



Pond life

Speed and tactics rule the impassioned world of model sailing, but ducks have the right of way

By **KIMBALL LIVINGSTON**

Performing my penalty turn for my second foul in my first race with a radio-controlled model boat, I noticed that you can work your way from the front of the fleet to the back in a hurry. “All thumbs” suddenly had a new meaning.

Since I sail big boats—people boats, as my new friends call them—I knew what I wanted the boat to do. Well, at least to the extent that I ever knew what I wanted any boat to do. But to sail a radio-controlled model, it’s important to get this thumb thing straight. There’s the left-thumb toggle on the radio transmitter, which controls sail trim, and there’s the right-thumb toggle, which controls the rudder, and...

Even after I missed the weather mark (major depth-perception oopsies, a classic beginner’s blunder), I was still in the hunt on the downwind leg, with the fleet coming at me bow-on, sailing toward the spot where I stood on the edge of the pond. I wanted to turn to port, and from where I stood, that equaled right. I semiprocessed that thought,



The author (at right, above) sailing with the ODOM fleet at Marin County Civic Center, California, and with his borrowed boat (inset)

touched the control, and *wham*. My boat cut hard to starboard and slammed the boat next door. Left-right takes on a weird dimension when you’re thinking in reverse (it’s not as though you’re Stuart Little sailing aboard your own tiny boat). And overcontrol. Did I mention overcontrol?

Bruce Kirby, designer of the Laser dinghy and the radio-controlled RC Laser, figures that “it takes about three hours of thumb time to start being right 99 percent of the time.” Bob DeBow, dean of model sailing in San Diego, California, allows that “some people walk backward to keep things straight between them and the boat, but then they go galumphing into trees.”

Thirty years ago, DeBow walked into a hobby shop “to buy wood to build a model of my big boat, and the clerk said, ‘Why not build a model you can sail?’ He sent me down here.” Down here was a purpose-dug model yacht pond in

Mission Bay where DeBow found a home away from home. His story is not unique. When I cracked the lid on model sailing, a whole world came roaring out. You want competition? See Appendix E of the Racing Rules and note that model racing is administered by US Sailing and ISAF. Want to see a 10-year-old smile? Help the kid launch a little boat. Want to see a 70-year-old sprint? Hang out at a pond where they launch plank-on-frame classic free-sailers, and if

Abner Kingman (top and left)



Above: Classic Js and 12s sail in Newport, Rhode Island. Center: A peaceful moment between a boy and his toy

Matthew Cohen (both above)

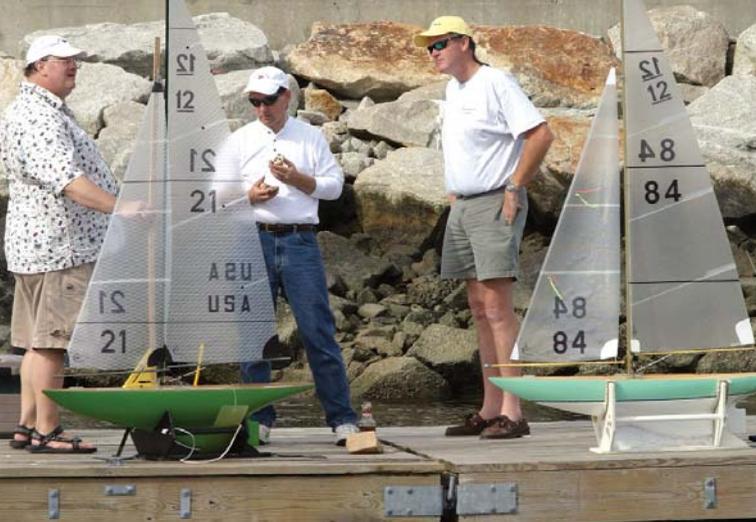
their boats are headed for the wall just watch them run. Model sailing is as rich and diverse as the world of sailing itself. Northern California veteran Karl Tulp recalls, “When I sold my IOD, people at the yacht club poo-hooed me for buying a toy boat. They hushed a bit when [San Francisco Bay guru] Hank Easom bought one, and when [Solving silver-medal crew] Will Baylis bought two, they shut up.”

Some people get into models for the aesthetic allure. Some people are born tinkerers; others get in for the competition or to drill on tactics. Others just like the social scene. Competitive radio-controlled sailing is the mainstay. For a few hundred bucks you can buy an off-the-shelf hobby-shop boat and find good one-design action if you have a local fleet. Step up to not quite a thousand and you can have something very cool, or if you’re up for a competitive entry point in the thousands, the very, very cool stuff is waiting. It’s important to say, however, that a tinkering spirit can find a development class where a willingness to build it yourself will keep costs low.

Where is the leading edge in this game? Vacuum-bagged carbon-fiber hulls, canting keels, canting rigs, hydrofoil multihulls—what do you have in mind? Doug Lord developed a gybe-able spinnaker because “I was watching people fly RC helicopters upside down with nine-channel

Onne van der Wal (inset)

Peter Nielsen (both below)



radios, and I thought, surely model boats can have spinnakers.”

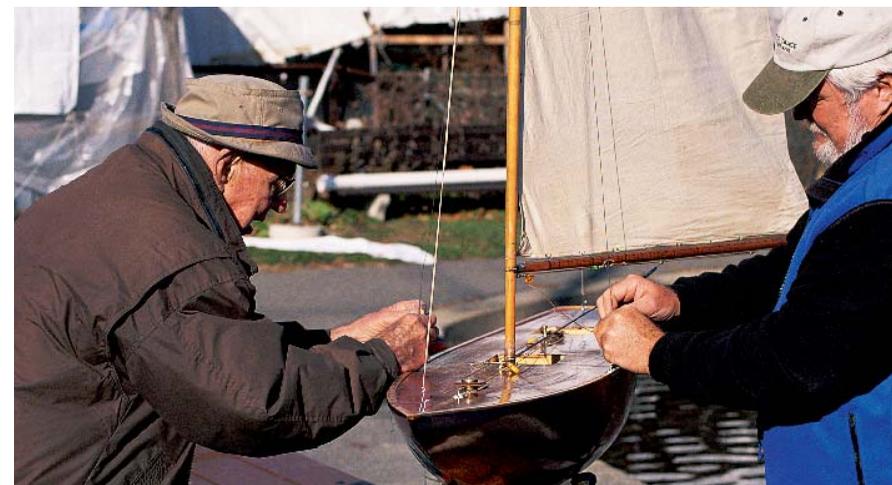
Whether you want a strict one-design class, a loose one-design class, or a development class, you have choices. Want to sail through a frozen winter? Take a lesson from David Goebel up in Minneapolis, Minnesota, where the local club sails at an indoor swimming pool with fans for power.

Radio-control magic

With today’s radio-control (RC) equipment you can launch a model almost anywhere and be confident about getting it back, providing the receiver is turned on. Hello? Don’t think you’d be the first to make that mistake. RC also makes it possible to sail in fleets, under the Racing Rules of Sailing, with timed starts and standard courses. In the old days, free-sail launch-and-pray competition was mostly one-on-one, to minimize collisions. With RC more people can play.

In an RC race, starts are counted down audibly. The only conspicuous change to the rules is that the two-length circle at marks is expanded to four lengths, because depth perception is a problem for everyone. Heats of 15 boats or less are best. Especially in one-designs, it can be a challenge to keep track of which of those white boats

Below left: Modeling legend Bill Bithell and son Larry rig a vintage A at Redd’s Pond in Marblehead, Massachusetts. Below right: Realism in miniature on a J-class model



CHOOSING A BOAT

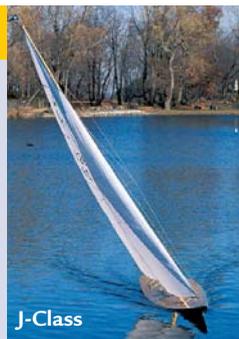
Most models that get sailed a lot are also raced. It's more fun to play games. So the question is what classes are popular close to home? A trip to your local pond will answer that. Don't be shy; the sailors want to talk (but not in the middle of a race). If the club has more than one fleet, it's likely that each fleet has a different personality. Take time to understand the culture, and spend time on the American Model Yachting Association Web site, www.amya.org.

Boats of 36 to 40 inches are popular because they're reasonably easy to haul around. If you buy a kit, hide the 5-minute epoxy where you can't find it; that stuff's not waterproof. Here are a few representative classes.



RC Laser

Soling One-Meter. This is the most popular class in AMYA today, with 746 boats registered nationwide (there are more RC Lasers out there, but not as AMYA members). A Soling One-Meter kit costs \$119.95 plus \$129.95 for the (recommended) winch servo/radio package and incidentals. It's a straightforward build, but plan to spend more than one weekend on it.



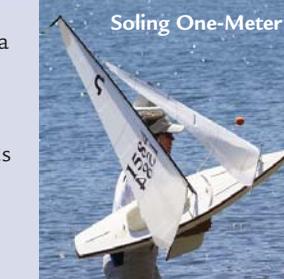
J-Class

East Coast 12-Meter. Here's a way to scratch the itch for a classic look. In a two-color kit, hulls cost about \$450. Then add sails, electronics, and gear. EC12s are 58 inches long and 22 to 26 pounds, from any of several manufacturers.

U.S. One-Meter. Along with International One-Meters, these have eroded the venerable Marblehead's standing as the development platform of choice. Class rules limit LOA, draft, and sail area, leaving an open envelope that encourages



U.S. One-Meter



Soling One-Meter

owner-designers and home building. By the nature of the beast, costs vary (hint: ORCO sells carbon keel fins for \$100 each). Class secretary Jim Linville says, "I've built boats for \$200, and I know people who have bought boats for \$2,500." The One-Design One-Meter (ODOM) comes as a kit for \$319 plus hardware, sails, and electronics. A ready-to-sail boat at the factory price goes for \$1,350. ODOMs

are legal as U.S. One-Designs, but they're heavier than minimum and are best sailed as an ODOM class.

Unless you're already skilled and are an obsessive tinkerer, start simple. Some one-design classes leave a lot of latitude for set-up and add-ons, and there are six-channel radios for boats with lots of controls and skippers with lightning-fast brain/thumb coordination.

Note that there are only about 30 frequencies available to sail on. Before you turn on a transmitter in any fleet, know what channels are open. Stomping on another boat's frequency is yet another beginner's blunder that everybody is allowed to make, but only once.



One-Design One-Meter (ODOM)

hike beside shimmering waters, and banter with like-minded souls. Those who get serious tend to own more than one boat in more than one class, and if they've got a bug to race on a national level, just try to stop them.

If you're a beginner, any boat you're likely to go into will be simple and durable, and just showing up wherever people sail should be enough to get you started. At Columbia, Missouri, club members maintain an official loaner in their CR 914 class (3-foot models of ACC boats). Show an interest, and you'll be sailing in minutes. You'll probably be inclined to try to stay out of everybody's way, which is a good instinct. But you'll also be surrounded by sailors eager to offer tips and tell tales of the dumb things they used to do when they started. Emphasis on *used to do*. We're not going to entirely remove the competitive edge

EXPERIMENTAL



Exploring the outer limits: This experimental trifoil lifts clear of the water with the slightest speed and accelerates like a rocket. Control can be an issue, as with full-size sisters

(or red boats, or blue) is yours, and large fleets generate right-of-way mania.

The American Model Yacht Association (AMYA) and its quarterly magazine, *Model Yachting*, tie the fleets together. AMYA has 219 constituent clubs and 2,800 members. There are 24 recognized classes, even more that are actually active, and there are always more forming. In theory, proliferating classes discourage national competition. In reality, most enthusiasts just want to get together with their friends locally. They use the racing as an excuse to breathe fresh air,



Just as in the "big" world, classics have a strong following. An A-class boat (above) gets out in Marblehead, Massachusetts. Competition was heavy at the RC Laser North American Championship last November (center and right)

from the competition, now, are we?

If there's high ground, go there; you can oversee the racecourse in lordly fashion. If the banks are flat, keep walking and follow your boat. Then, if you're doing penalty turns, you might get the feeling I had, that I was standing like a stump in the midst of a stampede as my fellow competitors charged past me eyeballing puffs and overlaps and leaving me, quite noticeably, bereaved. Hal McCormick, whom I've known for years in our parallel people-boat universe, passed with a wry aside—"Same b.s., just as deep"—and exited yelling "starBOARD!"

Experienced sailors quickly note the difference between being onboard and not. Is your boat standing upright because it's in a lull or because you're pinching? You'll have

to pay attention to the water and the mainsail-leech telltales to answer that. If you want to win, you need to know that model sails need more twist than full-size sails; the variation in the wind gradient in the first few feet above the water surface is huge. Will Gorgen of Detroit, Michigan, has learned this and oh-so-much more, all because of "a silly toy boat that I bought as a way to amuse myself until I could get back to competitive racing." His 35.5-inch Fairwinds can be purchased as a kit with radio and servos for \$350. Out of the box, it's as simple as they come, but Gorgen couldn't stop there, as evidenced by his recent three-page article in *Model Yachting* analyzing rival Lester Gilbert's experiments with an offset elliptical vang; the vang tightens the leech on the run and adds twist on a reach. The boats are small, but the ideas are big.

New Englander Dick Saltonstall has a 50-foot trimaran and a nose for the leading edge. He got into models with a simple starter boat but quickly moved to development classes. "I learn more from model boats because I can

DESIGNERS AND MODELS

The legendary Nathanael Herreshoff was also a model yachtsman. In the fashion of the day he rowed along—this was a sport for the physically fit—and, being Herreshoff, he was an innovator. He designed the first vane steering for model boats and then for people boats. Over the years others tried out newfangled ideas in models: winged keels, bulbed keels, swing rigs. Part of the development of the 288-foot clipper yacht in build now at Perini-Navi was a proof-of-



Courtesy of the Herreshoff Marine Museum; Mark Corke (far right)

Nathanael Herreshoff, with oars, rows alongside a vane-steered model. He later developed the first big-boat vanes

concept RC model.

Modern yacht designers use models in towing-tank simulations, taking care to account for scale effects that are hard to express mathematically. Sport modelers encounter the same issues. There's a saying that scale doesn't sail. Even built-to-scale J-Class models allow an extra few inches of draft. When industrial designer and multiple-class champion Jon Elmaleh approached Bruce Kirby with a plan to develop a quarter-model of the Laser dinghy, their adaptations included a 16-inch keel with bulb (for lack of a movable skipper), a deeper rudder, and three options for sail size. Elmaleh figures they could have made a faster boat by narrowing the beam, but the shape of the Laser deck was deemed iconic and thus could not be altered. They also stuck with Kirby's original concept of a strict one-design class. The 2004 RC Laser North American Championship was sailed in November near Kirby's home in Noroton, Connecticut. "I enjoy a model race as much as a big-boat race," the designer says. "The need for good tactics, a decent start, and clear air are pretty much the same. Watching Elmaleh out there—the guy won this title for the fifth time in a row—you'd think his boat had somebody aboard. He never made a false move."



Laser designer Bruce Kirby at an RC Laser race



X-Class free-sailors at Spreckels Lake, California: One man, one boat, one trailer, one stick

experiment,” he says. “From models you don’t learn much about foils; relative density requires that a model stick to the water more than its parent would. But rigs, yes. If a sheet and a rudder are all you’ve got, it’s nice if the rig depowers in puffs. Loosen the lowers, tighten the lowers, it’s easy to play.”

Saltonstall continues, “I can lay up a spar in an evening for a few bucks’ worth of carbon and glue. I don’t need the expensive fishing rod blanks that some people use; they’re too heavy anyway. It doesn’t cost me a lot to experiment, and I play around with hull shape because I like to sail in heavy air. Models have super-high-aspect-ratio foils, incredible righting moment—these little boats haul.”

Free-sailing = boat + breeze

Before there was radio control, no one called it free-sailing. Model sailing was popular around New York in the nineteenth century and at such classic venues as Redd’s Pond in Marblehead, Massachusetts, where the debut of the 50-inch-long Marbleheads in 1932 introduced standardized competition in a development class. Today most Marbleheads are radio-controlled, and the only fully active free-sail fleet in the U.S. is the one at Spreckels Lake in Golden Gate Park, where the San Francisco Model Yacht Club (founded in 1898) preserves boats and generations of tradition.

RC classes and tricked-out power models share Spreckels Lake, but it is the free-sailors who give the place its unique character. Club president Rod Tosetti says, “I tried RC sailing and got frustrated. I was coming away with tight shoulders and asking myself, Do I want a chess game or a dice game?” Jeff Stobbe, who has built and sailed full-size cruising boats in his time, is working away this winter on his thirty-seventh model boat, building it plank-on-frame. It will join the club’s venerable X-Class, admired for luscious lines and long overhangs. Says Stobbe, “Half the pleasure is just seeing something beautiful go by.”

Of the many purpose-built model-sailing ponds in America, Spreckels Lake is a rare survivor, with one bank

dug parallel to the prevailing wind to make it freesail friendly. Other club members, including Victor Scripi and George Ferrari, have new wooden free-sailers under construction, the older boats are not idle, and club members have revived international free-sail competition at such hallowed locations as Round Pond at Kensington Gardens in London. This June they will send a contingent to Britain to race 36Rs against a group who cleaned their clock two years ago in the U.S.

Stobbe recalls, “For our first Challenge Cup, in 2001, we took Marbleheads to the U.K. But they were too big to carry comfortably on airplanes. We changed to their 36R and had to quickly create a U.S. fleet, so here came the British guys in 2003 with very light hulls and carbon masts and a lot more experience.”

A 36R (R for “restricted”) must fit inside a box 37” × 9” × 11”. Sail area is open. The boat is steered by a vane. Stobbe, a builder of vanes, says, “The subtlety makes free-sailing more exciting to me than radio control, and there’s a luck factor that takes the *mano a mano* out of it. The RC guys get all wound up, but free-sailors are a peaceful bunch.”

As practiced at Spreckels Lake, the art of free-sailing, with or without a vane, is to perfectly balance hull and sails. Then you tune and trim to create a slight imbalance so that you can set your boat free upwind, and it will sail out into the pond—not too far, yet just far enough—lose balance, tack, and return to a point on the shoreline upwind of where you started. You’re allowed to touch the leeward bow with a 5-foot, 4-inch stick, once, to nose it out again, and as it departs you may touch the leeward quarter, once, for a course correction.

Races start downwind and finish upwind. An ideal downwind leg would reach straight down the lake; instead, the helm is set slightly imbalanced—not too much, and not too little—so that the boat will tend to turn to port, returning to the walkway once or twice for course correction. You not only have to be a bit obsessed, you have to understand that your best efforts will be subject to the whims of capricious spirits. But little else on the blue planet is so arcane, so intricate, so excruciatingly satisfying when things go right. Time stops. Something beautiful sails by.



These two X-Class free-sailors now under construction will soon join the fleet at the San Francisco Model Yacht Club

All photos this page by Abner Kingman

