

ORCSy 2017 New Features

Following is the list included in the letter sent to ORCSy owners June 30th, 2016, which described a number of improvements ORC was seeking for the VPP and of the rule in general. Below we briefly summarize the new features and changes of the ORCSy 2017:

1. MCA certified boats gyradius credit has been fine tuned.
2. Headsails set flying aerodynamics is modified in order to adequate it to the way the sail it's used: less depowering is allowed. Moreover, the sail is not accounted among the upwind sails.
3. Postponed (see below)
4. Propeller: for non measured propeller the resistance (PIPA) has been revised in order to be more accurate for the Superyacht sizes. Beside this, if propeller and shaft measures are known, they are used to greatly enhance the resistance prediction accuracy.
5. Very shallow keels hydrodynamics now better accounts for the poor efficiency of such shapes, that produces a very high induced drag and leeway.
6. SY Factor, that credited high VCG yachts, has been deleted: VCG position is already taken into account by the stability. A more detailed measurement (including centerboards, masts, propellers) of such yachts has demonstrated that the VPP predictions are reliable without the inclusion of the SY factor.
7. Housekeeping revision of added resistance in waves, following what has been done for the ORCI VPP.
8. Fine tuning of the centerboards resistance, with reference in particular to the resistance of the centreboard slot
9. Introduction of an adjustment of the jib aerodynamics when it's tacked on a bowsprit, that takes into account the missing deck endplate effect.
10. Fine tuning of the residuary resistance at high velocities (Froude number), in particular for light and narrow boats.
11. Revision of the rigging windage of gaff yachts, that now is increased in comparison to that of a Marconi rig.
12. Revision of the tacking allowance, with introduction of a dependency on the draft/length ratio, beside the already present sail area/displacement term. Introduction of an allowance for rudders with skegs
13. Refinement of the declared vs. measured boats relative performances, with redefinition of the sails weights for both categories.
14. Revision of the depowering of boats with genoa, taking into account the configurations with a small jib as second headsail.
15. Revision of the light wind allowance, with decrease of the 6 knots component in it.
16. Introduction of mast windage based on measured mast section (when available), therefore increasing the accuracy of windage predictions.
17. fine tuning of gaff rigs and of multiple headsails aerodynamics.
18. Re-wording of ORCSY rule.
19. Normalization and simplification of tankage declarations.
20. Postponed (see below)
21. the ORCI VPP "phi_up" feature (an artificial reduction of heeling of apparent wind plane) has been deleted, since there is no need at present of a feature discouraging trends toward low stability

The following items of the previously mentioned list are NOT included in the ORCSY 2017:

3. *Introduction of a heel angle limit: it has not been judged an appropriate feature to be 'hard coded' into the VPP*
20. *Ketch/Schooner aero fine tuning: the actual model is under continuous monitoring, but it has been kept unchanged for 2017*

The ORCSY Team.