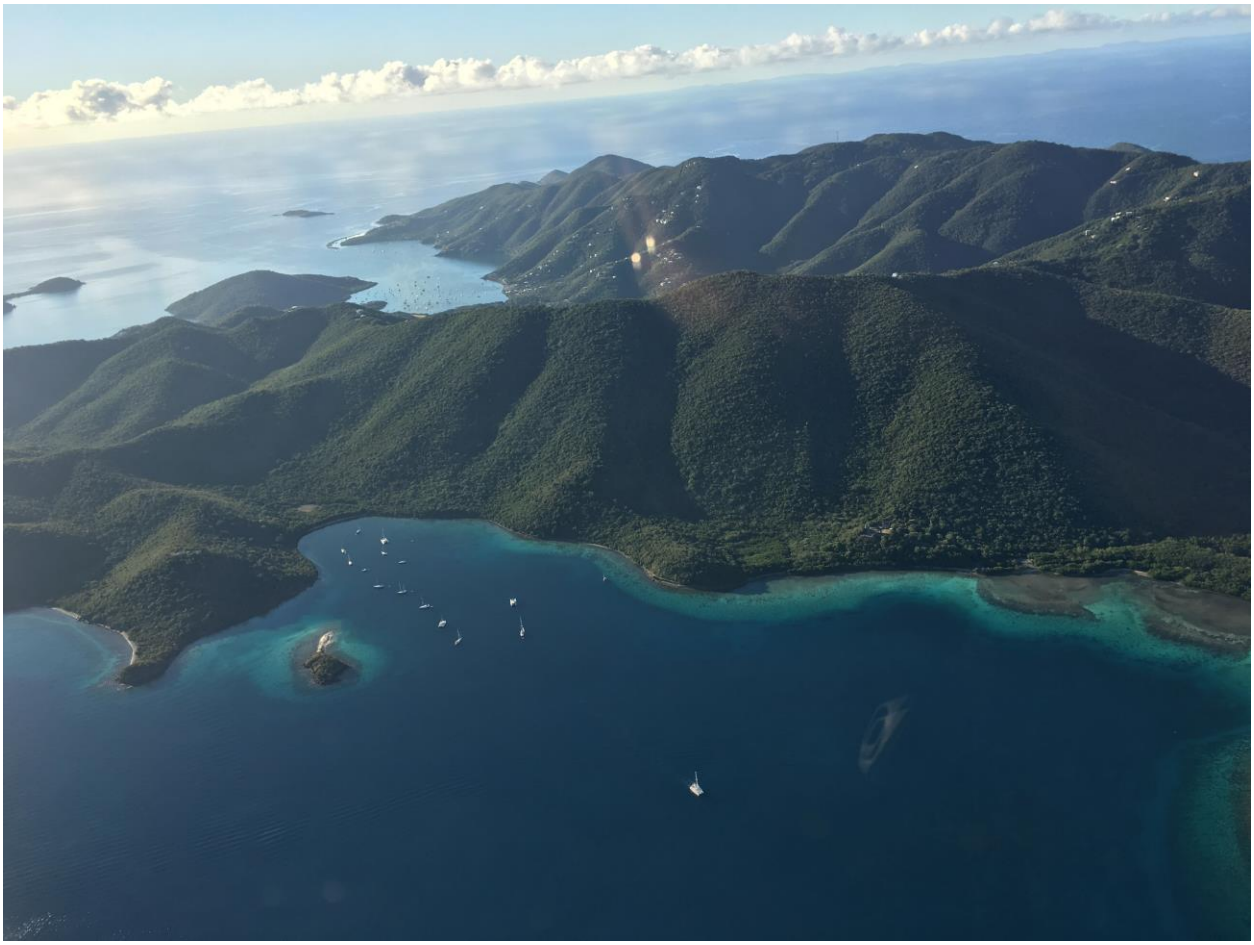
3Di NORDAC - First Hand
by Bill Fortenberry, North Sails Market Segment Manager

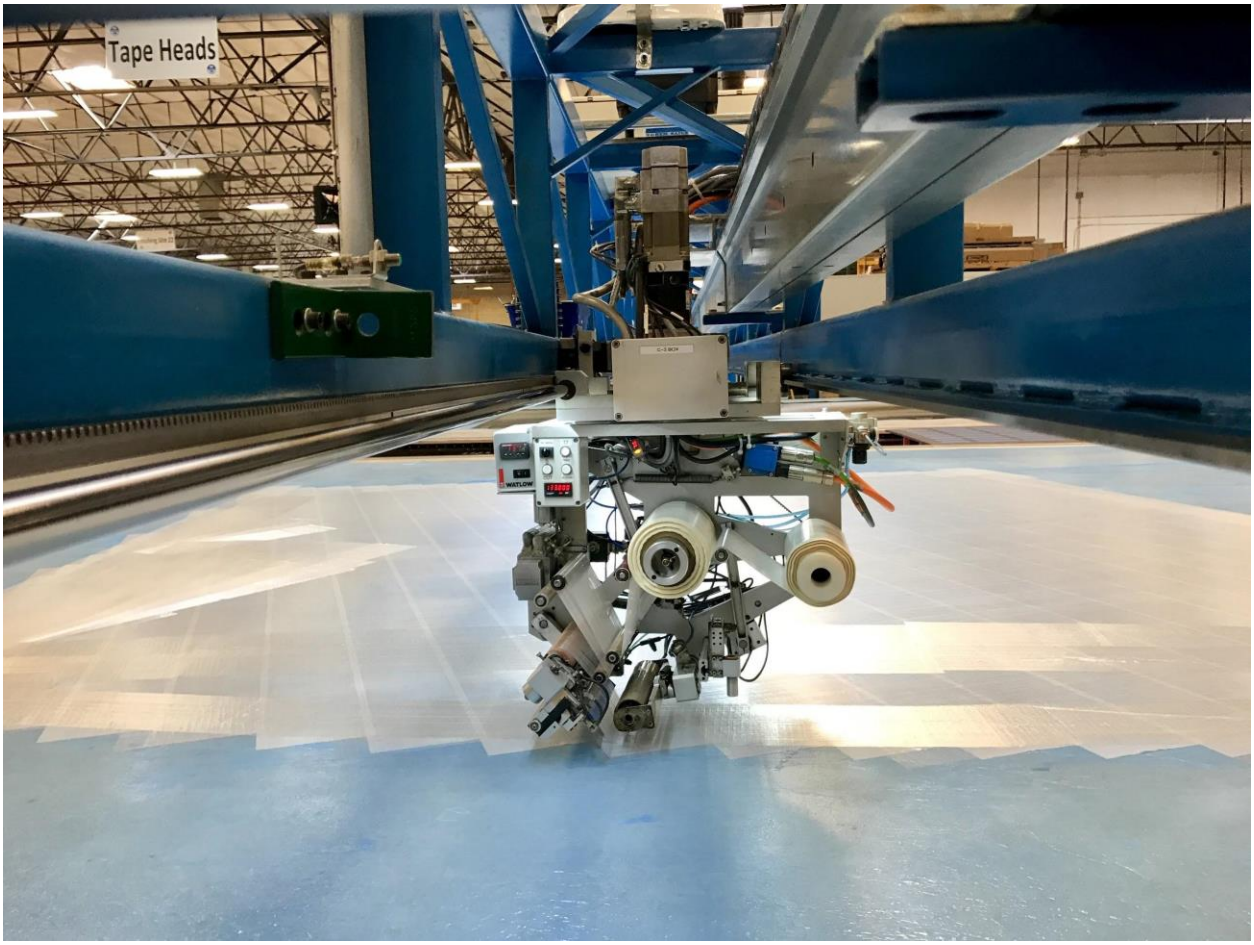
Being a part of the 3Di NORDAC product development team, I was excited to get the opportunity to spend time sailing with our final version of this new product. This project has been two years in development which involved a group of great people working through some interesting problems. Our stated goal was to redefine the Dacron cruising sail. I was more excited that the trip offered an escape from the New England winter and our sailing would span two weeks in the Caribbean. An added bonus was including my family over a long birthday weekend. It promised to be a fun trip both personally and professionally.



Heading to BVI for 3Di Nordac Product Testing

On the plane heading down to BVI, I was considering how we will extend the trust that North Sails has in this product to our cruising customers. Internally, we are well familiar with the 3Di success stories - Around the world race durability, record-setting performance and a reputation of reliability with highly demanding Superyachts. We trust 3Di and we also trust the science. Polyester is a nearly perfect fiber for cruising sails and as predicted, making a Dacron sail in a smarter way, with modern technology has resulted in a stronger sail with more permanent

shape. Extending our trust of the product and science is an important aspect in introducing this new product to cruising sailors.

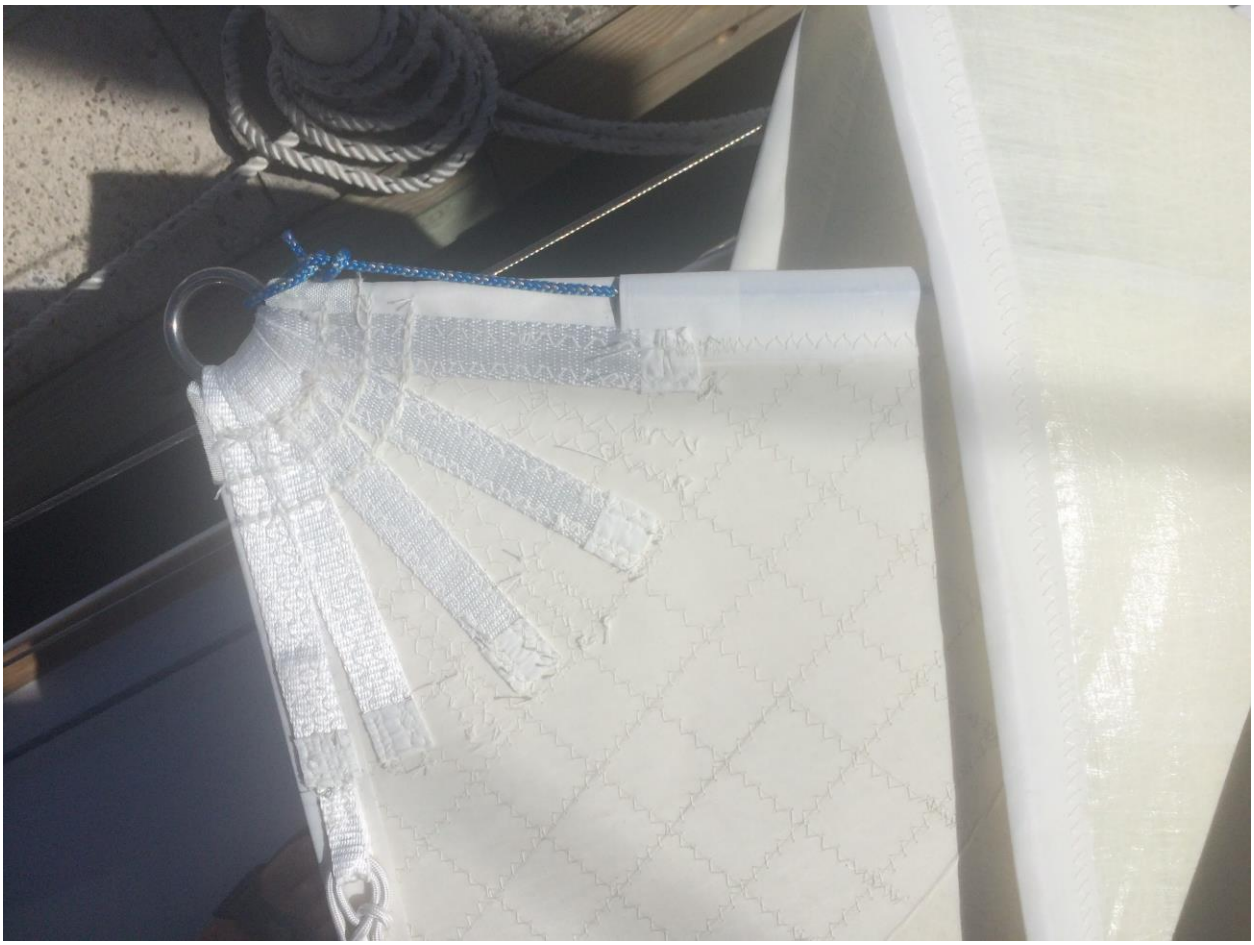


3Di NORDAC sails are made with the same precision manufacturing as 3Di Superyacht sails.

This trip would have some logistical challenges. We had 8 sails, to be installed on 4 boats, on 3 different Caribbean islands. The plan was to put our final product versions in use in with test pilots and charter boats in one of the harshest sailing environments and where we know sails get regularly abused. As a lifelong sailmaker, the anxiety of delivering sails and running into problems such delivery and sail fitting has never left me. The number of sails, the importance of the project and the normal challenges of operating in tropical islands highlighted this normal nervousness.

It helps to have a good crew when fitting sails.

Many of my concerns about building trust with customers were relieved during the sail fitting process. There is nothing like first-hand experience to understand quality. While removing charter sails and installing the 3Di NORDAC sails, I was reminded how heavy traditional Dacron sails can be and how challenging it can be for one or two people to handle them. We have engineered 3Di NORDAC to weigh the same as comparable woven sails - choosing durability over weight savings. Sailors can expect a similar overall sail weight with 3Di NORDAC, but with a much different distribution of fiber mass. When handling the sails, the word “bulletproof” comes to mind. No one will confuse 3Di NORDAC with a racing sail. Their inherent toughness and the familiar look and feel of Dacron should be reassuring to cruising sailors who are rightly focused on durability.



High quality finishing details are standard features on all North cruising sails.

While 3Di NORDAC does share the same polyester fiber as woven panel sails, there are some important and substantial distinctions. First, there are no seams. Composite sails built on full-size 3D molds are truly stunning to see and use. Perfect sail shape that persists in a range of wind conditions and is more permanent over time are hallmarks of 3Di sails. I keep thinking that we will no longer have to answer the most popular question from cruising sailors at boat shows, “How many rows of stitching do you use?” Answer: none.

Another distinction of 3Di NORDAC sails compared to woven cross-cut sails is the reduced amount of patching and sewn on features like batten pockets and reef points. All of these features normally added to panel sails are built in and integrated within a composite sail. All of the extra strength is applied in the exact amount, location and orientation. The sails are stronger as a result.

The composite structure is clearly visible on the test sails fitted and ready for sailing.

Once sailing, I was reminded how reefed sail shape is another key distinction of 3D molded composite sails. Because we have the ability to lay up the structure where needed, the reef positions on mainsails and headsails have the reefing structure internal to the sail and aligned perfectly with the sail loads. Reefing most sails is a compromise in performance. Sailing with reefed 3D sails is a welcomed pleasure.

3Di NORDAC offers perfect reefed mainsail shape

Beyond the differences in sail construction, there are differences in performance. It takes fewer adjustments to control the sail power of molded sails. They react as you expect and part of the fun is actively being engaged in sailing the boat to its fullest potential. Rather than sitting back and enduring the ride, the cruising experience is way more enjoyable when you participate in the performance. With sails that stretch less and hold their shape better, trimming and sail controls make a bigger difference. As the wind increases, pulling on the backstay, easing the traveler, and adjusting your jib cars all have the effect you would expect. The result is a boat that moves through the water more efficiently with better motion. Your crew will appreciate less heel and will enjoy steering more with less helm and leeway. Making sailing fun and enjoyable for all is one of the key benefits of great cruising sails.

Adjusting sail shape and controlling your sail power is easier on 3DI NORDAC sails because they are more responsive and stretch less than traditional woven polyester sails.

An example of better cruising performance was highlighted by one of our other test pilots. Steve and Joy Fredrick have sailed there Beneteau First 42 around the Caribbean for 15 years. They are outstanding sailors, well prepared and knowledgeable. Steve recently said “On our first stiff upwind sail from St. Maarten to Antigua with a single reefed main and roller reefed Genoa, we were punching through 6-foot seas at 7.5 knots with a 35-degree apparent wind angle. That's not too shabby for a 30-year-old performance cruiser”

Steve and Joy Fredrick sailing their Beneteau First 42 with 3Di NORDAC sails

After two weeks of sailing with family, friends, North Sails cruising experts and sailing media, a final theme came to mind. Familiarity and reliability. As you use your equipment, you gain confidence. It did not take long to develop confidence in these sails. Pounding through the waves in the open ocean and seeing the shape stability of 3D molded polyester sails was a testament to the product engineering and shows the complete transformation of cruising sails that has been achieved. Cruising sailors can now expect more from their sails and the cruising experience can be more enjoyable for all.

Author Bill Fortenberry and crew test sailing 3Di NORDAC sails in the Caribbean. Bill Fortenberry is a multiple world champion sailor, a lifelong sailmaker and North Sails Cruising Products Manager. His crew is a 420 and Sunfish sailor from Jamestown, RI.