OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATERCRAFT

2004
RECREATIONAL BOATING ACCIDENTS

STATISTICAL SUMMARY OF THE REPORTABLE BOATING ACCIDENTS IN THE STATE OF OHIO FOR CALENDAR YEAR 2004

Bob Taft, Governor Samuel Speck, Director Kenneth J. Alvey, Chief

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A STATISTICAL SUMMARY OF THE REPORTABLE BOATING ACCIDENTS IN THE STATE OF OHIO FOR CALENDAR YEAR 2004

April 2005

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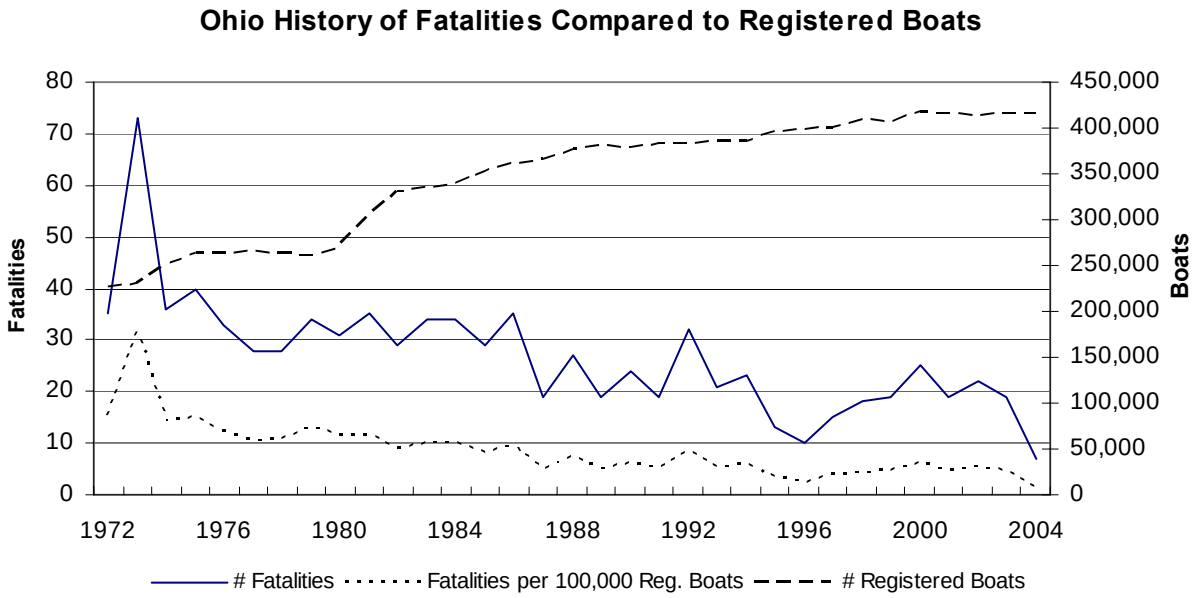
INTRODUCTION

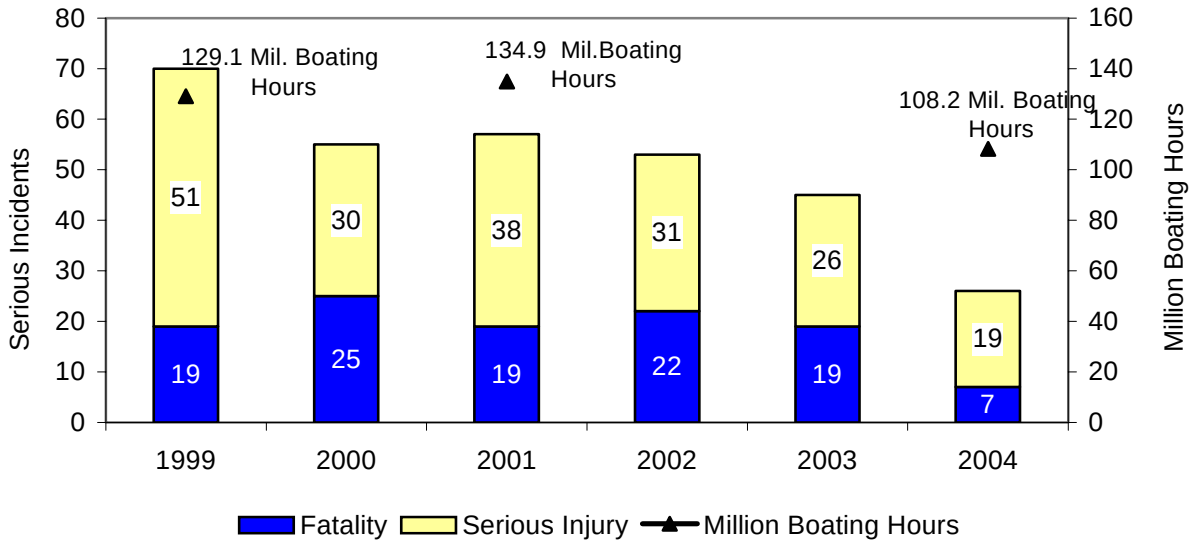
Each year the reports of accidents submitted to the Division of Watercraft are reviewed and considered along with information obtained through surveys of boaters, officer activity and registration data to formulate polices that will direct where resources are most needed.

One of the goals of Ohio's recreational boating safety program is to allow boaters to feel safe while enjoying their recreation. In 2004, Ohio Boaters reported the lowest number of accidents in more than a decade. The 143 reported accidents caused 59 injuries that required medical treatment, the lowest number of injuries in a decade. To compare the relative safety of recreational boating from year to year, the number of registered boats is compared to the number of fatalities reported. The historical measurement used by the U.S. Coast Guard is the number of boating related fatalities per 100,000 registered boats. Starting from 1972, when Ohio's boating education and law enforcement program began, the first five years averaged a rate of 17.8 fatalities per 100,000 boats. The most recent five years averaged a rate of 4.4 fatalities per 100,000 boats. During this same period the number of registered boats increased from 226,424 boats to 414,938 boats, an 83% increase.



Another measure to be considered is the number of fatalities or serious injuries, those that require a stay in the hospital, compared to the number of hours of boating activity. The Division of Watercraft periodically surveys a random sample of registered boat owners[1] to estimate the amount of time they participate in boating. By comparing the amount of participation with serious incidents we can see the affects the boating environment may have. This comparison indicates .24 serious incidents for each million hours of boating participation in 2004, compared to .54 in 1999.

[1] The final results of *2004 Survey of Recreational Boater Safety and Participation in Ohio* by Dr. Leroy Hushak will be available in June 2005.



A review of boating accident statistics can indicate areas where additional education or regulatory efforts are needed. This information can show trends that may be affected through improved information to boaters, educational programs, navigational aids or working with manufacturers to address potential design flaws. All states and territories are required to report recreational boating accidents to the U.S. Coast Guard where data is compiled nationally. The national data is available through the U.S. Coast Guard web page, **http://www.uscgboating.org/statistics/accident_stats.htm**.

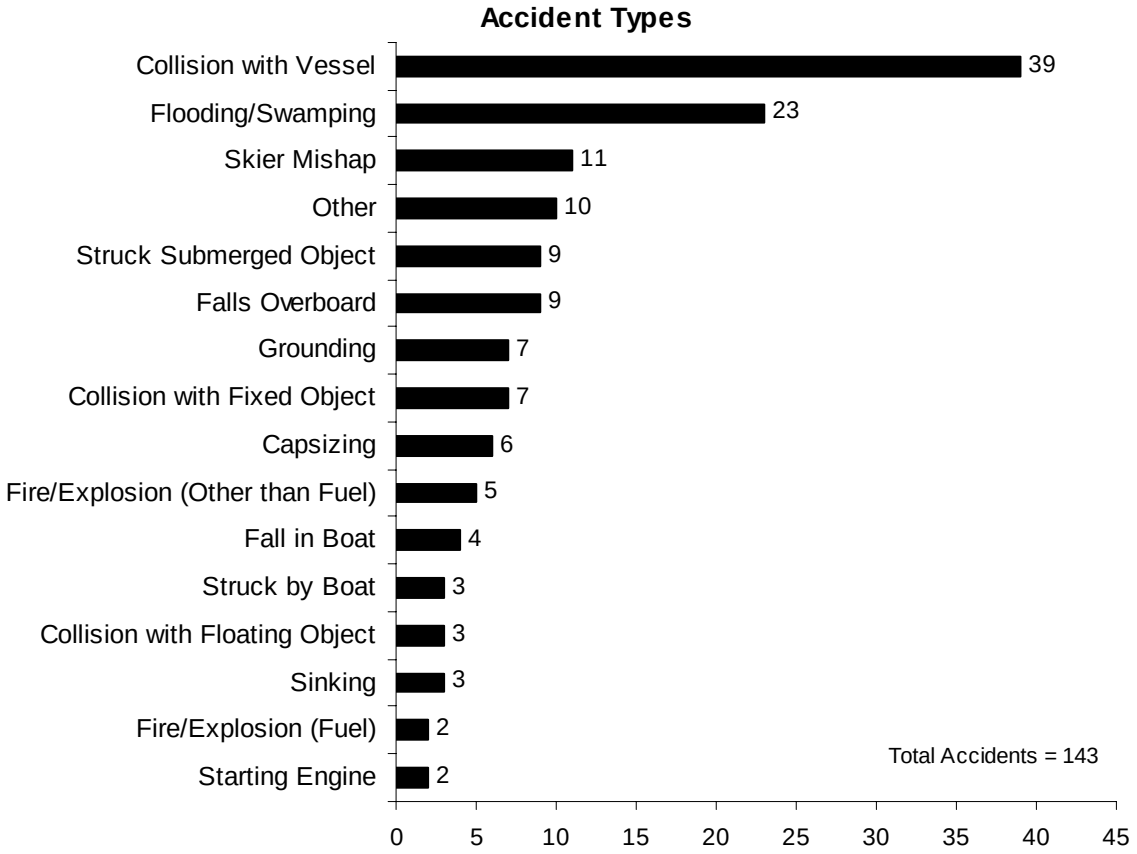
One hundred forty-three accidents were reported that met the standard outlined in Section 1547.59 of the Ohio Revised Code. One hundred six of these accidents also met the reporting standard established by the U.S. Coast Guard for reporting. A list of these guidelines can be found on pages 20 through 22 of this report.

Ohio Boating Accidents 1960 - 2004

Year	# Fatalities	# Accidents	# Vessels	# Injuries	# Registered Boats	Fatalities per 100,000 Reg. Boats	Fatal Accidents per 100,000 Reg. Boats
1960	26			26	98,562	26.4	
1961	36	99		47	119,741	30.1	
1962	37	77	98	14	134,105	27.6	22.4
1963	27	73	92	30	143,959	18.8	17.4
1964	44	83	109	23	150,415	29.3	22.6
1965	32	90	117	17	154,741	20.7	18.1
1966	40	116	137	34	168,921	23.7	19.5
1967	39	109		26	177,458	22.0	19.2
1968	42	93	115	22	188,075	22.3	17.5
1969	36	89	109	7	195,594	18.4	14.8
1970	34	84	103	11	212,405	16.0	14.6
1971	35	97	125	21	224,806	15.6	13.8
1972	35	97	124	12	226,424	15.5	11.5
1973	73	145	174	33	231,379	31.5	23.3
1974	36	138	170	14	250,304	14.4	13.6
1975	40	101	127	29	263,109	15.2	11.8
1976	33	133	155	24	262,937	12.6	10.3
1977	28	128	155	11	265,765	10.5	8.3
1978	28	163	220	26	263,366	10.6	8.7
1979	34	94	130	59	260,229	13.1	10.8
1980	31	97	131	43	270,092	11.5	10.4
1981	35	100	131	45	304,880	11.5	8.9
1982	29	114	148	52	330,126	8.8	8.2
1983	34	125	164	58	334,423	10.2	9.6
1984	34	178	236	78	338,184	10.1	8.9
1985	29	208	277	71	351,394	8.3	7.1
1986	35	226	288	55	361,883	9.7	7.5
1987	19	251	323	78	366,289	5.2	4.4
1988	27	215	262	67	375,194	7.2	5.9
1989	19	170	202	64	380,412	5.0	4.2
1990	24	124	166	53	378,249	6.3	4.5
1991	19	168	219	98	383,136	5.0	4.4
1992	32	156	205	58	382,218	8.4	6.5
1993	21	136	187	65	384,048	5.5	3.6
1994	23	176	236	102	385,206	6.0	5.5
1995	13	294	405	118	394,885	3.3	2.5
1996	10	263	366	121	398,388	2.5	2.3
1997	15	198	280	85	399,888	3.8	3.0
1998	18	228	296	100	407,688	4.4	4.2
1999	19	232	313	115	407,347	4.7	4.7
2000	25	191	261	82	416,798	6.0	5.3
2001*	19	176	247	90	414,658	4.6	4.1
2002	22	191	249	82	414,060	5.3	4.8
2003	19	160	226	83	415,682	4.6	4.1
2004	7	143	190	59	414,938	1.7	1.7

*USCG boating fatality criteria changed

2004 Ohio Boating Accidents



Collisions with another vessel accounted for 27% of all accidents reported and 41% (79) of all vessels involved in reported accidents. While collisions are consistently the highest ranking type of accident, the number of collisions reported have steadily declined in the past decade, from 125 in 1995 to a record low of 39 in 2004. While the number of all accidents has declined 51% over this time, collisions have declined 69%. In the past decade more than a quarter of the eight million dollars in property damages reported and nearly one third of all injuries resulted from collisions. Only in the past five years have the number of collision related injuries begun to decline to an average of 20 per year. In 2004 there were 16 injuries resulting from collisions.

Looking at collisions over the past ten years the type of vessel involved plays a significant role in the cause and result of the collision. Personal watercraft (PWC) are involved in 35% of all collisions and 54% of the injuries resulting from collisions. Cabin motorboats are involved in 21% of collisions and 7% of the collision related injuries. Open motorboats are involved in 18% of the collisions and 23% of the collision related injuries. The cause of collisions varies somewhat with the type of vessel involved. The major cause of collisions among PWC operators is the negligent operation of the vessel, often changing course or speed just prior to the collision. Several factors had an affect on these incidents. Accident reports indicate that nearly half of PWC operators did not own the vessel and nearly one third had less than 10 hours of operating experience and average 17 years younger in age compared to all other boat operators. However, the proportion that had taken a boating safety course did not differ substantially from other vessel operators. Seventy percent of all operators in collision accidents had not taken a safety course. In both cabin and open motorboats the lack of attention or lookout is the primary cause for collisions. Vessels that flood or swamp accounted for 16% of the reported accidents in 2004. Incidences of flooding or swamping typically rank as one of the top three types of accidents. Program efforts over the past ten years have had a narrow affect on this type of accident. Accidents occurring during the spring season have been the most affected. Flooding or swamping of a vessel typically leads to other events, unlike collisions. Forty-five percent of flooding or swampings lead to vessels capsizing. In thirty-five percent of the flooding/swampings the vessel eventually sinks.

The flooding or swamping of a vessel has caused less than one-tenth of the injuries in the past decade, this rate has remained unchanged throughout this time. Vessels that capsize or swamp have lead to fifty-nine (39%) fatalities in the past decade. The number of fatalities has declined slightly since 2001 when ‘Operation Overboard’ brought attention to spring-time boaters in small vessels who overload or improperly load their vessel. In 2004, there were five accidents fitting this scenario resulting in one fatality.

While open motorboats are involved in two-thirds of the flooding or swamping accidents more than half of them are vessels ranging in length from 16 to 26 feet. In these vessels the approach of heavy weather or failure of the hull has in some way caused the vessel to take on excess water in 40% of their accidents. Since 2001 canoes or kayaks are increasingly becoming involved in flooding or swamping accidents that result in an injury of fatality.

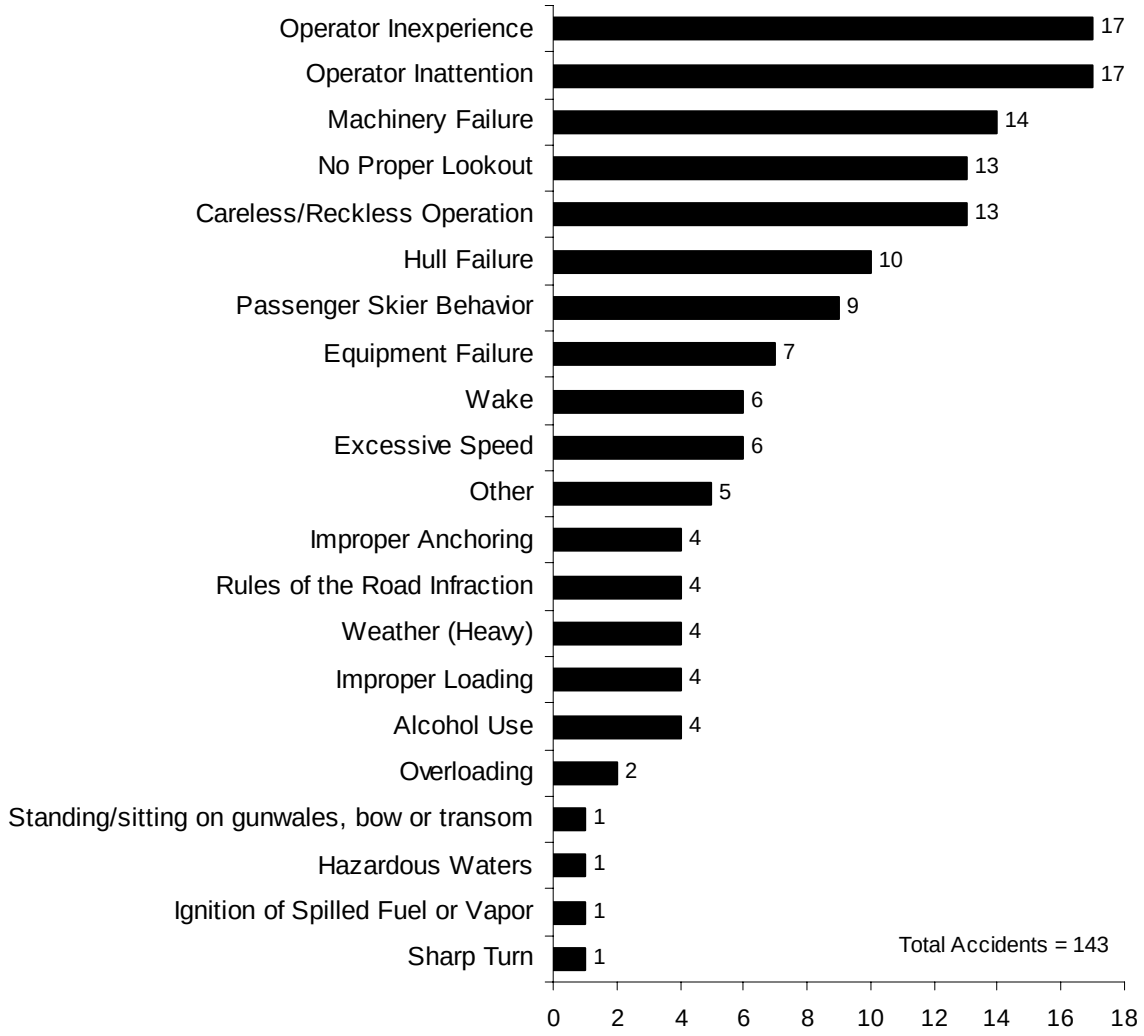
Accident Types By Boat Type

Accident Type	Total # Vessels	Unknown	Auxiliary Sail	Cabin Motorboat	Canoe/Kayak	Open Motorboat	Other	Personal Watercraft	Pontoon	Rowboat	Sail (only)
Capsizing	6	0	0	0	1	2	0	1	0	0	2
Collision with Fixed Object	8	1	1	4	0	1	0	0	1	0	0
Collision with Floating Object	3	0	0	3	0	0	0	0	0	0	0
Collision with Vessel	79	2	5	21	0	11	1	32	7	0	0
Fall in Boat	4	0	0	2	0	1	0	1	0	0	0
Falls Overboard	9	0	0	1	1	4	0	3	0	0	0
Fire/Explosion (Fuel)	2	0	0	2	0	0	0	0	0	0	0
Fire/Explosion (Other than Fuel)	6	0	0	2	0	2	1	1	0	0	0
Flooding/Swamping	25	1	0	4	1	17	1	1	0	0	0
Grounding	8	0	0	4	0	2	0	0	1	1	0
Other	10	0	2	5	0	3	0	0	0	0	0
Sinking	3	0	0	1	0	1	0	1	0	0	0
Skier Mishap	12	0	0	2	0	7	0	1	2	0	0
Starting Engine	2	0	0	2	0	0	0	0	0	0	0
Struck by Boat	4	0	0	1	0	0	0	3	0	0	0
Struck Submerged Object	9	0	0	4		4	0	1	0	0	0
Total Vessels	**190**	**4**	**8**	**58**	**3**	**55**	**3**	**45**	**11**	**1**	**2**

Accidents Types By Boat Length

Accident Type	Total # Vessels	Unknown /Commercial	Under 16'	16' < 26'	26'< 40'	40' < 65'
Capsizing	6	0	5	0	1	2
Collision with Fixed Object	8	1	0	2	4	0
Collision with Floating Object	3	0	0	0	3	1
Collision with Vessel	79	10	30	31	7	0
Fall in Boat	4	0	1	2	1	1
Falls Overboard	9	1	5	2	1	0
Fire/Explosion (Fuel)	2	0	0	1	1	0
Fire/Explosion (Other than Fuel)	6	0	1	3	2	0
Flooding/Swamping	25	2	10	12	1	0
Grounding	8	0	1	4	3	0
Other	10	1	1	4	4	0
Sinking	3	1	1	1	0	0
Skier Mishap	12	0	0	12	0	0
Starting Engine	2	0	0	2	0	0
Struck by Boat	4	0	3	1	0	0
Struck Submerged Object	9	1	1	6	1	0
Total Vessels	**190**	**17**	**59**	**83**	**29**	**4**

Accident Causes



Conditions at the Time of the Accident

Operation	
Cruising	69
Changing Direction	28
Tied to Dock/Mooring	24
Drifting	23
Docking/Undocking	13
Changing Speed	9
Sailing	5
Launching	5
Unknown	5
Rowing/Paddling	3
Being Towed	3
Towing another Boat	2
At anchor	1

Activity	
Pleasure Boating	110
Unknown	27
Fishing	21
Water Skiing, Tubing	13
Starting Engine	7
Other	3
Racing	2
Hunting	2
Commercial Activity	2
Tournament	1
Repairs	1
Diving/Swimming	1

Wind	
None	16
Light (0 - 6 mph)	57
Moderate (7 - 14 mph	44
Strong (15 - 25 mph)	19
Storm (> 25 mph)	1
Unnknown	6

Weather	
Clear	105
Cloudy	27
Fog	2
Hazy	5
Rain	8

Water Conditions	
Calm (waves less than 6")	51
Choppy (waves 6" - 2')	58
Rough (waves 2' - 6')	27
Very Rough (waves > 6')	2

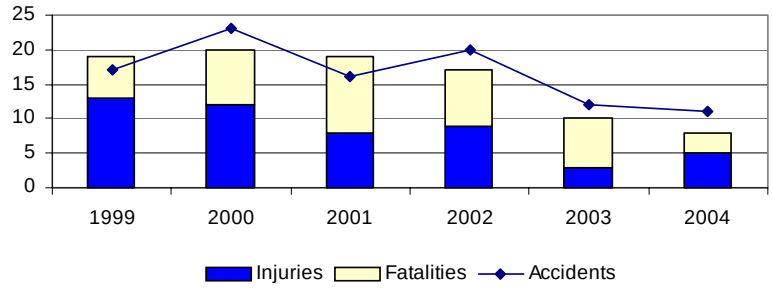
Accidents, Injuries and Fatalities By Accident Cause

Accident Cause	# Accidents	# Injuries	# Fatalities
Operator Inexperience	17	7	1
Operator Inattention	17	3	1
Machinery Failure	14	5	0
Careless/Reckless Operation	13	8	0
No Proper Lookout	13	5	0
Hull Failure	10	0	0
Passenger Skier Behavior	9	7	1
Equipment Failure	7	3	0
Excessive Speed	6	4	0
Wake	6	4	0
Other	5	0	1
Weather (Heavy)	4	4	1
Rules of the Road Infraction	4	3	0
Improper Anchoring	4	1	2
Alcohol Use	4	1	0
Improper Loading	4	0	0
Overloading	2	0	0
Ignition of Spilled Fuel or Vapor	1	2	0
Sharp Turn	1	1	0
Standing/sitting on gunwhales, bow and transom	1	1	0
Hazardous Waters	1	0	0

The lack of experience by the operator with a boating situation caused one additional accident than in 2003, causing 12% of the 2004 accidents. The number of accidents caused by careless or reckless operation declined by seven from 2003 to 2004, now accounting for 9% of the accidents. The lack of attention by the operator caused three additional accidents in 2004.

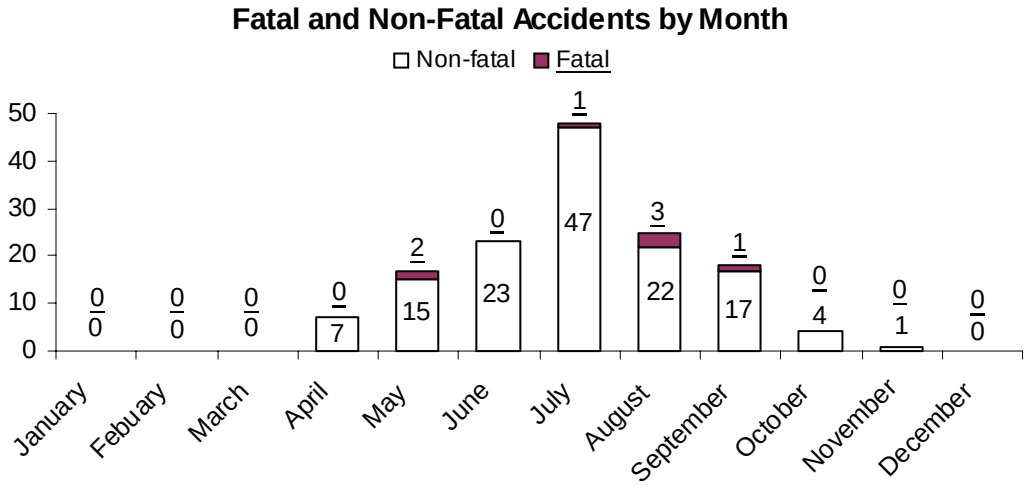
The number of accidents caused by a boater under the influence of alcohol was cut in half, from eight in 2003 to four (3%) in 2004. Eleven (8%) accidents were considered “alcohol involved”, meeting the U.S. Coast Guard’s standard of “…alcoholic beverages consumed in the boat and the investigating official determined that the operator [or affected person] was impaired or affected while operating the boat”. From 1999 through 2003 an average of 18 accidents a year were “alcohol involved”. In 2004 three (42%) fatalities and five (8%) of the injuries were “alcohol involved”.

Alcohol Involved: Accidents - Injuries - Fatalities

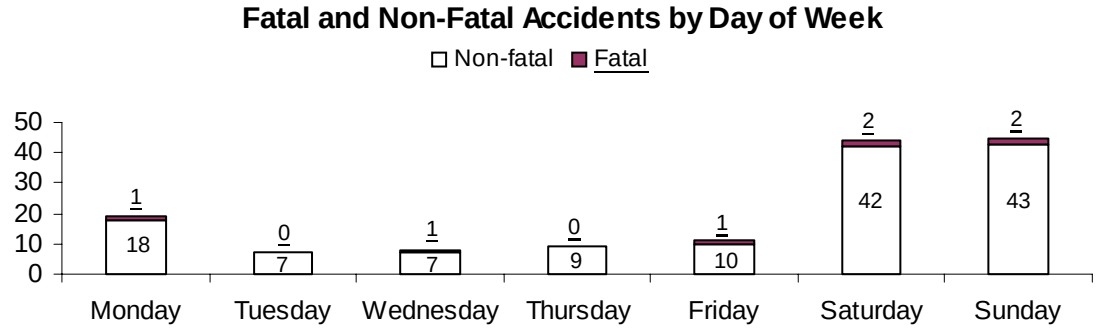


A generalized view of accident causes over the past decade shows a consistent pattern. Forty percent of all accidents are caused by an improper action taken, such as: careless or reckless operation, alcohol use, improper anchoring or excessive speed. Thirty percent of all accidents are caused by the failure of the operator to act when needed, such as; no proper lookout or inattention. Fifteen percent are caused by failure of the hull, equipment or machinery. Ten percent have weather or water conditions as the primary cause.

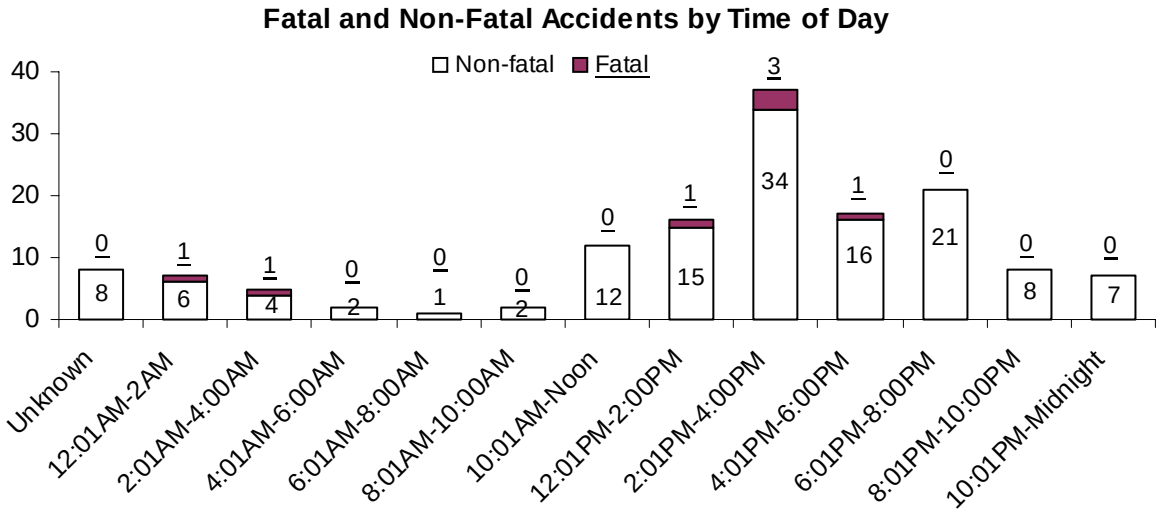
Accident Times



Twenty-four (17%) accidents including 2 (28%) of the fatal accidents occurred January through May. Ninety (67%) of all reported accidents and 4 (57%) of the fatal accidents occurred during June, July or August. Twenty-three (16%) accidents including 1 (14%) of the fatal accidents occurred from September through December.



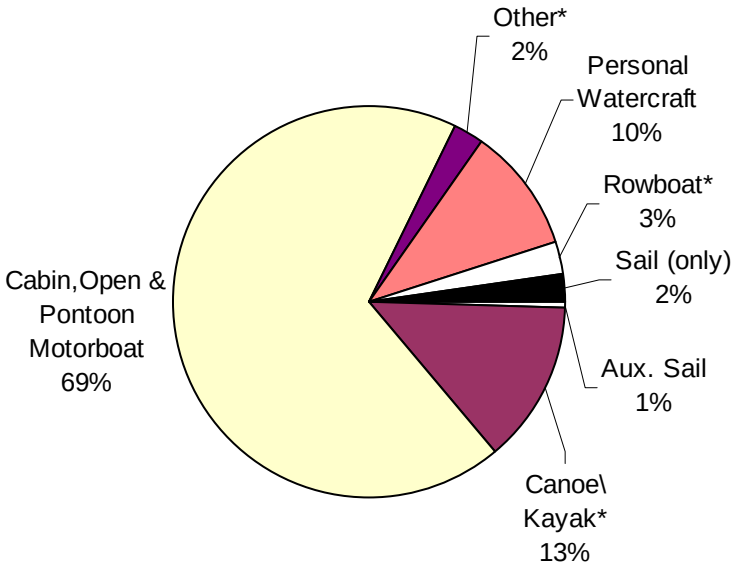
Eighty-nine (62%) accidents and 4 (57%) of the fatal accidents occurred on Saturday or Sunday.



Eighty-six (64%) of the reported accidents including 5 (71%) of the fatal accidents occurred between Noon and 7:00PM.

Vessel Data

2004 Registration by Boat Type



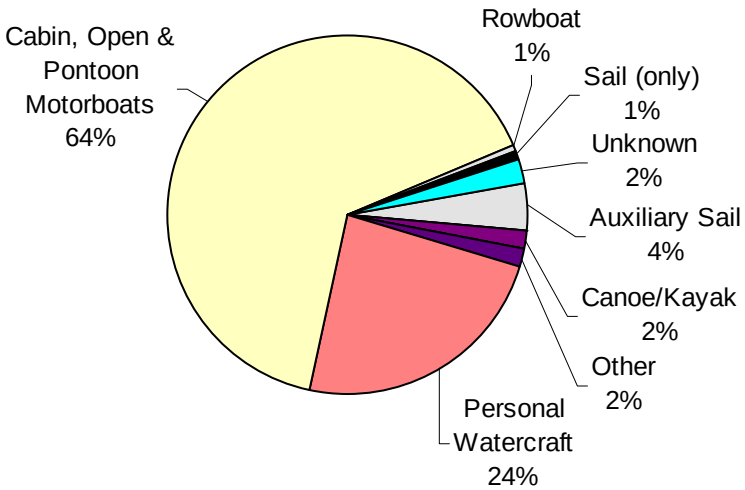
Aux. Sail	2,738
Canoe\Kayak*	54,868
Cabin,Open & Pontoon Motorboat	283,894
Other*	9,744
Personal Watercraft	42,743
Rowboat*	11,858
Sail (only)	9,093
Total*	**414,938**

Boat Type	**Est. Hours of Boating***
Aux. Sail	1,166,099
Cabin Motorboat	24,905,482
Canoe\Kayak	2,855,237
Houseboat	3,190,023
Inflateable	108,147
Open Motorboat & Pontoon	67,307,348
Other	2,843,455
Personal Watercraft	3,696,898
Rowboat	1,327,128
Sail (only)	838,344
Total Boating Hours	**108,238,161**

source **2004 Survey of Recreational Boater Safety and Participation in Ohio*

2004 Accidents by Boat Type

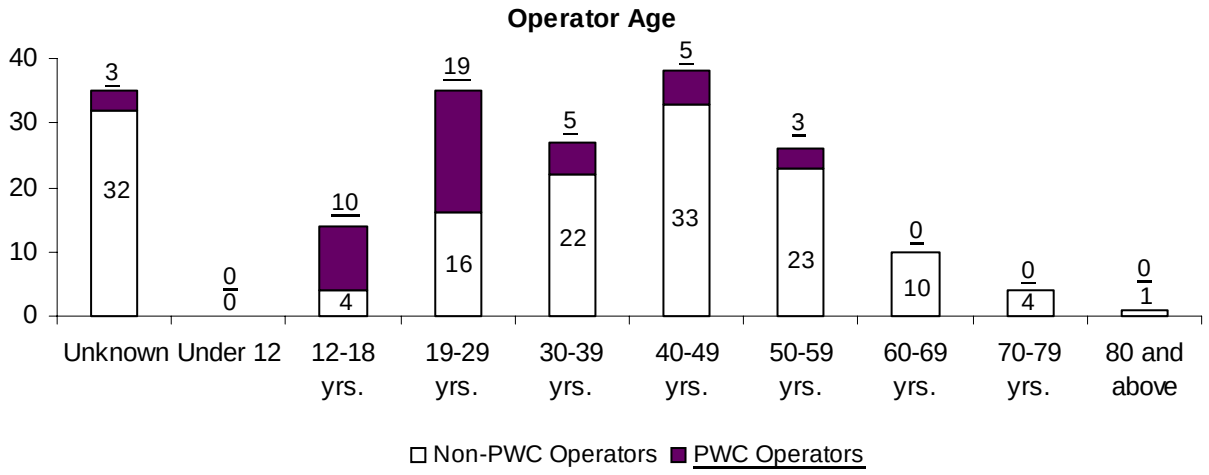
Auxiliary Sail	8
Cabin Motorboat	58
Canoe/Kayak	3
Open Motorboat	55
Other	3
Personal Watercraft	45
Pontoon	11
Rowboat	1
Sail (only)	2
Unknown	4
Total	**190**



Estimated Boat Speed

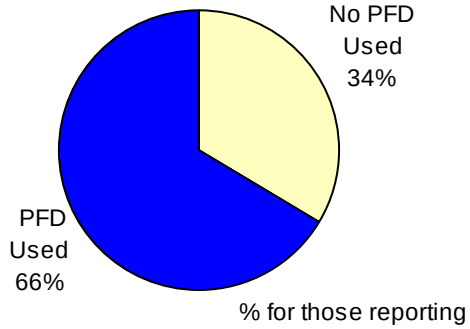
Not Moving	29
Under 10 mph	93
10 to 20 mph	29
21 to 40 mph	23
41 to 60 mph	2
Unknown	14
Total	**190**

Accident Operator Data



The average age of all operators involved in accidents is 39, the average age of non-PWC operators is 44, PWC operators average age is 27. The average age of boat owners surveyed in 2004 is 53.*

Personal Floation Device (PFD) Usage



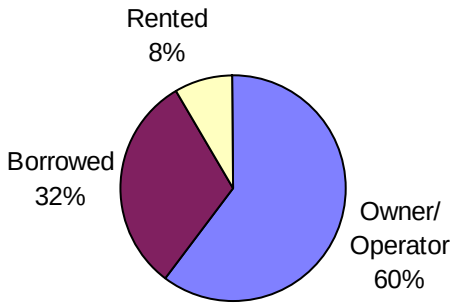
151 vessels reported if they used a PFD
38 vessels did not report this information

Boat Type	Total Vessels Reporting	# Vessels that Used	% Used
Unknown	4	0	0%
Auxiliary Sail	6	3	50%
Cabin Motorboat	41	20	49%
Canoe/ Kayak	3	1	33%
Open Motorboat	50	34	68%
Other	2	1	50%
Personal Watercraft	40	39	98%
Pontoon	7	2	29%
Rowboat	1	0	0%
Sail (only)	2	1	50%

** required by state law

One hundred fifty-one vessels (79%) reported information about the use of a personal flotation device (PFD) at some time during the accident event. Considering all vessels reporting this information, 66% of the vessels had someone use a PFD. Ohio law requires the use of a PFD by persons on board a personal watercraft (PWC). Removing PWC from the group, 43% of the remaining vessels reported using a PFD. This is an increase of 7% from this same group in 2003. When the use of a PFD is compared by the length of a vessel it shows 48% of the vessels under 16' (excluding PWC) and 43% of the vessels between 16 and 41 feet had a PFD used by someone on board. One hundred percent of the persons injured on a PWC and 65% of persons injured on all other types of vessels were wearing a PFD at the time of the injury. None of the fatality victims were wearing a PFD.

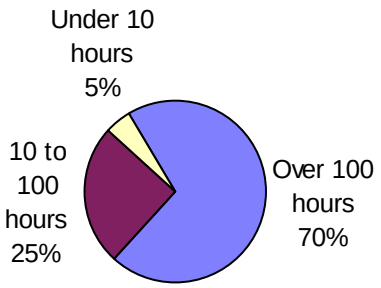
Accident Owner\Operator vs. Renter\Borrower Data



Boat Type	# Owner/Operator	# Borrowed	# Rented
Auxiliary Sail	6	2	0
Cabin Motorboat	44	14	0
Canoe/Kayak	1	2	0
Open Motorboat	38	16	1
Other	2	0	1
Personal Watercraft	11	22	12
Pontoon	8	1	2
Rowboat	0	1	0
Sail (only)	1	1	0
Unknown	3	1	0
Total	**114**	**60**	**16**

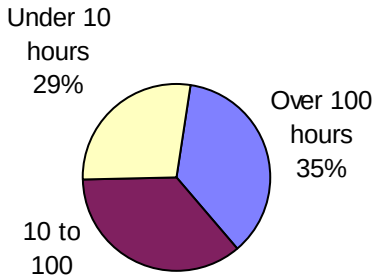
Seventy-six (40%) of the vessels reporting accidents were operated by someone other than the owner. Sixty (32%) of the reporting vessels were borrowed while sixteen (8%) were rented. On the average for the past five years, thirty-seven percent of the operators have not been the owner of the vessel.

Owner/Operator Experience



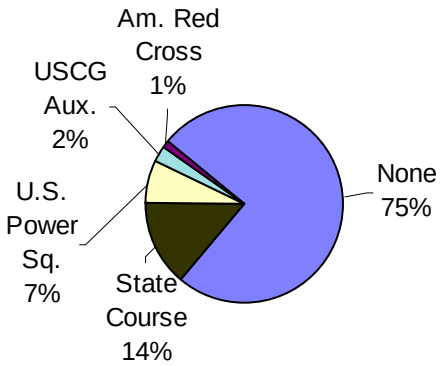
79 operators reported

Renter/Borrower Experience



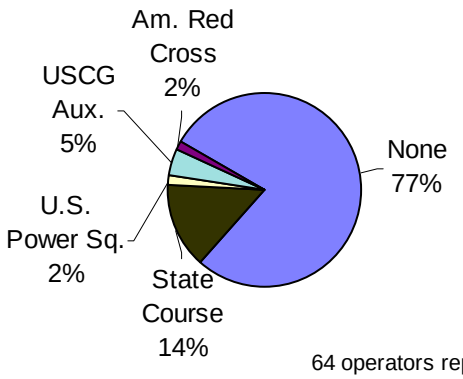
70 operators reported

Owner/Operator Education



72 operators reported

Renter/Borrower Education

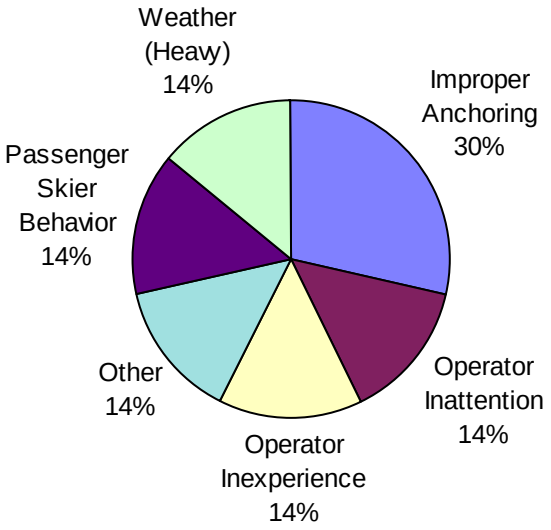


64 operators reported

Ohio's education law requires any person who operates a vessel with a motor greater than 10 horsepower and born on or after January 1, 1982 must pass a boating safety exam. There were thirty operators affected by this law involved in reported accidents, 18 (60%) had not passed the exam. Since 2000, when the law became effective, a total of 55,902 boaters have passed this exam, 25,482 fell within the required age group. The 2004 survey of registered boaters indicated that 20% of the respondents had taken a course in the past five years.

Fatality Data

Fatal Accident Causes



Victim's Role

Operator	4
Passenger	1
Swimmer	2

Victim's Activity

Fishing	3
Diving/Swimming	2
Pleasure Boating	1
Starting Engine	1

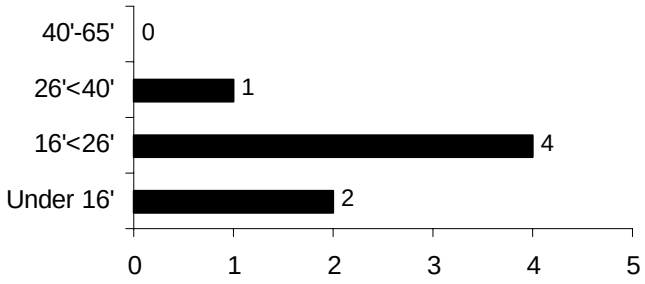
Cause of Death and PFD Wear

	No	Yes
Drowning	6	0
Trauma	1	0

Vessel Operation

Changing Direction	1
Changing Speed	1
Cruising	1
Drifting	2
Rowing/paddling	1

Fatal Accident Boat Length



Boat Type	Owner/Op.	Rent/Borrow
Cabin Motorboat	2	1
Canoe/Kayak	1	0
Open Motorboat	3	0
Total	**6**	**1**

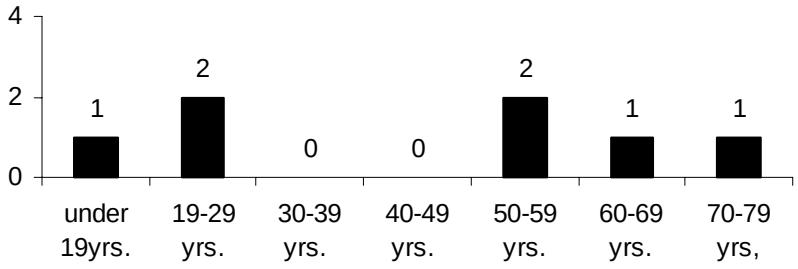
There were seven accidents that resulted in seven fatalities. This is the lowest number on record and substantially below the previous five year average of 18.4 fatalities per year. The number of fatalities compared to the number of registered boats is 1.7 fatalities for each 100,000 registered boats. The five year average is 4.4 fatalities per 100,000 boats. The number of fatalities compared to the estimated hours of boating participation is 6.4 fatalities for each 100,000,000 hours of boating.

Fishing continues as a common activity that victims were engaged in. Although three (43%) of the victims were fishing in 2004 the number of fisherman as fatalities has continuously declined since 1999 when thirteen perished. Two victims were swimming from a vessel that was not anchored or moored. This activity has only been tracked since 2001. Since that time Ohio has averaged 2.7 victims per year who were swimming from a vessel under way. None of the victims used a PFD although all of the vessels were equipped with PFDs that were accessible.

Fatalities by Body of Water and Accident Type

Body of Water	Accident Type	# Fatalities
Lake Erie	Falls Overboard	1
Lake Erie	Other	1
Lake Erie	Starting Engine	1
Lake Erie/Vermillion to Huron	Other	1
Paint Creek	Flooding/Swamping	1
Portage Lake	Falls Overboard	1
Rocky Fork Lake	Other	1

Fatal Victim Age Group



Fatal Accident Types and Boat Types

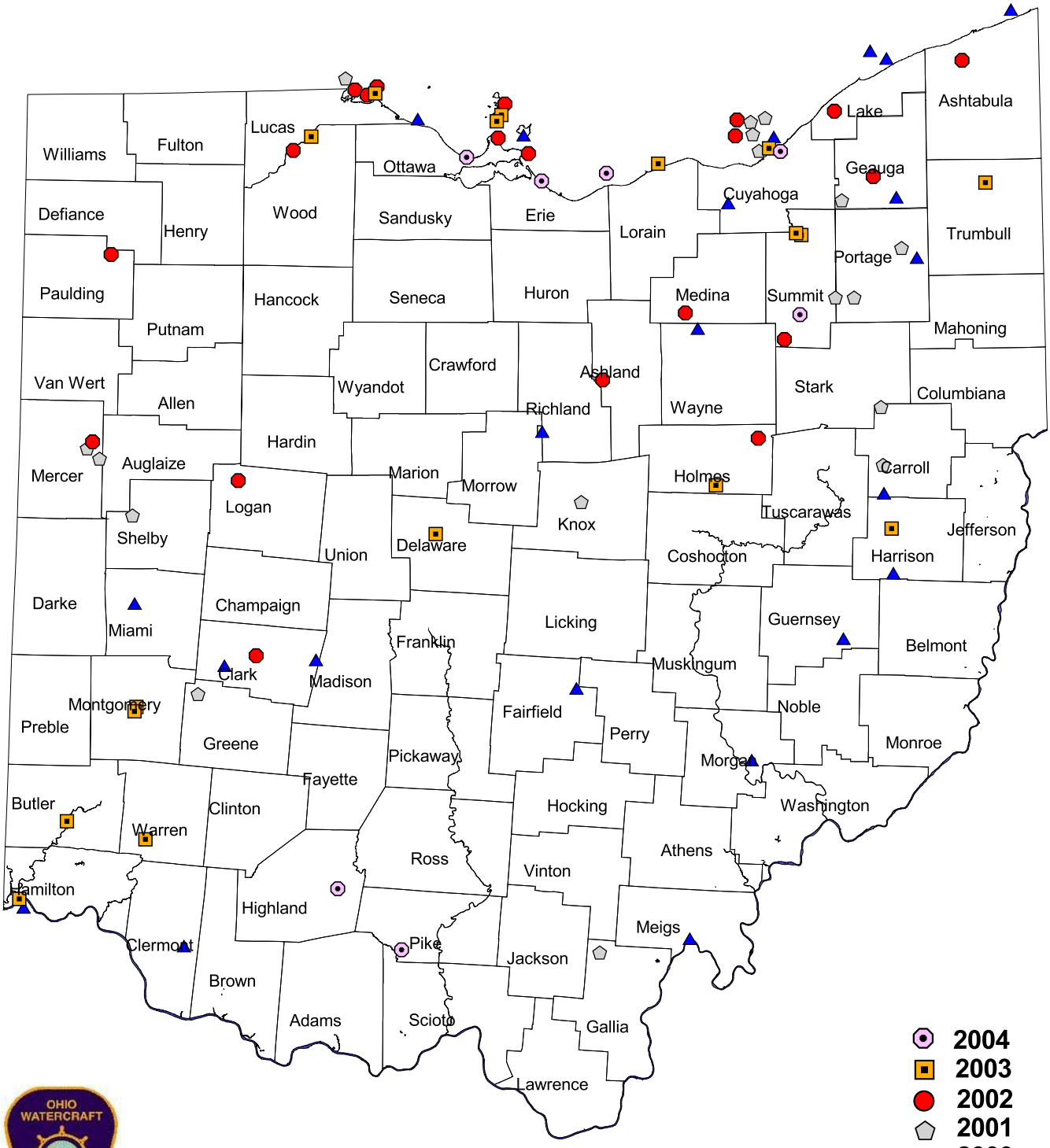
Accident Type	Total Fatalities	Cabin Motorboat	Canoe /Kayak	Open Motorboat
Falls Overboard	2	0	0	2
Flooding/Swamping	1	0	1	0
Other	3	2	0	1
Starting Engine	1	1	0	0
Total	**7**	**3**	**1**	**3**

Fatal accidents occurred on four different waterways. Four (57%) took place on Lake Erie, one less than in 2003. Two (29%) took place on an inland waterway, one less than in 2003. One (14%) took place on a stream, eight less than in 2003.

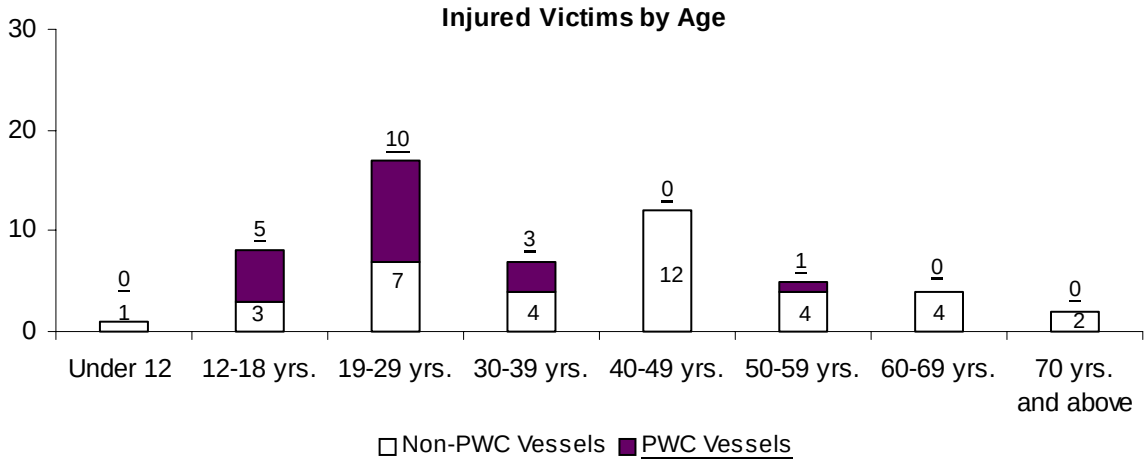
Five of the accidents occurred between 4:00 p.m. on a Friday afternoon and 3:00 a.m. on a Sunday morning. The remaining two accidents occurred close to 3:00 p.m. on a weekday. The skies were clear or hazy with air temperature ranging from 65 to 88 degrees, averaging 82 degrees. Water temperatures ranged from 70 to 74 degrees. Winds were typically light to moderate. Rough seas, with waves ranging two feet or more did play a role in three of the fatal accidents.

Recreational Boating Fatal Accident Locations

2000 - 2004



Injury Data



Injuries by Boat Type

Primary Injury	Total Injuries	Auxiliary Sail	Cabin Motorboat	Canoe/Kayak	Open Motorboat	Other	Personal Watercraft	Pontoon	Sail (only)
Amputation	2	1	0	0	0	0	0	1	0
Back Injury	2	0	1	0	0	0	1	0	0
Broken Bone(s)	15	1	3	0	4	0	7	0	0
Burns	2	0	2	0	0	0	0	0	0
Contusion	6	0	1	0	2	1	2	0	0
Dislocation	4	0	0	0	1	0	3	0	0
Head Injury	6	0	1	0	1	0	4	0	0
Hypothermia	7	0	2	2	3	0	0	0	0
Laceration	10	0	4	0	3	0	2	1	0
Neck Injury	1	0	1	0	0	0	0	0	0
Other	1	0	1	0	0	0	0	0	0
Shock	3	0	1	0	0	0	1	0	1
Total Injuries	**59**	**2**	**17**	**2**	**14**	**1**	**20**	**2**	**1**

There were 59 injuries reported that required medical treatment, this is a reduction of 24 (29%) from 2003. Nineteen of these injuries required a hospital stay. This is 27% fewer than in 2003 but still accounts for nearly one-third of the injuries. The average age of injury victims riding a PWC is 24 while the average age of the injured from all other vessels is 41. Sixteen (27%) of the injuries resulted from a collison between vessels. Water-skiing or tubing resulted in twelve (20%) of the injuries.

Injured Victim's Role

Operator	23
Passenger	22
Water-skier/tuber	12
Unknown	2

Boat Type	Est. Hours of Boating	# Serious Injuries* or Fatality	Serious Injuries or Fatality per 1,000,000 Hours
Aux. Sail	1,166,099	2	1.72
Cabin Motorboat	24,905,482	7	0.28
Canoe\Kayak	2,855,237	2	0.70
Houseboat	3,190,023	0	0.00
Inflatable	108,147	0	0.00
Open Motorboat & Pontoon	67,307,348	7	0.10
Other	2,843,455	0	0.00
Personal Watercraft	3,696,898	7	1.89
Rowboat	1,327,128	0	0.00
Sail (only)	838,344	0	0.00

* serious injury requires a hospital stay

The hours of boating participation is estimated from a sample of registered boaters surveyed in 2004. Compare the hours spent boating and the number of injuries that required a hospital stay or a fatality with the causes and types of accidents for each boat type. Links between: cabin motorboats and machinery, open boats and skiing/tubing and PWC changing direction without proper lookout can be seen.

2004 Boating Accidents by Body of Water and Accident Type

Body of Water	Total Accidents	Capsizing	Collision with Fixed Object	Collision with Floating Object	Collision with Vessel	Falls in Boat	Falls Overboard	Fire/Explosion (Fuel)	Fire/Explosion (Other than Fuel)	Flooding/Swamping	Grounding	Other	Sinking	Skier Mishap	Starting Engine	Struck by Boat	Struck Submerged Object
5 Rivers Metro. Park	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Alum Creek Res.	6	0	0	0	0	0	0	0	0	0	1	1	1	2	0	0	1
Atwood Lake	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Berlin Res.	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
Buck Creek Lake	3	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1
Buckeye Lake	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Caesar Creek Res.	8	0	0	0	2	0	0	0	1	0	0	0	0	2	1	1	1
Candlewood Lake	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Chagrin River	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Cooley Canal	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Cuyahoga River	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Deer Creek Res.	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
East Fork Res.	3	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0
Grand Lake St. Marys	5	0	1	0	0	0	1	0	0	2	0	0	0	0	0	0	1
Great Miami River	3	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0
Indian Lake	6	0	0	0	2	0	0	0	1	0	1	0	0	1	0	0	1
Ladue Res.	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lake Erie	28	1	1	1	9	0	2	0	1	5	1	5	0	0	1	1	0
Lake Erie/Ashtabula County	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Lake Erie/Bass Islands	3	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
Lake Erie/East Harbor	2	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
Lake Erie/Kelleys Island	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Lake Erie/Lake Co E of Mentor	2	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Lake Erie/Lorain County	3	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Lake Erie/Marblehead to Port Clinton	3	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0
Lake Erie/Maumee Bay	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Lake Erie/Maumee Bay to Port Clinton	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Lake Erie/Sandusky Bay Rt.2-SR	3	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0

2004 Boating Accidents by Body of Water and Accident Type

Body of Water	Total Accidents	Capsizing	Collision with Fixed Object	Collision with Floating Object	Collision with Vessel	Falls in Boat	Falls Overboard	Fire/Explosion (Fuel)	Fire/Explosion (Other than Fuel)	Flooding/Swamping	Grounding	Other	Sinking	Skier Mishap	Starting Engine	Struck by Boat	Struck Submerged Object
Lake Erie/Sandusky Bay/Rt 2-CP	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Lake Erie/Vermillion to Huron	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Lake Erie/West Harbor	3	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0
Lake Lakengren	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0
Lake Lorelei	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Maumee R./Grand Rapids-Indp.	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Maumee R./Lake Erie-Maple St.	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Maumee R./Maple St-Grand Rapid	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Maumee River	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0
Mosquito Lake	4	1	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0
Muskingum River	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Ohio River	5	0	0	0	0	0	1	0	0	2	0	0	0	1	0	0	1
Ohio River/Markland Pool	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Paint Creek Lake	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Paint Creek	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Pleasant Hill	4	0	0	0	1	1	0	0	0	0	0	0	0	1	0	1	0
Portage Lake	3	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0
Rocky Fork	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Rocky Fork Lake	5	0	0	0	1	0	1	0	0	2	0	1	0	0	0	0	0
Salt Fork	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Sandusky River	3	0	0	0	1	0	0	0	0	0	1	0	1	0	0	0	0
Seneca Lake	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
West Branch Res.	2	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Total	**143**	**6**	**7**	**3**	**39**	**4**	**9**	**2**	**5**	**23**	**7**	**10**	**3**	**11**	**2**	**3**	**9**

2004 Boating Accident Summary by County

County	# Accidents	# Vessels	# Injuries	# Fatalities	Total Boat Damages	Total Property Damages
Adams	0	0	0	0	$0	$0
Allen	0	0	0	0	$0	$0
Ashland	3	5	4	0	$3,500	$0
Ashtabula	2	3	1	0	$2,499	$0
Athens	0	0	0	0	$0	$0
Auglaize	0	0	0	0	$0	$0
Belmont	0	0	0	0	$0	$0
Brown	1	1	0	0	$3,500	$1,000
Butler	0	0	0	0	$0	$0
Carroll	0	0	0	0	$0	$0
Champaign	0	0	0	0	$0	$0
Clark	3	3	0	0	$2,501	$0
Clermont	4	5	3	0	$7,500	$0
Clinton	0	0	0	0	$0	$0
Columbiana	0	0	0	0	$0	$0
Coshocton	0	0	0	0	$0	$0
Crawford	0	0	0	0	$0	$0
Cuyahoga	11	15	4	1	$37,200	$0
Darke	0	0	0	0	$0	$0
Defiance	0	0	0	0	$0	$0
Delaware	6	6	2	0	$12,000	$0
Erie	7	9	2	2	$11,831	$0
Fairfield	1	2	0	0	$4,250	$0
Fayette	0	0	0	0	$0	$0
Franklin	0	0	0	0	$0	$0
Fulton	0	0	0	0	$0	$0
Gallia	0	0	0	0	$0	$0
Geauga	1	1	2	0	$0	$0
Greene	0	0	0	0	$0	$0
Guernsey	1	1	0	0	$2,500	$0
Hamilton	5	5	1	0	$6,400	$1,000
Hancock	0	0	0	0	$0	$0
Hardin	0	0	0	0	$0	$0
Harrison	0	0	0	0	$0	$0
Henry	3	5	1	0	$5,880	$1,500
Highland	7	9	0	1	$24,300	$1,000
Hocking	0	0	0	0	$0	$0
Holmes	0	0	0	0	$0	$0
Huron	0	0	0	0	$0	$0
Jackson	0	0	0	0	$0	$0
Jefferson	0	0	0	0	$0	$0
Knox	0	0	0	0	$0	$0
Lake	4	5	3	0	$68,500	$0
Lawrence	1	1	1	0	$0	$0
Licking	0	0	0	0	$0	$0
Logan	6	9	1	0	$12,686	$0
Lorain	4	7	1	0	$16,079	$0

2004 Boating Accident Summary by County

County	# Accidents	# Vessels	# Injuries	# Fatalities	Total Boat Damages	Total Property Damages
Lucas	14	21	3	0	$40,350	$1,500
Madison	0	0	0	0	$0	$0
Mahoning	0	0	0	0	$0	$0
Marion	0	0	0	0	$0	$0
Medina	0	0	0	0	$0	$0
Meigs	0	0	0	0	$0	$0
Mercer	5	5	2	0	$16,150	
Miami	0	0	0	0	$0	$0
Monroe	0	0	0	0	$0	$0
Montgomery	3	5	1	0	$800	$1,600
Morgan	1	1	0	0	$200	$0
Morrow	1	1	1	0	$0	$0
Muskingum	0	0	0	0	$0	$0
Noble	1	1	1	0	$0	$0
Ottawa	21	28	10	1	$103,760	$9,400
Paulding	0	0	0	0	$0	$0
Perry	0	0	0	0	$0	$0
Pickaway	1	1	0	0	$2,000	$0
Pike	0	0	0	0	$0	$0
Portage	2	2	1	0	$4,200	$2,000
Preble	2	4	2	0	$998	$0
Putnam	0	0	0	0	$0	$0
Richland	1	1	1	0	$0	$0
Ross	1	1	0	1	$0	$0
Sandusky	3	4	2	0	$16,600	$300
Scioto	0	0	0	0	$0	$0
Seneca	0	0	0	0	$0	$0
Shelby	0	0	0	0	$0	$0
Stark	0	0	0	0	$0	$0
Summit	4	7	1	1	$3,000	$6,000
Trumbull	4	5	1	0	$3,500	$500
Tuscarawas	1	1	1	0	$135	$100
Union	0	0	0	0	$0	$0
Van Wert	0	0	0	0	$0	$0
Vinton	0	0	0	0	$0	$0
Warren	8	10	6	0	$6,600	$0
Washington	0	0	0	0	$0	$0
Wayne	0	0	0	0	$0	$0
Williams	0	0	0	0	$0	$0
Wood	0	0	0	0	$0	$0
Wyandot	0	0	0	0	$0	$0
Total	**143**	**190**	**59**	**7**	**$419,419**	**$25,900**

State of Ohio Recreational Boating Accident Guidelines
The Ohio Revised Code, Section 1547.59 states:

The operator of a vessel involved in a collision, accident, or other casualty, so far as the operator can do so without serious danger to the operator's own vessel, crew, and passengers, shall render to other persons affected by the collision, accident, or other casualty such assistance as may be practicable and as may be necessary in order to save them from or minimize any danger caused by the collision, accident, or other casualty. The operator also shall give the operator's name, address, and identification of the operator's vessel in writing to any person injured and to the owner of any property damaged in the collision, accident, or other casualty.

Any person who renders assistance at the scene of a collision, accident, or other casualty involving a vessel is not liable in a civil action for damages or injury to persons or property resulting from any act or omission in rendering assistance or in providing or arranging salvage, towage, medical treatment, or other assistance, except that the person is liable for willful or wanton misconduct in rendering assistance. Nothing in this section precludes recovery from any tortfeasor causing a collision, accident, or other casualty of damages caused or aggravated by the rendering of assistance.

In the case of collision, accident, or other casualty involving a vessel, the operator thereof, if the collision, accident, or other casualty results in loss of life, personal injury requiring medical treatment beyond first aid, or damage to property in excess of five hundred dollars, shall file with the chief of the division of watercraft a full description of the collision, accident, or other casualty on a form prescribed by the chief. The report so filed shall be used for statistical purposes only and shall not be admissible for any purpose in any civil, criminal, or administrative action at law.

If the operator of the vessel involved in a collision, accident, or other casualty is incapacitated, the investigating law enforcement officer shall file the required form as prescribed by the chief.

U.S. Coat Guard Reportable Recreational Boating Accidents Guidelines

Title 33 of the Code of Federal Regulations, Section 173, Subpart C, Casualty and Accident Reporting, applies to vessels that are used by their operators for recreational purposes, or that are required to be numbered (including those documented for pleasure), except for those vessels required by law to have a Certificate of Inspection. A casualty or accident report must be submitted to the reporting authority if an occurrence involving these vessels or their equipment results in one or more of the following:

I. a. A person dies; or

b. A person is injured and requires medical treatment beyond first aid (i.e., treatment at a medical facility or by a physician other than at the accident scene); or

c. Damage to the vessel and other property totals more than $2,000 or there is a complete loss of the vessel; or (Note: the reporting threshold under 1547 ORC remains $500)

d. A person disappears from the vessel under circumstances that indicate death or injury.

II. Examples of accidents that are considered reportable as boating accidents, and that might have been prevented or their effects mitigated by specific components of a boating safety program (i.e., by boating courses, public information campaigns, law enforcement, development and enforcement of boat construction or equipment standards, etc.):

a. grounding
b. capsizing
c. flooding/swamping
d. falls within or overboard a vessel
e. person(s) ejected from a vessel
f. person leaves a vessel that is underway to swim for pleasure
g. person leaves a vessel in an attempt to retrieve a lost item, another person or another vessel
h. sinking
i. fire or explosion
j. skier mishap
k. collision with another vessel or object
l. striking a submerged object
m. the vessel, propeller, propulsion unit, or steering machinery strikes a person
n. carbon monoxide asphyxiation

III. The following are examples of occurrences directly or indirectly involving a vessel that are generally considered to be outside the scope of a boating safety program and, therefore, are **non-reportable** as boating accidents. While they may or may not be reported in a state on a boating accident report, they are not included in Boating Statistics published annually by the U.S. Coast Guard.

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

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

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

d. A person dies or is injured while swimming for pleasure from a vessel that is not underway (the vessel is anchored, moored or docked)

The following are **reportable** boating accidents involving a swimmer, a recreational vessel and its operation:

1. a person dies or is injured while swimming because of carbon monoxide asphyxiation;
2. a person dies or is injured while swimming because a vessel is improperly connected to a shore power and resultant electrical current enters the water causing electrocution;
3. a person dies or is injured after leaving a vessel that is underway to swim for pleasure because the vessel is not anchored, moored or docked and the vessel drifts away from the swimmer and the swimmer is unable to get back to the vessel.

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

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

g. A person dies, is injured, or property damage occurs while preparing a vessel for launching or retrieving a vessel and the vessel is not in or upon the water.

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

i. A person dies, is injured, or property damage results from an “ice boat” accident. An ‘ice boat’ is a device which is designed to travel primarily over the ice on lakes and rivers on runner/blades, carrying at least one person and using a sail for propulsion. It is not designed for use nor has the ability to navigate on open water.

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

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

l. Deaths, injury or damage on a docked, moored or anchored non-propelled houseboat or other vessel used primarily as a permanent residence.

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