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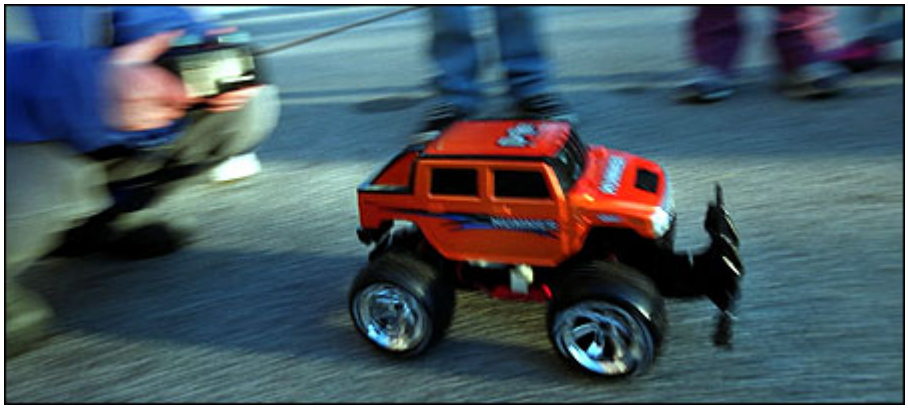


Mission control

Technology brings thrills to remote control racing

Marty D. Wolfand, Globe Correspondent, 05/29/2003

Believe it or not, the Storrow Lagoon at the Boston Esplanade was built for sailing model-scale yachts and boats. Back in the early 1930s, model boat racing was a big deal, popular enough to justify making it a principal feature of the Esplanade, along with the Hatch Shell and the Stoneman Playground.

Model boating in the '30s was a wild and woolly hobby. Boat captains would run along the 1100-foot length of the Lagoon trying to keep their vessels on an even keel with the help of long, rubber-tipped sticks.

By 1971, interest in model boating on the Lagoon had died out. Last spring it came back with a 32-boat regatta put on by the Boston Model Sailing Club. Nine "classes" of sailing craft were launched, including the Goliath of the model sailboat world, the J Boat, which weighs in at 90 pounds, is 90 inches long. Launching her the J Boat takes a crew of two.

The age of micro-miniature electronics and high-performance metals is creating a remote-controlled model renaissance, boosting performance and lowering costs of model sporting as never before. Now, the heady experience of flying a plane at 200 mph miles per hour, racing a car at 80 mph miles per hour, or sailing in a regatta of boats the likes of which you won't find outside of the America's Cup race, is suddenly within reach.

In some cases, it's even free. Twice a week (Wed. 4-6 p.m., Sun. 2-5 p.m.) anyone can borrow one of 10 radio-controlled Laser boats donated to the Boston Model Sailing Club for public use.

"The club has been working with such organizations as Partners for Youth with Disabilities to offer the experience to anyone who might want to give it a try," says its commodore, Bill Jones. "What we're trying to do is resurrect model sailing at the Esplanade."

Laser boats are some of the easiest models to launch and sail, Jones says. They are 42 inches long with a single mast and come with all the electronics necessary to maneuver them.

"Out of the box and sailing in three minutes" is the boat-maker's slogan. There are no limits on how many times you can borrow club boats. "Everyone is welcome to come down [to the Lagoon] and race with us," Jones says. "The more regulars who come down, the better."

Model boat sailing and racing is probably the most regulated of the radio-controlled hobbies. Its national sanctioning agency, the American Model Yacht Association, sets the standards for individual classes of boats, and it keeps track of members' boating standings.

The association recognizes 22 classes of model boats, says Chuck Winder, commodore of the Marblehead Model Yacht Club. They range from the 30-inch Victorias (a one-masted sloop), to the J Boats, which have to be three-fourths inches to a foot based on the 1930s America's Cup yachts.

The Marblehead group sails at Redd's Pond in Marblehead, which has been a venue for model boat sailing and racing since about 1900, Winder says. As soon as the ice melts on Redd's, the club's nearly 40 members are out there setting up course markers. From then on, they're sailing every Thursday from 6 p.m. until dark and every Sunday from 10 a.m. to noon.

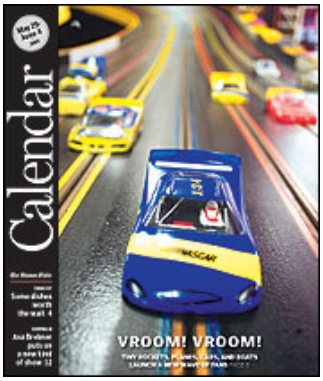
Marblehead even has a class of boat named after it, one so popular it competes internationally. "The Marblehead boat dates from the early 1930s and is what they call a `development boat' " Winder says, meaning there is a formula to building it.

The length is 50 inches long, and there can be no more than 800 square feet of sail. Most have two radio control channels, one for sails and one for rudders.

"Some have as many as four channels, the others controlling the shape of the sail and even the bend of the mast," Winder says.

At this weekend's Boston Model Sailing Club regatta, the Marblehead Class Region 1 Championship races will include both modern and vintage Marblehead boats.

"Vintage boats are made out of wood planking," says Jones. "The modern boats look almost like weapons," because of their polycarbon fiber hulls and sleek, aerodynamic designs.



Go, Speed Racer

To hear 12-year-old Cody Swan tell it, racing slot cars is more fun than being in the Indy 500. "Going head-to-head" with other drivers keeps him coming back to the track.

Swan, from North Scituate, R.I., was at Modelville Hobby in Ashland recently, taking some test-runs in preparation for the New England Championship Cup Celebration Race, which ran on May 17.

Modelville has a 90-foot figure-eight track and a 141-foot hill climb track. A 7-month series of traveling races are held on a group of affiliated tracks in Connecticut, New Hampshire, Rhode Island, and Massachusetts. The biggest of these is in Danbury, Conn., which has a total of five slot tracks.

Slot cars don't use radios for remote control. Instead, drivers tap into a track-based, 12-volt electrical system via a hand-held joystick and conductive pads located at the front of each car. Usually, there are eight "slots," or lanes, which allow for cars to compete against one another. During a race, after a certain number of laps, the cars change lanes until they have raced in all eight. With cars traveling at 17 to 30 miles per hour, depending upon the class of race car, the action is so fast and furious that it takes a computer to follow the competition and register race positions and standings.

"There's one customer who races here," says Richard Payne, owner of Modelville and Race Director for this year's NECC Championship Cup Series. "He says he can't buy a full-size GT-40 - a 1960s Ford LeMans race car, but he sure can buy and race a model of it."

"I'm really not a big fan of video games, where you sit alone and play," says Payne. "On a slot track there are always other people around to interact with."

As in professional track and course racing, there are rules that govern the sport and the cars to make sure that everyone is competing in the same technological and skill class. These classes have names like Production 1/24 Stock Car, Production NASCAR, and Outlaw Group 10. Specifications cover everything from chassis size and finish, the composition of motor-magnets to the type of axles, bearings, gears and other race-car components. Luckily, since most in all classes are mass-manufactured, the cars comply but need maintenance before and after the intensity of a race day.

At the NECC Celebration Race on May 17, Swan finished a respectable seventh in the Junior Group 10, which is for ages 8 to 13. Not too far behind him was 9-year-old Shayna Belsky, who finished 11th. Slot racing, as well as all other model sports, are not the exclusive territory of males.

"I meet a lot of cool people," Shayna says in an interview with her father and brother , all avid slot-racers. Beyond racing, Shayna is also an acknowledged expert at race announcing, following the computer results for the 3- to 5-minute race segments. She also "marshals" as a race official, standing next to the tracks during races. Officials are the only ones who are allowed to place derailed cars back on the track after a spinout.

This is rocket science

It may not be Cape Canaveral, but the countdown to blastoff is under way on summer weekends in Amesbury and Tewksbury.

These are real rockets, too, even though they are scale models. Equipped with expendable, miniature rocket engines, they can fly as high as 1,500 feet (approximately a third of a mile) and can hit maximum speeds of up to 250 miles per hour. The rocket body is stabilized by the use of aerodynamic fins or "vanes."

"It's a safe hobby. There has never been a serious injury or property damage in 45 years as long as the rules are followed," says Ed Pattison-Gordon of Arlington. He has been launching rockets since 1969 and edits the newsletter for the Central Massachusetts Spacemodeling Society, a chapter of the National Association of Rocketry.

The club's last launch on the weekend of May 3 in Tewksbury comprised 300 flights with entries from not only the smaller model rocket class, but also from the high-power class (which requires certification from the Federal Aviation Administration). The launches are free and usually draw big crowds.

"I've always enjoyed designing and making something that actually works," Pattison-Gordon says. He builds his own rockets and does preflight testing on his designs via a home-computer-based flight simulator program. Entry-level rocket kits are inexpensive enough to fit a child's budget, and they come with a rocket, three engines, and an engine starter kit.

"There is an igniter that fits into the exhaust nozzle of the rocket engine," Pattison-Gordon says, "and the fuel is remotely ignited by electric current from a battery."

Of course, that's where the regulations come into play. Guidelines governing the safety of flying rockets cover the minimum distance that a rocketeer may be from his or her rocket at lift-off (15 feet); the countdown held before launch to make sure that there are no low-flying airplanes or unauthorized people in the area; and the size of the recovery system (a parachute) needed.

The simple pleasure of launching a rocket ship and watching it soar into the sky is one thing; another are sanctioned competitions held between rocketeers. These include duration flying, altitude events, and even "egg-lofting" contests, which involves carrying a fresh egg on your ship and launching and recovering it intact. Out in the open spaces of the Western states, there are desert-lauch competitions where rockets can fly nine to 19 miles up, Pattison-Gordon says.

The next launch at Tewksbury's Livingston Street Park will be on June 7; the next launch at Amesbury's Woodsom Farm Park will be on July 19. Range set up starts at 9 a.m. and launching starts at 10. Rockets will fly until 4.

Barnstorming in Billerica

After World War I, combat pilots came home with an itch to fly that they just couldn't scratch enough. They bought war-surplus bi-wing airplanes and set out as "barn-stormers" - stunt pilots who flew from town to town, landing in open fields and giving a show to the locals before passing the hat around.

That tradition survives among today's model flying clubs. Flying out of grass fields in small towns, scaled-down versions of every make of airplane, helicopter, even blimps and jets soar skyward, pulling stunts and putting on a show. The coordination and skills of certain pilots, flying remotely via radio control, can in some cases rival those of an experienced commercial pilot.

The Middlesex County R/C Fliers Club maintains a flying field on Treble Cove Road in Billerica, and on almost any day the weather's good. Raymond Copobianco, 65, is out there piloting high performance, delta wing prop-planes capable of going up to 180 miles per hour. He likes to copy stunts from the Air Force's Blue Angels exhibition jets, his plane roaring in at a couple feet off the ground, then suddenly shooting skyward at a steep angle. High-speed spins, dives, and climbs round out his flight repertoire.

As with boats, slots, and rockets, modern electronics and technologies have streamlined the model aircraft hobby, bringing remote control flying within financial reach. As with other model sports, the Middlesex County R/C Fliers Club is recognized by the national American Model Association, which provides rules and guidance for sanctioned events. The club will hold its ninth annual Construction Derby on June 8 in which teams of five fliers will be given 90 minutes to build and fly an airplane kit provided by the club. (Flying starts at 9 a.m.; rain date June 22.) The club determines the size, flying functions, and materials used. A free barbecue follows the competition, which last year fielded six teams and drew 100 people.

Building a model airplane is a fairly universal rite of passage. Alex Lob, owner of Alex's R/C Hobbyworks in Belmont, is no exception. In 1972, when he was 11 and in bed with pneumonia, his mother brought him a balsa-wood airplane kit. When he finished the kit, it was too good looking to risk flying, so he hung it from the ceiling in his room. Later, in his early 20s, Lob took the plane down and flew it.

"Two flights and one crash later and it went back up on the ceiling," Lob says.

That experience powered a lifelong love of remote control model sports, and at 42, Lob owns his own model shop, belongs to four model flying clubs (including the Middlesex R/C Fliers), and pilots helicopters and airplanes. His Raptor 50 helicopter is 4 feet long, cranks 1.8 HP, and can hover upside-down at 5 feet, then do a series of inverted flips, loops, and rolls.

The Wingbusters Model Aircraft Club in Halifax, whose members's ages range from 4 to 80, flies remote control planes and helicopters and also those connected by a "conrol line" to the pilot. They lease an open field in Halifax from Cumberland Farms Dairy to fly from.

Wingbusters has open flying sessions on Saturdays and Sundays. Flight training is underwritten by club liability insurance, and the club uses "buddy boxes," which allow a novice to fly an R/C plane under the supervision of an experienced pilot, who can take control at the press of a button.

Wingbusters will hold an open house at their Halifax flying field on June 22 at 10 a.m. They'll also be putting on flight demonstrations at the Marshfield Fair Aug. 14-25.

Take me to your leader

Maybe the last word in remote control sports are the clubs that take scale model replicas to the max.

The New England Dreadnought Flotilla stages warship battles using balsa wood model warships, each equipped with BB cannons capable of sinking the competition. The club is a member of the International R/C Warship Combat Club.

Other enthusiasts have embraced the bipedal ornithopter, a 12-foot airship that runs on two legs and flaps insect-like wings to take flight. There are even R/C flying saucers comprised of a helium-filled balloon and radio controls that allow it to make turns, fly backward, spin, ascend, dive, and hover.