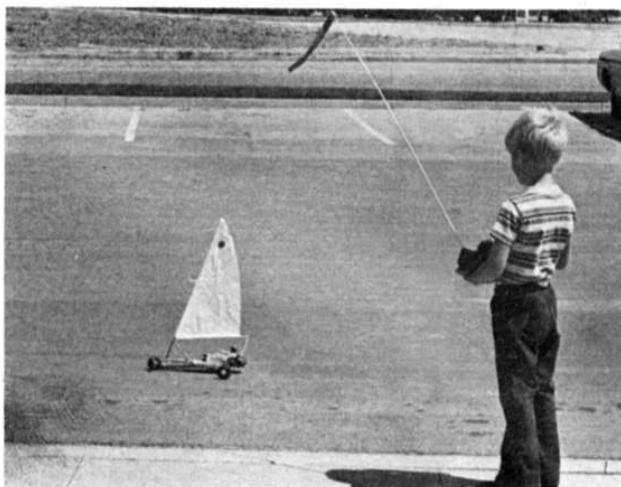


Radio-Controlled Land Yachts

Will this type of modelling catch on? If you have a radio, it's not at all expensive to try it.

By George G. Siposs



MAN is lazy. Ever since the invention of the wheel he has been looking for a way to power the wheel so that, without any muscular exertion, he can move from one place to another. It was only a matter of time before sailboats inspired the innovators to put a sail on a land vehicle and a new form of transportation, and sport, was born. Maurice of Nassau, Prince of Orange, and his friends jaunted along the Dutch Coast as early as 1600 A.D. Their vehicles were clumsy four-wheeled wagons with square rigged sails designed by the Dutch mathematician Simon Stevin. Nevertheless, they could carry up to 30 people at up to 25 miles per hour, albeit only when the wind blew abaft the beam.

A few decades ago wealthy sportsmen in Europe had well engineered boats built for themselves and had them equipped with cat-rigged sails. These are the conventional triangular sails which act much like airfoils on an airplane and are capable of developing great propulsive forces even when the wind hits them from the side.

If you were to analyse the forces developed by such a sail you could prove to yourself that the boat can be pointed almost directly into the wind and still the sail will push it along. Due to the angle of the sail, the force vectors have a resultant which is far larger than the original force vector of the wind. Thus, a sand sailer can actually run up to three times the speed of the prevailing wind.

While in Europe, sand sailing is mainly for the rich, in America there are kits and assembled sailers available which cost less than most motorcycles. The number of

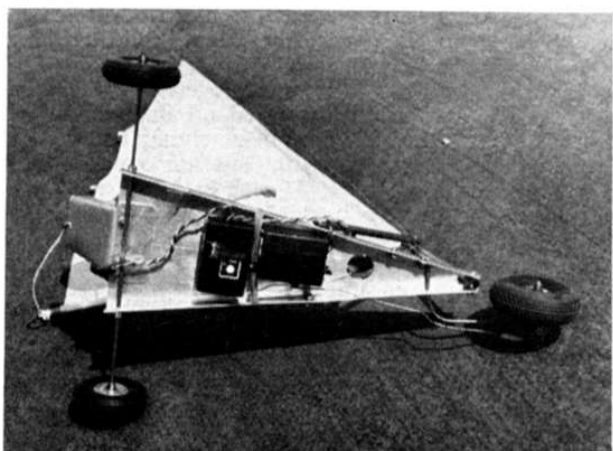
enthusiasts is quite large, especially in areas such as Southern California, where there are large flat land masses available. One such area is the Mojave Desert, near Los Angeles, where clubs conduct rallies, slalom races and speed events on every weekend.

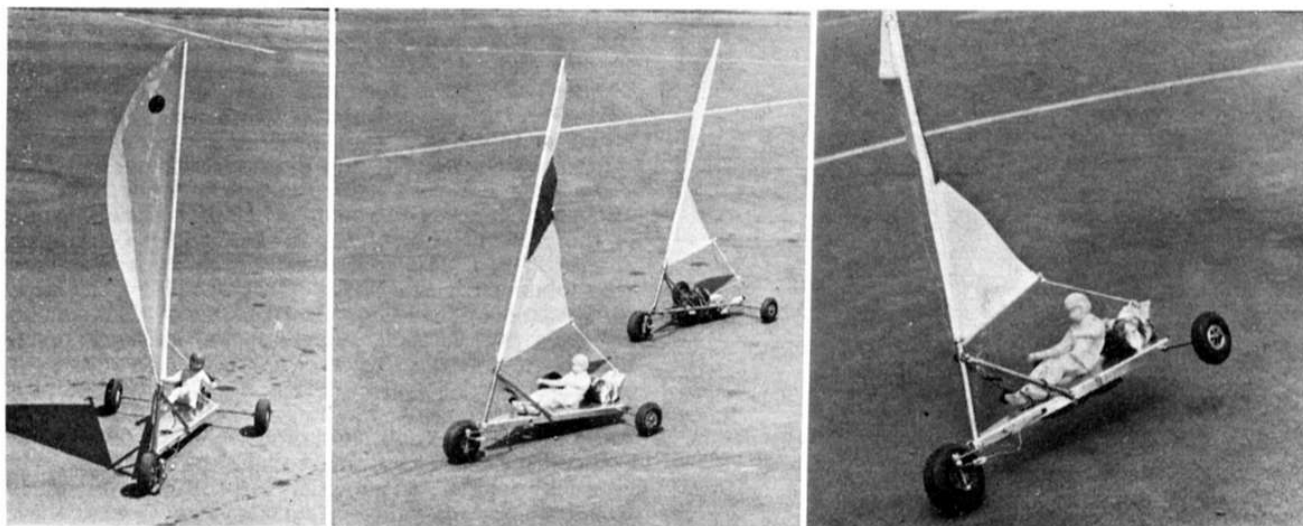
The basic simplicity of the sand sailer and the tremendous fun that the participants seemed to be having prompted me to develop model sand sailers and the results have been most gratifying. Most models are built to a scale of $1\frac{1}{2}$ inch to a foot i.e. 1 : 8. From the ground up to the tip of the mast is about 27 inches high. The wheels are basically model airplane wheels having a diameter of $2\frac{1}{2}$ inches. The chassis is made from brass tubes or metal and the axles are $\frac{1}{16}$ in. diameter piano wire. One can even put a "driver" figure in the cockpit to achieve perfect realism.

With proper trim and having a good breeze, the sailer will sail by itself in circles of about 35 feet diameter or more. As the sailer "comes about" the sail whips smartly to the opposite side all by itself. At certain times one of the wheels lifts off the ground and the sailer will run under a precarious, but very exciting, balance. The model can also be set to run straight but you have to be prepared to run great distances after it. It is imperative to have a smooth surface to run the sand sailer because a rough surface greatly reduces its speed and may even cause it to keel over instead of speeding forward.

A simple one-channel radio control system (such as the MacGregor) can be used for remote control. It is

Below left, an underside view showing the installation of simple radio; the battery is carried above the chassis. Right, basic mast support and steering arrangement.





Opposite page, an eight-year-old has fun with one of these simple-to-operate models. Above pictures show two different prototypes in action. Once built, running costs are negligible—all you need is a spot of breeze!

best to mount the components under the chassis to lower the centre of gravity. The digital proportional servo controls the steering action of the front wheel and one can expect to sail back and forth, performing all the basic sailing manoeuvres, as long as a breeze exists.

I can highly recommend this hobby to anyone who is tired of noisy and oily model cars or to anyone who wants a nice relaxing hobby without having to rebuild the model or tune it constantly. In other words model

land sailing is the hobby you may have been waiting for. Several models can be raced simultaneously and the grace, the speed and the ease with which they negotiate turns never ceases to amaze you.

(Complete land sailer kits can be obtained from Universal Developments, P.O. Box 5253, Orange, California, 92667. Their price in the U.S. is \$19.95 plus postage. Metal chassis, wheels, axles, Dacron sail, wooden mast etc. are included.)



The World's Most Beloved Teddy Bear

By

Australian contributor
Frank Madigan

OF ALL the animals in the world, the most appealing to children and young people is the so-called "Teddy Bear" of Australia. This quaint, cuddlesome, furry creature is really not a bear at all—he is a koala—a member of the marsupial tribe.

The koala has a chubby face, smug little mouth and keen, bright eyes, while his small, leathery nose completes his toy-like appearance.

The fur for which he was massacred in the thousands, until they were made "protected" animals in 1928, is grey or brown.

At four years of age, the koala is fully grown, and measures about three feet in height, although there is some variation in size. Yet such a small creature has an

appendix measuring 9 feet in length!

He lives for about twenty years, and whilst the average weight of an adult male is eighteen pounds, that of the female is generally about thirteen pounds.

Like the opossum and the kangaroo, the koala is a marsupial, having a pouch which the cubs enter at birth, and in which they are nourished for the first six months. New-born koalas are tiny, shrivelled objects hardly an inch long, and not until they have grown their own fur do they emerge from the pouch. Even then they are rather helpless, being still only about the size of a rat, and they cling about their mother's neck, snuggling into her thick fur. When the baby first leaves the pouch, it takes the opportunity of making the acquaintance of its mother, by crawling over her fur, examining her face