

***Sailing***  
FOR  
**DUMMIES®**  
2ND EDITION

**by JJ and Peter Isler**



WILEY

Wiley Publishing, Inc.



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## **Sailing For Dummies® 2nd Edition**

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# About the Authors

**JJ and Peter Isler** have been sailing for most of their lives. JJ grew up around boats in San Diego, California, learning to sail in a little 7-foot dinghy called a Sabot. Peter started out loving powerboats and fishing (boys can be so strange!), but took up sailing after his family moved to Connecticut when he was 13 years old.

The Islers are well known throughout the world of sailing as top competitors and teachers. They both have taught sailing to people of all ages and experiences. Peter played an important, early role in developing US Sailing's educational program. He also coached at the Olympic level and helped found the American Sailing Association, which accredits sailing schools and certifies sailors and instructors.

Peter has twice won the America's Cup, serving as navigator aboard *Stars & Stripes* with Dennis Conner in 1987 and 1988. An accomplished small-boat sailor, Peter was Intercollegiate Sailor of the Year while at Yale University. He was the top-ranked U.S. sailor on the professional match-racing circuit for five years and has won many of the world's major ocean races, including the Bermuda Race and the Transpac (where he navigated *Morning Glory* to an elapsed time record in 2005).

Peter has also been very active in the media. In the 1990s, he shifted his America's Cup energies to television, where he was a featured analyst in ESPN's Emmy Award-winning Cup coverage in 1992 and 1995. More recently, he covered sailing for the Outdoor Life Network (OLN), including its coverage of the 2003 America's Cup. He is the author of several books on the sport and is presently Editor at Large of *Sailing World* magazine. In his spare time, Peter enjoys playing guitar and keyboard with his band, The Water Brothers.

JJ is the only American female (so far) to have won two Olympic medals in sailing, and she is the first female inductee in the *Sailing World* Hall of Fame. With crew member Pamela Healy, JJ won the Bronze Medal in the Women's 470 class in the 1992 Olympics in Barcelona, Spain. In the 2000 Olympics in Sydney, Australia, she and crew member Pease Glaser won the Silver. JJ is a four-time Rolex Yachtswoman of the Year (in 1986, 1991, 1997, and 2000) and has won three World Championships and numerous national titles. She was the first female to compete in a number of events on the international match-racing circuit. And in 1995 she was the tactician and starting helmsman for the *America's* Women's America's Cup team. She graduated from Yale University where she was captain of the sailing team and a collegiate All-American.

The Islers reside in San Diego with their two daughters, Marly and Megan, their two cats, two chickens, five fish, eight boats, numerous sailboards, and a lot of miscellaneous sailboat parts that Peter plans on using someday.

# Dedication

To our daughters, Marly and Megan.

# Authors' Acknowledgments

We first want to thank our two daughters who were so patient (and helpful) through this revision — and thanks to the wonderful Francis Parker School that is teaching them to enjoying learning about so many things. Our friend (and famous author of several *For Dummies* titles and lead guitarist in Peter's band) Peter Economy encouraged us to do this second edition revision and provided plenty of advice along the way. Josh Adams and John Burnham helped us find our great illustrator, Michael Boardman. Mike Dorgan provided his experience and insight in the process of buying a boat (see Chapter 20). And Urban Miyares shared his expertise on sailing with disabilities. Harry Munns stepped up to provide his services as technical editor. Harry has the qualifications to write any book about sailing, so we're really lucky to have his help here. And our friends at IMG Literary have remained consistently professional and ever helpful since day one, when we wrote the proposal for the first edition.

We are very proud of the first edition of *Sailing For Dummies* and the success it achieved, but we want to thank Tracy Boggier, Joyce Pepple, our project editor Chad Sievers, and the rest of the Wiley's *For Dummies* team that worked so hard on helping us produce this new-and-improved second edition.

One of the things we're most pleased of in this second edition is the new artwork and photographs. And we definitely needed a little help from our friends to get the photos that we wanted. So in no particular order, our heartfelt thanks go to Mike Boardman of Boardman Designs (for the updated illustrations); Andy Burdick and the team at Melges Performance Boats; Tim Wilkes, Keith and Nigel Musto, and their team at Musto Performance Clothing; Glenn Bourke and his team running the Volvo Ocean Race; Tom Carruthers and Whit Batchelor of J World San Diego; Lew Newlands and Offshore Challenges; Craig Leweck of *Scuttlebutt* (for loaning his camera to Peter when the perfect shot appeared one day while they were out sailing); Christine DeSimone and Sunsail; Nick White and his Expedition Software; and last but not least, up-and-coming sailing star, Emily Bohl. And finally, this book (and especially the first edition) never would have happened (at least not anywhere close to deadline) without the carpool and childcare support from JJ's parents and our next-door neighbors, Jane and Tom Fetter.

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Finally, we would like to thank you for your interest in "our" sport. May the wind always be at your back, and if it must come from ahead, may your sails be well shaped and trimmed in tight!

Peter and JJ Isler

La Jolla, California

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# Introduction

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*There is nothing — absolutely nothing — half so much worth doing as simply messing about in boats.*

—Water Rat to Mole, Kenneth Grahame, *The Wind in the Willows*

**W**hat gives sailing such enchanting prospects? Water Rat certainly had a piece of the puzzle. Messing about in a boat — any kind of boat — is great fun. You escape the cares and stresses of everyday life, conveyed on a craft powered solely by the forces of nature. The spell that the wind casts onto the sails of a boat is bewitching to behold.

Maybe the best part of sailing is the part that your imagination can latch onto, conveying your mind to places you've never been, promising experiences yet untold. And no matter how experienced you become or how much water passes beneath your keel, sailing still has more to offer. The sport is so vast that no one can experience all of sailing's facets in a single lifetime.

But enough generalizing. After all, you wouldn't have picked up this book if you weren't already at least intrigued by the allure of sailing.

## *About This Book*

In this book, you can find all the information you need to go sailing. This book is a textbook, user's manual, and reference book all in one. We start with basic sailing skills and move on to cover more advanced topics for when you widen your horizons to activities such as chartering a boat and going cruising. You get to practice tying knots, and we talk about what to wear on a boat. (You can skip the blue blazer and captain's hat, but soft-soled shoes are a must.) You find out how to sail such diverse crafts as a sailboard and a catamaran, how to forecast the weather, and how to find a boat that's right for you. You even discover the basics of sailboat racing. We cover all you need to know to be safe on the water, and we make the whole process easy and fun!

## Conventions Used in This Book

Have you ever listened in on the conversation of two sailors? Sailing has so many specific words that sailors can sound like they're speaking a foreign language. But don't let the jargon turn you off. The language of sailing has an old and rich tradition, and as you become more comfortable in a sailboat, you gradually pick up more and more of the language and become a part of the sailing tradition yourself.

In this book, we try to avoid sailing jargon as much as possible, but we can't get around it completely because some of the terms are very important for safety. When the skipper plans a maneuver that requires a coordinated crew effort, using and understanding the exact sailing term allows everyone on the boat to know what's happening and what to do.

We use the following conventions to help you understand everything that we're discussing and to stay consistent:

- ✓ We *italicize* boat names and new terms and follow them with an easy-to-understand definition. We also list most of the italicized terms in the glossary so you can brush up on sailing terminology.
- ✓ We **bold** important keywords in bulleted lists as well as the action parts of numbered lists.
- ✓ We use `monofont` for all Web addresses.

Finally, in this book we simply refer to *boats* or *sailboats*. We sometimes further differentiate between bigger sailboats with keels (*keelboats*) and smaller sailboats with centerboards (*dinghies*) as needed for the subject we're covering. (In the United States, a yacht is the snobby cousin of the boat, but in New Zealand and much of the current and former British Empire, the word *yacht* has no snob connotations. You can use *yacht* safely, without giving away anything about yourself, in place of *boat* or *sailboat*.)

## What You're Not to Read

We love telling sea stories — and we include our favorites in this book. But if you're looking for just the purely instructional information, you can skip the places where you see the Peter Says or JJ Says icons (see “Icons Used in This Book,” later in this Introduction, for other icons used).

*Sidebars* are the shaded boxes that appear occasionally. We use the sidebars to go off on a *tack* (a basic sailing maneuver where you turn your boat and sail in a different direction) and go into more depth on a topic or give you a

bit of interesting information that isn't strictly essential. So you can skip sidebars, although we hope you come back to them someday.

## *Foolish Assumptions*

The most foolish assumption we made when we wrote the first edition of this book was that only our parents and a few close friends would ever read it. We've been overwhelmed by the positive responses to the first edition, and we hope you enjoy all the new information we've crammed into this book. We assume one or more of the following about you, our reader:

- ✔ You've been given this book as a gift by a friend who wants to take you sailing.
- ✔ You get dragged out on the water by your sailing-loving family, and you don't really know what to do.
- ✔ You've always been intrigued by the sea.
- ✔ You may have had a bad experience on the water, but now you want to give sailing another try.
- ✔ Your child has been bitten by the sailboat-racing bug, and you want to figure out what you're watching.
- ✔ You love the water and enjoy powerboats, but now with the world's oil reserves dwindling, a sailboat seems better for the environment (and cheaper).
- ✔ You're staying at a friend's beach cottage, and you picked up this book because you just finished your trashy romance novel.
- ✔ You discovered the basics of sailing at summer camp and you haven't sailed since then, but now you want to charter a boat in the Caribbean.
- ✔ You already enjoy sailing and want a good, complete reference book and ideas to explore some new directions in the sport.

We wrote this book to lure you into the sport that we love — no matter how you came to turn that first page.

## *How This Book Is Organized*

Unlike a novel, this book isn't designed for you to read it from cover to cover. Depending on your familiarity with sailing, you may want to begin by reading Chapter 1 or Chapter 5 or Chapter 15 — the choice is up to you. If we write about something important that we cover in more depth elsewhere, we tell you where to turn. Simple? We think so.

## ***Part I: Before You Get Your Feet Wet***

The four chapters in this section ensure that your first experience on the water is comfortable and fun, even if you've never been on a sailboat before.

Chapter 1 takes a broad overview of the sport, looks at the different types of sailboats and some of their basic parts, and introduces the basics of sailing. Chapter 2 covers your options of where to go to discover sailing. And as you're preparing for that first day on the water, Chapter 3 answers that age-old question, "What should I wear?" (which on smaller boats should always include a life jacket). In Chapter 4, you step aboard a boat and prepare the sails and gear for your first adventure afloat, powered by the force of the wind.

## ***Part II: Casting Off and Sailing Away***

This section is the meat of the book for the new sailor. Chapter 5 is the big kahuna, covering the principles of sailing: how to get your boat from point A to point B (and back again). Chapter 6 wraps up the basics by showing you how to sail away from a dock or mooring and how to launch your boat from a trailer, ramp, or beach. Chapter 7 discusses safety, because you need to be prepared when you're out on the water. We show you where the safest spots are to enjoy your ride, how to rescue a man overboard, and how to get going again if your boat tips over. Chapter 8 is great for anyone interested in weather (which, by the way, includes all sailors). Identifying the weather helps you know whether those dark clouds on the horizon are going to dump rain on you, bring wind, or both. And Chapter 9 covers navigation, including how to read charts, plot your course, use a compass, and find your position while at sea (without having to stop at the nearest gas station for directions). Chapter 10 focuses on anchoring. Even powerboaters need to know the information in Chapters 7 through 10 before heading out on the water.

## ***Part III: Sailing Fast — Taking Your Sailing to the Next Level***

We intend the first two chapters of this section to be most helpful for intermediate and advanced sailors who have at least a season of sailing under their belts. Chapter 11 provides plenty of tips to sailing faster, including surfing waves and sailing catamarans — those speedy boats with two hulls. Chapter 12 introduces you to the subtleties of adjusting the shape of your sails. This chapter also shows you how to use a *spinnaker* — that colorful sail for going fast downwind. Chapter 13 acquaints you with our favorite world of sailboat racing.

## ***Part IV: Sailing Away for a Year and a Day***

This part helps you with special circumstances you may encounter, no matter if you're out for a day cruise or for a much longer time. Chapter 14 covers what to do on an unlucky day: when you run aground, break something, or have to abandon ship. In Chapter 15, we introduce you to the basics of maintenance — keeping your ship in shape. Chapter 16 helps you enjoy sailing with children, because you get to go sailing more often if your family enjoys the sport, too. Chapter 17 introduces you to the great world of *chartering* (renting) sailboats and going cruising. Affordable boats are available for charter in exotic locations around the world. Chapter 18 focuses on how to sail a sailboard — those surfboards with sails that we love and you've always wanted to try.

## ***Part V: The Part of Tens***

No *For Dummies* book is complete without this section. Sailboats always have plenty of rope, and Chapter 19 reminds you how to tie those knots you practiced in Girl or Boy Scouts and tells you which one to use when. Chapter 20 poses ten questions to help you find the right boat for you. Chapter 21 has a list of ten of our favorite things about sailing.

## ***Part VI: Appendixes***

Appendix A has a glossary with all the sailing lingo you need to impress your friends and sound like a yachtie. Appendix B covers first aid afloat — from what to have in your first-aid kit to how to handle the most common medical problems at sea. Finally, in Appendix C we cover how a sailboat moves for those technical types who always want to know “how” and “why.”

## ***Icons Used in This Book***

You may notice icons, or cute little pictures, in the margins of this book. Those icons do more than just break up the white space; they tell you something about that particular paragraph.



This symbol helps you avoid common mistakes while you're just starting out and alerts you to potential dangers. As a sailor, you need to have a healthy respect for the power of the wind and the sea.

JJ SAYS



Our many years of sailing have resulted in some wonderful memories and some unusual stories. This icon indicates a story from JJ's own experiences.

PETER SAYS



Peter also has a few stories to tell, and we use this icon to point those stories out.

REMEMBER



This icon points out information that we don't want you to forget. Store it in your brain for quick recall at a later time.

SAFETY FIRST!



This icon, shaped like one of the life jackets you read about in Chapter 3, highlights advice to help keep you and your loved ones safe.



In sailing, because you're letting the wind do the work, the easy way is the right way. These tips can help you find the easy way.

## *Where to Go from Here*

Where you start is up to you. If you're brand new to the world of sailing, just turn the page and start with Chapter 1. If you've been around boats before, browse through the table of contents and pick a chapter that interests you.

But do start somewhere. The faster you start, the faster we can share our love of sailing with you. While cruising, we've explored some of the most remote and beautiful parts of the world. While racing, we've had the chance to challenge ourselves in international competitions and make friends around the globe. Who knows? Maybe on one of our future voyages, we'll even get a chance to meet you.

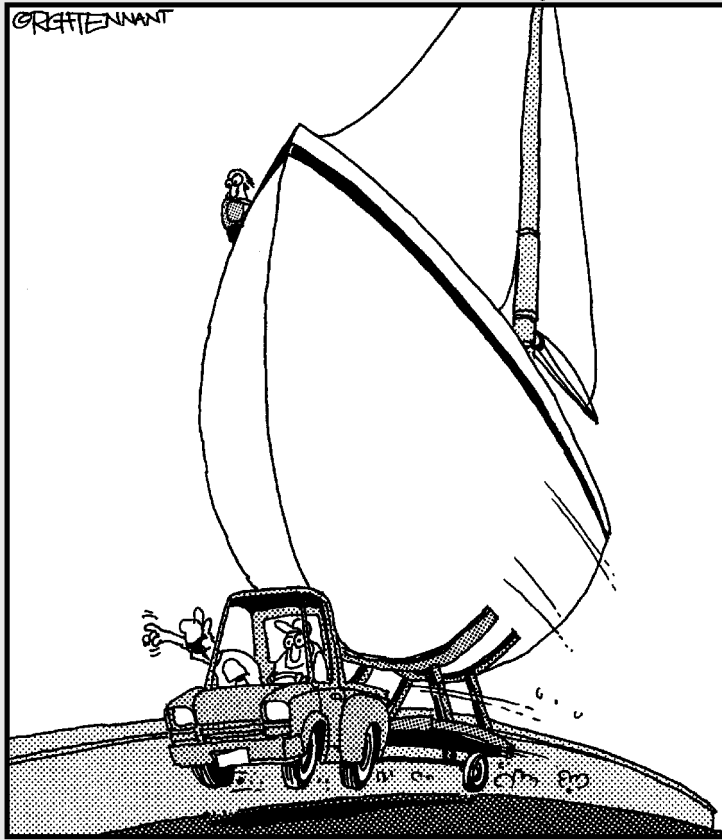


# Part I

# Before You Get Your Feet Wet

The 5<sup>th</sup> Wave

By Rich Tennant



"Take a starboard tack at the next exit!"

## *In this part . . .*

**S**ome people think that sailors are incredibly snobby rich people who hang out at the yacht club all day sipping gin and tonics, wearing blue blazers, and talking without moving their jaws (kind of like Thurston Howell III in *Gilligan's Island*). If this intimidating vision has kept you from beginning to sail, this part is for you. We formally introduce you to a sailboat and then show you where you can take sailing lessons — from regular people and with regular people. We also dispel those blue-blazer myths and answer that incredibly important question that mankind ponders every morning — what to wear? Finally in this part, we look at what you need to know before you leave the dock.

## Chapter 1

# Ready, Set, Go: Time to Start Sailing

### *In This Chapter*

- ▶ Exploring the essentials of beginning sailing
- ▶ Dissecting the parts of a sailboat
- ▶ Answering basic sailing questions
- ▶ Describing where sailing can take you

*It is an interesting biological fact that all of us have, in our veins, the exact same percentage of salt in our blood that exists in the ocean, and therefore, we have salt in our blood, in our sweat, in our tears. We are tied to the ocean. And when we go back to the sea, whether it is to sail or to watch it — we are going back from whence we came.*

—John F. Kennedy

**W**ater covers nearly three-quarters of the planet. Over the course of human history, the oceans (as well as lakes and rivers) have served as pathways upon which trade and civilization have developed. Getting away from shore, you feel a link to those ancient mariners who set off for undiscovered lands. When you're flying across the water, you're harnessing the same forces of nature that powered the early explorers.

Why are humans drawn to the sea? President John F. Kennedy had a poetic answer. Generations before you have felt the call of the wind and waves, beckoning to accept their offer of unknown possibilities — adventure and serenity.

Even in today's high-tech, fast-paced world, sailing regularly rates high on pollsters' lists of desirable activities. So if you ever find yourself dreaming of packing it all in and setting sail over the horizon or of simply having your own boat to sail near home on a warm, breezy afternoon, you're not alone. And this chapter shows you that getting out on the water is easier than you think.

## *What You Need to Start Sailing*

Starting sailing is a little different than starting most sports. In basketball, you can start to learn the basic moves like dribbling and shooting without worrying about the “playing field” — the court boundaries or the height of the basket. But the sailor’s “playing field” — the wind and the water — is constantly changing. The wind changes strength and direction while waves and/or current change the water conditions. Sailing is harnessing the power of Mother Nature, and sailors need a healthy respect for her power. So in this section, we cover some important weather and safety considerations you need to know before you start sailing.

Also in this section, we encourage you to begin your sailing career by taking lessons from a qualified instructor — we both did — so you can focus on learning the basic moves while the instructor makes sure the conditions are suitable for learning.

### *Taking lessons*

You can find sailboats near almost every body of water. And where you find sailboats, you can find sailing schools and/or a sailing club with experienced sailors looking for crew. Most boats longer than 15 feet (5 meters) are meant to be sailed with more than one person, and the average 30-foot (9-meter) sailboat is best sailed with at least four crew members. So go down to the local marina, check out the bulletin board, and ask around. The offers you get to go sailing may pleasantly surprise you.



Although having friends to take you sailing can make practicing and progressing easy, we strongly recommend taking lessons from a sailing school with certified instructors before you head out on your own. For a variety of safety reasons, we don’t recommend sailing alone while learning the basics. In Chapter 2, we help you find the right sailing course for any experience level.

### *Location, location, location*

You can probably guess that the weather and water conditions in a given area affect the sailing possibilities, and that most sailors put away their sailing clothes in wintertime in the snowy latitudes whilst Southern Californians can sail year round. But even snow and ice can’t stop some die-hard enthusiasts who sail ice boats on frozen northern lakes. Not to be outdone, adventurous sailors in dry, desert areas blast around on “land yachts” or “dirt boats” with

wheels. Assuming that you plan to go sailing on regular, salt or fresh, non-frozen water, then your main concerns are twofold: the water conditions (waves, currents, depth, and water temperature) and the wind conditions (wind strength and changeability). Some areas have very consistent conditions during a particular season, and others are more variable. In some places, a typically windy spot and a calm location may be less than a mile apart due to some geographic feature.



That's why knowing the local conditions can be invaluable to any sailor. We encourage new sailors to start out, if possible, in steady light-to-medium winds and protected (calm) waters — and a sailing school knows where and when to find those conditions in your area. But as you gain experience, you can enjoy sailing in more challenging conditions — such as windy Chicago or San Francisco in midsummer, cruising in foggy Maine, or blasting down the Molokai Channel in Hawaii.

## Feeling the wind

You probably know that a sailboat doesn't move unless it has wind. (Yes — you can start up the engine, get a tow, get out a paddle, or swim along pulling your boat — but we're talking about "sailing" using the power of the sails, right?) The wind rules a sailor's universe — it's the sailor's alpha and omega. To become a sailor, you need to raise your awareness of the weather, starting with the importance of feeling and finding the wind's direction.

Look around for a nearby flag and use its direction as a clue. In Chapter 5, we show you how to develop your feel for sensing the wind direction and staying aware of any shifts (without having the local weatherman on your speed dial). Knowing the wind's direction is crucial because you get your boat to move by adjusting the angle of the sails relative to the wind's direction. When the wind direction changes or you change course, you need to change your sail *trim*, or the angle of your sails to the wind, as you see in Chapter 5.



No matter how constant the weather seems on shore, the wind is frequently shifting both speed and direction. Staying aware of these changes is important for your safety and comfort while sailing. Sensing the wind's speed is important too so you avoid going sailing when the wind is too strong or blustery and so you can avoid getting *becalmed*, unable to sail if the wind dies. Listen to the local marine forecast before a day of sailing to help you avoid getting caught in unpleasant (and potentially dangerous) conditions on the water — such as thunderstorms or thick fog. (You can also check out Chapter 8, which discusses important weather-related information you need to know before heading out.)

## Considering safety



Before going out on the water, you need to consider some safety issues and be prepared with basic safety gear, especially life jackets. In Chapter 3, we give you plenty of tips for what to wear and bring so you're comfortable and safe on the water. Chapter 7 covers other essential safety information, such as safely recovering a person who falls overboard and getting a capsized dinghy upright and sailing again.

## Looking at a Sailboat

Sailboats come in all sizes, shapes, and types. The beauty of sailing is that you can't help but find a boat (or two or three) that's just right for you. All sailing craft, big or small, have at least one (and sometimes more) of the following components, which we outline in the following sections: a hull, an underwater fin for steering control and stability, a mast to hold up the sail or sails, a sail, and plenty of rope.

### What floats your boat?

Have you ever sat in a boat and wondered how in the heck it doesn't sink? Well you don't have to wonder anymore.

Your boat floats because it's less dense than the water in which it sits. *Density* is expressed as mass per unit volume. The density of freshwater is 62.2 pounds per cubic foot (1 gram per cubic centimeter). Saltwater is denser at 64 pounds per cubic foot, so a given object can float better (or higher) in saltwater than in freshwater. In saltwater, a boat floats if it's less dense than 64 pounds per cubic foot, including everything on board: mast, sails, and people. For example, if the density of a boat in saltwater is 32 pounds per cubic foot ( $\frac{1}{2}$  gram per cubic centimeter), the boat floats half in and half out of the water.

The weight of a boat is also called its *displacement*, because the boat displaces (or pushes aside) a volume of water equal to its weight. An object with a very light displacement, such as a surfboard, lies on top of the water like a leaf. A boat with a heavy displacement sits lower in the water, displacing more water to stay afloat.

Here's the amazing part. You can build boats of nonbuoyant (denser-than-water) materials, such as steel or concrete, as long as you design them with enough volume so that their total density is less than the density of the water. As proof of that principle, consider that an empty aluminum soda can floats, but the same can sinks if you flatten it and decrease its volume. (Of course, don't try this experiment on the water — you'd be littering.)