



The Latest News from AeroSouth - October 2022

SOL and AeroSouth

Congratulations to Chris McLellan, owner of AeroSouth distributor [Sunfish Direct](#) and the new company [SERO Innovation](#), on the launch of their spectacular [SOL sailboat](#), unveiled at the [2022 United States Sailboat Show](#) in Annapolis, MD.

As the company describes its creation: "The vision of SERO Innovation is to offer a boat that will introduce people of all ages to sailing in a safe and fun way that will instill a love of the sport. At the same time, the SOL has been designed to meet the high performance standards that racers demand. It offers all of this while allowing customers to completely customize their boat to their individual needs."

Special recognition goes here to the boat's designer, **Terry Steller**, who has included many innovative features in the SOL that are sure to be appreciated by its owners.

AeroSouth is pleased that SERO will be offering all of [AeroSouth's products](#) for the SOL that it now provides to owners of the Sunfish and Sunfish clones. This will eventually include our all-new **"Model V"** rudder, described below.

We wish SERO Innovation great success in sales of this new, higher standard in board boats!



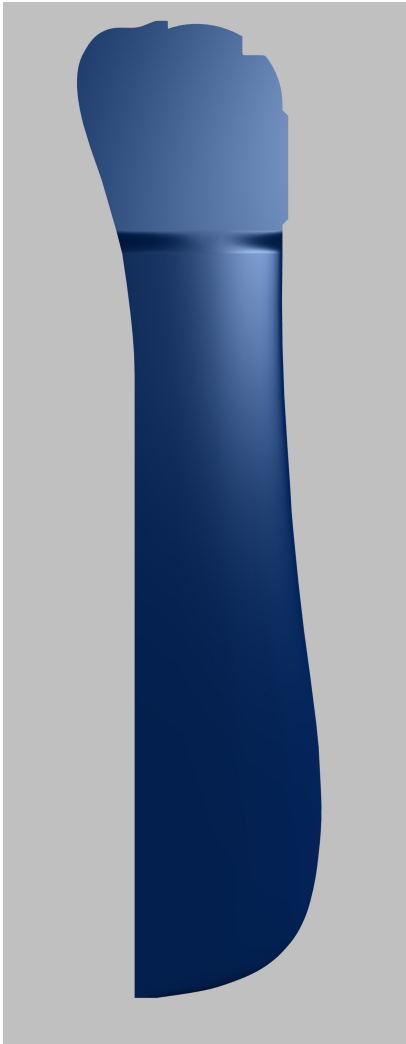
Announcing the Model V Rudder Blade

AeroSouth is pleased to announce our new "Model V" rudder blade.

"V" for Vertical, for higher performance, lower drag, and low weather helm. "V" for Victory for those who sail with it.

With most of the features of our world-leading **FS Rudder Blade**, but with changes that eliminate the need for carbon fiber, the Model V is an affordable, world-class rudder blade for recreational sailors and competitors alike.

The Model V was designed for the new **SOL sailboat from SERO Innovation**, but will equally improve the



performance of the Sunfish and any other sailboats that use the standard Sunfish cheek flange.

The new Model V will be available before the end of 2022, so watch for further news!



Fall Sailing means it's Dinghy Bob time

OK let's admit it. It's not fun to capsize, and it downright sucks when our boat turns turtle. Especially when the wind and waves are up. Even worse when the water is cold.

That's why we developed the Dinghy Bob two years ago. Under continual refinement, It has been a strong seller, especially in the fall and winter sailing season when some of the most exciting sailing can be found. Here is what a few sailors had to say about it:

John McIntosh from Fort Gratiot, Michigan: "The Fulcrum Rocket is great but it turtles faster than anything I have seen. The Dinghy Bob solves that problem completely. Thank you!"

Jackie Meyer, Lutz, FL: "I've gotten great use of my Dinghy Bob here in Tampa Bay."

Joe Clancy from Baltimore, MD: "Dinghy Bob works great, and the mainsheet hanger clips are awesome."

Dinghy Bob is available for the SOL, Sunfish- and Laser- class dinghies [at the AeroSouth Store.](#)



Show your national pride through mainsheet hanger clip colors

While watching the recent 2022 Sunfish Worlds on Lake Garda, Italy, it occurred to us that the host nation always gets the colors of its flag on the special sails made for the event. Wouldn't it be nice to be able to display our nations' colors any time of the year and on any small sailboat?



To show your own national pride while sailing, why not choose a trio of our mainsheet hanger clips in the colors of your flag? The list of top competitors this year revealed the strength of sailors from Central and South America as well as the Caribbean. We noticed that many of these nations have yellow in their flags - so we just added yellow to our color options. For instance, the mainsheet hanger clips shown to the left are in the colors of the flag of Ecuador, host

of the 2023 Sunfish Worlds. TO ORDER SPECIAL COLOR COMBINATIONS, SELECT THE COLOR OPTION "SPECIAL COLOR REQUEST"

A few more colors are coming - so stay tuned! Our mainsheet hanger clips are available for the SOL, Sunfish, Sunfish clones and Laser sailboats at the [AeroSouth store](#). **Still only \$25 for a set of three!**



Plug it up for the Winter!

We all know the problem - when left exposed, our board boats can take a beating in the winter, even in a dry shed, where openings such as a mast step hole provide an ideal nesting place for critters.

Plug that mast step hole with an AeroSouth Mast Step Plug, still only \$20 at the [AeroSouth Store](#). In recent months we have added a tough acrylic coating and switched to a thicker gasket

to better protect the plug and the innards of your boat when outdoors.

The Science of Sailing: Noah's Ark and the Center of Pressure

Sailors who have visited the spectacular [Ark Encounter](#) in Williamstown, Kentucky (located between Lexington and Cincinnati), may have noticed that the full-scale recreation of Noah's Ark includes what looks like a sail, and on its bow, no less! The picture on the upper left shows this.

When I first saw it, I must admit my own confusion, until I read [this article from AIG](#) and a [follow-up to it](#). They explained the differences



between a floating Ark and a sailboat.

The key to understand how a bow fin works is found in the determination of the **center of pressure**, the locations on a vessel where designers sum up the forces acting on sails, the hull, rudders, centerboards, keels, etc. In contrast to a sailboat, which is moved primarily due to forces on its sails, the Ark, designed to protect the people and animals inside for forty days and nights of torrential storms during **the great flood**, is pushed along by the forces of the wind and waves on its **massive, 510' x 85' x 51' hull**.

Without an engine or sails to move it, there would be little use of a rudder on the Ark. So how could Noah assure that the bow headed into the waves to prevent unpleasant motions or even capsizing? Since the world was covered with water during the great flood, wind-driven waves would run perpendicular to the wind's direction. They would also be greater than the speed of the wind-driven

ark due to its resistance to motion caused by the high drag forces of dense water. With an essentially symmetric shape down its length, the addition of the bow fin allows the Ark to act like a giant weather vane. Thus the bow would automatically be pointed into the waves while being pushed from behind, precisely what boaters do when confronted with large waves.

The addition of the bow fin to the Ark Encounter was not based purely on speculation and physics, however. Tim Chaffey, the content manager for the Attractions Division of Answers in Genesis, explains: "The 'sail' on our Ark is a rigid wooden structure rather than a traditional sail that can be moved for propulsion purposes. Rather than calling it a 'sail,' it would be more accurate to call it a stem post projection or a bow fin. This design is reminiscent of many ancient ships."

"A bow fin would have served as an obstruction to the wind, pushing the bow away from the wind and into the waves, which would prevent the Ark from capsizing. In tandem with the bow fin, a 'stern projection' would have reduced the swaying of the Ark's stern, thus preventing the Ark from being pushed side-on by the wind. So these additional structures on the top of the Ark were designed to provide stability instead of giving Noah the ability to steer it through the waters."

More details on the Ark's design, as well as similar ancient ships, may be found in **Thinking Outside the Box**, by Tim Lovett and **The Large Ships of Antiquity**, by Larry Pearce.

So what does all this have to do with small sailboats? The lower picture on the left here shows a once-popular variant of the Sunfish known as the **Super Sunfish**. The primary difference in the two boats is obvious - their rigs. The Lateen rig of the Sunfish has been replaced by an unstayed Cat rig on the Super Sunfish. Obviously, the center of pressure of the Cat rig will differ from the Lateen rig, in both the longitudinal and the vertical position. In an ideal world, the location of the mast step, daggerboard and rudder should have also been optimized for the new rig, but the cost and complexity of this made that impractical. (Although the Super Sunfish did sport a different daggerboard).

While the Super Sunfish was not a commercial success compared to the stock Sunfish, one would be hard pressed to find a negative comment about the former. Wouldn't it be nice to have the option

of both rigs though, a Lateen rig for easy transport and sailing schools, and a Cat rig for those wanting higher performance and preparation for more sophisticated sailboats?

In the [description of the new SOL sailboat](#) there is a tantalizing suggestion that such a multi-rig option might soon be available: "Upgradedable rig allows you to move up from beginner to more advanced sailing quickly and easily."

For those wanted to know all the physics behind this topic, we strongly suggest getting a copy of ["The Science Behind Sailing"](#) by famed Dutch engineer and sailor [Joop Sloof](#), inventor of the winged keels for past America Cup boats.

SAIL FASTER - HAVE MORE FUN
AeroSouth Technology LLC

©2022 AeroSouth Technology LLC | Seven Lakes, NC

[Web Version](#)

[Forward](#)

[Unsubscribe](#)

Powered by
[GoDaddy Email Marketing](#)®