

2009 Arizona Boating Safety Report



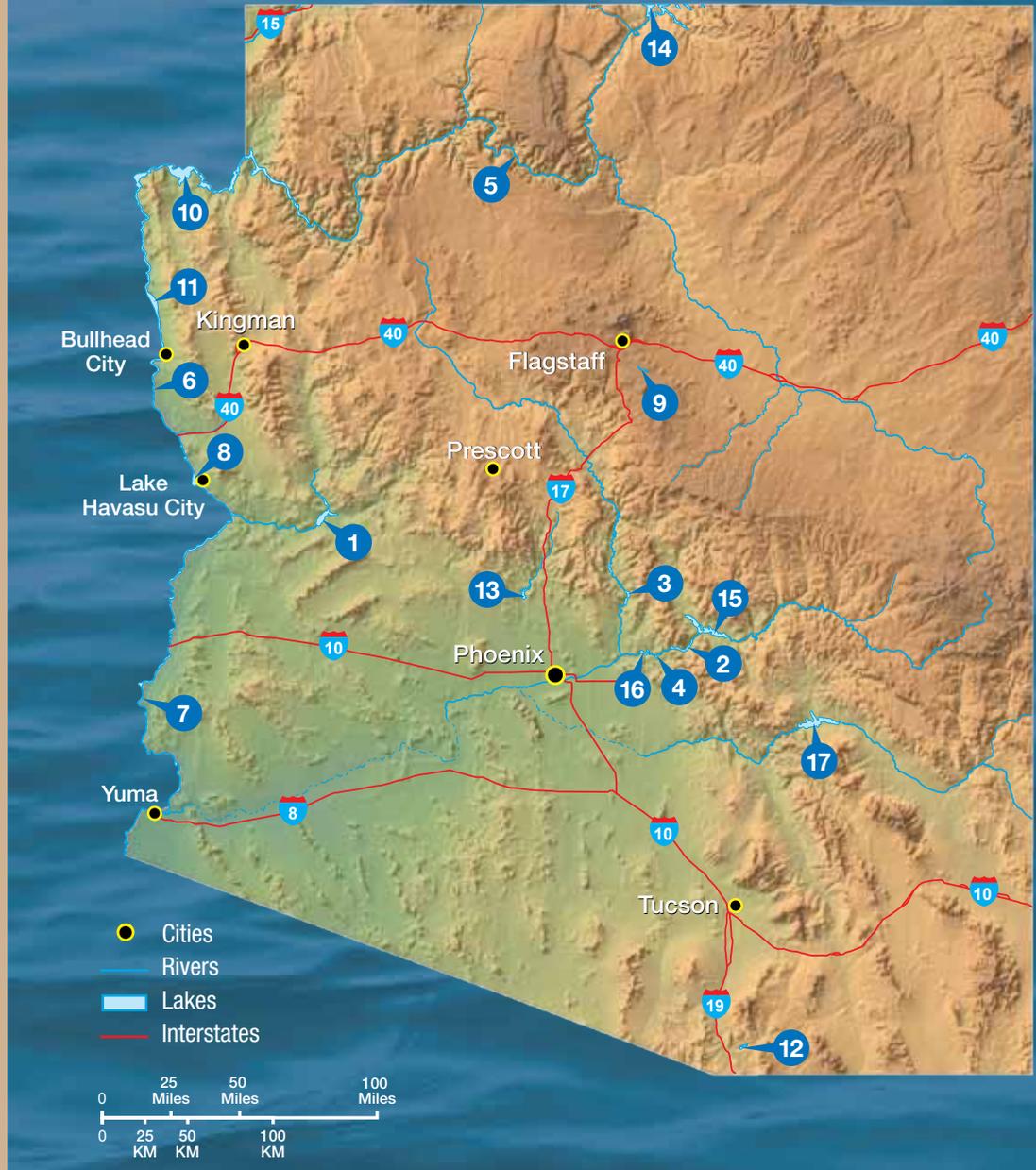
ARIZONA
GAME AND FISH
DEPARTMENT



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

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

The 2009 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, Jim Harken, Teresa Guillen, Ed Huntsman, Kelley Fowke, Ron Christofferson, Madelynn Fenske and Kevin Bergersen.



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

2009 Arizona Boating Safety Report

FROM THE DESK OF THE DIRECTOR

Dear Arizona Boating Enthusiast,

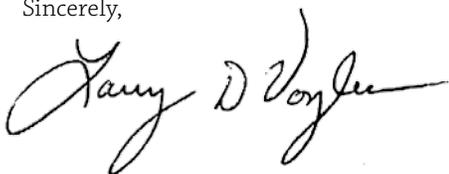
Arizona's waterways are among the most beautiful, diverse and enticing places to boat in North America. From the wide-open expanses of Lake Mohave, to the Grand Canyon's extreme whitewater rapids, to the scenic confines of Canyon Lake, to the tranquility of the White Mountains, the draw of Arizona's unique waterways consistently results in some of the highest boater use densities in the country.

Unfortunately, these high densities, when combined with operator inexperience and inattention often leads to increased risks for boat accidents. In fact, six of the country's top 25 most dangerous waterways in terms of overall boat accidents occur in our state or on systems that form our state's border. In an effort to reduce these numbers, this technical report is provided to 27 statewide law enforcement and boating safety organizations. It provides a resource to assist them with making data driven decisions that reduce the number of boating accidents, injuries and fatalities on Arizona's waterways.

The Arizona Game and Fish Department works hard to develop partnerships with state, municipal, county, and federal enforcement agencies as well as private organizations to promote statewide boating safety. Our partners stand together to provide effective on the water law enforcement and classroom education programs that help ensure boaters are informed prior to getting on the water and safe when they are on the water.

This report is available on the Department's Web site at www.azgfd.gov/boating. For more information about this or other recreational boat accident statistics, please contact Kevin Bergersen at (623) 236-7383 or kbergersen@azgfd.gov.

Sincerely,



Larry D. Voyles, Director



1

Director

Larry D. Voyles

Phone: (602) 942-3000

Arizona Game and Fish Commission

Jennifer L. Martin

Chair, Phoenix

Robert R. Woodhouse

Roll

Norman W. Freeman

Chino Valley

Jack F. Husted

Springerville

J.W. Harris

Tucson

2009 Arizona Boating Safety Report

ARIZONA GAME AND FISH DEPARTMENT Watercraft Enforcement and Education



2

Boating Law Administrator

Kevin Bergersen

Law Enforcement

Programs Coordinator

Phone: (623) 236-7383

Fax: (623) 236-7945

E-mail: kbergersen@azgfd.gov

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

Tim Baumgarten

OUI/Watercraft Program Manager

Phone: (623) 236-7206

Fax: (623) 236-7945

E-mail: tbaumgarten@azgfd.gov

Facilities

Ron Christofferson

Boating Facilities Program Manager

Phone: (623) 236-7481

Fax: (623) 236-7327

E-mail: rchristofferson@azgfd.gov

Public Information

Jim Harken

Public Information Officer

Phone: (623) 236-7223

Fax: (623) 236-7903

E-mail: jharken@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



Boat Safe, Boat Smart, Boat Sober.

Take a boating education class.



www.azgfd.gov/boating

The Arizona Game and Fish Department prohibits discrimination on the basis of race, color, sex, national origin, age, or disability in its programs and activities. If anyone believes that they have been discriminated against in any of the AGFD's programs or activities, including employment practices, they may file a complaint with the Director's Office, 5000 W. Carefree Highway, Phoenix, Arizona 85086, (602) 942-3000, or with the U.S. Fish and Wildlife Service, 4040 N. Fairfax Drive, Ste. 130, Arlington, VA 22203. Persons with a disability may request a reasonable accommodation or this document in an alternative format by contacting the Deputy Director as previously mentioned.

Administrative Authority

The Arizona Game and Fish Commission has been involved in boating safety and law enforcement since passage of the Federal Boat Safety Act of 1971. The Commission derives their authority from state law contained within Arizona Revised Statutes (ARS) 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

statewide boating safety program 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

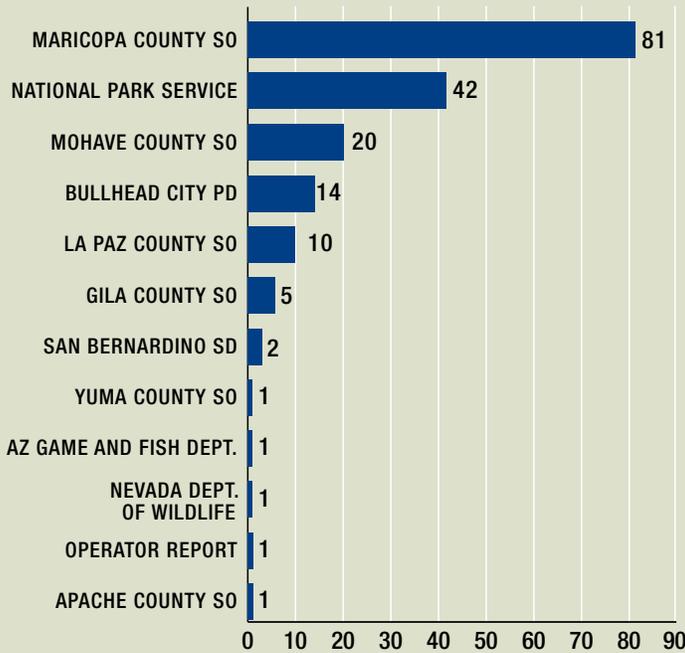
The Arizona Game and Fish Department (Department) provides approximately 25 percent of all boating law enforcement effort statewide. The primary law enforcement authorities and emergency response capabilities

resides with local agencies, which might be a state, county, municipality, tribal, national park, or land management agency depending on the waterway's location.

The Department is the administrative agency responsible for watercraft accident reporting in the state of Arizona. If the accident involves an injury or fatality, a written report must be submitted by either the jurisdictional agency or the boat operator, within 48 hours. All other accidents must be reported within five days. These reports are then compiled, tabulated and forwarded,

(continued on page 4)

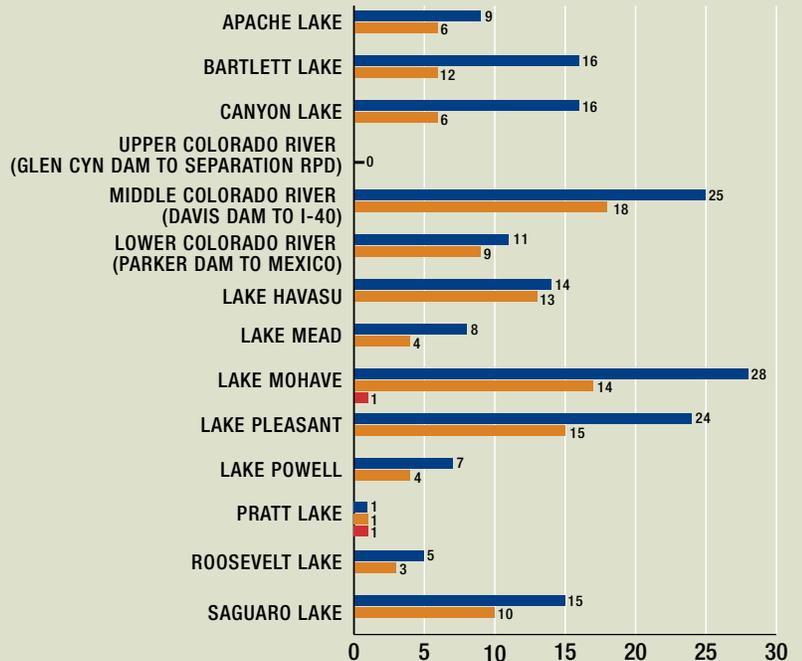
Agencies Reporting Accidents
179 Total Accidents



179 NUMBER OF ACCIDENTS

Bodies of Water

179 Total Accidents / 119 Injuries / 2 Fatalities



179 ACCIDENTS
119 INJURIES
2 FATALITIES

Padding and other non-motorized users are the fastest growing boater segment in the State and across the country. Fortunately, this popular activity has not yet begun to appear in Arizona boat accident statistics in any appreciable numbers.



per a Memorandum of Agreement, to the U.S. Coast Guard (USCG) for use in national statistics.

In 2009, 11 law enforcement agencies, along with boat operators, reported 179 watercraft-related accidents totaling \$501,046 in damages. This number does not include the 57 boat accident reports that did not meet minimum state or USCG reporting threshold guidelines. Information from these accident reports assist

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

Operating Under the Influence

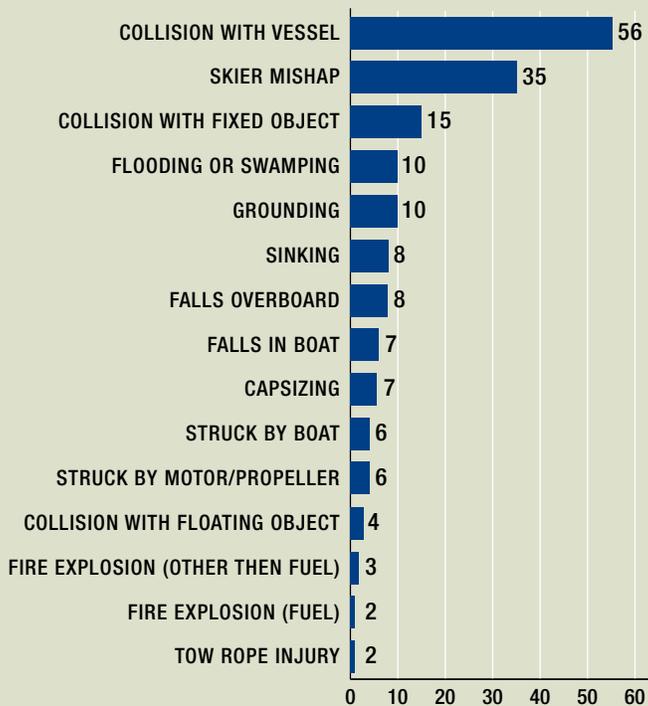
Since 1998, statistical analysis of boating accidents indicates that

40 percent of all Arizona fatal boat accidents (42 out of 106) involve alcohol. In an effort to reduce alcohol-related accident numbers, federal, state, county and local law enforcement agencies have developed partnerships to conduct cooperative operating under the influence (OUI) patrols. These inter-departmental special projects include on-the-water sobriety checkpoints and high-density law enforcement saturation

(continued on page 6)

Primary Accident Types

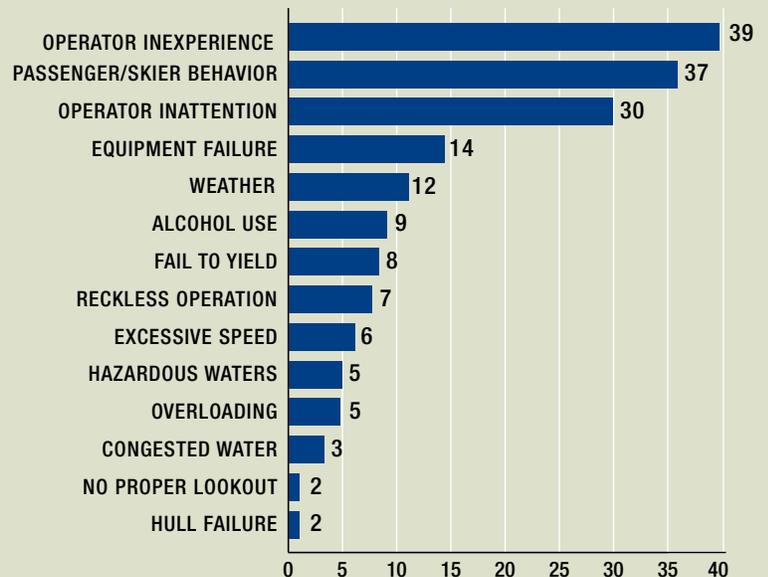
179 Total Accidents



179 NUMBER OF ACCIDENTS

Primary Accident Cause

179 Total Accidents



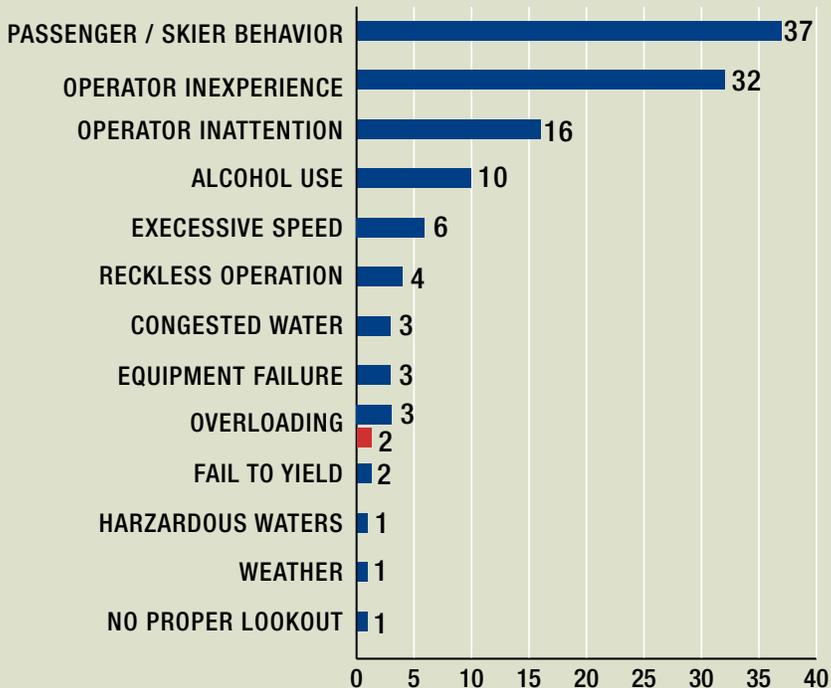
179 NUMBER OF ACCIDENTS

In 2009, Arizona's boating officers issued 2,077 citations and 3,894 warnings statewide for boating safety violations.



Primary Cause of Injury Accidents/Fatal Accidents

Total of 119 Injuries / 2 Fatalities



■ 119 NUMBER OF INJURIES
 ■ 2 NUMBER OF FATALITIES



To be considered a "reportable boating accident" in Arizona, an accident must involve a death, a missing person, an injury which requires treatment beyond first aid, or property damage of \$500 or more.



patrols from agencies in Arizona, Nevada, Utah and California, as well as federal officers from the National Park Service, the Bureau of Land Management and the U.S. Fish and Wildlife Service.

Statewide, watercraft law enforcement officers were very successful in detecting and arresting impaired boat operators. In 2009, law enforcement arrested 276 individuals for operating under the influence (Figure 1). Due to state budgetary reductions, only three interagency sobriety checkpoint activities occurred during the summer season in 2009 which resulted in 20 of the 276 OUI statewide arrests.

The three interagency projects made contact with 777 watercraft (with 3,610 persons on board), and law enforcement officers issued 84 citations and 185 warnings. The boating public has continued to be highly supportive of OUI patrol efforts.

Many boat operators appear to be heeding the message of sober boating on the state's waterways. Watercraft law enforcement officers statewide have reported an increase of designated sober operators during routine contacts. While encountering boat operators who practice safe and sober boating continues to be highly

encouraging, drinking while boating continues to be a critical problem and high-priority target enforcement patrol objective for watercraft officers.

Watercraft Accidents

While the boat use trend 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 2009 accident statistics where Arizona had 179 boating accidents involving 238 vessels, and 119 individuals reported injuries. An analysis of these numbers reveals there were 40 fewer

(continued on page 8)

As is evident by this aerial view of the Bridgewater Channel, Lake Havasu was the state's most utilized lake in terms of both boat use days (765,084) and person use days (3,782,193).



After detecting a suspected impaired boater at a multi-agency collaborative sobriety checkpoint project on the Colorado River, this Mohave County Sheriff's Office Deputy obtains a breath sample as part of his OUI investigation. Per Arizona State Law, boat operators cannot be impaired to the slightest degree, and the statutory limit for persons in control of a motorized watercraft is .08 alcohol concentration.

2009 Statewide OUI Arrest Totals by Agency

Agency	Arrests
Maricopa County Sheriff's Office	83
Mohave County Sheriff's Office	68
Arizona Game and Fish Department	32
Lake Havasu City Police Department	30
U.S. Fish and Wildlife Service	18
Bureau of Land Management	13
Yuma County Sheriff's Office	10
La Paz County Sheriff's Office	9
National Park Service	6
Gila County Sheriff's Office	4
Bullhead City Police Department	3

276 Total

FIGURE 1

All Agencies Statewide OUI Arrests Trend Data

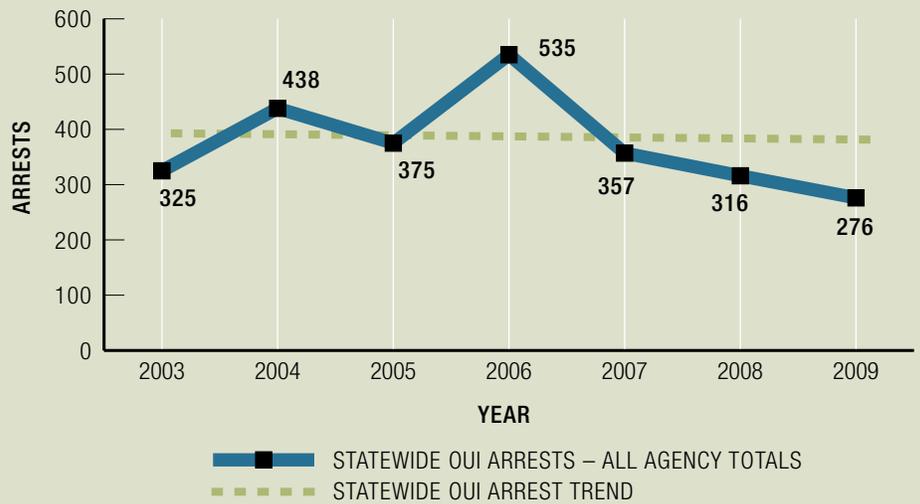


FIGURE 2
Annual Boat Use Days Trend

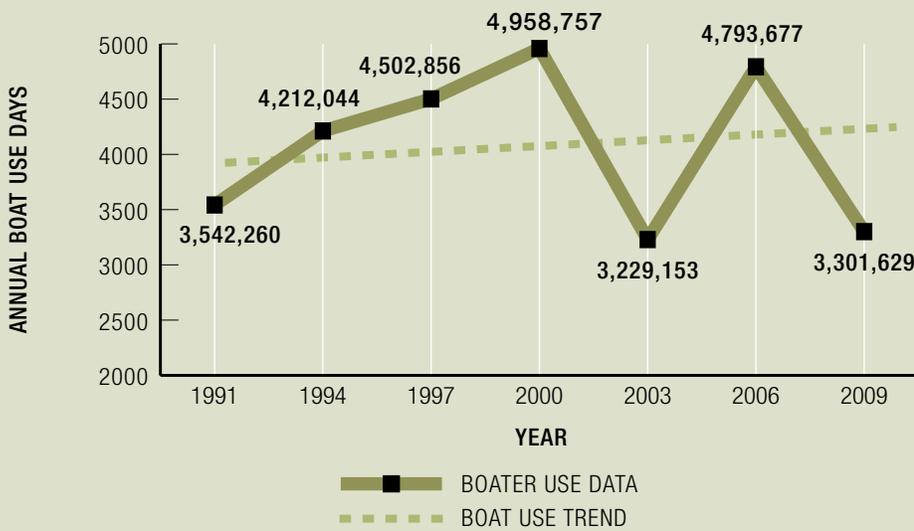


FIGURE 3
Annual Accident Trend Data

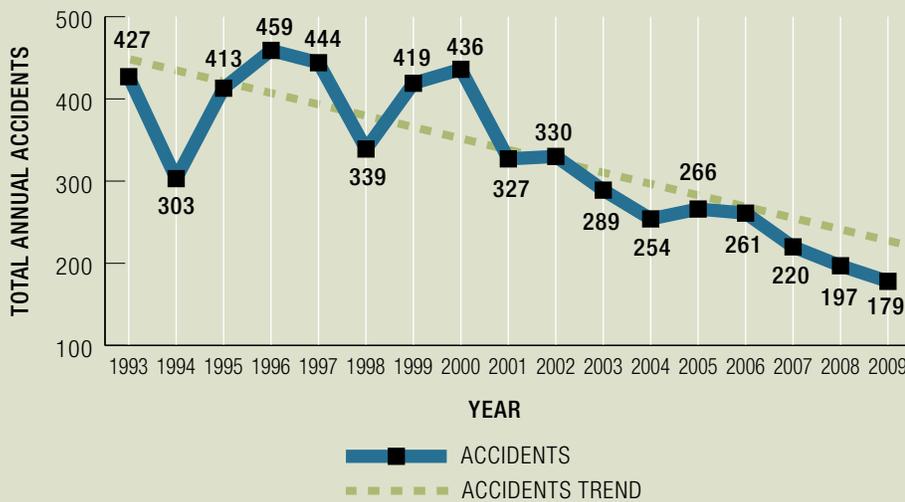


FIGURE 4
Annual Injury Trend Data



A boat operator's misperception of their speed when in close proximity to other vessels often results in a citation for reckless operation from boating officers who are experienced in "boat on boat" accident investigations.

vessels involved in accidents than in the prior year and the total number of accidents decreased by 18 (Figure 3). The number of injuries decreased by five (Figure 4). What was extremely encouraging was that Arizona had its lowest number of recorded fatalities with only two people losing their lives in 2009, as compared to six in 2008 (Figure 5). One fatality was an operational related trauma and one was a capsized related drowning. Both were not alcohol caused or weather related.

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 136,463 in 2009 (Figure 6). This trend is supported by data from the Watercraft Gas Tax Survey conducted triennially. The Gas Tax Survey completed in late 2009 reported approximately 3,301,629 total boat use days for Arizona. This indicates a 31 percent decrease from the 4,793,677 boater use days calculated from the 2006 survey data (see Figure 2). Arizona boaters comprised 55 percent of those days, while California boaters made up 35 percent. Nevada boaters represented most of the remaining percentage. Promoting the safety and education of all recreational boaters in Arizona,

(continued on page 10)



Lake Havasu City Police Department officers patrol the congested waters of Bridgewater Channel for impaired boat operators and other safety violations.

For 13 of the last 16 years of statistical tracking, the leading cause of boat accidents is operator inattention and operator inexperience.



The popular but relatively static surface acreage of Arizona's waterways, combined with their location in close proximity to the major metroplexes of Phoenix and southern California, result in some of the southwest's highest boater use densities.

regardless of where they reside, is the main focus of the Arizona Game and Fish Department's watercraft safety 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. The leading cause of accidents (for 13 of the last 16 years of statistical tracking) is operator inattention and operator inexperience. Passenger/skier behavior was the third leading cause. Fifty-four percent of operators involved in boating accidents were residents of Arizona and 35 percent were from California. The types of watercraft most often involved in these accidents were open motorboats (52 percent) and personal watercraft (40 percent).

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 2009 was July. June was second, with August in third. The months of May, June, July, August and September traditionally have high numbers of

FIGURE 5
Fatality Trend

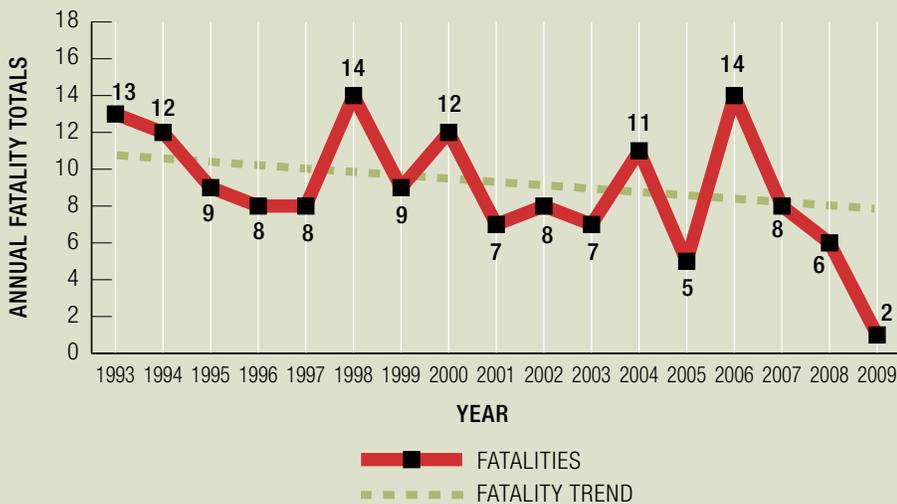
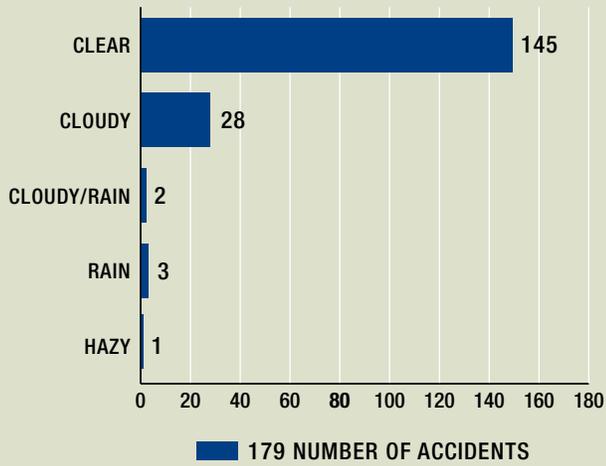


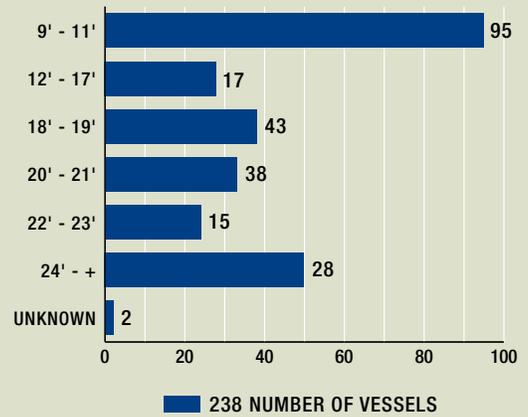
FIGURE 6
Watercraft Registrations



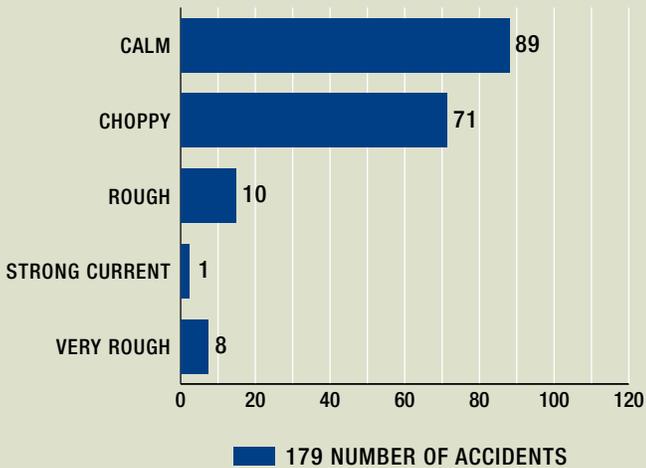
Weather Conditions



Length of Watercraft

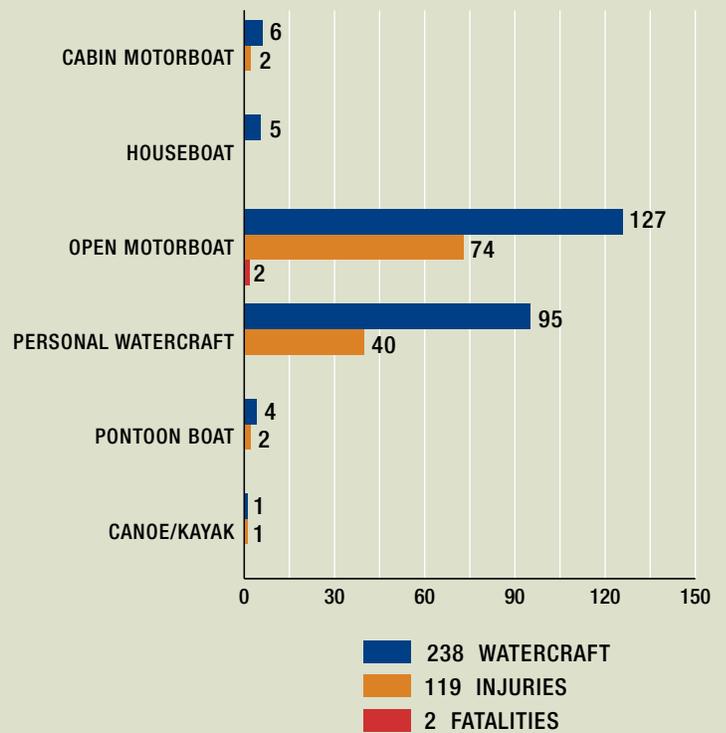


Water Conditions

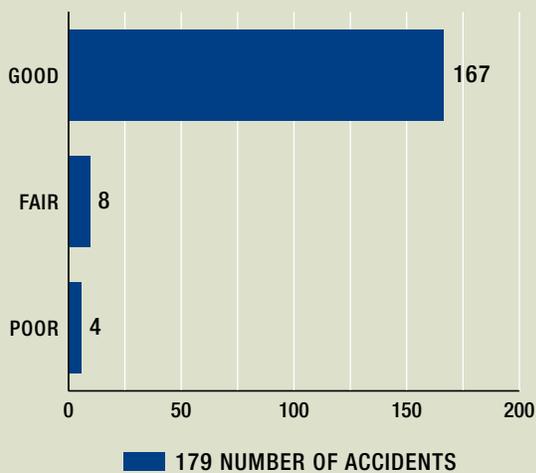


Types of Watercraft in Accidents

119 Total Injuries and 2 Fatalities



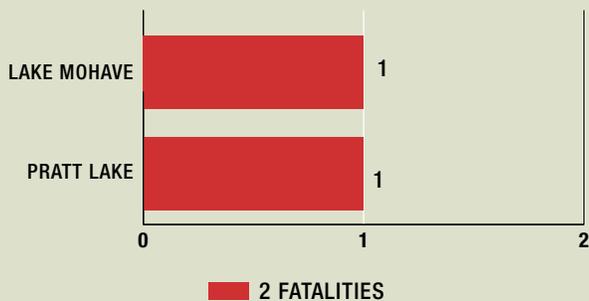
Visibility Conditions



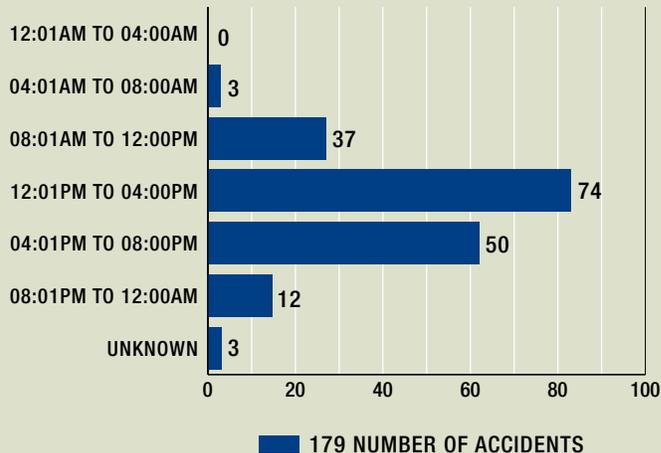
Arizona registered 136,463 watercraft in 2009 reflecting 6% decline in vessel registrations from 2008 and a 14% decline from the all-time peak of 158,726 registrations in 1998.

Fatalities per Body of Water

2 Total Fatalities



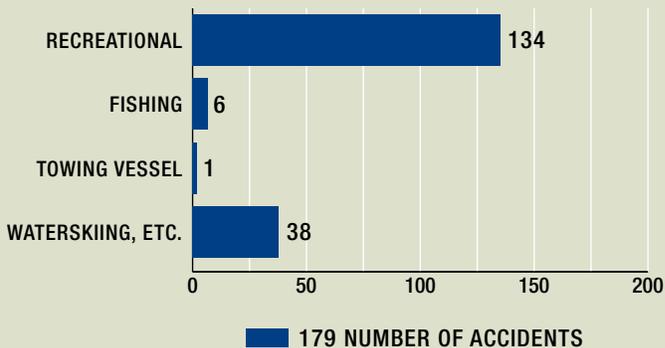
Accidents by Time of Day



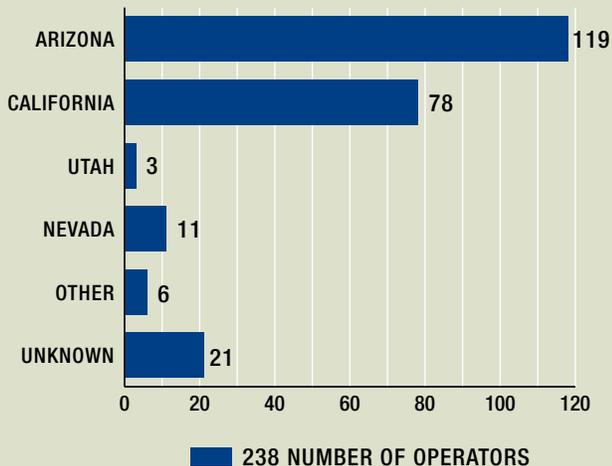
Accidents by Day of Week



Activity at Time of Accident



Residency of Watercraft Operator



Accidents by Month



boating accidents because they have peak boater day use along with the summer's busiest boating holidays: Memorial Day, Independence Day and Labor Day. In 2009, 41 percent of all accidents occurred between noon and 4 p.m., and weekends had the most accidents (29 percent on Saturday and 30 percent on Sunday).

Watercraft Education

Education is considered to be one of the most effective ways to reduce the number of boating accidents. The Department provides an (approximately) eight-hour basic boating safety education course developed to provide new recreational boaters the fundamental information they need to start boating. The course also serves as a good review for experienced 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 Education Branch annually reviews course content to meet nationally recognized education standards. Approximately 84 active volunteer boating education instructors from across the state provide classroom instruction. In FY2009, the Department offered 58 classroom courses certifying 645 students. Approximately 437 students completed the Department's online Internet boating education course.

The USCG Auxiliary and the U.S. Power and Sail Squadron also conduct boating safety education courses in Arizona. USCG Auxiliary boating safety classes vary from an eight-hour

basic boating safety course to 80 hours or 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.

The Department continues to work with the judicial system throughout the state to include its boating safety education program as part of

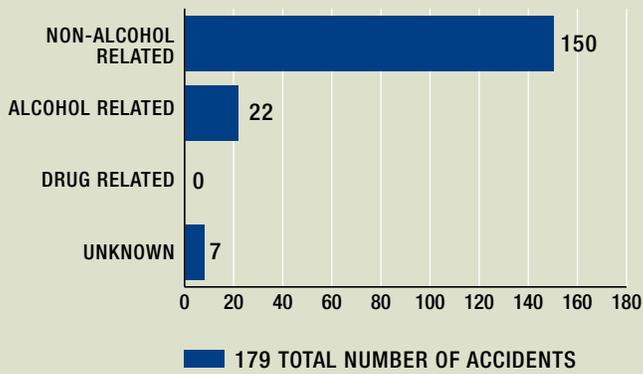
alternative sentencing for violators of boating rules and regulations. Judges are encouraged to use the program in lieu of, or in addition to a monetary fine to help increase a boat operator's knowledge of boating safety and operation information and regulations. So far, judges and boating violators have indicated the program has proven positive in increasing awareness of boating safety issues and knowledge on the part of the operator.

CATEGORY	2008	2009	INCREASE/DECREASE
Total # of Accidents	197	179	Decrease of 18 Accidents
Total # of Vessels	278	238	Decrease of 40 Vessels
Total # of Injuries	124	119	Decrease of 5 Injuries
Total # of Fatalities	6	2	Decrease of 4 Fatalities
Total Estimated Property Damage	\$533,252	\$501,046	Decrease of \$32,206

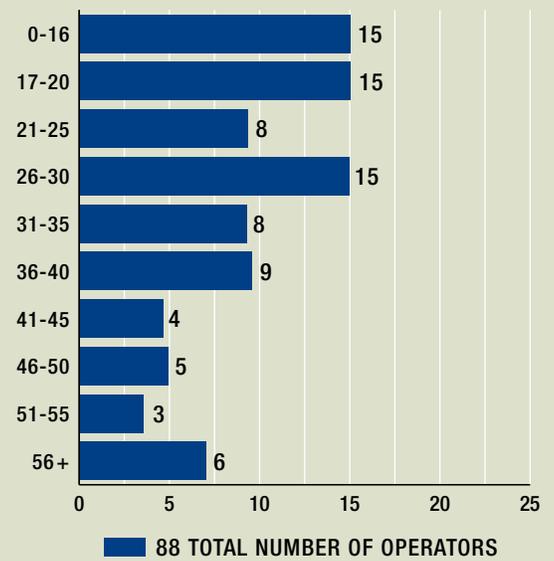


According to public survey data, detecting and removing impaired boat operators continues to be a law enforcement activity that boaters would most like to see increased at their favorite lake or river.

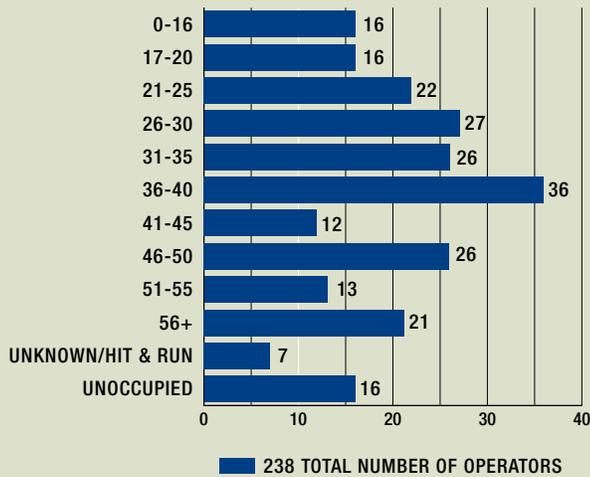
Total Number of Alcohol-Related Accidents



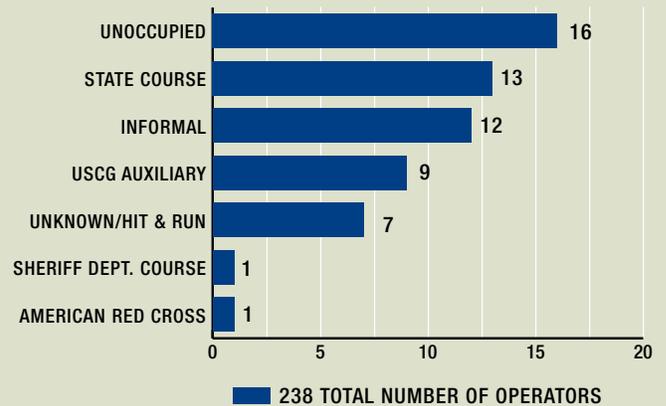
Age of PWC Operators Involved in Accidents



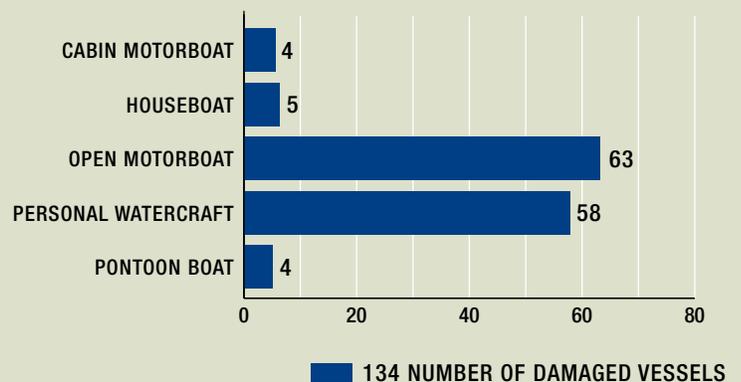
Age of Watercraft Operators



Operator's Boating Education



Property Damage Over \$500 Types of Watercraft



The Mohave County Sheriff's Office stays busy patrolling the Arizona jurisdictional areas of Lake Havasu and Topock Gorge.

To raise life jacket and boating safety awareness across the State, Arizona was one of the first states, along with California and Tennessee, to support the National Safe Boating Council's 'Wear It' campaign. Arizona was the second state to have an official 'Wear It' boat.



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 26,138 in 2009. While PWCs comprise approximately 19 percent of all Arizona watercraft registrations, they account for 40 percent of all accidents and 34 percent of all injury accidents. Many of these accidents can be attributed to numerous first-time operators that are renting or have recently purchased a PWC. A PWC is operated differently

and averages more time on the water than a traditional watercraft.

A significant number of boating accidents continue to occur on the Arizona border on the Colorado River. According to 2009 statistics, 64 percent of all reported watercraft accidents in Arizona occurred on the Colorado River. This stretch of the river includes Lake Powell, Lake Mead, Lake Mohave, Lake Havasu and several other open areas of the river. The significant boater use densities along the Colorado River system from Lake Powell (north) to Yuma (south)

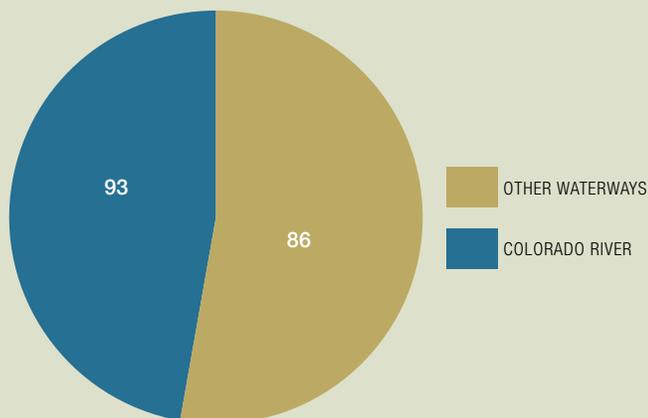
(continued on page 16)



In 2009, 41 percent of all accidents occurred on weekends between noon and 4 p.m. when weather conditions were usually clear, with good visibility and the waters generally calm or choppy.

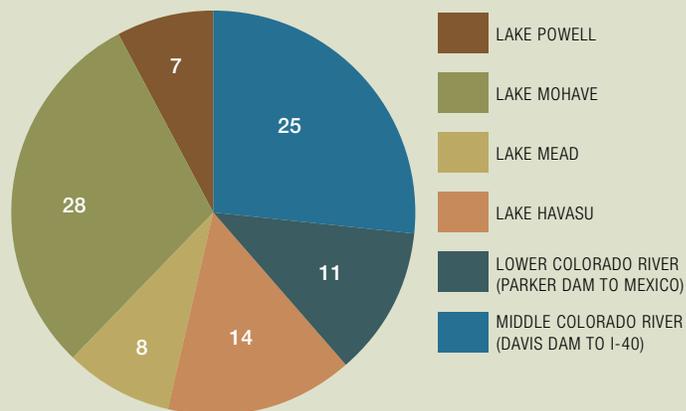
Colorado River System Compared to All Other Arizona Waters

179 Total Accidents



Colorado River System

93 Accidents Reported in Arizona



As the Colorado River drops a total of 1,709 feet in the 296 miles of the Grand Canyon, the resulting rapids and year around presence of cold water have resulted in the establishment of one of the country's few mandatory regulations requiring life jackets to be worn while on the river in the park.

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, please call (623) 236-7235.

Combined 2009 Colorado River statistics from Arizona, California and Nevada:

207 Accidents, 137 Injuries and 11 Fatalities.

National Association of State Boating Law Administrators

ARIZONA'S 2010 BOATING OFFICER OF THE YEAR

Sgt. Doug Schuster is a 21-year veteran with the Mohave County Sheriff's Office (MSCO) and has been Boating Safety Supervisor on Lake Havasu for the past 13 years. Lake Havasu is the busiest body of water in Arizona and annually sees over 1,075,561 boat use days and over 5,430, 965 persons use days. Sgt. Schuster's multi-program and collaborative approach to boating safety is a huge part of the reason the waterways under his area of responsibility are experiencing across-the-board declines in boat accidents.

Sgt. Schuster has dedicated his professional career to promoting and advocating boating safety. In his career, he has logged well over 5000 hours at the helm and has personally made over 300 arrests for Operating Watercraft Under the Influence (OUI) of alcohol. In addition, MSCO is consistently in the top three of all Arizona watercraft law enforcement agencies in OUI arrests, with Sgt. Schuster's work unit accounting for 68 OUI arrests in 2009. Sgt. Schuster leads by example and has personally investigated hundreds of serious boating accidents and has supervised countless additional accident investigations, including 20 boat accident investigations in 2009.

Sgt. Schuster has implemented a boating safety education program for over 700 elementary school children in three local schools. He oversees the Mohave County Sheriff Volunteer Boating Safety Program comprised of over 70 volunteer boating safety personnel who assist deputies, search for missing boaters and swimmers, and help transport accident victims to on-shore emergency medical teams. Sgt. Schuster does not hesitate to offer resources to interagency OUI/BUI checkpoints, provide feedback on pending boat accident reporting processes, serve at training schools, and assist in the development of watercraft officer training. Sgt. Schuster often responds to calls of missing persons or overdue boaters on Lake Havasu and has overseen hundreds of these operations. Willing to go the "extra mile" to help, Sgt. Schuster has excelled and is instrumental in finding closure for victims' families, having never failed to recover a missing person.

Sgt. Schuster is a recipient of Mohave County Sheriff's Office's highest honor, the Life Saving Medal. In 2008, Sgt. Schuster was the Arizona Watercraft Officer of the Year for his commitment to recreational boating safety excellence.



Doug Schuster

Arizona Boating Officers of the Year Previous Recipients:

- 2009 Curtis Herbert**
Arizona Game and Fish
Department
- 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 Pflieger**
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

USCG

Boating Safety Division
www.uscgboating.org

National Safe Boating Council

www.safeboatingcouncil.org

National Association of State Boating Law Administrators

www.nasbla.org

Arizona Boating Education Classes

(623) 236-7235
www.azgfd.gov/boating

Arizona Online Boating Education

www.azgfd.gov/boat-ed

Arizona Online Watercraft Registration

www.azgfd.gov/boating

Tri-state Boating Safety

www.boatcoloradoriver.com

National Water Safety Congress

www.watersafetycongress.org



www.safeboatingcampaign.com

Boat Safe, Boat Smart, Boat Sober

