



SOUTHERN

CALIFORNIA



- ◆ Collision with another vessel was the most common type of accident, accounting for 44% of Southern California accidents, compared with 30% in Northern California and 36% statewide.

- ◆ Inexperience was a factor in 40% of all accidents in Southern California and was the most common cause of accidents.

- ◆ PWC were involved in 36% of all Southern California accidents, compared with 23% in Northern California and 29% statewide.

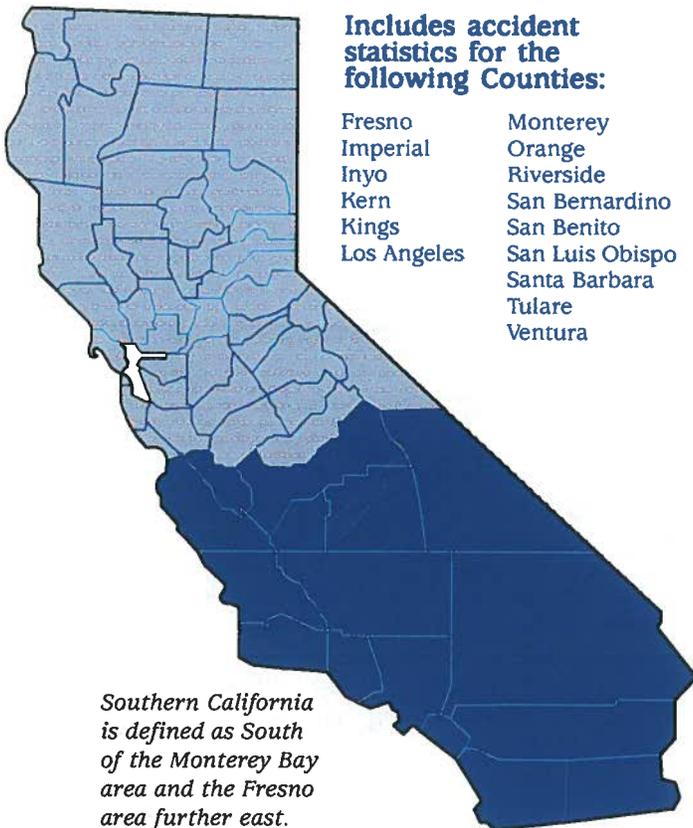
- ◆ Open motorboats were involved in 38% of all accidents in Southern California compared with 57% in Northern California and 48% statewide.

- ◆ Capsizing was the most common type of fatal boating accident (29%) in Southern California, followed by collisions with other vessels (24%).

- ◆ Open motorboats were involved in 59% of all fatal boating accidents in Southern California.

- ◆ 53% of Southern California boating fatalities occurred on the weekend, compared with 38% statewide.

- ◆ Of the victims who drowned in Southern California, 71% were not wearing a life jacket, compared with 88% statewide.



Southern California is defined as South of the Monterey Bay area and the Fresno area further east.

INLAND

EMPIRE

Noteworthy Accident Statistics

The Colorado River area accounted for 15% of the boating accidents and 23% of the injuries in Southern California (7% of the accidents and 10% of the injuries in California).



	Colorado River	Southern California	California
Accidents Involving Collisions Between Two Vessels	58%	44%	36%
Accidents Involving Excessive Speed	50%	28%	25%
PWC Related Accidents	60%	36%	29%
Operators 40 and Under Involved in Accidents	78%	67%	66%
Accidents Occurring on Holiday Weekends	39%	18%	20%

Lake Perris had the second highest incidence of boating accidents in the Inland Empire. Lake Perris boating accidents shared a number of similarities with those on the Colorado River, including high percentages of accidents involving collisions with another vessel, those involving PWC, and a higher incidence of younger operators involved in accidents. Conversely, accidents during holiday weekends and accidents involving excessive speed were not as common. Operator inattention was nearly twice as likely to contribute to an accident on Lake Perris than it was statewide.



	Lake Perris	Southern California	California
Accidents Involving Collisions Between Two Vessels	75%	44%	36%
Accidents Involving Operator Inattention	56%	34%	31%
PWC Related Accidents	75%	36%	29%
Operators 40 and Under Involved in Accidents	80%	67%	66%



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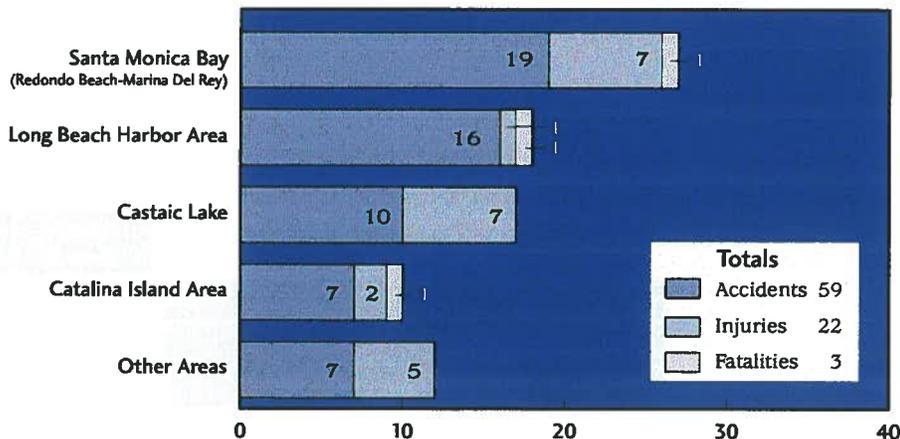
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Safety Tips
Education
Avoiding a
Collision

1999 Los Angeles County Boating Accidents by Location



Overall, most accident trends in Los Angeles county were fairly consistent with accident trends throughout the rest of the state. However, some areas exceeded regional and statewide levels, as detailed by region.

Noteworthy Accident Statistics

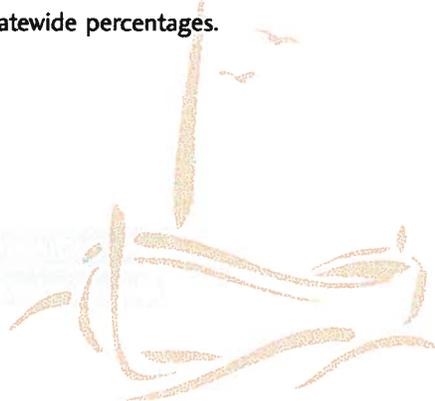


Santa Monica Bay

	Santa Monica Bay	Southern California	California
Accidents Involving Collisions Between Two Vessels	53%	44%	36%
Accidents Involving Excessive Speed	52%	28%	25%
Operators Over 40 Involved in Accidents	47%	35%	34%



The percentages of accidents involving collisions between two vessels, excessive speed, and operators over 40 years of age exceeded than regional and statewide percentages.



LOS ANGELES

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Noteworthy Accident Statistics *(Continued)*

Percentages of accidents involving collisions between vessels, accidents involving cabin motorboats, and accidents occurring on weekends exceeded both regional and statewide percentages.



	Long Beach	Southern California	California
Accidents Involving Collisions Between Two Vessels	56%	44%	36%
Accidents Involving Cabin Motorboats	69%	24%	18%
Accidents Occurring on Weekends	69%	58%	60%

The percentage of accidents involving operators 40 years of age and under, inexperience, inattention, speed, collisions with other vessels, and PWC-related accidents exceeded regional and statewide percentages.



	Castaic Lake	Southern California	California
Accidents Involving Collisions Between Two Vessels	60%	44%	36%
Accidents Involving Excessive Speed	50%	28%	25%
Accidents Involving Operator Inattention	40%	34%	31%
Accidents Involving Operator Inexperience	80%	40%	39%
PWC-Related Accidents	50%	36%	29%
Operators 40 and Under Involved in Accidents	78%	67%	66%

The percentage of accidents involving fires other than fuel, and the percentage of accidents involving operator inattention exceeded both those in Southern California and statewide.



	Catalina Area	Southern California	California
Accidents Involving Fire (other than fuel)	43%	3%	2%
Accidents Involving Operator Inattention	43%	34%	31%



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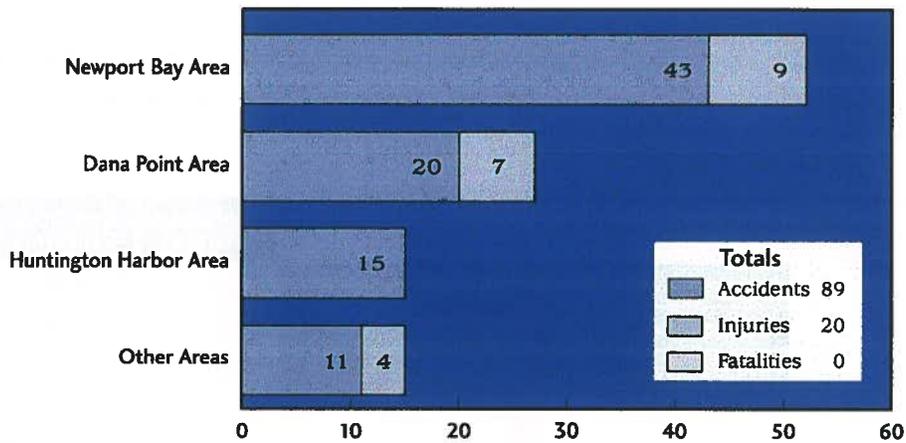
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Safety Tips

- Education
- Maintenance and Equipment Check
- Docking

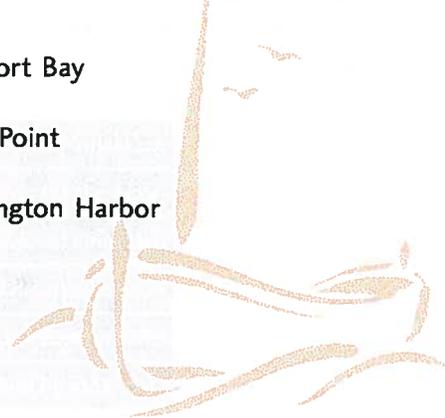
10% of California's boating accidents occurred in Orange County in 1999. Most of these accidents involved property damage only, with only 22% of accidents involving injuries in 1999.

1999 Orange County Boating Accidents by Location



The three areas in Orange County where most accidents occurred are:

- ◆ Newport Bay
- ◆ Dana Point
- ◆ Huntington Harbor



ORANGE

COUNTY

Noteworthy Accident Statistics

The percentage of accidents involving machinery failure in the Newport Bay area far exceeded either those seen in the rest of Southern California or statewide. Percentages of accidents involving collisions with vessels, although consistent with the rest of Southern California, were higher than statewide percentages.

Newport Bay Area



	Newport Bay	Southern California	California
Accidents Involving Collisions Between Two Vessels	47%	44%	36%
Accidents Involving Machinery Failure	32%	11%	10%
Operators Over 40 Involved in Accidents	63%	33%	34%

The percentage of accidents in the Huntington Harbor area, involving operators over 40, vessels swamping and sinking, and machinery failure greatly exceeded percentages regionally and statewide.

Huntington Harbor Area



	Huntington Harbor	Southern California	California
Accidents Involving Swamping/Sinking of Vessels	40%	14%	13%
Accidents Involving Machinery Failure	57%	11%	10%
Operators Over 40 Involved in Accidents	83%	33%	34%

Accidents in the Dana Point area were dissimilar to those seen in the rest of Orange County. The percentages of accidents involving PWC operator inexperience, inattention, and excessive speed all exceed both the percentages seen in either Southern California or statewide. Also, a larger percentage of operators 40 and under were involved in accidents.

Dana Point Area



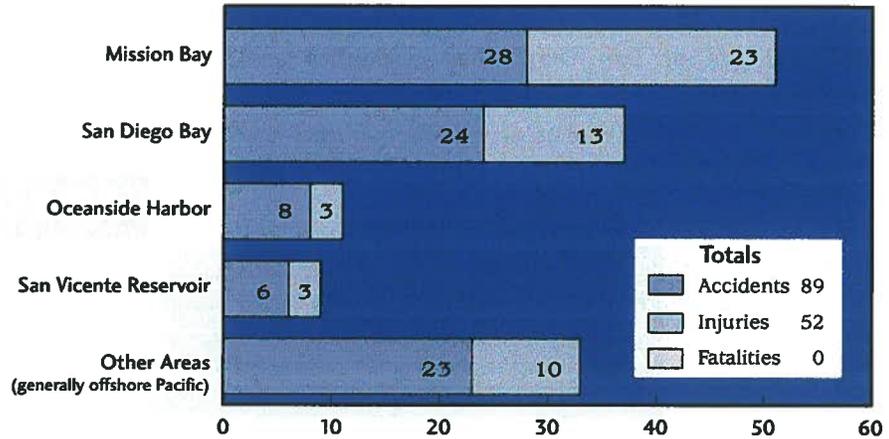
	Dana Point	Southern California	California
Accidents Involving Collisions Between Two Vessels	45%	44%	36%
Accidents Involving Excessive Speed	37%	28%	25%
Accidents Involving Operator Inattention	47%	34%	31%
Accidents Involving Operator Inexperience	53%	40%	39%
PWC Related Accidents	40%	36%	29%
Operators 40 and Under Involved in Accidents	74%	67%	66%



SAN DIEGO

COUNTY

1999 San Diego County Boating Accidents by Location



Safety Tips
 Education
 Avoiding a Collision
 Check the Weather

10% of California's boating accidents and 11% of injuries occurred in San Diego County.

Noteworthy Accident Statistics



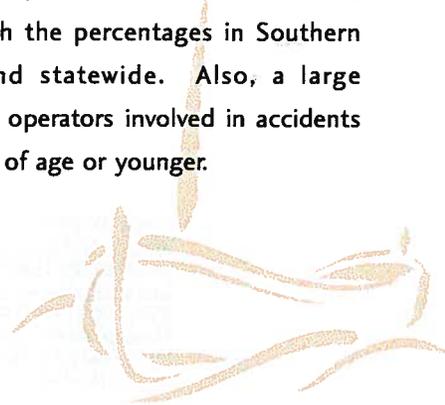
Mission Bay

	Mission Bay	Southern California	California
Accidents Involving Collisions Between Two Vessels	61%	44%	36%
Accidents Involving Excessive Speed	50%	28%	25%
Accidents Involving Operator Inexperience	64%	40%	39%
PWC-Related Accidents	71%	36%	29%
Operators 40 and Under Involved in Accidents	78%	67%	66%



Includes accident statistics for the following Counties:
 San Diego

Percentages of Mission Bay accidents involving collisions between vessels, inexperience, excessive speed, and PWC-related accidents exceeded both the percentages in Southern California and statewide. Also, a large percentage of operators involved in accidents were 40 years of age or younger.



SAN DIEGO

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Noteworthy Accident Statistics *(Continued)*

Percentages of San Diego Bay accidents involving collisions and inattention were higher than the rest of the State. Auxiliary sailboats were involved in more accidents than any other type of vessel. The greatest number of operators involved in accidents were over 40.



	San Diego Bay	Southern California	California
Accidents Involving Collisions Between Two Vessels	50%	44%	36%
Accidents Involving Operator Inattention	42%	34%	31%
Accidents Involving Auxiliary Sailboats	33%	15%	11%
Operators Over 40 Involved in Accidents	59%	33%	34%

Capsizing was the most common cause of Oceanside Harbor accidents. The percentage of accidents involving operator inexperience and hazardous weather/water also exceeded both Southern California and statewide percentages. Accidents involving PWC were higher than statewide percentages, but consistent with Southern California overall. The greatest percentage of operators involved in accidents were over 40 years old.



	Oceanside Harbor	Southern California	California
Accidents Involving Capsizing	33%	7%	9%
Accidents Involving Hazardous Weather/Water	56%	12%	15%
Accidents Involving Operator Inexperience	67%	40%	39%
PWC Related Accidents	38%	36%	29%
Operators Over 40 Involved in Accidents	57%	33%	34%

The majority of San Vicente Reservoir accidents involved water skiing activities followed by flooding/swamping incidents. Open motorboats were involved in all accidents. All operators involved in accidents, where ages were known, were 40 and under.



	San Vicente Reservoir	Southern California	California
Accidents Involving Swamping/Sinking	33%	14%	13%
Accidents Involving Water Skiing	67%	6%	12%
Accidents Involving Open Motorboats	100%	38%	48%
Operators 40 and Under Involved in Accidents	100%	67%	66%

CALIFORNIA

1999 Southern California Boating Accident Comparisons

SOUTHERN



	CA	So. CA	Col River	Lake Perris	Santa Monica	Long Beach	Castaic Lake	Cata.	Newp. Bay	Hunt Harbor	Dana Point	Mission Bay	San Diego	Ocean Harbor	San V. Reserv.
Types - % of accidents involving...															
Capsizing	9%	7%	3%	6%	11%	0%	10%	0%	2%	0%	10%	0%	4%	3%	0%
Collision Between Two Vessels	36%	44%	58%	75%	53%	56%	60%	29%	47%	13%	45%	61%	50%	0%	0%
Falls Overboard	5%	7%	10%	6%	0%	0%	10%	14%	0%	0%	15%	18%	8%	0%	0%
Fire (other than fuel)	2%	3%	0%	0%	11%	6%	0%	43%	7%	13%	0%	0%	0%	11%	0%
Grounding	12%	9%	8%	0%	0%	13%	0%	0%	9%	13%	10%	0%	4%	22%	17%
Swamping/Sinking	13%	14%	10%	6%	11%	6%	10%	0%	16%	33%	0%	4%	8%	11%	33%
Water Skiing	12%	6%	10%	0%	0%	0%	10%	0%	0%	0%	0%	4%	4%	4%	67%
Causes - % of accidents involving...															
Excessive Speed	25%	28%	50%	25%	50%	32%	25%	0%	0%	7%	37%	50%	17%	22%	0%
Hazardous Weather/Water	15%	12%	10%	0%	0%	11%	6%	14%	0%	9%	0%	0%	8%	56%	0%
Machinery Failure	10%	11%	3%	0%	0%	21%	6%	14%	57%	32%	10%	0%	4%	11%	17%
Operator Inattention	31%	34%	52%	56%	40%	16%	25%	43%	7%	23%	47%	40%	42%	22%	17%
Operator Inexperience	39%	40%	45%	50%	80%	37%	25%	29%	20%	19%	53%	64%	17%	67%	50%
Types of Vessels - % of accidents involving...															
Auxiliary Sailboats	11%	15%	0%	0%	37%	19%	0%	14%	37%	0%	15%	4%	33%	44%	0%
Cabin Motorboats	18%	24%	8%	0%	42%	69%	10%	57%	42%	67%	40%	18%	33%	22%	0%
Open Motorboats	48%	38%	56%	56%	21%	13%	50%	14%	30%	33%	20%	25%	29%	22%	100%
Personal Watercraft	29%	36%	60%	75%	21%	19%	50%	14%	7%	0%	40%	71%	21%	38%	0%
Operator Age - % of operators involved in accidents (ages not include unknown)															
Operators 40 and Under	66%	67%	78%	80%	53%	64%	78%	67%	27%	17%	74%	78%	41%	43%	100%
Operators Over 40	34%	33%	22%	20%	47%	36%	22%	33%	63%	83%	26%	22%	59%	57%	0%
Other Factors - % of accidents occurring on...															
Holiday Weekends	20%	18%	39%	19%	11%	13%	0%	0%	14%	0%	5%	11%	8%	0%	17%
Weekends	60%	58%	77%	50%	63%	69%	60%	71%	40%	40%	55%	71%	54%	22%	67%

