

Standing by

Farr Yacht Design have yet to be confirmed with a team for AC34 but there is plenty more flowing through the doors... as FYD president Pat Shaughnessy tells Patrice Carpentier

Seahorse: So a multihull Cup...8 have you designed any multihulls in your career!

Pat Shaughnessy: Myself no, though Bruce did some nice A-Cats in the early days. We are now doing preparatory work to understand the Cup's new rule space. We think we have a good set of design tools but those tools always need a bit of shifting to make the most of any new design space!

SH: How is business in these tough times?

PS: We still have 15 in the office and will put through perhaps six to eight major designs this year. In the past few years things have been a little slow so a lot of our work has been optimisation. And though we have done no new boats with Bénéteau for a while, we now have a nice relationship with Bavaria that keeps us busy.

SH: You are trying to juggle the two...

PS: We had a relationship with Bénéteau that kept us exclusive to them; I don't want to discuss exactly how these things came about but the decision for us to work elsewhere was effectively made by Bénéteau. You go where the work takes you.

SH: And raceboats...

PS: Overall our business is growing again, but in the racing market we have done a few things a bit poorly. Primarily we haven't been aggressive enough in getting the right clients; with the right clients you win races. Without the right clients it's easy for your reputation to 'change' quickly. Grand prix design is fashion based. When something is fashionable it is easy to sell, but when you're on the outside of that wheel, even if your work is technically good you can be moved aside quite quickly.

SH: Yet you have no new Open 60 for the Vendée Globe after doing so well before...

PS: True, and we did do very well. In fact, we won every Open 60 race for nearly three years! I think what happened is that our Open 60 opportunity came at a time when the sailors were maybe thinking that

perhaps there wasn't a French architect good enough – or focused enough – to still win races. Finot was expanding into other areas, so we had a good opportunity and we did well. But when you see Verdier and VPLP working together so well the French clients think maybe this is an easier path for them – especially considering language. So then the fashion swings again...

SH: But Michel [Desjoyeaux] always says to me how happy he was with his Farr boat, yet when he decided on a new boat he went to Verdier...

PS: Yup! We talked about his new boat but he had to move quickly and there was some Verdier/VPLP tooling ready to roll. That said, the Imoca class is about the sailor and the routeing more than the boat.

SH: Especially solo?

PS: Yes, and most of the newest boats are close in concept so there will still be times when the older boats will have their day. But what is encouraging is how these new 'smaller' Imoca 60s are now coming through, boats that are plain easier to use. The problem, or the reality, is that in the Imoca rule there is – was – no limit to power, encouraging greater and greater power. If you study it as a designer the graph always heads up, so you had to choose the right place to stop... Now the game has changed a bit to encourage smaller, lighter boats. But what I don't like now are the new limits on development.

SH: Such as?

PS: Appendages... Why should we be limited in a development rule?

SH: Because of cost!!!

PS: Of course, but financial criteria aren't part of the class's base principles, are they?

SH: So could an existing, older boat still win the next Vendée Globe?

PS: Yes, because there is still so much emphasis on the sailor.

SH: Moving inshore and to IRC... are you pleased with the secret rule?

PS: We would prefer to work in a rule you can see inside. But if the sport wants to use IRC, it's a choice we are happy to support.

SH: So perhaps IRC is not so good...

PS: Well, it's the rule we have. The biggest difficulty with IRC is trying to handicap different types of boats in different conditions with a single number... There will always be some people happy with the result and a lot more people unhappy!

SH: In Europe it's the first time such a rule has lasted so long; and living in La Trinité there are a lot of boats sailing under IRC...

PS: And that's a good thing. The important thing is stability. Any system has good and bad points. Just try to improve the bad and

you will usually keep most people happy.

SH: What about another rule like ORC?

PS: We do some work under ORC – which is very like IMS. We don't have a big preference. The biggest frustration we have in IRC is that the fast, light boats you would like are discouraged, especially at the smaller size. And it's difficult for a builder like Bénéteau to be competitive in the bigger boats because there you have to build much lighter, so they go smaller but with the sort of boat that is heavier and maybe not what you want in an ideal world.

SH: Your first Class 40 looks very fast!

PS: With the Kiwi 40 Lapo's [Ancillotti] vision is to sell several boats the same, so that is influenced by his market which includes inshore sailing in the Med. You can add more protection for ocean sailing and the naval architecture is aimed at sailing offshore. In design terms we worked hard to create a boat that will be easy to sail at a high percentage of the polars.

We were always interested in the class but most Class 40 clients look for a production boat in a short timeframe, they don't have resources for a custom project. Now with Lapo and Cookson we have a build option – but it's still relatively expensive because of the high build quality.

SH: And you are comfortable with a Class 40 racing around the world...

PS: Absolutely. I wouldn't choose to sail like that but it's a proper sporting challenge!

SH: Still looking offshore, your previous VO70 design for Telefónica had a medium air priority in the design brief... Have you stuck with that for the next Volvo race?

PS: When we research this race we don't pick a mean windspeed; we look at the legs, the points, the balance of inshore and offshore. This time the course is different again, with the removal of some heavy air upwind work up to China, plus extra light air in the Middle East. Plus there is a little more offshore bias in the points. Combine all that and you have a different race. Not drastic but still different. New sail limits also make for tough choices. An upwind Code 0 forces you to decide whether you're now going to reach or run well... and that influences the style of your boat.

SH: After your success in the VO60s, what happened with the change to the VO70!

PS: In the first VO70 race we went wrong from the start with our keel systems. We initially just didn't have the budget to explore the rule space well enough. We were also beaten by a team – ABN Amro – with a bigger budget who did a better job.

With Telefónica our plans were late and we had a smaller budget than Ericsson.



Some interesting stuff is going on in yacht design where the naval architect is less constrained by ratings. Study the light Farr 400... aft there is the family resemblance to recent VO70 and TP52 shapes, but melded onto the beginnings of a much fuller scow-type bow

Traditionally the biggest VOR budget wins. Maybe we'd been fortunate in previous races to be with that team!

SH: In the last race your boats were very fast in light to moderate conditions, but the Juan K boats were more powerful and also more manageable in a breeze...

PS: In 2005/6 our boats were also fast in the light and when heavy running. We weren't so fast reaching but we drew a boat to win on points later in the race... then we had the keel problems. In reality I don't think there was as much difference as people think. Remember *ABN 1* was a second-generation boat – we won the generation 1 race, ahead of *ABN 2*!

In the last race we had a good enough concept to win. *Telefónica Blue* was fast enough. If you took two rocks out of the ocean it was a contender to win overall!

SH: So you blame two rocks...

PS: In the end the biggest team won.

SH: This time you are happier?

PS: We have a good team [Abu Dhabi Ocean Racing]. You always wish you had more budget but the latest changes in the rule have reduced the advantage of the very large-budget programmes.

SH: So you will win the next race?

PS: Ian Walker is building a good sailing team. If their chemistry is good enough our design concept is up to the job.

SH: Back to performance and how would you improve on the last Farr-designed *Foncia*, winner of the 2008 Vendée Globe?

PS: The biggest improvements in the Imoca fleet are in reducing the drag of these wide, powerful hull shapes, working over a big range of conditions, and in making a boat that can operate at a higher percentage of the polars more easily. Boats like *Foncia* were big and powerful, which was what our clients were asking for. Now the trend is for boats to be a bit more manageable.

SH: And to identify those improvements?

PS: We run some pretty sophisticated tools now. They've moved on a lot in the past two years. We have a supercube cluster and run our own RANS CFD, plus we can do more in waves. A lot of science is available that wasn't there before. Even with a recent boat like *Foncia* the research was simple by comparison, mainly VPP based. We used some of this on the Kiwi 40 and I think you'll see some big gains there.

SH: And hull testing...

PS: Traditionally testing happened mainly in the tank, in flat water. There was some testing in waves but the waves were always square to the boat. In CFD you now have unlimited space to look at waves in any direction. And you take the data directly, not like in the tank where you first have to resolve the forces from the dynamometers.

In CFD you see the forces individually. How is the force coming onto the rudder, onto the keel. For the VO70 we used this CFD to look in more detail at things like bow strakes. We knew there was a negative effect in waves, but before better CFD we didn't fully understand what it was.

SH: So strakes on your new VO70.

PS: You will see shortly.

SH: Yet the Imoca strakes weren't great...

PS: The problem was the way we applied the strakes. We put in a top surface which was the problem. The bottom worked correctly but the strake's top surface could get beneath the surface and cause a negative effect... We understand that better now.

SH: So you are confident?

PS: There are places for strakes, yes.

SH: How do you feel about the new Cup?

PS: Nervous. Mostly for the event. It is exciting to get a new design space but I worry because the America's Cup has traditionally been a pinnacle to aspire to. If you move the event substantially away it could look like a fringe activity. Our sport doesn't always do a good job of working

together. There are so many different parts and now we've widened the game even more. I think it's a little dangerous.

SH: What about TV chasing the Cup?

PS: Certainly, sailing always struggle for sponsorship because sailboats sail off away from you, devaluing the advertising! But I am not sure the emphasis needs to be on making everything drastically better for TV. It just has to be better for sponsors.

SH: Where is your own main focus now?

PS: We are making the transition from having to focus on keeping your team together and taking whatever work was available. Now as economies improve you look at what you'd most like to do. For us the aim is to be involved in grand prix programmes where you can do good research. The grand prix area of our business has dropped away a bit recently; we want to find the right clients for projects that make a statement. At the same time we're working hard at production boats, big cruising boats, and are also researching more fuel-efficient powerboats. Plus, we are keen to push deeper into the superyacht sector.

SH: Is that market still there...

PS: There's some decline, but because the typical boat takes four or five years the effect is delayed. These clients have always had the money – it's just that recently they did not want to be seen spending it.

SH: Finally, Bruce Farr and Russell Bowler are both semi-retired?

PS: Absolutely not. They both still work full time. But with new shareholders much of the commercial responsibility has shifted onto people like myself and Jim Schmicker, which allows Bruce and Russell to design boats again. Usually in your career you move away from what you like to do, so that's been pretty good for them.

SH: The young guys take care of business and the old boys enjoy themselves...

PS: Yeh, something like that! □