

Boating Secrets Uncovered

**A Guide To The
Complete Family
Experience**

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INTRODUCTION

For some people, the perfect day is clear and sunny. It's not too cool and it's not too warm. There is a gentle breeze blowing and the water is like a smooth plate of glass and they are happily riding along the water in their new boat enjoying the scenery along the way.

If this sounds like your perfect day too, there are some things that you need to know about before you begin your boating adventures. Boating is much more than just putting a craft on the water and switching on the motor or hoisting the sails. While it may seem like an easy undertaking, you should still become an informed boater knowing the rules of the water as well as boat safety.

Boating has lots and lots of advantages that you may have never thought about. It can help bring you together as a family, it can ease stress, and it is a lot of fun. Experienced boaters can share with you their love of boating and why it's something they pursue heartily.

Recreational boating provides a constructive outlet for entertainment that reduces stress and provides ample opportunities for self-enrichment. It doesn't matter if you're learning to water ski, relaxing as you try to catch a fish, or just relaxing on deck and enjoying a sunset, boating can bring quality to your life.

About ninety percent of Americans live less than an hour away from a navigable body of water. That means that boating is also a convenient means of entertainment that requires just a little travel time.

Believe it or not, boating can greatly reduce the amount of stress in your life as well. In fact, a 2005 National Marina Manufacturers Association survey of over 1,000 American households listed boating in the top-three of all stress-relieving activities.

There are many activities you can do while boating that can also contribute toward your overall well-being. Water skiing is great exercise. Some people believe that just breathing in the fresh air from the deck of your boat can have healing qualities as well. Nutritionists

know that fish is good for you. Boating allows you to catch your own fresh fish thus improving your health as well.

If you're new to boating, don't fear. There is a lot to learn, but the good news is that it's easy to learn. This book will explore all aspects of boating from picking out a boat to boat safety. Whether you are interested in boating for recreation or as a way to connect with family and friends, with our help, you'll be on the water in no time.

With the information contained in this book, even a person with no boating experience will be able to enjoy this great activity like more experienced sailors. This is Boating 101 – let class begin!

BUYING A BOAT

Many people would love to get into boating as a regular activity in their lives, but they think they can't afford to own their own boat. While buying a boat can be a large expenditure, there are actually many options prospective boat owners can use when buying a boat.

Almost all boat dealers will offer financing for your boat, and most of the time, your payments will be under \$200 a month. You can also look into securing a personal loan for your boat through your local bank.

Many new boat owners will buy a previously owned boat as their first watercraft. A lot of times people will upgrade their choice of boats and then sell their old boat. This can be a great way to get into boat ownership without spending a lot of money.

Let's start by identifying what exactly certain boats are. Sometimes the terminology can get lost on beginners, so we'll look at some of the most common boats and what they're called.

Bass/Fishing Boat

These boats are exactly what the name implies. They are meant to be used for fishing. Most fishing boats are powered by outboard motors, and many also have a trolling motor mounted on the bow.

Bass boats can be made of aluminum or fiberglass. Aluminum is lighter and easier to maneuver thus requiring a smaller motor than

would be required of a fiberglass boat. An aluminum boat is easier to transport and requires a smaller vehicle when towing on a trailer.

The most common size of fishing boats range between 16 and 20 feet long and provide anywhere between 50 and 200 horse power in the motors. Almost all will have bait and fish well for storing your catch as well as separate compartments to store rods, reels, and tackle.

Aluminum bass boats can be a little cheaper than the fiberglass variety with prices between \$7,000 and \$30,000 new depending on the package you choose. The most popular size of aluminum fishing boats is 17 feet with a 50 horsepower motor.

Fiberglass boats are designed to be flashier. They can come in a variety of colors and are capable of much higher speeds than their aluminum counterparts. A fiberglass bass boat can handle rough waters more easily and are high performance boats. If you are looking to angle professionally, you will want a fiberglass boat.

The price range for buying a new fiberglass boat would begin at around \$10,000 and can get up in the \$75,000 range top end. Most fishers prefer a 18 foot boat with a 150 horse power motor.

Cruising Boats

These are wonderful boats for taking trips on. They are designed to be a sort of home away from home albeit smaller, obviously! Cruising boats generally come with TVs, microwaves, and other homey touches. They generally have 2 or 3 sleeping compartments so overnight trips are much easier.

There is usually a galley for cooking on cruising boats as well as a separate bathroom/shower area. They have a large fuel capacity; so long trips are definitely possible with a cruising boat.

Cruising boats are between 24 and 33 feet long. They have powerful motors and can be taken on large bodies of water such as an ocean. This power and style doesn't come at an easy price. Most cruising boats can cost between \$25,000 up to almost \$200,000.

Pontoon Boats

These are great boats to choose when you like to enjoy leisurely boating with a lot of people. They are lightweight vessels designed to make maximum use of space. They have wide open decks with lots of seating so they can accommodate large numbers of people.

Pontoon boats have a variety of uses. You can use them for fishing, cruising, and over night trips. Depending on the size of motor you have, it's not uncommon to be able to use a pontoon boat for skiing or tubing as well.

These boats are very appealing to new boating enthusiasts because they are usually lower priced than other boats and they have a variety of uses. They are easy to customize to your unique needs as they are made in a variety of models.

Pontoon boats are great for socializing on and can be used on lakes or even larger bodies of water. Bring along the family and friends and throw a party on board your pontoon boat. That's what they're designed for!

House Boats

We don't really need to tell you what a house boat is as the name says it all. House boats are designed to become a home away from home and are most often used as weekend getaways and retreats for families and friends. They are floating homes with a 360 degree swimming pool surrounding them.

They are best suited for inland waters and lakes, but they can also be taken on larger bodies of water. Do so only with safety first and foremost in mind.

Many houseboats have all the comforts of home. There are several different sleeping cabins, a galley for cooking, even air conditioning. Some can be outfitted with a washer and dryer and a dishwasher as well.

Common sizes of houseboats range from 20 to 65 feet with an average cost for a new boat at around \$60,000. They are ideal also for long vacations and slow cruising.

Ski Boats

Also known as speed boats or motor boats, these crafts are made for skiing, inner tubing, or wake boarding. They can have either outboard or inboard motors alike and are capable of fast speeds. They make a minimum of wake that is ideal for skiers.

Ski boats range from 18 to 22 feet and when purchased new cost an average of about \$25,000. They are generally used on lakes, but they can also be taken on larger bodies of water.

Bowriders

This boat is traditionally called a “runabout” and is very similar to a power boat. They are popular with many traditional boaters because of their versatility.

They range in size and features, some having a freshwater supply and a head compartment. They are perfect for water sports including skiing and wakeboarding as well as cruising. Top speeds can vary from 30 mph to 70+ mph. Some manufacturers have hybrids that include fishing features.

Bowriders are between 16 and 24 feet long with prices between \$8,000 and \$40,000 for a new boat. Most have an inboard motor, but some can have outboard motors as well with horsepower capable of 50 to 400.

Cuddy Cabins

These boats are very similar to bowriders as they share many characteristics and features. These boats have below deck amenities such as porta pottys, freshwater supplies, and seating areas.

Cuddy cabins are good for overnight trips and can have enough power to pull water skiers or wake boarders. Many people like to use their cuddy cabins for day trips to the lake and like having the convenience of sleeping quarters in case the day runs long!

These boats are between 19 and 26 feet long with an average new cost of around \$22,000. They generally have inboard motors with 90 to 400 horsepower possible.

Sailboats

These boats are powered by the wind that hits their sails and generally doesn't have any type of mechanical propulsion system. Sailboats come in three categories:

- **Day sailer** - A day sailer is a small boat designed for comfortable sailing but without sleeping accommodation. It has a roomy cockpit and can have an outboard auxiliary engine.
- **Cruiser** - A cruiser is a medium-sized or large boat that has a cabin with sleeping quarters, head (toilet), galley (where food is prepared) and generally has an auxiliary engine built inside.
- **Racer** - A racer is a boat designed for speed and ease of handling, often at the expense of comfort. The two popular styles are the racer-day sailer designed primarily for racing and secondly for day sailing, and the cruiser-racer designed mainly for overnight cruising and secondly for racing.

When choosing what kind of boat to get, you will first want to consider what types of activities you are most interested in. Do you want to get into waterskiing? Will you be doing a lot of fishing in your boat? Is it most important for you to just have a boat to enjoy nature and the water? Would you like to take overnight trips on your boat or be having large amounts of people along with you during excursions?

Another consideration when buying a boat is to make sure that it is affordable for you. You won't want to strap yourself with a payment that will cause financial problems for you. Figure out how much you want to spend and find the best boat within that price range. And don't fall for a flashy salesperson's spiel as they will try to get you to buy out of your price range.

This seems like a good time to take a quick look at what you can expect to pay as a boat owner in addition to the cost of the boat and trailer. This can be important since you need to make sure that you'll be able to operate your boat once you get it, so factor in these costs before you even start making a choice. Expenses may vary by your location, but this can give you a rough estimate.

- Damage/liability insurance: \$400-\$800 year

- Towing insurance \$100/year
- State registration \$50-\$200/year
- Routine mechanical maintenance \$1000/year
- Major mechanical repairs \$500-\$4,000/year
- Fuel (depends on use) \$100-\$1000/month
- Miscellaneous expenses \$750/year
- In water marina storage \$200-\$800/month
- "Dry" marina storage \$200-\$400/month
- On-trailer storage \$60-\$120/month

What kind of vehicle do you have available for hauling your boat? Most often, a truck is the best vehicle for hauling a boat on a trailer. They can be heavy, and the truck should be able to easily handle the extra weight behind it. If all you own is a compact car, you won't be able to haul a boat on a trailer, so consider this part carefully.

What are your boating skills? If you are a beginner, you won't need a huge bay boat that is difficult to handle. You also won't need a fast power boat either. Match your boat to your skill level so that you aren't stuck with a boat you can't drive easily.

You will also need to think about what type of water you are going to be boating on before you buy a boat. If the only place close to you is a small lake, you won't want to buy a 30 foot cabin cruiser. Then again, if you want to cruise around the ocean, a 15 foot power boat isn't a good idea either.

If you have the money or plan on keeping the same boat for a very long time, go ahead and buy it new. However, often your best bet is to buy a used boat.

BUYING A USED BOAT

New boats are great to have. Just like new cars, there's something satisfying about knowing that you are the only person who has ever piloted that craft. Having something brand new is a great feeling, but it does come with a price tag! Many people, especially new boaters will want, instead, to buy a used boat which can be just as nice as a new one at a much lower price.

Some people are interested only in impressing others with their huge, flashy boat. The waters are filled with people who often have more money than brains. For these kinds of people the bigger and more opulent their boat, the better they feel.

When you really think about it, though, the real point for a boating enthusiast is to get on the water. A real boater is someone who gets his or her boat moving. There are plenty of small motor boats that are out every weekend as opposed to the big boats that only see the open water once or twice a season. The people in those small boats are real boaters. They know the benefits of boating and are eager to be on board their vessel as much as possible.

Most vehicles lose their new value quite quickly. Boats are no different. Within two years, it will only be worth half of what it was new. But their appearance and mechanical abilities will still be in good shape – especially if you are conscious enough to take good care of your boat.

That's why used boats are such a good value. You get a lower price and the previous owner has already "shook out the weeds" so to speak. Of course, not all used boats are good buys, so you do have to be careful what you look for in a used boat.

Buying a used boat isn't like buying a used car. They really haven't been used very much when you think about the fact that boats sit most of the time. Don't think you are buying into someone else's problems. It's easy to find boats with less than a couple of hundred hours of engine use.

Used boats often come with dock lines, life jackets, spare props, safety equipment, and other nice add-ons. New boat owners have to pay several hundred dollars just to get this same equipment.

Of course the wildcards with used boats are structural and mechanical condition and whether the previous owner did the proper maintenance. Prior to purchase you must get a used boat surveyed

including a sea trial to be assured that it is in reasonable condition. You must also be willing to absorb mechanical repairs over time. The same is true when a new boat goes out-of-warranty.

You should allow an extra \$1,000 or so above the price you pay so that you can make any necessary repairs. This money is nice to have as well so you can pick up any incidentals that didn't come with your new used boat.

So, before you buy a used boat, what should you be looking for? Here are a few areas you should consider before buying:

- Who made the boat? Is the company still in business? If so, you will have an easier time getting parts and information about the boat.
- Check to see if the boat has been well-cared for. This can be relatively easy. Look at the upholstery for signs of excessive wear or abuse. Generally, serious boaters will take care of the whole boat – not just parts of it. If one part looks neglected, the engine probably is as well.
- Ask why the owner is selling his or her boat. The ideal answer is that they are moving up to a bigger or newer boat. If this is the case, you'll know they are serious about boating and have probably taken very good care of this boat. If they are selling because it isn't financially possible for them to keep up with the payments, chances are they are a bit irresponsible and have neglected to properly attend to the boat's needs.
- Make sure all the equipment the boat needs is installed and that it works properly. If at all possible, you should get it out on the water before you buy and take it for a "test drive".
- Boaters who keep a maintenance log are going to be very trustworthy sellers. This log will contain a list of all work done on the boat including tune-ups, oil changes, and repairs.
- Ask the seller what they primarily used the boat for. If it was mainly a fishing boat, pay special attention to the motor as trolling around at slow speeds all the time can be very hard on the engine as well as the drive system.

- It's always a good idea to ask for a professional opinion from an experienced appraiser of some sort. This can give you some great peace of mind and keep you from making a serious mistake.

Here are two good checklists to use when you are looking at a used boat. The most expensive part of the whole expenditure will lie in the engine and the boat itself, so you should look for some very specific things during your inspection.

Engine Check List

- Is there oil in the bilge? It may be a sign of an oil leak and warrants closer inspection.
- Are there signs of lubricant leakage around gaskets, freeze plugs and hoses?
- Are the hoses, belts and fittings cracked or brittle?
- Pull a spark plug and see if it appears relatively new, or burnt and poorly gapped. This will provide an indication of how well serviced the engine is.
- Is there a white chalky residue on the engine or drive? This may indicate that it has been running hot.
- Check the engine's oil condition and level. If the oil looks milky, water may have entered, indicating the possibility of serious mechanical problems.
- Check the gear case oil.
- Are the sacrificial anodes on the drive in good shape, or should they have been replaced long ago?
- Are there signs that the drive, rudder or propeller has hit submerged items?
- Look for signs of cavitation damage on the propeller(s), which is indicative of poor performance.

- Check for broken engine mounts.
- Do a compression check on the engine to be sure all cylinders are firing.

Boat Check List

Aside from the engine, your inspection should also include the following on the boat:

- Check steering and throttle controls and cables.
- Switch on and operate all systems; bilge pump, blower, lights, stereo, winches, freshwater sink and shower, galley stove, head, heater, air conditioner, generator and so forth.
- Make sure all hardware is still firmly attached and check the condition of backing plates where possible.
- On a sailboat, check all rigging, hardware and sails.
- Open and close hatches.
- Check out the fuel tanks, fittings and lines. Be sure to smell for leaks.
- Are the batteries securely fastened in acid-proof containers?
- Perform an out-of-water inspection to see if there are dings or cracks. Also check for stress cracks, chips in the gel coat, hull blisters and other hull irregularities.
- Is the propeller shaft and rudder stock straight?
- Is the upholstery in good condition and the stitching still holding?
- Does the cabin smell like mildew?
- Check through-hull fittings to ensure they are not loose and leaking.
- Check electrical items and connections for rust.

If you don't feel qualified to judge these points or if you're not sure exactly what to look for, you can always contact a boat specialist or appraiser. Of course, you'll have to pay a small fee, but that could be good in the long run as you will know exactly what you are buying.

You will also want to pay special attention to the boat's trailer. Often, inexperienced people will just check out the boat they are buying, but the trailer is important as well. If the boat and trailer are not properly matched trailering a boat to and from the water, launching and retrieving can be the most stressful part of boating.

With the right trailer under your boat, you'll never know it's behind you as you tow it to the lake. However, if the trailer isn't properly set up and adjusted, you'll notice problems right away.

For example, too much tongue weight can cause excessive swaying while towing. Also, if the bunks or rollers aren't properly adjusted, launching and retrieving can be difficult even under the best of conditions. And worse, if the boat's hull isn't adequately supported, the trailer can actually damage the boat.

So how do you know that the trailer is right for the used boat you're buying? Here are some tips for inspecting a used boat trailer that should help you avoid any major problems.

First, check to see if the trailer is NMMA-certified. There are industry guidelines that ensure a trailer has been built with safety, quality and structural integrity. Also, check the weight limit the trailer can safely handle. Compare this number with the listed weight of the boat and motor. Exceeding the trailer capacity is not only dangerous, it's illegal.

Next, inspect the trailer carefully. Things to look for are rust or corrosion, cracks in the frame or evidence of major frame damage or repair. Also inspect the leaf springs for cracked or broken leaves. Check for excessive or uneven tread wear on the tires. If less than a quarter-inch of tread remains, you'll need to replace them. Also, if the trailer has bearing protectors, see if the grease reservoir is full. If so, the spring-loaded piston will be approximately 1/8-inch from its seated position.

Trailers either have bunks or rollers, and they seldom need replacement, but a quick inspection will show if there are any problems. Is the boat level on the trailer? If not, take a close look to

make sure the bunks and rollers are properly adjusted. Is the hull well supported from front to back?

Hook up the trailer to your truck or car and make sure all the lights are working - brakes, running lights and turn signals. Burned-out bulbs are easy to fix, but rewiring a trailer can be a chore. Also, check out the winch and straps for frayed edges. It may need to be replaced.

After your inspection of the trailer, if you have any concerns, take the boat to a dealer and have him check out any problems you might have noticed. Most dealers will be happy to give you a second opinion and can also cure any trailering problems you might incur.

Axles can be adjusted for better tongue weight and bunks and rollers can be positioned for easier launching and retrieving. If you decide to upgrade to a better trailer, your local dealer can help you select the right trailer for your "new" used boat.

There are a lot of great bargains and investments in the used boat market. Just remember that a good trailer will go a long way toward protecting your investment. And the truth is that there are a lot of places you can go to when it comes to buying your boat.

BEST PLACES TO BUY

Just look around, and you're sure to find someone or someplace selling a boat. With the amount of boats that are out there, it's hard to believe that manufacturers keep making them. But there are some specific places you should look to when you have decided to buy a boat.

Start with a local trader magazine that is usually available at most grocery or convenience stores. These publications usually have listings within a certain geographical area. Look through these magazines also so you can get some type of idea what you can expect to spend on a boat.

You can also look online at www.boattraderonline.com, or sites like www.ebay.com to try and find a deal. Pay special attention to the location of the seller, however. You will probably have to pick the boat up yourself, so be sure it's within driving distance. Also, you should not buy a boat sight unseen or just rely on pictures to tell the whole

story on the boat. Visit the seller and look the boat over thoroughly before you agree to buy it.

There are many boat shows held all over the country – usually in the spring when boat buying is at its peak. By attending a boat show, you will be able to see all sorts of different makes and models before you buy. You can ask questions from the company reps and have a better idea of which boat is best for you and which one you should choose.

Local dealers are also great spots to find some good buys on boats. Most dealers will carry both new and used boats as they often take trade-ins from people who want to buy up. Boat dealers can offer you more financing options with extended warranties and service departments that can take care of your boat if anything should happen to it.

Many marinas will allow you to rent a boat for a day. The good thing about this option is that you can try out various types and brands of boats before you buy. They may not always have a variety of brands, but they will most likely be able to offer up different types of boats so you can see which type fits in with your lifestyle best.

You could go with a boat broker as well. These are specialists who will look for the best boat bargains out there and find you what you need. Boat brokers have access to resources that everyday people don't usually have, so they can be great in helping you find the boat of your dreams.

Of course, you should always look in your local newspaper's classified advertisements to see what's available in your area. You will have mostly used boats in there, but you can also find a real bargain when you know what to look for.

Finally, there are classified ads online as well. www.craigslist.org and www.postaroo.com will have a lot of regions you can look in to find a good used boat. Again, be sure that you will have the opportunity to look the boat over before you buy it, so don't pick a boat from an area where you will have a difficult time getting to.

Once you decide on a boat, you will want to consider your options for paying for it.

BOAT FINANCING

Because of the higher costs of owning a new boat, you will probably be financing the boat with a boat loan. Even buying a used boat can be a big expenditure. We've already told you that you really need to stay within a budget that fits your lifestyle so that you aren't saddled with high boat payments.

There are some distinct advantages to financing a boat purchase. With a boat loan, you'll be able to get a bigger boat and possibly one with more features than you thought you could have. Ideally, you will want to work with a lender who is a member of the National Marine Bankers Association (NMBA).

When you work with a professional in the marine lending industry, you will get quicker response times when it comes to a credit decision. They know boats and they know boat buyers. It is often very possible to apply for a boat loan in the morning and become a boat owner by the afternoon.

Financing terms will be longer with a marine lender than with credit institutions. They know the value of a well-maintained boat, so their terms will look more attractive to you than a bank or credit union.

Your down payment will be less as well. The down payment on a boat is based on its age, type and price. Because marine lenders know boats so well, they are better able to determine what type of down payment will be fair for your new boat. Many lenders require down payments as low as ten percent, and some can even offer programs with zero down payment.

Because marine lenders are willing to extend their loans for a longer period of time, your payments will be less. Plus, you can even finance extras for your boat if needed. That can include things like electronics or equipment such as skis and inner tubes.

Many banks and credit institutions are members of NMBA, so be sure and ask if they are affiliated with the organization. If your usual bank isn't a member, you're best off if you look around for a marine lender specifically. In the long run, it will pay off immensely for you.

One huge advantage in financing your boat is that the loan interest may be tax-deductible. You are able to deduct interest from car loans, and a boat loan is no different. You'll have to check with a tax professional as to the specifications. It could depend on what type of boat you buy as to whether or not the loan interest will be tax deductible.

Once you've found the boat of your dreams and have become a happy boat owner, there are some other things that need to be taken care of.

INSURANCE AND REGISTRATION PLEASE

Boats are vehicles just as cars are. That means they need to be registered with your state and you'll need to obtain a boating license for it. Your boat trailer will also need to have a separate license plate.

All you need to do is go to your department of motor vehicles and take your boat registration or loan papers to your department of motor vehicles and they will take care of the rest. Sometimes, the dealer will go ahead and take care of this for you.

Once registered, you'll also need to obtain boat insurance. There are actually a lot of considerations you have to take into account when obtaining boat insurance.

One option is to add the boat to your homeowners insurance. However, homeowners insurance often limits certain marine-related risks such as salvage work, wreck removal, pollution or environmental damage.

Whatever amount the boat is insured for, it should have a separate but equal amount of funds available for any salvage work. This means that you're compensated for the loss of your boat and not having to pay additional, out-of-pocket costs to have a wreck removed from a waterway.

These are the two main choices that boater's face and depreciation is what sets them apart. An "agreed value" policy covers the boat at whatever value you and your insurer agree upon. While it typically costs more up front, there is no depreciation if there is a total

loss of the boat (some partial losses may be depreciated). "Actual cash value" policies, on the other hand, cost less up front but factor in depreciation and only pay up to the actual cash value at the time the boat is declared a total or partial loss or property was lost.

A good insurer will tailor your coverage to fit your needs so there will be no surprises. For example, bass boaters may need fishing gear and tournament coverage as well as "cruising extensions" if they trailer their boat far from home. You may want "freeze coverage" if you live in a temperate state because ironically, that's where most of this kind of damage occurs. "Hurricane haul-out" coverage helps foot the bill to move your boat to dry ground.

It is best to have what is known as an "All Risk" policy, which will provide coverage for all types of losses except those specifically excluded in the policy. Typical exclusions may include wear and tear, gradual deterioration, marring, denting, scratching, animal damage, and manufacturer's defects, defects in design, as well as ice and freezing.

You can, however, obtain liability only coverage just as with a motor vehicle. Liability coverage will cover only another party in the event of loss, damage, or loss of life. It will not cover your boat or any of your personal property.

Physical damage coverage will reimburse for damage to the boat and its machinery. As we've said, the best physical damage policy is an "all risk" which covers any cause of loss not specifically excluded in the policy, like wind storms, vandalism and collisions with the dock. Experts recommend selecting a policy that continues to cover your vessel even when it is stored or being transported by trailer.

You can also add on medical payment coverage which pays your first aid, ambulance and hospital bills in case of accident. This coverage will also cover any passengers injured on your boat. Towing and assistance cover pays for emergency assistance such as boat towing, emergency repairs while underway or fuel delivery at sea.

Towing and assistance coverage pays for emergency assistance such as boat towing, emergency repairs while underway or fuel delivery at sea. When you carry personal property coverage, you will be reimbursed for loss of personal effects, clothing, fishing gear and more. Finally, while not mandatory, uninsured boater coverage

compensates you and your passengers for injuries caused by another boat owner who carries no liability insurance.

The general rule of thumb with any insurance coverage is to shop around. Ask people you know who own boats and find out who their insurer is. Compare quotes online and get the best deal you can. Insurance is there in the event that something happens. Often, it doesn't get used, but it can really give you peace of mind – plus, it's the law!

Now you've got everything all figured out – you own your boat, you've gotten it registered, and you've obtained insurance coverage. Now that you've got your boat, it's very important to keep it maintained correctly so that it lasts as long as possible.

BOAT MAINTENANCE

The most important part of owning a boat is taking care of it. You've probably spent a great deal of money on your new watercraft, so you'll want to make sure it is always running properly. That means knowing what to do to maintain its "health" – so to speak.

One of the keys to boat maintenance is also one of the simplest- wash your boat regularly. Not only does routine cleaning facilitate a more pleasant and organized environment, but it also goes a long way towards counteracting the long-term effects of environmental wear and tear.

Routine waxing and use of anti-fouling paint can also help protect your boat from the elements. You may also want to consider using environmentally-safe products for your boat maintenance needs!

One of the most common ways a boat can start to show scratches and damage is not only from when it's in use- but from when it's being docked. Make sure lines are securely fastened in place, neatly coiled, and do not show signs of breakage or wear.

Depending on the type of battery your boat uses, check to ensure that it is properly charged and that it has the correct fluid levels. Also be sure to keep your battery clean, as dampness and dirt can also drain your battery.

Proper boat maintenance means being actively involved in, and attuned to, all aspects of your vessel. This means keeping an eye out for everything from loose fittings to fraying ropes to any other areas of your boat that may need special attention or replacement. Many times, damages incurred to a boat could easily have been prevented by following a preventative boat maintenance routine.

Another crucial aspect of boat maintenance is ensuring that your bilge pump is functioning properly. There's much that can cause more irreparable damage to a boat than having it sink. In the event that you need to use your pump, you'll also want to make sure that your battery system contains enough power to support running the pump for a prolonged period of time.

Many boating failures occur as a result of corroded electrical systems, so keeping electrical components dry should be a regular part of your boat maintenance routine. Electrical fittings can be protected with a water-repellant, non-conductive grease or corrosion inhibitor.

Making an investment in a boat cover can help keep your boat clean and free of a variety of contaminants that aren't just related to dirt or water- falling leaves and bird droppings can also cause a lot of damage if left unchecked. A boat cover can also prevent UV rays from breaking down hoses or fading carpets and upholstery.

Responsible boat maintenance means taking the time to familiarize yourself with all aspects of boat care. Consult your owner's manual for in-depth guidelines. While it's always important to take the time to learn how to do things yourself, also don't be afraid to seek the help of a professional when needed.

Motor care is probably one of the most important parts of effective boat maintenance. Follow best practices for both inboard and outboard motor care.

Be sure to flush your engine after every outing, and check everything from your fuel tanks to clamps on your fuel line for rust, damage or corrosion. Also be sure to check your oil both for correct levels as well as proper filtration and cleanliness. And keep an eye on your engine's cooling system to make sure it's functioning correctly.

Because motor care is so crucial to maintaining your boat, here are a few points to keep in mind:

After Every Trip

- After every outing, flush out the engine. This doesn't just apply to salt water adventures, but to fresh water outings as well.
- Buy a set of "rabbit ears": two flexible rubber seals connected with a metal clamp. Slip the apparatus onto the lower unit where the water is picked up and attach a garden hose.
- Start up the engine and let the water pump do the rest. Practice safe boating and remember to stay clear of the prop and make sure no one tries to shift the motor into gear.
- While you're flushing the motor, check the water pump to make sure it has good water flow. Carefully put your finger through the stream of water. It may be warm, but it shouldn't be hot. If the output is not strong, you may have some debris stuck in the outflow tube. Immediately shut down the engine to prevent overheating and damage.
- Insert a small piece of wire into the flow tube and work it back and forth. Start the engine again and check the output. If that doesn't solve the problem, you may need a new water pump.
- After flushing the engine, disconnect the fuel line and allow the engine to burn all the fuel in the carburetor.
- Once you've finished the flushing and run the engine out of fuel, be sure to turn off the key and, if you have a battery switch, turn it off.
- Take the engine cowling off and check for fuel or water leaks. If you find leaks, consult your safe boating mechanic.
- Wipe everything down and spray with an anti-corrosive like WD 40 or Quick-lube. Be sure to lubricate all the moving parts such as the shift and throttle cables, carburetor valves, etc.
- Replace the cowling and wipe it down. Keep a canvas or plastic cover on the engine between trips.

- Always use fresh fuel. At the end of the season, boat motor maintenance should include draining your tanks and taking the fuel to the proper recycling authority.

Regular Maintenance

- Periodically check the fuel line for cracks and worn spots.
- Make sure the fuel primer bulb is not cracked and is pliable.
- Make sure the fuel-line fittings seat properly and don't leak.
- Check the clamps on the fuel line for rust or corrosion.
- Check the fuel tanks for damage and corrosion.
- Check the tank vent to make sure it aspirates properly.
- Check regularly for water in the fuel.

Good maintenance also includes making sure that your boat is taken care of in cold weather. If you live in a predominantly warm climate, you will probably not have to take these steps, but remember that even in the warmest of places, it can still get cold occasionally.

The best place for your boat to be during the winter is out of the water, under cover, in a climate-controlled boat storage area. This, however, can be expensive.

If don't have this option perhaps you should consider shrink-wrapping your boat. This, too, is a little expensive but provides a very protective cover. Short of these two items, make sure that your boat is well covered with a tarp or some other sturdy cover.

Your first step in winterizing should be to make a checklist of all items that need to be accomplished. Check the owner's manual of your boat and motor(s) for manufacturer's recommendations on winterization. If you are a new boat owner, perhaps you should employ the assistance of a friend with experience in winterizing or hire a professional to do the job.

You should run the inboard engine to warm it up and change the oil while it is warm. This tends to allow impurities to be drained away

with the oil. You should also change the oil filter(s). Flush the engine(s) with fresh water.

You should circulate antifreeze through the manifold by using a pickup hose from the water pump to a bucket of antifreeze. Start the engine and allow the antifreeze to circulate until water starts to exit the exhaust.

This process will vary slightly depending on whether you have a "Raw Water" cooling system or an "Enclosed Fresh Water" cooling system. While you're in the engine room you should also change the fluid in your transmission.

Remove spark plugs and use "fogging oil" to spray into each cylinder. Wipe down the engine with a shop towel sprayed with a little fogging oil or WD-40.

You should thoroughly inspect the stern drive and remove any plant life or barnacles from the lower unit. Drain the gear case and check for excessive moisture in the oil. This could indicate leaking seals and should be repaired.

Clean the lower unit with soap and water. If your stern drive has a rubber boot, check it for cracks or pinholes. Grease all fittings and check fluid levels in hydraulic steering or lift pumps. Check with your owner's manual for additional recommendations by the manufacturer.

For the outboard engine Flush engine with fresh water using flush muffs or similar device attached to the raw water pickup. Let all water drain from the engine. Wash engine down with soap and water and rinse thoroughly.

Disconnect fuel hose and run engine until it stops. It is important to follow a step by step process to make sure that all fuel is drained from the carburetor to prevent build-up of deposits from evaporated fuel. Use fogging oil in the cylinders to lubricate the cylinder walls and pistons. Apply water resistant grease to propeller shaft and threads. Change the gear oil in the lower unit. Lightly lubricate the exterior of the engine or polish with a good wax.

Fill your fuel tank(s) to avoid a build up of condensation over the winter months. Add a fuel stabilizer by following the instructions on the product. Change the fuel filter(s) and water separator(s).

Make sure the bilges are clean and dry. Use soap, hot water and a stiff brush to clean up any oil spills. Once the bilges are clean, spray with a moisture displacing lubricant and add a little antifreeze to prevent any water from freezing.

Completely drain the fresh water tank and hot water heater. Isolate the hot water heater by disconnecting the in and out lines and connect them together. Pump non-toxic antifreeze into the system and turn on all the facets including the shower and any wash-down areas until you see the antifreeze coming out. Also put non-toxic antifreeze in the water heater.

Once you have taken care of the system you should remove any valuables, electronics, lines, PFD, fire extinguishers, flares, fenders, etc. Over the winter these items can be cleaned, checked and replaced as necessary. Open all drawers and lockers and clean thoroughly.

Turn cushions up on edge so that air is able to circulate around them or, better yet, bring them home to a climate controlled area. Open and clean the refrigerator and freezer. To keep your boat dry and mildew-free you might want to install a dehumidifier or use some of the commercially available odor and moisture absorber products such as "No Damp," "Damp Away" or "Sportsman's Mate."

If you will be storing your boat out of the water as is generally recommended, take time to Pressure wash hull, clean barnacles off props and shafts, rudders, struts and trim tabs. Clean all thru-hulls and strainers. Open sea cocks to allow any water to drain.

Check the hull for blisters and if you find any that should be attended to you might want to open them to drain over the winter. While you're at it, why not give the hull a good wax job? It is probably best to take the batteries out of the boat and take them home and either put them on a trickle charger or charge them every 30-60 days.

If you find you have no choice but to store your boat in the water, you still need to take precautions. Close all sea cocks and check rudder shafts and stuffing boxes for leaks and tighten or repack as necessary.

Check your battery to make sure it is fully charged, clean terminals, and add water if necessary and make sure your charging system is working. Check bilge pumps to ensure they are working and

that float switches properly activate the pumps and that they are not hindered by debris.

Make sure either to check your boat periodically or have the marina check it and report to you. If in an area where the water you are docked or moored in actually freezes, you should have a de-icing device or bubbling system around your boat.

Boats break down when you least want them to. Even if you've taken exemplary care of your boat, sometimes things do happen. You may find it necessary to make some emergency repairs on the water, so know what you're doing.

EMERGENCY BOAT REPAIR

Often, there are some things you can do to your boat if something suddenly pops up. You can do some patch work in certain situations that can tide you over until you can have your boat properly prepared.

First, you should have a basic tool kit on board. A few, well suited hand tools such as wrenches, screwdrivers, a hammer, vise-grips and pliers should be in your tool kit. Many marine stores sell tool kits in water-proof, floating boxes which are small, compact and convenient. You should also have a selection of basic spare parts. These should include belts, spark plugs, points, assorted hoses, fuel filters, impellers, etc.

When you are making repairs to your boat, do not stand up in your boat. The wake of any passing ships that come along when you are not paying attention can cause you to go overboard. Remember – safety first!

Here are some tips on what to do in an emergency to make repairs:

- If your engine stalls, start from the obvious and work toward the more complicated solution.
 - Do you have fuel?
 - Have you run aground?

- Has the propeller fouled with line?
 - Is the engine overheated due to no water flow?
- Should you have a broken drive belt and not have a spare you can fashion one temporarily from some small line, the draw string from a bathing suit or a pair of ladies hose. Tie the ends together tightly with a square knot.
- If you are losing engine oil, find the leak, catch the oil in a container and continue to pour back into the engine until you can fix the leak.
- You can repair a broken hose or pipe with rags or a tee shirt tied tightly with a line or a belt. Or duct tape may work.
- If you find you are taking on water, first find the source. You should carry on board assorted sizes of tapered wooden plugs or bungs. If the water is coming from a through hull opening or small hole use the appropriate plug to jam into the opening. If the hole is large, use pillows, clothing, or blankets to stuff the damaged area.

You will also have to outfit your boat with the required equipment needed plus, you'll want to have some fun stuff as well!

BOAT EQUIPMENT

The United States Coast Guard requires that watercraft have a certain amount of necessary equipment for the safety of you and others while on the water. Some states may require additional equipment, so be sure to check on that and be in compliance with your state's laws.

The first piece of necessary equipment is a personal flotation device (PFD) for each person on board. Most PFDs sold commercially have been approved by the Coast Guard. These are generally designated as Type I, II, or III life vests.

Boats less than 39.4 feet must carry some type of sound producing device. These are generally air horns and can be found in various places quite easily. Boats larger than 39.4 feet must have a

whistle that can be heard for ½ nautical mile. These crafts must also carry a bell with the mouth being at least 7.87 inches in diameter.

Watercraft must also carry some type of visual distress signal as well. Most visual distress signals are in the form of self-lighting flares and are easily found in many stores.

Vessels that are 26 feet long or less must have at least one working B-1 type hand operated fire extinguisher. Boats 26 – 40 feet should have two B-1 extinguishers or one B-2. Boats larger than 40 feet long must carry three B-1 or one B-1 and one B-2.

For boats built after 8/1/80, the ventilation system must meet certain requirements as well. At least two ventilation ducts capable of efficiently ventilating every closed compartment that contains a gasoline engine and/or tank, except those having permanently installed tanks which vent outside of the boat and which contain no unprotected electrical devices. Engine compartments containing a gasoline engine with a cranking motor are additionally required to contain power operated exhaust blowers which can be controlled from the instrument panel.

Boats built after 8/1/80 must have At least two ventilation ducts fitted with cowls (or their equivalent) for the purpose of efficiently and properly ventilating the bilges of every closed engine and fuel tank compartment using gasoline as fuel or other fuels having a flashpoint of 110 degrees or less. Applies to boats constructed or decked over after April 25, 1940.

Finally, the engine should have a back fire flame arrestor. One approved device on each carburetor of all gasoline engines installed after April 25, 1940, except outboard motors.

This is all required equipment and must be kept in good condition and working order. Of course, you may want to outfit your boat with some other equipment just for your enjoyment.

Many boaters like to have some type of stereo system for times when they are docked or floating on the water. This can be as small or expensive as you want it to be. Many boats are also equipped with two way radios, although in these days of cell phones, they may not be needed. If you are going to be on a large body of water, a radio is always a good idea.

If you are using your boat for water activities, you will want to invest in a pair of skis and a tow rope. Inner tubing is also an immensely popular activity and can be done by most ages. They do make special inner tubes that have handles on them so that riders can hold on easily.

Larger pleasure crafts can be outfitted with amenities like a microwave, a coffee pot, and other small appliances. The choice is up to you about what you want to stock your below deck cabin with.

Making your boat as comfortable as possible is a personal choice. Whatever is important to you should be on your boat. Things like portable coolers, a well-stocked frig, or portable DVD players can all be important to different people. Remember, this is YOUR boat and you should have anything on it that makes it more fun for you and your guests!

Now that everything is ready to go, it must be time to get out on the water, right? Wrong! You still need some information about towing your boat, launching it, and pulling it out of the water. Believe us, this is easier said (or written) than done.

GETTING ON THE WATER

If you don't know what you're doing when it comes to towing and launching your boat, you could turn an easy activity into a nightmare. When you don't know what you're doing regarding trailering and launching a boat, you could be in for some serious problems.

As we've already told you earlier, All trailers must be licensed and have brake, tail and clearance lights. Laws vary from state to state, so it's wise to check with the nearest motor vehicle department for your local requirements.

The trailer must be big enough for the boat, with the rollers and bunkers adjusted properly! Hulls are designed to be evenly supported by the water underneath them. When taken out of water, an adequate alternative must be supplied. Hulls that are not supported properly on the trailer will be damaged as you tow your rig over bumps and potholes.

The towing vehicle must be big and powerful enough to handle the total, combined weight of the boat, trailer and all the gear. Most of the front wheel drive cars available today are only capable of towing very small boats. Your owner's manual will clearly state the towing capacity of your vehicle, so refer to it.

Tie-downs are an absolute necessity! At the minimum, you need both the winch cable and a safety stop chain at the bow, a gunwale tie-down amidships and two transom tie-downs.

Never ever stand with your face directly over the winch or winch handle. When deploying the winch cable to retrieve the boat, the winch handle spins around at a fierce rate smashing anything in its path - like faces, teeth, hands - you get the picture.

Make sure you have safety chains that run from the trailer tongue and are attached to your towing vehicle with stout S-hooks or threaded links. These chains must be (a) crossed and (b) short enough to keep the trailer tongue from hitting the pavement if the hitch fails.

Tongue weight - the amount of weight the trailer's tongue is carrying - should be approximately 10% of the total weight of both boat and trailer. If the tongue weight is too high, the strain on the hitch, trailer tongue and towing vehicle's suspension system will be excessive. Steering quickly gets tricky as now the towing vehicle is out of balance.

Conversely, if the tongue weight is significantly less than 10%, the trailer will start to weave back and forth. In other words, the tail starts wagging the dog; we've all seen this scenario going down the highway.

In most cases, tongue weight can be adjusted by moving the gear in your boat either forward or aft as is necessary. After you have your gear in the right position, make sure it's going to *stay* there, by properly securing it in the boat.

When towing, stop and check both the boat and trailer at regular intervals. Check the tie-downs to make sure they are still tight. Check the tire pressure, remembering most trailer tires are smaller than car tires and, as a result, have to work harder. Check the wheel bearings, which should be warm, not hot. Check the hitch and safety chains. Check the lights! A trailer with no lights is an accident waiting to happen.

When you prepare your boat, do the following -- remove the tarp and any securing straps (like transom tie-downs). Load in any gear you haven't already put in the boat so you don't have to carry equipment. Check your boat plug to make sure it's in securely and also make sure the keys to the boat are in the console as well.

Double-check the amount of gas you have (you should have already done this before you moved your trailer). Remove the safety strap (or chain) and winch strap connected to the bow eye and connect the bowline. You should also disconnect the wiring connector to the trailer, as brake light bulbs can burn out if the box leaks when underwater.

Look closely at the launch ramp to be sure that your towing rig can handle it. Steep gravel ramps might be too much for a vehicle with low horsepower and limited torque or bad weather conditions might make the ramp too dangerous to use.

Backing a trailer down a boat ramp can be tricky, but it doesn't have to be. Put your hand on the bottom of your steering wheel. In that position, the direction your hand moves will be the same direction the back of your boat and trailer moves. It's a good idea not to back the wheels of your car into the water.

Take it slow and easy when backing into the water. avoid sudden braking, especially if you've removed all securing straps connecting the trailer and boat.

Once the boat enters the water, continue to back-up the trailer, at a steady pace. Launches with sufficient depth will cause the trailer to drop out from underneath the boat, and the boat to float away by the momentum of the backing-up process. If the launch is shallow, you may need to get out of your vehicle and push your boat off into the water.

It's a good idea to have a launching partner with you to help with launching the boat. However, if you don't have someone with you, you will have to get out of your vehicle to get the boat into the water. Be sure you have your vehicle's emergency brake on and you have your dock line at the ready to tie up the boat once it's on the water.

When accelerating off the ramp do so at a steady pace, but be sure to keep your eyes on your side mirrors. The reason is simple: mistakes happen. If you've followed the above suggestions it's likely you'll have an error-free launch, but if you've forgotten to unhook a strap or accidentally snagged the bowline with your trailer, you'll see it in the mirrors. Keeping your windows down and stereo off will also allow your partner to holler if anything is wrong. Once you know everything is ok, vacate the ramp so the next boater can use it.

After launching your boat, quickly park your vehicle and trailer. This should be a pretty simple operation, but keep a few things in mind. First, off launches can be busy places filled with families and moving rigs, so always drive with caution and be alert for youngsters.

Second, try and minimize the footprint your vehicle and trailer leave when parked. I'm often amazed at how much space some people use when parking rigs on an angle, not backing up fully into a spot, or several other creative space-hogging maneuvers that leave other boaters shaking their heads.

Third, keep in mind that as often as launches are busy, they can also be void of activity - making them prime spots for theft. Don't leave valuables in your vehicle and keep things out of site. Lastly, when parking your rig, make sure you use the parking brake, especially if on an incline.

Once you've parked the vehicle, pay any fees for using the facility (if needed) and get in your boat. When driving your boat from the launch, keep your eyes peeled for signs regulating no-wake zones. Of course, as a general rule, it's best to not blast-off from the launch to ensure you don't make waves for launch users.

Also, most launches are close to shallow water; so don't let your enthusiasm get the best of you. Take your time and slowly drive to deeper water before getting on plane. Otherwise you might find yourself returning to the launch sooner than you think with a damaged motor and/or hull.

Once you get out on the water, there are some rules that you need to know about in order to boat safely.

RULES OF THE "ROAD"

Practicing the art of good seamanship is a talent that is developed over time by acquiring knowledge and skills. You must keep safety foremost in your mind when operating your boat. Do what you can to stay out of the way of other boats and always proceed at a safe speed.

The Rules of the Road provide consequences for any vessel owner, operator or crew who neglect to comply with the Rules. It is your responsibility to act in a reasonable and prudent manner consistent with the ordinary practices of recreational boating. Safe speed means taking into consideration the current operating conditions and your own level of skill and experience.

To determine safe speed consider all of the following factors:

- Visibility, is it clear, overcast, foggy?
- The density of boat traffic
- The maneuverability of your vessel, be sure to consider stopping distance and turning ability in the prevailing conditions
- At night, does the presence of background light from shore affect your vision
- The state of wind, sea and current, and the proximity of navigational hazards
- Your draft in relation to the available depth of water

Most specific speed regulations are local ordinances or state laws. Many states have speed and distance regulations that determine how close you can operate to other vessels, the shoreline or docking area, and swimming areas. For example, some state regulations require that you maintain a no-wake speed when within 250 feet of shore or when within 100 feet of another vessel. Be sure to check with state and local authorities to determine what regulations apply to you.

Every means available shall be used to determine if risk of collision exists. This could be information from your lookout, radar, or other means. If there is any doubt as to the risk of collision you should act as if it does exist and take appropriate action.

In determining if risk of collision exists the following considerations shall be among those taken into account:

- Risk of collision shall be deemed to exist if the compass bearing of an approaching vessel does not appear to change
- Risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range
- If necessary to avoid collision or allow more time to assess the situation, a vessel shall slacken her speed or take all way off by stopping or reversing her means of propulsion.
- When maneuvering to prevent collision do so early and make the maneuver large enough to be recognized the other vessel. Small alterations of course and/or speed should be avoided.

There are two sets of navigation rules; inland and international. A nautical chart will show you the demarcation lines where the rules change from international to inland and vice versa. In general, these demarcation lines follow the coastline and cross inlets and bays. On the seaward side of the demarcation lines international rules apply. We will concentrate on the inland rules, since most of your recreational boating will occur on the landward side of the demarcation lines.

The navigation rules are written with the premise that not all boats can maneuver with the same ease. A power boat will have less trouble maneuvering than a sailboat, so power driven boats must stay away from the following other vessels on the water:

- A sailing vessel, under sail only, and vessels propelled by oars or paddles. (Note: when a sailboat has its motor running, it is considered a power driven vessel).
- A vessel engaged in fishing whose fishing equipment restricts its maneuverability. This does not include a sport fisher or party boat and generally means a commercial fishing vessel.
- A vessel with restricted maneuverability such as a dredge or tow boat, a boat engaged in work that restricts it to a certain area, or a vessel transferring supplies to another vessel.
- A vessel not under command – broken down.

Each of these vessels must keep out of the way of the next vessel in the hierarchy. For example, a sailboat must keep out of the way of a vessel engaged in fishing, which in turn must keep out of the way of a vessel with restricted maneuverability. And everyone must keep out of the way of a vessel not under command.

When two power driven vessels are in sight of one another and the possibility of collision exists, one vessel is designated by the rules as the stand-on vessel and the other is designated as the give-way vessel.

The stand-on vessel should maintain its course and speed. The give-way vessel must take early and substantial action to avoid collision. If it becomes apparent that the actions taken (or not taken) by the give-way vessel are dangerous or insufficient, the stand-on vessel must act to avoid collision.

The give-way vessel must take action to keep well clear. The stand-on vessel should maintain its course and speed. If it becomes apparent that the actions taken (or not taken) by the give-way vessel are dangerous or insufficient, you should take action to avoid collision.

When two power driven vessels are approaching head-on or nearly so, either vessel shall indicate its intent which the other vessel shall answer promptly. In a meeting situation neither vessel is the stand-on vessel.

It is generally accepted that you should alter course to starboard and pass port-to-port. The accompanying sound signal is one short blast. If you cannot pass port-to-port due to an obstruction or other vessels, you should sound two short blasts to indicate your intention to pass starboard-to-starboard. Make sure the other vessel understands your intent before proceeding. The other vessel should return your two-short-blast signal.

When two vessels are moving in the same direction, and the astern vessel wishes to pass, it must initiate the signal to pass as shown in the diagram. The vessel passing is the give-way vessel and should keep out of the way of the vessel being passed. The vessel being passed is the stand-on vessel and must maintain its course and speed. If the stand-on vessel realizes that the course intended by the give-way vessel is not safe, it should sound the danger or doubt signal.

A vessel is deemed to be overtaking when the vessel is approaching the vessel ahead in a direction of 22.5 degrees abaft her beam. At night you would only be able to see the stern light of the vessel being overtaken. You would not be able to see either sidelight.

The sound you need to make on inland waters is two short blasts for passing on the port side and one short blast for passing on the starboard side. The boat that is being passed should respond the same way in agreement to indicate understanding.

When two power driven vessels are approaching at right angles or nearly so, and risk of collision exists, the vessel on the right is the stand-on vessel and must hold its course and speed. The other vessel, the give-way vessel, shall maneuver to keep clear of the stand-on vessel and shall pass it by its stern. If necessary, slow or stop or reverse until the stand-on vessel is clear.

Sailing craft (not under power) and boats propelled by oars or paddles are stand-on vessels when approaching power driven vessels. In this situation, the power-driven vessel should alter course to pass behind the sailing vessel. An exception to this is if the sailing craft or self-propelled vessel is passing a power driven vessel. In an overtaking situation, the overtaking vessel is the give-way vessel, even if it is not propelled by an engine.

The rules tell you to stay to the starboard side of narrow channels. Make sure that you do not impede a vessel that is constrained by draft, i.e. a large vessel that must operate within the channel in order to make way safely. When crossing a channel, do so at a right angle and in such a way as to avoid causing the traffic in the channel to make course or speed changes. Do not anchor in a channel unless you cannot make way (broken down, etc.).

When operating on the Great Lakes, Western Rivers and other designated rivers, the down bound vessel (going with the current) has the right of way over a vessel going upstream. This is because a vessel going upstream can maneuver better than a vessel going downstream.

If you approach a bend in a river around which you cannot see, sound one prolonged blast to alert vessels approaching from the other side of the bend that you are there. If another vessel is around the bend, it should answer with one prolonged blast. Conversely, if you hear a prolonged blast as you approach the bend, answer with a prolonged blast.

When operating a power boat, take action to avoid anyone being pulled behind the boat. Stay far away from the craft and give them the courtesy of allowing their enjoyment to continue.

Pay close attention to "no wake" signs and areas that have been made off limits to boats. There's a reason those signs are there. It's not cool to just ignore them because you want to. Be courteous always.

When you stop for fuel, keep in mind that other boats may be waiting to get to the fuel dock. Do not leave your boat to pick up groceries or hang out in the bait shop. Tie up securely, follow proper fueling procedures, pay the bill and move away to another docking area or guest slip if you need to do other business ashore.

Make sure to keep the area around your slip clear. Roll up and stow hoses, place power cords in such a manner as to not trip a passerby who is looking up at your new radar reflector. Keep buckets, mops, tackle, docking lines and other items stowed in their proper place, not strewn around on the dock. When finished with carts or other equipment at the marina intended for common use, be sure to put it back where it belongs so others have access.

When you are getting ready to launch your boat, have the boat completely ready and seaworthy prior to getting in line at the boat ramp. If you wait until just before launch, you'll make fellow boaters have to wait and they're probably just as anxious as you are!

Have someone with you who can get into the boat and start it for you while you are pulling your truck away from the ramp. That way, you don't leave the boat floating which will make other people wait in line too.

You should always tie-off in the waiting area when you are ready to take the boat out of the water. Don't leave your boat in the ramp area and then run off to get your vehicle and don't get your gear together while you are in the ramp area.

One very big rule is to never drive right up to the ramp area when there are other boaters tied up and waiting their turn. Those who know the rules of the water will see this as an incredibly arrogant move and it's sure to cause a disturbance!

Carry your own anchors, fenders, mooring lines, PFDs, etc. Do not expect others to supply these for you.

You are responsible for your wake and the damage that it creates, so respect other boaters and stay clear of them while you are underway.

Do not moor from bank to bank across creek openings or in front of water falls so as to block access to them.

VHF radios are not cellular telephones so make your communications short and if you have nothing to say of any value, just keep it to yourself.

If you are on the lake before sunrise or after sunset, turn on your lights. Not only is it the law, it's a common sense thing.

If you bring it with you when you come, take it home when you leave. Believe it or not, it is still littering even if you sink it, hide it in a stump, under a rock or bury it in the ground.

Following another boat is as about as safe as looking down a cocked cannon, boats don't have break lights so do not follow closer than 300'

Learn boating laws before you come to the lake and respect them when you are boating. They are for your safety as well as others.

If you see anyone having trouble, offer help to them.

By following some of these very simple rules, you'll be insured a day of fun and safety on your boat! Speaking of safety, this is probably the most important part of boat ownership. You will want to stay safe for your well-being as well as that of those around you.

BOAT SAFETY

No matter how experienced you are at boating, it's always a good idea to know and review often the basics of boating safety. Many marinas and boat dealers will offer short courses on boating safety,

and these classes can be great – especially for novice boaters. Here, however, we'll give you a “mini-course” on basic boating safety.

Always check local weather conditions for boating safety before departure- TV and radio forecasts can be a good source of information. If you notice darkening clouds, volatile and rough changing winds, or sudden drops in temperature, play it safe by getting off the water.

Proper boating safety means being prepared for any possibility on the water. From compliance with fire safety regulations to tips for fueling up, following a pre-departure checklist is the best way to make sure no boating safety rules or precautions have been forgotten.

One of the most important parts of boating safety is to use your common sense. This means operating at a safe speed at all times, especially in crowded areas. Be alert at all times, and steer clear of large vessels and watercraft that can be restricted in their ability to stop or turn. Also be respectful of buoys and other navigational aids, all of which have been placed there for one reason only- to ensure your own boating safety.

Make sure more than only one person on board is familiar with all aspects of your boat's handling, operations, and other boating safety tips. If the primary navigator is injured or incapacitated in any way, it's important to make sure someone else can follow the proper boating safety rules to get everyone else back to shore.

Whether you choose to inform a family member or staff at your local marina, always be sure let someone else know your float plan in terms of where you're going and how long you're going to be gone.

A float plan can include the following information: name, address, and phone number of trip leader; name and number of all passengers; boat type and registration information; trip itinerary; types of communication and signal equipment onboard.

Did you know that the majority of drowning victims as the result of boating accidents were found not to be wearing a Lifejacket? Make sure that your family and friends aren't part of this statistic by assigning and fitting each member of your onboard team with a Lifejacket-prior to departure.

Practice boating safety at all times by saving the alcohol for later. The probability of being involved in a boating accident doubles

when alcohol is involved, and studies have also shown that the affect of alcohol is exacerbated by external effects such as sun and wind.

Alcohol use is more often than not associated with boating. It sounds good to have a cold beer on a hot day on the lake. But, there are specific laws that allow marina police to hand out Boating While Intoxicated (BWI) tickets. A charge like this is treated much like a DWI in a car. No one's saying you can't have a cold beer, you should just be very cognizant of your condition and leave it at that one beer so everyone's safe.

If you're going to be in and around the water, proper boating safety means knowing how to swim. Local organizations such as the American Red Cross and others offer training for all ages and abilities- check to see what classes are offered in your area!

It is essential that you pay close attention to your fuel management. What would happen if you were out on the water and you ran out of gas? Not only would that make you a danger to other boaters, but it sure would be a bit stressful, now wouldn't it?

Do you know how many gallons your fuel tank holds? Is the fuel gauge accurate? How many gallons per hour (gph) does your engine burn? At what RPM is this rate calculated? What RPM were you traveling at? Did you calculate how many hours and/or miles you intend to travel? Did you then calculate your fuel requirements? Did you use the rule of thirds (one third of your fuel to get to your destination, one third to get you back home, and one third in reserve for emergencies)?

Unfortunately, running out of gas is one of the leading categories requiring a commercial towing service (and sometimes ultimately, Coast Guard or Coast Guard Auxiliary assets to be dispatched)

Now, many of you are thinking, what if I know there is a gas dock which would take ½ my tank of gas to get to, why not just plan for this?

That's all well and good, but what if the gas dock is closed? Now you don't have enough gas to return to your originating point or possibly to the next gas dock, should you encounter any adverse condition outside your assumptions you made in your initial calculations.

Another serious question that boaters need to address is the possibility of carbon monoxide poisoning. Every year, there are many boaters who are injured and even killed because of carbon monoxide poisoning. The main cause of these problems lies in faulty exhaust pipes emitting the gas into closed areas of a boat. But there's another cause that's a bit frightening.

Many boats have swimming docks or platforms off the back end of the boat. These are used for getting in and out of the boat. The problem is that often, people – children especially – will congregate around these areas when swimming because there's a place to hang on to. This is a HUGE mistake!

Carbon monoxide from exhaust pipes of inboard engines, outboard engines and generators build up inside and outside the boat in areas near exhaust vents. **STAY AWAY** from these exhaust vent areas and **DO NOT** swim in these areas when the motor or generator is operating.

On calm days, wait at least 15 minutes after the motor or generator has been shut off before entering these areas. **NEVER** enter an enclosed area under a swim platform where exhaust is vented, not even for a second. It only takes one or two breaths of the air in this "death chamber" for it to be fatal.

Exhaust from another vessel that is docked, beached, or anchored alongside your boat can emit poisonous carbon monoxide gas into the cabin and cockpit of your boat. Even with properly vented exhaust, your boat should be a minimum of 20 feet from the nearest boat that is running a generator or engine.

Slow speeds or idling in the water can cause carbon monoxide gas to accumulate in the cabin, cockpit, bridge, and aft deck, even in an open area. A tailwind (force of wind entering from aft section of the motorboat) can also increase accumulation.

Skiers and tubers should never travel behind the boat of distances less than 20 feet. Following so closely behind the boat can cause the carbon monoxide fumes to build up and travel through the air and water greatly increasing the possibility of poisoning from this odorless, colorless gas.

The good news is that regular maintenance and taking care of your boat properly can greatly reduce the risk of carbon monoxide poisoning. Proper operation of the boat will also reduce this risk.

You should always make sure that your hoses are clamped tight and free of kinks or crimps. If any hose shows signs of wear like cracking or tearing, replace it immediately! Make sure that water flows from the exhaust outlet when the engine and generator are started.

Pay special attention to the way your motor is running. Any odd noise could indicate a possible problem in the exhaust system. Keep a carbon monoxide detector on board if you have enclosed areas like below-deck cabins. Make sure that it is always working properly and that it always has fresh batteries.

When it comes to boating safety, it's extremely important to be diligent about your knowledge and always stay up-to-date. You can never be too careful on the water. You can find many boating safety courses both in your local area as well as online. You can take a pretty comprehensive course at www.boatingbasicsonline.com. Their test is free and can easily be completed in a day.

You will want to share your love of boating with family and friends as well as your children. First, we'll address your guests.

BOATING ETIQUETTE FOR GUESTS

What you want on a boating trip more than anything is a relaxing, fun trip that you can share with those around you. It's sort of like hosting an all-day dinner party on the water. And, as we all know, there are some unwritten rules of etiquette that should be followed during this fun time.

Whenever you invite guests aboard for the day, a weekend or an extended cruise, you should explain to them in advance what is expected of them, especially if they are not experienced boaters. If they are expected to perform duties onboard make sure they know this (and how to do it) before you give the order to swab the deck or handle lines. If you have special "rules" regarding behavior on your boat (smoking, drinking, etc.), let them know before they arrive.

Instruct your guests to bring a minimum of clothing appropriate for the climate in which you will be operating as well as your final destination. Make sure each guest has a good pair of non-skid deck shoes. If your plans are to go ashore for activities other than lying on the beach, make sure they bring something more appropriate than a swimsuit and thongs. Explain the problem of limited space on your boat and ask them to pack their gear in a duffel bag or other soft-sided and collapsible luggage.

If you are planning to visit foreign ports, be sure to let your guests know in advance what documents and ID they need to bring and make them aware of any local customs they should know about.

When guests arrive, assign a locker or a specified area where each person can stow their gear and make clear that everything should be kept in its assigned place. It could be dangerous or impair the operation of your boat to have clothing and other gear floating around loose.

Make sure your guests know that your times of departure are based on tide, current, weather conditions and time to make the next destination. You should explain that they should be onboard, have gear stowed and be ready to leave well before the departure time you have set.

For overnight trips, you should also explain that the time to rise and shine is based on the convenience of everyone aboard and the cruising plans for the day. You, as skipper, should be the first to rise and the others should follow shortly after.

Make guests aware of the limited washing and toilet facilities on the boat and instruct them to be time considerate to others. Also instruct them thoroughly on the use of the marine head and the importance of water conservation when cruising between destinations. Make clear, also, when you announce in the evenings that it is time to retire everyone should do so.

Familiarize your guests with safety and emergency procedures before leaving the dock. Explain fueling procedures, docking and undocking plans, etc. Make sure someone onboard is able to take over for you and operate the VHF radio to ask for help should you become disabled.

By being up front, honest and direct with your guests everyone onboard will have a safe and more pleasurable trip.

As a guest, there are a lot of things you can do that can not only bring about some good feelings, but also go a long way toward making things easier for the host or hostess. These are little things that can really mean a lot in the long run!

- Offer to chip in some money for fuel. Gas can get expensive for a boat and the owner of the boat is already responsible for the everyday costs associated with boat ownership. Offer to pay for gas and your friend will appreciate you for it!
- Think about bringing along food. If you're on a day outing, a simple picnic lunch will suffice. For overnight trips, you may take care of all dinners and let the host have lunch. Either way, bringing along food is a great goodwill gesture.
- Help out whenever and wherever you can. But be sure to ask first. Show some interest in what the skipper is doing and have him or her instruct you on proper procedures.
- During docking, be still. It seems like every time a boat gets close to the dock, you see people gathering up their belongings, moving about and getting ready to debark. This can be distracting to the skipper, so just sit tight until the boat is moored.
- Have the skipper of the boat let you know about safety procedures, if you don't know them already, and point out where safety equipment is located. If anything should happen to the pilot, it's a good idea for at least one guest to know how to summon for help.
- Don't carry luggage or heavy items on with you. Boats can list severely when the weight balance is upset. Either put your heavy item on the boat first and then you get on or vice versa.
- Offer to help clean up once your trip is done. It usually takes one person an hour or two to organize the equipment, clean up trash, washing off the boat, and other mundane activities that responsible boaters must do to take care of their boats.

Be thankful that you have a friend who cares enough about you to bring you along on their boating excursions. They can be amazingly fun get-togethers that you will remember for a lifetime. But make sure those memories are good ones. Be a courteous guest, and do your part.

Boating is an excellent way for families to get together and spend time with each other. That means that kids will be along as well.

BOATING WITH CHILDREN

Recreational family boating is a great way to spend time with your children. There are many tasks that can be assigned to youngsters to teach responsibility and being out in nature provides endless lessons for the young boater. Nonetheless, if youngsters are going to be joining you, there are a few features to at least consider when purchasing family boats.

You will probably want to have a boat with a cuddy cabin – space below where children can rest and/or get out of the sun. These can be good places for them to play also when they get bored as children almost always inevitably do.

A child's life jacket is very important and differs from the adult model in a few ways. When buying a life jacket for your child, get a good one with a collar that turns a child face up in the water. It must have strong waist and crotch straps, a handle on the collar, and preferably be a bright yellow or orange color for good visibility. Attach a plastic safety whistle to the lifejacket and teach the child how to use the whistle, and practice using it.

Because the life jacket can mean the difference between rescue and tragedy, you really need to pay special attention to getting one that will fit your child correctly and keep them safe. Here are some considerations you must address when picking out a life vest for your child.

- Check with your state to find out what the mandatory age is for life vests. Some states say that children 6 and under must wear a life vest all the time while others have different age limitations. Even if the child you have on board your boat is older than your state's mandatory age, it's still a good idea to have ALL children

on the boat wear a life vest all the time.

- Believe it or not, the type of water you are on can make a difference in which life vest you choose for a child. Type II vests are made for lakes, bays, and oceans. PWC vests are more for shallow water conditions.
- Infants (up to 30 pounds) should have a life vest with a hinged collar, a strong grab loop, and a sturdy plastic zipper and belt around the waist.
- For children from 5-10 years old weighing 50-90 pounds, you can choose a smaller version of the adult Type II vest depending on their size. Just be sure it fits well and even test it out to be sure the vest will do its job in case of an emergency.

Pack a cooler with lots of fluids like water and juices (such as apple or grape), baby bottles and sippy cups. Being out in the sun for extended periods of time, children and adults get dehydrated quickly. Stay away from sodas, because they contain sodium and can make you more dehydrated. Pack snacks that are not too salty or too sweet.

Even if you don't have infants, take a diaper bag or a backpack with extra changes of clothes, and make sure to bring a hat, sunscreen and sunglasses. Bring plastic bags to keep wet things away from dry things.

Depending on how much time you will spend on the water, your child may need a nap. Bring a small blanket or some towels and a small pillow and prepare a cozy place for them like in a cuddy cabin or a makeshift tent.

Try to plan activities for your child involving the water or the boat. Bring crayons and some paper to draw a picture of the boat and label the parts. A small rod and some bait (optional) can provide hours of entertainment, as can a snorkel and a mask. Toys are good, as long as they are waterproof and easily replaced, as there is always the chance of things getting wet and falling overboard. Books are great, keep them dry with plastic bags or by keeping them below deck.

If you have an infant bring a car seat or bouncy chair and set them where you want them to be on the boat. This also gives them a place to sleep, and gives you a rest from holding them. Set them in

the seat comfortably, but DO NOT strap an infant into it as you would in a car. If the infant should happen to go overboard strapped into a seat, it will cause their life vest to not function properly.

The most important thing for you to have is a positive attitude and approach. Boating can be very enriching and educational for a child. Besides the fact that they are exposed to fresh air and sunshine, only by being out in nature can a child truly appreciate the environment and understand the need to preserve it. The excitement of seeing birds, fish, dolphins or even manatees and manta rays in their natural habitats cannot be replaced by TV or seaquariums.

Part of this positive attitude is a realistic approach towards safety. Establish clear and enforceable rules on the boat. Having too many restrictions on board can quench a child's desire to go boating. Establish a chain of command, especially if the boat belongs to someone else or is captained by another person.

Talk to the child before hand about expected behavior onboard and what activities are allowed, explaining in clear, simple language the real dangers behind activities that are not allowed, while making it fun and challenging. Go through safety procedures on the boat, such as man overboard procedures, and give the child ideas of things to do when an emergency happens.

For example, if they should happen to fall overboard, using their whistle not only alerts others on the boat, it also gives them something to focus on so they do not panic in the water. Teach them the basic parts of a boat. Information and clear procedures are your best weapons in an emergency. Ask them questions about what you have said to ensure that they are listening and comprehending your instructions.

Expect that the first few times a child has to wear a life jacket, a hat that ties down, or other protective gear, will be met with resistance, and maybe even disliked, and almost inevitably complained or cried about (especially if they are infants). However, it is necessary to stand firm and insist that the safety and protective gear is worn and used.

Encourage them constantly with love to show the child that it is for their safety and benefit. This may take a couple of times, but once a child knows that there is no compromise on certain things, they will quickly forget their complaining and get used to wearing these items.

It is better to get a child used to wearing protective gear at a very young age, because as they grow older they will know what to expect, and even remind you to put these items on them.

Mechanical devices and electronics such as winches, control panels, engine throttles, motors, electric reels, windlasses, EPIRBs, flares, and flare guns need to be off limits for children, unless they are old enough to be able to operate them safely.

Areas of the boat where ropes and halyards are should be off limits; since it is easy to trip on them or to get a foot or hand wrapped up or caught in a line and pulled overboard. When approaching any obstacle, dock, or vessel it is necessary to remind everyone to keep all body parts in the boat and off the rails, gunnels or sides of the boat to avoid getting fingers or feet pinched or smashed.

Above everything else, DO NOT hesitate to talk to your child – no matter how young – about what you are doing and how to boat. Children learn by watching, but they also learn by doing. When you take the time to show them about boating, it will stay with them for years to come and you will be bringing up a new generation of boaters.

Responsible boating gives children self confidence and inspires their curiosity, at the same time providing you with an opportunity to share your lifestyle with them. Plan ahead and your time on the water with them will be a precious one!

Another great way to get your child excited about boating is to use children's literature. There are tons of boating books on the market. Read them with your child and discuss how the stories are similar to your own boating adventures. Encourage them to point out aspects of the story they are familiar with. When you are on the water, you can also point out things that you've read about that are happening or similar to your real life adventure.

There are actually statistics and studies that have been done on the advantages of boating with children. These studies show that children who are involved in boating with their families tend to be better team players, are healthier, more outgoing than their peers, have an optimistic outlook on life, and aren't afraid to be leaders. Children involved in boating are also more apt to try other activities and succeed than those children who haven't been exposed to boating.

Boating is good for families, and it's good for children especially. Get that little one out on the water with you and open up a whole new world for them!

While you may take all of the necessary precautions and are as safe as you possibly can be, the reality is that despite your best intentions, accidents can still happen. You should know what to do in the event of an accident.

IN CASE OF EMERGENCY

Most boating accidents happen when the weather is clear and the water is calm. Accidents usually occur because of negligence on someone's part. Not paying attention, being distracted, and excessive alcohol consumption are all contributing factors to accidents, and they can be just as damaging as accidents on the road.

Statistics show that most fatal accidents occur due to a person falling overboard or the boat capsizing and they subsequently drown because they aren't wearing life vests. Even people who are good swimmers can become disoriented and stressed when suddenly plunged into the water. Fatigue sets in and they become helpless.

Non-fatal accidents usually occur due to collisions with other boats or objects in the water. This is where carelessness, inattention, and intoxication can come into play. Here are a few of the more common accidents and what to do in the event they should happen.

Capsizing

The majority of small pleasure boats, and all built after 1978, have floatation to keep them from sinking even if they capsize. If you should capsize it may be safer to stay with the floating boat than try to swim to shore. Small boats can capsize for a variety of reasons:

- **Overloading** slows a boat down and reduces the amount of freeboard (area above the waterline). A low freeboard increases the possibility of swamping the boat or taking on water which will slow the boat even more. Don't overload your boat with passengers or equipment.

- **Improper weight distribution** can make the boat even more unstable. You must locate persons and equipment in order to balance the boat and keep water out.
- **Waves** can be a major factor in capsizing especially if they are unexpected. Anticipate all waves and aim the bow into them.

If your boat should capsize, the first thing to do is take a head count and make sure all passengers are accounted for. Get life vests to everyone, stay calm, and stay with the boat. Also check for injuries as best as you can.

If your life jackets (PFDs) have floated out of range you can use anything available to keep afloat until you can reach the boat. This might include ice chests, empty soda bottles, etc.

You should conserve energy but begin to signal for help using available equipment such as visual distress signals, horn, mirror, etc.

If you can, turn the boat upright and bail it out. Once most of the water is out climb back in. Or, if close to shore, just climb in the boat and paddle.

Man Overboard

Standing or riding on the gunwales or bow of a boat causes most crew overboard situations. If you must move around in a boat which is underway, stay low, hold on to both sides and have at least three points of contact with the boat at all times. Failing to do so can cause a "man overboard" situation.

If you find yourself with a person overboard, use the following procedures:

- Whoever first sees or hears someone go overboard should shout "crew overboard (port or starboard)". This person should become the spotter and continually point to the person in the water until the boat is safely alongside. Try not to lose sight of the crew overboard; it is extremely difficult to locate a person in the water.
- Turn the bow of the boat quickly toward the side the person fell over and stop the boat. Turning toward the person will push the

stern and propeller away.

- Immediately throw a life saving device toward the person so they will have some assistance in keeping afloat. Your type IV throw-able flotation device should always be immediately accessible and within reach of the helm.
- Slowly turn the boat and make a gentle turn keeping the person in view.
- Approach the person slowly into the wind or current.
- When the person is alongside turn off the engine.
- Adjust the weight to keep the boat trimmed and help the person aboard: usually over the stern.

Do not go into the water to assist the person unless absolutely necessary. If the victim is unable to board or needs further assistance and someone must go into the water, make sure they have on a PFD and that they are attached to the boat with a line.

Should you find yourself in the water there are survival techniques you can use while waiting to be picked up. Hopefully, you have been a safe boater and you have on your PFD. If not, you will have to float or tread water until rescued.

One method of floating is the horizontal back float. This comfortable position keeps your face out of the water and allows you to conserve energy. You simply lie back motionless with your arms outstretched, arching your back slightly, allow your legs to rise straight out.

Another method of floating is the vertical back float. This position does not float your entire body on the water's surface. Your body is still underwater except for your face and upper chest with your arms extended out to each side.

If you cannot float in this manner, you can practice survival floating. Very simply put, tilt your head back, slowly press down with your arms and legs to bring your mouth above the water, inhale, hold your breath and go limp for a few seconds. Your face will go underwater while you dangle your arms and legs. Exhale as you are tilting your head back and preparing to break the water's surface so

that a minimum amount of energy and movement is required to keep your head out of the water long enough to inhale.

Treading water requires more energy than floating but keeps your head above water. Treading water is accomplished by doing a slow series of scissor kicks with your legs while slowly waving your outstretched arms back and forth on the water's surface.

Should you find yourself capsized or overboard in a swift river current, turn on your back and position your feet downstream. This will help cushion blows from rocks and debris.

When you find yourself in the water keep your clothes on to help prevent heat loss. Because they also trap air they can assist you in floating.

Assistance from Shore

Every year people drown within a short distance of the shore. When some trauma happens, such as stepping off an underwater shelf the surprise itself can cause a drowning response. The victim, even if they can swim, suddenly can not shout for help and just splashes around in the water. Exhaustion can occur in a minute or less and the person then quits splashing and sinks. Should you find someone needing assistance from shore, remember the following.

Reach out your hand, a pole, belt, line, boat hook or anything that can be held onto. If this doesn't work, throw anything that floats and that the victim can hold onto, a life ring, PFD, beach ball, cooler, etc.

If they are too far away and can't reach the floating object, row out to the victim if a boat is near taking anything that floats with you. As you approach take an oar and reach out to the person so they can hold onto something and pull themselves to the boat. If none of the above things are possible.

Finally, go for help. Do not try to make a rescue by swimming to the victim unless you are a certified life guard. The drowning victim could grab hold of you and pull you down even if you are a good swimmer.

Falling Into Cold Water

Even when the weather is warm, do not forget that in many areas the water can be very, very cold. A sudden unexpected wake or other "unbalancing event" can land you in the frigid water. Your body can cool down 25 times faster immersed in cold water vs. exposed to cold air.

If you should fall into cold water, it helps to know what happens to the body. There are four stages that accompany hypothermia.

A sudden, unexpected entry into cold water may cause a reflexive "gasp" (cold shock) allowing water to enter the lungs. Drowning can be almost instantaneous. When you realize you're about to fall into the water, you should cover your face with your hands. Covering your mouth is an attempt to avoid gulping water into your lungs.

You will then find yourself unable to swim effectively. You lose manual dexterity and are unable to match your breathing with your swimming stroke. Coordination in your arms and legs is lost which will cause you to expend more energy to keep your head above water.

After that, hypothermia sets in. Hypothermia is a condition that exists when the body's temperature drops below ninety-five degrees. This can be caused by exposure to water or air. This loss of body heat results in loss of dexterity, loss of consciousness, and eventually loss of life. This can happen in as little as 15 minutes when you are in cold water.

Hypothermia is progressive - the body passes through several stages before lapsing into an unconscious state. Mild hypothermia is when the person feels cold, has violent shivering, and slurred speech.

With moderate hypothermia, the person has some loss of muscle control, drowsiness, incoherence, stupor, and exhaustion. Severe hypothermia causes the person to collapse and show signs of cardiac or respiratory distress which can lead to death.

Conservation of heat is the foremost objective for a person in the water. To accomplish this, limit body movement. Don't swim unless you can reach a nearby boat or floating object. Swimming lowers your body temperature and even good swimmers can drown in cold water.

If you can pull yourself partially out of the water - do so. The more of your body that is out of the water (on top of an over-turned

boat or anything that floats), the less heat you will lose. Especially keep your head out of the water if at all possible - this will lessen heat loss and increase survival time.

Wearing a PFD in the water is a key to survival. A PFD allows you float with a minimum of energy expended and allows you to assume the heat escape lessening position. This position, commonly referred to as the fetal position, permits you to float effortlessly and protect those areas most susceptible to heat loss including the armpits, sides of the chest, groin, and the back of the knees. If you find yourself in the water with others, you should huddle as a group to help lessen heat loss.

Hypothermia requires medical treatment. If medical treatment is not immediately available, treatment can be accomplished by gradually raising the body temperature back to normal. Re-establishing body temperature can be as simple as sharing a sleeping bag or blanket with another individual, or applying warm moist towels to the individual's neck, sides of chest and groin.

Remove wet clothes as they inhibit heat retention. A warm bath could be used for mild to medium hypothermia, gradually increasing the temperature. Keep arms and legs out of the water and do not attempt to raise the body temperature too quickly.

Do not massage the victim's arms and legs. Massage will cause the circulatory system to take cold blood from the surface into the body's core, resulting in further temperature drop. Do not give alcohol, which causes loss of body heat, or coffee and tea which are stimulants (and cause vasodilation) and may have the same effect as massage.

Once pulled from the water, a person's body reacts in some very specific ways:

- Loss of hydrostatic pressure from the water causes a sudden drop in blood pressure. This can cause heart or brain failure.
- Your heart is cold and cannot pump cold blood effectively to maintain blood pressure.
- Your lungs are damaged from the water you inhaled. This can cause a pneumonia-like illness.
- Fatal bleeding from injuries may occur as your body warms up and your blood flows more freely. You may have internal injuries or injuries to your head and neck that you and your rescuers are

not aware of. Up to 20 percent of all survivors die during rescue or shortly after.

Onboard Fires

An onboard fire is a serious event. If the fire cannot be controlled where does one go except in the water? The fire triangle consists of fuel, oxygen and heat. All three must be present to start a fire and the removal of any single one can extinguish a fire.

Fuels, such as gasoline and propane, can be very dangerous if precautions are not taken. The fumes of these fuels are heavier than air and tend to collect in the cabin, bilge and other lower areas of the boat. Because they naturally are surrounded by oxygen all that is necessary to start a fire is heat. This could come from something as simple as a spark from an ignition component. All you did was turn the key to start the engine and boom. Most boat explosions and fires occur during or right after fueling.

You should read and understand the instructions on your fire extinguisher(s). If a fire starts you should be prepared and not hesitate. Grab the fire extinguisher, activate it, and direct it at the base of the flames using short bursts and sweeping it from side to side.

Remember **P. A. S. S.**

- **P**ull pin
- **A**im at base of flame
- **S**queeze handle
- **S**weep side to side

If underway and a fire starts, stop the boat and position it in such a manner that the fire is downwind. Order everyone to put on lifejackets. If possible try to turn off the fuel source to the fire. Grab the extinguishers and control the fire.

Check the gauge on your fire extinguisher regularly to ensure that it is charged properly. Also, check all of the seals to make sure nothing has been tampered with. Remember, you should have the extinguisher recharged after you have used it.

First Aid

Should one of your passengers fall ill or find themselves injured, you need know about certain first aid procedures. To begin with, you should have a well-stocked first aid kit on board. The following items should be standard in your first-aid kit:

- First aid manual
- Adhesive bandages in various sizes
- 3-inch sterile pads
- Triangular bandages
- 1-inch and 3-inch rolled bandages
- Tweezers and blunt scissors
- Cotton balls and cotton tipped applicators
- Antiseptic
- Sun screen (minimum SPF 15)
- Calamine lotion
- Motion sickness pills or patches
- Aspirin or substitutes
- Eyewash cup

Prior to anything, someone should summon for help by calling 9-1-1 or signaling on the rescue radio that assistance is needed. Stay calm and know that there are things that you can do if an emergency arises.

If a victim is not breathing, they must be attended to immediately. Rescue breathing is used to maintain an airway and cause air to flow in and out of the lungs. Rescue breathing should be continued until the person can breathe on their own or until rescue personnel arrive.

To administer rescue breathing, you should first check inside the mouth to make sure that there are no obstructions. Tilt the person's head back slightly and hold your fingers under your chin and pinch their nose shut.

Cup your mouth around theirs and give the person two full breaths. Their chest will rise if you are getting air into their lungs. Turn your head to the side and listen for any breath sounds.

It may be necessary to administer CPR to an unconscious person who is not breathing. This is meant to be a guide only. Anyone can greatly benefit from a CPR course given through the American Red Cross, so it's a good idea to look into that for any situation.

Before administering CPR, check for a pulse. This can be done on the neck or at the wrist. A person in cardiac arrest will also have abnormal breathing, if any at all. If you're not sure of their pulse, go ahead and administer CPR using the following steps:

- Position your hands in the center of the chest between the nipples. Place one hand on top of the other.
- Push down firmly approximately two inches and pump 15 times strongly.
- Perform 2 breaths of rescue breathing in between pumps and continue with the pumps.
- If you should hear a cracking noise, try not to be alarmed. It is highly possible for a rib to crack when administering CPR, but the damage is slight and must less serious than a stopped heart.
- Continue alternating chest compressions and breathing until help arrives.

Shock

A person goes into shock when an un-nerving situation is present such as a near collision, a collision, or falling into the water. If left untreated, shock can actually cause death due to the collapse of the cardiovascular system carrying oxygen to the body's organs.

Signs of shock include cold, clammy skin; profuse sweating; pale color; bluish lips; rapid pulse; and labored breathing. The person may seem "out of it", but they may also act perfectly normal as well. Look for signs of shock objectively.

To treat a victim of shock, lie them on their back and cover with warm blankets. Elevate their feet 8 – 12 inches higher than the head. Do not give them anything to eat or drink at this point. Just keep them comfortable until help arrives.

Bleeding

Cuts, scrapes, and bruises are inevitable in everyday life. When a cut exhibits excessive bleeding, there are steps that can be taken to control it before it becomes life threatening.

Place direct pressure on the wound with a sterile dressing or clean cloth. If there are no suspected broken bones, elevate the bleeding area above the level of the heart. Apply a pressure bandage to keep the dressing or cloth in place. Wrap snugly – even a bit tightly – over the cloth to keep pressure on the wound. If blood soaks through the bandage, do not remove the original one. Just place additional dressing over the top of what you already put there.

Monitor the victim's vital signs and look for signs of possible shock. Help the injured person rest comfortably and reassure them that things will be fine. Once the bleeding is under control, check for any other injuries. A normal body temperature should also be maintained.

Burns

Burns are classified by depth of injury; the deeper the burn, the more severe it is. Treating burns should be done in such a manner as to relieve pain, prevent infection and prevent or treat for shock.

- First degree burns redden the skin much like sunburn. Immerse the affected area in cool water or cover it with a cloth soaked in cool water. If necessary apply a dry dressing and cover it with a bandage.
- Second degree burns form blisters. Treat in the same manner as first degree burns. Do not break or try to remove any burned tissue. Do not apply any kind of antiseptic sprays or ointments. If possible keep the affected area above the victim's heart. Seek medical treatment as soon as possible.
- Third degree burns char and destroy tissue. Call for medical help immediately. Treat for shock if necessary and continue treatment as in second degree burns.

Broken Bones

A broken bone should be immobilized immediately using whatever means you have at your disposal. A broken bone should be moved as little as possible while help is on the way.

Check the person for signs of shock and treat any other secondary injuries. Stop bleeding if there is any and make the person as comfortable as possible without risking further injury.

Reporting Accidents

Federal law states that if you are involved in a boating accident that includes injury requiring medical treatment, death, disappearance of a person, or property damage of at least \$2000.00, you are required to file an accident report with the responsible local law enforcement agency.

If you are involved in an accident, you are required to stop and give assistance to other persons involved. You must give aid to the extent you can do so without endangering yourself or your passengers.

You are also required to give your name and address and the number of your vessel (if numbered), in writing, to the owner of any property damaged in the accident.

Many states have different reportable amounts - check your state specific information. If in doubt, report the accident.

Boating accidents include; capsizing, crew overboard, collisions, fire, sinking & flooding, explosions and disappearance.

Helping Others

Federal law requires that the owner, operator, or anyone in charge of a vessel involved in a marine casualty render assistance. Failure to provide assistance or identify yourself when involved in an accident is a serious offense and can carry a severe fine or even imprisonment.

Each vessel owner, operator or individual in charge involved in the marine casualty should give his or her name, address and identification of the vessel to the owner, operator or individual in charge of any other vessel involved in the casualty, to any individual, injured, and to the owner of any property damaged.

Violating this requirement can carry a fine and/or imprisonment.

Be prepared to help others in trouble if at all possible but do not take unnecessary risks which could put your life in danger. Don't panic, have life saving equipment ready and approach the accident carefully. Watch for persons in the water and throw floatation devices to any who do not have any. Talk to the people and assess any injuries

they may have. Administer first aid if necessary and get the people to shore as quickly and safely as possible.

Remember not to overload your own boat with too many people. If necessary take victims requiring the most assistance into the boat and throw a line to the others and tow them slowly as you proceed.

Running Aground

While this seems like an accident unlikely to happen, the reality is that it does. Some bodies of water have land masses just below the water line that aren't easily visible, and it's very possible to run aground if you're not paying attention. Running aground can cause damage to your boat and your passengers as well.

Should you run aground in an inboard/outboard vessel you should stop the engine, lift the out drive and shift the weight away from the impact point.

Your first duty should be to assess the situation:

- Check the people onboard to make sure no one is injured.
- Assess what damage that might have occurred.
- Is the boat taking on water? If so find the source of the leak.
- Set an anchor to keep yourself from being pushed further aground. This also may be used later to pull you off.
- Use a lead line or boat hook to check the water depth around you.
- Check your chart for bottom characteristics.
- Check the tide tables and determine the next high tide.

If you were moving slowly when you grounded and hull damage looks to be minimal, you may be able to simply back off by shifting the weight farthest from the point of impact and using an oar or boat hook to push off.

As you start to move be sure to check once again to make sure you are not taking on water from a hole caused by the grounding.

If backing off is not a viable option or if it doesn't work you could consider using the anchor to kedge off. You do this by pulling or winching in on the anchor line attached to the kedge anchor you set as outlined above.

Should your hull be severely damaged stay put and call or signal for help from another vessel or commercial marine towing company. You are not going to sink if you can step off the boat onto terra firma.

Your final option short of waiting for the tide to come in is arranging a tow. You should consider carefully whether to accept a tow from another boater who is inexperienced. Towing can be hazardous and can cause bodily harm and damage to one or both boats unless someone in the party is aware of the precautions that must be taken. If this is the case, call a commercial towing company. Do not call the US Coast Guard unless you are in imminent danger.

CONCLUSION

If you are new to the sport of boating, you are getting ready to embark on a journey that will provide you with much satisfaction and relaxation beyond your wildest dreams. Boating is fun for all ages and can be enjoyed by almost everyone.

There are so many things you can do when you are boating. Whether you choose to scuba dive, snorkel, water ski, or just float along the water, the possibilities are endless.

Invite your friends and family to go boating with you. Find a great lake and enjoy the feel of the wind in your hair and the spray of the water in your face. Take along a picnic lunch and enjoy the company.

You can reduce your stress through boating and take several mini-vacations to help improve your quality of life. Plus, you can explore and visit many new and great destinations.

Now that you have the basics, you're ready to go. Consider taking a boating course from your local marina. At the very least, get online and take some of the online boating courses that are offered.

Once you are fully prepared, you'll be well on your way toward a great new experience!

The world of boating opens up so many worlds that are opportunities to grow and discover new things about nature, yourself, and your family. It's a journey that starts when you say.

Then you'll have the freedom to get up and get away on those beautiful sunny days when a day on the water is like a magic elixir. Heal your body, heal your mind, and reconnect with your life – all through boating!

The following websites were referenced in researching this book:

www.discoverboating.com
www.wikipedia.org
www.boatingmag.com
www.about.com

