I have a special fondness for the Freedom rig because I pioneered it and quite literally force-fed it to a skeptical yachting public. Having now sold Freedom Yachts to the excellent builder Everett Pearson, I can perhaps survey the rig more calmly and dispassionately.

No one living today can claim to have invented the freestanding (unstayed) spar, because God did that with the tree. All I did was propose that the unstayed mast, which already worked fine on Sunfish, Lasers, Finns, and various catboats, might well work on larger cruising boats as well. The fact that this rather modest proposal created such controversy and was termed “revolutionary” gives you some idea of the timidity and turgidity that currently afflicts sailing design thought.

As a Finn sailor I had learned to like sailing alone, but I found this was not easily done on conventional large cruising boats. It is quickly observable that a sail behind a mast, on a boom, with a block purchase, is far more manageable than a large jib, which must be tensioned with no mechanical advantage. So why not forget the jib and maximize the main? The freestanding spar emerged as simply a better and safer way to handle a large mainsail. When the wind blows, the freestanding spar just bends back, flattening the sail and easing the leech, which directly de-powers the sail. Modern, tightly stayed racing sloops go to great hydraulic pressures and expense to achieve mechanically what the freestanding rig does naturally. And getting rid of all the stays makes a safer rig, because you are not placing your trust in a host of potential breaking points. That’s why wires were taken off airplane wings long ago.

The first Freedom boats (the Freedom 40 and Freedom 33) employed a two-ply wraparound sail, the idea being to improve the flow at the leading edge by having
The prototype Freedom 40 reaching at top speed off Antigua in 1976. The offwind performance of this boat was exceptional, equaling or exceeding race boats of similar size. One person could easily handle the rig in conditions like these.

the sail convert the mast to a more aerodynamic shape. This worked, but it was difficult to explain to people how to properly hoist, lower, and reef. Any wishbone sail requires that you ease theouthaul before trying to hoist or lower sail—otherwise the sail is in tension and considerable friction results, impeding any movement up ordown the mast. People just didn’t seem to grasp this, and the rig began to get a bum rap about being hard to hoist or lower.

This was unfortunate, because the wraparound sail had genuine virtues that somehow went unnoticed. It is a supremely reliable sail, and having no slides, grooves, or tracks removes almost all possibility of mechanical failure. There is a pleasing performance edge as well, but it seems to take a seasoned sailor to develop this rig’s potential. John Oakeley—former world champion in the Flying Dutchman, Olympic sailor, and twelve-meter helmsman—now sails a Freedom 35 in England, and he has produced some remarkable wins with the wraparound sail. Former Mallory Cup winner and E-Scow champion Cliff Campbell recently sailed his Freedom 44 to cruising class victories in all four of the major Caribbean regattas—at Puerto Rico, St. Thomas, British Virgin Islands, and Antigua. And John Carson won both legs of the Bermuda One-Two Regatta in a Freedom 44 with wraparound
sails, including a record passage of 83 hours for the return trip to Newport. So the results were there, but tuning the average sailor into them was a perplexing and ultimately discouraging puzzle.

I had long been intrigued by full-length battens, but they were not practical on the two-ply sail, because there was nothing to restrain the battens from thrusting forward. So to ease hoisting and lowering and permit the efficiency of full-length battens, the Freedom rig shifted to conventional track and slides on the masts and eliminated the wishbone boom. This gave away some efficiency at the leading edge but picked up compensating efficiency at the trailing edge, and it also allowed a bigger, better-handling, and better-setting sail.

The freestanding spar gets you out of the triangular trap formed by the mast and backstay and permits a fully curved roach on the sail. This directly improves the profile shape by getting closer to the ideal ellipse and thus reducing induced drag. And full-length battens, in conjunction with the old idea of lazyjacks, make a supremely quiet, efficient, and manageable sail that literally stacks itself on the boom like a venetian blind.

I then developed a Continuous Line Reefing System that enables one person to
The Continuous Line Reefing System can be adapted to any boat and makes reefing a 30-second job from the cockpit. The key is the floating block, which causes the tack of the sail to be pulled down first. Once the floating block falls between the cheek blocks, the reefing action is automatically redirected to the clew, pulling that down. The lazyjacks contain the sail and obviate the need for a topping lift.
reef the sail in about thirty seconds, without ever leaving the cockpit. This is significantly better than slab or jiffy reefing, a two-step process that involves more time, plus the danger of going on deck. Actually, the Continuous Line Reefing System would work on any mainsail.

Iceboats, catamarans, and sailboards have shown clearly that full-length battens make the fastest sails, and experience now shows they also make the best-behaved cruising sails. The net benefit of a freestanding spar and full-length battens is a cruising rig that is easier and safer to sail shorthanded. You simply don’t need a lot of crew with this arrangement, and freeing sailors from that nuisance was the basic concept behind the Freedom program.

Are there any drawbacks? Sure. The Freedom rig is slower to windward than a sloop rig. Much easier to handle, but slightly slower, and it doesn’t point as high. The rig is faster than a sloop reaching or running, but on a conventional triangular race course—where two-thirds of the time is spent to windward—the sloops win. To my way of thinking, a cruising boat that was safer, faster on a reach and a run, and easier upwind represented real progress. It still amazes me that a lot of sailors don’t see that, and cling tenaciously to rigs that just can’t deliver ease, safety, or simplicity, and whose only saving grace is fractional superiority to windward accompanied by pointless hard labor. Habits die hard.

Many multihull owners have inquired about the suitability of the Freedom rig for their boats. In most cases I recommend against this. On catamarans, obviously, there is an immediate problem getting enough bury in the bridge deck to support the mast. And on both catamarans and trimarans, the availability of an extremely wide staying base makes a stayed mast attracively practical. After all, it is the high compression loads on the masts of conventional yachts, occasioned by their narrow staying bases, that cause most masts to break. The wide base available on all multihulls makes staying a very simple solution and avoids the severe strains that actually distort the hulls of modern, stayed sloops.

In summary, the freestanding mast of the Freedom rig does not make a good racing solution, because it cannot be made to carry a large genoa effectively. There is simply no denying the effectiveness of a large, overlapping foresail in terms of creating more drive to windward in lighter winds and improved pointing ability in all winds. The Freedom rig, however, really comes into its own as a cruising solution, where to my mind it beats the stayed rig on almost every count. The use of a small wishbone jib on the Freedom rig—the cat sloop concept—was first introduced on the Freedom 32 and proved directly effective in better windward performance without in any way adding to difficulty of handling. Further refinements in the lightness and stiffness of carbon fiber spars will undoubtedly improve the performance of the Freedom rig, and I suspect that as a cruising solution this arrangement will steadily gain favor, because it is demonstrably safer and simpler.

I have fond moments of nostalgia recalling some of my early exploits in the prototype Freedom 40. She had no engine, and for calms employed large sweep oars just as the old fishermen did. This worked fine (as long as there was no strong tide), but I can still remember the reaction from the great unwashed public at boat shows: “Hey Martha, c’mon over here and see the slave ship—you’re gonna have to row it.” Needless to say, Martha was neither amused nor interested, and I was rudey awak-
The Freedom 44 (above) was a refinement of the Freedom 40. This model still holds the two-handed record for the Bermuda One-Two Race with a passage of 83 hours from Bermuda to Newport. Like the 44, the Freedom 39 (below) has fully battened sails that stack neatly between the lazyjacks. This arrangement is hard to beat for cruising ease in terms of reefing and stowing.
The Freedom 65 was the largest freestanding-spurred sailing yacht ever built. Its wraparound sails were difficult to handle—fully battened sails would have been easier. Nonetheless, this boat—with a skilled crew under skipper Rob James—made an Atlantic crossing (west to east) of 13 days 10 hours, demonstrating the potential for this rig. Her carbon fiber masts were stronger than solid aluminum of the same diameter.
This illustration of the Freedom 32 shows the Hoyt Gun Mount spinnaker, a fully battened mainsail, and the Continuous Line Reelng System, all having the same objective—ease and efficiency for the cruising sailor.

ened to the reality that nobody comes between the American cruiser and his love for the internal combustion engine.

 Nonetheless, sailing that Freedom 40 for two and a half years without an engine did make me a seaman, where I was formerly just a racer. I sailed singlehanded in and out of most of the major harbors of the Caribbean, always in tight quarters and usually right up to the dock. The cat ketch with two equal sails is nifty for this, because you can actually steer with the sails. With this rig and a good dinghy to row out lines and anchors, one can literally sail in and out of anywhere. Okay—I’ll admit an engine is easier, but we have managed to breed a generation of sailors who are either afraid or don’t know how to sail in and out of harbor. Without worshipping hardship for its own sake, it still seems a good idea to know your boat well enough that the engine becomes a convenience, not a necessity. But I don’t expect to win that argument, and in making it I may be guilty of the same kind of macho bravado that keeps alienating people from sail.