Pass the Valium… who'd want to be the rating manager tasked with expanding the VPP to accommodate the latest challenge put down by the still unreasonably youthful François Gabart with his controversial foiling Ultim *SVR-Lazartigue*. Controversial because even in the world's largest, seemingly most open class there are still some rules, and one of those rules forbids crew from regularly operating below deck. And in its current, initial guise Gabart's VPLP design is configured so that all of the crew operate below decks for all of the time. The jury will reconvene after the Rhum…

For a better cocktail (dump the lead)

Sometimes we are dismissive of any complex process to create something of value as being like making a cocktail: we don't necessarily want to know what all the ingredients are as long as the final product is tasty. To those in our sport who race using handicap ratings this phrase is especially popular given the complexity of the methods often employed.

Yet at ORC it is the ingredients that are celebrated as the strength of the system from which the final products emerge. At the latest ORC Congress it was the work of the International Technical Committee (ITC) led by Andy Claughton that was presented first, to seek approval of their ongoing efforts to improve the VPP for 2023.

Contributions came from no fewer than 13 yacht designers, plus the programmers and technologists of the ITC as well as another nine members of the new Research Associates group, who include more designers, some high-profile sailors and sail designers who you would not normally associate with ORC; people like Mark Mills, Stu Bannatyne from Doyle, Adolfo Carrau from Botín, Antoine Lauriot Prévost from VPLP and Jeremy Elliot from North Sails. An impressive group whose insight made significant contributions to this year's sausage-making process.

The three most notable issues raised this year are:

(1) after two years of research a Neural Network-based Residuary Resistance force model (sic) worked on by Jason Ker and Marcus Mauleverer from Ker Design will now be used – validated through a performance analysis made over a diverse test fleet.

(2) the CFD-based aerodynamic de-powering ORC model has been improved so that there are no longer any subjective effects (eg default righting moment) affecting output polars.

(3) with help from the Research Associates group the sail force coefficients of Headsails Set Flying (HSFs) have been refined to better align rated with actual recorded performance.

As with every year at this time, it's natural to ask who are the winners and losers in each new year's updated VPP. The ITC carefully monitors this essential criterion among its test fleet. Encouragingly, Claughton says that in general lightweight, faster designs with powerful sailplans are now steadily becoming more fairly treated as the overall fleet is sped up, particularly upwind, which improves correlation with the ORC database of observed performances.

Plus, with the addition of many mostly older designs in a growing ORC fleet in the US, popular offshore boats like 1980s-era ULDB Sleds (most now with modern upgrades), older Class40s and even 1960s-era Cal 40s that have previously been outside the norms of the ORC fleets are now also being more fairly treated.

The latest direction of VPP adjustment has been well received in the design community. Antoine Cardin from Judel-Vrolijk said, 'In my view the new VPP package better tracks the latest trends in both production and performance designs, ie more hull volume and boats with greater emphasis on offshore performance.

'As a designer it is crucial that a rating system can do a fair job especially on the new-generation type of yachts – historically client feedback I get is that ORC is a rating system for "slow" and "conservative" boats. But the new package removes historical layers of VPP corrections that are no longer relevant. The predictions are now closer to what we've been collecting with data acquisition and CFD work, therefore I am hopeful we are at last going the right way.

'One happy example for me is that the revised model no longer favours the worst of the old optimisation "manoeuvres"– including adding pointless amounts of internal ballast.'

'After 45 years of work starting with the Irving Pratt Ocean Race Handicapping project at MIT we feel we finally have a very good VPP for all sailing yachts,' said Andy Claughton. 'We can use this now for monohulls, multihulls, superyachts and even foiling yachts.

'This VPP no longer needs subjective elements to cover non-modelled performance. Plus we have also now built the infrastructure needed to support a relevant and effective rating system: the VPP, measurement parameters and scoring methods needed to use these tools to produce fair racing across as many conditions and course geometries as is practical.'

The ORC has also agreed to fund an idea from Stan Honey, to use high-resolution weather models to help race managers employ the full power of the VPP polars to produce ratings that more closely match actual, rather than assumed, wind speeds and directions on the racecourse. This is envisioned for application in inshore and short coastal races within the weather model's timeline.

Lastly, at Congress there was clearly broad support for placing more emphasis on coastal and distance racing in championship events… also in 2024 for the introduction of a new Class 0 of fast designs to help address the dominance that TP52s have long enjoyed over the slower designs in Class A big boat divisions.
Dobbs Davis ❑

GUILLAUME GATEFAIT