



A New Sail for the Butterfly

After lots of talk with our business partner in Butterfly parts business Barnett Marine Sports, Joe Terry (Northern Lakes Sailboats) over 2019, we decided we needed a new sail. After considering a few options, we decided to work with a new sailmaker in early 2020, to design a fresh, new sail for the Butterfly. The Elliott Loft in Newport Beach CA is run by Skip Elliott and his son Ian. Skip is a long-time catamaran and offshore sailor, whose loft has been delivering high-quality racing sails not just to small boats racing in California harbors but to big boats racing across the Pacific and Olympic sailors racing all over the world. Skip and Jim have known each other since their days on the US Sailing Team in the late 70s in the Olympic catamaran, the Tornado. And in more recent decades, the Elliott loft was the provider of sails to NACRA catamarans, which was run by Jim's brother, Jack.

With Butterfly sail supply becoming a free-for-all in 2018, Jim had the luxury of starting from scratch over the winter and spring of 2020, to design and make a better Butterfly sail. His specific design goals for the new sail: 1, it had to be easy for a recreational sailor or beginner to use; 2, it had to be 'better' than the old standard sails, with better materials and a longer-lasting cloth; and 3, it had to offer the potential of higher performance when used by a good sailor. After considering many options, from 3 oz to 5.5 oz woven fabrics and a couple of Mylar materials, Jim settled on a new 4.25 oz woven polyester – a brand-new sailcloth product in 2020, made with a new polyester thread specifically designed as a sail thread, and with a very new thread pattern - as the best all-around choice for Butterfly sailing.

Mylar was considered along with the newer woven cloths. Jim has plenty of Mylar experience. He was coaching when the Olympic Tornado catamaran made the switch from polyester to Mylar - and discovered that it took the best sailors in the world about a full year to learn how to sail with the new material. He was also coaching the Olympic Finn class when they started testing Mylar and was part of the group of sailors and coaches whose work led to something called "Contender Max AO6 Finn Yellow", a wonderful Mylar that would work for the Butterfly - if you wanted a \$1500 sail that worked great if you are very highly skilled. The result of all of Jim's experience; Mylar CAN be faster, in the hands of a superior, experienced sailor, but it is more fragile, and while it is very consistent over its life, Mylar sails fail suddenly and completely. In small

boat sailing, Mylar sails are seen almost entirely on strict one-design boats, so that everyone has to deal with the advantages, and problems, of Mylar. Polyester not only ages more gracefully, but its stretchiness makes it easier, more forgiving to sail. The weight of the cloth is nothing more than the number of threads per square inch, lighter cloth has fewer threads, heavier cloth has more. So cloth weight is directly related to durability and to stretch, making it a trade-off between the two.

The result Jim's and Skip's work is a very high-quality sail! After lots of discussion about different options, and trading computer sail panel layout drawings, Jim settled on two options. The Elliott loft produced 2 prototypes over Apr-Jun that Jim tested before settling on the final design. The cloth weights considered ranged from the original 3.8 oz all the way up to 5.5 oz. All of Jim's testing has us settling on a brand-new 4.25 oz cloth.

The samples made for testing used this new polyester cloth, with a new panel size, different batten pockets, and a much better, non-shrinking bolt rope. It is more stable, and should last longer, than the old 3.8 stuff, has a good 'hand' or feel to it without being too stiff, and is much easier to adjust than the heavier cloth we were considering. Jim will be including a tuning guide with each sail, because they will behave a bit differently than the old ones - or the various copies of the old sail now available from many sailmakers. We went into production with our new design in early June. Price (early 2020) is \$681 plus shipping for white, with color possible for 2021 at about +\$40-50. (2022 update, still no color available.) Please remember, color is not as stable in UV light (that's also called SUNLIGHT!!) as white, so if you want longer life or are concerned about the stability of shape when racing, stay with white! And for sailing school use, the new 4.25 oz should last much longer.

We are working closely with our loft, Elliott, to keep sails coming off the loft floor regularly - but the combination of more than expected interest, plus the business interruptions that the new version of the world has imposed on everyone, it may be difficult to keep the new sails in stock. Check Jim's Butterfly parts web page for current status.