



# Arizona Boating Safety Report

2008



ARIZONA  
GAME AND FISH  
DEPARTMENT



**Special thanks to the following agencies for their cooperation in providing accident and enforcement data for this report:**

- Arizona Game and Fish Department
- Bullhead City Police Department
- Coconino County Sheriff's Office
- Gila County Sheriff's Office
- Imperial County Sheriff's Office
- La Paz County Sheriff's Office
- Lake Havasu City Police Department
- Maricopa County Sheriff's Office
- Mohave County Sheriff's Office
- National Park Service
- Nevada Department of Wildlife
- Riverside County Sheriff's Department
- San Bernardino County Sheriff's Department
- U.S. Fish and Wildlife Service

The 2008 Arizona Boating Safety Report is a technical report provided by the Arizona Game and Fish Department. The data and statistics were collected, compiled and written by Cindy Wall, Ryan Babel, Teresa Guillen, Ed Huntsman, Kelley Fowke, Ron Christofferson, Madelynn Fenske and Kevin Bergersen.

Cover photo: Colorado River rafting is a popular activity during the boating season.



- |                          |                         |                          |
|--------------------------|-------------------------|--------------------------|
| 1. Alamo Lake            | 7. Lower Colorado River | 13. Lake Pleasant        |
| 2. Apache Lake           | 8. Lake Havasu          | 14. Lake Powell          |
| 3. Bartlett Lake         | 9. Lake Mary            | 15. Roosevelt Lake       |
| 4. Canyon Lake           | 10. Lake Mead           | 16. Saguaro Lake         |
| 5. Upper Colorado River  | 11. Lake Mohave         | 17. San Carlos Reservoir |
| 6. Middle Colorado River | 12. Patagonia Lake      |                          |

# 2008 Arizona Boating Safety Report

## ARIZONA GAME AND FISH DEPARTMENT Watercraft Enforcement and Education

### Education

**Ed Huntsman**, USCG Licensed Master  
*Boating Safety Education Program Manager*  
Phone: (623) 236-7237  
Fax: (623) 236-7903  
E-mail: ehuntsman@azgfd.gov

**Kelley Fowke**  
*Boating Safety Education Coordinator*  
Phone: (623) 236-7381  
Fax: (623) 236-7903  
E-mail: kfowke@azgfd.gov

### Enforcement

**Gene Elms**  
*Law Enforcement Branch Chief*  
Phone: (623) 236-7307  
Fax: (623) 236-7945  
E-mail: gelms@azgfd.gov

### Facilities

**Ron Christofferson**  
*Boating Facilities Program Manager*  
Phone: (623) 236-7481  
Fax: (623) 236-7327  
E-mail: rchristofferson@azgfd.gov

### Arizona Game and Fish Commission

**Bob Hernbrode**, *Chairman* - Tucson  
**Jennifer L. Martin** - Phoenix  
**Robert R. Woodhouse** - Roll

### Public Information

**Teresa Guillen**  
*Public Information Officer*  
Phone: (623) 236-7377  
Fax: (623) 236-7903  
E-mail: tguillen@azgfd.gov

### Titling and Registration

**Madelynn Fenske**  
*Watercraft Administrator*  
Phone: (623) 236-7403  
Fax: (623) 236-7729  
E-mail: mfenske@azgfd.gov

### Watercraft Accident Public Records

**Cindy Wall**  
*Law Enforcement Branch  
Administrative Assistant*  
Phone: (623) 236-7380  
Fax: (623) 236-7945  
E-mail: cwall@azgfd.gov



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### Boating Law Administrator

**Kevin Bergersen**  
*Law Enforcement  
Programs Coordinator*  
Phone: (623) 236-7383  
Fax: (623) 236-7945  
E-mail: kbergersen@azgfd.gov



**Boat Safe, Boat Smart, Boat Sober.**

Take a boating education class.



[www.azgfd.gov/boating](http://www.azgfd.gov/boating)

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# 2008 Arizona Boating Safety Report

*In 2008, 27,433 PWCs were registered in Arizona which equates to 20 percent of the state's watercraft registrations.*

## ARIZONA GAME AND FISH DEPARTMENT Watercraft Enforcement and Education

### Administrative Authority

The Arizona Game and Fish Department and Commission have been involved in boating safety and law enforcement since passage of the Federal Boat Safety Act of 1971. The Department and Commission derive their authority from state law contained within Arizona Revised Statutes Title V.

ARS § 5-311 outlines the powers and duties of the Arizona Game and Fish Commission to make the rules and regulations required to carry out, in the most effective manner, all the provisions of boating safety for the state of Arizona. By statute, the Arizona Game and Fish Commission's boating safety and registration mandates are extremely broad. The Department is responsible for providing a safe watercraft recreation environment so that Arizona's lakes will be used, enjoyed and appreciated by present and future generations.

### Watercraft Law Enforcement

The Arizona Game and Fish Department administers watercraft registration and boating education efforts while also providing boating law enforcement at the state level. The primary law enforcement authority resides with local

agencies, which might be a state, county, municipality, park, reservation or land management agency depending on the location.

The Arizona Game and Fish Department is the administrative agency responsible for watercraft accident reporting in the state of Arizona. Initial reports and investigations are completed by either the boat operator or the jurisdictional agency, and submitted to the Department. These reports are then compiled,

tabulated and forwarded to the U.S. Coast Guard (USCG) for use in national statistics.

In 2008, 14 different law enforcement agencies, along with boat operators, reported 197 watercraft-related accidents. This number does not include 34 boat accident reports that did not meet minimum state or USCG reporting threshold guidelines. Information from these accident reports assist

*(continued on page 5)*

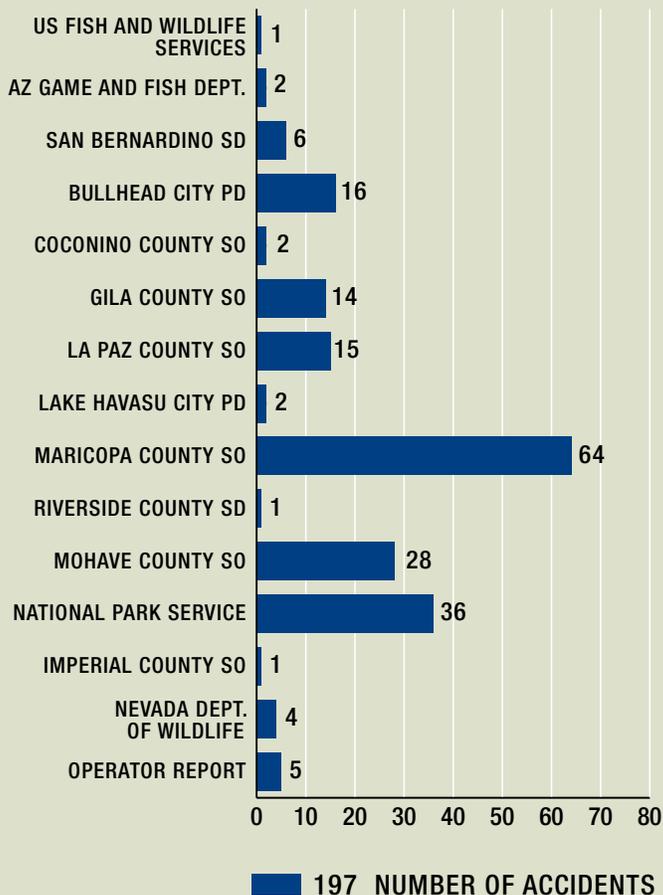


*Arizona has averaged fifth in the nation for the number of boat accidents since 2002.*



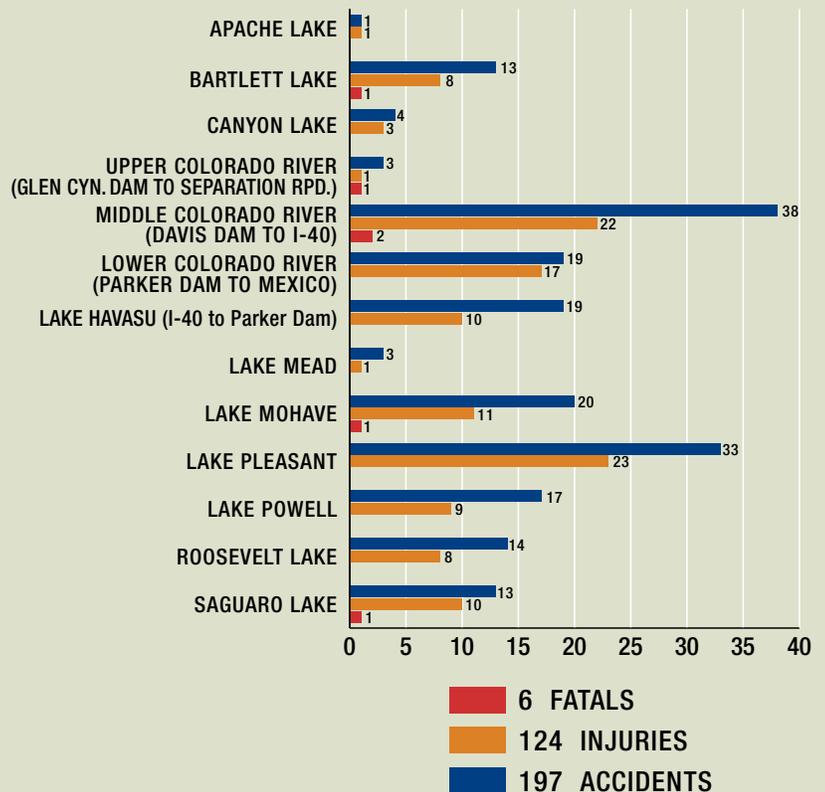
### Agencies Reporting Accidents

197 Total Accidents



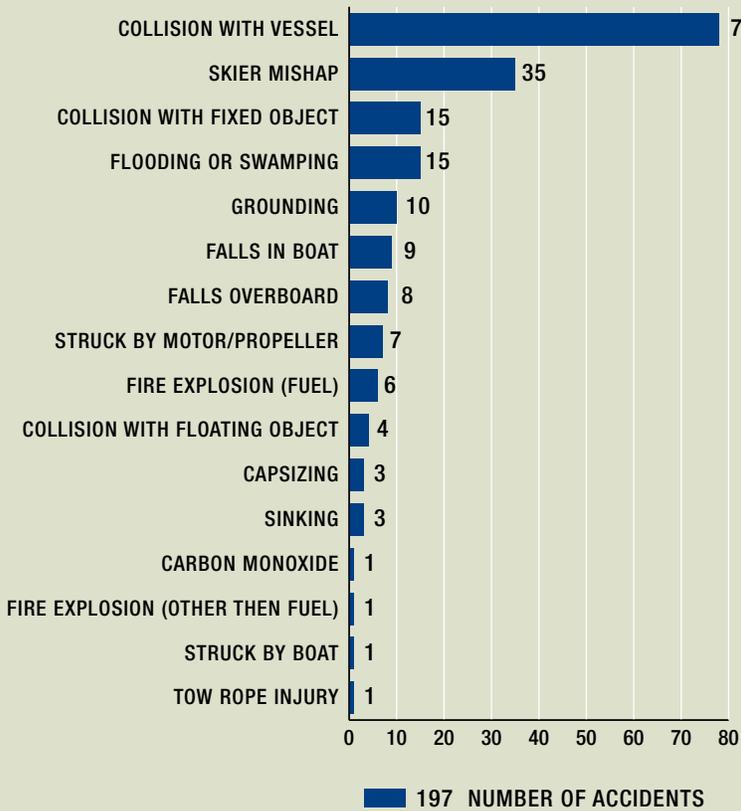
### Bodies of Water

197 Total Accidents / 124 Injuries/ 6 Fatalities



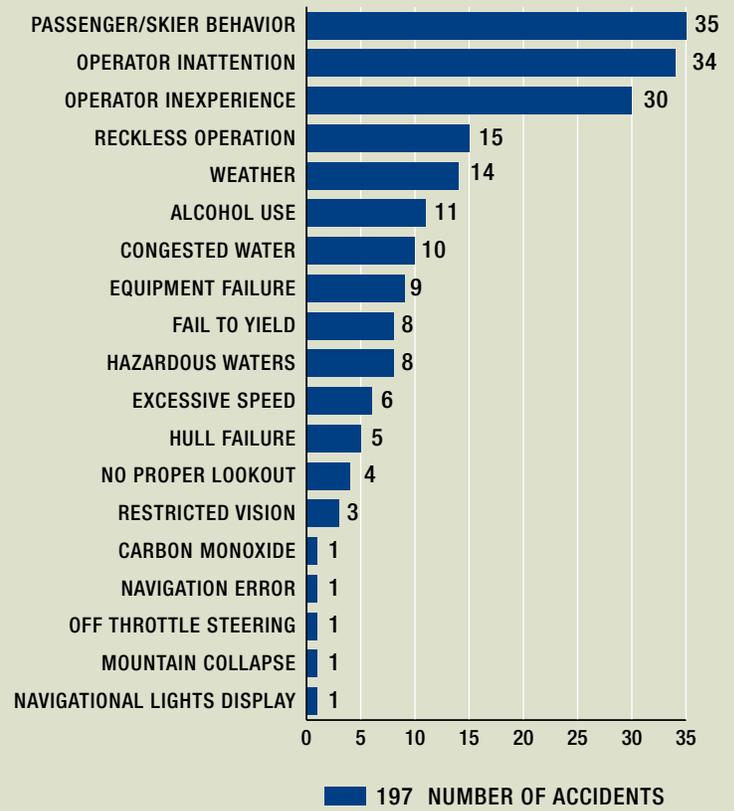
### Primary Accident Types

197 Total Accidents



### Primary Accident Cause

197 Total Accidents





*Paddling sports such as canoeing or kayaking have become increasingly popular in Arizona.*

Arizona law enforcement agencies in identifying safety needs, developing new regulations, designing new enforcement techniques, identifying manufacturer problems, and directing boating safety programs and law enforcement resources to particular areas of concern.

Law enforcement agencies investigating boating accidents and operators involved in accidents are required by law to report such accidents to the Arizona

Game and Fish Department. If the accident involves an injury or fatality, a written report must be submitted within 48 hours. All other accidents must be reported within five days.

### Operating Under the Influence

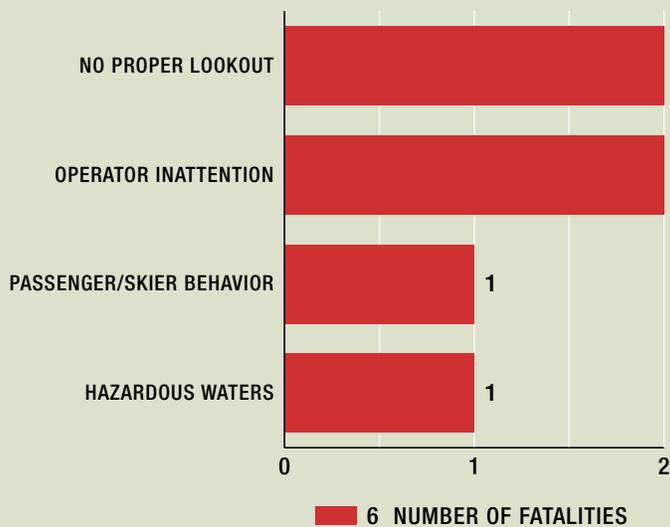
Since 1998, statistical analysis of boating accidents indicates that 41% of all Arizona fatal boat accidents (42 out of

103) involve alcohol. In 2008, six (6) people died in five fatal accidents on Arizona waterways where one (1) of the fatal accidents was alcohol-caused and one (1) was alcohol-related.

In an effort to reduce those numbers, federal, state, county and local law enforcement agencies have developed partnerships to conduct cooperative operating under the influence (OUI) patrols. These special projects include

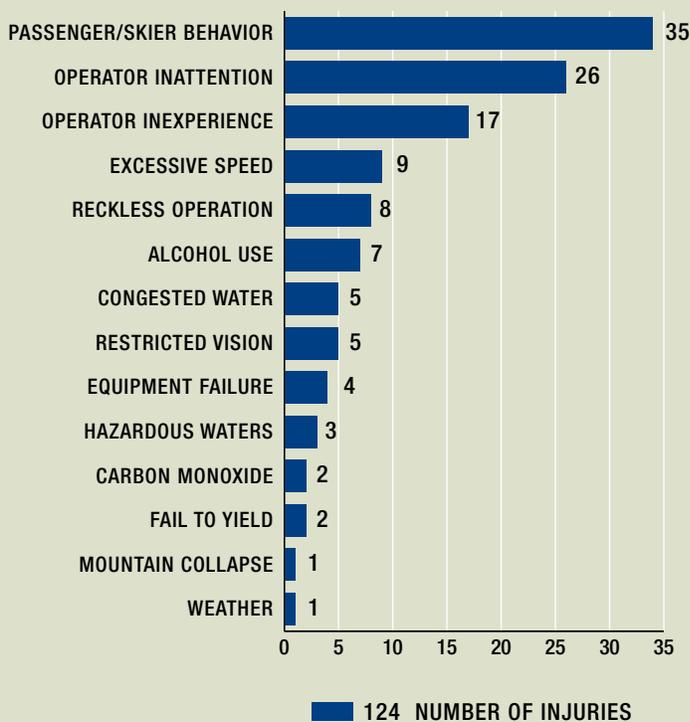
**Primary Cause of Fatal Accidents**

Total of 6 Fatalities



**Primary Cause of Injury Accidents**

Total of 124 Injuries



*Maricopa County Sheriff's Office deputies stay busy patrolling the lower Salt River during congested summer weekends.*



*The Bridgewater Channel north and south of the London bridge in Lake Havasu can be challenging for boaters to maneuver through, and for officers to patrol.*

*The quiet waters of Black Canyon (below Hoover Dam) have motor restrictions which minimizes user conflicts and attracts paddlers*

on-the-water OUI checkpoints and high-density law enforcement saturation patrols involving law enforcement agencies from Arizona, California, Nevada and Utah, as well as federal officers from the National Park Service, the Bureau of Land Management and the U.S. Fish and Wildlife Service.

Watercraft law enforcement officers were very successful in detecting and arresting impaired boat operators statewide. In 2008, Arizona watercraft law enforcement agencies arrested 316 individuals for operating under the influence (Figure 1). Forty-one of those arrests occurred during the eleven OUI special project patrols that were conducted in 2008. These cooperative projects made contact with 1,071 watercraft (with 4,446 persons

*Boat fires burn hot, fast and almost always directly down to the waterline; yet lack of serviceable fire extinguishers on board remains a common violation.*

on board), and law enforcement officers issued 261 citations. The boating public has continued to be highly supportive of OUI patrol efforts. Due to State budgetary reductions, only three interagency OUI special projects/OUI checkpoint activities have been planned for the 2009 watercraft season.

Many boat operators appear to be heeding the message of sober boating on the state's waterways. The numbers of statewide OUI arrests in 2008 were down 41% from 2006's statewide arrest totals of 535, and down 11% from 2007's total of 357. Watercraft law enforcement officers statewide have reported a marked increase in the percentage of designated sober operators encountered during routine contacts. Drinking while boating continues to be a critical problem

and high-priority target enforcement objective for officers, but the fact that many boat operators practice safe and sober boating continues to be highly encouraging.

## Watercraft Accidents

While boat use has gradually increased since 1991 (Figure 2), an analysis of boat accident data reveals a downward trend in total accidents, injuries and fatalities over that same time frame. This is reflected in the 2008 accident statistics where Arizona saw 197 boating accidents involving 278 vessels, with 124 individuals reportedly injured and 6 people losing their lives. An analysis of these numbers reveals there were 37 fewer vessels involved in accidents than

*(continued on page 9)*



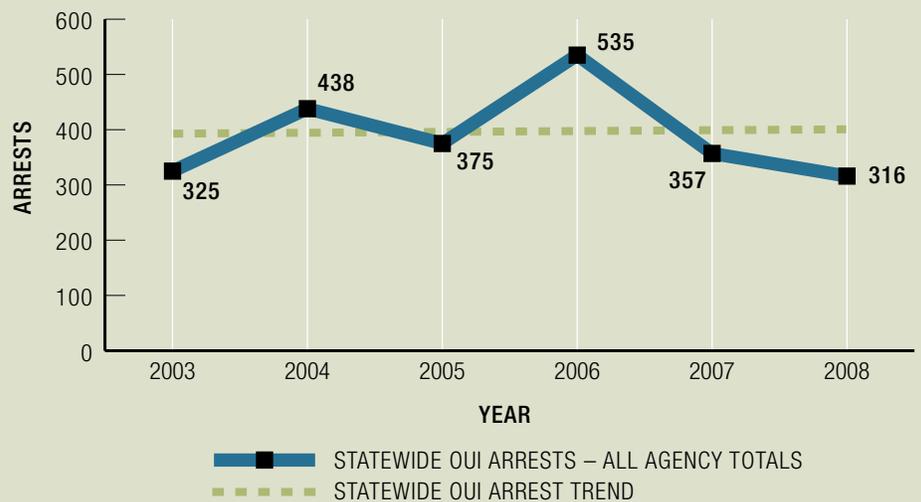


### 2008 Statewide OUI Arrest Totals by Agency

Agency	Arrests
Mohave County Sheriff's Office	81
Arizona Game and Fish Department	65
Maricopa County Sheriff's Office	64
Lake Havasu City Police Department	33
La Paz County Sheriff's Office	23
U.S. Fish and Wildlife Service	19
National Park Service	11
Gila County Sheriff's Office	9
Arizona State Parks	3
Yuma County Sheriff's Office	3
Bullhead City Police Department	3
Coconino County Sheriff's Office	2

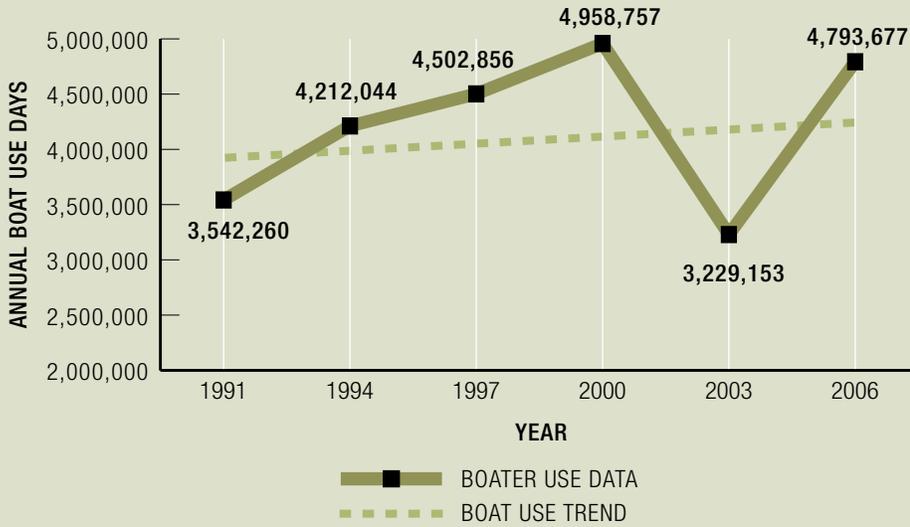
**316 Total**

**FIGURE 1**  
All Agencies Statewide OUI Arrests Trend Data



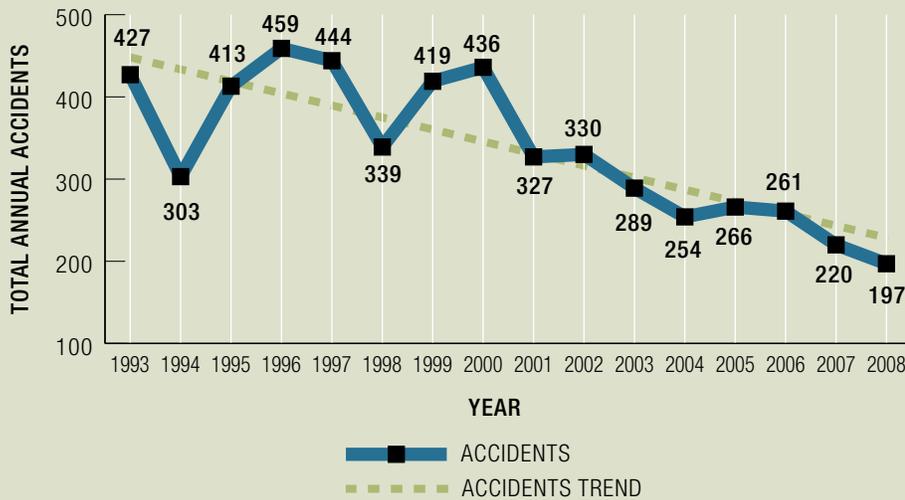
**FIGURE 2**

Annual Boat Use Days Trend



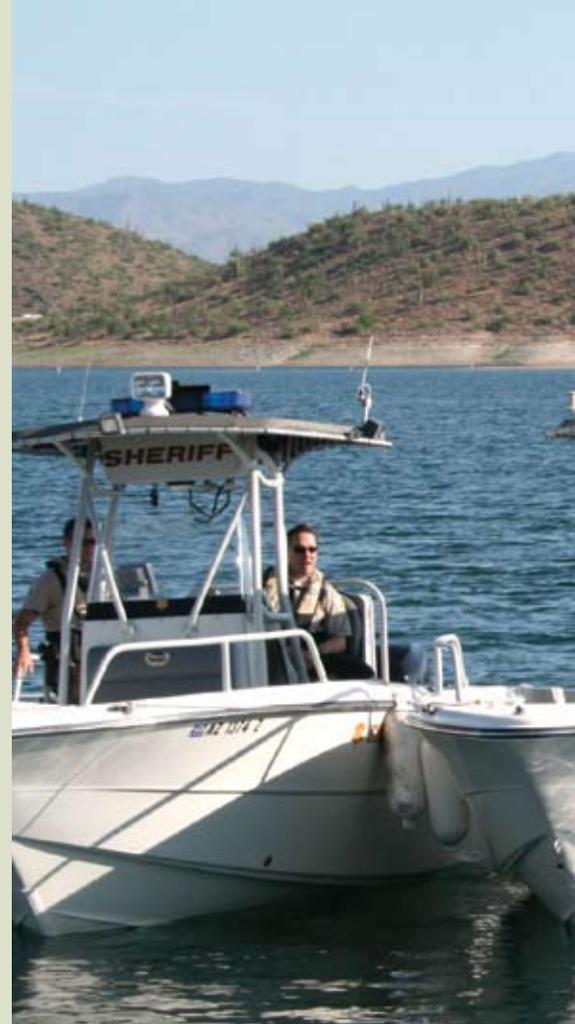
**FIGURE 3**

Annual Accident Trend Data



**FIGURE 4**

Annual Injury Trend Data



Arizona's high rate of boating accidents makes it clear that changing behavior and educating the boating public is a critical need. Officers can refer boaters to [www.azgfd.gov](http://www.azgfd.gov) to take a boating safety class online.

**“Overall, carelessness/reckless operation, operator inattention, excessive speed and operator inexperience are the leading contributing factors of all reported accidents.”**

— U.S. Coast Guard



CATEGORY	2007	2008	INCREASE/DECREASE
Total # of Accidents	220	197	Decrease of 23 Accidents
Total # of Vessels	315	278	Decrease of 37 Vessels
Total # of Injuries	118	124	Increase of 6 Injuries
Total # of Fatalities	8	6	Decrease of 2 Fatalities
Total Estimated Property Damage	\$802,532	\$533,252	Decrease of \$269,280

*Arizona Game and Fish Department in conjunction with 28 local, state and federal agencies actively collaborate to accomplish recreational boating missions including OUI enforcement projects, training, on-the-water patrols, and boating safety education courses.*

in the prior year and that the total number of accidents decreased by 23 (Figure 3). The number of injuries increased by 6 (Figure 4). In addition, there was a moderate decrease in the number of fatal boat accidents. In 2008, the total number of fatalities dropped to six as compared to eight in 2007 (Figure 5). The six fatalities were all operationally related fatalities and none were weather-

related. Further analysis of fatal accident data also indicates there were four trauma-related, one cold water/dangerous waters drowning, and one warm-water drowning fatalities. It is highly significant to note that of the two drowning fatalities, one (50 percent) of the victims was not wearing a life jacket. Boating continues to be an increasingly

popular form of recreation in Arizona. The number of registered watercraft in Arizona has grown from 105,000 in 1986 to 140,291 in 2008 (Figure 6). This trend is supported by data derived from the Watercraft Gas Tax Survey that is conducted triennially. According to the 2006 Tri-Annual Watercraft Gas Tax Survey, 4,793,677 total boat use days were reported for Arizona. This indicates

**FIGURE 5**  
Fatality Trend



**FIGURE 6**  
Registrations



a 48 percent increase from the 3,229,153 boater use days calculated from the 2003 survey data (see Figure 2). Arizona boaters comprised 48 percent of those days, while California boaters made up 42 percent. Nevada boaters represented most of the remaining percentage. Promoting the safety and education of all recreational boaters in Arizona, regardless of where they reside, is the main focus of the Arizona Game and Fish Department's Boating Safety Education Program.

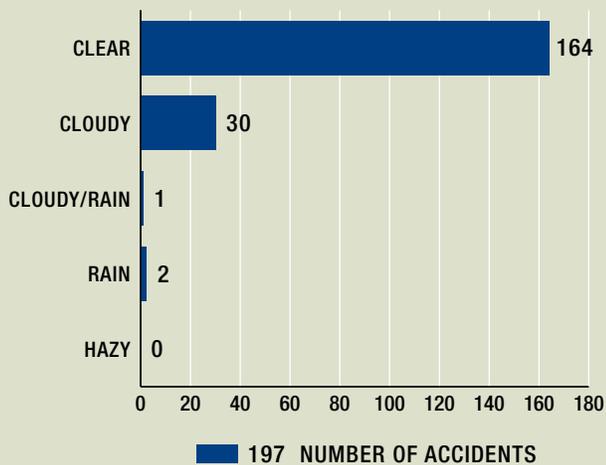
In analyzing watercraft accident information, there are five main areas of interest: type and cause of the accident, operator information, boats and equipment involved, environmental conditions at the time of the accident, and time and location of the accident. For the first time after tracking 15 years of data, the leading cause of accidents was passenger/skier behavior. Operator inattention and operator inexperience were the second and third leading causes. Forty-eight percent of operators involved in boating accidents were residents of Arizona and forty percent were from California. The types of watercraft most often involved in accidents were open motorboats 24 feet or more in length (18 percent) and personal watercraft smaller than 12 feet in length (36 percent).

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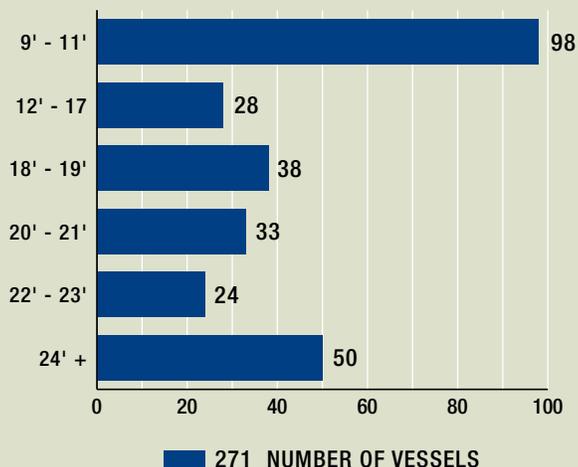
*There is a need for heightened awareness of carbon monoxide poisoning in calm or no wind conditions when groups of boats are idling or tied together. Most boaters are unaware of the deadly circumstances.*



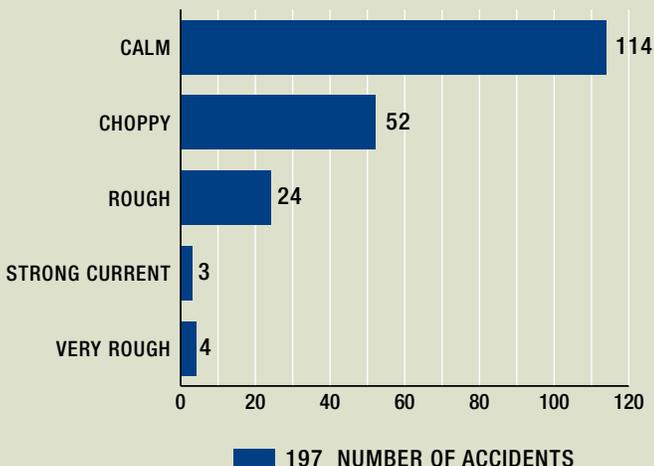
### Weather Conditions



### Length of Watercraft

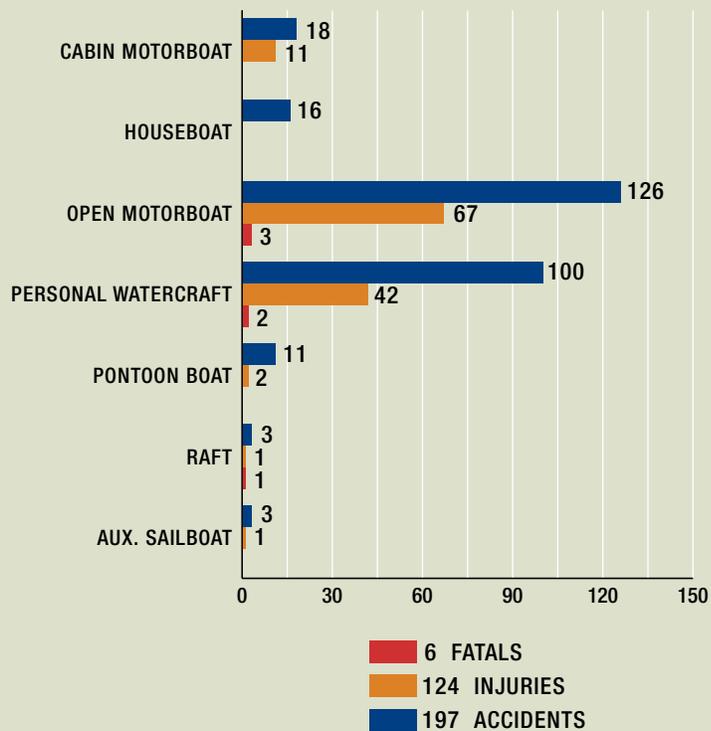


### Water Conditions

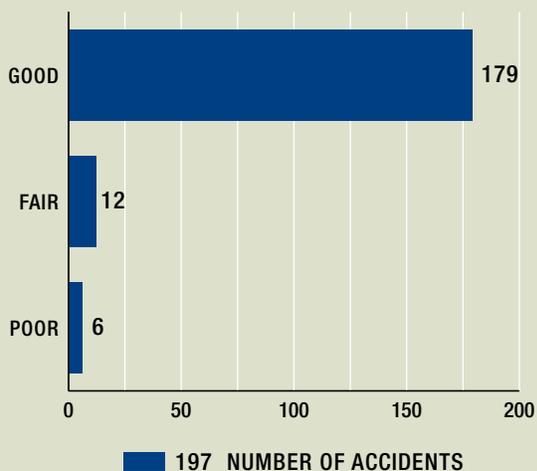


### Types of Watercraft in Accidents

124 Total Injuries and 6 Fatalities



### Visibility Conditions



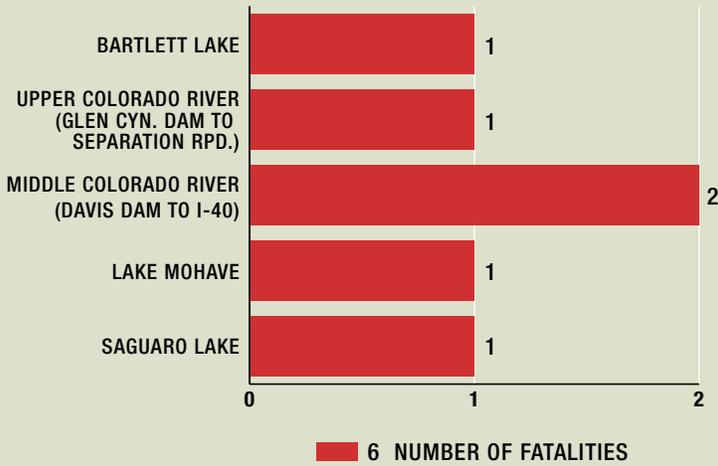
*The percentage of boaters who drown as a result of not wearing a life jacket consistently falls at almost 90 percent each year.*

— U.S. Coast Guard

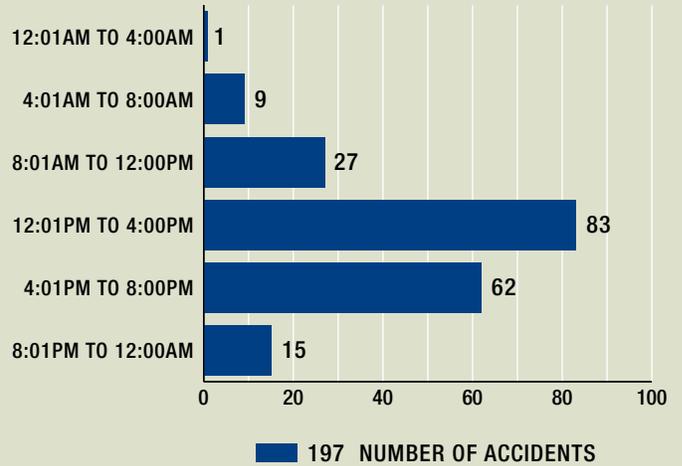
### Fatalities per Body of Water

6 Total Fatalities

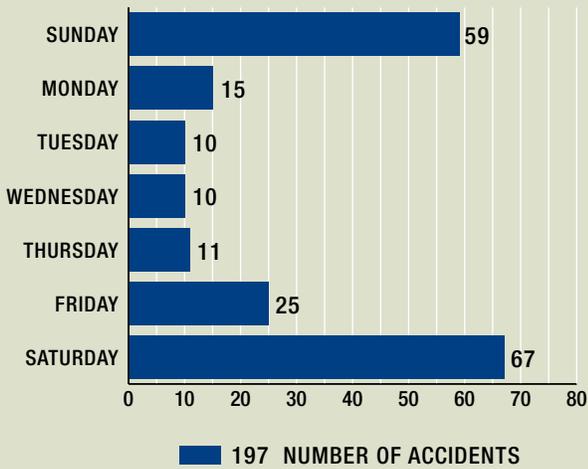
(2 out of 6 were alcohol and/or drug related)



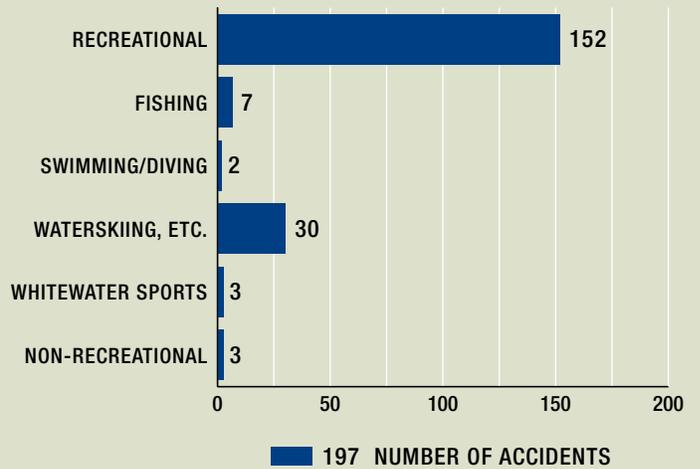
### Accidents by Time of Day



### Accidents by Day of Week



### Activity at Time of Accident



Checkpoints and saturation patrols improve interaction with the boating public and encourages sober operation and boating safety education.

### Accidents by Month



The average boat accident occurred during the day when weather conditions were usually clear, with good visibility and the waters calm or choppy. The most dangerous month for recreational boating in 2008 was August. July was second, with June in third. The months of May, June, July, August and September traditionally have high numbers of boating accidents because they reflect peak boater day use along with the summer's busiest boating holidays: Memorial Day, Independence Day and Labor Day. In 2008, 42 percent of all accidents occurred between noon and 4 p.m., and Saturdays had the most accidents and injuries.

## Watercraft Education

Education is considered one of the most effective ways to reduce the number of boating accidents. The Arizona Game and Fish Department provides an (approximately) eight-hour boating education course developed for new recreational boaters. Many insurance companies offer discounts to those who successfully complete the course as a way to encourage boater education and reduce accidents. Currently, the Department's Boating Safety Education course content, and the program, includes coordination of class availability. Approximately 84 active volunteer boating education instructors from across the state provide classroom instruction. In fiscal year 2008, the Department offered 60 classroom courses certifying 449 students. Approximately 465 students completed the Department's newly released online Internet boating education

course. Because of low annual student numbers, the agency launched Boat Safe, Boat Smart, Boat Sober, an assertive advertising campaign that targeted at increasing the number of boaters voluntarily attending a boating safety education course in early May. The 33 students that took the course for May seems insignificant; however, it equates to a staggering 190 percent increase over April's 18 students. With 93 students completing the online course in June, a 265% increase over May, numbers continued to grow. Of the total 465 students that completed the agency's online Internet course during 2008, more than 89% completed the course after the agency started the advertising

campaign. Approximately 307 students, or 66% completed the course during the primary boating months of May, June, July, August and September.

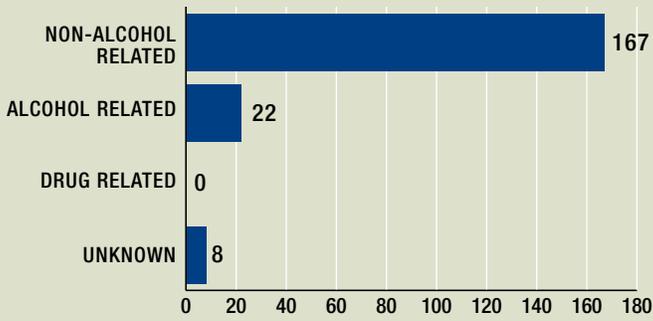
The U.S. Coast Guard Auxiliary and the U.S. Power and Sail Squadron also conduct boating safety education courses in Arizona. U.S. Coast Guard boating safety classes vary from an eight-hour basic boating safety course to 80 hours and more of detailed navigational courses of instruction. The U.S. Power and Sail Squadron offers the public a six-chapter boating safety education course as well as a shorter, more intense, three-chapter course.

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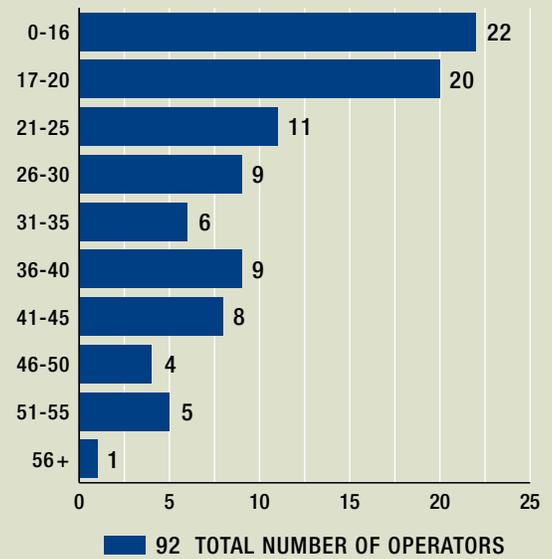


*Through the "OUI/DUI Working Together" campaign in 2008, Arizona Game and Fish Department served a lead role with the Governor's Office of Highway Safety to inform the public that statewide law enforcement agencies are working together to remove impaired boaters and drivers from Arizona's waterways and roadways.*

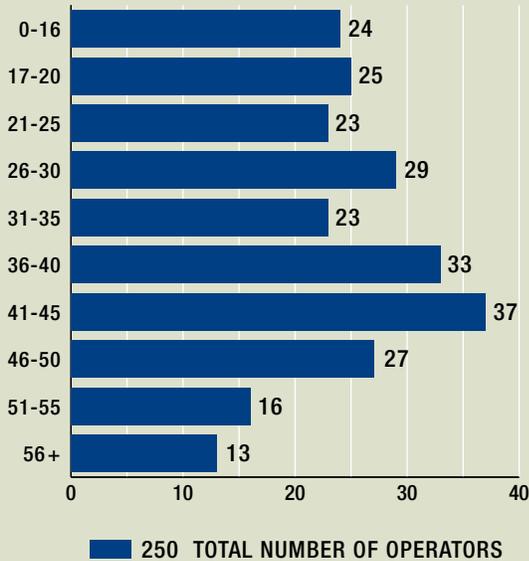
### Total Number of Alcohol-Related Accidents



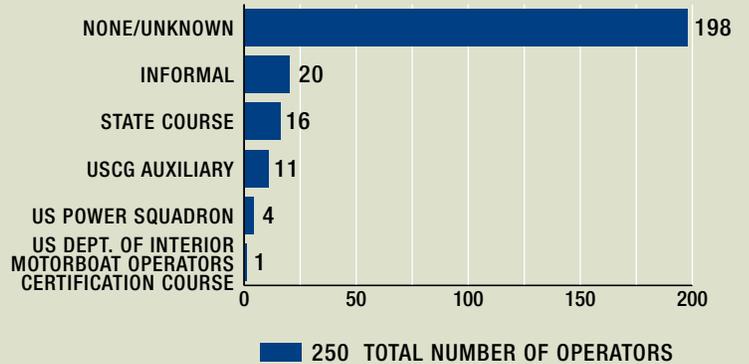
### PWC Accidents Age of PWC Operator



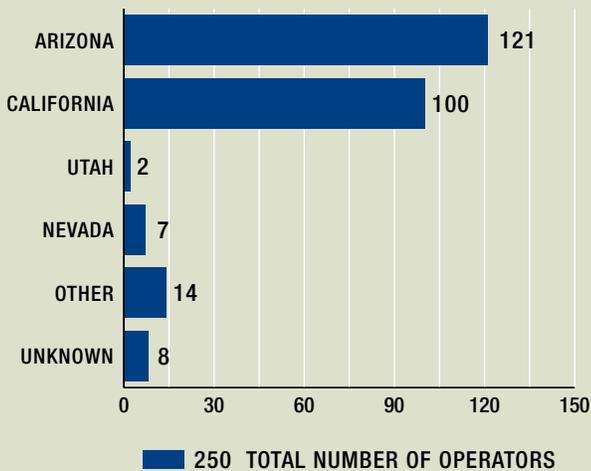
### Age of Watercraft Operators



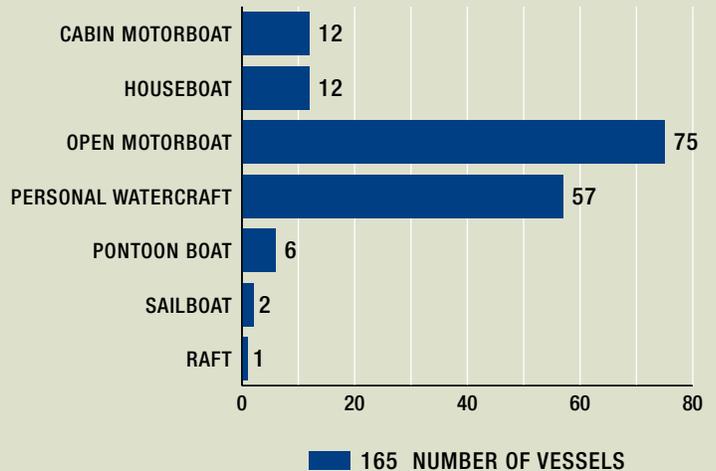
### Operator's Boating Education



### Residence of Operators



### Property Damage Over \$500 Types of Watercraft





The Arizona Game and Fish Department continues to work with the judicial system throughout the state to include its boating safety education program as part of alternative sentencing for violators of boating rules and regulations. Judges are encouraged to use the program in lieu of, or in addition to a monetary fine to help increase a boat operator's knowledge of boating safety and operation information and regulations. So far, judges and boating violators have indicated the program has proven positive in increasing awareness of boating safety issues and knowledge on the part of the operator.

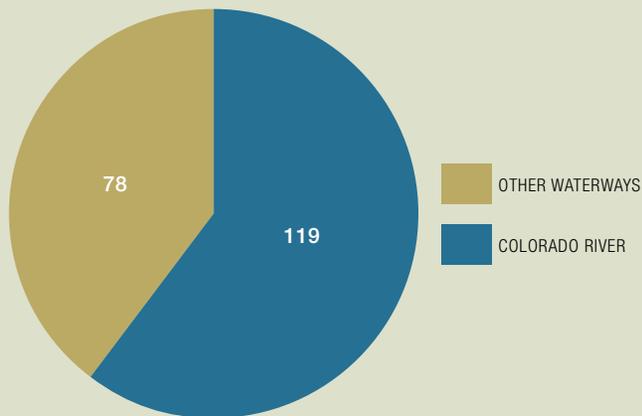
### **Boating Accident Statistics**

An area of priority to both recreational boaters and law enforcement agencies is the increasing use of personal watercraft (PWC) on Arizona waterways. In 1990, only 8,168 PWCs were registered in Arizona, compared to more than 27,433 in 2008. While PWCs comprise approximately 20 percent of all Arizona watercraft registrations, they account for 36 percent of all accidents and 54 percent of all injury accident. Many of these accidents can be attributed to numerous first-time operators that are renting or have just recently purchased a PWC. A PWC is operated differently and averages more time on the water than a traditional watercraft.

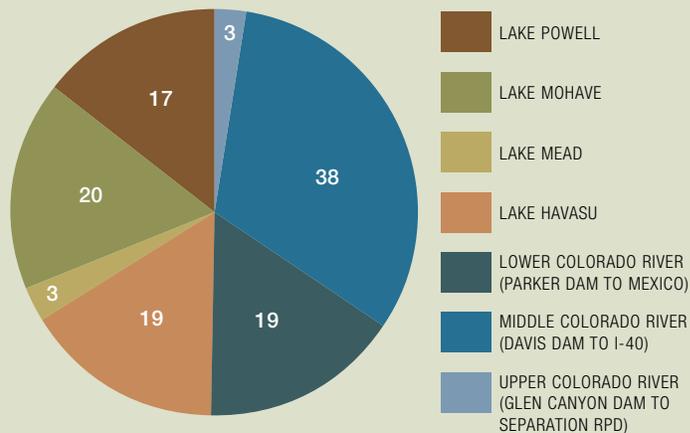
*Alcohol when coupled with operator inexperience and inattention at high speed often results in tragic consequences. As a result, Arizona watercraft officers dedicate much of their patrol activities at OUI and reckless operation enforcement.*

## Colorado River System Compared to All Other Arizona Waters

197 Total Accidents



## Colorado River System Accidents Reported in Arizona



### Combined 2008 Colorado River statistics from California, Arizona and Nevada:

239 Accidents, 155 Injuries and 10 Fatalities.



Like California and Nevada in the tri-state region, the Arizona Game and Fish Department has embarked on the national "Wear It" campaign. This whaler is used as a prop and boating education message at key events throughout the year. Thirty-five other states have joined the national "Wear It" campaign.

A significant number of boating accidents continue to occur along the Arizona border on the Colorado River. According to 2008 statistics, sixty percent of all reported Arizona watercraft accidents occurred along the Colorado River. This stretch of the river includes Lake Powell, Lake Mead, Lake Mohave, Lake Havasu and several other open areas of the Colorado River. The significant boater use densities along the Colorado River system from Lake Powell (north) to Yuma (south) is a significant area of concern to the Arizona Game and Fish Department and other law enforcement agencies.

An increase in law enforcement activity on both sides of the river, particularly OUI enforcement, and a focus on boating education have been shown to help reduce the number of boating accidents along this high-use area.

This information was compiled from boating accident reports submitted to the Arizona Game and Fish Department by watercraft enforcement agencies and persons involved in watercraft accidents throughout Arizona. For more information on boating safety education, call (623) 236-7235.

*The Colorado River from the tri-state area (Arizona, California, Nevada) south is 233 miles in length.*

# National Association of State Boating Law Administrators

## ARIZONA'S 2009 BOATING OFFICER OF THE YEAR

**Curtis Herbert** is one of Arizona Game and Fish Department's primary watercraft law enforcement officers who patrols Lake Havasu, arguably the busiest and most challenging body of water in the nation. Boater use densities at Lake Havasu are extreme given the huge influx of southern California boaters during the boating season. This 19,300-acre lake is located along the Colorado River and is world-renowned for its 'party' atmosphere, poker runs, fast high-end boats, drinking, spring break, and high-volume crowds.

During Officer Herbert's two and a half watercraft seasons patrolling Lake Havasu, he made 29 separate OUI cases that included a total of 60 OUI violations, and his efforts have resulted in 125 additional boating related charges. He has investigated several boat accidents while also assisting other agencies in accident investigations, and search and rescue efforts for lost, overdue, missing or drowned boat accident victims. He has persevered in stolen boat cases and altered HIN (Hull Identification Number) cases and has collaborated with local judges to maximize the effectiveness of the judicial process.

He continually researches boating laws while maintaining proficiency in current boating enforcement techniques and he volunteers regularly to conduct OUI checkpoints and saturation patrols outside of his district, sector and region.

Officer Herbert's dedication has been invaluable. He patrols all major holidays and randomly on the lake, and along the Colorado River strategizes efforts around night time 'under the influence' patrols. He is assigned two 20' enforcement boats for patrol purposes and maintains them in top-notch condition, along with tracking the condition and placement of navigational aids on the lake for Arizona State Parks.

Officer Herbert is an active participant in the Arizona Watercraft Survival and Tactics School and plays a significant role in the informal training of newer officers he's paired with. He gives boating safety class instruction and provides interviews with local newspapers and radio stations regarding boating safety issues. In addition, Officer Herbert gives presentations to local school children and public groups regarding boating safety and actively engages in U.S. Coast Guard marine events.



Curtis Herbert

### Arizona Boating Officers of the Year Previous Recipients:

- 2008** **Sergeant Doug Schuster**  
Mohave County Sheriff's Office
- 2007** **Sergeant Wayne Lupinski**  
Maricopa County Sheriff's Office
- 2006** **Jared Kayer**  
Mohave County Sheriff's Office
- 2005** **Tim Baumgarten**  
Arizona Game and Fish Department
- 2004** **Jerry Burns**  
La Paz County Sheriff's Office
- 2003** **Deanna Pfleger**  
Arizona Game and Fish Department
- 2002** No officer named
- 2001** **Gerald Duvall**  
Bullhead City Police Department
- 2000** **Steve Andrews**  
Arizona Game and Fish Department



## RESOURCES

### Arizona Game and Fish Department

5000 W. Carefree Highway  
Phoenix, Arizona 85086  
(602) 942-3000  
[www.azgfd.gov/boating](http://www.azgfd.gov/boating)

### 2003 - 2008 Arizona Boating Safety Reports

[www.azgfd.gov/boating](http://www.azgfd.gov/boating)

### USCG

#### Boating Safety Division

[www.uscgboating.org](http://www.uscgboating.org)

#### National Safe Boating Council

[www.safeboatingcouncil.org](http://www.safeboatingcouncil.org)

#### National Association of State Boating Law Administrators

[www.nasbla.org](http://www.nasbla.org)

#### Arizona Boating Education Classes

(623) 236-7235  
[www.azgfd.gov/boating](http://www.azgfd.gov/boating)

#### Arizona Online Boating Education

[www.azgfd.gov/boat-ed](http://www.azgfd.gov/boat-ed)

#### Arizona Online Watercraft Registration

[www.azgfd.gov/boating](http://www.azgfd.gov/boating)

#### Tri-state Boating Safety

[www.boatcoloradoriver.com](http://www.boatcoloradoriver.com)

#### National Water Safety Congress

[www.watersafetycongress.org/](http://www.watersafetycongress.org/)



[www.safeboatingcampaign.com](http://www.safeboatingcampaign.com)

Boat Safe, Boat Smart, Boat Sober

