ORC

World Leader In Rating Technology

Annual General Meeting held on 6th November 2012

INDEX

Secretariat
c/o Vivian Rodriguez
Casella Postale 21, 07026 Porto Rotondo (OT), Italy
Tel: +39 0789 386990, Fax: +39 0789 381275
secretariat@orc.org

Offshore Racing Congress Ltd.
Company Reg. 1523835.
Reg. Office: Marlborough House
Victoria Road South, Chelmsford, Essex CM1 1LN, UK
Tel: +44 1245 495 111, Fax: +44 1245 494 771

www.orc.org

MINUTES of the Annual General Meeting of the Offshore Racing Congress, Ltd. held at 11:30 on 6th November 2012 in Dun Laoghaire, Ireland

Congress Members Present:	Bruno Finzi (Chairman)	Italy
	Wolfgang Schäfer (Deputy Chairman)	Germany/Austria
	Jose' Frers (Deputy Chairman)	Argentina
	George Andreadis	Greece
	Henry Bacchini	France
	Jean Louis Conti	France
	Sten Edholm	Sweden
	Bruno Frank	Switzerland
	Don Genitempo (Honorary Treasurer)	USA
	Zoran Grubisa	Croatia
	Giovanni Iannucci	Italy
	David Irish	ISAF
	Noboru Kobayashi	Japan
	Patrick Lindqvist	Finland
	David H. Lyons	Australia
	Enrique Molinelli	Spain
	Alessandro Nazareth	Italy
	Ab Pasman	The Netherlands
	Peter Reichelsdorfer	USA
	Abraham Rosemberg	Brazil
	Veiko Rosme	Estonia
	Makoto Uematsu	Japan
	Ecky von der Mosel	Germany
	Hans Zuiderbaan	Holland
Alternate Members:	Per Boeymo substituting Thomas Nilsson (Norway)	
	Robert Jacobsen substituting Peter K. Burger (Switzerland)	
	Panayotis Papapostolou substituting Lazaros Tsalikis (Greece)	
	Wolfgang Schaefer substituting Christian Plump (Germany)	
Apologies for absence:	H.M. King Harald V of Norway	Honorary President
	Philippos Georgakis	Cyprus
	Martin Hannon	New Zealand
	June Lee	Korea
	Vadim Mekhanikov	Russia
	Andor Serra Merckens	Spain
	Pedro Rodriguez	Portugal
	Albert Rozin	Latvia
	Gerd Schmiedleitner	Austria
	Manuel Torres Simon	Spain
	Yuri Vlasenko	Ukraine
	Godwin Zammit	Malta
Officers present:	Vivian Rodriguez	Secretary
	Nicola Sironi	Chief Measurer

Observers:	Gianfranco Alberini	Italy
	Dobbs Davis	USA
	Hans Drakenbreg	Sweden
	Emilio Feliu Serra	Spain
	Bojan Gale	Slovenia
	Eva Holmsten	Sweden
	Boris Hepp	Germany
	Paolo Massarini	Itaky
	Dan Nowlan	USA
	Fabrizio Pirina	Italy
	Maximo Rivero Kelly	Argentina
	Cris Theodossis	Greece
	Mike Urwin	UK

1.00 CHAIRMAN'S REPORT

The ORC Rating Systems (ORC International and ORC Club) are managed in 36 countries by National Rating Offices on five continents and centrally managed by ORC for six countries where a National Rating Office is not yet established. Thus, in total ORC issues certificates for boats in 42 countries.

The largest constituencies of ORC, with fleets in excess of 1000 boats, remain Italy and Holland, where ORC fleets are the default baseline handicap system. A preliminary tally of fleet statistics is found in table below, although these figures are typically under-estimated until year's end due to regattas starting in the Southern Hemisphere season. Nonetheless, use of both rating systems remains stable in most countries confirming overall numbers as predicted for 2012.

	31.12.	2006	31.12.	2007	31.12.	2008	31.12.	2009	31.12.	2010	31.12.	2011	01.11.	2012
	IMS	ORC	IMS	ORC	Int	Club	Int	Club	Int	Club	Int	Club	Int	Club
ANG	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ARG	57	139	37	114	27	107	24	38	39	155	27	158	23	156
AUS	41	0	15	0	20	0	32	0	72	0	90	0	80	0
AUT	6	191	6	53	5	27	8	37	6	34	10	47	9	54
BRA	55	141	45	109	77	88	75	36	72	101	71	11	118	18
CAN	0	0	0	0	0	22	0	63	0	46	0	70	0	18
CHI	0	0	116	18	114	19	102	38	51	13	2	4	0	0
CRO	94	202	147	150	142	148	102	151	64	143	73	133	59	207
CYP	13	12	1	1	0	0	0	29	1	32	2	28	1	29
ECU	1	19	1	19	24	1	24	39	24	0	26	2	18	0
ESP	388	211	328	154	253	123	226	202	328	193	385	230	385	371
EST	23	50	37	63	60	74	46	67	45	64	37	70	46	73
FIN	87	42	82	37	71	30	65	19	60	26	63	28	140	15
FRA	41	375	30	308	5	136	1	196	1	212	1	212	0	161
GER	337	415	314	448	287	456	259	489	250	491	278	478	189	372
GRE	367	221	350	255	367	269	293	343	297	398	320	450	252	449
HUN	0	0	0	0	0	0	0	0	0	0	0	0	0	13
IRL	0	0	0	0	0	0	0	0	0	0	0	0	0	1
ITA	577	1083	709	1018	706	1020	824	1037	671	1218	749	941	599	981
JPN	70	358	50	312	26	269	2	147	2	98	1	60	2	72
KOR	0	19	0	23	0	25	0	44	3	26	1	15	0	39
LAT	0	0	0	36	1	35	1	39	1	16	1	8	5	9
LTU	0	0	0	0	0	0	0	0	3	47	3	51	4	63
MLT	1	11	1	16	1	26	1	33	0	29	2	23	2	24
MNE	0	0	0	0	0	0	0	0	0	0	0	0	0	1
NED	267	1145	1	1353	4	1306	2	1281	3	1202	2	1409	3	1289
NOR	47	0	32	0	51	0	63	80	47	17	41	1	43	13
NZL	2	63	2	63	0	15	0	9	0	8	0	0	0	0

PER	5	0	15	0	18	0	20	0	17	1	30	2	24	0
POL	0	0	15	1	16	3	13	4	19	21	22	17	16	10
POR	23	11	22	124	18	131	24	127	11	103	14	98	15	89
ROU	0	0	0	0	0	14	1	30	0	0	0	8	0	16
RUS	0	0	0	25	0	42	4	101	34	91	9	73	7	58
SLO	0	0	4	27	7	31	4	29	3	14	6	16	7	11
SUI	0	251	0	232	1	234	0	242	2	230	0	194	2	179
SWE	59	133	67	58	70	30	53	17	42	10	43	17	144	1
UKR	2	55	0	48	5	12	0	18	0	14	2	21	0	20
USA	15	50	17	60	0	30	0	19	0	26	0	0	6	0
	2578	5197	2444	5125	2376	4723	2269	5004	2168	5079	2311	4875	2199	4812
		7775		7569		7099		7273		7247		7186		7011

Use of the *ORC International* and *ORC Club* rules continue to enjoy wide acceptance among the constituencies that have for many years used IMS and ORC Club. These include established fleets in the Baltic, Mediterranean, and South American cultures. However, ORC is also being used by relatively new fleets established in Canada, the Black Sea, Australia, the Far East and Africa. Use of ORC rating systems is expanding to new countries in eastern Europe, with a new fleet set up in Hungary and Romania this year, as well as interest from Montenegro and Slovakia. Spain has had a resurgence in use of ORC in 2012, and for 2013 *ORCi* will be introduced for four major events in Denmark and *ORC Club* will be used for the first time in China. There is also new interest in use of ORC in Angola and South Africa.

Many of the world's prominent offshore races and regattas continue to use both ORC Rating systems, which, unlike single-number systems, offer unmatched scoring flexibility to race managers through use of the Windows-based CyAltura and Velum race management software packages available via the ORC website. The web-based Yacht Scoring system has recently also been adapted for an ORC scoring option, which can make results readily available to anyone on or off the course as soon as the finish time data is put into the system: this is a huge step forward in offering close to real-time results, and there is a similar system under development now in Germany.

Since ORC Rating systems are unique in measuring the stability of offshore yachts, the size and types of boats using *ORCi/ORC Club* is quite broad, ranging from the smallest end of very slow cruisers to the racing super-maxis. But the rule is also versatile, since all kinds of performance-enhancing devices are rated under ORC Rules, including movable ballast such as water ballast and canting keels, with all combinations of appendages, but also hiking devices as trapezes and straps. In this form and among small keelboats, ORC has a so-called Sportboat Rule for rating dissimilar boats of this type. A Sportboat championship event was held this year in St Petersburg, Russia, there is an active ORC Sportboat fleet in Switzerland, and inquiries have been made on use of this rule in fleets in Australia and Hong Kong.

Besides the ORC Championship events mentioned in Section 5 below, there were ORC National Championships held in the following countries: Slovenia, Germany, Sweden, Latvia, Peru, Netherlands, Estonia, Finland, Portugal, Greece, Italy, Russia, Spain, Croatia, Norway, Cyprus, Hungary, Austria, and Argentina. There were also several prominent international races and regattas that use ORC scoring, including North Sea Regatta (Netherlands), Tropheo Conte de Godo (Spain), Kieler Woche (Germany), Yellow Sea Race (South Korea and China), Aegean Regatta (Greece), Audi Sydney Gold Coast Race (Australia), AF Offshore Race (Sweden), Lora Piana Superyacht Cup (Italy), and Hanko Race Week (Norway).

Several Rolex-sponsored events use ORC scoring, including Rolex Circuito Atlantico, Rolex Sydney-Hobart Race, Rolex Giraglia Cup, Rolex Ilhabela Sailing Week, and the Rolex Middle Sea Race.

A hallmark of ORC is that it is an open and accessible system for its users, both through local rating offices and through access to the ORC website. Besides allowing access to all ORC rules, rating system documents and even the VPP used to generate ratings, ORC gives easy access to all available rating and measurement data from a database of over 60,000 records gathered from the past 25 years. The easy access, breadth and depth of this information made available is unique among international rating systems.

This access is facilitated by the ORC Sailor Services system, which gives free online access to the ORC database. Here is where copies of issued certificates from the past 3 years are available, as well as the ability to run test certificates under the current VPP. This has proven to be a great success among boat owners, sailmakers, project managers and others inquiring about rating changes to their boat, and this past year the system was translated for use in German, Spanish, Greek, French, Croatian, Italian, Portuguese and Brazilian, as well as English.

Through the ORC Sailor Services, a customized Speed Guide package of polar performance data for any ORC-measured boat is available, as well as a Stability and Hydrostatic Datasheet, which is of value to sailors and organizers to assess stability among entries in their offshore races and events. This is in addition to the rating and basic VPP information included on certificates in International and Club formats.

Activities on Measurement, Classes, Events and ITC are reported in their respective parts of these minutes.

2.00 THE TREASURER'S REPORT AND AUDITED ACCOUNTS

The Treasurer Don Genitempo reported.

The Financial Reports for 2011 were approved among the Congress Members by email vote.

The levy income and the expenses up to end of September 2012 are in line with the amounts ending 30th September 2011. End of year's levies may not reach the budgeted amount but the general sales are exceeding the budget so we should reach total income expected. The Treasurer suggested to investigate the opportunity of setting up a second Paypal account exclusively for the payment of the certificates going to the Italian bank account. In the meantime there is the need of sorting out the list of those countries that will have to use it. The Management Committee is trying to reduce the costs overall wherever it is possible.

Since the financial situation of the Company is in good standard the levies were confirmed by the Congress are unchanged for the past three years, and are as follows:

ORC Int.	70 Euro
ORC Club	42 Euro
IOR	42 Euro plus ORC Club certificate for free
Speed Guide & Stability Datasheet	50 Euro when issued locally

3.00 APPOINTMENT OF AUDITORS

A motion to appoint Jeremy Tolhurst as Auditor for the coming year was seconded and unanimously approved.

4.00 APPOINTMENT OF HONORARY TREASURER

The Chairman made a motion to re-appoint Don Genitempo as the Honorary Treasurer of the Association. The motion was seconded and unanimously approved.

5.00 MEMBERSHIP OF COMMITTEES

There are the following changes to the Membership of Committees for 2013.
ITC Committee: Jason Ker in substitution of Manolo Ruiz de Elvira.
Promotion & Development Committee & Offshore Classes & Events Committee: Vadim Mekhanikov is stepping out from both Committees.

REPORTS AND RECOMMENDATIONS OF COMMITTEES

6.00 INTERNATIONAL TECHNICAL COMMITTEE

ITC Committee Chairman, Alessandro Nazareth reported

6.1 HYDRODYNAMICS

The Residuary Resistance (Rr) Working Group completed its task delivering a completely new formulation of this fundamental part of VPP, essential to establish the correct total resistance of the boat.

Recognizing that previous attempts to accurately calculate the effect of several hull parameters such as Prismatic Coefficient, Longitudinal Center of Buoyancy (LCB) and water plane area coefficient have led to undesirable type-formed hull shapes and that this trend could not be addressed within the existing model, it was decided to simplify the input parameters accounting for 2 main parameters only: dynamic Length-Volume ratio (LVR), and Beam to Canoe-body-draft ratio (BTR) to avoid as much as possible any type-forming. The effects of hull volume distribution are still captured by the use of the traditional integrated lengths.

During about two years of work and several meetings, but especially in the last 3 months, the WG went through the following steps:

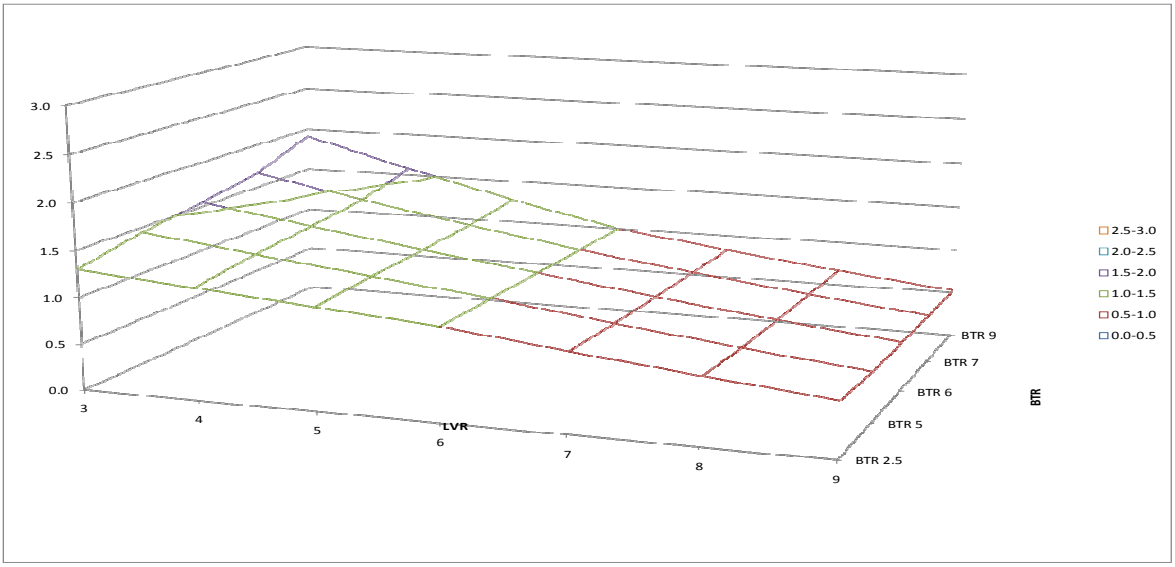
a) Reviewing and understanding the shortcomings of the existing Rr formulation
b) Collating the relevant Delft Systematic data (analyzed by Kay Enno Brink) and the CFD results coming from CRAIN (Philippe Pallu) and the FINE™/Marine code, performed by Jason Ker
c) Deriving a new Rr formulation based on BTR and LVR that fits the CFD results more accurately and rationally than the 2012 formulation
d) Establishing a methodology to assess for each Froude number (Fn) the Rr variation related to a base boat having LVR = BTR = 6. The Length model has also been modified to correctly represent a dynamic length.

Following much retrospective analysis on models of the Delft Systematic Series, a base boat Residuary Drag was derived from a regression performed on a set of models that correspond well with the LVR and BTR values of the ORCi fleets. The frictional resistance has also been changed, using the Hughes frictional line viscous resistance, instead of the classic ITTC as in current VPP.

Models were evaluated using Numeca's FINE™/Marine RANS CFD code. Drag values were re-referenced to dynamic LVR calculated accounting for Fn, and not limited to a single value.

The Rr drag curve for the canoe body is then formed by the extraction of drag values from 3 Dimensional surfaces of dynamic LVR and BTR at each Fn increment, where Fn is being derived from the combination of speed and dynamic length (see below) with each Fn surface constructed starting from 0.25 up to 0.7. For speeds outside this range the resistance is extrapolated.

The various surfaces (as a function of LVR and BTR, with LVR range 3 to 9 and BTR range 2.5 to 9) represents Residuary Resistance ratios (more than 1 if increased, less than 1 if decreased) versus the base boat, with LVR = 6 and BTR = 6. An LVR-BTR surface (at a fixed Fn) might look something like the plot below:



The new Residuary Drag formulation proved to be robust and very effective in assessing the Resistance of the boat, so the WG went on to apply it also to heeled drag, using the same formulation based on heeled parameters entered into the new Rr at each heel angle.

So a new formulation of the heeled drag is included in the new hydro model based on calculation of heeled residuary resistance using the same parameters of upright Rr (BTR and LVR) but calculated with the boat heeled. This formulation also takes into account the asymmetry of the heeled hull form , and then considers appendages size (and special configurations like canards and trim tabs) so that leeway angle can be calculated and used to compute the induced drag.

The methodology implemented is as follows:

- Formulate lift area (Coefficient of lift multiplied by projected area, abbreviated as "Cla") versus leeway angle slopes and axis intercepts for the hull and for the combined appendages, based on simplified lifting line theory for the hull plus a modified version of the lift efficiency modified by BTR and LVR method already in place in the VPP for the appendages;
- Determine from the LPP a hull yaw angle at zero leeway due to the asymmetry of the heeled hull shape. This is based on the transverse shift of the center of buoyancy in the forward and aft end of the hull;
- Combine both hull and appendage lift Coefficient (Cl) vs Leeway lines to create a total coefficient of lift area line (tcla) which considers areas and initial slopes (for canard or trim tab yachts, the hull share of lift is assumed to be zero).

In the VPP solver operation the procedure is to:

- Divide applied side force by 0.5*density*Vs^2 to obtain the required tcla;
- determine leeway at the applied tcla;
- determine separate hull and appendage lift shares at the leeway angle obtained;
- From effective spans of hull and appendages, determine the induced drags of both hull and appendages;
- Di total = Di appendages + Di hull , with both Di component parts accounted as

  Component_Lift squared * π /effective span of component.

The programmed structure of this method has allowed for the factors to be tuned to match closely the CFD and tank data, and then checked against the existing fleet. Finally, a new dynamic length scheme was studied to substitute the current one that consisted of a simple two thirds to one third share between

the static waterline length and a quite deeply "sunk" length, being a fixed value insensitive to LVR or Froude number.

Recognising that the wave height, the dynamic heave and therefore the physical length itself are highly sensitive to both Froude number and Length volume ratio (LVR), a new scheme was developed to improve the treatment of "effective length." Two new sunk length values were created, namely LSM4 and LSM6, aimed at Fn > 0.35 and Fn < 0.35 respectively. The height of LSM4 is aimed to match wave heights at Fn 0.4, while the height of LSM6 is designed to match waves heights at Fn 0.3, and both depend on suitable functions of the yachts length and LVR. LSM6 has a lower length exponent than LSM4, because at Fn < 0.35 having a lot of volume in the ends rather than in the middle is not as beneficial as it is at Fn > 0.35. The static sailing waterplane length LSM1 has also had its exponent reduced to reflect that it is now only primarily used at slow speeds. The new L is dependent on Froude number, and based on length mixtures which are linearly interpolated in four phases:

- Phase 1: 0.125 < Fn < 0.3 L is a mixture of LSM1 and LSM6, starting at 100% LSM1 and finishing at Fn 0.3 as 100% LSM6
- Phase 2: 0.3 < Fn < 0.4 L is a mixture of LSM6 and LSM4, starting as 100% LSM6 and finishing as 100% L
- Phase 3: 0.4 < Fn < 0.5 L is a mixture of LSM4 and LSM1, starting at 100% LSM4 and ending as 70% LSM4
- Phase 4: 0.5 < Fn L is a mixture of LSM4 and LSM1, continuing as 70% LSM4

For values of Fn > 0.4 the LSM6 loses relevance, but the wave length grows longer than the hull as the Fn continues to increase, resulting in a reduction of the wave height locally at the transom, so LSM1 is mixed in to reduce the effective length appropriately, representing a 30% share of L by Fn0.5 and then continuing at that ratio for higher Froude numbers.

This is the proposed Length Mix:

At exponents of LSM1, LSM4 and LSM6 are 0.3, 0.4 and 0.45 respectively, the depth attenuation remains unchanged. The heights at which the LSM4 and LSM6 are taken are found by:

6 LSM4 Height Aft: LSM1 * 0.14 * LVR^-1.2
7 LSM4 Height Fwd: LSM1 * 0.093 * LVR^-1.2
8 LSM6 Height Aft: LSM1 * 1.105 * LVR^-2.15
9 LSM6 Height Fwd: LSM1 * 0.736 * LVR^-2.15

The committee is comfortable with the new hydro models that includes the 3 main components described above, and the situation could be summarized with the following points:

1. The model of the RR relation to LVR and BTR is now very accurate, and residuary resistance has retained an appropriate sensitivity to Cp with our new length scheme. Although LCB has been lost, this won't be a problem

2. The replacement of the heeled drag factor is much more accurate now that it uses the heeled parameters in the Rr model, PLUS the hull asymmetry calculation that divides the lift between hull and keel

3. The revision of the length scheme using LSM1, LSM 4 (now with a height that has LVR sensitivity) and the new LSM6, is much better than the current formulation of IMS L

Other hydrodynamics issues like:

- Standard keel concept
- Crew weight trimming moment evaluation
- Transom drag revision

will be put in 2013 agenda.

In particular the Committee thinks that because the new heeled drag will take into account asymmetry of the boat and its influence on the induced drag, the issue of big keels will be addressed, as well as for unconventional configurations like canards and trim tabs. This should allow the Standard keel concept discussed earlier in the year to be better checked next year if necessary.

6.2 AERODYNAMICS

New Power and Shape Functions

In some cases the current VPP has given downwind speeds that are higher than observed speeds, and that boats with asymmetric spinnakers on centerline are in some cases assumed to sail deeper than the same boats with a pole, so the ITC has completely revised the three aero functions known as “power”, “shape” and “blanketing” to yield better results.

6.3 POWER

The Power Function was introduced some years ago in order to more equitably handicap the influence of increasing the length of the spinnaker pole or bowsprit relative to the spinnaker or gennaker mid-girth.

The Power Function of 2013 has an apparent wind angle linkage, so that the effective reference area is essentially similar to what would be ideal for the wind angle considered. This addresses several handicapping issues: deep running symmetrical sails on heavy boats now need to be bigger relative to the space available than asymmetrical sails on lighter boats that sail higher angles in order to collect the same Power Function credits.

First, bowsprits are considered shorter than poles (a reduction factor of 0.9 is applied to TPS) while a correction of height available is taken into account for poles as 0.16*LSM1, considering that poles are set higher than the bowsprit.

The new power formulation is:

Power = 0.92 + (ABS (fsp)) ^1.5, but not to exceed 1.2
Fsp= min((1-1.488*SPLc/(SPI_AREA/(ISPc*AWAfact))-0.17 , 0)
SPLc= SPL or 0.9*TPS
ISPc= ISP(for sprit) or ISP-0.16*LSM1 (for poles)
AWAfact = 0.5196*AWA^0.1274 if AWA>28°, 0.794 if AWA<28°
CE height = 0.517*ISPc+0.16*LSM1 for poles or 0.517*ISPc for sprit,

The fsp formulation includes ISP and TPS, so in effect it has dimensions of an area. The AWA factor is a modification on this area to consider a boat type that needs to sail at 175 degrees and can fill the available space with a larger spinnaker more effectively than a boat that needs to sail at 100 degrees that would not benefit from such a large spinnaker. So if a typical A1 area is set at a typical A1 angle, it should reach a similar power factor to a typical S4 or A4 area set at their typically-wider angles.

6.4 SHAPE

The SHAPE function was introduced some years ago as it is an observed effect that large spinnakers are particularly inefficient in light airs. To address this “type-forming” towards smaller spinnakers, a power loss factor for larger sails was developed so reducing the effective area of a spinnaker that is bigger than the “reference area”. The pre-existing system however was flawed in having the reference area formed by IG and J leading to a situation where changing J would have a large effect on predicted downwind performance. The new formulation only considers the space available for the spinnaker to be flown in, defined by ISPc, J and pole type.

These are the new features of the shape function:

- The reference area depends on whether a pole or a bowsprit configuration is used, due to the different space available in each case;
- The shape function reference area now has a "head angle" relationship as well as being related to ISP and TPS in order to bring in the effect of gravity making it harder to fly a lower aspect ratio sail;
- The shape function now relates to apparent wind speed rather than true;
- The ISP used by the reference area is the full ISP for pole boats at AWA < 80°, blending to ISPc at AWA > 90°, in order to simulate the practice of tacking very light wind sails onto a short STL length bowsprit to gain more projected area. ISP for sprit boats is the full ISP throughout the range of AWA.

This is the new SHAPE function formulation:

SHAPE = 1 + Wind_Speed_Range_Multiplier * (Shape_factor -1)
Wind_Speed_range_Multiplier = 1 if AWS < 5, 0 if AWS > 6 (the Multiplier = 1 for < 5 AWS, 0 for > 6 AWS, and Interpolates between)
Shape_factor = 1-3 *(Ref_Area/Area_actual -1)^2 with 0.8 < Shape_factor < 1.0
Area_actual = MAX (SPI_AREA, Ref_Area)
Ref_Area = 1.04625* ISPc * SPLc / Head_Angle_Corrector
Head_Angle_Corrector = ARCTAN (2.5 * (SPL;TPS) / ISPc)

The formulation ensures that the "rated area" increases slightly with the increase of TPS, even in 5kts AWS, and the reference area is more appropriate to a small sail for the limited space and AWA. Being related to AWS, it is much more physically realistic and should mean that for a light boat the effect disappears at about 10kts TWS, while for a 37' heavy cruiser-racer the effect tapers down at 12kts TWS.

6.5 BLANKETING

The current VPP aerodynamic model contains a Blanketing term that modifies the spinnaker/gennaker force coefficients if the spinnaker pole length (SPL), or gennaker tack point (TPS), is short relative to the mid girth and relative to the SPI_AREA/Main_Area. The above effects are now correctly covered by the new POWER and SHAPE functions so it was decided to remove BLANKETING from the VPP.

The new formulations are more reliable as they control and rate pole length more effectively, they credit spinnaker area that is in excess of what is effective at the angle sailed, and they consider that sprit length needs to be relatively longer than pole length for sufficient projection and should not systematically favor one type of boat over another, ie. light-fast, heavy-slow, sprit-pole etc.

ITC agreed to propose the implementation of the full package of the above functions

6.6 New mainsail roach computation

The Committee devoted some time to discuss this item because of the possibility of a small loophole that may occur when a longer E is measured on the boom, and then reducing it so to reduce the effective

roach taken into account by the VPP. The boat is then slower too if a non-existing sail area is taken into account by the VPP in the bottom.

Some possible solutions were discussed, and it was decided to compute the roach taking into consideration only the upper 3/4 of the mainsail (ignoring the area below the MGL girth).

It was also suggested to enforce the IMS Rule F1.5 d) to avoid any E measurement outside the boom outer point.

6.7 IG and J measurement wording revision

The Committee was asked what to do when jibs or genoas are hoisted outside the foretriangle as defined in F3.1 (IG) and F6.1 (J). The committee believes that jibs or genoas set flying in front of the forestay will require some rule changes to get this subject better addressed. ORC Rules 207.1 and 207.2 as described above will remain valid; while IG, J, and SFJ measurements will be modified in case of jib/genoa set flying in front of forestay, taking in account actually hoist and tacking point of such jib/genoa

6.8 Quad sails

The Committee also considered a type of headsail with double sheets attached to a double clew, so-called “quad sails” (see photo below):

The Committee believes that this sail should be measured as a jib, extending the leech and the foot, and taking their intersection to measure LP and all the girths.

The Committee also evaluated this sail as a code0 or an asymmetric spinnaker, but it was thought that the performance of this kind of sail, with the upper sheet that could effectively control the leech twist, must considered only as a jib and that the IG and ISP measurements should be re-considered (see 4.5 above).

6.9 LIGHT SHIP TRIM AS NEW MEASUREMENT TRIM

After the meeting in Hamburg where the Committee decided to defer to Man Com and the Measurement Committee the decision about adopting the new LIGHT SHIP trim as measurement conditions, the ITC also devoted some more time to discuss this issue, mainly to prepare all the necessary technical tools to let the other committees to best make their informed decisions on these matters.

So Kay Enno Brink together with Panayotis Papapostolou worked together to fix the new procedure to be implemented into the LPP if the decision of adopting new measurement trim were to be approved at the next AGM.

Starting from the software programmed last year to take into account all items listed in the Measurement Inventory, and to deduct them to obtain a new flotation trim, it was confirmed that it is working correctly, defining a “LIGHT SHIP” trim derived by the current “MEASUREMENT TRIM”.

It must be updated to take into account the boats that from 1/1/2013 may be measured empty, but the "SAILING TRIM" that is used for the VPP calculations is intended to remain the same. So a set of default weights and CG's has been extrapolated from the data base of the world's measurement inventories in order to calculate the items to be added back in for sailing trim. This is as follows:

	Mass/DSPL	LCG/LOA	VCG above Flotation WL	VCG above Flotation WL
Anchors and chain	0.003	0.45	0	0
Deck Gear	0.002	0.40	0	0
Tools	0.001	0.55	0.25 freeboard at mast	0.300
Safety gear	0.0015	0.50	0.25 freeboard at mast	0.300
Galley Equipment	0.001	0.60	0.25 freeboard at mast	0.300
Navigational Equipment	0.001	0.60	0.25 freeboard at mast	0.300

And the following procedure could be adopted:

BOATS MEASURED BEFORE 31/12/2012:
The relevant weights currently included in the measurement inventory will be deducted from the measurement displacement to derive a LIGHT SHIP displacement. The CG will be retained for information purposes but the sailing trim will remain unchanged and computed from measurement trim as is in current LPP.

BOATS MEASURED AFTER 1/1/2013:
Starting from the light ship trim derived from freeboards and stability measured with boat empty, the LPP will add the set of default weights and CG's studied (see above). Then the set of default weights and CG's that are currently added by the LPP (sails, gear + measured crew weight if available) will be added to derive the sailing trim.

To avoid any concerns that the boats could be favored in retaining the old measurement trim or making the new measurement, a test run was prepared: In the world test fleet, removing the measurement inventory weights and adding the new default weights causes very small GPH differences, with extremely aft-trimmed small boats being affected most.

The above differences could be considered negligible, so this new procedure is protecting the existing fleet, will avoid any exploitation of extreme aft trim, and will avoid a massive re-measurement exercise.

Apart the list of advantages and disadvantages already expressed in previous Minutes, another concern regards sailing trim stability for boats that are close to the LPS minimum (103° for general ORCi certificate, or 90° for sportboats) - or having a Stability index around the limit established for racing in OSR category 0, 1 and 2 that are respectively 120, 115 and 110°.

Boats that were eligible last year but were very close to the limit may not be entitled to race this year, so a check on these limits in the current fleet was made and it was shown that no major change occurred.

Therefore, ITC thinks that all the technical tools are available for Man Com and the Measurement Committee to make their final decisions.

6.10 SUBMISSIONS

6.10.1 ARG 1 - AEROMODEL

The Committee discussed the problem of masthead versus fractional rigs. The current aero model reduces Effective Height with fractionality, while on real boats fractional rigs depower more efficiently

but have the upper part of the mainsail not covered by the jib, while on masthead rigs this helps in deviating the flux.

For these reasons, which must be considered all together, the Committee decided to defer this item to 2013 agenda.

6.10.2 ESP 1 – POLE POSITION FOR INCLINING TEST

The committee supports the submission, and to include the LCF on the certificate.

6.10.3 FIN 1 – DEFAULT CREW WEIGHT CALCULATION

The current Default Crew weight (ORC 102.2) depends on many parameters (LSM0, DSPM, RM, MB) and there is no clear size dependency apart from RM. The current parameters of the ORC world fleet suggests to the Committee this possible formulation that minimizes changes and is dependent only on IMS LSM0:

Default CW= 25.8 x LSM0^1.4262 (kg)

A test run was prepared and showed minimum differences in handicap.

The submission is therefore supported.

6.10.4 FIN 2 – MEASUREMENT TRIM

See Par. 6.9 above.

6.10.5 FIN 3 – BTR, INCLINED DRAG AND/OR RIGHTING MOMENT

See Par. 6.1 above. HYDRODYNAMIC
Regarding RM in the current VPP evaluation, it should be left unchanged as it is moving the ratings of the racing fleet sailing stiff and safe boats.
The problem of high RM with high VCG is due to the shape of boats (mainly C/R's) that have poor weight stability because of construction limits that reduce building costs. Increases in RM with form stability can lead to low LPS and a low stability index. So the Committee believes that the new Rr formulation will address part of this submission, while it does not support the section related to RM. See also submission RUS 1.

6.10.6 FIN 4 – TP 52 STYLE BOATS IN VPP

See Par. 6.1 above.

6.10.7 FRA1 – TWIN KEEL

ORC programmer Davide Battistin has reported that after the 2010 decision on boats with double fins (retractable or not), the offset file should not have any keel but only rudder(s) and the geometric dimension of the twin keels entered as "canard" in the fields provided for this in the DXT file. The only issue that the current VPP does not address is when the double keel has a bulb at the bottom.

If required, the ITC will next year put a study into the agenda on how to implement this latter kind of double "fixed" keel with bulb.

6.10.8 GER1 – NON MANUAL POWER

The ITC agrees to allow non-manual power in the Performance Division for boats < 20 m, as no loophole is foreseen and there is no reason to forbid the use of non-manual power for racing boats.

In addition it was decided that non-manual power for sheet winches will be treated differently from the power used only to operate hydraulic rams used to adjust backstay, vang and outhaul.

So the penalty for non-manual power will be computed as follow***s:***

PERFORMANCE DIVISION
Non-manual power for adjusting sheets = 50% of the total penalty
Non-manual power for adjusting backstay, vang or outhaul = 50% of the total penalty

CRUISING DIVISION
Non-manual power for adjusting sheets = 75% of the total penalty
Non-manual power for adjusting backstay, vang or outhaul = 25% of the total penalty

Halyard winches to hoist mainsails can be powered without any penalty.

The final value of the penalty will be smoothed, as in the current rule, by the ratio (CW/def CW)^2 (taken to be not > 1) and will be separated by DA.

This means that an additional field needs to be added in the DXT file that identifies boats with just winches or with just hydraulic non-manual power.

6.10.9 GER3 – MAINSAIL WEIGHT

The Committee supports the submission to remove mainsail weight from the ORC VPP.
A new default mainsail weight has been formulated that is better related to boat dimensions:

Default Mainsail Weight = 0.0153 * LSM0 ^3 + 3 (kgs)

The test run showed very small impact on the fleet, so it was agreed to implement this new formulation and eliminate MSW from mainsail measurements.

6.10.10 GER4 – MAST RAKE CONTROL

ITC support the deletion of Rule 205, since the ram tensioning the forestay is not changing the mast rake.

6.10.11 GER5 – VPP WIND RANGE

The submission is deferred to next year's agenda so as to better inspect boats' low and high speeds with the new Hydrodynamic resistance calculations proposed for implementation in 2013 (see Par 3 above).

6.10.12 GRE1 – GYBE ANGLES

The Committee evaluated some tests made with the same boats with same asymmetric spinnaker areas, but with a pole or bowsprit of the same length. It was noted that the gybe angles could be lower for asymmetrics tacked on CL at high wind speeds, but VMG speeds are lower for this spinnaker configuration.

The polar speed plot shows an almost flat curve in the wide TWA range, hence it is very difficult for the VPP optimizer to find an optimum VMG, so the widest TWA is fixed.

Checking the plots of sails coefficients downwind (for both asymmetric configurations) it was noted that some change could be made in the 150°-180° AWA range. In fact, by slightly reducing the drag coefficient for an asymmetric sail tacked on CL, it would be possible to obtain polar speed plots that are less flat, and thus enable the VPP to fix a minor gybe angle problem for asymmetrics on CL.

6.10.13 GRE2 – BOOM NOT HORIZONTAL

The Committee made a check on the effective sail area when the boom is not perpendicular to the mast.

The rated mainsail area, with the boom not perpendicular to the mast, whether the angle is >90° or <90°, is increased compared to the effective area by 0.2% for 10° boom angle and 0.8% for 20° boom angle. So there is no chance to exploit the rule designing mainsails with the boom higher or lower than perpendicular, but there also is not an excessive area penalty.

6.10.14 GRE3 – SPINNAKER POLE IN THE "NO SPINNAKER" CONFIGURATION

The Committee confirmed that a pole is allowed on board when no spinnaker is measured (the "no spinnaker" configuration) and as a consequence the SPL should be measured.

Rule 113.3 must be changed as following:

113.3 If there is not any spinnaker measured, the boat will be rated with an asymmetric spinnaker tacked on a pole with the following parameters:

SPL **–** which shall be taken as follows:

- if there is a spinnaker pole on board it shall be measured and taken as ***SPL*** but not less than ***J***.
- if there is no spinnaker pole on board *SPL* shall be taken as ***J***.

Area = 1.035 * *Area* of the largest jib/genoa.

6.10.15 RUS1 – PENALTY FOR INSUFFICIENT STABILITY

The Committee discussed this submission because it involves a fundamental improvement of the VPP made some years ago that helped to promote stiff and safe boats. In fact, the introduction of an average RM and of the PHIUP (heel angle corrector) provides protection from type-forming towards low stability boats.

On safety issues (when issues like LPS, STIX are invoked) other committees (like the OSR) should be involved.

Finally, ITC believes that mixing handicaps issues with safety issues and trying to rate the latter is almost impossible.

The submission is therefore not supported.

6.10.16 RUS2 – MEASUREMENT TRIM

See Par. 6.9 above

6.10.17 RUS3 – SCORING COEFFICIENTS FOR COASTAL RACES

The Committee believes that there is no compulsory handicap to be used. For a coastal race (or offshore race) GPH, OSN or any other handicap derived from constructed course could be used. The RO can also build their own handicap from a table of time allowances.

On the same item it must be noted that after the previous meeting in Hamburg ITC proposed to restore the 2011 Offshore Triple Number formulation that was based on circular random wind.

6.10.18 RUS4 – INFLUENCE OF KEEL WIDTH ON WINDWARD PERFORMANCE

See Par. 6.1 above

6.10.19 RUS5 – WINDWARD PERFORMANCES OF SMALL YACHTS

The added resistance in waves for small boats will be checked, but the Committee believes that there are some effects, like inertia of boats and sail efficiency in waves, that causes a larger reduction in performance for small boats than for large ones.

On the other hand there could be some advantages when compared to larger boats, like control of the boat with the movement of crew as it is done on dinghies, and the capability to surf better in waves.

The Committee therefore made a check on the current Added Resistance in Waves (Seakeeping) that is strongly size-related, and found that the added resistance for a small boat of about 8m of IMS L is returning a slower handicap, compared to a boat of 15 m of the following quantities:

ILC…… 2%
GPH…….. 1.2%
OSN…….. 1.2%
Windward 12… 4%
Windward 20… 5%

This issue will be put into the 2013 agenda to better inspect the above concepts.

6.11 AGE ALLOWANCE

The proposed hydro and aero modifications to the code will make the 2013 VPP even more accurate and closer to real performances of the boats; for this reason the committee devoted some time discussing the effect of age allowance on these new modifications. The committee is now convinced that the current age allowance is too generous and recommends that it be halved for next year.

6.12 NEW TEST FLEET

A new reduced test fleet to be used for fast-checking VPP modification effects has been prepared by Davide Battistin. It includes the fleet of the best ORC racing boats, some light and high performance racing boats that are racing in other systems, and the SUPERMAXI fleet. The total is about 80 boats.

For final test runs to be presented to the AGM a complete fleet of all ORC INT boats with valid 2012 certificates will be used with an addition of 50 ORC CLUB boats from the Dutch fleet that Ab Pasman suggested to add. The total is about 1500 boats.

6.13. 2013 VPP. PREPARATION OF AN "ALL EFFECTS" TEST RUN AND A BETA VPP FOR IMMEDIATE RELEASE

After the meeting Davide Battistin is preparing a beta VPP that will include all the modifications approved (see Par.11) and a test run with the new test fleet. The ITC recommends immediate

distribution of the beta VPP to Rating Offices, beta testers and DVP users for debugging as soon as possible after the AGM.

6.14 2013 VPP DOCUMENTATION RELEASE

After the AGM, ITC will give all the information to update the VPP Documentation to allow the ORC to issue the new documentation possibly within the end of the year. The documentation will describe in detail the new routines and formulations: Residuary, heeled and induced drag for the hydrodynamics, and new power and shape functions with aero coeff for the aerodynamics.

6.15 COMPLETION OF RECOMMENDATIONS TO THE CONGRESS

1) New upright residuary resistance formulation
2) New heeled drag (heeled residuary resistance considering the asymmetry of boat when heeled, the appendages size and leeway to compute induced drag)
3) New IMS L scheme
4) New aero Power function, Shape function, removal of Blanketing function
5) New set of aero coefficients
6) New Default Crew Weight formulation based on LSM0
7) Removal of Mainsail Weight and adoption of a new Default Mainsail Weight based on LSM0
8) Non Manual Power allowed for Performance Division for LOA <20 m
9) Non Manual Power penalty divided between sails trimming and rig trimming
10) Requirement of compulsory measuring spinnaker pole if on board for boats without spinnaker
11) New definitions of IG, J and SFJ
12) Quad sail procedure of measurement
13) New roach formulation
14) New LIGHT SHIP trim procedure ready to be implemented
15) Revert back to 2011 Offshore Triple Numbers formulation based on circular random allowances.
16) Reduced age allowance

6.16 STRATEGIC PLANNING FOR WORK AFTER THIS MEETING. MAIN PROJECTS FOR 2013

a) Fine tuning of new hydro model
b) Revision of current aero model
c) Fractional vs Masthead rigs
d) Transom Drag revision
e) Crew weight trimming moment
f) Evaluation of dynamic wetted area
g) Small and light boats issue
h) Extension of TWS range for VPP

6.17 ORC RESEARCH FUND BUDGET PLANNING

The ITC believes that for next year agenda some further CFD study should be performed. It is difficult to say at this time which budget will be needed, so it will be asked to Man Com the establishment of a fund that may be used during the year 2012 or in 2013.

The Congress unanimously approved the recommendations of the Committee.

7.00 RATING OFFICERS COMMITTEE

Rating Officers Committee Chairman, Jean Louis Conti reported.

7.1. SUBMISSIONS

7.1.1 ESP 2 - PROPELLER INSTALLATION ON ORC-CLUB CERTIFICATES

After lengthy discussion the submission was adopted by a large majority.

7.1.2 GER 2 - SIMPLE SCORING OPTIONS DESCRIPTION

The committee decided not to support this submission; however it was unanimously decided to update instead the VPP documentation as soon as is feasible.

7.1.3 GER 6 - SELECTED COURSE ON ORC INTERNATIONAL CERTIFICATE

The submission was withdrawn at the last minute.

7.1.4 GRE 4 - JIB/GENOA LIMITATIONS ON CERTIFICATE

The Committee acknowledged the possibility of this eventuality arising and therefore agreed to modify the ORC Manager's routine aimed at detecting the presence of a genoa in the boat's sail inventory.

7.1.5 GRE 5 - FREEBOARD VALUES IN THE ORC CLUB CERTIFICATE.

It was generally accepted that there was no reliable way to differentiate actual measured freeboards from arbitrarily values manually entered by rating officers. Consequently the Committee members had no other option but reject the submission.

7.1.6 ITA 2 - WEBSITE SERVICES

The committee recommends the need to keep the actual format of the test certificate in order to maintain its resemblance with the normal ORC certificate. Nonetheless the existing mention "INVALID FOR RACING" could be made more obvious if felt necessary.

7.1.7 ITA 3 - POLES POSITION AT INCLINING TEST

Refer to Measurement Committee minutes.

7.1.8 ITA 4 - FLOTATION POINTS.

Refer to Measurement Committee minutes.

7.1.9 NED 1 - OFFSHORE TRIPLE NUMBER

The Committee unanimously decided to support this submission.

7.2. FLEET STATISTICS:

Zoran Grubiša presented new fleet statistics tools which will allow:

- number of issued certificates to be monitored during the year in real time
- quarterly invoicing scheme for the National Authorities based on the actual number of declared and already paid certificates by yacht owners.

Panayotis Papapostolou will be responsible for drawing up a document at the attention of rating offices explaining the new procedure to be followed.

7.3. ORC Manager and Worldwide Database:

Panayotis continued by presenting the Committee members with the new features to be incorporated in the ORC Manager 2013 and the new procedure for updating the worldwide ORC database. The principle modifications will be the inclusion of "no charge" and "withdrawn" tick boxes;

- No charge: The rating officer will be able to signal to the ORC that this particular already issued certificate will not necessitate a levy for whatever good reason.
- Withdrawn: The rating officer will be able to definitively remove an erroneous certificate from the *.rms file and Sailor Service.

Then Panayotis continued showing Committee members other features developed for use in 2013. The Chairman then presented a powerpoint document illustrating further possible changes to the ORC Manager, and in the use of the worldwide ORC database. Some proposals had already been incorporated or discussed during the meeting, and some will not able to be implemented.

7.4. OTHER BUSINESS

7.4.1 Submission FRA 1: Twin keels:
It was noted that apart from France no others were particularly concerned. Nonetheless Nicola Sironi told the Committee that this function will normally be added to the forthcoming ORC Manager.

7.4.2 Naming of Offset files:
No real progress to the way of harmonizing the name of these files was made. It was noted that it was already possible to allocate file names with more than the eight existing characters; thus enabling the rating officer to describe each boat with better precision.

7.5. PRESENTATION OF THE FRENCH DATABASE

Finally Jean Louis CONTI presented the Committee with a Powerpoint document showing briefly the way in which the French Federation has for the last 15 years developed its own database incorporating systematic studies of well known production boats (to date 333 boats).

The Congress unanimously approved the recommendations of the Committee.

8.00 MEASUREMENT COMMITTEE

Measurement Committee Chairman, Nicola Sironi, reported.

8.1. MEASUREMENT TRIM

The question of the measurement trim that was addressed last year has been discussed again at length.

The Committee agreed to continue with the decision taken last year, i.e. measure boats empty from 1/1/13, and use the "light ship" trim, obtained deducting the weights listed in the Measurement Inventory for boats already measured with weights on board. This will create a decrease of displacement across the fleet, considered acceptable after looking into the data available from measurement inventories.

For existing Club certificates, or older measurements where the inventory list is not available, a default of about 1% can be deducted from the displacement to obtain the "light ship" trim. This is not what was concluded in the ITC discussion on the subject, where it was proposed to add back a "default" weight in order to achieve a very similar value for the sailing trim displacement.

The Committee feels that once the principle of measuring boats empty is taken, the addition of some "defaults" to represent the weights that have been removed would just be an invitation to find

equipment that would be lighter than the defaults, and given the change will affect everybody by a very similar amount, it can be accepted by the constituencies.

This will help in avoiding further changes on this topic in the future. This addresses FIN2 submission, which is therefore rejected.

8.2. MAINSAIL WEIGHT

Submission GER3 proposes to include Mainsail Weight (MSW) also on Club certificates, or eliminate it also from ORCi.

This was already agreed by ITC, after looking at some statistics on the existing fleet, and the Committee supports the removal of the MSW measurement, and use the default value instead of the measured one in all cases.

Therefore the submission is supported.

8.3 POSITION OF THE POLES FOR INCLINING TEST

Last year the position of the spinnaker poles had been shifted from the Bmax station to the LCF position, but LCF has not been included in the data displayed on the certificate. This will be done in the next version of the program, and thus supports Submission ESP 1.

Submission ITA 3, which suggests that to enter the position of the poles taken from the bow is considered redundant, will also be approved once the LCF value is displayed on the certificates

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8.4 FLOTATION POINTS

The Committee supports Submission ITA 4 and recognized that already there are two different ways to make comments on the position of flotation points: one is available to Rating Officers in the database to instruct their measurers, and the other is to display on certificates in the Comments field if the freeboard points are not on the normal sheerline.

Recommendations from the Measurement Committee were unanimously approved by the Congress.

9.00 SPECIAL REGULATIONS COMMITTEE

Special Regulations Sub- Committee Chairman, Patrick Lindqvist, reported.

Please refer to ISAF Special Regulations Sub-Committee Minutes.

10.00 OFFSHORE CLASSES & EVENTS COMMITTEE

Offshore Classes & Events Committee Chairman, Don Genitempo, reported.

10.1 Report of Championships

10.1.1 ORC Int. World Championship

Mr. Genitempo, the ORC representative for the ORC Audi World Championship in Helsinki reported a new record of attendance was set with 135 entries from 12 nations with 124 yachts at the starting line.The event was organized by the Sailing Club Marenkavijat housed in a centuries old fort on Sarkka island in Helsinki harbour.

The fleet was split into two Classes putting 47 yachts with GPH 614.9 or less in Class A. 77 boats with GPH 615 or more formed Class B. Class B was further divided into two heats for the first five races. Beginning with the 6th race the top half of each heat formed Class B Gold while the bottom halves formed Class B Silver. Points carried forwarded into the final races. This proved to be a very successful way to manage such a large fleet. There were Corinthians entries in each Class.
Eight of the nine scheduled races were completed including both offshore races, allowing a discard. The Weather served up a variety of wind velocities and directions, giving a good test for all conditions.

In Class A Alberto Rossi in his modified Farr 40 "Enfant Terrible" became the first repeat winner of the Offshore World Championship, having won in Cres in 2011; followed by Patrick Lindqvist in the TP 52 "Blixt Prosailing". The top amateur team was Juss Ojala's Estonian "Amserv".

Class B winner was "Scugnizza", another Italian entry owned by Vincenzo de Blasio. Going into the final race, 6 yachts were in position to win the prize. It was determined on the final run, with "Scugnizza tying "Lenco" Erik Van Vuuren's SALONA 37 on points with the victory coming on the second tie breaker. Team "Arken Zoo" won the Corinthian Prize.

Many thanks to Pekka Lopmeri, Event's Chairman, Lars Nykvist Jury Chairman, PRO Lena Musalo for their hard work in managing the unexpected large fleet. It was a most enjoyable event.

10.1.2 ORC Int. European Championship

Mr. Finzi reported on the ORC European Championship held in Punta Ala. 24 different boat types made up the 31-boat fleet representing 6 countries. Nine races were completed for the two Class fleets, including one long distance race scored as two.

The predominate shore breeze was light to moderate.Class A winner was TP 52 owner "Aniene 1st Class" owned by George Martin. Second was Valerio Battista's Grand Soleil 42R "Cronos 2".
Class B with close racing went to "Low Noise" a M37 owned by Giuseppe Guiffre'.
"Scugnizza" in a warm up before her World Championship win was third.

10.2 SUBMISSIONS

10.2.1 ITA 1 – CLASSES IN THE WORLD CHAMPIONSHIP

This submission requested an additional Class for World Championship events.
The submission was not supported as it would not comply with ISAF Regulations. It was noted that ORC may in the future petition ISAF to review this issue.

10.2.2 NOR 1 – CHAMPIONSHIP RECOMENDATIONS

This submission requests that ORC require Event Organizers to provide more information to competitors for World Championship events.
The Committee supports this submission.

10.2.3 MANCOM 1 – ORC WORLD CHAMPIONSHIP ELIGIBILITY

This submission asked that rules for eligibility for World Championships be reviewed.
Lengthy discussion that covered controlling entry numbers and quality of entries resulted in passing a motion requiring Organizing Authorities when apply for World Championships must declare:

1. The number of entries expected
2. The maximum number of boats that can be accommodated
3. No entries exceeding that maximum may be accepted without approval of the ORC

Further: the Green Book will be modified to allow a negotiated number of national entries permitted for the host country.

10.3 REVIEW OF CHAMPIONSHIP CRITERIA AND EVENT CHECK LIST

This very useful form was fully discussed during the submission discussions & the check list will continue to be expanded and refined and be a required document in applying for a championship.

10.4 Eva Holmsten reported on the European Championship to be held in Sandhamn August 3rd – 10th. Preparations are well underway. Pre Notice of Race soon to be published.

Paolo Massarini's presented a slide presentation on the preparations for Ancona' World Championship June 21st – 29th. Entries are expected to be in the 120-boat range. Some housing will be aboard luxury cruise ships. Professional Race & Regatta Staff has been secured. This will be a well-organized event.

Dobbs Davis reported on the Royal Cup a new Danish Team Racing Event that will be organized under the ORC umbrella. It will be patterned after the Admiral's Cup with three boat teams, to be held on Bornholm Island in September.

A very nice presentation to host the 2014 World Championship was made by Ecky von der Mosel on behalf of the Kieler Yacht Club. Kieler Yacht Club has a long history and an outstanding reputation for excellence in organizing major events. The Committee was most please to accept their offer to host the 2014 event.

The Chairman reported that there is interest from Kalev Yacht Club and Parnu Yacht Club in Estonia to host ORC events. He is communicating with them as to the best way to make this happens. Their interest is most welcome

10.5 ANY OTHER BUSINESS

Bruno Finzi commented on the need to investigate formation of new Classes or rating bands as we had with the IMS 600 and IMS 50s. The large number of new yachts in the 40 feet range could be candidates for this type of investigation.
Gianfranco Alberini spoke to the possibility of becoming involved with the evolving J Class who seems to be in need of a reliable handicap system.

The Congress unanimously approved the recommendations of the Committee.

11.00 RACE MANAGEMENT COMMITTEE

Race Management Committee Chairman, Ecky von der Mosel, reported.

11.1 SUBMISSION

RUS 3 – SCORING COEFFICIENT FOR CASTAL RACES

A discussion was made among Committee members and observers on the proposal made in RUS3 to change the Offshore Single Number (OSN) simplified scoring system to either return to the previous circular random mixture or devise a new one based on recent data collected from Baltic coastal and offshore races.

The submission showed data that these races had no change in percentage of wind angle as a function of wind speed, unlike the current formulation of OSN adopted last year at the AGM (see tables below).

Table 1: Current OSN formulation

TWS	**8**	**12**	**16**
Beat VMG	40%	25%	10%
60	5%	10%	20%
90	5%	15%	20%
120	5%	15%	20%
150	5%	10%	20%
Run VMG	40%	25%	10%

Table 2: from RUS 3

Course length, % True Wind Speed, knots		
8 & less	12	16 & more
34,8	30,7	30,0
13,6	9,1	8,3
8,1	18,5	14,4
11,9	13,2	5,1
11,5	16,1	17,0
20,0	12,5	25,2
100,0	100	100

After a lengthy discussion, the Committee felt there was sufficient doubt about the OSN and the sources of its formulation that they wish a more detailed report from David Lyons of ITC on the reasons for this mixture of wind speeds and angles used in OSN before being able to make an informed opinion on this topic.

The Committee therefore does not see a reason to change the current OSN, and notes that there are numerous other scoring options available to race organizers to best suit their local races in their local conditions.

The Committee therefore recommends to not adopt this submission.

11.2 PCS SCORING

The mathematical methods used to calculate corrected times in PCS scoring was discussed, as it may affect the consistency of results using new scoring programs being introduced. The Committee agreed that this is an issue that should be studied by the ITC, with the suggestion that the calculation method be standardized for all scoring platforms.

The Committee would ask the Congress to endorse this study by ITC so that PCS scoring may be consistent across new and existing scoring programs.

11.3 REPORT ON DEVELOPMENT OF EVENTS

The Committee solicited its members and observers for their opinions on event formats. Reports were then given from the following countries: SUI, ITA, NED, FIN, EST, ESP, GRE, CRO, SWE, GER, and USA. While there was no consistent format accepted in all these countries, there were popular trends observed as follows:

- More coastal and offshore races
- More casual and club-based racing
- An increase in shorthanded racing due to problems attracting crew
- General economic conditions are not affecting popularity as much as other factors
- Organizers should cater to new generation sailors through tools such as web sites, social media, etc, and offer more promotional opportunities to attract new sailors

11.4 **FUTURE PROJECTS FOR THE COMMITTEE**

We propose to shift the focus of the Committee towards being a forum for sharing ideas on topics such as liability and insurance issues for race management, organization and training of the race management team, improving checklists, comparative strengths of scoring software, and any other experiences relevant to improving race management efficiency.

The Congress unanimously approved the recommendations of the Committee.

12.00 PROMOTION AND DEVELOPMENT COMMITTEE

Promotion & Development Committee Chairman, Dobbs Davis, reported.

12.1 A report was made of the year's activities, with comments solicited the Committee members and observers on the following topics related to existing ORC promotional products:

- **Website content**: emphasis in the News section is on ORC National and international events. The Chairman asked for help in reaching the goal for 2013 of having every ORC National Championship event publicized with at least one story and a photo for each. Otherwise, the news content was generally felt to be adequate. Other content of interest is for more analytic and technical articles, even beyond what appears in Seahorse.

- **Website statistics:** Zoran reported that on average the site saw an increase in 2012 from 600 to 700 unique visits/day, or about 10,000/month, an increase from 600/day in 2011.

- **Bi-monthly Seahorse columns:** This is presented as a balance of technical and promotional content intended for the international audience, and was successful this year. PDF copies of this will now be available for download on the ORC site once the latest issue is published, as well as past columns.

- **ORC Yearbook:** It was generally agreed that this was too expensive to print and distribute in hard copy, but would be still valuable to make available in digital form. A mechanism for viewing large-sized high-resolution files will be sought.

- **ORC Guide**: A new short guide to ORC was agreed to be of value for new and emerging markets, and will be a priority for 2013. Giovanni Iannucci has an Italian version which may be used as a t template for this new guide. A similar guide is also needed to explain measurement preparation.

- **Sailor Services:** Use of the system has been steadily increasing, with a recent spike prior to the Worlds. Currently there are 3000 registered users, with 17,000 certificate copies downloaded from 2012 and previous years, and 1100 test certificates run in the past 10 months since its introduction. The translation this past year of the service in seven languages has seen to be a success, and there are offers for additional language translations, such as Chinese.

12.3 Interest was expressed in the Committee for more **internal communications**, so this will be a goal for the Chairman and staff in 2013, but it may not follow any particular timeline.

12.4 **Visits** to new venues in combination with the promotional materials is agreed to have been an effective strategy for new ORC markets, and in addition to trips made recently to DEN to support an initiative to use ORCi in existing and new events, there are trips also planned to CHN, BRA and RSA.

12.5 New **ORC Scratch Sheet** and **Target Speed** products devised by Panayotis will be heavily promoted as being an accessible, customized, and user-friendly way to use the power of the ORC VPP.

12.6 A presentation was made by ITC Chair Alessandro Nazareth to explain the significance of the **new**

Residuary Resistance formulation in the 2013 ORC VPP. It was generally agreed that this will be another opportunity to demonstrate the positive scientific progress made in the system towards more accuracy in modeling boat performance.

12.7 An opportunity to increase awareness of ORC is also at **regional clinics**, such as the Go For Speed clinics held in Scandinavia and Germany.

12.8 The Committee believes a more direct reach out to **yacht designers** is needed to make them aware of the new version VPP when it is available, this will be sought in 2013.

12.9 The important role of **social media** is recognized by the Committee, and Thomas Nilsson generously agreed to take on an active role in helping provide and manage content through ORC's Facebook page.

12.10 Lastly, the Committee and observers agreed that it role was an important one so as **not** to disband and become a purely Staff function.

The Congress unanimously approved the recommendations of the Committee.

13.00 MANAGEMENT COMMITTEE

Management Committee Chairman, Bruno Finzi, reported.

13.1 ISAF SUBMISSIONS AND ORC REPORT TO ISAF

ISAF submissions were reviewed; the following submissions were examined by the ManCom regarding Offshore administration:
SR 11 -12 – Mandatory Stability Requirements
109 -12 – International Race Office Administration – Rule 31.13
116-12 – RRS – Rule 41 – Outside help

The ORC annual report to ISAF was assembled presenting the fleet statistics up to November 1st, 2012 together with reports from the ORC Championships held in 2012.

13.2 SUBMISSIONS

13.2.1 FIN 2 – MEASUREMENT TRIM

ITC produced all the software tools to take care of the measurement inventory. A set of defaults weights for this inventory has been set so that ManCom feels that, adopting light ship measurement trim, there is no danger to encourage reducing the weight and amount of safety gear. ManCom therefore does not support this submission.

13.2.2 GER 1 – NON- MANUAL POWER

ManCom is in favor of the submission with the penalty implementation suggested by the ITC.

13.2.3 GER 3 – MAINSAIL WEIGHT

ManCom is in favor of the submission with the default main sail formulation proposed by the ITC.

13.2.4 GER 6 – SELECTED COURSE ON ORC INTERNATIONALCERTIFICATE

ManCom does not support the submission because in some areas these scoring options are used.

13.2.5 ITA 1 –CLASSES ON THE WORLD CHAMPIONSHIP

ManCom does not support because of existing ISAF Regulations.

13.2.6 ITA 2 – WEBSITE SERVICES

In general ManCom supports this proposal, but trusts the ORC staff to implement it in the best possible way.

13.2.7 NED 1 – OFFSHORE TRIPLE NUMBER

ManCom supports the submission and will refer to Rating Offices Committee.

13.2.8 RUS 2 – MEASUREMENT TRIM CONDITION

ManCom does not support the submission because the adoption of light ship trim displacement will already take care of this.

13.3 ORC/RORC RELATIONSHIP

During last meeting with RORC, RORC advised that there was no change in the arrangements between RORC and UNCL for administration of IRC. ORC continues to promote to RORC the concept of "One World, One Rule" and has proposed the establishment of a joint technical working group to consider outline parameters for a new rule. Further meeting with RORC took place in Dublin on November the 5th.

13.4 ORC/US SAILING RELATIONSHIP

ManCom is working with ORA and US Sailing to finalize an agreement to distribute HPR in all the countries with the exception of USA, North America and UK. The technical development of the rule is proceeding with the help of ITC chairman Alessandro Nazareth.
A meeting with Stan Honey and Dan Nowlan confirmed the interest of US Sailing and RORC to join ORC with the development of the Universal Measurement System (UMS), a system that would allow boats to easily obtain certificates under different handicap systems.

13.5 ORC/IMA (SUPERMAXI AND WALLY)

The Management met with the Secretary General of IMA, Gianfranco Alberini, who reported that next year the Super Maxis will adopt only ORC for their racing. He also reported that IMA and the newly elected Board is available during next February meeting to receive from ORC a proposal to rate and also score the other Classes.

13.6 FLEET STATISTICS & UPDATE ON LEVY PAYMENTS

Fleet Statistics

Fleet statistics are showing overall numbers with a slight decrease compared with the end of 2011, but more certificates are expected by the end of the year from Australia, Argentina, Brazil and Italy. Significant decreases can be noted in Canada, France, and Germany.

It was noted that getting certificate numbers declared form the rating officers is not an efficient way of keeping fleet statistics updated. As already asked and reported by the Tech staff during the year, a new method of collecting numbers of fleet statistics is proposed by the Tech staff and presented on the Rating Officers Committee. The new system will count all the data uploaded by the Rating officers who can mark those certificates issued as corrections of errors, misprints or minor changes not affecting the ratings, and with no need for re-issuing.

A new possibility, was investigated and discussed during the RO Committee Meeting, suggesting to upload certificates by the Rating Offices only when they get paid, and while awaiting the payment a new certificate with limited validity could be produced by the Technical staff.

Update on Levy Payments

The secretariat circulated an excel file with the information on levy invoices and relative payments. Third quarter invoices were issued at the beginning end of October. Regarding the 2010 levies payment from Russia is still to be received, and for 2011 levies the following payments are not yet settled: Brazil, Chile, Poland, Portugal, Russia, Slovenia and Ukraine.
2012 1st & 2nd quarter invoices are paid regularly.

13.7 REPORT ABOUT ORC RATING OFFICES AND RELATIONSHIP WITH MNA'S

Relationships with ORC rating offices is on a good level, with the Staff collaborating with them on an almost daily basis. New ORC activities are started in Hungary, Romania and Montenegro, with the current support of the ORC Central Rating Office. Activity will be monitored during 2012 and 2013 with the goal to establish separate rating offices in those countries.

The automatic certificate request system has been currently set up for Angola, Brazil, Korea, Hungary, Ireland, Montenegro and Romania.

The ORC Staff has assisted organizers with their NOR for a race in Quingdao, China next year, and some new interest has also been raised from South Africa that will be worth further investigation. Organizers of two high-profile regattas and a new offshore teams event in Denmark have asked and received help from ORC, furthermore Dobbs made a presentation and meeting with organizers at the Royal Danish YC on 12th October in Copenhagen.

Brazil – Abe has reported that the new web-based system is working well and is well-received, and Lars Grael has been elected the new Commodore of ABVO. This is seen as the best-possible outcome, since ABVO will now be in the hands of a respected leader who is supportive of ORC, and it allows certificate sales to be done directly through the PayPal system.

The previous ABVO debt from 2011 is still unpaid, though it was promised to be settled by the end of August.

A promotion and measurement seminar trip is still desired, although Abe has yet to commit to dates. ORC will work hard on him for this so that it can happen perhaps after the AGM.

Poland – Don and Dobbs met with a group from Gdansk on their wished to host an ORC event in 2013, and while they have a nice venue and plan, both explained that the schedule was likely full between the ROC and Europeans in Sandhamn. However, they pledged to stay in touch to help them with other ideas on perhaps a regional event in the southern Baltic region.

Italy –The problems with UVAI may have been resolved since they uploaded their certificates to the database after their National Championship. This did create a somewhat embarrassing situation in

Helsinki when people wanted to see certificates of the Italian winners, and they were not accessibly in Sailor Services.

Portugal – The situation here seems good, with FPV taking the lead in promoting events and issuing certificates. There has already been some ORC regattas in the Algarve, a place that has been having IRC racing from some years but has now converted back to ORC. There are talks soon about combining with the Spanish for an Iberian Championship in 2013.

13.8 SAILOR SERVICES REPORT

Use of the system has been steadily increasing, with a recent spike prior to the Worlds. Currently there are 3000 registered users, with 17,000 certificate copies downloaded from 2012 and previous years, and 1100 test certificates run in the past 10 months since its introduction. Income from Sailor Services use is showing a substantial increase compared with last year, with over 20.000 EUR income (14.610 EUR in 2011).

ManCom interviewed Panayotis Papapostolou who proposed the "Scratch-Sheet" production service to be developed and become available in Sailor Services in 2013. This was approved by the Committee. He confirmed the availability of solutions for clearly differentiating the appearance of test certificates produced by the Sailor Services from the official ones provided by the rating offices. He then briefly described the steps accomplished in the ORC database development since 2007 and concluded with the solutions available for certificate accounting.

13.9 MEASUREMENT COMMITTEE REPORT

See Measurement Committee Minutes

13.10 ITC AND ORC CLUB REPORT

The ITC is sailing full speed at the moment, after two positive meetings in April in Delft, and in September in Hamburg. The RR group has managed to go through the Delft data available from both past and more recent tests, and with several CFD runs made by Pallu and Jason Ker. The latter has shown very good attitude and knowledge in his attendance of both ITC meetings, so he's been asked to become an ITC member, which he accepted. So after the Hamburg meeting a programmable algorithm has been provided to Davide, who in a few days after the meeting was able to produce an executable test program.

See ITC Minutes.

13.11 PROMOTION AND MARKETING REPORT

See P&D Minutes, and materials on supplied USB stick.

13.12 ORC PUBLICATIONS, ORC WEBSITE IN 2013

See also P&D Minutes.

13.13 STAFF INTERVIEW

A closed meeting with each of ORC staff was held to discuss the possibility to increase the efficiency of the company. The staff has been complimented for the job done and confirmed for the following year.

13.14 REVIEW OF COMMITTEES AND CONGRESS MEMBERS AND PLANS FOR 2013 MNA'S RELATIONSHIP

The Management interviewed all Committee Chairmen and discussed with future activities as well as Committee composition.

Congress Members

The list of Congress Members was reviewed and modified according to the number of levies approved last year.

13.15. Review of ORC 2012 International Events & Provisional Calendar for 2013 Events

See Offshore Classes & Events Committee Minutes.

14.00 CALENDAR FOR 2012 – MEETINGS AND EVENTS

14.1 2013 Calendar of Events

- The 2013 ORCi World Championship had previously been approved to be in Ancona, Italy from 21st to 29th June.

- The 2013 European Championship had previously been approved to be in Sandhamn, Sweden from 3rd to 10th August.

15.00 COMMITTEE MEETINGS

ITC Meetings

The next ITC meeting is scheduled for mid-March 2013. In previous years it was held in Annapolis after the next Chesapeake Sailing Yacht Symposium, usually held on the third Friday and Saturday of the month. As an alternative, the meeting could be organized somewhere in Europe.

Management Committee Meetings

The next meeting of the Management Committee will be in Miami, USA over 9th – 10th March 2013.

AGM 2013

The next AGM will be held in Muskat, Sultanate of Oman 8th to 12th November.

16.00 ELECTION OF ORC CHAIRMAN

Bruno Finzi was proposed, seconded and voted Chairman of the Offshore Racing Congress for 2013.

17.00 ELECTION OF DEPUTY CHAIRMEN

Jose Frers and Wolfgang Schaefer were proposed, seconded and voted unanimously as Deputy Chairmen of the Offshore Racing Congress for 2013.

18.00 APPOINTMENT OF CHIEF MEASURER AND SECRETARY

Congress re-appointed unanimously Nicola Sironi Chief Measurer and Vivian Rodriguez as Secretary.