



World Leader In Rating Technology

Summary of the Minutes of the **ORC Annual General Meeting** held in Estoril, Portugal on 6 November 2007

Chairman's Report

ORC Chairman Bruno Finzi welcomed the 26 Congress members and alternates, 9 Committee Chairmen and members, and 7 observers to the 2007 AGM in Estoril, Portugal, the 38th of the Organization. Yury Vlasenko from Ukraine was also introduced as a new member to the Congress. Finzi reported the past year was challenging for ORC and its staff, with many important tasks completed, including re-writing of the IMS software and preparation for the launch of the new VPP rule in 2008. Two re-organization meetings were held in Milan to help facilitate this and other tasks, and included a relocation of the ORC office from YC Costa Smeralda in Porto Cervo to Finzi's office in Milan, and the Secretariat moved to Porto Rotondo.

ITC Report

General: It is reported that the 2007 season saw renewed interest in IMS due to the proportional increase in participation from amateur-level crews. This is thought to be due in part to professional-level crews migrating towards the GP 42, TP 52, and one design classes.

Aerodynamic Model: After analyzing the results from wind tunnel tests reported at the ITC meeting in Hamburg, several modifications to the current aero model were examined, including:

- A new formulation for Centre of Effort Height (CEH) and Effective Height of mast (Heff) based on overlap, fractionality, and wind angle;
- Revision to the TWIST function to make it more effective for fractional rigs;
- Correction for heel angle that could take into account the effective reduction with drive force when the heel increases (PHIUP function)

The committee at the end of a very deep investigation decided to implement in the aero model of 2008 VPP part of the items that were investigated (such as PHIUP function) and to continue to improve during the next year the full aero model which would include all the results of wind tunnel tests

With the new PHIUP function the resulting trends are in the following directions:

- boats are generally sped up an average 2.5% in upwind 12 knots
- boats with overlap are slightly favoured
- an increase in stability is encouraged (e.g. increasing the RM of 20% returns a handicap increase in upwind 12 knots that is 1-4 sec/mi less than in 2007 IMS, where stiffer boats get the bigger advantage)

The net result is that boats will not be forced at all to reduce stability to remain competitive, and conversely any increase in stability will have less handicap increase than they would obtain with the current VPP.

Code 0 Implementation in the VPP: After testing masthead Code 0 sails with 165% LPG and midgirth at 58% and 63% of base length, a new set of CODE 0 sail coefficients have been computed. It was decided to limit the minimum mid girth of Code 0 sails at the 65% of base length to avoid any exploitation that would have allowed at short mid girth Code 0 to sail at very low windward angle.

ITC also decided that the new sail will be recorded in the sail inventory as an asymmetric spinnaker and the VPP will automatically detect if it is a CODE 0. These sails can only be tacked on centerline at a maximum distance from the forward face of mast that is the maximum between J, SPL and TPS.

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This the first time these sails have been tested in a wind tunnel for handicap purposes. These tests will allow the ORC International to rate boats with such sails, which are currently not allowed in any other rating system.

Hydrodynamics: In order to reduce the tendency of IMS towards low stability type-forming, the ITC focused mainly on two factors to improve the 2008 VPP:

- A modified Residuary Resistance function of LVR;
- A new formulation of RM that is used by VPP which is a weighted average of two factors: the RM measured during the floatation test and a standard RM derived by boat characteristics (Sail Area, Length, Beam, Displacement, Draft). Righting moment will thus be more related to sail area and boat dimensions and how the crew tune the sails to reduce heel.

The combination of these two new formulations (RR and RM) joined with the aero modifications have been verified, and the result is a VPP that makes light and stiff boats close the handicap gap against the heavy and tender boats. This new VPP will finally erase any need to reduce stability and in some cases will even type-form for stiffer and safer boats.

Summary of other changes to the 2008 VPP:

1. Boom Depth limit has been revised to $0.06 \cdot E$
2. Overlapping genoa area calculation has been modified
3. SL formulation has been improved
4. ASF limit has been changed to improve TPS effect
5. Removal of upper and lower Crew Weight Limit, and a 170 kg default limit for doublehanded crew
6. Keel bulbs and winglets can now be distinguished, with an effective draft computed for both

ITC will focus its research for 2008 on additional tank testing at Delft using the Judel-designed BOX1 and BOX2 models which are closer to the current generation IMS designs. More testing of existing models will also be performed to test greater heel angles, different stern positions, and greater Froude numbers - this will better accommodate light and fast boats. Other research on the agenda includes revising the formulation of L with a new concept of LSM4 and a Froude number transition for better assessment of overhangs; examine Residuary Drag with evaluation of new regressions with a different data set; devise a new upwind sail model with a more complete implementation of wind tunnel tests; devise a new de-powering scheme for upwind sails.

Club Working Group:

Current statistics and fleet situation: The number of ORC Club certificates reported from rating offices has shown to be at approximately the same level as in previous years. The biggest decreases in IMS seen have been in France, Sweden, and Spain, while the largest increases in ORC Club certificates have been in Spain and the Netherlands. In France ORC Club certificates have decreased by 25%, while new countries such as Latvia, Russia, and Slovenia have shown increases.

Designer's file conversion tool: CWG feels that it is important a simple software solution be developed by ORC to help Rating Officers search the IMS database for offset files which would be useful for design studies of similar type boats.

New ORC Club Certificate: A new ORC Club certificate has been approved which shows nine new items added, three removed, and five modifications made to existing items making more use of graphic display of information. This new format should promote an easier understanding of measurement and scoring information.

Priorities for the next three years include the following:

- Continual need for a fairer VPP
- Further improvement of Rating Software
- Need for a new Offset Editor if agreement between Manolo and the ORC cannot be reached.
- Online certificate application forms to be made available in native languages.

Measurement Committee:

Chief Measurer Nicola Sironi suggested several modifications to the IMS Rule to avoid exclusions that created problems at events and do not have any technical justification. These include:

Jibs: A change was needed to the formula that was developed last year to calculate headsail area. The Committee agreed the new formula to be:

$$\text{JIB AREA} = 0.1125 * \text{JL} * (1.445 * \text{LPG} + 2 * \text{JGL} + 2 * \text{JGM} + 1.5 * \text{JGU} + \text{JGT} + \text{JH} / 2)$$

The formulation for vertical center of effort of jibs will be modified accordingly in VPP, and will allow Measurers to compute the jib surface more easily than with the current formulation, enabling them also to write the area on sail stamps without the need of a computer.

Rule 811.2 b) was modified to clarify the differences from RRS 50.4, and the same measurement scheme was kept for genoas as well as jibs, allowing marginal roach also in genoas (1% max).

Mainsails: Extend the concept of maximum area to mainsails, and modify accordingly the text of Rule 826.1 calculating a default area based on default measurements, and use in the VPP the data of the mainsail with the maximum area and the minimum weight.

Asymmetric spinnakers: The following changes were agreed:

- Change the formula $\text{ASL} = 0.6 \times \text{SLU} + 0.4 \times \text{SLE}$ into the simpler average: $\text{ASL} = (\text{SLU} + \text{SLE}) / 2$
- Remove the requirement of a 5% difference between luff and leech in Rule 816.2 a), considering as asymmetric all spinnakers that don't comply with the current symmetry requirements
- Allow asymmetric spinnakers to have $\text{AMG} \geq 0.65 \text{ ASF}$. An asymmetric spinnaker with AMG of 0.75 to 0.65 ASF will be considered a "Code Zero" and have a special treatment in the VPP run
- The default area of the asymmetric spinnakers will be calculated using the default values for ASL, AMG and ASF. The default value for ASF has been modified as the maximum of 1.6 TPS, 1.8 SPL, 1.8 J. AMG default set as 0.75 ASF

Other approved changes include:

- Sail stamps will include the value of the resulting area, except for the mainsail where the area depends on P and E which are measured on the rig and not on the sail
- The new certificate format will include the ST4 measurement
- Mast jack pumps are not allowed on board while racing
- The Sails Inventory will be printed in the new certificate format and a sample included in the rulebook

Offshore Classes and Events Committee

Championship Reports: Favourable event reports were given for the 2007 IMS World Championship regatta hosted by the Royal Norwegian YC and the Hankoe YC; the IMS 670 World Championship at the Real Club Nautico de Sanxenxo in Spain; and the IMS European Championship and GP 42 Croatian Grand Prix held concurrently and organized by the Sailing Club of Rijeka and the Sailing Club Reful of Cres.

Report from the Classes: Bruno Finzi reported that the Mini Maxi and Wally fleets each had successful seasons, using full IMS and "Imax" modified certificates. Paolo Massarini reported that the GP 42 Class is strong and growing, with 10 yachts participated in its initial season of 4 circuit events in Croatia, Spain and Portugal. For 2008 seven new projects are already planned and a circuit of 6 events is on the calendar.

The report of the GP 33 and GP 26 Classes was jointly given by Pepe Frers from Argentina and Thomas Nilsson from Norway. The GP 26 is currently sailing in three South American countries: Argentina, Chile and Uruguay, and a circuit is forming with the objective of a first Championship to be held in February 2009 in Uruguay. Martin Billoch reports that the Class is attracting several new young

designers and builders. Thomas Nilsson indicated continued interest from Italy, Russia, Ukraine, and boats for US owners being built in Poland. The website for the Class is under development.

Nilsson also reported GP 33's are currently getting some interest in Sweden, and a US design office is working on drawings for a Japanese owner. In addition, GP 33 Rule 501.2 has been changed to permit bowsprits and not allow spinnaker poles.

2008 World Championship: The Hellenic Ocean Racing Club distributed the Pre-Notice of Race and gave an attractive and informative presentation of the preparations for the 2008 IMS Worlds to be held in Athens on 20th-28th June 2008.

Race Management Committee

Submissions: Action was not taken on submissions related to Double Handed Handicaps, on time limits in the Green Book, on awards at World Championships, and on use of tracking systems in protest hearings, while a submission related to penalties will be referred to the Racing Rules Committee at ISAF.

New Edition of IMS/ORC Guidebook: Nicola Sironi and Zoran Grubisa will rewrite the guidebook under the expected new rules.

Promotion and Development Committee

PDC manager Sten Edholm presented an overview of its mission as one which shows ORC is alive, healthy, and investing money and energy in the future, working with state of the art technology, display transparency and scientific approach to scoring systems, and producing better material that is easier to understand. Another role it has is to report about races, new classes, and new countries to be supported with the collaboration of Congress and support and the introduction of the ORC new rules and operating procedures.

To achieve these targets, PDC reports the following: website visits have increased from 6000 visits/month in 2005 to an average of 18.600 visits/month this year, and news articles have more than doubled to 250. GP classes have their own promotion and communication programmes. Various educational and support publications and Power Point presentations have been reviewed and will be updated for the 2008 new Rule. Six articles for both Seahorse and Scuttlebutt have been produced this year, and the mailing list has been updated to 2.000 addresses, with specific e-mail lists developed for Congress members, rating officers, etc. Measurement training seminars have been held in Latvia, Estonia, Russia, and Ukraine for use of ORC products, and work is in progress to establish rating offices in Ukraine and Slovenia.

Priorities for 2008 include:

- Conducting a promotional campaign for the new ORC Rule and Operating System
- Supporting continued efforts in South America, Adriatic, Baltic and Black Sea for ORC Race Circuits
- Attracting more interest to the website by offering more race analysis and technical material
- Investigate possibilities of sponsorship and fund-raising (website and publications)

Management Committee

New Rule name and its promotion: The MC widely discussed the name of the new rule and after various candidate names were considered it was agreed to include "ORC" in the name. The Committee unanimously decided therefore to name the new rule "ORC INTERNATIONAL".

The MC then discussed the marketing plan for the new rule which should secure ORC's role as the world leader in rating technology for many years to come. It was agreed that contact with RORC in the UK and US Sailing in the US should be established to find out the possibility of a mutual cooperation.

IMS as a Measurement System: In parallel the MC confirmed the intention to keep IMS as the most popular and widely-used system to measure offshore yachts all over the world. The appearance of a new inclinometer as well as the possibility to lease common laser machines used in civil infrastructures has permitted reaching targets of reliability and repeatability that have been the goal of ORC measurers for many years.

New operating system and services to ORC Rating Offices: The new IMS Editor for ORC Measurers, a new IMS Manager for ORC Rating Offices as well as a list of new services available to Rating Offices through the web will be delivered starting 1 January 2008.

ORC staff and consultant responsibilities, assignment of duties, and reports: Vivian Rodriguez has been confirmed in the role of secretary and also administrative arm of the Company; Nicola Sironi as the Chief Measurer, and Zoran Grubisa, Davide Battistin and Panayotis Papapostolou have been confirmed in the ORC staff. Part time class managers and representatives plus P&D consultants have also been selected and confirmed reporting directly to the MC.

ORC GP Classes Report, Representatives, and Class Rules: It was confirmed that for the GP 33 Class Carbon and Kevlar are permitted for hull construction.

Martin Billoch is in charge for the GP 26 in South America; Thomas Nilsson is to coordinate the GP 26's in Europe until a manager is found for the class there. Nilsson will manage the GP 33's, and Paolo Massarini will continue to manage the GP 42's.

ORC Publications: The Publications will be completely reviewed due to the introduction of the new rule, with Zoran Grubisa to be in charge, with help from Nicola Sironi. English drafts will be reviewed by Don Genitempo prior to going to the press. These publications should be ready for release from January 2008 to no later than March 2008.

Venue for 2008 AGM: The 2008 Annual General meeting will take place in Madrid. Dates to be confirmed.

ISAF Report: Philip Tolhurst reported on the ongoing discussions with ISAF vice president David Irish and ISAF Constitution Committee Chairman David Lees about adjusting ISAF regulation 29 and 18.7 to take into account the new handicap rule name ORC International instead of IMS.

Election of ORC Chairman: Bruno Finzi was proposed, seconded and voted Chairman of the Offshore Racing Congress for 2008.

Election of Deputy Chairmen: Congress re-elected Wolfgang Schaefer and Don Genitempo as Deputy Chairmen of the Offshore Racing Congress for 2008.

Appointment of Chief Measurer and Secretary: Congress reappointed Nicola Sironi Chief Measurer and Vivian Rodriguez as Secretary.