## 2022 RECREATIONAL BOATING STATISTICS

COMDTPUB P16754.36 U.S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD OFFICE OF AUXILIARY AND BOATING SAFETY



U.S. Department of Homeland Security

United States Coast Guard



Commandant United States Coast Guard 2703 Martin Luther King Jr Ave SE Washington, DC 20593-7501 Staff Symbol: CG-BSX-21 Phone: (202) 372-1066 Email: SMB-COMDT-CG-BSX-Data@uscg.mil

> COMDTPUB P16754.36 25 May 2023

## COMMANDANT PUBLICATION P16754.36

## FOREWORD

Under the authority of Title 46, United States Code, the Inspections & Compliance Directorate has been delegated the responsibility to collect, analyze, and annually publish statistical information obtained from recreational boat numbering and casualty reporting systems. Within the Directorate, the Office of Auxiliary and Boating Safety, Boating Safety Division has National Recreational Boating Safety Program responsibility.

<u>Recreational Boating Statistics 2022</u>, the 64<sup>th</sup> annual report, contains statistics on recreational boating accidents and state vessel registration. This publication is a result of the coordinated effort of the Coast Guard and those states and territories that have Federally-approved boat numbering and casualty reporting systems. These include all states, the District of Columbia, Puerto Rico, Guam, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

<u>Recreational Boating Statistics 2022</u> may be copied and distributed freely in the interest of boating safety. For questions and suggestions regarding content, use the address, telephone number, or email address at the top of this page. For an electronic copy, visit the Boating Safety Division website at www.uscgboating.org.

/A.M. Beach/ Captain, U.S. Coast Guard Director of Inspections & Compliance

DIGHT	DISTRIBUTION SDE NO. 170																									
	а	b	С	d	е	f	g	h	i	j	k	Ι	m	n	0	р	q	r	S	t	u	v	w	х	у	Z
А																										
В		Х	Х											Х												
С					Х				Х																Х	Х
D				Х			Х																			
Е										Х	Х	Х		Х												
F																										
G																										
Н																										

## DISTRIBUTION ---- SDL No. 170

NON-STANDARD DISTRIBUTION:

	Record of Changes								
Change number	Page number	Date changed	Description of changes						
CH-1	78	2/12/2025	Redaction per EO Defending Women						

## **Table of Contents**

Introduction		
2022 Executive Mission and Str Overview of Sta Major Changes Accident Repor Casualty and A "Reportable" Bo	ategic Plan of the National Recreational Boating Safety Program atistics to the Publication ting as Required by Federal Law ccident Reporting Guidelines pating Accidents e" Boating Accidents	6-7 8 8-9 9-10 10 10 10-12 13-14
Accident Caus Figure 1 Table 4 Figure 2 Table 4a Table 5 Table 6 Figure 3 Figure 4 Figure 5 Table 7 Table 7 Table 8 Table 9 Table 10 Table 11 Table 12 Table 13 Table 14 Figure 6 Table 15	es and Conditions Section with Explanation Percent of Accidents that are Fatal by Month (graph) Percent of Accidents that are Fatal by Time Period Percent of Accidents that are Fatal by Time Period Primary Contributing Factor of Accidents & Casualties Machinery & Equipment Primary Contributing Factor of Accidents & Casualties Primary Contributing Factor of Accidents Primary Contributing Factor of Accidents Primary Contributing Factor of Deaths Primary Contributing Factor of Injuries Number of Vessels in Accidents by Vessel Type & Primary Contributing Factor Alcohol Use as a Contributing Factor in Accidents & Casualties by State 18-22 Vessel Operation at the Time of Accident Vessel Activity at the Time of Accident Vessel Information Rental Status of Vessels Involved in Accidents Number of Deaths by Vessel Length Number & Percent of Deaths by Vessel Length	16-17 18 19 20 21 22 23 24 25 26 27 27 28 29 30 31 32 32
Accident Type Table 16 Table 17 Table 18 Table 19 Table 20 Table 21	s Section with Explanation Accident, Vessel & Casualty Numbers by Primary Accident Type Frequency of Accident Types in Accidents & Casualties Nationwide Number of Vessels in Accidents by Vessel Length & Primary Accident Type Number of Vessels in Accidents by Vessel Type & Primary Accident Type Number of Vessels in Accidents by Primary Accident Type & Propulsion Type Number of Vessels with Propellers by Primary Accident Type & Engine Type	34-35 36 37-40 41 42 43 43
<b>Operator/Pass</b> Table 22 Table 23 Figure 7 Table 24 Figure 8 Figure 9 Table 25 Table 26 Figure 9a Figure 9b Table 27 Table 28 Figure 10	enger Information Section with Explanation Operator Information Number of Deaths by Type of Operator Boating Instruction Percent of Deaths by Known Operator Instruction Number of Deaths by Vessel Type Number of Deaths by Vessel Type (graph) Percent of Deaths by Vessel Type, 2008-2022 (graph) Percent of Deaths by Vessel Type, 2008-2022 Number of Deceased Victims by Age & Vessel Type Percent of Deceased Victims by Age and Vessel Type Percent of Injured Victims by Age and Vessel Type Number of Injured Victims by Age & Vessel Type Number of Injured Victims by Age & Vessel Type Nature of Primary Injury Type by Area of Injury Number of Injured Victims under Age 18 by Age Group & Injury Type on PWCs	45 46 47 48 49 49 50 51 51 52 53 53
<b>Casualty Sum</b> Figure 11 Table 29	<b>mary Data Section</b> with Explanation Deaths, Injuries & Accidents by Year, 2003-2022 (graph) Deaths, Injuries, & Accidents by Year, 2003-2022	55 56 56

Table 30	Accident, Casualty & Damage Data by State	57
Figure 12	Distribution of 2022 Deaths by State	58
Figure 12a	Fatal Accidents by Location– Continental U.S. and U.S. Virgin Islands	59
Figure 12b	Fatal Accidents by Location– Alaska	60
Figure 12c	Fatal Accidents by Location– Hawaii	60
Figure 12d	Fatal Accidents by Location– Guam and Northern Mariana Islands	60
Figure 13	Annual Recreational Boating Fatality Rates 2003-2022 (graph)	61
Table 31	Annual Recreational Boating Fatality Rates 2003-2022	61
Figure 14	States Coded by their 2022 Fatality Rate	62
Table 32	Five-year Summary of Selected Accident Data by State	63
Table 33	Number of Accidents by Primary Accident Type & State	64-65
Table 34	Number of Injured Victims by Primary Injury & Vessel Type	66
Table 35	Number of Fatal Victims by Life Jacket Wear, Cause of Death, & Vessel Type	66
Registration D	ata Section with Explanation	68
Table 36	Recreational Vessels Registered by Year, 1987-2022	69
Figure 15	Recreational Vessels Registered by Year, 1987-2022 (graph)	69
Table 37	Recreational Vessel Registration by Length & Means of Propulsion	70
Table 38	Recreational Vessel Registration Data by State	71
Figure 16	Distribution of 2022 Recreational Vessel Registration by State	72
	nt Report Form	73-78
Glossary of Ter		79-82
Glossary of Sta	te Codes	83

## List of Tables

Table 1	2022 Executive Summary	7
Table 2	News Media and Federally-sourced Accidents and Casualties	8
Table 3	Non-Reportable Scenarios with their Casualty Count	12
Table 4	Percent of Accidents that are Fatal by Month	18
Table 4a	Percent of Accidents that are Fatal by Time Period	19
Table 5	Primary Contributing Factor of Accidents & Casualties	20
Table 6	Machinery & Equipment Primary Contributing Factor of Accidents & Casualties	21
Table 7	Number of Vessels in Accidents by Vessel Type & Primary Contributing Factor	25
Table 8	Alcohol Use as a Contributing Factor in Accidents & Casualties by State 18-22	26
Table 9	Vessel Operation at the Time of Accident	27
Table 10	Vessel Activity at the Time of Accident	27
Table 11	Weather & Water Conditions	28
Table 12	Time Related Data	29
Table 13	Vessel Information	30
Table 14	Rental Status of Vessels Involved in Accidents	31
Table 15	Number and Percent of Deaths by Vessel Length	32
Table 16	Accident, Vessel & Casualty Numbers by Primary Accident Type	36
Table 17	Frequency of Accident Types in Accidents & Casualties Nationwide	37-40
Table 18	Number of Vessels in Accidents by Vessel Length & Primary Accident Type	41
Table 19	Number of Vessels in Accidents by Vessel Type & Primary Accident Type	42
Table 20	Number of Vessels in Accidents by Primary Accident Type & Propulsion Type	43
Table 21	Number of Vessels with Propellers by Primary Accident Type & Engine Type	43
Table 22	Operator Information	46
Table 23	Number of Deaths by Type of Operator Boating Instruction	47
Table 24	Number of Deaths by Vessel Type	48
Table 25	Percent of Deaths by Vessel Type, 2008-2022	49
Table 26	Number of Deceased Victims by Age & Vessel Type	50
Table 27	Number of Injured Victims by Age & Vessel Type	52
Table 28	Nature of Primary Injury Type by Area of Injury	53
Table 29	Deaths, Injuries, & Accidents by Year, 2003-2022	56
Table 30	Accident, Casualty & Damage Data by State	57
Table 31	Annual Recreational Boating Fatality Rates 2003-2022	61
Table 32	Five-year Summary of Selected Accident Data by State	63
Table 33	Number of Accidents by Primary Accident Type & State	64-65
Table 34	Number of Injured Victims by Primary Injury & Vessel Type	66
Table 35	Number of Fatal Victims by Life Jacket Wear, Cause of Death & Vessel Type	66
Table 36	Recreational Vessels Registered by Year, 1987-2022	69
Table 37	Recreational Vessel Registration by Length & Means of Propulsion	70
Table 38	Recreational Vessel Registration Data by State	71
	······································	
	List of Figures	
Figure 1	Percent of Accidents that are Fatal by Month	18
Figure 2	Percent of Accidents that are Fatal by Time Period	19
Figure 3	Primary Contributing Factor of Accidents	22
Figure 4	Primary Contributing Factor of Deaths	23
Figure 5	Primary Contributing Factor of Injuries	24
Figure 6	Number of Deaths by Vessel Length	32
Figure 7	Percent of Deaths by Known Operator Instruction	47
Figure 8	Number of Deaths by Vessel Type	48
Figure 9	Percent of Deaths by Vessel Type, 2008-2022	49
Figure 9a	Percent of Deceased Victims by Age and Vessel Type	51
Figure 9b	Percent of Injured Victims by Age and Vessel Type	51
Figure 10	Number of Injured Victims under Age 18 by Age Group & Injury Type on PWCs	53
Figure 11	Deaths, Injuries & Accidents by Year, 2003-2022	56
Figure 12	Distribution of 2022 Deaths by State	58
Figure 12a	Fatal Accidents by Location– Continental U.S. and U.S. Virgin Islands	59
Figure 12b	Fatal Accidents by Location– Alaska	60
Figure 12c	Fatal Accidents by Location– Hawaii	60
Figure 12d	Fatal Accidents by Location– Guam and Northern Mariana Islands	60
Figure 13	Annual Recreational Boating Fatality Rates 2003-2022	61
Figure 14	States Coded by their 2022 Fatality Rate	62
Figure 15	Recreational Vessels Registered by Year, 1987-2022	69
Figure 16	Distribution of 2022 Recreational Vessel Registration by State	72



## 2022 EXECUTIVE SUMMARY

- In calendar year 2022, the Coast Guard counted 4,040 accidents that involved 636 deaths, 2,222 injuries and approximately \$63 million dollars of damage to property as a result of recreational boating accidents.
  - The fatality rate was 5.4 deaths per 100,000 registered recreational vessels. This rate represents a 1.8% decrease from the 2021 fatality rate of 5.5 deaths per 100,000 registered recreational vessels.
  - Compared to 2021, the number of accidents decreased 9.0%, the number of deaths decreased 3.3%, and the number of injuries decreased 15.9%.
- Where cause of death was known, 75% of fatal boating accident victims drowned. Of those drowning victims with reported life jacket usage, 85% were not wearing a life jacket.
- Where length was known, 3 of every 4 boaters who drowned were using vessels less than 21 feet in length.
- Alcohol use is the leading known contributing factor in fatal boating accidents; where the primary cause was known, it was listed as the leading factor in 16% of deaths.
- Where instruction was known, 74% of deaths occurred on boats where the operator did not receive boating safety instruction. Only 14% percent of deaths occurred on vessels where the operator had received a nationally-approved boating safety education certificate.
- There were 173 accidents in which at least one person was struck by a propeller. Collectively, these accidents resulted in 41 deaths and 182 injuries.
- Operator inattention, operator inexperience, improper lookout, excessive speed, and machinery failure ranked as the top five primary contributing factors in accidents.
- Where data was known, navigation rules violations were a contributing factor in 50% of accidents, 35% of deaths, and almost 60% of injuries.
- Collisions (with vessels, objects, groundings) were the most frequent first event in accidents, attributing to 55% of accidents, 21% of deaths, and 53% of injuries.
- Where data was known, the most common vessel types involved in reported accidents were open motorboats (47%), personal watercraft (18%), and cabin motorboats (14%).
- Where data was known, the vessel types with the highest percentage of deaths were open motorboats (47%), kayaks (14%), personal watercraft and pontoons (both 9%).
- The 11,770,383 recreational vessels registered by the states in 2022 represent a 1.6% decrease from last year when 11,957,886 recreational vessels were registered.

Table 1 • 2022 EXECUTIVE SUMMARY									
	то				۹				
Accident Rank	Accident Ty		Number of A		Number of Deaths	Number of Injuries			
1	Collision with recreati	108	5	39	512				
2	Collision with fixed ob	ject	477	7	57	314			
3	Flooding/swamping		422	2	74	93			
4	Grounding		350	)	12	208			
5	Falls overboard		260	)	175	98			
	VESSEL TY	PES WITH T	HE TOP CAS	SUALTY N	UMBERS				
Casualty Rank	Type of Boat	Drownings	Other Deaths	Total Deaths	Total Injuries	Total Casualties			
1	Open motorboat	191	101	292	1158	1450			
2	Personal watercraft	24	30	54	549	603			
3	Pontoon	36	18	54	147	201			
4	Canoe/kayak	118	14	132	63	195			
5	Cabin motorboat	15	10	25	163	188			
LIFE JACKET WEAR BY TOP FIVE KNOWN CAUSES OF DEATH									
Known Cause		Number of		Life Jacke	et				
of Death Rank	Cause of De	Deaths	Worn	Not Worn	Unknown if worn				
1	Drowning		445	64	370	11			
2	Trauma		120	45	70	5			
3	Cardiac arrest		12	3	9	0			
4	Hypothermia		7	6	1	0			
5	Other		6	1	4	1			
	TOP TEN KNOWN P	RIMARY CO	NTRIBUTING	<b>FACTOR</b>	S OF ACCIDEN	rs			
Accident Rank	Contributing F	actor	Number of A	Accidents	Number of Deaths	Number of Injuries			
1	Operator inattention		602	2	45	308			
2	Operator inexperience	9	464	<u></u>	69	249			
3	Improper lookout		387	7	22	234			
4	Excessive speed		320	)	35	288			
5	Machinery failure	289	)	13	69				
6	Weather		221		44	77			
7	Alcohol		215	5	88	148			
8	Navigation rules viola	tion	205	5	26	128			
9	Hazardous waters		184	ŀ	48	75			
10	Force of wake/wave		137	7	5	118			

## Mission and Strategic Plan of the National Recreational Boating Safety Program

The mission of the National Recreational Boating Safety (RBS) Program is "to ensure the public has a safe, secure, and enjoyable recreational boating experience by implementing programs that minimize the loss of life, personal injury, and property damage while cooperating with environmental and national security efforts."

The Coast Guard has released the Strategic Plan of the National Recreational Boating Safety Program for 2022-2026 to address the following initiatives: 1) Positively influence recreational boater behavior; 2) Positively influence recreational boat and accessory manufacturers; and 3) Leverage recreational boat-ing data. To view the Strategic Plan of the Program, please visit the Division's website at http://www.uscgboating.org/content/strategic-plan.php.

## **Overview of Statistics**

This report contains statistics on registered recreational vessels and boating accidents during calendar year 2022. Data used to compile the recreational boating accident statistics come from four main sources: State marine agencies; Federal agencies, including the Coast Guard, National Park Service, Army Corps of Engineers, and Forest Service; the public, on a CG-3865 Recreational Boating Accident Report (BAR) form; and the news media. The Coast Guard collects data from multiple sources in an attempt to document all incidents that meet reporting requirements.

The data in this publication reflects a collaboration of state and Coast Guard efforts. After reports are submitted, the Coast Guard reviews them and standardizes the data so that it can be used for national comparison. The data in this publication reflects Coast Guard standardized values, which may be different from the state's original submission.

The following table reflects the number of accidents, deaths, injuries, and losses of vessels that were captured from federal and news media sources that met reporting requirements and are included in this report.

-	Table 2 • N	IEWS M	EDIA A	ND FEDERAL	LY-SOURCED	ACCIDENTS AND CASUALTIES
	Accidents	Deaths	Injuries	Vessel losses	Damages	Notes
AT	7	0	2	4	\$373,000.00	7 accidents offshore in the Atlantic Ocean
AZ	1	1	0	0	\$0.00	
FL	18	8	12	2	\$527,375.00	
GA	3	1	1	1	\$11,000.00	1 accident on private waters
GM	3	0	3	1	\$362,200.00	3 accidents offshore in the Gulf of Mexico
MI	1	0	0	0	\$17,250.00	
NC	2	1	0	1	\$69,900.00	
NM	1	0	1	0	\$0.00	1 accident on private waters
NY	1	1	1	0	\$0.00	
PR	2	4	1	1	\$100,000.00	
SC	1	1	0	1	\$150,000.00	
WA	1	0	0	0	\$2,000.00	
Nation	41	17	21	11	\$1,612,725.00	

## Major Changes to the Publication

Many statistics in the Executive Summary remove the records where values were unknown. To find information on the number of "unknown" cases excluded, please reference the remaining tables in this publication.

Table 4a has been added to provide detail related to Figure 2. Figures 9a and 9b have been added to provide a graphical depiction of information in Tables 26 and 27. Figures 12 and 16 have been color-coded.

Table 10 has been amended to provide a breakdown of the victim's role (operator, occupant, other/ unknown). Examples of "other" include tuber, wakeboarder, water skier, kneeboarder, bystander, and swimmer. Table 37 has been rearranged due to a change in data collection. On 1 January 2017, changes in regulation (33 CFR 174.19) necessitated revision to the Coast Guard's data collection on registration, which took place in early 2017. Due to delays in transitioning to a new form, the Coast Guard accepted registration data on the previous registration collection form used and the proposed form. Since the forms did not cover the same information, the publication table was amended.

The glossary has been updated to reflect new definitions in the Code of Federal Regulations (CFR).

As a result of changes in 33 CFR 174.19 that took effect 1 January 2017, a new term "paddlecraft" was introduced and defined as "a vessel powered only by its occupants, using a single or double bladed paddle as a lever without the aid of a fulcrum provided by oarlocks, thole pins, crutches, or similar arrangements". As such, the definition limits the use of the term "paddlecraft" to non-motorized vessels. Consequently, any canoe or kayak with a motor has been classified as an "open motorboat" for accident reporting and registration purposes. Though the term "paddlecraft" exists in regulation, for the purposes of this publication, the subcategories of canoe, kayak, and standup paddleboard have been retained; these represent non-motorized vessels, and data can be combined to represent paddlecraft.

The Coast Guard released policy that will impact data collection beginning in calendar year 2024. The letter provides guidance on reporting thresholds, terms, and the scope of reporting. To view the policy, please visit https://uscgboating.org/library/regulations/BSX-Policy-Letter-23-01-Recrational-Boating-Incident-Reporting.pdf.

## Accident Reporting as Required by Federal Law

Under federal regulations (33 CFR Part 173; Subpart C – Casualty and Accident Reporting) the operator of any numbered vessel that was not required to be inspected or a vessel that was operated for recreational purposes is required to file a BAR when, as a result of an occurrence that involves the vessel or its equipment:

- 1. A person dies; or
- 2. A person disappears from the vessel under circumstances that indicate death or injury; or
- 3. A person is injured and requires medical treatment beyond first aid; or
- 4. Damage to vessels and other property totals \$2,000 or more; or
- 5. There is a complete loss of any vessel.

If the above conditions are met, the federal regulations state that the operator or owner must report their accident to a state reporting authority, abbreviated in this publication as "state." The reporting authority can be either the state where the accident occurred, the state in which the vessel was numbered, or, if the vessel does not have a number, the state where the vessel was principally used. The owner must submit the report if the operator is deceased or unable to make the report.

The regulations also state the acceptable length of time in which the accident report must be submitted to the reporting authority. Boat operators or owners must submit:

- 1. Accident reports within 48 hours of an occurrence if:
  - a. A person dies within 24 hours of the occurrence; or
  - b. A person requires medical treatment beyond first aid; or
  - c. A person disappears from the vessel.
- 2. Accident reports within 10 days of an occurrence if there is damage to the vessel/property only.

The minimum reporting requirements are set by Federal regulation, but states are allowed to have more stringent requirements. For example, some states have a lower threshold for reporting damage to vessels and other property.

Federal Regulations (33 CFR 174.121) require accident report data to be forwarded to Coast Guard Headquarters within 30 days of receipt by a state or its agent.

The statistics in this publication cover boating accidents reported on waters of joint federal and state jurisdiction and exclusive state jurisdiction. Most states use BAR forms that are similar to the Coast Guard form. A copy of the Coast Guard BAR form used for this report is on pages 73-78.

## **Casualty and Accident Reporting Guidelines**

Casualty and accident reporting applies to each "vessel" used by its operator for recreational purposes or vessels that are required to be numbered and are not subject to inspection.

This publication reflects watercraft that have been deemed a "vessel." Terms used to describe the various types of watercraft are: airboat, auxiliary sailboat, cabin motorboat, canoe, houseboat, inflatable boat, kayak, open motorboat, personal watercraft, pontoon, raft, rowboat, sailboat, and standup paddleboard. Reports received involving watercraft that have not been determined to be "vessels" to date, such as single unmodified innertubes, have not been included in the statistics in the main body of this report.

## "Reportable" Boating Accidents

A vessel is considered to be involved in a "boating accident" whenever a death, missing person, personal injury, property damage, or total vessel loss results from the vessel's operation, construction, seaworthiness, equipment, or machinery.

The following are examples of accident types that are used in this report:

- Grounding, capsizing, sinking, or flooding/swamping.
- Falls in or overboard a vessel.
- Persons ejected from a vessel.
- Fire or explosions that occur while underway and while anchored, moored or docked if the fire resulted from the vessel or vessel equipment.
- Water-skiing or other mishap involving a towable device.
- Collision with another vessel or object.
- Striking a submerged object.
- A person struck by a vessel, propeller, propulsion unit, or steering machinery.
- Carbon monoxide exposure.
- Electrocution due to stray current related to a vessel.
- Casualties while swimming from a vessel that is not anchored, moored or docked.
- Casualties where natural causes served as a contributing factor in the death of an individual but the determined cause of death was drowning.
- Casualties from natural phenomena such as interaction with marine life (i.e. carp causes casualty to person) and interaction with nature (i.e. mountain side falls onto vessel causing casualties).
- Casualties where a person falls off an anchored vessel.
- Casualties that result when a person departs an anchored, disabled vessel to make repairs, such as unfouling an anchor or cleaning out the intake of a jet-propelled vessel.

## "Non-Reportable" Boating Accidents

Not every occurrence involving a vessel is considered within the scope of the National Recreational Boating Safety Program. The following occurrences involving a vessel may be required to be reported to the state, but for statistical purposes are excluded from this report and are considered "non-reportable" boating accidents:

- 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 where the vessel did not contribute to the casualty.
- A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from an anchored, moored or docked 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
  or pier.
- 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 on 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; or when a vessel gets underway in those conditions in an attempt to rescue persons or vessels.
- Property damage occurs to a docked or moored vessel due to lack of maintenance on the vessel or the structure to which it was moored.
- Property damage occurs to a docked or moored 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 residential platform or other watercraft used primarily as a residence that is not underway.
- Casualties that result from falls from or on docked vessels or vessels that are moored to a permanent structure.
- Casualties that result from a person climbing aboard an anchored vessel from the water or swimming near an anchored vessel (unless the casualty was related to carbon monoxide exposure or stray electric current).
- Fire or explosions on anchored, docked or moored boats where the cause of the fire was not attributed to the vessel or vessel equipment.
- Casualty or damage that results when the vehicle used for trailering the vessel fails.
- Casualties or damage that occur during accidents that only involve watercraft that have not been deemed a vessel.
- Casualties or damage that occur when the only vessel(s) involved are being used solely for governmental, commercial or criminal activity.
- Casualties or damage that occur when the only vessel(s) involved are not required to be numbered and are being used exclusively for racing (exclusion in 33 CFR 173.13(a)).
- Casualties or damage that occur when the only vessel(s) involved are foreign vessels and thus not subject to U.S. federal reporting requirements.

A list of "non-reportable" scenarios reported by the states and their associated casualty counts can be found in Table 3.

	Table 3 • NON-REPORTABLE SCENARI			SUALTY	COUNT	
Doe	es not meet Coast Guard policy	Accidents	Deaths	Injuries	Vessels Losses	Damages
*	A person dies or is injured from natural causes while aboard a vessel where the vessel did not contribute to the casualty.	3	3	0	0	\$0.00
•	A person dies, is injured, or is missing as a result of jumping, diving, or swimming for pleasure from an anchored, moored or docked vessel.	7	5	2	0	\$0.00
•	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.	4	4	1	0	\$0.00
•	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 or pier.	7	7	0	0	\$0.00
*	Casualties or damage that occur during accidents that only involve watercraft that have not been deemed a vessel.	5	4	1	1	\$0.00
•	Casualties or damage that occur when the only vessel(s) in- volved are being used solely for governmental, commercial or criminal activity.	76	13	46	9	\$1,771,153.88
•	Casualties or damage that occur when the only vessel(s) in- volved are foreign vessels and thus not subject to U.S. federal reporting requirements.	1	0	0	0	\$1,000,000.00
•	Casualties or damage that occur when the only vessel(s) in- volved are not required to be numbered and are being used exclusively for racing.	1	0	0	0	\$2,500.00
•	Casualties that result from a person climbing aboard an an- chored vessel from the water or swimming near an anchored vessel (unless the casualty was related to carbon monoxide exposure or stray electric current).	3	0	3	0	\$0.00
<b>*</b>	Casualties that result from falls from or on docked vessels or vessels that are moored to a permanent structure.	4	3	1	0	\$0.00
•	Fire or explosions on anchored, docked or moored boats where the cause of the fire was not attributed to the vessel or vessel equipment.	5	0	2	7	\$330,300.00
•	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 on the water and capable/ready for its intended use.	6	0	2	1	\$80,700.00
•	Property damage occurs to a docked or moored vessel due to lack of maintenance on the vessel or the structure to which it was moored.	21	0	0	9	\$187,000.00
•	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; or when a vessel gets underway in those conditions in an attempt to rescue persons.	28	1	0	5	\$355,100.00
•	Property damage occurs to, a person dies or is injured on, or a person is missing from a non-propelled residential platform or other watercraft used primarily as a residence that is not underway.	1	0	0	0	\$20,000.00
Doe	es not meet federal reporting requirements	308	0	53	0	\$216,721.08
Tot	al	480	40	111	32	\$3,963,474.96

## **Use of Statistics**

The following are notes on using data on recreational boating accidents.

1) Normalizing data.

When analyzing recreational boating accident data, it is recommended that any researcher normalize it with a denominator.

The Coast Guard frequently uses recreational vessel registration as a denominator because of the availability of the data. The Coast Guard calculates a fatality rate expressed as the number of deaths per 100,000 registered recreational vessels. This measure is representative of the entire program (motorized and non-motorized activity) but necessitates a caveat that not all states register the same types of vessels (many do not register non-motorized vessels, which are represented in fatal accident data) and some states have longer boating seasons than others. Further, when examining a state fatality rate, it is important to note that the state fatality rate may include deaths from vessels that were registered by another state.

The Coast Guard also calculates a motorized fatality rate expressed as the number of deaths on motorized vessels per 100,000 registered motorized recreational vessels. While this measure is sound, it doesn't reflect all of recreational boating because it does not represent non-motorized activity.

The 2018 National Recreational Boating Safety Survey (NRBSS) estimated, by state, recreational boating exposure. These are expressed as: number of outings, boat days, boat hours, person boat days and person boat hours. Risk ratios were calculated by state in the NRBSS Exposure report and were expressed as the number of deaths per 100,000,000 person boat hours. The reports can be found on the Coast Guard's Boating Safety website at https:// uscgboating.org/statistics/national-recreational-boating-safety-survey.php

### 2) Limitations on collection.

It is recommended that any researcher focus on fatal data since the confidence of this data is very high. The Coast Guard works with state marine agencies, other federal agencies, and news media aggregating services to identify boating incidents. Despite best efforts to document incidents, the Coast Guard is only confident in its capture of deceased victims since fatal accidents undoubtedly involve state or government oversight, and garner more attention in the news media.

Data on non-fatal accidents have a much lower confidence level. Non-fatal accidents are severely under-reported because boaters are unaware of reporting requirements or are unwilling to report. A 2006 study, "Recent Research on Recreational Boating Accidents and the Contribution of Boating Under the Influence," suggest that 20% of hospital-admitted injuries were not captured, and upwards of 93% of non-fatal, non-hospital admitted injuries were not captured in the data collection on boating accidents. The study is posted on the Coast Guard's website at http://www.uscgboating.org/library/bui-study/BUI\_Study\_Final.pdf.

There has been discussion about adjusting numbers to account for non-reporting, but results have not been published yet. The Coast Guard is studying alternate data sources including insurance claims to better gauge the gap between reported and unreported accidents. A May 2023 analysis of two states using data for years 2015-2018 suggested a significant degree of underreported damages and damage accidents. For every \$1 of damage in the Coast Guard's database, the data suggested that \$7.27-\$21.77 actually occurred. For every property damage accident in the Coast Guard's database, the data suggested that 12-21 accidents actually occurred. The data indicated a degree of variability among the two states investigated, which suggests that a wider study would be necessary to understand the full extent of underreporting in the nation. The authors also examined the degree of injury underreporting in one state. They found that for every moderate injury reported, there were likely 30.4 that actually occurred; for every more severe injury, likely 1.65 actually occurred.

3) Comparisons with other sources.

The data in this publication may differ from other sources due to a number of factors, including:

- a. Time period. The statistics in this publication are based on calendar year 2022 accident data submitted by states as of 24 March 2023 with subsequent updates as information is reviewed and standardized. This publication covers only accidents meeting the aforementioned reporting requirements.
- b. Geographic location. This publication reflects accidents that occurred on waters subject to the jurisdiction of the United States and on the high seas. Although the reporting of accidents that occur on private waters (such as a pond on a private property) are not required to be reported since states do not have jurisdiction, the Coast Guard includes data on private waters if the accidents satisfy the other requirements for inclusion. The rationale for doing so is that the National Recreational Boating Safety program could still impact individuals who boat on private waters. For those accidents that occur on private waters, the Coast Guard attributes the data to a state. For instance, if an accident occurred on a private pond in Georgia, the Coast Guard attributes the accident to Georgia.

Similarly, although the reporting of accidents that occur on federal waters within the boundaries of a state (for instance, Aberdeen Proving Grounds in Maryland), are not required to be reported by the states since state officials do not have jurisdiction, the Coast Guard includes data on federal waters if the accidents satisfy the other requirements for inclusion. The rationale for doing so is the same; the National Recreational Boating Safety program could still impact individuals who boat on federal waters. For those accidents that occur on federal waters, the Coast Guard attributes the data to a state. For instance, if an accident occurred on Aberdeen Proving Grounds, the Coast Guard attributes the accident to Maryland.

c. Different reporting requirements. Some states have more stringent reporting requirements than the federal government. For instance, some states may require a person to report an accident that involved at least \$500 damage, whereas the federal threshold for reporting damage is \$2,000 or more. The data represented in the remaining tables in this report represent accidents that met federal reporting requirements.

4) Fatal accidents are accidents that involve at least one death. An example of a fatal accident is a capsizing that resulted in three deaths. It was an accident that involved at least one death.

5) Disappearances.

Victims who have disappeared and are presumed dead are represented in the tallies of deaths.

# ACCIDENT CAUSES & CONDITIONS

## **Explanation of Accident Causes and Conditions Section**

The following eighteen tables and figures focus on the causes of accidents with a special focus on alcohol use, the operation and activity at the time of accident, weather and water conditions, vessel information, and the time of accidents.

## Percent of Accidents that are Fatal by Month (Figure 1 & Table 4, Page 18)

This table provides information about total accidents, fatal accidents, non-fatal accidents, and deaths. The figure focuses on the percent of fatal accidents by month.

## Percent of Accidents that are Fatal by Time Period (Figure 2 & Table 4a, Page 19)

This table and figure reflect the percent of accidents that are fatal by time period. Where data was known, the category in which accidents are more frequently fatal span the hours between 12:00 am and 2:30 am.

## Primary Contributing Factor of Accidents & Casualties (Table 5, Page 20)

The "contributing factors" of an accident are the causes of the accident. In the Coast Guard's national accident reporting database, there are allowances for up to four causes. This table reflects the first cause listed for all accidents, deaths, and injuries nationwide.

For the purposes of displaying information in a simplified manner, the Coast Guard divided the contributing factor categories into five larger categories: operation of vessel, loading of passengers or gear, failure of vessel or vessel equipment, environment, and miscellaneous. These five categories are situated in the leftmost column of the table and have the total number of accidents, deaths, and injuries associated with each category under the category name.

## Machinery & Equipment Primary Contributing Factor of Accidents & Casualties (Table 6, Page 21)

This table reflects the number of accidents, deaths, and injuries where machinery or equipment failure was listed as a first cause of the accident. The table also delineates the different types of failure that were listed.

## Primary Contributing Factor of Accidents (Figure 3, Page 22)

This figure reflects the first cause of accidents for all accidents nationwide.

## Primary Contributing Factor of Deaths (Figure 4, Page 23)

This figure reflects the first cause listed for all deaths.

## Primary Contributing Factor of Injuries (Figure 5, Page 24)

This figure reflects the first cause listed for all injuries.

Number of Vessels in Accidents by Vessel Type & Primary Contributing Factor (Table 7, Page 25) This table looks at the number of vessels involved in accidents by vessel type and the primary cause of the accident.

## Alcohol Use as a Contributing Factor in Accidents & Casualties by State 2018-2022 (Table 8, Page 26)

This table reflects a tally of all four causes of accidents listed for all national accidents, deaths, and injuries.

This table lists accidents where alcohol use by the vessel's occupants was listed as a direct or indirect cause of the accident. There are other cases in the national database where alcohol use is listed as being involved in the accident but it was not determined to be a cause of the accident.

## Vessel Operation at the Time of Accident (Table 9, Page 27)

This table focuses on the vessel operation at the time of the accident. The table lists information about the number of vessels involved, the resulting number of deaths, and the resulting number of injuries.

## Vessel Activity at the Time of Accident (Table 10, Page 27)

This table examines the vessel and victim activity at the time of the accident. The table provides information about the number of vessels involved, the resulting number of deaths, and the resulting number of injuries.

Please note that vessels used for commercial or government activity were included in this recreational boating statistics publication if they were involved in a multi-vessel accident that involved at least one recreational vessel.

Also note that racing was included as an activity because either the vessels involved in racing were not exempted from reporting requirements, or the vessels were involved in a multi-vessel accident that involved at least one recreational vessel.

## Weather & Water Conditions (Table 11, Page 28)

This table documents some of the environmental characteristics of accidents. It focuses on accidents, deaths, and injuries by type of body of water, water conditions, wind level, visibility, and water temperature.

## Time Related Data (Table 12, Page 29)

These three sections independently examine time-related information for accidents, deaths, and injuries. The top section documents the number of accidents, deaths, and injuries that occurred during a time frame. The middle section documents the number of accidents, deaths, and injuries that occurred during a given month. Finally, the bottom section documents the number of accidents the number of accidents, deaths, and injuries that occurred injuries that occurred during a given day of the week.

Each section examines the national data separately and should not be combined to draw conclusions. For instance, one cannot use them to deduce that the majority of accidents occur from 4:31 pm to 6:30 pm in July on the weekends. However, you could deduce that 4:31 pm to 6:30 pm was the time frame during which the highest number of accidents occurred in calendar year 2022. Furthermore, the month with the highest number of accidents was July. Finally, the two days of the week with the greatest number of accidents were Saturday and Sunday.

## Vessel Information (Table 13, Page 30)

This table documents some of the characteristics of vessels involved in accidents. It provides information about the number of accidents, deaths, and injuries by horsepower, year built, length, and hull material.

## Rental Status of Vessels Involved in Accidents (Table 14, Page 31)

This table examines whether a vessel involved in an accident was rented. It also provides information on whether deaths and injuries occurred on rented vessels. Please note that some states only document if a vessel was rented; they do not indicate whether a vessel was "not rented". As a result, the rental status of many vessels is "unknown".

## Number & Percent of Deaths by Vessel Length (Figure 6 & Table 15, Page 32)

This table focuses on the number of deaths by vessel length. Deaths are categorized into drownings and non-drownings. The table also provides a percentage of all deaths that were caused by drowning.

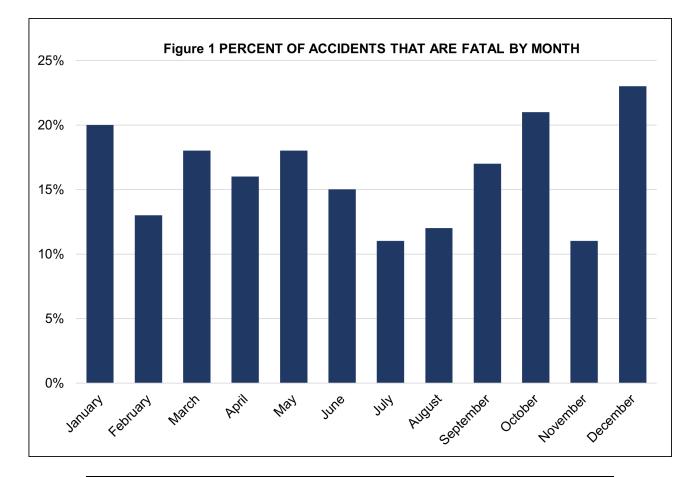


Table	Table 4 • PERCENT OF ACCIDENTS THAT ARE FATAL BY MONTH												
Month	Fatal Accidents	Non-Fatal Accidents	Total Accidents	Accidents Resulting in Deaths	Total Deaths								
January	19	78	97	20%	21								
February	14	92	106	13%	15								
March	30	134	164	18%	34								
April	41	216	257	16%	48								
Мау	91	422	513	18%	100								
June	96	549	645	15%	104								
July	105	868	973	11%	108								
August	68	501	569	12%	75								
September	61	306	367	17%	63								
October	37	136	173	21%	37								
November	12	98	110	11%	16								
December	15	51	66	23%	15								
Total	589	3451	4040	15%	636								

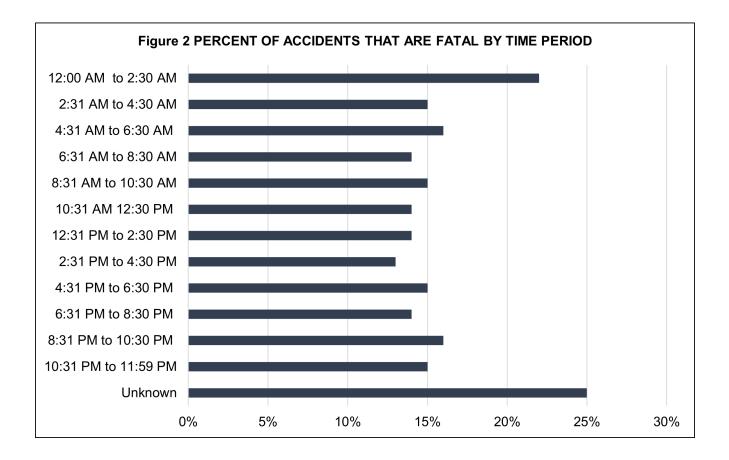
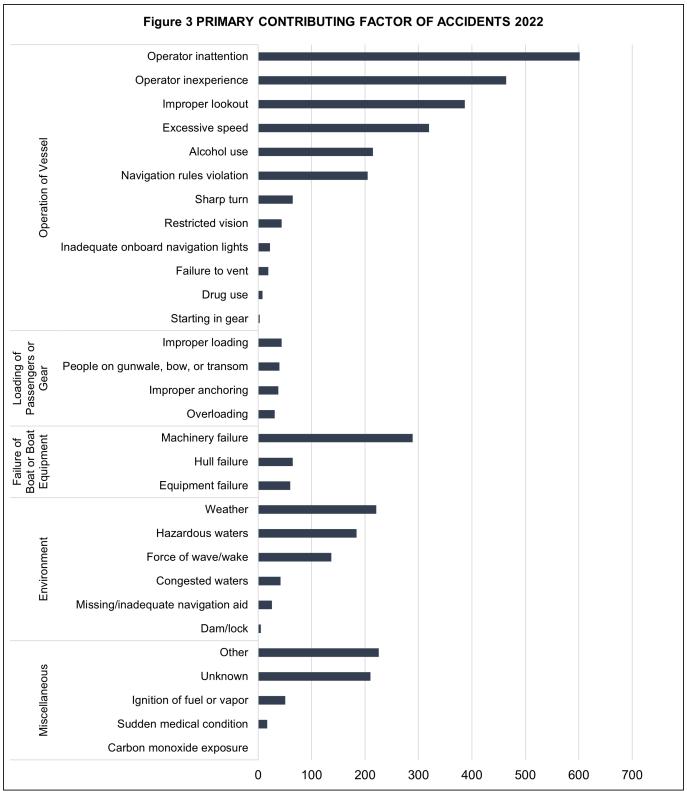


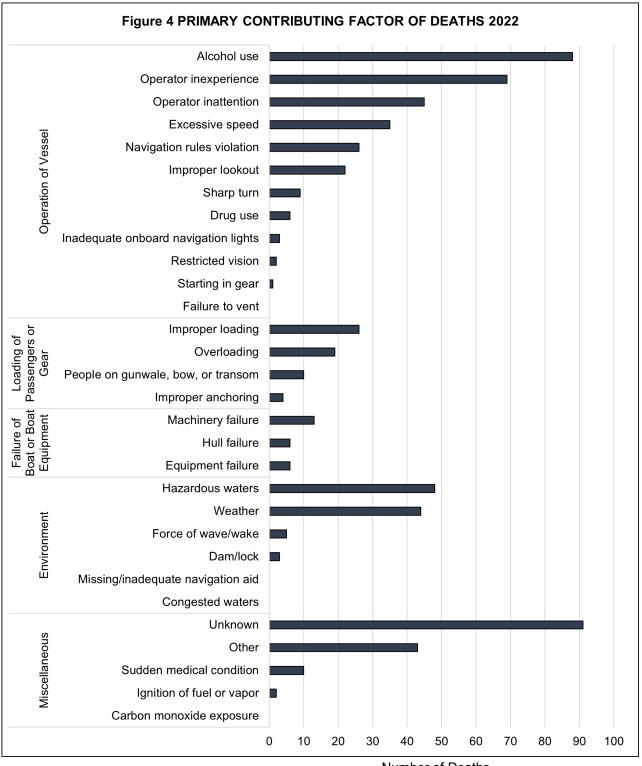
Table 4a • PERCENT OF ACCIDENTS THAT ARE FATAL BY TIME PERIOD									
Time period	Fatal Accidents	Non-Fatal Accidents	Total Accidents	Accidents Resulting in Deaths	Total Deaths				
12:00 AM to 2:30 AM	15	54	69	22%	18				
2:31 AM to 4:30 AM	4	22	26	15%	5				
4:31 AM to 6:30 AM	5	27	32	16%	5				
6:31 AM to 8:30 AM	18	108	126	14%	18				
8:31 AM to 10:30 AM	39	214	253	15%	46				
10:31 AM 12:30 PM	55	343	398	14%	56				
12:31 PM to 2:30 PM	91	559	650	14%	97				
2:31 PM to 4:30 PM	100	683	783	13%	105				
4:31 PM to 6:30 PM	117	669	786	15%	123				
6:31 PM to 8:30 PM	69	411	480	14%	74				
8:31 PM to 10:30 PM	45	233	278	16%	52				
10:31 PM to 11:59 PM	13	74	87	15%	14				
Unknown	18	54	72	25%	23				
All time periods	589	3451	4040	15%	636				

		Accidents	Deaths	Injuries
Operation of Vessel	Alcohol use	215	88	148
2354 Accidents 806 Deaths	Drug use	8	6	2
502 Injuries	Excessive speed	320	35	288
	Failure to vent	19	0	27
	Improper lookout	387	22	234
	Inadequate onboard navigation lights	22	3	26
	Navigation rules violation	205	26	128
	Operator inattention	602	45	308
	Operator inexperience	464	69	249
	Restricted vision	44	2	37
	Sharp turn	65	9	53
	Starting in gear	3	1	2
oading of Passengers or Gear	Improper anchoring	38	4	5
153 Accidents 59 Deaths	Improper loading	44	26	22
75 Injuries	Overloading	31	19	10
	People on gunwale, bow or transom	40	10	38
Failure of Boat or Boat Equipment	Equipment failure	60	6	15
25 Deaths	Hull failure	65	6	6
90 Injuries	Machinery failure	289	13	69
Environment 615 Accidents	Congested waters	42	0	19
100 Deaths	Dam/lock	5	3	2
297 Injuries	Force of wave/wake	137	5	118
	Hazardous waters	184	48	75
	Missing/inadequate navigation aid	26	0	6
	Weather	221	44	77
/liscellaneous <b>i04 Accidents</b>	Carbon monoxide exposure	0	0	0
46 Deaths	Ignition of fuel or vapor	51	2	54
58 Injuries	Sudden medical condition	17	10	8
	Other	226	43	142
	Unknown	210	91	54
All categories combined		4040	636	2222

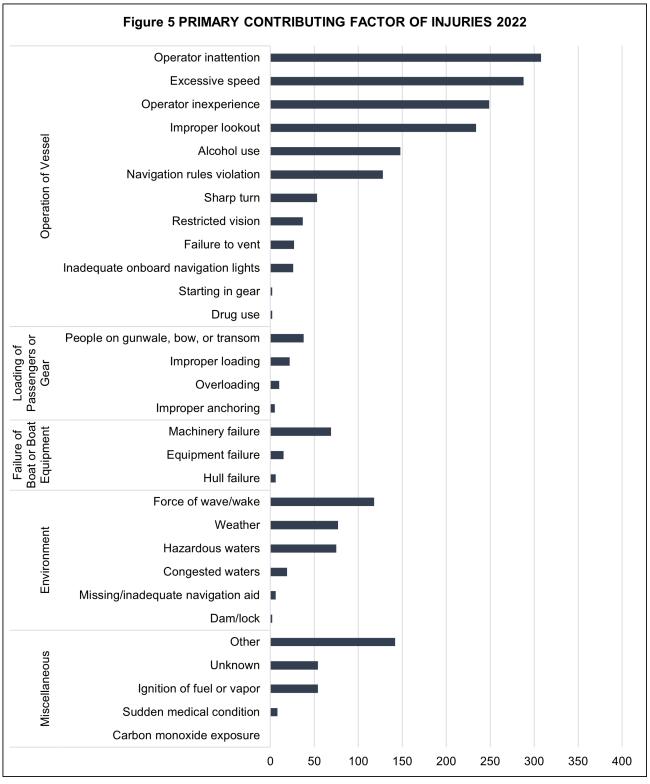
Table 6 • MACHINERY & EQUIPMENT PRIMARY         CONTRIBUTING FACTOR OF ACCIDENTS & CASUALTIES 2022									
		Accidents	Deaths	Injuries					
	Electrical system failure	45	0	7					
	Engine failure	162	12	38					
	Exhaust system failure	3	0	0					
	Fuel system failure	12	0	4					
Machinery Failure	Shift failure	17	0	4					
1 allule	Steering system failure	25	1	11					
	Throttle failure	13	0	3					
	Ventilation system failure	2	0	0					
	Not specified	10	0	2					
	Auxiliary equipment failure	35	3	6					
	Onboard navigation aid	0	0	0					
Equipment	Sail dismasting	3	0	0					
Failure	Seat broke loose	3	3	0					
	Other	15	0	9					
	Not specified	4	0	0					



Number of Accidents



Number of Deaths



Number of Injuries

	11.1	266		7	m				7	0	0	6						
	Unknown		٢	17	43	2	7	0	27	8 90	19		2	4	0	4	2	32
	Other	231	0	٢	19	0	-	0	-	158	14	32	-	0	0	~	0	ო
	Weather	301	2	28	52	8	10	~	18	124	10	27	0	6	0	~	0	11
	Sudden medical condition	17	٢	0	0	٢	0	0	0	10	2	~	-	0	0	0	0	-
2022	Starting in gear	4	0	0	0	0	0	0	0	5 3	1	0	0	0	0	0	0	0
	Sharp turn	88	٢	0	7	٢	0	0	-	35	41	~	0	0	0	0	0	~
ACTOR	Restricted vision	59	4	3	9	0	0	0	З	42	0	~	0	0	0	0	0	0
FAC	People on gunwale, bow or transom	<b>6</b>	0	۲	9	۲	0	0	2	20	0	თ	0	0	0	0	0	~
	Overloading	31	0	0	2	١	0	0	٢	22	1	~	2	0	0	0	0	~
E	Operator inexperience	672	٢	15	67	10	4	5	28	222	212	84	4	9	0	11	2	-
CONTRIBUTING	Operator inattention	919	3	44	143	3	7	0	8	440	149	110	0	3	0	~	2	9
NOC	Navigation rules violation	360	9	6	38	2	З	0	-	112	116	42	0	1	0	0	3	27
RYO	Missing/inadequate navigation aid	26	0	0	2	0	٢	0	0	16	1	~	0	0	0	0	0	0
⋖	Machinery failure	378	1	26	129	0	4	0	0	174	27	11	0	1	0	0	3	2
	Inadequate onboard navigation lights	4	0	0	4	0	-	0	0	29	0		0	0	0	0	7	0
PE &	Improper lookout	610	7	31	85	2	Э	0	С	293	124	50	3	Э	0	-	7	4
₹	Improper loading	45	0	٦	3		0	0	4	27		ო		٢	0	0	0	0
ЯËГ	Improper anchoring	56	0	14	ი	0	4	0	0	23	2	4	0	0	0	0	0	0
ESSEI	Ignition of fuel or vapor	86	0	٦	15	0	2	0	0	38	6	19	0	0	0	0	0	2
BΥ V	Hull failure	65	-	0	8	-	2	0	0	46	Э	ო	0	0	0	0	-	0
	Hazardous waters	200	2	10	23	6	-	13	25	88	8	2	4	0	0	2	-	4
CCIDENTS	Force of wave/wake	157	0	2	15	2	0	-	2	98	27	e	0	+	0	0	0	9
SCI	Failure to vent	23	0	0	9		1	0	0	11	3	2	0	0	0	0	0	0
N A	Excessive speed	460	7	2	46	0	0	0	2	191	181	19	0	2	0	N	0	8
LS.	Equipment failure	70	0	10	14	0	-	0	0	43			0	0	0	0	0	0
VESSELS	Drug use	8	0	0	0	1	0	0	1	6	0	0	0	0	0	0	0	0
	Dam/lock	S	0	0	0	0	0	0	ი	٢	٢	0	0	0	0	0	0	0
Ы	Congested waters	62	ю	٢	12	0	0	0	0	30	2	თ	0	0	0	0	0	0
ER	Carbon monoxide exposure	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NUMBER	Alcohol use	272	1	٦	21	7	0	0	12	139	37	46	1	З	0	0	1	Э
7 - NI	All contributing factors	5552	35	217	780	55	52	20	142	2531	966	509	19	34	0	26	23	113
Table 7														.,				
Ta		All vessels	Airboat	Auxiliary sailboat	Cabin motorboat	Canoe	Houseboat	Inflatable	Kayak	Open motorboat	Personal watercraft	Pontoon	Rowboat	Sail (only)	Sail (unknown)	Standup paddleboard	Other	Unknown

		Ac	cider	nts				Death	s				njurie	s	
USA	2018 <b>309</b>	2019 <b>330</b>	2020 <b>353</b>	2021 <b>330</b>	2022 <b>270</b>	2018 <b>119</b>	2019 <b>128</b>	2020 <b>130</b>	2021 <b>110</b>	2022 <b>108</b>	2018 <b>275</b>	2019 <b>279</b>	2020 <b>315</b>	2021 <b>280</b>	2022 <b>204</b>
AK	7	1	5	2	2	10	1	6	2	3	5	0	0	0	0
AL	9	12	11	7	9	7	8	2	1	1	7	12	4	6	4
AR	1	3	4	8	6	0	1	2	6	3	1	0	2	0	1
AZ	9 11	8 16	7 21	7 18	3 13	4	0	0 10	0	1	17 13	6 18	5 24	7 15	0 11
CA CO	2	10	4	5	4	5 1	0	3	3 4	2	13	10	24	15	2
CT	2	6	0	1	2	0	1	0	1	2	2	1	0	0	1
DE	1	0	1	0	4	0	0	0	0	2	0	0	1	0	3
DC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
FL	29	40	36	39	29	6	18	13	13	9	20	26	27	17	18
GA	8	7	11	9	7	2	3	0	4	6	8	2	27	16	12
HI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
IA	6	4	8	5	4	2	1	2	0	1	6	6	4	2	1
ID	3	4	6	8	10	1	1	0	3	10	3	3	9	6	4
IL	7	9	6	6	2	4	8	4	4	0	2	6	2	1	4
IN	7	5	4	5	8	2	4	2	3	1	10	2	1	4	11
KS	1	2	0 9	1	1	0	1	0	0	0	4	3	0	1	2
KY LA	5 12	8 8	9 10	6 16	5 9	4	1	1	2 8	1 5	1	6 8	7	5 20	5 7
MA	6	0 6	6	4	3	3	0	2	。 2	5 1	6	0 8	3	20	4
MD	10	14	17	13	10	5	9	2	2	2	5	10	21	14	13
ME	4	3	3	1	5	1	2	1	1	3	1	0	1	0	1
MI	8	17	14	10	8	3	5	4	3	2	4	13	12	4	3
MN	8	10	12	14	10	2	2	5	6	5	10	4	5	9	5
MO	19	14	13	10	6	3	4	2	2	4	33	18	20	9	4
MS	5	0	4	4	2	1	0	1	0	1	7	0	4	7	1
MT	4	1	1	2	3	4	1	0	2	2	4	0	1	0	2
NC	18	11	22	11	12	4	4	10	1	4	18	9	18	7	3
ND	1	0	2	2	0	1	0	0	0	0	1	0	3	3	0
NE	2	3	1	3	1	0	0	0	0	0	0	3	2	3	1
NH	3	1	1	2	2	1	0	0	2	0	0	1	1	0	0
NJ	4	2	1	5	4	0	2	0	1	1	2	0	0	15	7
NM	2	0	2	3	1	1	0	1	1	1	1	0	1	0	0
NV	3 15	1	1 9	1 13	2 10	1	0	1	0	1	4 13	0 17	0	1 17	1 7
NY OH	6	11	9 12	13	10	2	2	3 9	4	2	3	11	9	9	7
OK	7	4	4	2	3	3	2	2	1	2	7	2	3	1	2
OR	4	5	4	3	3	2	4	2	1	1	7	3	1	2	2
PA	1	3	3	3	5	1	1	2	2	3	0	4	0	0	2
RI	0	0	2	2	2	0	0	0	0	1	0	0	3	4	1
SC	4	9	6	14	6	1	2	3	3	4	3	9	4	15	4
SD	4	1	1	0	2	1	0	1	0	0	3	4	0	0	0
ΤN	8	9	7	12	8	3	1	6	6	3	6	7	8	10	6
TX	12	27	29	18	14	6	11	8	7	2	6	33	35	21	18
UT	4	5	6	0	2	3	2	5	0	1	3	6	1	0	0
VA	6	6	7	1	4	2	4	4	0	3	1	1	4	1	1
VT	0 8	0 17	0	0	0	0	0 9	0	0	0	0	14	0	0	0
WA WI	8	4	6 12	8	5 9	5 6	9	3 4	4	3 5	4	14	6	5 15	4 19
WV	2	4	2	0	0	2	1	4	4	0	1	0	0	0	0
WY	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0
AS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PR	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
GM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

## Table 8 • ALCOHOL USE AS A CONTRIBUTING FACTOR IN ACCIDENTS & CASUALTIES BY STATE 2018-2022

Г

Table 9 - VESS	EL OPERATION AT	THE TIME OF AC	CIDENT 2022
	Vessels Involved	Deaths	Injuries
Totals	5552	636	2222
At anchor	193	13	41
Being towed	31	1	4
Changing direction	602	55	278
Changing speed	453	31	229
Cruising	2268	186	1230
Docking/undocking	212	3	38
Drifting	497	141	173
Idling	54	8	25
Launching/loading	38	0	13
Rowing/paddling	198	132	65
Sailing	42	4	14
Tied to dock/moored	732	4	69
Towing	27	2	0
Trolling	22	6	9
Other	27	4	1
Unknown	156	46	33

Tabl	Table 10 • VESSEL ACTIVITY AT THE TIME OF ACCIDENT 2022										
			De	aths	-		lr	njuries			
	Vessels Involved	Total		Occupant		Total		Occupant	Other/ unknown role		
Totals	5552	636	375	222	39	2222	880	1073	269		
Boating/relaxation	3474	357	224	121	12	1525	686	805	34		
Commercial	43	0	0	0	0	20	0	20	0		
Fishing	552	152	95	52	5	234	108	124	2		
Fueling	27	0	0	0	0	12	4	6	2		
Government	15	0	0	0	0	2	1	1	0		
Hunting	33	14	7	6	1	22	9	12	1		
Racing	26	4	3	1	0	16	8	8	0		
Repairs	50	8	7	1	0	19	6	12	1		
Starting engine	53	0	0	0	0	34	15	17	2		
Swimming/snorkeling	91	48	16	29	3	33	4	21	8		
Towed watersports	269	24	1	5	18	253	12	30	211		
Towing	50	3	1	2	0	2	1	1	0		
Whitewater	27	18	17	1	0	8	5	3	0		
Other	12	6	2	4	0	1	1	0	0		
None; not in operation	720	0	0	0	0	12	7	4	1		
Unknown	110	2	2	0	0	29	13	9	7		

Recreational Boating Statistics 2022

٦

	Table 11 • WEATHER AND WATER CON	DITIONS 20	)22	
		Accidents 4040	Deaths 636	Injuries 2222
	Lakes, Ponds, Reservoirs, Dams, Gravel Pits	1822	343	1013
	Rivers, Streams, Creeks, Swamps, Bayous	895	177	565
TYPE OF BODY OF WATER	Bays, Inlets, Marinas, Sounds, Harbors, Channels, Canals, Sloughs, Coves	938	72	454
	Ocean/Gulf	272	30	154
	Great Lakes (not tributaries)	113	14	36
	Calm (waves less than 6")	2423	330	1377
WATED	Choppy (waves >6" to 2')	1032	160	595
WATER CONDITIONS	Rough (waves >2' to 6')	341	76	144
	Very Rough (waves larger than 6')	69	17	28
	Unknown	175	53	78
	None	312	53	189
	Light (0 - 6 mph)	2265	314	1324
WIND	Moderate (7 - 14 mph)	1004	150	501
	Strong (15 - 25 mph)	271	62	121
	Storm (over 25 mph)	55	22	13
	Unknown	133	35	74
VISIBILITY	Poor - Day	62	10	28
	Poor - Night	111	22	68
	Poor - Unknown if day or night	1	3	0
	Fair - Day	155	35	89
	Fair - Night	146	30	56
	Fair– Unknown if day or night	1	0	0
	Good - Day	2947	408	1666
	Good - Night	410	73	232
	Good- Unknown if day or night	11	0	1
	Unknown - Day	150	39	66
	Unknown - Night	29	10	10
	Unknown - Unknown if day or night	17	6	6
	39 degrees F and below	30	20	27
	40 - 49 degrees F	101	32	45
	50 - 59 degrees F	301	83	130
WATER	60 - 69 degrees F	638	93	302
TEMPERATURE	70 - 79 degrees F	1346	167	731
	80 - 89 degrees F	978	138	660
	90 degrees F and above	35	3	18
	Unknown	611	100	309

	Table 12 • TIME RELA	TED DATA 202	2	
		Accidents	Deaths	Injuries
		4040	636	2222
	12:00 AM to 2:30 AM	69	18	24
	2:31 AM to 4:30 AM	26	5	17
	4:31 AM to 6:30 AM	32	5	14
	6:31 AM to 8:30 AM	126	18	59
	8:31 AM to 10:30 AM	253	46	118
	10:31 AM 12:30 PM	398	56	193
Time of Day	12:31 PM to 2:30 PM	650	97	365
	2:31 PM to 4:30 PM	783	105	458
	4:31 PM to 6:30 PM	786	123	441
	6:31 PM to 8:30 PM	480	74	285
	8:31 PM to 10:30 PM	278	52	179
	10:31 PM to 11:59 PM	87	14	53
	Unknown	72	23	16
	January	97	21	54
	February	106	15	44
	March	164	34	82
	April	257	48	145
	Мау	513	100	279
Month of Year	June	645	104	331
WORTHOUTED	July	973	108	614
	August	569	75	313
	September	367	63	205
	October	173	37	75
	November	110	16	47
	December	66	15	33
	Sunday	905	130	537
	Monday	451	63	236
	Tuesday	313	68	153
Day of Week	Wednesday	272	43	137
	Thursday	323	59	142
	Friday	504	78	280
	Saturday	1272	195	737

	Table 13 • VESSEL	INFORMATI	ON 2022	
		Vessels Involved 5222	Deaths 636	Injuries 2222
	Aluminum	1043	174	426
	Fiberglass	3993	294	1631
	Plastic	174	86	61
	Rubber/Vinyl/Canvas	73	39	28
Hull Material	Steel	29	0	18
	Wood	47	6	16
	Other	2	0	0
	Unknown	2 0 191 37		42
	No Engine	301	186	107
	10 hp or less	106	26	34
Horsepower	11 - 25 hp	122	17	47
	26 - 75 hp	401	61	174
	76 - 150 hp	1078	122	516
	151 - 250 hp	791	66	354
		1210	57	437
	Over 250 hp			_
	Unknown	1543	101	553 179
	2022 2021	433 447	36 34	206
	2019 - 2020	456	44	200
Year Built	2017-2018	313	30	129
	2015 - 2016	253	33	106
	2009 - 2014	470	31	203
	Prior to 2009	2598	266	1018
	Unknown	582	162	175
	Less than 16 feet	1447	264	769
	16 feet to <26 feet	2499	273	1103
Length	26 feet to <40 feet	811	37	190
_0.1911	40 feet to 65 feet	389	7	62
	More than 65 feet	69	0	4
	Unknown	337	55	94

		Table 14 - REN		AL STATUS	S OF VE	SSELS IN	VOLVED	<b>OF VESSELS INVOLVED IN ACCIDENTS</b>	ENTS			
		Ves	Vessels			Dea	Deaths			Inju	Injuries	
	# of		Not	Unknown	# of		Not	Unknown	# of		Not	Unknown
	Vessels	Rented	Rented	if rented	Deaths	Rented	rented	if rented	Injuries	Rented	rented	if rented
All Vessels	5552	663	3934	955	636	62	443	131	2222	294	1583	345
Airboat	35	0	34	1	7	0	7	0	32	0	30	2
Auxiliary sailboat	217	9	181	27	6	0	5	1	23	1	14	8
Cabin motorboat	780	11	669	100	25	1	17	7	163	5	131	27
Canoe	55	5	39	11	46	4	32	10	16	1	11	4
Houseboat	52	6	33	10	2	0	2	0	19	3	16	0
Inflatable	20	2	12	9	14	1	6	4	8	0	5	3
Kayak	142	5	66	38	86	4	69	23	47	3	32	12
Open motorboat	2531	138	1990	403	292	11	232	49	1158	68	916	174
Personal watercraft	966	332	509	155	54	17	31	9	549	158	314	77
Pontoon	509	147	285	77	54	22	26	6	147	52	76	19
Rowboat	19	1	11	7	11	1	3	7	13	0	13	0
Sailboat (only)	34	3	26	5	6	0	5	1	14	3	8	3
Sailboat (unknown)	0	0	0	0	0	0	0	0	0	0	0	0
Standup paddleboard	26	-	14	11	17	1	10	6	9	0	3	6
Other	23	0	12	11	5	0	3	2	3	0	2	1
Unknown	113	0	20	93	11	0	2	6	21	0	12	6

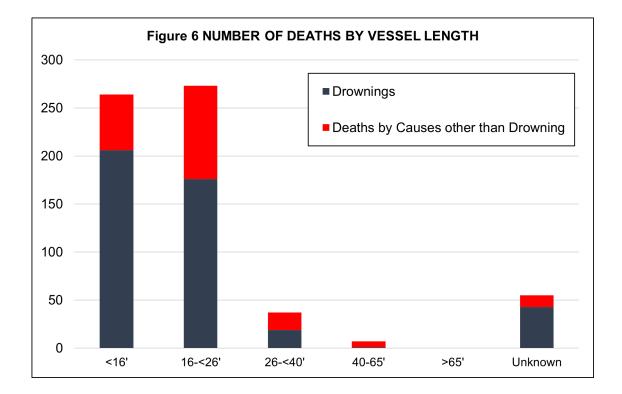


Table	15 • NUMBE	ER & PERCENT OF DE	EATHS BY VES	SEL LENGTH
Length	Drownings	Deaths by Causes other than Drowning	Total Deaths	Percent of Deaths from Drowning
<16'	206	58	264	78%
16-<26'	176	97	273	64%
26-<40'	19	18	37	51%
40-65'	1	6	7	14%
>65'	0	0	0	0%
Unknown	43	12	55	78%
Total	445	191	636	70%

## **ACCIDENT TYPES**

## **Explanation of Accident Types Section**

The following section contains six tables that examine data related to the events in accidents (termed "accident types"). The tables focus on these events and break down information by state, vessel type, vessel length, engine type, and propulsion.

In the Coast Guard's national database, there are four fields that can be used to define the series of events in an accident. By events, we mean the series of occurrences during an accident. If a wave broke over a vessel causing it to take on water, capsize, and eject its occupant, the Coast Guard would categorize this accident by three events. First, there was a flooding/swamping. Second, there was a capsizing. Third, there was an ejection.

With the exception of one table, the tables and figures in this report focus only on the first event in the sequence. The rationale for providing only the first accident type is to keep the tables simplistic; if we added the second, third, and fourth events in the boating sequence, our accident, casualty, and damage totals would not match up because they would be double-counting the accidents, casualties, and damages for cases that had more than one event.

## Accident, Vessel & Casualty Numbers by Primary Accident Type (Table 16, Page 36)

This table focuses on the first event in a boating accident and provides information on the number of accidents, vessels, and casualties attributed to that first event. The deaths section is also separated by the categories drownings and non-drownings.

## Five-year Summary of Frequency of Events in Accidents & Casualties Nationwide (Table 17, Pages 37-40)

As mentioned in the second paragraph, there are four fields that can be used to define the series of events in an accident. This table focuses on the first three events in an accident and the number of casualties associated with each event. The Coast Guard leaves out the fourth because it is not a standardized field.

Using the example in the opening paragraphs, the flooding/swamping would fall under the intersection of the column "First Event in an Accident" and the row "Flooding/swamping". The capsizing would be marked under the column "Second Event in an Accident" and the row "Capsizing". Finally, the ejection would be marked under the column "Third Event in an Accident" and the row "Ejected from Vessel".

This table focuses on the frequency that these events occurred nationally and the total number of deaths that were associated with each accident type. If we turn back to our example and focus on deaths as a result of flooding/swamping, we see that there were 422 accidents where flooding/swamping was the first event in the boating accident. There were 74 deaths associated with this first event type. However, there were other accidents that involved a flooding/swamping as a second or third occurrence. There were 184 accidents and 14 deaths associated with flooding/swamping as a second event and 43 accidents and 10 deaths associated with flooding/swamping as a third event. All combined, you get the sixth column of the table that looks at how many deaths were associated with an event that occurred either as the first, second, or third occurrence in an accident. Please note that in this table deaths are not separated by first, second and third event. In the example, there were 649 accidents and 98 deaths associated with flooding/swamping as a first, second, or third event.

This table can be difficult to understand, especially when the reader is under the expectation that the tallies of the casualty columns will equal the numbers published at the front of this report that reference the number of reportable accidents and deaths.

## Number of Vessels in Accidents by Vessel Length & Primary Accident Type (Table 18, Page 41)

This table displays the types of accidents by the length of vessel. The table lists vessel length by foot for vessels of lengths 4 ft-39 ft. After 39 ft, information is categorized in ranges. This table also provides information about the number of casualties and vessels associated by length of vessel.

Number of Vessels in Accidents by Vessel Type & Primary Accident Type (Table 19, Page 42) This table examines the first event of a boating accident for all vessels involved in an accident. It also provides information about the casualties associated with each vessel type.

Number of Vessels in Accidents by Primary Accident Type & Propulsion Type (Table 20, Page 43) This table provides information about the number of vessels involved in accidents by primary accident type and propulsion type.

**Number of Vessels with Propellers by Primary Accident Type & Engine Type (Table 21, Page 43)** This table provides information about the number of casualties and vessels associated by primary accident type and engine type. This table is a subset of information from Table 20 and represents all vessels propelled by a propeller.

Table 16 - ACCIDENT,	-	L & CASUAL	-TY NUMBER	VESSEL & CASUALTY NUMBERS BY PRIMARY ACCIDENT TYPE 2022	א ACCIDEN	Т ТҮРЕ 2022	
	Accidents	Vessels Involved	Drowning Deaths	Other Deaths	Total Deaths	Total Injuries	Damages
All Accident Types	4040	5552	445	191	636	2222	\$62,794,981.83
Capsizing	234	245	108	13	121	103	\$1,452,158.01
Carbon monoxide poisoning	3	3	0	0	0	5	\$0.00
Collision with fixed object	477	563	17	40	25	314	\$7,650,945.98
Collision with floating object	57	62	9	2	8	28	\$873,007.45
Collision with commercial vessel	22	45	2	4	9	34	\$547,267.00
Collision with governmental vessel	10	20	0	+	L-	2	\$94,295.00
Collision with recreational vessel	1085	2263	6	30	68	512	\$15,713,402.70
Collision with submerged object	203	205	6	1	10	74	\$4,490,212.55
Departed vessel	116	126	59	11	02	43	\$88,366.00
Ejected from vessel	172	192	19	7	26	161	\$694,903.55
Electrocution	0	0	0	0	0	0	\$0.00
Fall in vessel	126	143	2	2	4	138	\$372,874.09
Falls overboard	260	272	141	34	175	86	\$86,635.00
Fire/explosion (fuel)	130	183	1	2	3	109	\$6,608,421.00
Fire/explosion (non-fuel)	99	77	0	0	0	6	\$4,228,594.00
Fire/explosion (unknown origin)	36	60	0	2	2	10	\$4,332,258.00
Flooding/swamping	422	442	60	14	74	93	\$6,827,840.00
Grounding	350	364	4	8	12	208	\$8,158,792.50
Person struck by propeller	33	35	0	5	5	30	\$4,500.00
Person struck by vessel	24	31	0	4	4	26	\$36,000.00
Sinking	0	0	0	0	0	0	\$0.00
Skier mishap	183	188	8	7	15	197	\$70,509.00
Sudden medical condition	0	0	0	0	0	0	\$0.00
Other	31	33	0	4	4	28	\$464,000.00

Table 17 • FREQUENCY OF EVE	NTS IN		DENT	s & CAS	UALTI	ES NAT	IONWIDE
2022	First Event in an Accident	Second Event in an Accident	Third Event in an Accident	Total Times Event Occurred in all Accidents	Deaths Associated with Event in all Accidents	Injuries Associated with Event in all Accidents	Damages Associated with Event in all Accidents
Capsizing	234	197	52	483	178	212	\$4,369,238.01
Carbon monoxide poisoning	3	1	0	4	1	5	\$0.00
Collision with fixed object	477	95	13	585	59	366	\$11,531,388.91
Collision with floating object	57	1	1	59	9	29	\$1,110,007.45
Collision with commercial vessel	22	0	2	24	7	37	\$719,267.00
Collision with governmental vessel	10	5	0	15	1	4	\$135,815.55
Collision with recreational vessel	1085	75	2	1162	42	531	\$17,721,991.61
Collision with submerged object	203	2	0	205	10	74	\$4,535,212.55
Departed vessel	116	78	18	212	97	96	\$4,312,791.00
Ejected from vessel	172	580	232	984	294	883	\$10,139,037.16
Electrocution	0	0	0	0	0	0	\$0.00
Fall in vessel	126	217	53	396	25	566	\$7,620,353.09
Falls overboard	260	33	5	298	187	125	\$664,085.00
Fire/explosion (fuel)	130	2	1	133	3	113	\$6,627,421.00
Fire/explosion (non-fuel)	66	2	1	69	0	11	\$4,237,594.00
Fire/explosion (unknown origin)	36	0	0	36	2	10	\$4,332,258.00
Flooding/swamping	422	184	43	649	98	182	\$14,198,552.00
Grounding	350	77	22	449	24	270	\$10,245,390.50
Person struck by propeller	33	110	30	173	41	182	\$662,416.68
Person struck by vessel	24	181	23	228	30	264	\$1,821,244.02
Sinking	0	117	55	172	27	30	\$9,659,246.00
Skier mishap	183	3	0	186	17	199	\$71,509.00
Sudden medical condition	0	0	0	0	0	0	\$0.00
Other	31	9	1	41	4	38	\$858,100.00
Unknown	0	0	0	0	0	0	\$0
2021							
Capsizing	264	279	55	598	210	226	\$5,264,097.00
Carbon monoxide poisoning	8	0	0	8	6	13	\$15,000.00
Collision with fixed object	508	79	9	596	46	447	\$9,087,710.10
Collision with floating object	49	4	0	53	7	26	\$813,450.00
Collision with commercial vessel	18	0	0	18	9	21	\$160,545.00
Collision with governmental vessel	10	3	0	13	0	4	\$170,001.00
Collision with recreational vessel	1226	64	5	1295	33	768	\$14,259,172.64
Collision with submerged object	209	3	0	212	11	80	\$3,772,330.49

Table 17 Continued - FREQUENCY O	F EVE	NTS IN	ACCI	DENTS	& CASI	JALTIES	S NATIONWIDE
2021 continued	First Event in an Accident	Second Event in an Accident	Third Event in an Accident	Total Times Event Occurred in all Accidents	Deaths Associated with Event in all Accidents	Injuries Associated with Event in all Accidents	Damages Associated with Event in all Accidents
Departed vessel	158	114	47	319	130	134	\$3,428,406.00
Ejected from vessel	189	568	229	986	280	927	\$8,836,437.81
Electrocution	0	1	0	1	1	0	\$1,000.00
Fall in vessel	149	226	47	422	16	597	\$5,285,969.39
Falls overboard	273	47	11	331	188	137	\$430,254.00
Fire/explosion (fuel)	138	2	0	140	1	117	\$6,386,889.38
Fire/explosion (non-fuel)	93	1	1	95	5	18	\$6,085,373.00
Fire/explosion (unknown origin)	38	1	0	39	2	4	\$5,417,050.00
Flooding/swamping	461	222	84	767	81	235	\$26,484,046.00
Grounding	308	72	26	406	23	242	\$13,613,056.42
Person struck by propeller	45	112	31	188	24	191	\$141,670.00
Person struck by vessel	30	201	30	261	20	328	\$1,296,933.91
Sinking	0	132	114	246	16	41	\$9,299,622.00
Skier mishap	213	13	1	227	11	257	\$26,050.00
Sudden medical condition	3	2	1	6	1	5	\$0.00
Other	49	11	0	60	2	51	\$1,491,335.00
Unknown	0	0	0	0	0	0	\$0.00
2020							
Capsizing	309	315	72	696	226	284	\$6,195,036.34
Carbon monoxide poisoning	15	0	0	15	5	41	\$2,000.00
Collision with fixed object	542	93	19	654	69	445	\$7,027,142.79
Collision with floating object	82	4	0	86	5	28	\$966,005.00
Collision with commercial vessel	15	1	1	17	2	10	\$195,005.00
Collision with governmental vessel	10	2	0	12	0	3	\$92,600.00
Collision with recreational vessel	1379	89	10	1478	68	854	\$14,437,120.93
Collision with submerged object	149	1	0	150	6	51	\$2,810,220.14
Departed vessel Ejected from vessel	171	97	19	287	119	130	\$2,153,967.00
Electrocution	248	717	475	1440	351	1186	\$9,893,195.46
Fall in vessel	3	1	0	4	2	5	\$20,950.00
Falls overboard	169	259	54	482	22	691	\$4,360,490.00
	335	49	5	389	200	189	\$408,911.00
Fire/explosion (fuel)	176	1	2	179	3	171	\$7,505,475.00
Fire/explosion (non-fuel)	87	3	1	91	8	24	\$6,350,364.88
Fire/explosion (unknown origin)	53	0	0	53	0	21	\$5,323,450.00
Flooding/swamping	589	343	75	1007	117	284	\$24,329,920.03

Table 17 Continued • FREQUENCY O	F EVE	NTS IN		DENTS	& CASI	JALTIE	S NATIONWIDE
2020 continued	First Event in an Accident	Second Event in an Accident	Third Event in an Accident	Total Times Event Occurred in all Accidents	Deaths Associated with Event in all Accidents	Injuries Associated with Event in all Accidents	Damages Associated with Event in all Accidents
Grounding	484	80	34	598	34	319	\$12,528,222.55
Person struck by propeller	55	148	44	247	39	241	\$511,850.00
Person struck by vessel	30	314	26	370	54	442	\$1,717,942.00
Sinking	0	112	99	211	40	62	\$7,737,499.00
Skier mishap	303	28	2	333	22	353	\$142,285.00
Sudden medical condition	0	0	0	0	0	0	\$0.00
Other	61	12	1	74	4	60	\$557,601.00
Unknown	0	0	0	0	0	0	\$0.00
2019							
Capsizing	242	240	50	532	185	234	\$6,672,595.09
Carbon monoxide poisoning	12	1	0	13	5	32	\$650.00
Collision with fixed object	493	101	13	607	53	380	\$11,611,781.57
Collision with floating object	68	7	3	78	14	30	\$1,124,094.75
Collision with commercial vessel	21	3	2	26	2	19	\$381,306.78
Collision with governmental vessel	8	0	0	8	0	4	\$56,200.00
Collision with recreational vessel	1071	83	15	1169	47	690	\$12,097,263.60
Collision with submerged object	134	1	0	135	9	59	\$1,675,134.20
Departed vessel	97	41	7	145	73	69	\$333,423.01
Ejected from vessel	181	555	347	1083	277	910	\$10,425,432.09
Electrocution	0	2	0	2	0	5	\$30,000.00
Fall in vessel	131	252	43	426	26	637	\$7,903,634.68
Falls overboard	299	27	7	333	194	151	\$143,451.19
Fire/explosion (fuel)	134	5	0	139	0	107	\$4,123,621.71
Fire/explosion (non-fuel)	59	3	2	64	2	16	\$6,496,195.00
Fire/explosion (unknown origin)	46	0	0	46	3	9	\$6,499,679.00
Flooding/swamping	399	246	58	703	76	206	\$16,930,794.83
Grounding	413	56	20	489	25	294	\$6,792,155.24
Person struck by propeller	39	101	31	171	35	155	\$100,402.19
Person struck by vessel	19	225	25	269	34	338	\$956,315.00
Sinking	0	86	70	156	18	37	\$7,901,198.44
Skier mishap	259	13	0	272	13	301	\$33,833.01
Sudden medical condition	0	2	0	2	1	1	\$0.00
Other	43	11	3	57	5	55	\$68,550.00
Unknown	0	0	0	0	0	0	\$0.00

Recreational Boating Statistics 2022

Table 17 Continued - FREQUENCY C	OF EVE	NTS IN		DENTS	& CAS	UALTIE	S NATIONWIDE
2018	First Event in an Accident	Second Event in an Accident	Third Event in an Accident	Total Times Event Occurred in all Accidents	Deaths Associated with Event in all Accidents	Injuries Associated with Event in all Accidents	Damages Associated with Event in all Accidents
Capsizing	266	223	62	551	214	269	\$4,245,361.27
Carbon monoxide poisoning	8	2	0	10	8	8	\$0.00
Collision with fixed object	470	84	17	571	71	348	\$8,793,679.73
Collision with floating object	59	5	0	64	11	26	\$499,957.49
Collision with commercial vessel	25	0	1	26	1	18	\$753,995.00
Collision with governmental vessel	6	3	0	9	1	4	\$71,501.00
Collision with recreational vessel	1028	65	10	1103	45	689	\$11,044,445.18
Collision with submerged object	151	1	0	152	10	45	\$1,274,500.69
Departed vessel	119	69	20	208	86	100	\$857,197.37
Ejected from vessel	197	585	276	1058	305	983	\$7,858,064.03
Electrocution	0	0	0	0	0	0	\$0.00
Fall in vessel	128	191	57	376	39	535	\$4,205,491.69
Falls overboard	274	49	6	329	171	158	\$455,847.70
Fire/explosion (fuel)	145	2	1	148	4	99	\$3,906,954.54
Fire/explosion (non-fuel)	70	3	0	73	0	11	\$6,235,940.37
Fire/explosion (unknown origin)	41	0	0	41	0	7	\$3,291,006.75
Flooding/swamping	443	244	78	765	105	227	\$13,031,049.80
Grounding	367	64	33	464	26	298	\$6,901,793.84
Person struck by propeller	45	107	25	177	25	177	\$80,388.70
Person struck by vessel	31	204	34	269	23	348	\$837,487.82
Sinking	0	144	87	231	20	45	\$6,343,604.00
Skier mishap	230	8	1	239	10	264	\$2,600.00
Sudden medical condition	0	0	0	0	0	0	\$0.00
Other	42	17	1	60	2	53	\$498,108.00
Unknown	0	0	0	0	0	0	\$0.00

### Accident Types

		Та	abl	le 18	3 • N	IUN	1BE	ER C	)F V	ESS	SEL				CIDI ENT			BY V	/ES	SEI	LL	EN	IGT	Ή 8	ξ Ρ	RII	MA	RY		
	Total vessels involved	Capsizing	Carbon monoxide poisoning	Collision with fixed object	Collision with floating object	Collision with commercial vessel	Collision with governmental vessel	Collision with recreational vessel	Collision with submerged object	Departed vessel	Ejected from vessel	Electrocution	Fall in vessel	Falls overboard	Fire/explosion (fuel)	Fire/explosion (non-fuel)	Fire/explosion (unknown)	Flooding/ swamping	Grounding	Person struck by propeller	Person struck by vessel	Sinking	Skier mishap	Sudden medical condition	Other	Unknown	Drownings	Other Deaths	Total Deaths	Injuries
All lengths	5552	245	3	563	62	45	20	2263	205	126	192	0	143	272	183	77	60	442	364	35	31	0	188	0	33	0	445	191	636	2222
3 feet	0002	0	_		0	0	0	0	0	0	0	0		0	0	0		0	0	0	0	0	0	0	0	0		0	000	0
4 feet	2	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0
5 feet	3	1	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
6 feet	12	3	0		0	0	2	3	0	0	1	0	0	0	0	0	-	-	1	0	0	0	0	0	0	0	4	0	4	4
7 feet	10	1	0		1	0	0	4	0	0	0	0	1	0	0	0			0	0	0	0	0	0	0	0	0	0	-	3
8 feet	55	17	0		0	0	0	19	2	0	3	0	0	4	0	0		5	1	0	0	0	0	0	0	0		2	21	27
9 feet	83	7	0	•	0	0	0	43	1	2	8	0	0	7	3	0		3	2	0	0	0	2	0	0	0	9	1	10	43
10 feet	390	40			1	0	0	189	1	3	36	0	11	35	8	3		13	8	0	7	0	7	0	1	0	46	14	60	227
11 feet	460	6	-		2	0	2	273	4	4	55	0		24	5	2		-	9	0	3	0	8	0	0	0	20	16	36	249
12 feet	138	25		-	1	0	1	50	4	0	2	0	2	19	1	0			6	0	0	0	1	0	0	0	31	6	37	56
13 feet	51	16	-	-	0	0	0	11	3	0	2	0	3	3	0	0	_	5	0	0	0	0	0	0	1	0	14	5	19	22
14 feet	127 116	18 13	-		3 2	2	0	27 26	5 9	2	5	0	1	21 10	3	0	•	23 27	4	0	0	0	1	0	0	0	34 27	7	41 34	66 69
15 feet			0				-		-	-	-	-	v	-		-	-		-	-	1	0	1	-		0		7		
Under 16 ft	1447	147 10	0	-	10 4	3 0	5 0		30 11	13	115 6	0	32 3	125 14	22 1	5 1	4		34 8	0 0	11 1	0	20	0	4	0	206 31	ос 6	264 37	769 78
16 feet 17 feet	172 234	10		-	4	1	1	47 66	11	8		0	3 7	13	5	2	-		0 13	2	0	0	8	0	2	0		9	37	131
18 feet	280	9	-		3	4	1	95	17	7		0	. 8	14	-	1	-	26	28	0	1	0	22	0	- 1	0	20	15	35	135
19 feet	194	8	-		3	0	1	51	5	4	4	0	9	6	9	1	0	24	22	1	1	0	20	0	2	0	19	8	27	84
20 feet	355	2			4	2	0		26	16	11	0	7	9	16	4	3		28	4	2	0	26	0		0		16	38	160
21 feet	295	6	2	26	5	1	1	106	22	10	4	0	8	14	12	3	3	25	24	3	2	0	18	0	0	0	11	18	29	131
22 feet	287	6	0	42	1	1	0	105	12	11	3	0	14	8	18	2	1	20	22	2	1	0	15	0	3	0	14	7	21	129
23 feet	224	0	0	22	6	1	0	89	8	7	7	0	7	5	7	3	1	14	25	3	2	0	15	0	2	0	8	5	13	76
24 feet	282	5	0		4	3	2	110	14	13	1	0	8	9	17	4	1	11	22	5	5	0	22	0	2	0	16	9	25	116
25 feet	176	1	0	24	3	1	2	71	6	5	4	0	5	10	3	1	1	11	16	2	1	0	9	0	0	0	7	4	11	63
16 ft to less than 26 ft	2499	63	2	259	39	14	8	865	132	88	54	0	76	102	101	22	11	245	208	22	16	0	156	0	16	0	176	97	273	1103
26 feet	103	0	0	15	0	2	0	44	5	1	2	0	2	2	5	1	2	10	9	0	0	0	3	0	0	0	3	2	5	23
27 feet	81	1	0	-	1	1	0	-	4	5	1	0		4		1	-	8	8	1	0	0	v	0	-		-	-	7	25
28 feet	80	2			0	0	0	29	1	1	1	0	3	1		3			8	0	2	0		0	1	0	Ŭ	3	3	41
29 feet	51	0	-	-	0	2	0		2	1	0		3	1		2			5	0	0	0		0	0		-	1	1 5	17
30 feet	78	2		-	1	2	0	32	1	1 1	1	0	0	3		6			8 4	2	0	0	0	0	2	0		1	5	14 11
31 feet 32 feet	47 54	0	-		1 2	0	2	16 28	2	1 1	0	0	1	2		1		6	4	0	0	0		0	0	-	•	0	1	11 6
32 feet 33 feet	54 48	0	-		2	1	0	28 18	0	1	1	0	0	1		8	-	2 5	7 5	0	0	0	0	0	0	0	-	1	2	0 2
33 feet	40 51	1	0		1	1	0		0	3	0		3	0		2		1	4	1	0	0	0	0	0	-	-	4	2 5	2
35 feet	51	0	-		1	0	0	23	1	0	0		2	0		1	4	2	6	1	0	0		0	1	0		- 0	-	11
36 feet	42	0	-	-	0	1	0	18	2	0	0		1	1		3			1	0	0	0		0		0	-	1	1	3
37 feet	40	0	-		0	0	0	15	0	1	-	-	0	0		2		2	1	1	1	0	0	0	0	0	1	2	3	6
38 feet	54	1	0	6	1	1	0	27	4	0	1	0	1	1	0	2			5	0	0	0	0	0	0	0	1	0	1	7
39 feet	31	1	0		0	1	0		1	0	1	0	0	1		1			4	0	0	0		0	0	0	1	1	2	15
26 ft to less than 40 ft	811	8	1	103	8	13	3	341	24	16	8	0	19	17	36	34	32	54	75	6	3	0	5	0	5	0	19	18	37	190
40 ft to 65 ft	389	0	0	49	2	8	0	221	11	4	2	0	5	1	15	14	7	19	24	4	0	0	1	0	2	0	1	6	7	62
Over 65 ft	69	1	0	11	0	4	0	42	2	0	0	0	0	1	2	0	1	1	4	0	0	0	0	0	0	0	0	0	0	4
Unknown	337	26	0	23	3	3	4	148	6	5	13	0	11	26	7	2	5	20	19	3	1	0	6	0	6	0	43	12	55	94

### Accident Types

	Injuries	22	32	23	63	16	19	ω	47	158	549	147	13	14	0	၈	С	21
т		3222			-			_		~								
۸I	Total deaths	636	7	6	25	46	2	14	86	292	54	54	11	6	0	17	5	-
Ц	Deaths by causes other than drowning	191	2	5	10	8	2	0	9	101	30	18	2	0	0	1	0	9
ГYF	Drownings	445	5	-	15	38	0	14	80	191	24	36	6	6	0	16	5	S
Ļ	Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2E	Other	33	0	5	2	0	0	0	0	16	3	4	0	2	0	0	0	-
	Sudden medical condition	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Р Н С	Skier mishap	188	0	0	-	0	0	0	0	144	19	24	0	0	0	0	0	0
PRIMARY ACCIDENT TYPE WITH SSEL TYPE 2022	Sinking	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
KIM/	Person struck by vessel	31	0	0	с	0	0	0	0	6	10	ი	0	0	0	0	0	0
ESS ESS	Person struck by propeller	35	0	0	4	0	2	0	0	6	0	8	0	0	0	0	0	N
PE & I & VE										-								
TYPE PE & \	Grounding	364	3	25	74	2	3	-	<b>~</b>	204	24	17	0	0	0	0	0	10
TYPE EL TYF	Flooding/swamping	442	4	8	53	4	9	0	16	315	12	6	1	3	0	0	4	7
SSE	Fire/explosion (unknown origin)	60	0	-	29	0	5	0	0	14	-	Э	0	0	0	0	0	~
FS BY VESS	Fire/explosion (non-fuel)	77	0	10	31	0	2	0	0	26	5	2	0	0	0	0	0	-
BY ≜SL	Fire/explosion (fuel)	183	0	5	37	0	5	0	0	92	18	24	0	0	0	0	0	2
TS CC	Falls overboard		0	e	14	14	-	0	25		42	28	3	2	0	17	2	
)EN BY		3 272						_		114				0	_		0	_
ELS IN ACCID CASUALTIES	Fall in vessel	143	-	2	15	0	0	0	0	81	32	8	0	0	0	0	0	4
ACAC	Electrocution	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SU/S	Ejected from vessel	192	-	2	8	0	0	4	2	63	104	5	0	0	0	2	0	-
CAELS	Departed vessel	126	0	2	11	0	0	0	2	57	7	39	1	2	0	١	1	З
VESSELS IN ACCIDENTS BY VESS R OF CASUALTIES BY CASUALTY	Collision with submerged object	205	-	6	25	N	-	0	-	143	10	10	0	-	0	0	0	2
	Collision with recreational vessel	2263	14	108	353	-	23	0	11	827	601	251	1	15	0	4	6	48
Table 19 - NUMBER OF NUMBE	Collision with governmental vessel	20 2	0	0	4	0	0	0	0	6	5	-	0	0	0	0	0	-
	Collision with commercial vessel	45	2	З	7	0	-	0	0	20	0	2	0	0	0	0	7	e
<b>N</b> N	Collision with floating object	62 4	0	З	5	0	0	-	-	38	9	9	٦	0	0	0	1	0
• 6	Collision with fixed object	563 (	∞	26	100	2	e	З	5		75	54	8	0	0	2	0	Ξ
le 1	Carbon monoxide exposure	3 56	0	0	11(	0	0	0	0	2 266	0	3 0	0	0	0	0	0	` 0
Tab		10	-	5	e	0	0	-	~	~	~	5	4	6	0	0	2	m
•	Capsizing	245				30		11	78	72	22				-	-		
	All accident types	5552	35	217	780	55	52	20	142	2531	966	509	19	34	0	26	23	113
		All vessels	Airboat	Auxiliary sailboat	Cabin motorboat	Canoe	Houseboat	Inflatable	Kayak	Open motorboat	Personal watercraft	Pontoon	Rowboat	Sailboat (only)	Sailboat (unknown)	Standup paddleboard	Other	Unknown

### Accident Types

	Injuries	2222	32	93	1431	14	617	22			Injuries	281	942	0	179	29
	Total deaths	636 2	2	180	362 1	9	69	5		1	Total deaths	38	296	0	24	4
ш	Other deaths	1916	2	171	1283	0	37 69	35	ш		Other deaths	19	99 2	0	8	N
TΥΡ	Drownings	445、	5	163	234 '	9	32	7	ТҮР		Drownings	19	197	0	16	2
	Unknown		0	0	0	0	0	0	NE		Unknown	0	0	0	0	0
<b>PROPULSION</b>	Other						5		ENGINE		Other	4	13	0	4	ю
OPL	Sudden medical condition						0		ంర	;	Sudden medical condition	0	0	0	0	0
	Skier mishap	188	0	0	163	0	25	0	ТҮРЕ		Skier mishap	64	66	0	31	2
щ	Sinking	0	0	0	0	0	0	0			Sinking	0	0	0	0	0
ТҮРЕ	Person struck by vessel	31					12		PRIMARY ACCIDENT		Person struck by vessel	4	11	0	4	0
ACCIDENT	Person struck by propeller						0		CCI		Person struck by propeller	8	20	0	5	~
CID	Grounding						40		γ A		Grounding	98	128	-	58	21
	Flooding/swamping	442	4	23	372	3	25	15	MAF		Flooding/swamping	77	250	-	33	
ARY	Fire/explosion (unknown origin)	60	0	0	51	0	2	7	PRI		Fire/explosion (unknown origin)	26	11	0	10	4
RIM	Fire/explosion (non-fuel)	77	0	0	71	0	5	١	BΥ		Fire/explosion (non-fuel)	40	19	0	2	5
BY PRIMARY	Fire/explosion (fuel)	183	0	0	157	0	24	7	WITH PROPELLERS		Fire/explosion (fuel)	56	54	0	41	9
	Falls overboard	272	0	60	162	2	43	5	ELL		Falls overboard	15	126	0	16	5
DEN	Fall in vessel	143	-	0	104	0	34	4	SOP		Fall in vessel	14	68	0	22	0
CCII	Electrocution	0		0	0	0	0	0	I D H		Electrocution	0	0	0	0	0
IN ACCIDENTS	Ejected from vessel	192					106				Ejected from vessel	9	65	0	c	2
ELS	Departed vessel						10				Departed vessel	15	76		12	~
ESS	Collision with submerged object	205	-	З	181	1	17	2	ESS		Collision with submerged object	42	105	-	24	6
OF VES	Collision with recreational vessel	2263	14	17	1518	15	644	55	OF V		Collision with recreational vessel	438	895	-	138	46
	Collision with governmental vessel	20	0	0	15 '	0	5	0			Collision with governmental vessel	N	8	0	2	ю
- NUMBER	Collision with commercial vessel	45		0		0	2	5	UME		Collision with commercial vessel	13	21	0	0	2
	Collision with floating object	62		З		0	7	1	-		Collision with floating object	7	36	0	7	-
le 20	Collision with fixed object	563	ω	20	430	0	92	13	Table 21 - NUMBER		Collision with fixed object	113	272	0	38	7
Table	Carbon monoxide		0				0		-		Carbon monoxide	e	0	0	0	0
	Capsizing	245	-	125			22				Capsizing	4	72	0	4	2
	Total vessels involved	5552	35	267	3959	34	1120	137		:	Total vessels involved	1049	2316	4	459	131
		All Types	Air Thrust	Manual	Propeller	Sail	Water Jet	Unknown			Engine Type	Inboard	Outboard	Pod drive	Sterndrive	Unknown

# OPERATOR & PASSENGER INFORMATION

#### Explanation of Operator/Passenger Information Section

The following section contains eleven tables and figures that examine data relating to the operators and passengers in accidents. Information is displayed by age, boating safety instruction, type of injury, and cause of death.

#### **Operator Information (Table 22, Page 46)**

This table provides information about the operator. Information covers a variety of topics including age, operator's experience, number of people onboard the vessel, and the boating safety instruction level of the operator.

Examples of "other" boating safety instruction include licenses issued by the Coast Guard, military training, police academy training, rental operator training, commercially-available courses, and camp training. Informal training signifies that the operator did not receive formal instruction, but rather learned from experience.

#### Number of Deaths by Type of Operator Boating Instruction (Table 23 & Figure 7, Page 47)

This table and accompanying figure focus on boating safety instruction for those operators who had a person die on their vessel. The table and figure both focus on instruction provided by the U.S. Coast Guard Auxiliary, U.S. Power Squadrons, American Red Cross, and state sources. The figure examines only deaths where the operator instruction was known.

#### Number of Deaths by Vessel Type (Table 24 & Figure 8, Page 48)

This table documents deaths by vessel type with a focus on drownings. It also provides the percentage of deaths by drowning by type of vessel.

#### Percentage of Deaths by Vessel Type, 2008-2022 (Figure 9 & Table 25, Page 49)

This table and accompanying figure focus on the percentage of deaths that occurred on each vessel type over the years. The figure may be interpreted by measuring the upper and lower bounds of the color-coded vessel type to obtain the percentage of deaths attributed to that vessel type within the year.

Please note that the percentages in the table have been rounded up.

#### Number of Deceased Victims by Age & Vessel Type (Table 26 and Figure 9a, Pages 50 and 51)

This table documents the age of fatal accident victims by vessel type, and delineates the number of drownings, non-drownings, and total deaths by age. The accompanying figure charts the percent of deceased victims by age group and vessel type.

#### Percent of Injured Victims by Age & Vessel Type (Figure 9b and Table 27, Pages 51 and 52)

This figure charts the percent of injured victims by age group and vessel type, and the accompanying table documents the age of injured victims by vessel type.

#### Nature of Primary Injury Type by Area of Injury 2022 (Table 28, Page 53)

This table focuses on the nature and area of the primary injury of injured victims.

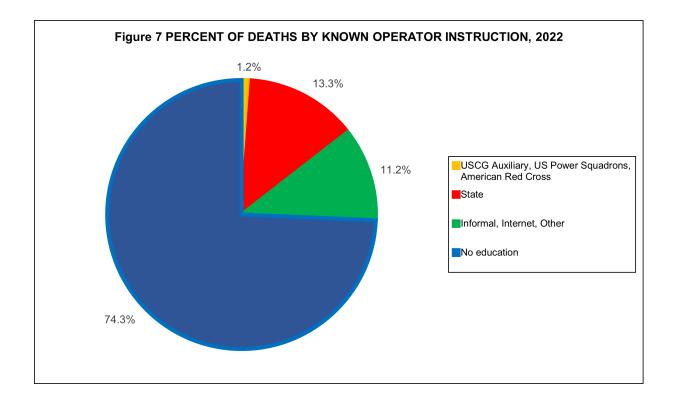
## Number of Injured Victims under Age 18 by Age Group and Injury Type on Personal Watercraft, 2022 (Figure 10, Page 53)

This figure focuses on the number of injured victims from personal watercraft for specific age groups and by type of injury.

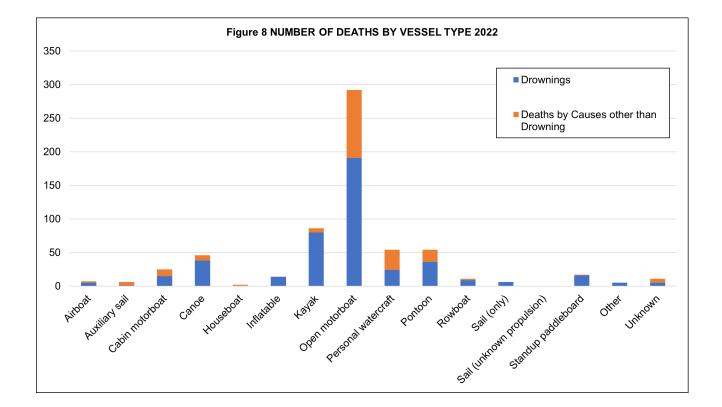
Vessels Involved         Injuries           552         636         2222           Age of Operator         13 to 18 years         248         20         148           19 to 25 years         506         57         278           26 to 35 years         664         235         825           Over 55 years         1664         235         825           Over 55 years         1270         207         523           Unknown         356         26         91           No operator         820         3         21           No experience         57         9         35           Under 10 hours         1010         113         513           10 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Five         222         17         137 <th>Table 2</th> <th>2 • OPERATOR INF</th> <th>ORMATIC</th> <th>N 2022</th> <th></th>	Table 2	2 • OPERATOR INF	ORMATIC	N 2022	
Age of Operator         12 years and under         16         1         8           Age of Operator         13 to 18 years         248         20         148           19 to 25 years         506         57         278           26 to 35 years         672         87         328           36 to 55 years         1664         235         825           Over 55 years         1270         523         Unknown         356         26         91           No operator         820         3         21         No experience         57         9         35           Under 10 hours         523         65         261         10 to 100 hours         1010         113         513           10 to 100 hours         1010         113         513         101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237         Unknown         1395         281         550           No         Operator         826         3         25         10         10         10         10         10         10         11         10         10         11         10         11         10         11         1			Involved		
Age of Operator         13 to 18 years         248         20         148           19 to 25 years         506         57         278           26 to 35 years         672         87         328           36 to 55 years         1664         235         825           Over 55 years         1270         207         523           Unknown         356         26         91           No operator         820         3         21           No Experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           Operator's Experience         57         9         35           Under 10 hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four		12 years and under			
Age of Operator         19 to 25 years         506         57         278           26 to 35 years         672         87         328           36 to 55 years         1664         235         825           Over 55 years         1270         207         523           Unknown         356         26         91           No operator         820         3         21           No operator         820         3         21           No experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           101 to 500 hours         508         51         237           Unknown         1395         281         550           No         Pore 507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Six         169         15         117           Seven         113				· · ·	
Age of Operator         26 to 35 years         672         87         328           36 to 55 years         1664         235         825           Over 55 years         1270         207         523           Unknown         356         26         91           No operator         820         3         21           No operator         820         3         21           No experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           10 to 100 hours         1010         113         513           10 to 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222 <td></td> <td></td> <td></td> <td></td> <td></td>					
Age of operator         36 to 55 years         1664         235         825           Over 55 years         1270         207         523           Unknown         356         26         91           No operator         820         3         21           No operator         820         3         21           No Experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           101 to 500 hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Six         169         15         117           Seven         113         6         82           Eight         77         10					
Over 55 years         1270         207         523           Unknown         356         26         91           No operator         820         3         21           No perator         820         3         21           No perator         820         3         21           No Experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           Operator's Experience         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82 <tr< td=""><td>Age of Operator</td><td></td><td></td><td></td><td></td></tr<>	Age of Operator				
Unknown         356         26         91           No operator         820         3         21           No experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           T		·			
No operator         820         3         21           No Experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More t		· · · · · · · · · · · · · · · · · · ·			
No Experience         57         9         35           Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unkno					
Operator's Experience         Under 10 hours         523         65         261           10 to 100 hours         1010         113         513           101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20					
Operator's Experience         10 to 100 hours         1010         113         513           101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1					
Operator's Experience         101 to 500 hours         1233         114         601           Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112					
Over 500 Hours         508         51         237           Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course					
Unknown         1395         281         550           No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           USCG Auxiliary	Operator's Experience				
No Operator         826         3         25           None         507         1         1           One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20         20           American Red Cross         2         1         1         1           Informal         206         19         112         1           Informal         206         19         38         3           State Course         959         44         504         US Power Squadrons         36         0         10					
Number of Persons on Board         None         507         1         1           Number of Persons on Board         Two         1394         180         679           Five         520         71         269         507         1         1394           Five         520         71         269         507         1         1394         180         679           Five         520         71         269         503         235         512           Five         222         17         137         512         137         512           Six         169         15         117         512         137         512         137           Six         169         15         117         517         137         512         117         137           Seven         113         6         82         117         10         44         10         14         117         10         44         10         110         14         110         110         110         111         110         111         111         111         111         111         111         111         111         111         111         111					
Number of Persons on Board         One         1735         243         512           Two         1394         180         679           Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34     <		No Operator	826	3	25
Number of Persons on Board         Two         1394         180         679           Five         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		None	507	1	1
Number of Persons on Board         Three         520         71         269           Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		One	1735	243	512
Number of Persons on Board         Four         390         53         235           Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Two	1394	180	679
Number of Persons on Board         Five         222         17         137           Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Three	520	71	269
Number of Persons on Board         Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Four	390	53	235
Board         Six         169         15         117           Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Five	222	17	137
Seven         113         6         82           Eight         77         10         44           Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Six	169	15	117
Nine         68         10         35           Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34	Board	Seven	113	6	82
Ten         42         10         24           More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Eight	77	10	44
More than 10         55         16         67           Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		•	68	10	35
Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Ten	42	10	24
Unknown         260         4         20           American Red Cross         2         1         1           Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		More than 10	55	16	67
Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		Unknown	260	4	20
Informal         206         19         112           Internet Course         88         9         38           State Course         959         44         504           US Power Squadrons         36         0         10           USCG Auxiliary         96         3         44           Other         115         9         34		American Red Cross		1	
Internet Course88938State Course95944504US Power Squadrons36010USCG Auxiliary96344Other115934					
Education of OperatorState Course95944504US Power Squadrons36010USCG Auxiliary96344Other115934				1 1	
Education of OperatorUS Power Squadrons36010USCG Auxiliary96344Other115934					
USCG Auxiliary 96 3 44 Other 115 9 34					
Other 115 9 34	Education of Operator				
				1	
		No Education	1774	246	892
Unknown 1454 302 565				1	
Unknown         1454         302         565           No Operator         822         3         22					

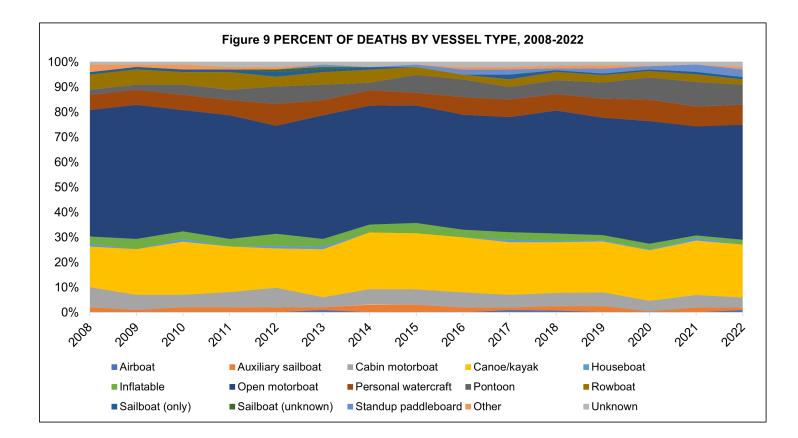
#### **BOATING SAFETY INSTRUCTION**

Table 23 • NUMBER OF DEATHS BY TYPE OF O BOATING INSTRUCTION 2022	PERATOR
Type of Boating Instruction	Deaths
American Red Cross	1
Informal	19
Internet Course	9
State Course	44
US Power Squadrons	0
USCG Auxiliary	3
Other	9
No Education	246
Total Deaths - Known Operator Instruction	331
Total Deaths - Unknown Operator Instruction	302
Total Deaths - No Operator	3
Total Deaths - Known & Unknown Operator Instruction	636



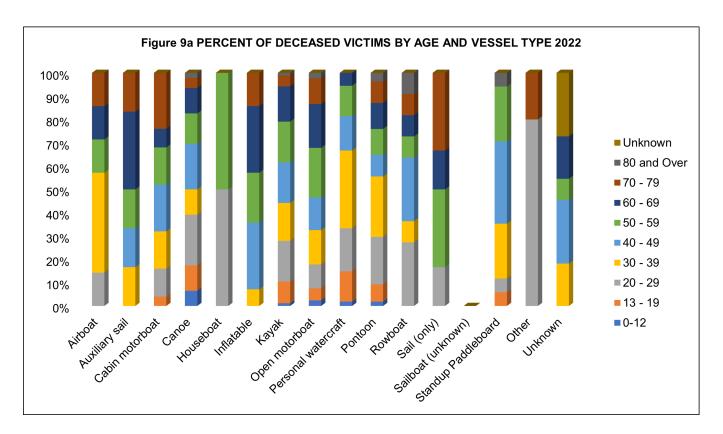
Та	ble 24 • NUMBE	R OF DEATHS BY VI	ESSEL TYPE 2022	2
Vessel type	Drownings	Deaths by Causes other than Drowning	Total Deaths	Percentage of Deaths from Drowning
Airboat	5	2	7	71%
Auxiliary Sailboat	1	5	6	17%
Cabin Motorboat	15	10	25	60%
Canoe	38	8	46	83%
Houseboat	0	2	2	0%
Inflatable	14	0	14	100%
Kayak	80	6	86	93%
Open Motorboat	191	101	292	65%
Personal Watercraft	24	30	54	44%
Pontoon	36	18	54	67%
Rowboat	9	2	11	82%
Sailboat (only)	6	0	6	100%
Sailboat (unknown)	0	0	0	0%
Standup paddleboard	16	1	17	94%
Other	5	0	5	100%
Unknown	5	6	11	45%
Total	445	191	636	70%





	Tab	le 25 •	PERC		F DEA	THS BY	VESS	EL T	′PE, 2	008-2	022				
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Airboat	0%	0%	0%	0%	0%	1%	0%	0%	0%	1%	1%	0%	0%	0%	1%
Auxiliary sailboat	2%	1%	2%	2%	2%	1%	3%	3%	2%	1%	2%	2%	0%	2%	1%
Cabin motorboat	8%	6%	5%	6%	8%	4%	6%	6%	6%	5%	5%	6%	4%	5%	4%
Canoe/kayak	16%	18%	21%	18%	16%	19%	22%	22%	22%	21%	20%	20%	20%	22%	21%
Houseboat	1%	0%	1%	0%	1%	1%	0%	0%	0%	1%	0%	0%	0%	1%	0%
Inflatable	3%	4%	3%	3%	5%	3%	3%	4%	3%	3%	3%	2%	2%	1%	2%
Open motorboat	50%	53%	48%	49%	44%	49%	46%	46%	46%	46%	49%	47%	49%	44%	46%
Personal watercraft	6%	6%	6%	6%	9%	6%	6%	5%	7%	7%	7%	8%	9%	8%	8%
Pontoon	2%	2%	4%	4%	7%	6%	3%	7%	7%	5%	6%	7%	9%	10%	8%
Rowboat	6%	6%	5%	7%	4%	5%	5%	3%	2%	3%	3%	3%	3%	3%	2%
Sailboat (only)	1%	1%	1%	1%	2%	1%	1%	0%	0%	2%	1%	1%	1%	1%	1%
Sailboat (unknown)	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Standup paddleboard	0%	0%	0%	0%	0%	1%	0%	1%	2%	2%	1%	2%	1%	3%	3%
Other	3%	1%	2%	1%	1%	0%	0%	0%	1%	1%	1%	1%	0%	0%	1%
Unknown	1%	1%	1%	2%	2%	1%	2%	1%	2%	2%	1%	1%	1%	1%	2%

Table 2	6 • N	IUM	BER	OF	DEC	EA	SED	VIC	тім	S BY	′ AG	E AN	ND V	'ESS	SEL	TYP	PE 20	)22	
							Тур	e of	Ves	sel							Dro	Ott	Tot
Age of Deceased Victim	Airboat	Auxiliary sailboat	Cabin motorboat	Canoe	Houseboat	Inflatable	Kayak	Open motorboat	Personal watercraft	Pontoon	Rowboat	Sailboat (only)	Sailboat (unknown)	Standup paddelboard	Other	Unknown	Drownings	Other deaths	otal deaths
Total	7	6	25	46	2	14	86	292	54	54	11	6	0	17	5	11	445	191	636
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2	0	2
5	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
6	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	1	2
7	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
9	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
10	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	1	2
11	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	2
12	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	1
0-12	0	0	0	3	0	0	1	7	1	1	0	0	0	0	0	0	8	5	13
13 - 19	0	0	1	5	0	0	8	15	7	4	0	0	0	1	0	0	25	16	41
20 - 29	1	0	3	10	1	0	15	30	10	11	3	1	0	1	4	0	59	31	90
30 - 39	3	1	4	5	0	1	14	43	18	14	1	0	0	4	0	2	85	25	110
40 - 49	0	1	5	9	0	4	15	41	8	5	3	0	0	6	0	3	69	31	100
50 - 59	1	1	4	6	1	3	15	62	7	6	1	2	0	4	0	1	80	34	114
60 - 69	1	2	2	5	0	4	13	55	3	6	1	1	0	0	0	2	70	25	95
70 - 79	1	1	6	2	0	2	4	32	0	5	1	2	0	0	1	0	37	20	57
80 and Over	0	0	0	1	0	0	1	7	0	2	1	0	0	1	0	0		2	13
Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	2	3



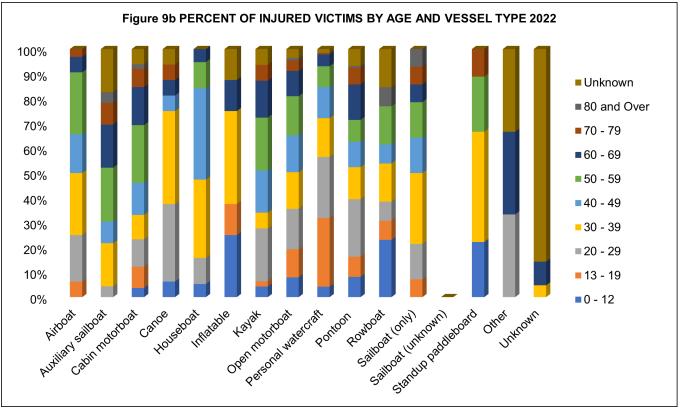
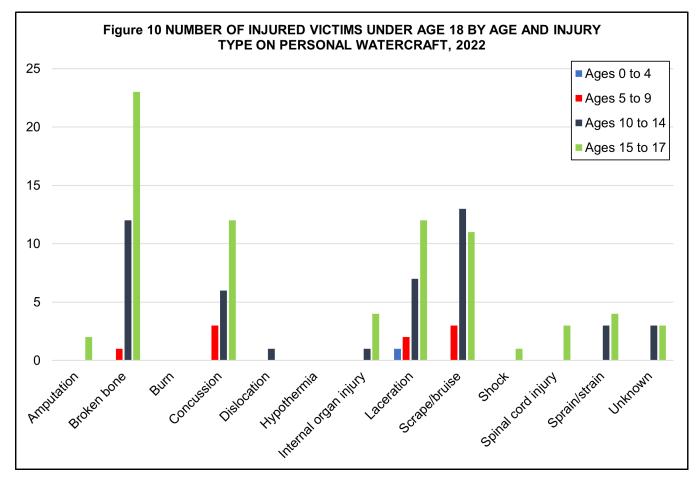


Table 27	• NUN	IBEI	r of	: INJ	URE	ED V	ICTI	MS	BY AC	GE A		/ES	SEL	TYP	E 20	22	
Age of Injured Victim	Total injuries	Airboat	Auxiliary sailboat	Cabin motorboat	Canoe	Houseboat	Inflatable	Kayak	Open motorboat	Personal watercraft	Pontoon	Rowboat	Sailboat (only)	Sailboat (unknown)	Standup paddleboard	Other	Unknown
Total	2222	32	23	163	16	19	8	47	1158	549	147	13	14	0	9	3	21
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	4	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0
2	2	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0
3	9	0	0	0	0	0	0	1	8	0	0	0	0	0	0	0	0
4	7	0	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0
5	4	0	0	0	0	0	0	0	2	1	1	0	0	0	0	0	0
6	10	0	0	0	0	0	0	0	6	3	0	1	0	0	0	0	0
7	19	0	0	1	0	1	1	1	12	2	1	0	0	0	0	0	0
8	11	0	0	1	0	0	1	0	6	1	1	1	0	0	0	0	0
9	10	0	0	0	0	0	0	0	6	2	2	0	0	0	0	0	0
10	25	0	0	0	1	0	0	0	14	5	4	0	0	0	1	0	0
11	21	0	0	2	0	0	0	0	11	5	2	1	0	0	0	0	0
12	22	0	0	1	0	0	0	0	16	3	1	0	0	0	1	0	0
0 - 12	144	0	0	6	1	1	2	2	92	23	12	3	0	0	2	0	0
13 - 19	315	2	0	14	0	0	1	1	131	152	12	1	1	0	0	0	0
20 - 29	404	6	1	18	5	2	0	10	189	135	34	1	2	0	0	1	0
30 - 39	333	8	4	16	6	6	3	3	171	86	19	2	4	0	4	0	1
40 - 49	303	5	2	21	1	7	0	8	172	69	15	1	2	0	0	0	0
50 - 59	311	8	5	38	0	2	0	10	183	46	13	2	2	0	2	0	0
60 - 69	210	2	4	25	1	1	1	7	118	26	21	0	1	0	0	1	2
70 - 79	83	1	2	12	1	0	0	3	49	3	10	0	1	0	1	0	0
80 and Over	19	0	1	3	0	0	0	0	11	1	1	1	1	0	0	0	0
Unknown	100	0	4	10	1	0	1	3	42	8	10	2	0	0	0	1	18

Table 28 • NA	ATURE OF	PRIMA	RY INJU	JRY TY	(PE B)	Y ARE	A OF I	NJURY	2022	
	All Areas	Arm	Body	Foot	Hand	Head	Leg	Neck	Trunk	Unknown
All primary injury types	2222	185	205	96	86	560	480	36	441	133
Amputation	26	1	0	5	13	1	6	0	0	0
Broken bone	460	55	0	28	24	60	152	0	126	15
Burn	91	15	16	3	3	13	23	0	12	6
Carbon monoxide	6	0	6	0	0	0	0	0	0	0
Concussion	243	0	0	0	0	243	0	0	0	0
Dislocation	35	21	0	2	2	0	8	0	0	2
Electric shock	0	0	0	0	0	0	0	0	0	0
Hypothermia	145	0	145	0	0	0	0	0	0	0
Internal organ injury	113	0	0	0	0	0	0	0	107	6
Laceration	493	44	8	28	32	172	158	3	31	17
Scrape/bruise	285	31	5	12	7	55	86	4	50	35
Shock	8	0	8	0	0	0	0	0	0	0
Spinal cord Injury	29	0	1	0	0	0	0	5	23	0
Sprain/strain	109	10	16	13	3	1	26	13	18	9
Other	12	3	0	0	1	1	3	0	4	0
Unknown	167	5	0	5	1	14	18	11	70	43



# CASUALTY DATA

#### Explanation of Casualty Data Section

This section contains fifteen tables and figures that examine data relating to the victims in boating accidents. The following pages focus on historical casualty information, casualty-vessel information, and state-specific casualty information.

#### Deaths, Injuries & Accidents by Year, 2003-2022 (Figure 11 & Table 29, Page 56)

This figure and table document the number of accidents and casualties from 2003-2022.

#### Accident, Casualty & Damage Data by State (Table 30, Page 57)

This table provides accident, casualty, and damage information by state for the year 2022. Accidents are broken down into three levels of severity– fatal accidents, non-fatal injury accidents, and property damage only accidents. Please note that under this categorization, accidents are represented by their greatest severity. If an accident resulted in one death, two injured victims, and \$5,000 damages, the accident would be represented under the fatal accident column under the greater "Number of Accidents" heading. The death, injured victims, and damages would be represented in the totals under the "Persons Involved" and "Damages" headings.

#### Distribution of Recreational Boating Deaths by State (Figure 12, Page 58)

This figure provides the percentage that each state contributed to the national death count. So, for instance, Michigan had 17 deaths. Out of the total national death count of 636, Michigan contributed 2.7% ((17/636) × 100) of deaths to the national count. Please note that percentages have been rounded.

#### Fatal Accidents by Location (Figures 12a-d, Pages 59-60)

These figures plot the location of fatal accidents in four different regions. 12a represents the continental United States and Puerto Rico. 12b represents Alaska. 12c represents Hawaii. 12d represents Guam. In many cases, the location was plotted using coordinates. When coordinates were not available, other fields such as the name of body of water, nearest city or town, county, and the narrative were used to approximate the location. The size of the plot correlates to the number of deaths in the fatal accident.

#### Annual Recreational Boating Fatality Rates, 2003-2022 (Figure 13 & Table 31, Page 61)

This table and accompanying figure provide two fatality rates for years 2003-2022. The fatality rate is calculated by dividing the number of fatalities by the total national vessel registration. The Coast Guard then multiplied by a factor of 100,000 to arrive at the number of deaths per 100,000 registered vessels. The fatality rate takes into account all fatalities and all recreational registration data collected. The motorized fatality rate takes into account only fatalities that occurred on motorized vessels and only motorized recreational vessels registered.

#### States Coded by their 2022 Fatality Rate (Figure 14, Page 62)

This figure displays states that are color-coded depending on their fatality rate which is expressed as the number of deaths that occurred in that state per 100,000 vessels that the state registered. It is important to note that not all states register the same types of vessels which could skew the fatality rates provided. Please see Table 38, Recreational Registration Data by State 2021-2022 to view the Scope of each state's registration system. Further, when examining a state fatality rate, it is important to note that the state fatality rate may include deaths from vessels that were registered in another state.

#### Five-year Summary of Selected Accident Data by State, 2018-2022 (Table 32, Page 63)

This table examines the number of accidents, fatal accidents, and fatalities by state for years 2018-2022.

#### Number of Accidents by Primary Accident Type & State (Table 33, Page 64-65)

This table documents the first accident event by state. It also provides information about the total number of accidents and casualties by state.

#### Number of Injured Victims by Primary Injury & Vessel Type (Table 34, Page 66)

This table displays the number of injured victims by primary injury and vessel type.

#### Number of Fatal Victims by Life Jacket Wear, Cause of Death, & Vessel Type (Table 35, Page 66)

This table displays the number of fatal victims by vessel type and cause of death. The table also provides information on whether the deceased victim was wearing a life jacket.

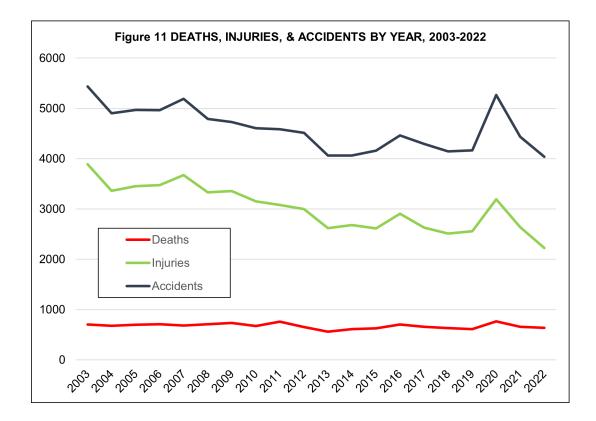


Table 29 • DE	ATHS, INJURIE 2003-		TS BY YEAR,
Year	Deaths	Injuries	Accidents
2003	703	3888	5438
2004	676	3363	4904
2005	697	3451	4969
2006	710	3474	4967
2007	685	3673	5191
2008	709	3331	4789
2009	736	3358	4730
2010	672	3153	4604
2011	758	3081	4588
2012	651	3000	4515
2013	560	2620	4062
2014	610	2678	4064
2015	626	2613	4158
2016	701	2903	4463
2017	658	2629	4291
2018	633	2511	4145
2019	613	2559	4168
2020	767	3191	5265
2021	658	2641	4439
2022	636	2222	4040

	Table 30 •	ACCIDENT,	CASUALTY	& DAMAGE DA	TA BY STA	TE 2022	
			f Accidents		Persons		
	Total		Non-Fatal Injury	Property Damage	Deaths	Injured	Damages
Totals	4040	589	1538	1913	636	2222	\$62,794,976.00
AK	16	7	4	5	10	6	\$133,000.00
AL	72	11	23	38	11	41	\$1,151,409.00
AR	60	13	22	25	15	30	\$1,662,085.00
AZ	124	12	45	67	13	60	\$1,188,132.00
CA	387	42	154	191	43	198	\$5,977,908.00
CO	31	13	15	3	14	20	\$31,399.00
СТ	34	7	8	19	9	20	\$1,801,030.00
DC	1	0	0	1	0	0	\$10,000.00
DE	23	2	14	7	2	19	\$77,369.00
FL	712	65	302	345	66	448	\$10,299,491.00
GA	97	18	36	43	23	60	\$1,601,165.00
HI	11	4	2	5	4	4	\$99,000.00
IA	28	4		16	4	9	\$101,424.00
ID	42	12	17	13	15	24	\$464,390.00
IL	53	5	19	29	5	39	\$525,485.00
IN	46	10	19	29	11	21	\$280,700.00
KS		10		21	11		
KS KY	16 33	1	8 13	16	1	12	\$92,650.00 \$645,767.00
		4			4	18	
LA	103	24	48	31	29 5	85	\$995,290.00
MA	68	5	20	43	5	24	\$1,171,000.00
MD	126	11	50	65	11	74	\$2,900,315.00
ME	31	8	11	12	9	12	\$725,714.00
MI	88	17	22	49	17	29	\$827,772.00
MN	90	14	45	31	15	55	\$773,351.00
МО	114	16	50	48	17	69	\$1,189,550.00
MS	27	2	13	12	2	22	\$393,801.00
MT	21	8	4	9	8	6	\$175,300.00
NC	143	20	52	71	20	64	\$3,094,512.00
ND	10	1	2	7	1	5	\$87,500.00
NE	14	2	8	4	2	11	\$39,250.00
NH	38	4	9	25	4	10	\$2,256,511.00
NJ	110	4	32	74	4	44	\$4,203,950.00
NM	12	2	9	1	2	15	\$25,000.00
NV	21	5	9	7	5	13	\$112,070.00
NY	154	24	47	83	24	67	\$2,270,499.00
ОН	119	17	30	72	17	48	\$2,690,970.00
OK	38	11	21	6	14	28	\$178,000.00
OR	52	16	19	17	16	28	\$426,170.00
PA	41	9	24	8	9	32	\$90,250.00
RI	33	3	6	24	3	7	\$973,450.00
SC	152	22	62	68	22	91	\$1,585,350.00
SD	11	0	3	8	0	5	\$256,300.00
TN	116	24	35	ہ 57	27	5 52	\$256,300.00
TX	201	30	35 87	84	34	132	\$2,726,097.00
UT	43		87 14	25	34	132	\$2,726,097.00 \$181,818.00
		4			4		
VA	85	13	30	42	16	38	\$453,950.00
VT	2	1	0	1	2	0	\$1.00
WA	53	15	21	17	18	31	\$1,361,823.00
WI	108	20	42	46	20	67	\$1,327,935.00
WV	11	3	3	5	3	3	\$48,000.00
WY	5	1	2	2	1	3	\$41,000.00
AS	0	0	0	0	0	0	\$0.00
CNMI	0	0	0	0	0	0	\$0.00
GU	2	1	0	1	1	1	\$5,000.00
PR	2	2	0	0	4	1	\$100,000.00
VI	0	0	0	0	0	0	\$0.00
Atlantic Ocean*	7	0	2	5	0	2	\$373,000.00
Gulf of Mexico*	3	0	- 1	2	0	3	\$362,200.00
Pacific Ocean*	0	0	0	0	0	0	\$0.00

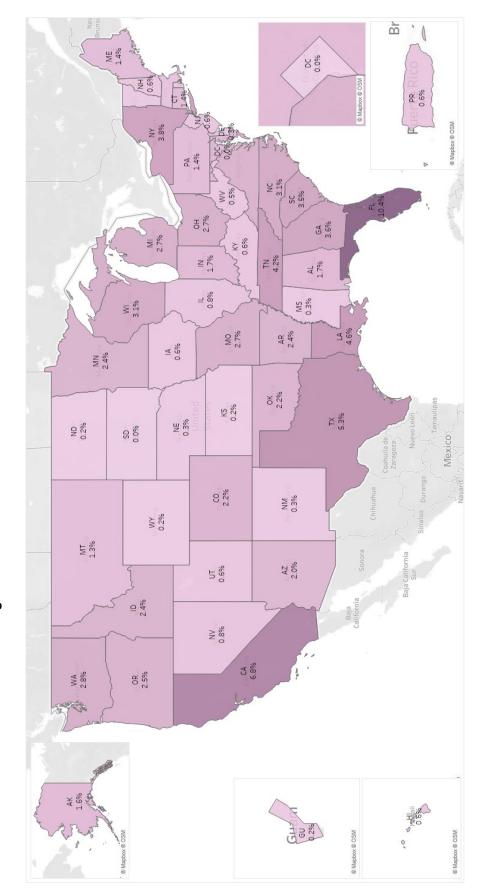
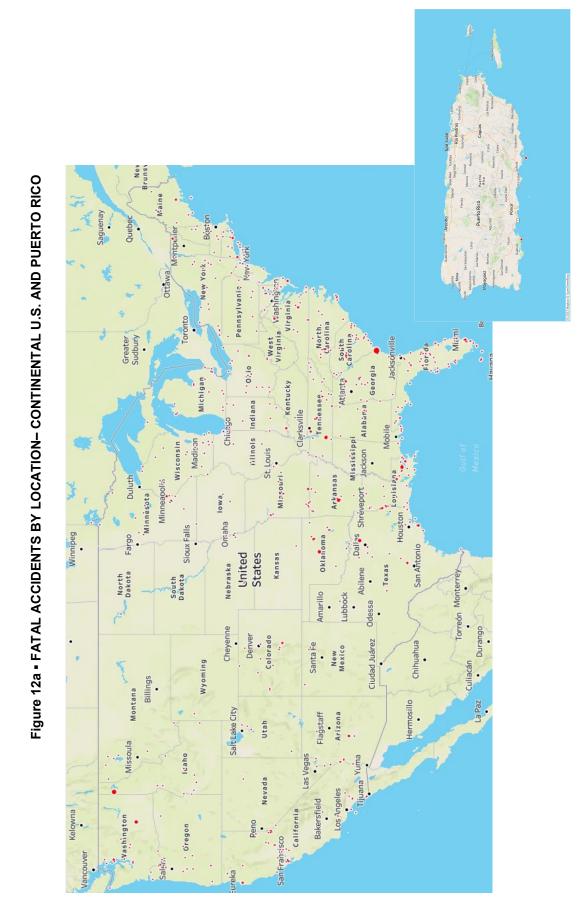


Figure 12 - DISTRIBUTION OF 2022 DEATHS BY STATE



Plots represent fatal accidents; the size of the plot correlates to the number of deaths in a fatal accident. The largest plot represents three deaths.

#### Casualty Data



### Figure 12b • FATAL ACCIDENTS BY LOCATION- ALASKA

Figure 12d • FATAL ACCIDENTS BY LOCATION- GUAM

Plots represent fatal accidents; the size of the plot correlates to the number of deaths in a fatal accident. The largest plot represents two deaths.

# Kailua Honedulu Hawaii

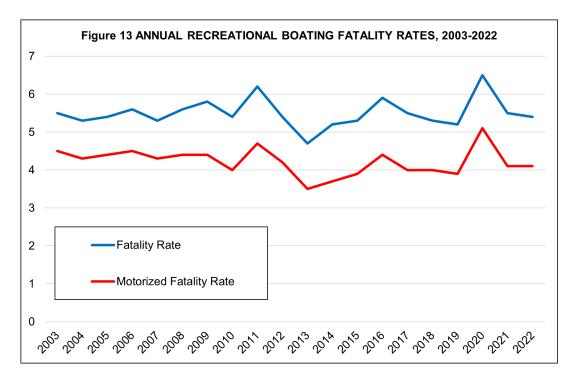
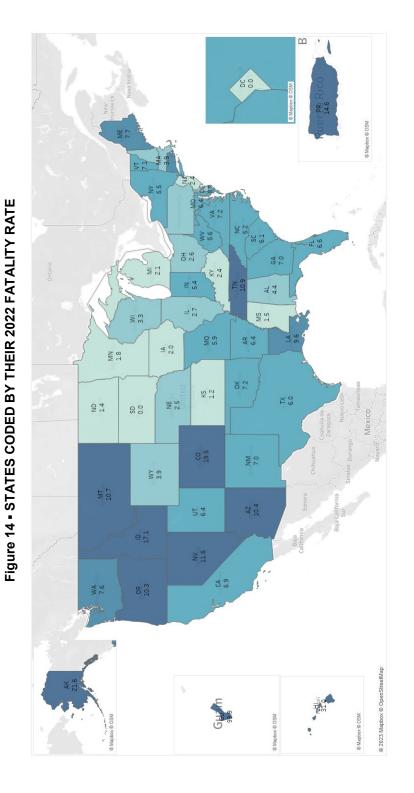


Table	31 <b>-</b> ANNU	AL RECREATI	ONAL BO	DATING FAT	ALITY RATES 20	003-2022
	All Deaths	All Registered Vessels	Fatality Rate	Motorized Vessel Deaths	Registered Motorized Vessels	Motorized Vessel Fatality Rate
2003	703	12,794,616	5.5	536	11,946,576	4.5
2004	676	12,781,476	5.3	515	11,878,783	4.3
2005	697	12,942,414	5.4	528	11,998,728	4.4
2006	710	12,746,126	5.6	535	11,802,419	4.5
2007	685	12,875,568	5.3	515	11,966,627	4.3
2008	709	12,692,892	5.6	518	11,841,281	4.4
2009	736	12,721,541	5.8	522	11,834,872	4.4
2010	672	12,438,926	5.4	469	11,597,326	4.0
2011	758	12,173,935	6.2	527	11,326,848	4.7
2012	651	12,101,936	5.4	476	11,226,268	4.2
2013	560	12,013,496	4.7	391	11,128,052	3.5
2014	610	11,804,002	5.2	411	10,960,861	3.7
2015	626	11,867,049	5.3	434	11,034,479	3.9
2016	701	11,861,811	5.9	481	11,005,841	4.4
2017	658	11,961,568	5.5	440	11,090,600	4.0
2018	633	11,852,969	5.3	441	10,994,900	4.0
2019	613	11,878,542	5.2	426	11,052,684	3.9
2020	767	11,838,188	6.5	556	10,987,619	5.1
2021	658	11,957,886	5.5	458	11,064,813	4.1
2022	636	11,770,383	5.4	442	10,889,031	4.1



each state. Please be aware that, for some states, the fatality rate includes deaths that occurred on vessels that were not registered. Further, it is important to note that the state fatality rate may include deaths from vessels that were registered in another state. Note: The fatality rate is calculated using the number of deaths in each state and the number of recreational registered vessels in

Table 32 • FI											BYS				122
	Tota	l Num	ber of	Accio	lents		Fatal	Accid	lents				Death	s	
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
Fotals	4145	4168	5265	4439	4040	565	556	692	602	589	633	613	767	658	636
Alabama	66	101	96	69	72	13	25	12	10	11	17	28	19	10	11
Alaska	22	14	22	14	16	17	8	15	12	7	22	11	24	14	10
Arizona	129	96	162	118	124	6	7	7	12	12	11	7	10	13	13
Arkansas	60	37	75	54	60	7	10	13	9	13	7	10	13	11	15
California	322	324	493	454	387	33	37	37	37	42	34	39	39	39	43
Colorado	28	44	46	30	31	6	12	16	8	13	6	12	17	8	14
	39	40	54	43	34	4	2	3	7	7	5	2	3	7	9
Delaware	23	13	19	17	23	2	1	5 1	2	2	2	1	6	2	2
DC Florida	2 607	2 679	3 804	1 723	1 712	0 54	55	70	0 60	0 65	0 57	0 62	3 72	0 61	0 66
Georgia	104	109	107	91	97	9	22	10	15	18	11	23	11	17	23
Hawaii	8	109	107	15	11	1	3	1	5	4	1	4	1	5	4
Idaho	44	50	77	57	42	9	7	5	10	12	10	8	5	10	15
Illinois	67	75	85	88	53	16	13	16	14	5	17	18	19	15	5
Indiana	43	40	52	40	46	8	11	8	6	10	8	16	8	7	11
lowa	31	21	38	33	28	8	5	7	2	4	8	5	8	3	4
Kansas	22	13	32	25	16	2	2	8	2	1	2	2	8	4	1
Kentucky	41	39	44	48	33	13	9	7	14	4	13	9	9	17	4
Louisiana	95	105	124	111	103	17	18	23	23	24	19	20	24	27	29
Maine	43	35	41	23	31	4	4	11	3	8	4	4	11	4	9
Maryland	122	130	148	138	126	13	12	6	6	11	16	16	7	6	11
Massachusetts	77	79	75	65	68	10	4	7	6	5	10	5	8	6	5
Michigan	119	128	159	110	88	20	21	29	18	17	22	22	31	21	17
Minnesota	77	100	105	87	90	13	10	16	18	14	14	10	16	18	15
Vississippi	31	20	25	20	27	9	4	4	4	2	11	5	6	4	2
Missouri	122	145	152	159	114	12	18	13	28	16	14	18	14	28	17
Montana	19	13	25	16	21	9	4	7	4	8	13	5	7	5	8
Nebraska	20	19	13	14	14	4	2	2	1	2	4	2	2	1	2
Nevada	53	44	66	32	21	5	4	3	3	5	5	5	3	3	5
New Hampshire	39	37	59	34	38	4	3	2	3	4	5	4	2	3	4
New Jersey	116 24	110 13	135 18	100 16	110 12	5 2	4	9 4	7	4	5 2	4	9 4	8 1	4
<u>New Mexico</u> New York	24 143	165	175	162	154	 17	17	4 25	15	24	20	 17	4 28	17	24
North Carolina	143	128	183	171	143	27	15	23	20	24	30	16	20	20	24
North Dakota	13	120	18	13	143	2	2	1	20	1	2	2	1	20	1
Ohio	126	128	163	140	119	15	12	20	16	17	17	13	25	19	17
Oklahoma	36	24	59	49	38	5	8	17	11	11	7	8	17	12	14
Oregon	65	62	91	42	52	16	16	24	15	16	17	18	26	18	16
Pennsylvania	63	58	58	56	41	13	8	9	9	9	14	8	11	9	9
Rhode Island	26	42	57	33	33	1	1	2	1	3	1	1	2	2	3
South Carolina	130	141	153	184	152	15	15	21	16	22	16	15	25	18	22
South Dakota	12	23	25	16	11	1	4	3	2	0	1	5	3	2	0
Tennessee	109	107	155	123	116	22	9	27	20	24	22	9	30	21	27
Texas	204	184	281	238	201	35	38	55	52	30	38	43	59	58	34
Utah	81	86	90	43	43	8	6	10	9	4	9	7	10	11	4
Vermont	6	4	6	6	2	3	3	3	5	1	3	4	4	7	2
Virginia	80	84	102	89	85	9	18	18	16	13	11	20	21	18	16
Washington	94	106	114	81	53	19	26	26	13	15	21	27	28	14	18
West Virginia	16	9	16	4	11	3	2	5	1	3	4	2	5	1	3
Wisconsin	106	82	133	111	108	15	9	22	21	20	21	9	22	23	20
Wyoming AS	8 0	11 0	4	5 0	5 0	1 0	3	1 0	1	1	1 0	3 0	1	1	1
AS CNMI	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0
Guam	4	2	0	2	2	0	0	0	1	1	0	0	0	1	1
Puerto Rico	4	4	0	2	2	1	1	0	0	2	1	2	0	0	4
Virgin Islands	4	4	1	3	0	0	0	1	1	0	0	0	1	1	4
AT	10	5	7	13	7	1	2	0	2	0	1	2	0	2	0
*GM	7	3	5	3	3	1	0	1	0	0	1	0	1	0	0
								1		U					-
PC	5	4	4	6	0	0	2	1	2	0	0	3	1	2	0

	Injuries							I				I																			
		2222	o و	41	30	60	198	20	20	0	19	448	60	4	6	24	39	5	12	18	85	24	74	12	29	55	69	22	9	64	5
	Total deaths	636	10	11	15	13	43	14	6	0	2	99	23	4	4	15	5	11	-	4	29	5	11	6	17	15	17	2	8	20	<del></del>
	Other deaths																													5	
	Drownings	10																												15	
	Other																0							<del>.</del>		0	1	-	0	<u> </u>	0
	Sudden medical condition																0							0	0	0	0	0	0	0	0
	Skier mishap	183	0	-	4	8	19	4	C	0	C	7	6	0	4	1	2	1	-	2	1	)	12		4	2	3	2	)	4	
Ŋ	Sinking																													0	
N	Person struck by vessel	24																													
STATE	Person struck by propeller		0														2 0											0		<u> </u>	0
& ST	Grounding			0													-											0	_	<u>ი</u>	<u> </u>
	Flooding/swamping																											, <del>-</del>		10	
	Fire/explosion (unknown origin)																														
ACCIDENT	Fire/explosion (non-fuel)																													2	
ACCI	Fire/explosion (fuel)	30 6	0	~	0	-	8 4	0	2	0	0	6 6	~	0	0	0	0	N	0	0	-	1	9	~	~	0	3			33	
	Falls overboard	60 1	~	2	4	2	2 1	0	~	0	0	3 1	3	0	-	0	<del></del>	N	2	~ .	-	2	9	0	3	3	-			10 3	
PRIMARY	Fall in vessel	(0)																													
ВҮ РF	Electrocution	1:	0	~	~	n	÷	0	~	0	~	ю́	ო	~	-	2	2	4	~	~	N	0	<u>е</u>	~	2	2	1:	0	0	~	0
	Ejected from vessel																													0	
NEN	Departed vessel	G											~	0	0	2	2	с С	~	~	2	7	9	0	~	2	5	2	0	െ	<u> </u>
CCIDENTS	Collision with submerged	11	0	2	~	~	~	2	2	0	~	18	-	~	-	0	~	2	0	~	с С	-	ო	0	ဖ	4	5	0	0	2	0
	object	203	0		e	0	20	0	e	0	C	25	4	0	-	e	4	2	e		16	7	e	<u> </u>	0	2	5	m	1	5	2
	Collision with recreational vessel	1085																												52	
	Collision with governmental vessel				8	36	÷	2	12	-	2	23	58	2	6	8	18	6	2	<u> </u>		26	57	ω	30	25	3,	2	4	27	2
	Collision with commercial vessel	1(	0	0	0	0	~	0	0	0	0	2	0	0	0	0	0	-	0	0	0	0	0	0	0	~	0	0	0	<del>~</del>	0
q	Collision with floating object	22	<del>.</del>	<del>.                                    </del>	0	<del>.</del>	7	0	0	0	0	5	0	0	0	0	0	0	0	0	<del>,</del>	0	0	<del>.</del>	0	<del>,</del>	1	0	0	0	0
F	Complete with heating object	57	0		4	2	4	0	0	0	0	2	N	0	0	<u> </u>	e	2	~	0	_	-	<u> </u>	<u> </u>	0	<del>_</del>	0	0	0	2	0
	Collision with fixed object	_	2	12	- -		27		3	0		150				-	5	_	_		1		2		с С					19	
	Carbon monoxide				-																										
	Capsizing			0			1 0			0			0				0							0						0	
	Total accidents	040 2	3 5	20	5	24 6	37 2	31 7	4	0							53 1													143 0	
		S																									_				
		Tota	AK	AL	AR	AZ	CA	0 0	CT	СО	ШО	Ļ	ЧŮ	Ŧ	A	₽	_	⊒	KS	≿	Ą	MA	MD	ЫΣ	Þ	MM	MO	MS	μ	С И	Q

	Injuries			Γ				1				1												1		1					
		Ţ	10	44	15	13	67	48	28	27	32	2	91	2	52	132	17	38	0	31	67	3	ო	0	0	<del>.</del>	<del>.</del>	0	2	<u>ო</u>	5
	Total deaths	2	4	4	2	5	24	17	14	16	6	3	22	0	27	34	4	16	2	18	20	8	Ļ	0	0	÷.	4	0	0	0	5
	Other deaths		0											0																0	
	Drownings																														_
	Other	2	4	4	~	2 2	Ň	÷	, L	13	റ	ო	12	0	16	18	4	13	2	1	1	Э	~	0	0	-	2	0	0	0	2
2022	Sudden medical condition	0	0	<del>.</del>	0	0	-	-	0	0	0	0	0	0	0	-	0	0	0	0	5	0	0	0	0	0	~	0	-	<del>~</del> (	5
	Skier mishap	0	0	0	0	0	0	0	0	0	0	0	0						0								0	0	0	0	5
STATE	Sinking	4	4	~	0	0	4	~	9	ო	2	0	-	0	5	11	7	ω	0	~	13	0	0	0	0	0	0	0	0	0	<u> </u>
s S	Person struck by vessel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
TYPE 8	Person struck by propeller																													0	
	Grounding		13 0							2																					
ACCIDENT	Flooding/swamping		5	17						9																				200	
ACCI	Fire/explosion (unknown origin)																														
	Fire/explosion (non-fuel)		~		0					0			-		3			0												00	
PRIMARY	Fire/explosion (fuel)		0	<u>∞</u>	0	~	က							000																	
BΥP	Falls overboard	0	2	~ ~	0	~				5 1			4						0 0		2		0							00	
	Fall in vessel																														
DE	Electrocution	-	-							<u>е</u>									0											0	
ACCIDENTS	Ejected from vessel															13 0														00	
ς OF	Departed vessel		0	5						~																				00	
JMBER	Collision with submerged object			0										0																000	
ž	Collision with recreational vessel	0						22 8						5 1									0								
Continued	Collision with governmental vessel	4																					-	0						00	
Conti	Collision with commercial																													00	
33	vessel Collision with floating object	0	0	0	0	0	0	0	0	<del>.</del>	0	0	0	0	3	-	0	<del>.</del>	0	0	2	0	0	0	0	0	0	0	0	00	2
Table	Collision with fixed object	0	0	<del>.</del>	0	0	5	2	-	0	~			0																0	
F	Carbon monoxide	-	<del>.</del>	10	<del>.</del>	0	2	2	4	<del>.</del>	2	-	29	0	2	25	2	റ	0	2	15	0	0	0	0	0	0	0	0	0	5
		0	0	0	<del>.</del>	0	0	<del>.</del>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
	Capsizing	2	Ţ,	4	<del>.</del>	0	16	7	0	0	8	4	-	<del>~</del>	5	17	9	9	<del>.</del>	5	5	<del>.</del>	<b>-</b>	0	0	0	0	0	0	0	5
	Total accidents									52									2			_								<u>ო</u>	
																														В	
	1				2		4	$\cup$	$\mathbf{O}$	$\mathbf{U}$	ш	Ľ	0)	0	F	F		>	>	>	>	>	$\geq$	4	$\cup$	Ú	Ш	>	$\triangleleft$		<u>ц</u>

Table 34	• NUI	MBEF	ROF	INJUI	RED	νιςτι	MS B	Y PR	IMAF	ry in	JURY	′ & VI	ESSE	L T۱	(PE		
Primary Injury	Number of injuries	Airboat	Auxiliary sailboat	Cabin motorboat	Canoe	Houseboat	Inflatable	Kayak	Open motorboat	Personal watercraft	Pontoon	Rowboat	Sailboat (only)	Sailboat (unknown)	Standup paddleboard	Other	Unknown
Amputation	26	0	0	2	1	0	0	0	16	3	3	0	0	0	0	1	0
Broken bone	460	3	1	28	0	1	1	2	223	178	20	1	1	0	0	0	1
Burns	91	2	1	23	0	1	0	0	55	8	0	0	0	0	0	0	1
Carbon monoxide	6	0	0	3	0	0	0	0	3	0	0	0	0	0	0	0	0
Concussion	243	4	4	16	0	0	0	2	132	69	12	0	2	0	0	0	2
Dislocation	35	0	0	3	0	0	1	1	18	10	2	0	0	0	0	0	0
Electric shock	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hypothermia	145	0	3	7	12	0	2	22	81	5	1	8	4	0	0	0	0
Internal organ injury	113	3	2	4	3	0	4	5	54	29	6	1	2	0	0	0	0
Laceration	493	12	3	40	0	2	0	3	267	103	55	1	2	0	3	0	2
Scrape/bruise	285	6	3	14	0	0	0	5	149	80	21	0	1	0	1	1	4
Shock	8	0	1	0	0	0	0	1	2	2	2	0	0	0	0	0	0
Spinal cord injury	29	0	1	2	0	0	0	0	14	10	2	0	0	0	0	0	0
Sprain/strain	109	2	1	5	0	12	0	4	49	21	11	0	2	0	1	1	0
Other	12	0	1	0	0	0	0	0	5	4	2	0	0	0	0	0	0
Unknown	167	0	2	16	0	3	0	2	90	27	10	2	0	0	4	0	11
All Injuries	2222	32	23	163	16	19	8	47	1158	549	147	13	14	0	9	3	21

Table 35 • NUMBER OF FATAL VICTIMS BY LIFE JACKET WEAR, CAUSE OF DEATH & VESSEL TYPE 2022

			USE		DEATH	& \	/ES	SSE		<u> /PE 2</u>								
Cause of Death	Life jacket worn?	Number of deaths	Airboat	Auxiliary sailboat	Cabin motorboat	Canoe	Houseboat	Inflatable	Kayak	Open motorboat	Personal watercraft	Pontoon	Rowboat	Sailboat (only)	Sailboat (unknown)	Standup paddleboard	Other	Unknown
	Yes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	No	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Carbon monoxide	Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Yes	3	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0
	No	9	0	0	0	0	0	0	0	7	0	2	0	0	0	0	0	0
Cardiac arrest	Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Yes	64	1	0	2	3	0	10	18	15	10	1	0	3	0	1	0	0
	No	370	4	1	12	35	0	3	59	172	13	35	9	3	0	15	5	4
Drowning	Unknown	11	0	0	1	0	0	1	3	4	1	0	0	0	0	0	0	1
	Yes	6	0	0	0	1	0	0	1	4	0	0	0	0	0	0	0	0
	No	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Hypothermia	Unknown	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Yes	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
	No	4	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0
Other	Unknown	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
	Yes	45	0	0	0	0	0	0	0	17	24	3	1	0	0	0	0	0
	No	70	2	4	7	0	2	0	0	46	1	7	0	0	0	0	0	1
Trauma	Unknown	5	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	1
	Yes	4	0	1	0	0	0	0	0	2	0	1	0	0	0	0	0	0
	No	37	0	0	2	3	0	0	4	21	0	4	1	0	0	0	0	2
Unknown	Unknown	5	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	2
All Causes		636	7	6	25	46	2	14	86	292	54	54	11	6	0	17	5	11

Recreational Boating Statistics 2022

# **REGISTRATION DATA**

#### **Explanation of Registration Data Section**

The following section contains fives tables and figures that examine boat registration information. Registered vessels are those vessels that are required to be recorded by a state, which includes numbered vessels and other forms of registration. Not all states have the same registration requirements. While some states may only register vessels with a motor, others may register sailboats, canoes, kayaks, and rowboats in addition to those vessels with a motor.

#### Recreational Vessel Registration by Year, 1987-2022 (Table 36 & Figure 15, Page 69)

This table provides information about recreational vessel registration for each year from 1987-2022. The accompanying figure displays a trend line from 1987-2022.

#### Recreational Vessel Registration by Length & Means of Propulsion (Table 37, Page 70)

The top section of the table provides tallies for the number of mechanically-propelled vessels, the number of manually-propelled vessels, and a summation of these two categories. The middle section of the table documents mechanically-propelled vessel registration by length category. The bottom section of the table focuses on manually-propelled vessels.

#### Registration Data by State (Table 38, Page 71)

This table examines recreational vessel registration, deaths, and fatality rates by state for years 2021 and 2022. The fatality rate is calculated by dividing the number of fatalities by the total vessel registration. The Coast Guard then multiplied by a factor of 100,000 to arrive at the number of deaths per 100,000 registered vessels. When examining a state fatality rate, it is important to note that the state fatality rate may include deaths from vessels that were registered in another state. This table also specifies the scope of the state's registration program.

#### Distribution of 2022 Recreational Vessel Registration by State (Figure 16, Page 72)

This figure provides the percentage that each state contributed to national registration figures. So, for instance, California registered 626,642 vessels. Out of the total national registration of 11,770,383 California contributed 5.3% ((626,642/11,770,383) × 100) of registered vessels. Please note that percentages have been rounded.

Registered           Year         Vessels           1987         9,963,696           1989         10,777,370           1989         10,777,370           1990         10,966,253           1991         11,068,440           1992         11,734,710           1993         11,734,710           1994         11,734,710           1995         11,734,710           1996         11,734,710           1997         12,312,982           1999         11,734,710           1999         11,734,710           1999         11,734,710           1999         11,734,710           1999         11,734,710           1999         11,734,710           1999         11,734,710           1999         11,734,710           1999         12,736,932           1999         11,734,710           1999         12,736,932           2001         12,794,616           2002         12,942,414           2003         12,794,616           2004         12,738,926           2014         12,738,926           2014         11,867,049	Table 36 - RECRI VESSELS REGIS YEAR, 1987	REATIONAL ISTERED BY 87-2022
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		Registered Vessels
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1987	963
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1988	362
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1989	,777,
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1990	0,996
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1991	1,068,
$\begin{array}{c c} 11,282\\ \hline 11,734,\\ \hline 11,877,34\\ \hline 11,877,34\\ \hline 11,877,36\\ \hline 12,312,325,555,576,576,576,576,576,576,576,576,57$	1992	1,132,
$\begin{array}{c c} & 11,429\\ \hline & 11,877,\\ \hline & 11,877,\\ \hline & 11,877,\\ \hline & 12,565,\\ \hline & 12,565,\\ \hline & 12,876,\\ \hline & 11,864,\\ \hline & 11,864,\\ \hline & 11,866,\\ \hline & 11,866,\\$	1993	1,282,
$\begin{array}{c c} & 11, 734, \\ \hline & 11, 877, \\ \hline & 12, 312, \\ \hline & 12, 565, \\ \hline & 12, 565, \\ \hline & 12, 565, \\ \hline & 12, 876, \\ \hline & 12, 12, 12, 876, \\ \hline & 12, 12, 12, 876, \\ \hline & 11, 861, $	1994	1,429,
$\begin{array}{c c} & 11,877\\ \hline & 12,565,\\ \hline & 12,565,\\ \hline & 12,782,\\ \hline & 12,782,\\ \hline & 12,876,\\ \hline & 12,875,\\ \hline & 12,875,\\ \hline & 12,042,\\ \hline & 12,875,\\ \hline & 12,042,\\ \hline & 12,876,\\ \hline & 12,042,\\ \hline & 11,861,\\ \hline & 11,862,\\ \hline & 11,861,\\ \hline & 11,861,\\ \hline & 11,862,\\ \hline & 11,867,\\ \hline & 11,861,\\ \hline & 11,861,\\$	1995	1,734,
$\begin{array}{c} 12,312\\ 12,5655\\ 12,738,\\ 12,876,\\ 12,876,\\ 12,876,\\ 12,876,\\ 12,794,\\ 12,794,\\ 12,781,\\ 12,781,\\ 12,781,\\ 12,101,\\ 12,101,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,878,\\ 11,961,\\ 11,878,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,70,\\ 11,70,\\ 11,70,\\ 11,70,\\ 11,70,\\ 11,770,\\ 11$	1996	1,877,
$\begin{array}{c c} 12,565,\\ \hline 12,738,\\ \hline 12,738,\\ \hline 12,876,\\ \hline 12,876,\\ \hline 12,876,\\ \hline 12,875,\\ \hline 12,875,\\ \hline 12,781,\\ \hline 12,781,\\ \hline 12,781,\\ \hline 12,781,\\ \hline 12,781,\\ \hline 12,781,\\ \hline 11,861,\\ \hline 11$	1997	2,312,
$\begin{array}{c c} 12,738,\\ \hline 12,876,\\ \hline 12,876,\\ \hline 12,876,\\ \hline 12,875,\\ \hline 12,875,\\ \hline 12,875,\\ \hline 12,875,\\ \hline 12,875,\\ \hline 12,875,\\ \hline 12,101,\\ \hline 12,101,\\ \hline 11,804,\\ \hline 11,861,\\ \hline 11,878,\\ \hline 11$	1998	2,565,
$\begin{array}{c} 12,782\\ 12,876,\\ 12,854,\\ 12,854,\\ 12,781,\\ 12,781,\\ 12,781,\\ 12,875,\\ 12,875,\\ 12,875,\\ 12,875,\\ 12,101,\\ 12,101,\\ 12,101,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,878,\\ 11,878,\\ 11,878,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,70,\\ 11,770,$	1999	2,738,
$\begin{array}{c} 12,876,\\ 12,854,\\ 12,794,\\ 12,81,\\ 12,81,\\ 12,81,\\ 12,81,\\ 12,875,\\ 12,875,\\ 12,875,\\ 12,101,\\ 12,101,\\ 12,101,\\ 11,861,\\ 11,861,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,967,\\ 11,957,\\ 11,957,\\ 11,70,\\ 11,770,\\ 1$	2000	2,782,
$\begin{array}{c c} 12,854,\\ 12,794,\\ 12,794,\\ 12,781,\\ 12,781,\\ 12,942,\\ 12,942,\\ 12,942,\\ 12,942,\\ 12,942,\\ 12,942,\\ 12,173,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,864,\\ 11,961,\\ 11,864,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,964,\\ 11,70,\\ 11,952,\\ 11,70,\\$	2001	2,876,
$\begin{array}{c} 12,794,\\ 12,942,134,12,942,12,942,12,942,12,942,12,942,12,942,12,942,12,942,12,12,12,173,12,12,173,12,12,173,12,12,173,11,864,11,1864,11,864,11,864,11,864,11,878,11,878,11,878,11,957,11,957,11,957,11,957,11,957,11,957,11,957,11,175,12,12,11,175,12,12,12,12,12,12,12,12,12,12,12,12,12,$	2002	2,854,
$\begin{array}{c} 12,781,\\ 12,942,\\ 12,942,\\ 12,875,\\ 12,875,\\ 12,875,\\ 12,875,\\ 12,101,\\ 12,133,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,878,\\ 11,878,\\ 11,878,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,957,\\ 11,770,\\ 11,77$	2003	2,794,6
$\begin{array}{c} 12,942\\ 12,875,65\\ 12,875,756\\ 12,875,721\\ 12,873\\ 12,101\\ 12,101\\ 11,867\\ 11,867\\ 11,867\\ 11,867\\ 11,878\\ 11,878\\ 11,878\\ 11,878\\ 11,957\\ 11,957\\ 11,70\\ 11,70\\ 11,770$	2004	2,781,
12,746, 12,875, 12,875, 12,692, 12,692, 12,692, 12,101, 12,101, 12,101, 12,101, 11,867, 11,867, 11,867, 11,867, 11,867, 11,867, 11,878, 11,878, 11,878, 11,878, 11,957, 11,70,	2005	,942,
12,875, 12,692, 12,692, 12,721, 12,101, 12,101, 12,101, 11,867, 11,867, 11,861, 11,861, 11,861, 11,861, 11,878, 11,878, 11,878, 11,878, 11,957, 11,70,	2006	,746,
$\begin{array}{c} 12,692\\ 12,721,\\ 12,173,\\ 12,173,\\ 12,101,\\ 12,013,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,861,\\ 11,878,\\ 11,878,\\ 11,878,\\ 11,878,\\ 11,957,\\ 11,770$	2007	$\sim$
$\begin{array}{c} 12,721,\\ 12,438,\\ 12,101,\\ 12,101,\\ 12,013,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,867,\\ 11,878,\\ 11,878,\\ 11,878,\\ 11,878,\\ 11,957,\\ 11,770,\\ 11,77$	2008	,692
12,438, 12,173, 12,101, 12,013, 11,867, 11,867, 11,867, 11,878, 11,878, 11,878, 11,878, 11,878, 11,957, 770,	2009	,721,
1         12,173,           2         12,101,           3         12,013,           4         11,867,           6         11,867,           7         11,961,           9         11,878,           9         11,878,           9         11,878,           9         11,878,           9         11,878,           11,961,         11,957,           11,1,878,         11,957,           11         11,957,           11         11,957,	2010	2,438,
2 12,101, 3 12,013, 5 11,804, 5 11,861, 6 11,861, 7 11,961, 1 11,957, 1 11,957, 2 11,770, 2 11,770,		2,173,
3 12,013, 4 11,804, 5 11,861, 7 11,961, 8 11,878, 9 11,878, 0 11,878, 1 11,957, 1 11,957, 2 11,770, 2 11,770,		2,101
4         11,804,           5         11,861,           6         11,861,           7         11,961,           8         11,852,           9         11,878,           0         11,878,           11,957,         11,957,           2         11,70,		2,013,
5 11,867, 6 11,861, 7 11,961, 8 11,878, 9 11,878, 0 11,878, 1 11,957, 2 11,770,		1,804
6 11,861, 8 11,961, 9 11,878, 0 11,878, 1 11,957, 2 11,770,		1,867
7 11,961, 8 11,852, 9 11,878, 0 11,838, 1 11,957, 2 11,770,		1,861,81
8 11,852, 9 11,878, 0 11,838, 1 11,957, 2 11,770,	2017	1,961,
9 11,878, 0 11,838, 1 11,957, 2 11,770,	2018	
0 11,838, 1 11,957, 2 11,770,	2019	
21 11,957, 22 11,770,	2020	1,838,1
22 11,770,	$\sim$	1,957,
	2022	1,770,

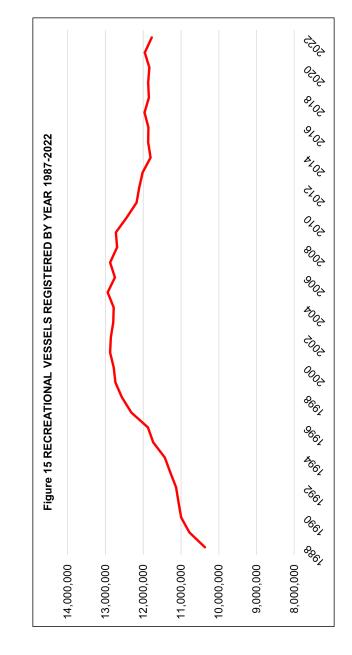


Table 37 • RECREATIONAL VESSEL REGISTRA MEANS OF PROPULSION 2	
MECHANICALLY PROPELLED	10,889,031
Under 16 feet	3,812,338
16 to less than 26 feet	6,482,612
26 to less than 40 feet	511,601
40 to 65 feet	71,449
Over 65 feet	11,031
NOT MECHANICALLY PROPELLED	881,352
Rowboats	44,596
Sailboats	88,365
Paddlecraft	613,426
Other	134,965
TOTAL	11,770,383

			CREATIO	VAL VES		EGISIKA	TION DATA BY STATE 2021-2022
		2022			2021		
	Registration		Fatality Rate	Registration		Fatality Rate	Scope of Current Boat Registration System
ation	11,770,383	636					
K	46,228	10			14		All motorized vessels; non-motorized is voluntary
L	248,710	11	4.4		10		All motorized vessels, sailboats, and boats for hire
R	234,776	15		233,554	11		All watercraft
Z	125,436	13	10.4	126,127	13	10.3	All motorized vessels
A	626,642	43	6.9	703,252	39	5.5	All motorized vessels. All sailboats over 8 feet in length.
0	71,957	14	19.5	81,856	8	9.8	All watercraft powered by motor or sail; sailboards exempt
т	90,641	9	9.9	92,659	7	7.6	All motorized vessels; sailboats 19.5 feet or more in length
C	1,875	0	0.0	1,655	0		All watercraft
)E	51,721	2	3.9	52,621	2	3.8	All motorized vessels; non-motorized is voluntary
Ľ	1,004,240	66	6.6	987,769	61		All motorboats; all non-motorized vessels over 16 feet in leng
6A	329,189	23	7.0	327,053	17		All motorized vessels and sailboats >12' in length
	12,915	4	31.0	13,194	5	37.9	All motorized vessels; sailboats over 8 feet in length
4	195,782	4	2.0	231,282	3	1.3	All watercraft with exceptions (a)
)	87,840	15	17.1	86,770	10	11.5	All motorized vessels and sailboats
_	187,429	5		188,086	15	8.0	All motorized vessels
N	202,750	11	5.4	204,937	7	3.4	All motorized vessels on public waterways
S	81,631	1	1.2	86,073	4	4.6	All motorized vessels and sailboats
Y	167,679	4	2.4	171,913	17	9.9	All motorized vessels, except electric motors 1 hp or less
A	300,582	29	9.6	312,880	27	8.6	All motorized vessels; sailboats more than 12 feet in length
1A	129,699	5	3.9	131,000	6	4.6	All motorized vessels
1D	172,091	11	6.4	172,652	6	3.5	All motorized vessels; vessels that may become motorized
1E	116,827	9	7.7	118,222	4	3.4	All motorized vessels
11	809,750	17	2.1	808,059	21	2.6	All watercraft with exceptions (b)
1N	822,450	15	1.8	830,073	18	2.2	All watercraft with exceptions (c)
10	289,724	17	5.9	290,712	28	9.6	All motorized vessels; sailboats over 12 feet in length
/IS	129,237	2	1.5	129,035	4	3.1	All motorized vessels and sailboats
1T	74,600	8	10.7	97,326		5.1	All motorized vessels
IC	384,858	20	5.2	382,437	20	5.2	All motorized vessels; sailboats more than 14 feet in length
1D	69,577	1	1.4	65,088	2	3.1	All motorized vessels; non-motorized is voluntary
IE	80,436	2	2.5	80,392	1	1.2	All motorized vessels
IH	105,100	4	3.8	105,562	3	2.8	All motorized vessels; sailboats 12 feet or more in length
IJ	164,911	4	2.4	146,362	8	5.5	All watercraft with exceptions (d)
IM	28,512	2		/	1	3.3	All motorized vessels and sailboats
IV	43,071	5	11.6	45,358	3	6.6	All motorized vessels; non-motorized is voluntary
IY	436,565	24		439,508	17	3.9	All motorized vessels
H	652,808	17			19		All watercraft
ЭК	194,373	14		199,407	12		All watercraft with exceptions (e)
)R	155,229	16			18	11.0	All motorized vessels; sailboats 12 feet or more in length
PA	298,048	9	3.0		9	2.9	All motorized vessels and certain non-powered craft (f)
1	37,862	3		38,727	2	5.2	All motorized vessels and rowboats over 12 feet
C	360,233	22		339,835			All watercraft
D	60,026	0		,		3.2	All motorized vessels ; all other boats over 12 feet in length
N	248,665	27	10.9	251,482	21		All motorized vessels and sailboats
X	567,470	34			58		All motorized vessels and sailboats 14 feet or more in length
Т	62,422	4	6.4	63,798			All motorized vessels and sailboats
Ά	223,140	16		227,942			All motorized vessels
Т	28,092	2		32,342	7		All motorized vessels
/Α	238,235	18				5.6	All motorboats with exceptions (g); sailboats >16 ft in length
/I	607,994	20		618,207	23	3.7	All motorized vessels & sailboats over 12 feet in length
VV	53,857	3		1	1	2.1	All motorized vessels
٧Y	25,471	1	3.9	25,860	1		All motorized vessels ; non-motorized is voluntary
S	132	0	0	101	0	0.0	All watercraft
NMI	405	0		-	1		All motorized vessels
SU	1,001	1	99.9	880	1		All motorized vessels and sailboats over 12 feet
R	27,340	4	14.6	27,397	0	0.0	All motorboats; vessels adapted to hold a motor
<b>'</b> I	2,149	0	0	2,209	1	45.3	All watercraft
	, -						

(a) IA excludes inflatables under 7 feet in length and canoes/kayaks under 13 feet in length. (b) MI excludes manually propelled boats 16 feet or less in length (c) MN excludes non-motorized boats 10 feet or less in length, waterfowl during waterfowl season, riceboats during harvest season, and seaplanes. (d) NJ excludes non-motorized boats less than 12 feet in length and canoes and kayaks. (e) OK excludes canoes, kayaks, and pedal boats. (f) PA registers non-powered craft using lakes or access areas owned by the State Fish & Boat Commission. (g) WA excludes motorboats < 16 feet with motors 10 horse-power or less used solely on exclusive state waters.

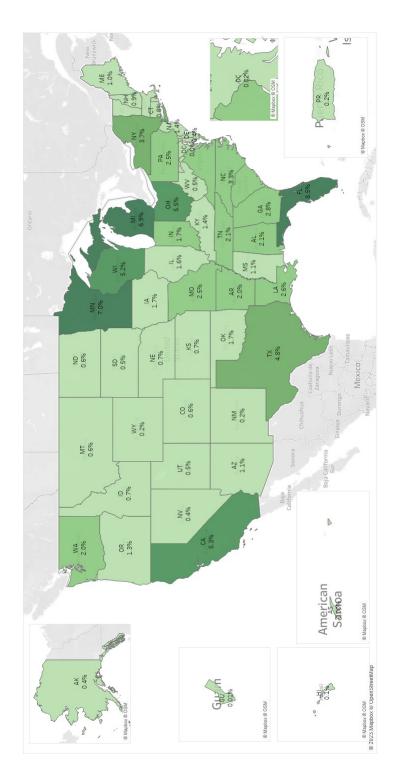


Figure 16 - DISTRIBUTION OF 2022 RECREATIONAL VESSEL REGISTRATION BY STATE

DEPARTMENT OF HOMELAND SECURITY U.S. Coast Guard OMB Control Number: 1625-0003										
RECREATIONAL BOATING ACCIDENT REPORT Expires: 07/31/2022										
<b>INSTRUCTIONS</b> : Use "Report required because" section below to determine if a report is required for your accident. If required, please have each vessel owner or operator involved in the accident submit a report to their state reporting authority. Each boat operator/owner involved in an accident should submit a separate report. For each question below, please provide answers if applicable and if known; otherwise leave blank.										
Authority: 46 U.S.C. 6102 a	ind 33 CFR 173 & 174 autho	rize the coll		Act Notice	idents					
					neasure the Program s efforts, an	d to regulate issues relating to				
Routine Uses: The Coast Guard shares this information within the agency, and if state and federal law permit it, to the public.										
		RE	PORT S	UBMISSION	1					
Report required becaus	e (select all that app				To be submitted within:					
At least one person ir			o, how ma			appearance or death)				
At least one injured p treatment beyond firs				<i>in need of</i> ny?	10 days <i>(if boat/prope</i> To be submitted to: <i>(L</i>					
At least one person in recovered:	n this accident <i>disap</i>			ot yet been ny?	Authority)					
All boat and other proby this accident totale		ear) caused	Phone:							
-	e of damage to <i>your</i>		\$		You may submit any comments	s concerning the accuracy of the				
	e of damage to <i>your</i>		operty: \$			tions for reducing the burden to: S. Coast Guard, Washington, DC				
Your or another <i>boat</i>	÷ .		20593-0001 or Office of Manag Reduction Project 1625-0003,	ement and Budget, Paperwork Washington, DC 20503. Questions						
Report submitted by (se			relating to the collection of this data should be sent to the Coast Guard.							
Boat Operator <i>(required)</i>					For State Agency Use Only					
Boat Owner (if operation	tor unable, or same	as opera	ator)		First Name	Last Name				
Other (describe):										
	I		1		Phone:					
First Name	Last Name		Phone	Primary Cause of Accident						
		AC		SUMMARY	l					
WHEN				ACCIDENT DESCRIPTION: Briefly describe this accident						
Date:	Time:	am 🗖	pm 🗖	(attach extra pages if necessary)						
(mm/dd/yyyy) WHERE		(selec	t one)							
Body of Water Name				-						
body of Water Name										
Location (on water) descr	ription			<b>DAMAGE TO YOUR BOAT</b> : <i>Briefly</i> summarize any damage to your boat						
Nearest city/town										
County:	State:									
YOUR BOAT - PEOPLE				DAMAGE TO	O YOUR OTHER PROP	PERTY: (NOT BOAT)				
# people on board (includ	ling operator):			Briefly summa	rize any damage to your o	other property (not boat)				
# people being towed (e.g	g., on tubes, skis):									
# people wearing lifejacke	ets (on board or tow	ed):								
OTHER BOATS INVOLV	ED IN ACCIDENT									
# of other boats involved:										

CG-3865 (9/18)

Page 1 of 6

	For each question below, please provide answers IF APPLICABLE AND IF KNOWN, otherwise leave blank.																						
	YOUR BOAT																						
BC	DAT IDENTIFICAT	101	N																				
Yo	Your Boat Name:									Manufacturer:													
Мо	del Name:												Model Year:										
Re	gistration #:												Documentation #:										
	Il Identification #																						
HI	N)												Rented: Yes No										
SIZE ESTIMATES																							
Lei	ngth: ft.		pth fro keel <i>(b</i>									ft.				in.	Be	eam w	/idth at w	idest	point:		ft.
ΗL	ILL MATERIAL																						
Ту	pe of Hull Material	(sel	ect one	<i>)</i>																			
	Fiberglass				Wo	od								Rub	ber/\	/inyl/canva	S		Ot	ther	describe)	):	
	Aluminum				Ste	el								Plas	tic								
	DAT TYPE																r						
Во	at Type (select one)		1							-	<b>—</b>					<u></u>	Ava		Propuls	sion	1		t apply)
	Cabin motorboat		Inflata	able			Can	oe		4						ft (PWC) er™. Jet		Prop	eller	_	Air thrust		
	Open motorboat		Hous	eboat			Row	/boat			3	Ski™	g., Wave Runner™, Jet ™, Sea-Doo™				Sail		Other describ		ribe):		
	Auxiliary sail		Sail (				Air b	oat		1		Othe	her <i>describe)</i>					Man					
	Pontoon boat		Kaya	k									Wat					Wate	er jet				
ENGINE         # Engines       Engine type and horsepower (select one)         Fuel type (select one)								. (	- 11 (1.	- (													
	Engines Inufacturer	t			Т	nor	sepo	ower	(sel	ect c	one,				1 1		Fue	l type	e (select a	all tha	at apply	ГТ	
IVIC	inulacturei		Out	board	l		Sterr	ndriv	e (III	0		Int	ooard None Gasoline				oline	Di	esel	E	Electric		
		٦	Fotal h	orsep	oowe	er:		ł	ιp														
	FETY MEASURE																						
	rganizations that hav nuipment, e.g., lifejad										on	boai	rd y	our be	oat v	vithin the p	ast y	ear ( <i>i</i>	ncluding	carri	age of sa	fety	
	US Coast Guard A	uxil	iary:	VSC	Dec	al?	Г	ΓYe	s		No	)		Federal Agency Name)									
	US Power Squadro		,	VSC				∟ ∃Y∈	s		No	)	State Agency (Name)										
													Other Agency <i>Name</i> )										
# L	ife jackets on board			# Fire	exti	ingui	shers	s on l	board	d:			Ту	pe of	fire e	extinguishe	ers e	.g., A	BC):				
				#	Fire	extir	nguis	shers	useo	d:				Amo	unt	of fire extir	nguisł	ners u	sed:				
				Α	CC	IDE	NT	DE	TA	LS	- 1	EX	TE	RN/	۹L	CONDI	ΓΙΟΙ	<b>NS</b>					
W	EATHER																						
0	verall weather was	(se	-	,			lt	was		ect c	one	'	Visi	bility	was	s select or	ne)		nd was ຣ		t one)		
	Clear		Rair						ay					Good	1				0 mph <i>(n</i>		10 L (	1	
	Cloudy Foggy	-	Haz	wing v				IN	ight					Fair Poor					Over 0, u Over 12,				derate)
	Other <i>describe</i> ):		TIQ2	<u>y</u>											1				Over 25,				
	,						ŀ	Appro	oxima	ate a	air t	emp	erat	ure:		۴			Over 55			<u> </u>	
W	ATER																						
Ov	erall water condition	ons	selec	t one):	:					Ot	her	' wat	ero	condi		-				1			
	Up to 6 in. waves (	(calr	п												Арр	roximate v	vater	tempe	erature:		٩	:	
	Over 6 in., up to 2	ft. v	vaves (	(chopp	oy)						Strong current? Yes N								No				
	Over 2 ft., up to 6 f	ft. v	vaves	(rough	n)					На	zar	dous	s wa	aters?	(e.g	g., rapid tid	al flo	w, cur	rents		Yes		No
Over 6 ft. waves (very rough)					Congested waters? Yes No										No								

CG-3865 (9/18)

Page 2 of 6

	For each question belo	ow,	please provi	de	answers IF APPL	IC/	ABLE AND IF KNO	J۱	NN, otherwise leave blank.	
	ACCIDENT	D	ETAILS -	A	CTIVITIES AND	0 0	<b>DPERATIONS</b>	С	N YOUR BOAT	
0	PERATOR/PASSENGER AC	TIV	/ITIES							
0	perator/passenger activities on	yo	<i>ur</i> boat at tin	ne o	of accident:					
A	ctivities were (select one)		Operator/Pa	ISS	enger activities (se	lec	t all that apply			
	Recreational		Fishing Tubing						Starting engine	
	Commercial		Hunting	<u> </u>			Water Skiing		Making repairs	
			White water	act	ivity (e.g., rafting)		Relaxing		Other (list):	
	OAT OPERATIONS		dent (aclast a	11 44	of onaly					
10	our boat operations at time of a Cruising (underway under power)		Drifting	tii ti	агарріу		Racing		Towing another vessel	
	Changing direction		At anchor				Rowing/paddling		Launching	
	Changing speed		Being towed				Docking/undocking	r	Tied to dock/mooring	
	Sailing		Other (list)				Deoking/andooking	1	They to designificantly	
	5									
	ACCIDE	NT	DETAILS	-	CONTRIBUTI	١G	FACTORS ON	Ν	YOUR BOAT	
С	ONTRIBUTING FACTORS									
In	dicate factors on <i>your</i> boat wh	ich	may have co	ntr	ibuted to this accie	den	t (select all that app	oly	· · · · · · · · · · · · · · · · · · ·	
	Alcohol use		Improper loc	οkοι	ıt		Dam/lock		Starting in gear	
	Drug use		Operator ina	itter	ntion		Force of wake/wave		Sharp turn	
	Excessive speed		Operator ine	expe	erience		Hazardous waters		Restricted vision (e.g., fog)	
	Improper anchoring		Language barrier				Heavy weather		Mission/inadequate aids to navigation <i>e.g., buoy, daymarker</i> )	
	Improper loading		Navigation r	Navigation rules violation			Ignition of fuel or vapor		Inadequate on-board navigation lights	
	Overloading		Failure to ve	nt			Hull failure		People on gunwale, bow or transom	
	Other <i>describe</i> ):									
			ACC	ID	ENT DETAILS	-)	YOUR BOAT			
Μ	ACHINERY/EQUIPMENT FA	ILU	IRE							
Fa	ilure of the following machine	ry/e	quipment on	yo	ur boat contribute	d to	this accident sele	ec	ct all that apply	
	Engine		Onboard ligh	nts			Shift		Sound equipment <i>e.g., horn, whistle</i>	
	Electrical system		Seats				Radio		Auxiliary equipment	
	Fuel system		Steering				Fire extinguisher		Other ( <i>list</i> ):	
	Sail/mast		Throttle				Ventilation			
$\vdash$	Onboard navigation aids (e.g., e		-	יח			S ON YOUR B	>		
		<u>A</u>	CCIDENT		ETAILS - EVE		S ON FOUR B			
	CCIDENT EVENTS opes of events occurring to/on	VOI	r boat durin	1 a0	cident select all th	nat	annly			
• • •	Collision with recreational boat	you		ju	Flooding/swamping			Т	Person fell overboard	
	Collision with commercial boat	(0.0	tua haraa		Fire/explosion - fu			╉	Person fell on/within boat	
					-		£1	+		
	Collision with fixed object <i>e.g., dock, bridge</i> )				Fire/explosion - n			_	Sudden medical condition	
	Collision with submerged object cable)				Carbon monoxide exposure				Person struck by boat	
	Collision with floating object (e.s	g., I	og, buoy)		Mishap of skier, tu boarder, etc.	ber	, wake	Person struck by propeller or propulsion unit		
	Capsizing				Person left boat vo	olur	ntarily		Person electrocuted	
	Grounding				Person ejected fro	m I	boat caused by coll	lis	ion or maneuver)	
	Sinking		Other <i>describe</i> )							

For each question below, please provide answers IF APPLICABLE AND IF KNOWN, otherwise leave blank.

## ACCIDENT DETAILS -YOUR BOAT-INJURED PEOPLE RECEIVING OR IN NEED OF TREATMENT BEYOND FIRST AID

Report on/Y injured people on, struck by, or being towed by Your boat, receiving or in need of treatment beyond first aid. Do not report injured people on, struck by, or being towed by another boat or no boat (e.g., swimmers, people on a dock). If more than one injured person to report, attach additional copies of this page. If none, SKIP INJURED PEOPLE section.

First Name	MI		Last	Name									
Street													
City		State				Zip							
Phone			of Birth d!YYYY)			Age							
	1		,										
Injury caused when person select all that app	IY)			Na	ature of most seric	ous injury (sele	ct one)						
Struck the (e.g., boat, water):				1	Scrape/bruise		Disl	ocation					
Was struck by a <i>(e.g., boat, propeller :</i>					Cut		Inte	rnal organ ir	jury				
Was exposed to carbon monoxide poisoning				1	Sprain/strain		Am	Amputation					
Received an electric shock				1	Concussion/brain	i injury	Buri	า					
Other <i>describe</i> ):					Spinal cord injury	,	Oth	Other describe):					
Person was wearing lifejacket?	Ye	es	No		Broken/fractured	bone							
Person received treatment beyond first aid?	Ye	s	No	Bo	ody part of <i>most ser</i>	, head,	head, trunk, leg):						
Person was admitted to a hospital?	Ye	es	No										
ACCIDENT DETAILS – YOUR BOAT – DEATHS/DISAPPEARANCES													
,	L0 -	1001	RBON	11-	- DEATHS/DIS	APPEARA	NCE	5					
On/Y report deaths/disappearances of people on If more than one death/disappearance to report, a If none, SKIP DEATHS/DISAPPEARANCES sec	, struck attach a	by, or b	peing to	wed I	by Your boat.	APPEARA	NCE	5					
OnlY report deaths/disappearances of people on If more than one death/disappearance to report,	, struck attach a	by, or b	peing to	wed I	by Your boat.	APPEARA	NCE	5					
OnlY report deaths/disappearances of people on If more than one death/disappearance to report,	, struck attach a	by, or b	being tov al copies	wed I s of t	by Your boat.	APPEARA		5					
<i>OnlY</i> report deaths/disappearances of people on If more than one death/disappearance to report, <i>If none</i> , SKIP DEATHS/DISAPPEARANCES sec	, struck attach a	by, or b ddition	being tov al copies	wed I s of t	by Your boat. his page.			<u> </u>					
<i>OnlY</i> report deaths/disappearances of people on If more than one death/disappearance to report, a <i>If none</i> , SKIP DEATHS/DISAPPEARANCES sec	, struck attach a	by, or b ddition	being tov al copies	wed I s of t	by Your boat. his page.	Zip		<u> </u>					
OnlY report deaths/disappearances of people on If more than one death/disappearance to report, a If none, SKIP DEATHS/DISAPPEARANCES sec First Name Street	, struck attach a	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t	by Your boat. his page.		NCE	5					
OnlY report deaths/disappearances of people on If more than one death/disappearance to report, a If none, SKIP DEATHS/DISAPPEARANCES sec First Name Street City	, struck attach a	by, or t dditiona MI State Date o	peing tov	wed I s of t	by Your boat. his page.	Zip		<u> </u>					
OnlY report deaths/disappearances of people on If more than one death/disappearance to report, a If none, SKIP DEATHS/DISAPPEARANCES sec First Name Street City	, struck attach a tion.	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t Last	by Your boat. his page.	Zip Age							
On/Y report deaths/disappearances of people on If more than one death/disappearance to report, a If none, SKIP DEATHS/DISAPPEARANCES sec First Name Street City Phone	, struck attach a tion.	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t Last	by Your boat. this page. Name	Zip Age opearance sele							
OnlY report deaths/disappearances of people on If more than one death/disappearance to report, a If none, SKIP DEATHS/DISAPPEARANCES sec First Name Street City Phone Injury caused when person select all that appre	, struck attach a tion.	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t Last	by Your boat. this page. Name <b>ture of death/disap</b>	Zip Age opearance sele	ect one						
On/Y report deaths/disappearances of people on         If more than one death/disappearance to report, a         If none, SKIP DEATHS/DISAPPEARANCES sec         First Name         Street         City         Phone         Injury caused when person select all that app         Struck the (e.g., boat, water):         Was struck by a (e.g., boat,	, struck attach a tion.	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t Last	by Your boat. this page. Name <b>ture of death/disap</b> Death - by drowni	Zip Age opearance sele	ect one						
On/Y report deaths/disappearances of people on         If more than one death/disappearance to report, a         If none, SKIP DEATHS/DISAPPEARANCES sec         First Name         Street         City         Phone         Injury caused when person select all that approximation of the struck by a (e.g., boat, water):         Was struck by a (e.g., boat, propeller):	, struck attach a tion.	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t Last	by Your boat. this page. Name <b>ture of death/disap</b> Death - by drowni	Zip Age pearance sele ing y cause descri	ect one be)						
On/Y report deaths/disappearances of people on         If more than one death/disappearance to report, a         If none, SKIP DEATHS/DISAPPEARANCES sec         First Name         Street         City         Phone         Injury caused when person select all that app         Struck the (e.g., boat, water):         Was struck by a (e.g., boat, propeller):         Was exposed to carbon monoxide poisoning	, struck attach a tion.	by, or t dditiona MI State Date o	peing tov al copies	wed I s of t Last	by Your boat. this page. Name ture of death/disap Death - by drowni Death - other likel	Zip Age pearance sele ing y cause descri not yet recovere	ect one be)		No				

CG-3865 (9/18)

For each question below, please provide	answers I	F APPL	ICABLE AND IF	KNOWN, otherwise	leave	blank.				
ACCIDENT DI	ETAILS	- γοι	IR BOAT OPE	RATOR						
OPERATOR INSTRUCTION	OPERATOR SAFETY MEASURES									
Boating safety instruction completed (select all that a	On bo	ard, prior to accid	lent, was operator we	earing:						
None				A lifejacke	et?	Yes	No			
State course	A	n engine cut-off sw	itch (Lanyard or wirele device) if equippe	ess d?	Yes	No				
USCG Auxiliary course		On boa	ard, prior to accider	nt, was operator using:						
US Power Squadrons course				Alcoho	ol?	Yes	No			
Internet (name of sponsoring organization)				Drug	s?	Yes	No			
Other <i>describe</i> )		Operato	or arrested for Boat	ing Under the Influence	e?	Yes	No			
		W	/eather reports con	sulted prior to accident	t?	Yes	No			
OPERATOR EXPERIENCE		•					Ċ			
Experience operating this type of boat (select one)										
0 to 10 hours Over 10, up to 100 hours			Over 100, up to 50	0 hours	Ove	er 500 hou	rs			
ACCIDENT	DETAIL	S – O	THER KEY PE	OPLE						
Only report other key people not already documented as injured, died, disappeared or operator/owner of your boat. If more than two other key people to report, attach additional copies of this page.										
NAME/ADDRESS										
This other key person was a(n) select all that apply										
Other boat operator	Other boat operator Other boat owner Owner of other damaged property Passenger on your boat Witness									
First Name	MI	Last Name								
Street										
City	State		Zip	Phone						
<i>Other</i> boat name <i>(if any</i>		Other boat registration # (if any								
NAME/ADDRESS										
This other key person was a(n) (select all that apply										
Other boat operator	Owner of	f <i>other</i> damaged property Passenger on <i>your</i> boat Witness								
First Name	MI	Last Name								
Street	I									
City	State									
<i>Other</i> boat name <i>(if any</i>		Other boat registration # (if any								

For each question be	low, please provid	e answers IF	- APPI	LICABLE	ANI	D IF KNOWN, oth	erwise leave blank.		
	}	OUR BO	ΑΤ Ο	PERATO	DR				
NAME/ADDRESS									
First Name	irst Name MI Last Name								
Street									
City State Zip									
AGE/									
Date of Birth	Age		Male Female Phone						
mmlddlyyyy)		YOUR B							
If same as <i>your</i> boat <i>operator</i>	SKIP rest of VOLIE				<u> </u>				
NAME/ADDRESS/PHONE		( BOAT OW							
First Name		MI	Las	t Name					
Street									
		1							
City		State	Zip				Phone		
	PERSC		TTIN	G THIS	RE	PORT			
If same as your boat operator OR owner, SKIP rest of PERSON SUBMITTING THIS REPORT section.									
NAME/ADDRESS/PHONE/RO	LE								
First Name		MI	Las	st Name					
Street			•						
City		State	Zip				Phone		
I was a(n) (select one)							1		
Other person on board <i>this</i> b	oat								
Accident witness not on boar	d <i>this</i> boat								
Other describe):									
S		PERSON		BMITTIN	IG	THIS REPOR	т		
Your signature							Date mmlddlyyyy)		
An Agency may not conduct or sponsor and a person is not required to respond to an information collection, unless it displays a currently valid OMB Control Number.									
The Coast Guard estimates that the average burden for this report form is 30 minutes. You may submit any comments concerning the accuracy of this burden estimate or any suggestions for reducing the burden to: Commandant (CG-BSX-21), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (1625-0003), Washington, DC 20503.									

## Glossary

**Airboat** - A vessel that is typically flat-bottomed and propelled by an aircraft-type propeller powered by an engine.

**At Anchor** - Held in place in the water by an anchor; includes "moored" to a buoy or anchored vessel and "dragging anchor".

**Auxiliary Sail** - A vessel with sail as its primary method of propulsion and mechanical propulsion as its secondary method.

**Cabin Motorboat** - A vessel propelled by propulsion machinery and providing enclosed spaces inside its structure.

**Canoe** - A small narrow boat, propelled by paddles. Canoes usually are pointed at both bow and stern and are normally open on top, but can be covered.

Capsizing - Overturning of a vessel.

**Carbon Monoxide Poisoning** - 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 persons were either aboard or in close proximity.

Collision with Fixed Object - The striking of any fixed object, above or below the surface of the water.

**Collision with Floating Object** - Collision with any waterborne object above or below the surface that is free to move with the tide, current, or wind, except another vessel.

**Collision with Commercial/Governmental/Recreational Vessel** - Any striking together of two or more vessels, regardless of operation at the time of the accident, is a collision.

**Collision with Submerged Object** - A boat's collision with any waterborne or fixed object that is below the surface of the water.

**Congested Waters** - Where the body of water is either too small or narrow to safely accommodate the number of boats on it.

Cruising - Proceeding normally, unrestricted, with an absence of drastic rudder or engine changes.

**Departed Vessel** - An accident where a person voluntarily disembarks a vessel by his/her own will (i.e. by diving off, jumping in), as opposed to a case where the person is forcefully ejected by a change in the vessel speed and/or direction.

**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 document issued by the Coast Guard. Documented vessels are not numbered.

**Drifting** - Underway, but proceeding over the bottom without use of engines, oars or sails; being carried along only by the tide, current, or wind.

**Electrocution** - Death or injury resulting from an electrical current that comes in contact with water causing electrocution of the victim.

**Excessive Speed** - Speed above that which a reasonable and prudent person would have operated under the conditions that existed. It is not necessarily a speed in excess of a posted limit.

Failure to Vent - 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.

Fall in Vessel - Any operator or passenger who slips, trips, or falls on board or within the vessel.

Falls Overboard - Any operator or passenger who falls off of the vessel.

**Fiberglass hull** - Hulls of fiber-reinforced plastic. The laminate consists of two basic components, the reinforcing material (glass filaments) and the plastic or resin in which it is embedded.

**Fire/Explosion (fuel)** - Accidental combustion of vessel fuel, liquids, including their vapors, or other substances such as wood.

**Fire/Explosion (other)** - Accidental burning or explosion of any material onboard except vessel fuels or their vapors.

**Flooding/Swamping** - Filling with water, regardless of method of ingress, but retaining sufficient buoyancy to remain on the surface.

**Force of Wave/Wake** - The track in the water of a moving boat; commonly used for the disturbance of the water (waves) resulting from the passage of the boat's hull.

**Fueling** - Any stage of the fueling operation; primarily concerned with introduction of explosive or combustible vapors or liquids on board.

Grounding - Running aground of a vessel, striking or pounding on rocks, reefs, or shoals; stranding.

**Hazardous Waters** - Rapid tidal flows (the vertical movement of water) and/or currents (the horizontal flow of water) resulting in hazardous conditions in which to operate a boat.

**Houseboat** - A motorized vessel that is usually non-planing and designed primarily for multi-purpose accommodation spaces with low freeboard and little or no foredeck or cockpit.

**Hull Failure** - Defect or failure of the structural body of a vessel (i.e., hull material, design, or construction) not including superstructure, masts, or rigging.

Ignition of Spilled Fuel or Vapor - Accidental combustion of vessel fuel, liquids, and/or their vapors.

**Improper Anchoring** - Where a boat is either in the process of being anchored incorrectly or incorrectly held in place in the water by an anchor.

**Improper Loading** - Loading, including weight shifting, of the vessel causing instability, limited maneuverability, or dangerously reduced freeboard.

**Improper Lookout** - 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. Every vessel shall at all times maintain a proper look-out by sight and hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

**Inboard**– An engine mounted inside the confines of a vessel which powers a drive shaft that turns a water jet impeller or that runs through the bottom of the hull and is attached to a propeller at the other end.

Inflatable - A vessel that uses air-filled flexible fabric for buoyancy.

Kayak - A small boat with a cockpit that is propelled by a double-bladed paddle by a sitting paddler.

**Inadequate On-board Navigation Lights** - Insufficient and/or improper lights shown by a boat that indicate course, position, and occupation, such as fishing or towing.

**Machinery Failure** - 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 (e.g., engine, transmission, fuel system, electric system, and steering system).

Missing or Inadequate Navigation Aids - The absence of or ineffective presence of navigation aids.

Motorboat - Any vessel equipped with propulsion machinery.

**Navigation Rules Violation** - Violation of the statutory and regulatory rules governing the navigation of vessels.

**Numbered vesse** - An undocumented vessel numbered by a state with an approved numbering system under Chapter 123 of title 46, U.S.C.

**Open Motorboat** - A vessel equipped with propulsion machinery and having an open load carrying area that does not have a continuous deck to protect it from the entry of water.

**Operator Inattention** - Failure on the part of the operator to pay attention to the vessel, its occupants, or the environment in which the vessel is operating.

**Operator Inexperience** - Lack of practical experience or knowledge in operating a vessel or, more particularly, the vessel involved in the accident.

**Outboard** - An engine with propeller or water jet integrally attached, which is usually mounted at the stern of a vessel.

**Overloading** - Excessive loading of the vessel causing instability, limited maneuverability, dangerously reduced freeboard, etc.

**Paddlecraft** - A vessel powered only by its occupants, using a single or double- bladed paddle as a lever without the aid of a fulcrum provided by oarlocks, thole pins, crutches, or similar arrangements.

**People on Gunwale, Bow or Transom** - 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.

Person Struck by Vessel - A person is struck by a boat.

**Person Struck by Propeller** - A person is struck by the propeller, propulsion unit, or steering machinery.

**Personal Watercraft** - A vessel propelled by a water-jet pump or other machinery as its primary source of motive power and designed to be operated by a person sitting, standing, or kneeling on the vessel, rather than sitting or standing within the vessel's hull.

**Pod drive-** An engine mounted in front of the transom of a vessel and attached through the bottom of the hull to a steerable propulsion unit.

**Pontoon Boat** - A vessel with a broad, flat deck that is affixed on top of closed cylinders which are used for buoyancy, the basic design of which is usually implemented with two rows of floats as a catamaran or with three rows of floats as a trimaran.

**Restricted Vision** - A vessel operator's vision is said to be restricted when it is limited by a vessel's bow high trim, or by glare, sunlight, bright lights, a dirty windshield, spray, a canopy top, etc.

Rowboat - An open vessel manually propelled by oars.

Sail (only) - A vessel propelled only by sails.

Sharp Turn - An immediate or abrupt change in the boat's course of direction.

Sinking - Losing enough buoyancy to settle below the surface of the water.

**Skier Mishap** - Skier mishap is defined by persons (1) falling off their water-skis, (2) striking a fixed or submerged object, or by (3) becoming entangled or struck by the tow line. Also includes mishaps involving inner-tubes and other devices on which a person can be towed behind a boat.

**Standup Paddleboard** - A vessel, typically 7' - 15' in length with enough width and flotation to stay afloat without momentum while boarded, that is propelled by a standing operator with the use of a single or double-bladed paddle.

Starting in Gear - The boat's engine is started with the transmission in forward or reverse.

**Steel hull** - Hulls of sheet steel or steel alloy, not those with steel ribs and wood, canvas, or plastic hull coverings.

**Sterndrive** - An engine, powering a propeller through a series of shafts and gears, mounted in front of the transom of a vessel and attached through the transom to a drive unit that is similar to the lower unit of an outboard; and may also be known as an inboard-outdrive or an inboard-outboard.

**Sudden Medical Condition -** An incident where a person on a vessel experiences an unexpected medical condition.

Towing - Engaged in towing any vessel or object, other than a person.

**Weather** - As a contributing factor of an accident, "Weather" is supposed to signify a stormy or windy condition, usually connoting rough or high seas and dangerous operating conditions.

**Wood Hull** - Hulls of plywood, molded plywood, wood planking, or any other wood fiber in its natural consistency, including those of wooden construction that have been "sheathed" with fiberglass or sheet metal.

Glossary of State Codes								
AL	Alabama	NJ	New Jersey					
AK	Alaska	NM	New Mexico					
AZ	Arizona	NY	New York					
AR	Arkansas	NC	North Carolina					
CA	California	ND	North Dakota					
СО	Colorado	ОН	Ohio					
СТ	Connecticut	OK	Oklahoma					
DE	Delaware	OR	Oregon					
DC	District of Columbia	PA	Pennsylvania					
FL	Florida	RI	Rhode Island					
GA	Georgia	SC	South Carolina					
HI	Hawaii	SD	South Dakota					
ID	Idaho	TN	Tennessee					
IL	Illinois	TX	Texas					
IN	Indiana	UT	Utah					
IA	lowa	VT	Vermont					
KS	Kansas	VA	Virginia					
KY	Kentucky	WA	Washington					
LA	Louisiana	WV	West Virginia					
ME	Maine	WI	Wisconsin					
MD	Maryland	WY	Wyoming					
MA	Massachusetts	GU	Guam					
MI	Michigan	PR	Puerto Rico					
MN	Minnesota	VI	Virgin Islands					
MS	Mississippi	AS	American Samoa					
MO	Missouri	CNMI	Northern Mariana Islands					
MT	Montana	AT	Atlantic Ocean					
NE	Nebraska	GM	Gulf of Mexico					
NV	Nevada	PC	Pacific Ocean					
NH	New Hampshire							