

Boating

GUIDE



Boats Getting Smarter

With the rise of smart homes and smart tech in general, advancements in technology on boats should come as no surprise.

Just as consumers expect more from smart home tech, they likewise expect those elements to transfer seamlessly to their boats.

Boating tech begins in higher-priced yachts and fishing boats and works its way down to recreational boats such as deck boats and pontoons, according to the experts at Boating Industry magazine. Like any technology, as components become smaller and cheaper, it becomes more accessible at lower price points.

Of course, many boats manufactured today already have incorporated technology, including interconnectivity between devices that are almost expected by most boating aficionados.

Smart boats also include the convenience of Bluetooth-enabled technology that makes controlling and monitoring your boat from almost anywhere on a phone or tablet.

Other examples include wireless control systems that allow more functionality. Just as you can add devices to your home that are controlled remotely, such as lights, camera and air conditioning and heating systems, smart boat technology allows similar ease and convenience onboard your boat. There's a wide variety of technology available for any boat of any size and just as many price points and ways to connect to create a smart boat. Here are some examples of popular smart boat technology available today.

SMART HOME, SMART BOAT

In modern, tech-integrated smart



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boats, you'll find the same sort of connectivity as you would in a smart home using Amazon's Alexa, Apple Home or Google Nest. On larger boats with cabins or galley kitchens, smart appliances such as coffee makers, refrigerators and thermostats that can be controlled remotely can be easily adapted for use on the water.

SAFETY MONITORS

Boats are a huge investment and owners want to protect their boats as they do their cars and homes, when they're not using them. Smart cameras installed on boats can be controlled and accessed remotely to monitor a boat and its surroundings to provide

extra safety and deter theft. Other smart devices allow you to control electrical systems in case you leave lights, switches, batteries or other power sources on. Advanced tracking and surveillance systems are widely available to owners at affordable price points, as well. State-of-the-art wireless technology allows owners to shield their boats from theft, fire, intrusion and more.

CORE COMPONENT CONTROLS

Just as computer technology monitors your car's engine, braking, battery and electrical systems, smart boat systems do the same. Features that control your boat's engine, as well as temperature and bilge and water alerts, can be

easily monitored through apps allowing for advanced warning about potential trouble spots.

NAVIGATION AND POSITIONING

Navigating the waters to find favorite routes and fishing spots has never been easier, thanks to wireless control systems. Navigation paths can be recorded for easy retracing and GPS tracking can provide virtual maps and positioning. Other advanced features include dock-sensing technology, which uses object-recognition technology and cameras to guide boats safely into ports. Some even drive and steer automatically, bringing autonomous driving systems from land to water.

Stay Safe on the Water

More than 11 million recreational boats and vessels are registered in the U.S. That makes two things clear: Americans take boating seriously and enjoy their time on the water; second, all those watercraft can create hazards.

According to the U.S. Coast Guard, there were 4,291 boating incidents recorded in 2017 (the most recent figures available) resulting in 658 deaths, 2,629 injuries and \$46 million in damage. These statistics make boating safety a clear priority for anyone enjoying a ride on any craft, from motorboats to pontoons, kayaks to wakeboarding.

Here are some tips from the Coast Guard and the National Safety Council to help your next trip aboard go smoothly and safely.

LIFE JACKETS

Life jackets are essential to boating safety. The U.S. Coast Guard reports 76% of boating deaths in 2017 were due to drowning, and 84% of the victims were not wearing a life jacket. Regulations vary, but it's a good idea to wear a life jacket any time you're on a boat — even if you're a good swimmer. When people fall



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off a boat, they can easily become disoriented or worse, knocked unconscious. Life jackets keep your head above water so you can breathe and help you float and be more easily rescued.

Here's some tips for choosing and wearing a life jacket:

- Choose the right life jacket for the activities you will be doing. Double check to make sure the life jackets and look for the tag to ensure they are Coast Guard approved.
- Make sure the jacket is a proper fit for your size and weight.
- Make sure the jacket is properly fastened.

REDUCE RISKS

Here are some measures to take to insure your boat and crew are safe:

Sign up for a free vessel safety check. Both the U.S. Coast Guard Auxiliary and the United States Power Squadrons have certified vessel examiners who will perform a free Vessel Safety Check at your boat, at a time of mutual convenience. There is no charge, and no consequences if you don't pass. The goal is to help make boating as safe as possible for you, your family and your friends, through education.

Don't drink and operate a

boat. Every boater needs to understand the risks of boating under the influence of alcohol or drugs. It is illegal to operate a boat while under the influence of alcohol or drugs in every state. The Coast Guard also enforces a federal law that prohibits BUI.

Take a safety course. Boating safety courses are offered throughout the country for all types of recreational boaters and for boaters of all ages. Qualified volunteer organizations, such as the U.S. Coast Guard Auxiliary, U.S. Power Squadron and others sponsor many courses,

and many state boating agencies also provide classes.

File a float plan. Filing a float plan isn't just for commercial ships and large vessels. According to the Coast Guard, a float plan is equally effective for the owner of a 10-foot kayak or flat-bottom skiff as it is for a 48-foot express cruiser, or a 90-foot sport-fishing vessel or luxury yacht. A float plan makes it easier for rescue crews to locate you in the event of an emergency and includes detailed information about your boat, the people on board and your planned excursion.

Living on a Boat

Many people dream of life aboard a boat — not just sailing or motorboating, but actually residing on a boat. It's a romantic image, but the truth is that it takes a great deal of adjustment, preparation and organization to commit to living on a boat.

Here are some things to consider before dropping anchor.

IS LIFE ON A BOAT FOR YOU?

Like any alternative lifestyle, living on a boat is an attractive choice for many but it also comes with challenges you often don't have to deal with on land. Chief among these is space, or lack thereof, to be specific. Living in cramped quarters means you'll be shopping more frequently since you'll have little space for groceries. Other practical matters include sanitation, garbage and maintenance. All these issues can quickly dim the romance of living on a boat.

COMFORT

Downsizing from a house or apartment to small living quarters aboard a boat is a huge change. Everything shrinks, from the size of your closets and cupboards to your bed and bathroom space. There will also be less space for decorative items such as framed photos and art. Cleaning takes on a new meaning. On a boat, mold and mildew become major problems, and you'll need to purchase special cleaning agents and tools.



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CONNECTIVITY

Although many marinas and docks where living aboard a boat full-time is allowed are well-connected to the internet and have good cell service, you need to plan in case that access is not always available.

MAINTENANCE

If you don't already have basic plumbing, electrical and mechanical skills, it would be wise to educate yourself. Maintenance, both routine and emergency, is performed more frequently on boats since their systems are not as reliable as those in homes or apartments.

COSTS

Remember that living on a boat is an alternative lifestyle, not a money-sav-

ing move. In fact, living on the water may be even more expensive. If you don't rent the boat, purchasing one capable of living on means a mortgage payment. In addition to the various safety precautions, you will also be responsible for slip fees and insurance, both of which are often more expensive for liveaboards, as well as waste management, gas, power and internet access, and a parking space for your car.

SOCIAL

Living on a boat is not necessarily for introverts or those who prefer to live anonymously. Boat communities are small and tight-knit, where everyone chips in to help when things go wrong and socializing at the marina can be a nightly function.

Fortunately, the same obstacles to living aboard a boat are the same ones that often attract people to the lifestyle: downsizing, learning new skills and forging bonds with a community. If all these outweigh the downsides, you may have found the perfect lifestyle.

TOP 10

Here are the 10 Best Places to Live on a Boat, according to Boating Magazine.

- Destin, Florida
- Long Island, New York
- Newport, Oregon
- Lake of the Ozarks, Missouri
- Chattanooga, Tennessee
- Phoenix, Arizona
- Seattle, Washington
- Columbia, South Carolina
- Green Bay, Wisconsin
- Traverse City, Michigan

Hot Water Sports for Cool Fun

One of the joys of boating is the ability to engage in water sports. Swimming, diving, skiing and boarding all remain popular, but there's also other thrills such as paragliding. Kayaks, canoes and rafts are built with physicality and sport in mind.

But there are always trends and 2020 is no exception. According to analysts at Technavio, a global marketing research company, three top trends are emerging for water sports: artificial water sports experiences, technology advancements and novel sporting categories. Here's a closer look at all three of these areas.

ARTIFICIAL WATER BODIES

According to the Technavio report, artificial water bodies have increasingly gained in popularity among water sports fans, especially rafters and kayakers. The U.S. National Whitewater Center in Charlotte, North Carolina, maintains the world's largest artificial river, a huge draw for those experience in water sports crafts.

Many surf parks have also integrated artificial wave



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technology, providing a convenient option to experience water sports nearby or without waiting for the seasons to change.

TECHNOLOGICAL ADVANCEMENTS

Water sports equipment manufacturers are producing an increasing amount of advanced products to meet the demand for innovative sports, focusing on design,

shape, color and lightweight equipment for different consumers.

One example is electric surfboards, which eliminates the need for waves or having to paddle back out to catch the next wave. Made from lightweight, durable carbon fiber, motorized surfboards allow beginning surfers to advance quickly to a more skilled level without having to chase waves.

NOVEL WATER SPORTS

Inventions and advancements have created several novel categories of water sports, from jet-powered hoverboards to inflatable catapults and other levitation devices. Here's some popular new water sports using technology to power fun new adventures in, under and over water.

In the water hoverboarding category is a sport known as

“hydro flying.” This sport employs a high-octane water-propulsion system that propels a water-borne hoverboard that allows thrillseekers to fly up to 49 feet in the air or dive 8 feet underwater.

A similar invention known as the Jetlev Flyer uses a jet-pack strapped to a user's back from which jets of water are blasted out, creating upright levitation at heights of up to 30 feet.

Another device, the aquatic hoverboard allows users to ride the board like a skateboard while doing spins and grabs over the water.

Water go-karts such as the Swiss-designed “Wokart” are basically mini hovercrafts that use outboard engines to allow its rider to skip and dart across any body of water. Like a jet ski, it moves at high speeds, makes rapid 90-degree turns and is almost impossible to flip, its makers claim.

Water bikes merge electric bicycles with a powered watercraft. Championed by a New Zealand startup, Manta5, their model is cast from an aluminum frame and uses carbon fiber hydrofoils that lift the bike out of the water as you gain speed. A gearbox and hybrid chain and shaft drive keeps the water bike quiet and streamlined.

To take the experience underwater, try underwater jet skis. A popular model allows to you to speed along with marine life and take in the sights of undersea life for longer periods than snorkeling allows.

Preparing for Spring

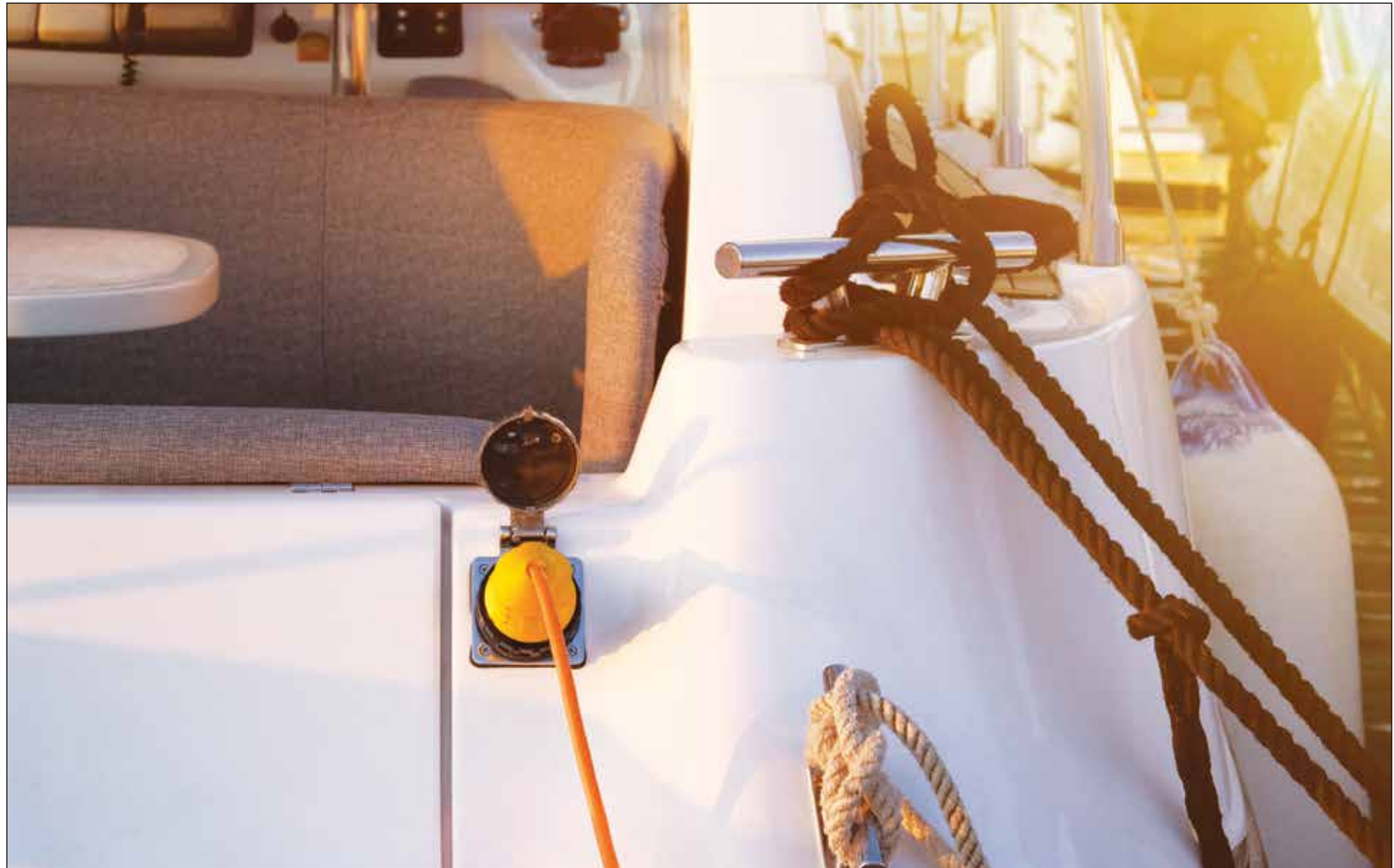
Warmer weather arriving is a siren song to all avid boaters of any type of watercraft.

But if your boat has been docked, undercover or garaged for months it's time to prep for the season ahead by taking action to ensure your boat is operating properly for maximum enjoyment. Here's a handy checklist from the experts at Angie's List and other boating professionals to help you hit the water safely and in top running order.

Wash away the winter: De-winterizing your boat begins with a good scrub to get rid of the grunge by washing, waxing and detailing your boat. Boating is always more fun in a clean, sparkling craft.

Check the hull. Carefully inspect the hull for blisters, chips and cracks, as well as for chalky residue. Oxidation is the hull's enemy, so if you note chalky residue determine the level of oxidation and restore the gel coat to its original luster to keep oxidation. To keep oxidation at bay, follow a gel coat maintenance plan.

Use the right cleaners. Be sure to use marine-safe cleaners on your boat, not general store-bought cleaning solutions. Marine-safe cleaners are designed to be used on a boat's vinyl or canvassing. Other harsh chemicals can damage these materials. Clean



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the bimini top, seats, covers and other vinyl and canvas items, and check for tears, mildew and dirt.

Clean the wipers. Inspect and replace windshield wipers if necessary. Begin the season by protecting them with a rubber lubricant to ward off the harsh marine environment.

Clear the bilge. If you haven't totally protected your boat over the winter, you'll want to clear out and rain or snow that has seeped into the bilge. Pump that dirty water

out before you head for the lake or ocean.

Charge the battery. Ensure your battery has a strong charge. If it's weak or has low capacity, purchase a new one so you won't get caught without power on the water.

Perform a safety check. Test navigation lights, the horn and all safety equipment to ensure it's in proper working order. Likewise, check your life jackets and first aid kit. Remember that the U.S. Coast Guard and U.S. Power Squadrons perform free vessel

checks all over the country.

Get the boat serviced. Most owners change the oil in their boats and get outdrive service once a year. If you didn't change the oil at the end of last season, now's the time to remedy that to clear out build-up from water, acids and other byproducts and prevent corrosion and wear. If you are an avid boater, it is recommended you change the oil every after 50 hours of use. Larger boats and yachts may require special service.

Check your registration.

Registration laws vary from state to state. Make sure yours is up to date and your boat is displaying current stickers.

Examine your trailer. If you don't dock your boat at a marina, be sure to check your trailer to make sure the lights are working properly and the tires are inflated correctly before you hit the road.

Put back the plug. Many owners remove the drain plug from their boats for the winter. Some forget to put it back. To avoid that sinking feeling, check and plug.

Buying your First Sailboat

The dream of owning a sailboat has appealed to many an adventurer, sportsman and just those who enjoy the quiet and beauty of wind-powered sailing excursions.

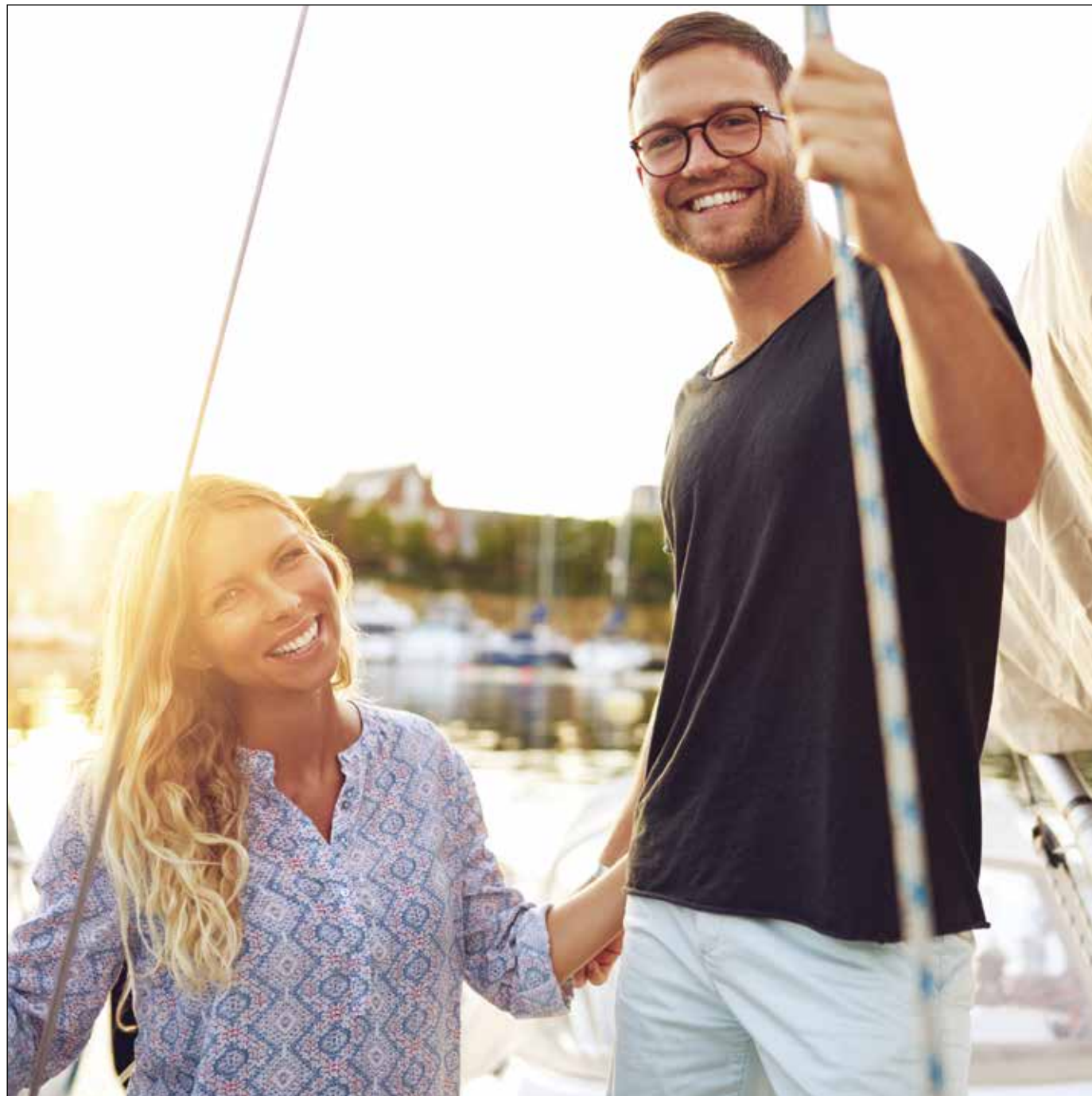
If you've completed the prerequisite sailing courses and tested yourself aboard other craft and you want to own your own sailboat, here's some things to consider before buying suggested by the American Sailing Association.

THINK ABOUT THE FUTURE

Many boat owners have made the mistake of buying a craft they either soon outgrow or buy too much boat to take care of as they get older or lose interest. It's a good idea to assess your life and attempt to predict the future with regard to growing families, how much free time you have or will have and gauge your interest level in all things sailing. You can't look too far into the future, but by taking a clear-eyed look these things you can better ensure you'll buy the boat that suits your life and one that you can enjoy for years to come.

BE HONEST ABOUT MAINTENANCE

Sailboats can inspire many



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would-be owners to dream of themselves free and easy, clipping along the ocean, relaxing on the deck or enjoying the cabin as they explore the seas. What they don't imagine is all the upkeep sailboats require, from varnishing to cleaning holding tanks and sticky bilge pumps. If all that doesn't appeal to you, chances are

you might begin with a smaller fiberglass, turnkey boat to start.

SAILING ALONE OR WITH OTHERS?

Some sailors enjoy the solitude of being alone on their craft; others may want to enjoy the water with a partner or family. Make sure you buy

the boat that is most aligned to your needs. While it's great to share the adventure of the open seas with others, if the boat's too small they may often pass on your offers to come along.

PREPARE FOR THE COSTS

An old joke often rings true

to some extent: BOAT stands for break out another thousand. Of course, it's very possible to enjoy sailing affordably, but boats tend to be more expensive than many think. It pays to do some research and gauge how much maintenance work you're prepared to do yourself. Also, think about insurance, slip fees, trailers and marina docking fees. Taking stock of your needs and realistic goals will allow you to buy a boat that's just the right size. A great salesman will walk you through general maintenance costs and a trip to a marina service shop can yield valuable information about what you can maintain or fix yourself and what would require professional help and what that might cost. Buying a boat that's not too big will save you time and money. For those on a budget, consider a small, bare-bones boat that you can "test the waters" on and improve your skills for future purchases.

WHERE YOU'LL SAIL

Knowing the extent of your sailing adventures will go a long way in determining how much boat you'll need. Sailing the weekends on a lake requires much less boat than confronting the high seas. Don't be intoxicated by magazines or boat stores full of large boats if you're not going to use them. Understanding how you'll sail — whether that's cruising the coast or circumnavigating the globe — will inform your purchase.

Caught in a Storm

Because of Mother Nature's unpredictability, odds are sooner or later you'll be caught in a storm on the water.

If you're caught in a powerful storm, one that includes lightning, some powerboaters believe they can outrun the weather or get by on the low odds of a lightning strike (roughly 1 in 1,000). But depending upon the circumstances, such as if yours is the only boat in the water, those odds go way up, according to *Boating Magazine*.

Storms, especially quick-moving, powerful storms, are scary and sometimes catch even experienced boaters off-guard. If this situation occurs, it's important to be prepared and react quickly to protect yourself, your family or guests and your boat. The magazine offers these tips to help you "weather" a lightning storm.

We all know lightning seeks the highest point, which on the water is the top of the boat, usually the mast, a Bimini top, a fishing rod in a holder — even the tallest person on the boat. If possible, find a protected area and drop anchor. Don life jackets and, if the boat has a cabin, go inside a stay clear of metal objects.

Boating also advises lowering antennas, towers and fishing rods, anything that could



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be a possible strike point. Disconnecting connections to antennas and other electronics is also a good idea since those can quickly be damaged even in a near strike.

Stay clear of using VHF radios, which can be dangerous during an electrical

storm, unless it's an emergency. Wear rubber gloves and steer with a wooden spoon if you have a metal wheel and keep your other hand in a pocket. Smart boaters think ahead and have charged handheld VHF radios and GPS units stored in makeshift

lightning-proof cages, such as a microwave oven or a tin box.

If your boat is struck by lightning stay calm and check for injured or unconscious people on the boat. If they are still moving and breathing, chances are they'll be OK. For others, begin CPR immediate-

ly and attempt to hail the Coast Guard.

In rare instances, lightning can rupture the hull of a boat or blow a hole in it. If this happens, check the bilges for water, plug any holes, get pumps working and work the bail bucket to stay afloat. If you are taking on water fast, use the radio to call for help or break out flares.

If none of these things occur, remain calm and wait for the storm to pass. More than likely the worst will be over in 20 to 30 minutes.

Once the storm has passed, check electronics, navigation and communication equipment for damage. If no obvious damage has occurred on the boat itself, it's a good idea to have the boat inspected upon returning to shore. Even if you escaped a direct hit, there's always the chance of unknown electrical damage or minor damage to hulls.

Having top-tier lightning coverage will help you breathe easier in these instances, so report any issues or concerns early on to protect your investment.

Avoiding lightning storms is sometimes impossible. But knowing how to read weather patterns in advance of your trip is essential, as is checking with the Coast Guard for any official warnings. But if the worst happens and you are hit, having a great insurance plan can help you recover. If you don't already have a plan, visit your local boating insurance agent soon to learn about coverage and costs.