sec. injury
- ☐ Amputation
- ☐ Back injury
- ☐ Broken bone(s)
- ☐ Burns
- ☐ Contusions
- ☐ Dislocations
- ☐ Head injury
- ☐ Hypothermia
- ☐ Internal injuries
- ☐ Laceration
- ☐ Neck injury
- ☐ Shock
- ☐ Spinal injury
- ☐ Sprain/Strain
- ☐ Teeth/Jaw

PFD use
- ☐ Type I ☐ Type III ☐ Type V
- ☐ Type II ☐ Type IV ☐ Inflatable
- ☐ USCG Approved
- USCG Approval # _____

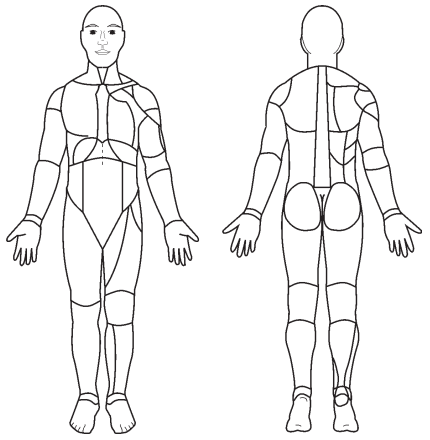
Physical condition
- ☐ Unknown ☐ Handicapped
- ☐ Normal ☐ Under inf. alcohol/drugs
- ☐ Other _____

Death caused by
- ☐ Drowning
- ☐ Hypothermia
- ☐ Trauma
- ☐ Other _____
- ☐ Alcohol involved

BAC

Synopsis
- ☐ Fatal
- ☐ Injury

Location of injury



VESSEL INJURED

Type ☐ Injured ☐ Fatality ☐ Missing (body not located)

Victim Information ☐ Operator ☐ Swimmer ☐ On shore/dock ☐ Occupant ☐ Skier ☐ M ☐ F

Last	First	MI	Age	DOB / /
Street			Home Ph. ( )	
City	State	ZIP	Cell Ph. ( )	

Treatment
- ☐ Treated and released
- ☐ Admitted to hospital
- ☐ Refused treatment

Injury caused by
- ☐ Impact with boat
- ☐ Impact with water
- ☐ Impact with fixed object
- ☐ Impact with floating object
- ☐ Struck by boat
- ☐ Propeller or skeg
- ☐ Other _____

Victim activity
- ☐ Fishing
- ☐ Hunting
- ☐ Recreational cruising
- ☐ Scuba diving
- ☐ Snorkeling
- ☐ Swimming
- ☐ Waterskiing
- ☐ Other _____

Pri. and sec. injury
- ☐ Amputation
- ☐ Back injury
- ☐ Broken bone(s)
- ☐ Burns
- ☐ Contusions
- ☐ Dislocations
- ☐ Head injury
- ☐ Hypothermia
- ☐ Internal injuries
- ☐ Laceration
- ☐ Neck injury
- ☐ Shock
- ☐ Spinal injury
- ☐ Sprain/Strain
- ☐ Teeth/Jaw

PFD use
- ☐ Type I ☐ Type III ☐ Type V
- ☐ Type II ☐ Type IV ☐ Inflatable
- ☐ USCG Approved
- USCG Approval # _____

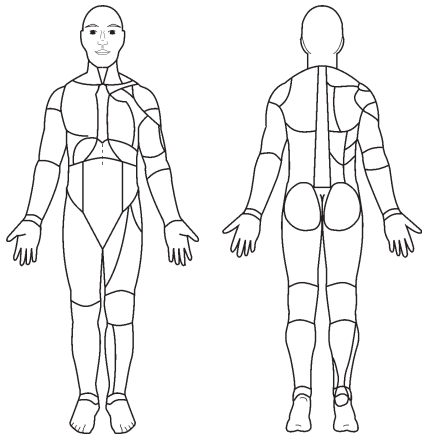
Physical condition
- ☐ Unknown ☐ Handicapped
- ☐ Normal ☐ Under inf. alcohol/drugs
- ☐ Other _____

Death caused by
- ☐ Drowning
- ☐ Hypothermia
- ☐ Trauma
- ☐ Other _____
- ☐ Alcohol involved

BAC

Synopsis
- ☐ Fatal
- ☐ Injury

Location of injury



a. Boating Casualty Reports and Investigative Reports

(1) The State agrees to investigate all recreational boating fatalities and multiple vessel or serious injury accidents. The Coast Guard may, in cooperation with the State, investigate accidents involving fatalities on vessels used on waters of concurrent jurisdiction if the case warrants further investigation.

(2) The Coast Guard will forward Boating Accident Reports received or taken by Coast Guard personnel to the Boating Law Administrator of the Nevada Department of Wildlife. The Coast Guard will provide to the State information on incidents that meet the definition of a state boating accident defined in section (D)(9), below. The State will determine whether an accident is reportable and will be responsible for ensuring completion of the reports meeting State requirements. The Coast Guard and the State will concurrently be responsible for boating accident reports meeting Federal requirements.

(3) The State and the Coast Guard agree to share all information available concerning any boat accident on the Colorado River below Davis Dam to the Nevada-California state line and on Lake Tahoe. All information shall be provided in a timely manner so as not to impede or interfere with the fact gathering responsibilities of each party.

(4) When the Coast Guard does not have an available unit to respond to a non-recreational accident under Coast Guard jurisdiction, the State may assist as a first responder to secure the accident scene, preserve perishable evidence, and provide for public safety and the safety of property.

(5) The Coast Guard will be responsible for completing any investigation on non-recreational boating accidents as appropriate.

(6) The State and the Coast Guard will be mutually responsible for completion of boating accident reports on incidents involving recreational vessels AND non-recreational vessels.

(7) The designated office for recreational boating accident reports on the Colorado River is Sector San Diego (619) 278-7652 and for Lake Tahoe is Sector San Francisco (415) 399-3547.

(8) The State shall review for accuracy and completeness all accident/casualty reports and shall determine the cause and circumstances surrounding each reportable accident, including whether or not alcohol or drugs were a factor.

(9) For the purposes of this agreement, a boating casualty or accident is an incident involving a vessel or its equipment where a person dies, a person disappears from the vessel indicating death or injury, a person is injured requiring medical treatment beyond first aid, a complete loss of any vessel, or damage to a vessel or other personal property totaling $2000.00 or more as defined in 33CFR Part 173.55. An accident meeting State requirements is defined as above except that the property damage threshold is $500.00.

(10) The State shall abstract accident data from each boating accident report form and enter such data into the Boating Accident Report Database (BARD), which was developed in cooperation with the National Association of State Boating Law Administrators (NASBLA). The State agrees to ensure the quality of data entry is accurate and complete providing for a successful data transfer into the national BARD located at Coast Guard Headquarters.

(11) An electronic copy of each accident and investigative report data, including any alcohol/drug test results, shall be forwarded to the Office of Command and Control Architecture (G-OCC-2) at Coast Guard Headquarters within 30 days of receipt of the initial casualty or accident report. The Coast Guard will review the reports and investigations received.

(12) The State will provide annual training to all Coast Guard watch standers and boarding officers at Station Lake Tahoe concerning State boating accident reporting requirements and procedures.

(13) The Coast Guard will ensure that all levels of the chain of command are informed of the boating accident reporting requirements involving recreational and non-recreational vessels.

b. Search and Rescue

(1) On State waters that are not within the jurisdiction of the United States, the State has exclusive responsibility for providing search and rescue service. On waters over which the Coast Guard has jurisdiction, the State and the Coast Guard will have joint responsibility. The Coast Guard's primary activity will be on Lake Tahoe. On the remaining inland waters over which both parties have jurisdiction, search and rescue facilities provided by the State and its political subdivisions shall have primary search and rescue responsibility.

(2) The State and the Coast Guard agree to coordinate their search and rescue operations so that the most effective assistance will be rendered to those in distress on waters within the State. To this end,

each will encourage the establishment of mutual assistance and cooperative arrangements between Coast Guard, State and local governmental facilities which are established in the same area. The competent authority for providing Federal search and rescue assistance is the Eleventh Coast Guard District Command Center in Alameda CA, telephone number 510-437-3701. The competent authority for exercising coordination of State search and rescue activities on the waters within the State lies with the State or local governmental agency having jurisdiction. The State shall provide, and keep current, a list of State and local search and rescue facilities, including phone numbers, to the District Command Center.

(3) The State and the Coast Guard agree to endeavor to support and participate in local search and rescue workshops, water safety councils, and other such organizations to foster closer cooperation and coordination among State and local agencies, Federal agencies and others who have an interest in or authority to conduct search and rescue activities.

(4) The Coast Guard, the State and appropriate local agencies may, when appropriate, utilize the Incident Command System.

(5) Upon receiving a request from the State reporting authority for information from a USCG maritime casualty investigation of search and rescue operation, the USCG will provide information and data to the State authority from the Marine Information for Safety and Law Enforcement (MISLE) System, as well as investigation materials and documentation available at the time of the request. Pages containing material that is not releasable to the public will be marked “FOR OFFICIAL USE ONLY.” Pages from activities that are open or incomplete will be marked “DRAFT.” The State reporting authority will not release to the public, or to any other agency, any information or data provided by the USCG that is marked “DRAFT” or “FOR OFFICIAL USE ONLY” without prior approval of the USCG.

(6) The Coast Guard, the State and appropriate local agencies to the extent permitted by law, will endeavor to perform at least one annual joint training session including practice search and rescue responses and implementation of the Incident Command System.