

## **A Short History of the 'Envelope'**

Was it really 23 years ago, that one of the most revolutionary yawls built was launched? In its first season on the water, Nuffin, number 141, sailed by Simon Gibbens and crewed by John Woodward was just about unbeatable.

In the previous 50 years the hull design had slowly developed, but now we suddenly had a revolutionary design from the drawing board of Phil Morrison. Panic. Would this mean the demise of all previous designs, would the second hand value of Yawls plummet, would this mean that there would be two fleets (pre and post 141)?

The rules at that time only had few controls on the hull shape, being, overall length, and beam, height of stem and transom and rise of floor and freeboard at amidships.

I was called in to help the committee decide on a course of action. The main problem was that no one actually knew the shape of the Yawl; neither did we know how much the shape varied from builder to builder, so it was impossible to compare the developed Salcombe and Bantham shapes to the new design from Exmouth.

Time invariably moved to the start of winter and the committee decided that the starting point would be, to accurately measure a selection of the newer Yawls from the various builders, so that we at least would have some idea of the shapes. The Yawls chosen (partly because they were available to be measured) were 69 (Peter Taylor), 110 (Hugh Cater), 114 (Alec Stone), 118 (Dave Gibbens), 123 (Mike Atfield), 142 (Mike Atfield), also the plans of 141 were kindly sent by Phil Morrison to avoid having to measure the boat.

The next problems were how do you measure a yawl and how frequently should the measurement stations be. The answer to the first problem was that a Yawl shape is quite similar to a Solo, just bigger and heavier and I had been measuring Solos for 20 odd years. The second problem, as the hull was 16 feet long, to measure every 4 feet could have missed some important information, we decided on every 2 feet.

My thanks must go to the many helpers who aided me during the winter evenings measuring the Yawls and also especially to Nick Rowell for the use of his buildings and fork lift truck. From the raw data, the first impression was although different builders produced the hulls are different times they were all remarkably similar. Late I was able to produce an 'envelope' into which all the Yawls measured would fall. At the time we did not consider measuring early Yawls, as this would have increased the workload to an unacceptable level, for little gain, as nobody was building or wanted to build an old design.

At the EGM held in the spring of the next year, I was able to produce graphs of the 'envelope' at the eight measuring points with the hull shape of 141 superimposed. This showed that the underwater shape from the transom to amidships was remarkably similar to the existing designs; only from amidships forward was there any major alterations.

So that's it, now you know why we have so many measurements, the hull shape is quite tightly controlled, maybe now is the time to open up the envelope, or reduce the number of measurement stations. We however must not forget the worries that the members had 23 years ago when 141 appeared on the start line and sailed over the horizon.


**John Donovan**


**Sections 1 to 7 and Transom**

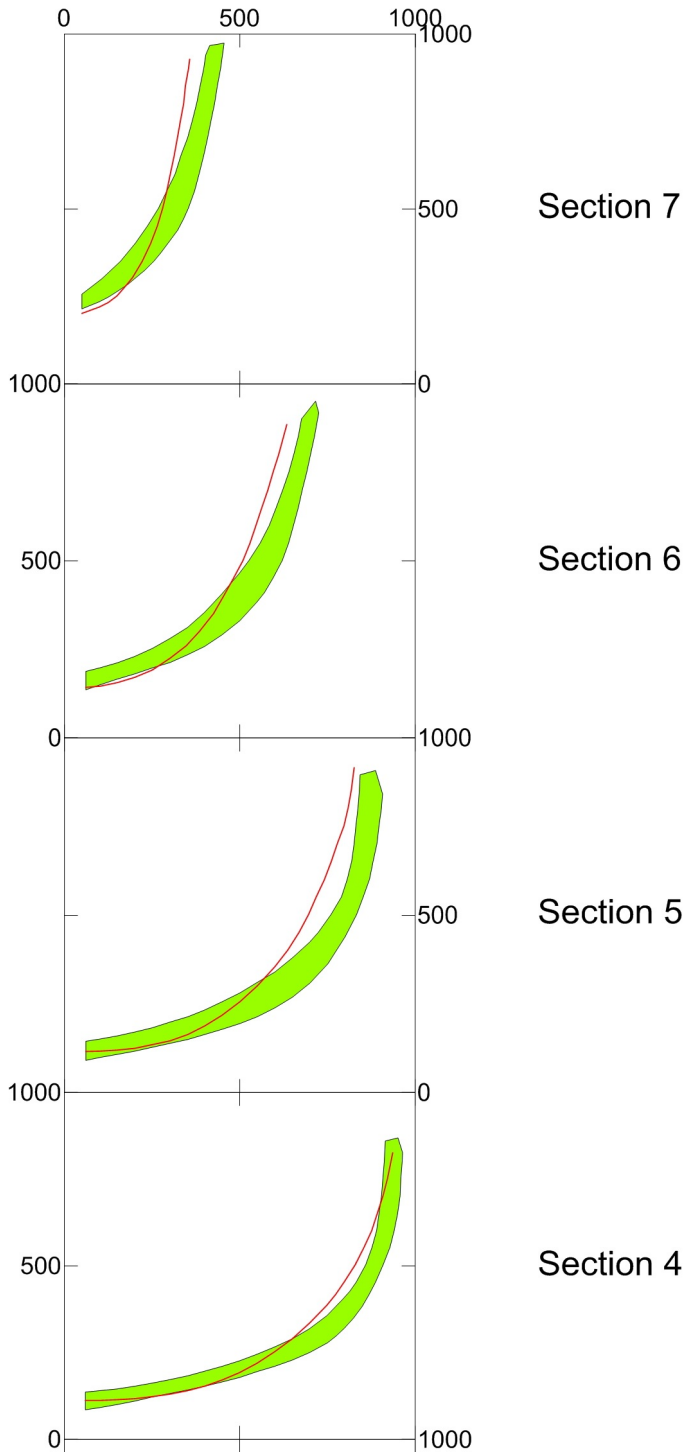
v

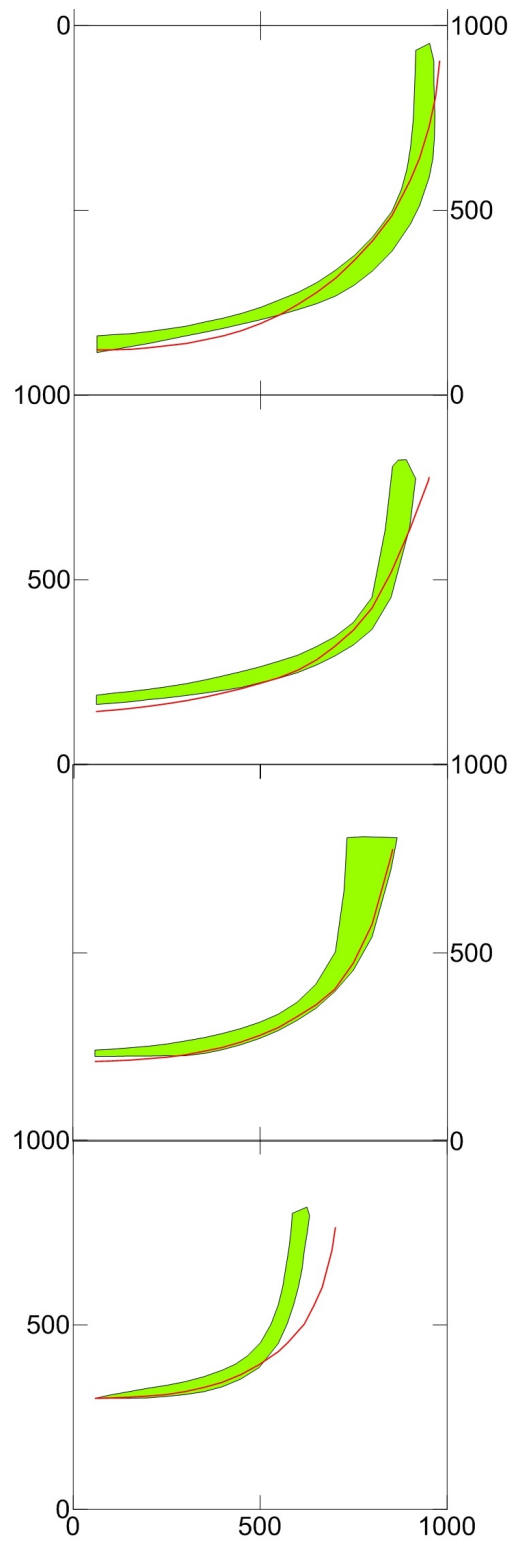
v

A comparison between 69 (P Taylor), 110 (H Cater), 114 (A Stone)  
118 (D Gibbens), 123 & 142 (M Atfield) and 141

 Combined section measurements of:  
69, 110, 114, 118, 123 & 142

 Section measurements  
of 141





Section 3

Section 2

Section 1

Transom