Take a Boating Course

The majority of people who were involved in fatal boating accidents never took a boating course. The majority of them were also in small boats. If you are an angler, hunter, or camper who uses a boat in your sport, we urge you to take a boating course. The non-profit organizations below, plus many state boating authorities, provide an approved boating course.

As part of its new USPS University, which offers a great variety of advanced boating education courses and seminars, the organization has developed a new basic boating course called ***America's Boating Course, 3rd Edition.*** What is "cool" about the course is the fact that it can be taken in a classroom, at home or both, and it covers all the essentials and much more. USPS also provides Vessel Safety Checks for recreational boats and personal watercraft to check for proper safety equipment. For information on USPS courses and other programs, call 1-888-FOR-USPS or visit the USPS website at **www.usps.org**

The U.S. Coast Guard Auxiliary, created by Act of Congress in 1939, is the uniformed Volunteer Civilian Arm of the United States Coast Guard. In promoting safe boating in the U.S.A., it performs a variety of non-profit services, among them: teaching an array of public boating courses including an exciting new course, ***"About Boating Safely",*** performing Vessel Safety Checks for recreational boats and personal watercraft to check for proper safety equipment, assisting the U.S. Coast Guard in search and rescue operations and performing safety patrols on navigable and state waterways. For information on Auxiliary courses call toll-free 1-877-875-6296 or visit the website at **www.cgaux.org**.

United States Sailing Association is the National Governing Body for the Sport of Sailing. USSA is also a membership organization of 44,000 active sailors and sailing groups. Programs include instructor training, sailing safety, and many other services to sailing groups, such as Safety at Sea seminars. Membership benefits include discounts on sailing publications, videos, and travel; and a weekly online newsletter, e-ussailing. For information call 401-683-0800, write USSA, 15 Maritime Dr. # 1260, Portsmouth, RI 02871, or log onto **www.ussailing.org**.

American Red Cross (ARC): By congressional charter, the ARC is responsible for reviewing and preventing accidents and suffering. The aim of the organization is to improve the quality of human life and to enhance individual self reliance and concern for others. It provides standards, courses, and materials in first aid, CPR, swimming, lifesaving, lifeguarding, and boating safety (canoeing, kayaking, and sailing.) For more information call 202-303-5000 or visit the website at **www.redcross.org**.

For over a century, the American Canoe Association (ACA) has drawn upon the dedication of its membership to generate a dynamic menu of services and programs. The ACA focuses its efforts on three strategic tenets: Education, Recreation and Stewardship. As the nation's largest non-profit paddlesports association the ACA is the voice of the nation's kayakers, canoeists and rafters. For more information call 540-907-4460 or visit the website at **www.americancanoe.org**

For information for boating classes in Canada call Canadian Power & Sail Squadrons at: 1-888-CPS-BOAT (1-888-277-2628) or visit the website at **www.cps-ecp.ca**. CPS offers courses, programs and vessel exams that are similar to USPS.

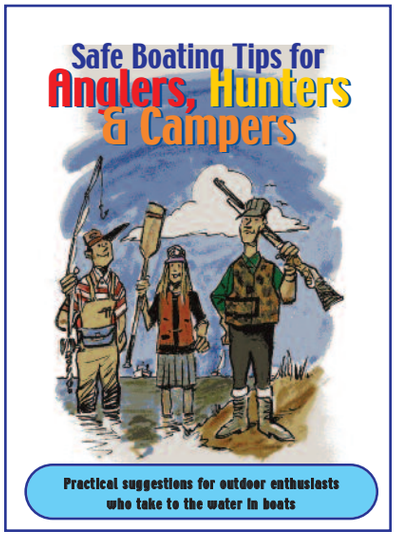
For a free Vessel Safety Check contact your locaL US Power Squadrons or United States Coast Guard Auxiliary unit.

YOUR BOATING DOLLARS AT WORK

Produced under a grant from the Sport Fish Restoration and Boating Trust Fund, administered by the U.S. Coast Guard.

Safe Boating Tips for Anglers, Hunters & Campers

Practical suggestions for outdoor enthusiasts who take to the water in boats



4 Reasons why you should review this booklet before you leave the dock.

1) The information could save your life.
2) The information could save you from injury.
3) The information will provide you with the federally mandated safety equipment carriage required on your boat and save you from a possible citation and/or fine.
4) The information will make your fishing, hunting or camping more enjoyable.

Contents:

United Safe Boating Institute
1504 Blue Ridge Road,
Raleigh, NC 27622
Visit our website at:
www.usbi.org

USBI Member Organizations
• American Red Cross • United States Coast Guard Auxiliary Association, Inc.
• American Canoe Association
• United States Power Squadrons®
• United States Sailing Association
• Canadian Power and Sail Squadrons

Tips for Anglers, Hunters & Campers

No matter how many years you've been around boats, please take the time to review this booklet. Three out of every four boaters who drowned were using vessels less than 21-feet in length. Over two-thirds of all fatal boating accidents victims drowned and of those, 90 percent were not wearing a life jacket. Here are a few of the most important safety tips:

Be weather wise. Sudden wind shifts, lightning flashes and choppy water all can mean a storm is brewing and heading your way.

Tell someone where you're going, who is with you, and how long you'll be away. Submit float plan. For more information, visit the Float Plan Central website at www.floatplancentral.org

Check your boat, equipment, boat balance, engine and fuel supply before leaving.

Ventilate after fueling. Open hatches, run the blower, and most important, carefully sniff for gasoline fumes in the fuel and engine areas before starting your engine.

Keep fishing and hunting gear clean and well packed. A loose fish hook can cause a lot of pain and ruin a great outing. Bring extra line to secure both your boat and your sporting equipment.

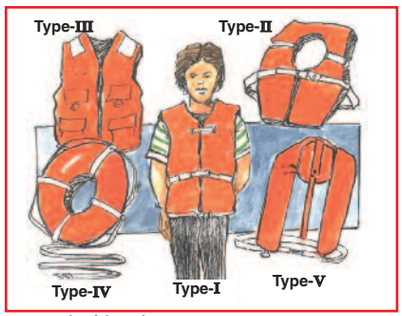
Don't Overload. When you overload you are asking for trouble. Even with flotation, a swamped boat is dangerous. Capsizing and falls overboard account for 70% of boating fatalities.

When boarding or changing seats, stay low and near the center line of a small boat, which can capsize easily if weight is not properly distributed. Keep one hand for you and one or the boat.

Life Jackets – Wear them

If you've ever tried to put on a life jacket while you were in the water you know how difficult that task can be - even in calm waters and during daylight hours. It would be much more difficult to attempt in rough waters and at night. Because of this we urge you to do the following: Before you cast off in a boat you should find a life jacket and put it on to make sure it fits you properly, is labeled for your specific type of activity and is U.S. Coast Guard approved.

Your life jacket should always be readily accessible. When rough weather threatens, make certain that your life jacket is on.



If you are a non-swimmer wear it at all times. It is Federally required that children under the age of 13 wear a life jacket while aboard a boat. Never leave life jackets sealed in plastic wrapping. They must be ready to be put on quickly.

Whenever water conditions or weather cause concern, have everybody aboard immediately put on their life jacket.

If you should fall in the water stay with the boat. If another person is in the boat wait for the boat to come along side.

There are a great variety of life jackets on the market today, including light weight inflatables.The various types of life jackets are as follows:

Offshore Life Jackets (Type-I): Provides the most buoyancy. It is effective for all waters, especially open, rough or remote waters where rescue may be delayed. It is designed to turn most unconscious wearers to a face up position.

Near Shore Buoyant Vests (Type-II): Intended for calm, inland water, where there is a good chance of quick rescue. Life jackets of this type will turn some, but not all, unconscious wearers to face up position in water.

Flotation Aids (Type-III): Popular among recreational boaters. Designed for calm water with good chance of quick rescue. Wearer may have to tilt head back to keep face out of water. Most comfortable type for continuous wear.

Throwable Devices (Type-IV): A cushion or ring this device is designed to be thrown to a person in the water and grasped and held by the user until rescued. It is not designed to be worn. Type-IV devices must be stowed in an immediately available location.

Special Use Devices (Type-V): Intended for specific activities and may be carried instead of another life jacket only if used according to approved condition(s) on the label. Some Type-V devices provide significant hypothermia protection. Varieties include deck suits, work vests, and board sailing vests. Total inflatable jackets are now U.S.Coast Guard approved if they have the approval number listed on the label. There are Type-V Hybrid inflatables approved for children.

Try this life jacket experiment: See who can find and put on their life jacket in 30-seconds or less when you give the signal. It proves a point.

Sobering Facts about Alcohol

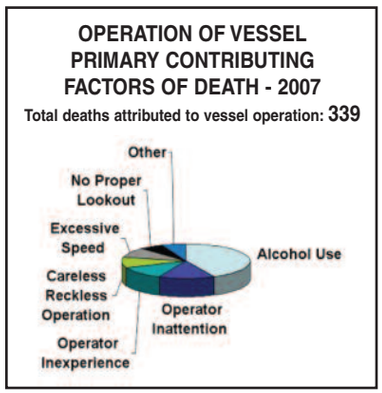
Approximately 700 people die in boating accidents every year. Nine out of ten of them drown. About 21% of those deaths involve alcohol. A U.S. Coast Guard study estimates that boat operators with a blood alcohol concentration (BAC) above .08 percent are estimated to be more than 10 times as likely to be killed in a boating accident than boat operators with zero BAC.

Alcohol also accounts for a large percentage of boating injuries and property damage–a fact well documented by marine law enforcement agencies.

Several hours of exposure to powerboat noise, vibration, sun, glare, wind and motion produces a kind of boater's hypnosis. This slows reaction times. Adding alcohol to this exposure intensifies the effects. As the chart shows, sometimes just a couple of beers are too many.

When you're "tipsy," you and your passengers are much more likely to fall overboard. Alcohol also reduces your body's ability to protect against cold water. So within minutes you may not be able to call for help, or swim to safety. Actually, an intoxicated person whose head is immersed can be confused and swim down to death instead of up to safety.

Approximately 21% of boating fatalities involve alcohol.



Blood Alcohol Content Chart

Body Weight in Pounds	Number of Drinks in a Two Hour Period. 12 oz. beer = 5 oz. wine = 1 oz. 80 proof liquor.								
100	1	2	3	4	5	6	7	8	9
120	1	2	3	4	5	6	7	8	9
140	1	2	3	4	5	6	7	8	9
160	1	2	3	4	5	6	7	8	9
180	1	2	3	4	5	6	7	8	9
200	1	2	3	4	5	6	7	8	9
220	1	2	3	4	5	6	7	8	9
240	1	2	3	4	5	6	7	8	9

BAC to 05%	BE CAREFUL - Loss of judgment and coordination
BAC .05% to .10%	ABILITIES IMPAIRED - Chance of accident increased
BAC .10% and over	DO NOT OPERATE A BOAT - High risk of accident

Hypothermia: The Cold Killer

Exposure to cold causes loss of body heat. This is called hypothermia. Hypothermia can kill.

It is all about 1-10-1

1. you generally have one minute to get control of your breathing. Do not panic

10. you generally have 10 minutes of meaningful movement to self rescue or prepare to wait to be rescued

1. you generally have one hour before you will become unconscious due to hypothermia.

1. The main risk with exposure in cold water (immersion hypothermia) generally occurs in the first minute of immersion which is long before Hypothermia sets in. A person's body reacts to cold water immersion with an initial gasp followed by deep and uncontrolled hyperventilation. This COLD SHOCK response generally lasts for a minute or so until relatively normal breathing resumes. It can last longer if the person panics. During this initial COLD SHOCK there is a risk of taking that large, initial gasp while underwater and breathing in approximately 1.75 pints of water which can lead to drowning. A LIFE JACKET can help to keep your head out of the water and your airway clear to breath during this critical phase of cold water immersion.

10. Over the next ten minutes or so, COLD INCAPACITATION sets in as the blood flow is shunted from the limbs to the body core to keep it warm. Nerves and muscles become affected by the cold and stop working. It is during this time that a person should attempt to rescue themselves by getting out of the water. If that is not possible, having a life jacket on will keep the head above water and help to keep their airway open, because as incapacitation sets in, they will no longer be able to swim or even tread water.

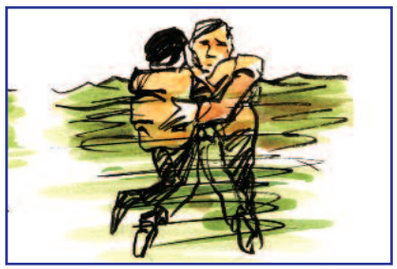
1. Assuming that you can keep your airway open, it is after these first minutes that HYPOTHERMIA will start to take effect. Most people will last approximately 1 hour before they become unconscious as long as they are wearing a LIFE JACKET and can keep their airway open. Wearing thermal protective clothing will delay the onset of hypothermia. Even a basic inherently buoyant LIFE JACKET will provide some body core thermal protection, a float jacket or floater suit more and a survival suit the most.

By assuming the H.E.L.P. (heat escape lessening position) position, you can delay the onset of hypothermia and if you are in a group, the HUDDLE position will provide a similar effect.

Of course a good way to delay hypothermia is to get your body as far as possible out of the water by climbing onto your overturned boat.

The keys to surviving a cold water immersion are to WEAR YOUR LIFE JACKET before you end up in the water, have a plan to self rescue and understand the 1-10-1 principle.

When you wear a life jacket, draw knees up into a Heat Escape Lessening



Position (HELP).
If several persons are in the water, huddle together so you can conserve *heat and stay alive.*

What you Must have Aboard

Federal Law requires that you must have certain safety equipment aboard. These requirements are listed below. Though not required, having the following additional equipment on board will aid in lowering your degree of risk. You should also check the state boating safety requirements for the area that you operate in as the requirements may be different from the federal regulations. This list includes an anchor, a marine radio, cell phone, a first aid kit, chart of the waters you are boating in, a radio for weather reports, binoculars, and sufficient rope for tying up to a dock.

EQUIPMENT	LESS THAN 16 FEET	GREATER THAN 16 FEET
Life Jackets	One Type-I, II, III or Type-V wearable for each person. Type-V must be used in accordance with label directions. That does not always mean wearing it. All Type-V's are wearables.	One Type-I, II, III or Type-V for each person on board or being towed on water skis, etc. plus 1 Type-IV immediately available to be thrown.
Fire Extinguishers	At least one B-1U.S. Coast Guard approved marine type hand held portable fire extinguisher. Not required on outboard motorboats less than 26 feet in length if the construction of such motorboats will not permit the entrapment of flammable gases or vapors.	
Ventilation	At least 2 ventilator ducts fitted with cowls for the purpose of properly and efficiently ventilating the bilges of every inboard engine and fuel tank compartment of boats constructed or decked over after 25 April 1940, using gasoline or other fuel having a flashpoint less that 110°. Boats built after 31 July 1980 must have operable power blowers.	
Sound producing devices	Any device capable of making an "efficient sound signal" audible for 1/2 mile. (whistle or horn)	
Backfire Flame Arrester	One U.S. Coast Guard, SAE or UL approved device on each carburetor of all gasoline engines installed after 25 April 1940, except outboard motors.	
Visual Distress Signals for coastal water, Great Lakes or high seas.	Required only when operating in waters beyond the point where the opening to the sea is greater than 2 miles wide. Same night equipment choices as for larger boats as shown at right.	Acceptable VDS combinations include Orange flag with black square-and-ball (D); and an auto S-O-S electric light (N); or 3 orange smoke signals, hand held or floating (D); or 3 flares of hand-held, meteor or parachute type (D/N).

Distress Signals

Orange Flag for use in daytime only

Arm signals (use bright cloth)

Red distress Flare (Hand) Use day and night. (Minimum of 3 required)

This illustrates the variety and combinations of distress signals which can be carried in order to meet U.S. Coast Guard requirements (the arm signals are shown for information only - they are an internationally recognized sign of distress, but are not listed as "required distress signals"). All signals, except for the distress flag and light, must show the words "U.S. Coast Guard Approved" and be marked with the service life of the signal. The distress flag and light must carry the manufacturer's certification that they meet U.S. Coast Guard requirements.

Orange Smoke Signal (Hand) Use day only (Minimum of 3 required)

Red Meteor–use day, night (min. of 3 required.

Night use only.

Orange Smoke Signal (floating).Use day only (Minimum of 3 required)

Dangers Astern

Carbon Monoxide Poisoning

If you have a gasoline generator or propulsion engine aboard your boat take warning.

Owners and operators of boats equipped with gasoline generators or propulsion engines with exhaust ports which exit through the transom beneath or near a swim platform should turn off their generators when passengers are lingering near the swim platform or swimmers are in the water.

A September 2000 National Institute of Occupational Safety and Health study of carbon monoxide deaths on Lake Powell in Arizona over the last 10 years showed seven fatalities involved houseboats with through-transom generator exhaust systems. A similar National Park Service investigation found dangerous accumulations of carbon monoxide gases on houseboats with through-transom exhaust systems when the generator was running and exhaust fumes became trapped beneath the swim platform.

Carbon monoxide is a colorless, odorless and tasteless gas that accumulates rapidly. Carbon monoxide in high concentrations can be fatal in a matter of minutes. Unless the symptoms are severe, carbon monoxide poisoning is often mis-diagnosed as seasickness; however, lower concentrations must not be ignored because the effects of exposure to carbon monoxide are cumulative and can be just as lethal.

A common practice of running gasoline-powered generators to power air conditioning, entertainment centers and galley appliances while anchored or moored increases the problem. For that reason all owners and operators of boats equipped with swim platforms and gasoline-powered generators with exhaust ports on the transom are advised to turn off their generators when their boats are at anchor or moored and passengers are on or near the swim platform or swimmers are in the water.

Propeller Injuries

Whirling propeller blades beneath the surface of the water astern of our vessel pose another great danger to swimmers and the US Coast Guard reminds you to turn off your engine when swimmers or others are in the water and near your boat.

First Aid Emergency Measures

When injuries occur at home or in an automobile, first aid help is usually as close as the nearest telephone. When they occur on a boat much more time can pass before medical help arrives. Because of this everyone who boards a boat should be boatwise by having a VHF-marine radio on board and bringing a cell phone, a portable radio and regularly checking weather reports, by keeping a first aid kit aboard, and by taking a First Aid, CPR, and Automated External Defibrillation (AED) course. A boater should also know how to take emergency measures for the most common injuries until professional help arrives. Listed below are common types of injuries and illnesses, the signs, and the care. Please review these before leaving the dock.

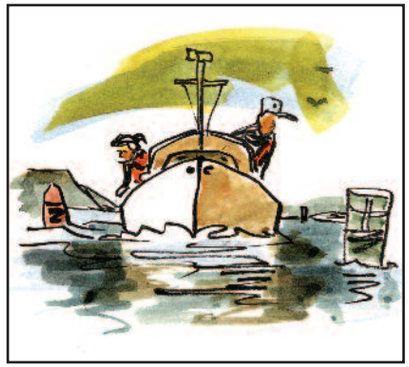
Injury	Signs	Care
Bleeding	Bleeding from a wound	Put on disposable gloves. Apply direct pressure, then, secure wound while using a roller bandage to create a pressure bandage over the dressing.
Cardiac Arrest, Unconsciousness	Unconscious adult or not breathing.	Get emergency medical assistance. Administer CPR. If trained and if available use AED. It is recommended that you take CPR course.
Choking	If the victim is unable to cough, speak, or breathe	Lean person forward and give 5 back blows with heel of your hand. Give 5 quick abdominal thrusts by placing the thumbside of your fist against the middle of the victim's abdomen, just above the navel. Grab your fist with the other hand. Repeat until the object the person is choking on is forced out and person breathes or coughs on his or her own.
Heat Emergency	Early - Cool, moist pale skin, headache, nausea. Life Threatening - High body temperature, red, hot skin (dry or moist), change in level of consciousness.	Move to a cool place, make comfortable and cool the body temperature with cool wet cloths - for late stages get emergency medical assistance immediately, then follow directions above.
Burns	Redness and possible blisters. Severe: brown and charred.	Cool with large amounts of cool water. Then cover with clean, dry dressing and bandage loosely. Get emergency medical assistance quickly for severe burns.
Muscle, Bone or Joint Injury	Pain, swelling, deformity, discoloration.	Immobilize above and below the injury - obtain emergency medical assistance.

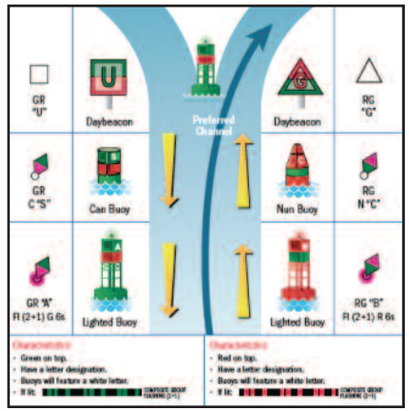
For any serious injury or illness obtain immediate emergency assistance. Always make the victim as comfortable as possible.

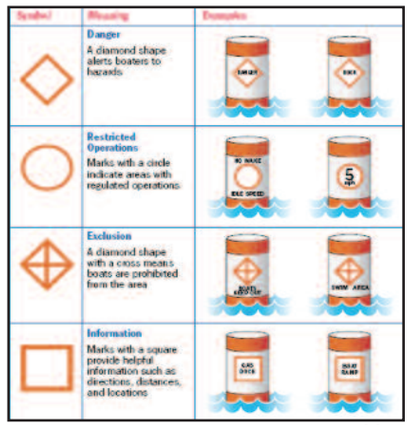
U.S. Aids to Navigation

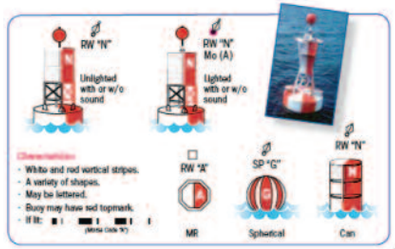
Aids to navigation are our signposts on the water. With a chart of the waters you are operating in, you can observe the Aids to Navigation both on the chart and on the water, during both daylight and night time hours. Some aids have been installed to mark the channels, others indicate caution or obstructions. As a rule of thumb when you are operating in a U.S. Aids To Navigation System keep the RED aids on your RIGHT when you are RETURNING or traveling up-stream from seaward. Red (Starboard Side) aids have even numbers. When they are lighted they use a red light only. Green (Port Side) aids have odd numbers. When they are lighted they use a green light only. Keep marked channels clear. Don't anchor in a channel or to an Aid to Navigation. State waterway aids are not shown. For more information on Aids to Navigation contact your state boating law administrator.

In Canada they use both the "Lateral" and the "Cardinal" Buoyage Systems. Before entering Canadian waters boaters should check these buoyage systems.



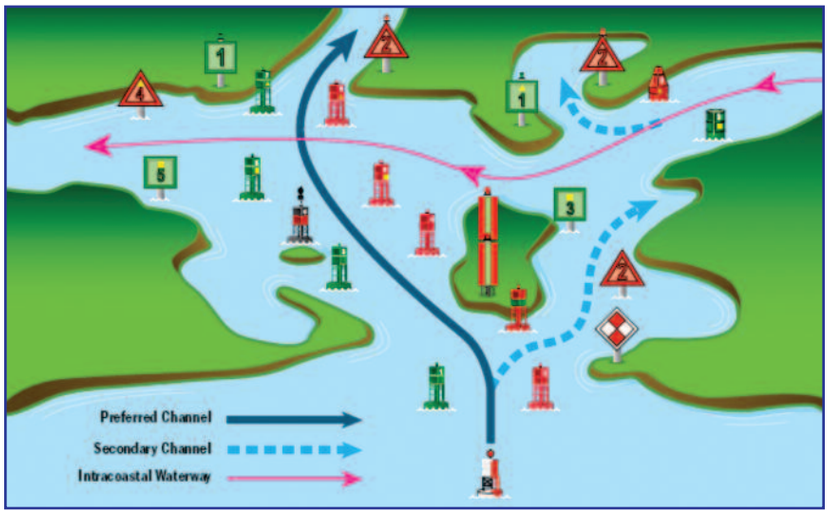


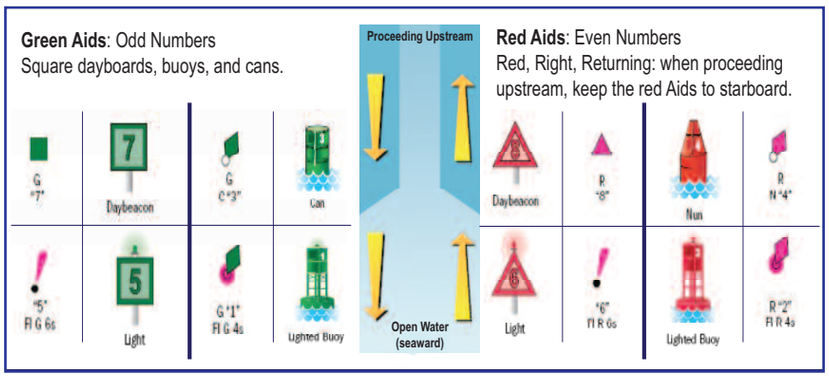




Charts – Your Nautical Road Maps

Most areas have government or locally prepared charts available that give water depth, show navigational aids & major landmarks, underwater danger areas, as well as shorelines, waterways and harbor areas. Be sure to purchase a local chart of the waters you intend to boat in and review it before you leave the dock.





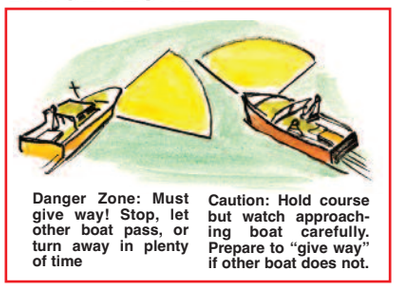
Boating's Operating Rules

Operating a boat is fun but it also involves legal obligations: As the skipper you are legally responsible for the following: 1) the safety of those on your boat, 2) any damage your boat causes to other boats and property and 3) injuries to others created by the damage you may cause. Ignorance of the law is no excuse.

The law states that you are guilty if you cause an accident whether or not you had priority of movement. Your primary obligation is to prevent an accident and use caution at all times.

The following illustrations show some of these Operating Rules (Horn signals, navigational lights, and radio use is not covered here):

CROSSING: Every boat has a DANGER ZONE from straight in front (the bow) to past the middle of its right (starboard) side. It's similar to meeting a car at an intersection, the one on the RIGHT has Priority of Movement. You must GIVE WAY to boats in your DANGER ZONE.

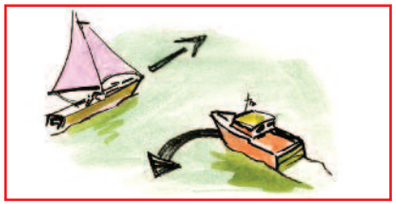


Danger Zone: Must give way! Stop, let other boat pass, or turn away in plenty of time

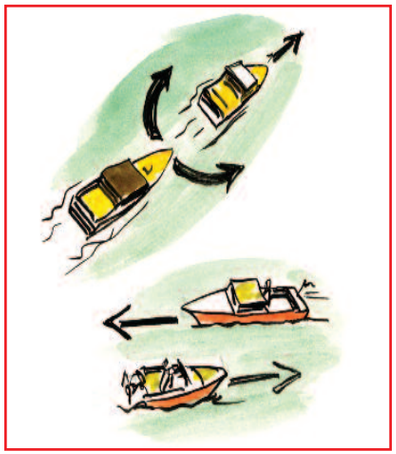
Caution: Hold course but watch approaching boat carefully. Prepare to "give way" if other boat does not.

POWERBOATS MUST YIELD TO SAILBOATS UNDER SAIL and boats being rowed or paddled, except in a narrow channel. They must also yield to large commercial vessels in a narrow channel.

OVERTAKING: Be very cautious when a powerboat passes you in a narrow waterway. As the lead boat (which always has Priority of Movement) stay on your side of the channel and maintain a steady speed so that the overtaking vessel can pass you safely. Communicate your intentions by VHF-Marine radio, if you have one, or sound signals



MEETING: As in a car, both stay to the right and as far apart as practical, so it's easier and safer to cross each other's wake. It is okay to pass left if both know the intent. Give notice by steering to right or left while still far apart. Then stay with that course unless the other boat indicates otherwise.



Canoeing/Kayaking Safety

Canoes are a popular open water craft that are used on all kinds of water. Kayaks are usually decked except for an opening for the paddler(s). Both canoes and kayaks have less stability than other small craft the key to safety for canoeing or kayaking is to have proper training in their use, safety and rescue techniques.
Important safety steps include:

•Wearing approved life jackets. Most small craft boating related fatalities could have been prevented if life jackets had been worn.

•Knowing weather conditions and taking appropriate precautions - storms, lightning, high winds and sudden temperature changes can cause disasters.

•Get information on waters where you will be canoeing or kayaking and take appropriate precautions - dam controlled water levels of lakes and rivers, tides, currents, recent rain, spring thawing, low head dams and other hazards need to be known in advance.

•Avoid drinking alcohol when boating–approximately 21% of boating related fatalities involved alcohol.

•Have emergency supplies or safety equipment–water proof first aid kit, signaling device, extra paddle, helmets (note: take first aid, CPR, and AED (Automated External Defibrillation) training.

•Knowing and abiding by the rules of the road–collisions with other boats or objects are often due to ignorance of the boating rules of the road.

•Wear appropriate clothing–choose clothing based on conditions and in colder conditions choose clothing that preserves body heat even when wet.

•Know the capacity of your boat–overloading your boat increases possibility of falling overboard, capsizing or swamping.

•Know and meet legal requirements for where you are canoeing or kayaking–check with state and local boating authorities.

•Stay with your boat if you unintentionally fall out of your canoe or kayak–they float.

•Submit float plans–this is especially important if traveling in a wilderness area.

•Have an emergency action plan–in case something does happen know what you are going to do and how to obtain emergency assistance.

And, of course, it helps to know or learn how to swim. If you can't, take lessons.

Getting in and out of a canoe: Keep the center of gravity low and move slowly.

Keep Our Waters Clean

1. HUMAN CONTAMINATION:
Use the local onshore bath facilities as much as possible and bring portable toilets ashore for proper waste disposal. Just like lawn fertilizers and manure, human waste contains nutrients which can unnaturally stimulate algae growth and deplete the amount of oxygen in the water. Human sewage can be a significant source of life threatening bacteria in waters with high boat densities. The primary concern of sewage in the water is its potential for carrying disease causing pathogens to swimmers and shellfish.

2. ENGINE CONTAMINATION:
Oil spills are not confined to the well publicized disasters involving giant oil tankers or pipe-lines.The fact is that any engine can leak oil and gasoline and this discharge is illegal and extremely harmful to the environment. A single quart of oil can pollute an area equivalent to three football fields of water surface. If you do spill fuel or oil into the water DO NOT DISPERSE IT WITH DETERGENT OR SOAP. This only sends the problem down to the seafloor where it becomes more toxic and more difficult to clean up.

3. GARBAGE CONTAMINATION
Never discard your garbage overboard. Whatever you take aboard, bring back. Plastic bags and containers have made our lives a lot easier, but when thrown overboard they will probably outlive us by 100 years and seriously add to water pollution. Plastics can foul propellers and clog seawater intakes on boats, causing engine overheating.*Marpol laws now make it a federal offense to pollute our waters with plastics and other contaminating substances

4.CLEANSER CONTAMINATION:
The word CLEANSER would lead you to believe that a cleaning solution would help to keep our waters clean. Just the opposite may be the case. Most detergents contain toxic ingredients such as chlorine, phosphates and ammonia, which are extremely harmful to plant and aquatic animal life. If you must use soaps and cleaning products, make sure to purchase the least toxic product to do the job. Look for the words, "Phosphate-free" and "Biodegradable" on the product label.

THE MARPOL TREATY AGREEMENT

makes it illegal to dump plastic in any waters. It also makes it illegal to dump the following materials in U.S. Lakes, Rivers, Bays, Sounds and up to 1 mile offshore: Garbage - Glass - Food - Rags - Paper - Metal - Dunnage and Crockery anywhere.

Each violation of these requirements may result in civil penalty up to $25,000, a fine up to $50,000 and imprisonment up to 5 years.

Canadian "sewage discharge" requirements are slightly different. Acquaint yourself with them.