

## Cruising Sails: Heavy Hitters for Light Air

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Our joyously anticipated Galapagos Islands landfall wasn't going well. In fact, it was getting really scary. After 17 magical days at sea we were being set by a powerful current at an alarming rate toward the outlying rocks of an equatorial island populated only by marine iguanas, flamingoes, and finches. The engine that had run hot, loud, and flawlessly one hour each day of our passage while charging batteries, refused to start and had no intention of rescuing us from imminent shipwreck. Our sturdy working sails—main, genoa, and staysail—hung limp in the calm. I pondered my options. Did we have time to launch the dinghy and tow *Strider*, our 37' cutter, by the ash breeze? Would anyone, anywhere hear a Mayday? Should we prepare to abandon ship? Surely I was too young to die, wasn't I? The skipper's wife suddenly remembered the spinnaker that had been packed in the forepeak since their Pacific cruise began six months earlier. With the speed of an America's Cup crew we set the chute, and slowly but steadily sailed clear of danger. That was my first profound and indelible lesson in the importance of light air sails.

Usually large and often colorful, light air sails are made of thin strong fabric and are meant to move a vessel along in winds of Force 1 to 3. They might not spring to mind along with storm jibs and life rafts when one begins outfitting a boat for offshore cruising, but they can make a vital contribution to the safety, comfort, and speed of a voyage, not to mention its pure enjoyment. There is something truly marvelous about moving under sail in a whisper of breeze: it beats the heck out of listening to the racket of the engine while worrying about fuel consumption and supply.

Many cruisers are intimidated by the thought of setting and trimming a light air sail, and—particularly if it's free-flying (attached to the rig only at its three corners)—striking it in a rapidly building wind. Understanding which light air sails belong in your sail inventory and what tools are available to simplify and ease their handling will greatly enhance your cruising capabilities and pleasure.

Which types of light air sails are appropriate for you will depend on your boat's rig and its specific details. Your intended cruising grounds and your crew's abilities and preferences will influence your decision, and your sailmaker can help guide you. Your options will be determined by the number of masts, the location of halyard blocks, sheet lead placement, the positions of inner stays, and whether or not you have a roller-furling system on the headstay. A gaff rigged vessel can carry powerful and effective topsails upwind and a fisherman or a gollywobbler for reaching, and when a yard is rigged, a course and raffee can shorten trade wind passages. A ketch or a yawl can set a mizzen stays'l, genoa, or spinnaker from the head of the mizzen mast, resulting in seemingly magical steerage way and acceptable speed off the wind. Most vessels, including the most common modern cruising rigs, sloops and cutters, can augment horsepower when the winds fall light by setting a large, light weight headsail. Among the options are drifters, reachers, wind seekers, asymmetric cruising spinnakers, and spinnakers (racers may carry the latter in far heavier winds than most cruisers would care to). Large twin headsails set on poles can pull a cruiser downwind. A windseeker—a tall, narrow, high-clewed, and light weight jib—can keep a vessel moving upwind and will fill easily because of its small size. Each of these sails is capable of moving a boat in light winds, and while each provides advantages, each has its limitations, too. Most cruisers don't have a sail locker or a budget large enough to carry all of them, so it's important to know what each type can and can't do for you.

## A Hanked-on Tradition

The drifter—also called a reacher—is a time-honored, handy, and versatile sail. Unlike other light air sails, it carries satisfactorily on all points of sail. A drifter generally allows a vessel to sail close hauled and to tack, and it's very easy to control when set and struck. This sail is essentially a large, powerful, hanked on genoa built of light weight fabric. Its intended wind range is 3-12 knots apparent, and its size on a sloop generally ranges from 140 to 160 percent of the fore-triangle area. A drifter can be made of nylon, Dacron, or a laminated sailcloth made of various “exotic” fibers. Both nylon and light weight Dacron sail cloth are available in colors, and both have a softer hand and fewer mildew concerns than a laminate. Nylon is the softest and lightest-weight fabric choice, an asset both in sail handling and in performance in a whisper of wind. Nylon also can take the abuse of being stuffed tightly into a sail bag and being carried beyond its designed wind range. Because Nylon both stretches and recovers, it can take the shock loads of sudden gusts without permanent shape distortion or tearing. It can also handle prolonged sailing to weather in winds better suited to a smaller, heavier headsail, although its fullness and a vessel's leeway will temporarily increase in those circumstances. Nylon's negatives include poor UV resistance and a tendency for colors to migrate from one colored panel to another when the sail is stowed wet.

Light weight Dacron or laminated sailcloth will hold its shape to weather far better than nylon through a variety of wind ranges, but only up to a point. If either Dacron or a laminated fabric is carried beyond its designed wind range, it will permanently distort or come apart, and its pointing ability will be forever compromised. The performance cruiser who can quickly and carefully douse a headsail on demand might favor the slightly heavier and stiffer Dacron or laminate sail for efficiently working to weather in light air.

Regardless of the material, the drifter is an excellent choice for a sailor who wants the capability of sailing off a lee shore without the assistance of the iron genoa or who prefers a sail that's more conservatively sized than an asymmetric or true spinnaker when reaching or running.

It must be remembered, however, that the drifter owes much of its pointing ability and ease of handling to being hanked on. This works well on a vessel that does not have a roller-furling system on its headstay or that's rigged with a twin headstay athwartships or a “solent stay” abaft the headstay. A drifter's leading edge can be fitted with a roller-furling luff tape, but it's a considerable enterprise to unfurl, strike, and bag the genoa, then hoist a drifter in its place. Enter the free-flying light-air sail.

## The Original Kite

A free-flying sail is secured to the rig at its corners only, allowing all of its edges to fly. It can be set from its own masthead halyard while a genoa remains furled on the headstay. The most familiar free-flying sail known to sailors and landlubbers alike is the beautiful, powerful, and pesky spinnaker. Despite special rigging and handling challenges, this colorful, balloon-like kite has made a home on many cruising boats. Revered for its ability to move a vessel in a zephyr, and unmatched in deep reaching and running performance, the spinnaker can be a valuable asset for fast passage-making, especially along tradewind routes. Variations in size, shape, panel configuration, and fabric weight allow spinnakers to be efficient in different wind speeds and on various points of sail. Still, the symmetric spinnaker usually won't carry closer to the wind than a beam reach. Because it's attached only at its three corners, setting and striking this sail can result in all manner of mayhem, from hoisting it upside down to wrapping it around the headstay to unintentionally deploying it as a drogue. An experienced crew or a well-designed spinnaker sleeve/snuffer generally eliminates these concerns. Still, to be flown properly, the spinnaker requires a pole and constant attention to its topping lift, guys, sheets, and trim. For the cruiser who doesn't want

all the power, potential speed, and excitement of a true spinnaker (when on watch alone in the middle of the ocean at night, for example), a smaller and more manageable sail is in order.

## The Tame Kite

A wonderfully capable and easily handled light-air sail is the cruising spinnaker, in its simplest form, a cross between a genoa and a spinnaker. The cruising spinnaker, also called a cruising chute, an asymmetric, or a poleless spinnaker, has a variety of trade names including Gennaker, Flasher, MPS (Multipurpose Sail), and SpinDrifter. Unlike a genoa, the cruising spinnaker is set flying. Unlike a spinnaker, it doesn't require a pole to be set properly. Although it's flown as if it were a genoa without its luff attached to the headstay, the cruising chute looks more like a true spinnaker in its shape, size, and sailcloth. While a true spinnaker is symmetric, with its maximum camber at its centerline, a cruising spinnaker is asymmetric: its luff is longer than its leech, and its maximum camber is farther forward. Also, the cruising spinnaker is usually smaller and less full than a true spinnaker. Those factors, along with its constituent light weight (.75 to 1.5 ounce) ripstop nylon fabric, make it easy to handle. A proper spinnaker sleeve, such as the one made by ATN, makes sets and takedowns less intimidating and relatively fail-safe. A cruising spinnaker doesn't have the pointing ability of a drifter nor the down wind performance of a symmetric running spinnaker set on a pole. It can be cut to favor reaching or running, but it's still compromised when close reaching in all but the lightest of winds, and it will require a pole when the reaching angle gets too broad. Despite those concerns, the cruising spinnaker offers a lot of power, color, and surprising versatility with minimal hassle when voyaging or coastal cruising. A well-designed all-around cruising chute will bring delight and amazement—pointing higher and reaching deeper than might be expected. Flown even by conservative cruisers for days and nights on end when conditions are right, cruising spinnakers significantly shorten passages and bring new accomplishment, beauty, and joy to sailing.

Another hybrid light-air sail that blurs the distinction between headsail and spinnaker is the code zero reacher, which is sometimes also called a screecher. Essentially a tight luffed, upwind spinnaker, it was originally developed to beat a Whitbread Race rule that limited the number of genoas—but not spinnakers—a vessel could carry. When fitted with a swivel at its head and a furling drum at its tack, the code zero can be furled around its luff wire or low stretch luff rope when not in service. Multihulls or very fast monohulls whose high speeds bring the apparent wind forward of the beam can benefit from a code zero. So can any weatherly vessel desiring efficiency between 55 and 70 degrees off the wind. Like the drifter, the code zero can be made of nylon, light weight Dacron, or laminate. Today's improved systems for furling free-flying sails can be fitted to any free-flying asymmetric headsail or staysail and allow tighter luffs for better upwind performance and easy furling. The large-diameter sheave-drive or furling-drum mechanism at the tack of a code zero requires significant space forward of the headstay and might necessitate adding a bowsprit or modifying the bow fitting. While such a modification might benefit a cruising spinnaker's performance, it's not essential. I recommend that you not yield to the temptation to furl the code zero or screecher and leave it at the ready rather than striking it and stowing it below. Ultraviolet exposure can weaken and rot any sail—particularly one made of nylon—in a matter of months, and the weight of a sacrificial UV cover on the sail's leech and foot would seriously compromise the sail's light-air performance.

## Sails for Wants and Needs

The ability to work off a lee shore in light air without an engine is of incalculable value, should the need arise, and may be well worth the extra sail, rigging, and foredeck work. The code zero provides a weatherly option, as does a drifter if there's a stay to which the sail can be hanked. Either sail can be used in conjunction with a genoa off the wind, if both are poled out. This arrangement, which can create sail area similar to that of a cruising spinnaker, is preferred by some cruisers. Other cruisers would rather

not handle two poles (or even one!), if it can be avoided, and choose to work the jibe angles with a spinnaker or cruising spinnaker, reaching on one tack and then the other toward their downwind goal.

The cruiser's priorities of safety, comfort, and speed mandate that we be prepared to sail in the light winds common or possible in all latitudes and seasons. On the topic of the remarkable frequency with which cruisers experience winds of Force 1 to Force 3 while voyaging, Lin and Larry Pardey reminded me that their drifter had been of essential service—along with their storm canvas—when they rounded Cape Horn. For those who cruise in more protected waters, perhaps with a reluctant spouse, it must be said that sailing in a gentle breeze is quieter, warmer, and on more of an even keel. I'm certain, too, that the right light-air sail can, in the proper moment, fulfill this cruiser's fourth priority: becoming one with the environment through sensual pleasure.