News

ITC announces improvements made to 2010 ORC VPP

The Offshore Racing Congress (ORC) has accepted and approved all changes made by the International Technical Committee (ITC) to next year's VPP to be used in ORC International and ORC Club rating systems.

This is the first year the ITC had met to finalize their changes and ratify them through the ORC test fleet of 300 designs prior to the ORC's Annual General Meeting here in Busan.

"The main modifications came from work by the ITC during the year," said ITC Chairman Alessandro Nazareth, "and the new formulations implemented in next year's VPP have proven satisfactory after extensive testing and don't have any disruptive impact on the ORC racing fleets that now seem very happy with our rating rule.

However, these formulations do accommodate some of the boats that are currently considered unfavored by the system, such as the GP classes, STP65's and some Mini Maxis."

The following is a summary of the main changes:

Hydrodynamic model: The treatment of truncated sterns and the length assessment study has been finalized thanks to the thorough work coordinated between Axel Mohnhaupt, the programmer and the Chairman. A description of Axel's algorithm has been distributed. This formulation will finally address the IMS L sensitivity experienced in the past, and boats with truncated sterns will have the advantage they need to be competitive in ORC.

Aerodynamic model: The new Upwind Aero Model introduced last year is refined with a procedure for flat and reef parameters used in sequence and decoupled. This causes only minor changes on the test fleet.

Double Rudder: The Double rudder treatment, following a 2008 submission, has been developed and a proper evaluation has been programmed into the VPP that takes into account the distance of the rudder from centerline and its angle so that it can calculate which part of the rudder is out of the water. The rudder data is added at the end of the OFF file following the old code that was used as a simplified rudder measurement.

Regulations: The Racing Division regulations have been removed and all those boats who are not eligible with the Cruising Regulations, now renamed "Performance," and the Cruising Division text has been revised by eliminating complex language that was a consequence of several layers of Rule revisions. This has simplified into two pages the simple concepts that define accommodation standards that are common and make sense for everyone. The Table of minimum requirements was replaced with simpler formulae.

Moveable Ballast Boats: Default Righting Moment for Moveable Ballast boats has been revised to validate a more appropriate VPP for these kinds of boats.

Age allowance will maintain the same annual increment, but will have a top value reduced from 1.3% to 1%, corresponding to an age of 15 years. This is the proposal submitted by FIV, and addresses also a submission on the

same topic coming from Argentina.

3D files (like RHINO or IGES) provided by Designer will now be accepted and processed by the ORC rating office to create valid offset files to issue new ORC International certificates, provided freeboard reference points are identified which are common to the real mold/hull and the OFF file provided by the Designer. A procedure to validate these offsets files will be prepared by the ORC and tested before the end of the year in Australia for the boats that will race in next month's Sydney to Hobart Race

Carbon Mast Default weight: A new default weight and VCG is being formulated to account for light carbon masts fitted with fiber rigging that would be applied when the "carbon mast" and "fiber rigging" tabs are activated. This will be substantially lighter than the present Default mast weight, which remains in use for unweighed aluminum masts and for all weighed masts to derive the gyradius increment due to the mast. This will ensure that unweighed carbon masts would get an unrated advantage, so the requirement for weighing carbon masts can be suppressed.

SPL: A new Blanketing function is being tested to produce an influence of SPL/TPS length on spinnaker performances. This new function, based on the ratio SPL/SMG (or TPS/AMG) will take into account the more exposed sail area to the apparent wind (less coverage from mainsail) that is obtained with a longer pole (SPL) or bowsprit (TPS).

Heavy Items: will be eliminated from the certificate, and their effect on gyradius adjustment ignored. Only anchor and chain weight will remain as gyradius correctors, if placed in the bow.

Jib Furler: The use of only one jib associated with a Jib furler will modify jib aero coefficients to assess the reduced efficiency of this configuration in the same way in ORC International as it currently does for ORC Club.

Power driven winches (and generally stored power) will be allowed also for C/R boats under 20 m, with a penalty of 0.5% applied to all handicaps. This has been fixed to avoid exploitation of this configuration on aggressive C/R, so the ratio between Declared Crew Weight and Default Crew Weight squared will be used to diminish this penalty for reduced crew boats that really require the help of stored power.

Internal VPP area for mainsails has been revised to take into account high roach and square top mainsails in a way more related to the true surface of these sails.

Other minor adjustments have been made, like the revision of crossover point between jib and spinnakers, revised DA for non overlapping boats, non-spinnaker configuration revision, correction of Code 0 area for cruising boats to let them race without penalties.

Tank Test Research: The Congress funded the construction and testing of three new models that will be developed and designed to better represent the current racing fleets Hopefully the results of these tests may be ready for implementation in 2011.