OFFSHORE RACING COUNCIL

World Leader in Rating Technology

Tel: +44 2380 632 231 Fax: +44 2380 632 167 ORC@compuserve.com www.orc.org



Ariadne House Town Quay Southampton SO14 2AQ England

Annual General Meeting held on 15th November 2001

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Minutes of the Annual General Meeting of the Offshore Racing Council Limited held at 1000 on 15th November 2001 in the Hotel Altis, Lisbon, Portugal. Note that business conducted concurrently as the ISAF Offshore Committee, in transition, is also reported in these minutes.

Council Members Present:

Chairman
Deputy Chairman
Deputy Chairman

cscnt.		
Hans Zuiderbaan		Benelux Countries
John Osmond		USA
Bruno Finzi		Italy
George Andreadis		ISAF Exec
Jean-Bertrand Mothes-Masse		France
Kjell Borking		Scandinavia
David Cox		South Africa
Estanislao Duran		Iberian Peninsula
José Frers		South America
Don Genitempo		USA
Arne Hubregtse		Benelux Countries
Giovanni Iannucci		Italy
David Kellett		ISAF Exec
Patrick Lindqvist		Scandinavia
David Lyons		Australia
Paolo Massarini		Affiliated Classes
Tony Mooney		Australia
James Muldoon		USA
Terry Robinson	UK, R	ORC
Abraham Rosemberg		Brazil
Peter Rutter		UK, RYA
Wolfgang Schäfer		Germany
Peter Scholfield		UK, RORC
Peter Taylor		New Zealand
Antonio Tio		Iberian Peninsula
Minoru Tomita	Japan	

Apologies for absence: H.M.	King Harald V of Norway	Honorary President
	Oscar Strugstad	Honorary Treasurer
	Paul Bennett	Honorary Member
Officers Present:	Nicola Sironi	Chief Measurer
	Judy Garrett Jenkins	Secretary
	Ken Weller	ORC Club Consultant
Committee Chairmen:	David Pedrick	ITC Chairman
	Alan Green	Special Regulations Chairman
	Ecky von der Mosel	Race Management Chairman

Committee Members:	Gianfranco Alberini		Offshore Classes
Commutee Members:	Thomas Blixt		
			Offshore Classes
	Jean Louis Conti	Off-1	ORC Club
	Bengt-Olof Holmberg		pre Classes
	Friedrich Judel	ITC	
	Gerd Kall		Measurement
	David Minords	UK	
	Ken Morrison		Race Management
	Flemming Nielsen		Measurement
	Dan Nowlan		Measurement
	Miguel Rosa		Measurement
	Timo Sarainmaa		Race Management
	Jim Schmicker		ITC
	Jim Teeters		ITC
	Lazaros Tsalikis		Race Management
	Theodossis Tsaltas		Measurement
Observers:	HM King Constantine		ISAF Honorary President
	Mustaf Umur Aydinoglu		Turkey
	Nevan Barran		Croatia
	Bernard Bonneau		France
	John Bourke		Ireland
	Paddy Boyd		Ireland
	John Crawley		Canada
	Iliu Ermakou		Russia
	Mickeil Ermakou		Russia
	Pablo Ferrer		Spain
	Bob Fisher		UK
	Bruno Frank		Switzerland
	Roula Galani		Greece
	Janet Grosvenor		UK, RORC
	Yutaka Hasegawa		Japan
	Carin Hildebrand		SSF, Sweden
	Eva Holmsten		Sweden
	Oleg Ilyin		Russia
	Tim Jefferey		UK
	Jose Leandro		Portugal
	Morten Lorenzen		Denmark
	Edwin Low		Singapore
	Teo-Ping Low		Singapore
	Kjell Marthinsen		Sweden
	Alfredo Messeder		Portugal

Javier Mendez	Argentina
Nils Nordenstrom	Norway
Annick Renaudie	IMOCA
Max Rivero-Kelly	Argentina
Javier Romero	Spain
Peter Reichelsdorfer	US Sailing
David Rosekrans	USA
Konstadina Sfakianaki	Greece
Jacinto de Sousa	Portugal
Arve Sundheim	ISAF, Secretary General
Mike Urwin	UK
Hanna Zuiderbaan-Schoen	Netherlands

1. **OPENING**

The Chairman welcomed His Majesty King Constantine and the other attendees to the meeting.

2. APPROVAL OF MINUTES

The following minutes were approved:

Annual General Meeting of 9th November 2000. Extraordinary General Meeting of 12th November 2001.

3. CHAIRMAN'S REPORT

The Chairman reported on the meetings held during the week between the ISAF Executive and the Management Committee regarding the Agreement reached by the two Councils last year.

4. ISAF/ORC PROPOSAL

The following proposal was circulated to Council for consideration. It had been discussed extensively between Management Committee, David Kellett and Arve Sundheim. The proposal was agreed as presented.

INTERIM PROPOSAL UNTIL NOVEMBER 2002 FOR THE OFFSHORE RACING COMMITTEE

- a. The objectives of the 2000 ISAF/ORC Agreement approved by both Councils would be maintained.
- b. The principle of the following revised Offshore Committee structure chart was agreed



- c. Until November 2002, the current ORC Management Sub-Committee would continue to manage all IMS Rule and ORC Club Rule matters only, including the employment of the current staff.
- d. Funds of ORC Ltd would be retained to finance the affairs of the IMS rule as has been done for the past year, including future income
- e. working party of seven (as follows) would be appointed to take care of matters arising and to implement the objectives of the 2000 ISAF/ORC Agreement according to the structure chart dated 15th November 2001 (above).

Vice President David Kellett (Chair) Hans Zuiderbaan Bruno Finzi Wolfgang Schaefer Chairman of the Constitution Committee, Jack Caldwell Representative nominated by the RYA, Paul King Representative nominated by US Sailing, Jim Muldoon

- f. The Working Party shall, among other matters, recommend the criteria for international and recognised handicap systems. The IMS rule is currently the only international rule.
- g. The nominations from Member National Authorities (MNAs) (as per ISAF Regulation 6.1 to 6.8 selected by the ORC Management Sub-Committee and the Executive) shall become the ISAF Offshore Committee when agreed by Council in November 2001. Hans Zuiderbaan will continue as the Chairman for this ISAF term.
- h. If required, office accommodation for the IMS staff would be available in the ISAF Secretariat. The situation to be reviewed in November 2002.
- i. The Secretary General would provide staff support to assist the ISAF Offshore Committee and the working party.

5. APPOINTMENT OF THE NEW ISAF OFFSHORE COMMITTEE

The Offshore Racing Committee, in accordance with the existing Agreement by ISAF/ORC, as ratified by both Councils last year, agreed that ISAF Council appoint the following people to the new ISAF Offshore Committee:

Name	Nat.	Member National Authority (MNA)
George ANDREADIS	GRE	Executive Committee & Hellenic Yachting Federation
Kjell BORKING	SWE	Swedish Sailing Federation
Paddy BOYD	IRL	Irish Sailing Association
John CLUISTRA	RSA	South African Sailing
Bernard D'ALESSANDRI	MON	Yacht Club de Monaco
Ecky von der MOSEL	GER	Deutscher Segler Verband
Estanislao DURAN	ESP	Royal Spanish Sailing Federation
Bruno FINZI	ITA	Federazione Italiana Vela
Jose Alberto FRERS	ARG	Argentine Yachting Federation
Arne HUBREGTSE	NED	Koninklijk Nederlands Watersport

Name	Nat.	Member National Authority (MNA)	
		Verbond	
David KELLETT	AUS	Executive Committee	
Paul KING	GBR	Royal Yachting Association	
Pasquale LANDOLFI	ITA	Federazione Italiana Vela	
Patrick LINDQVIST	FIN	Finnish Yachting Association	
David LYONS	AUS	Australian Yachting Federation	
Jean Bertrand MOTHES MASSE	FRA	Federation Francaise de Voile	
James P. MULDOON	USA	US Sailing	
John OSMOND	USA	US Sailing	
Abraham ROSEMBERG	BRA	Brazilian Sailing Federation	
Peter RUTTER	GBR	Royal Yachting Association	
Wolfgang SCHAEFER	GER	Deutscher Segler Verband	
Peter TAYLOR	NZL	Yachting New Zealand	
John Bridges TINKER	CAN	Canadian Yachting Association	
Antonio TIO	ESP	Royal Spanish Sailing Federation	
Minoru TOMITA	JPN	Japan Sailing Federation	
Lazaros TSALIKIS	GRE	Hellenic Yachting Federation	
Hans ZUIDERBAAN	NED	Koninklijk Nederland Watersport Verbond	

6. TREASURER'S REPORT

The 2001 budget was approved as circulated.

6.1 Levy:

The levy for the year commencing 1 January 2002 to 31 December 2002 would remain at £26 for the full IMS certificates and £13.00 for ORC Club certificates.

7. APPOINTMENT OF AUDITORS

The re-appointment of Hays MacIntyre as auditors for the year 2002 was proposed and agreed.

8. APPOINTMENT OF HONORARY TREASURER

The Chairman recommended the re-appointment of Oscar Strugstad as Honorary Treasurer and, this being moved and seconded, the appointment was agreed.

9. MANAGEMENT COMMITTEE

9.1 Election of Chairman of ORC Ltd.

Hans Zuiderbaan was re-elected Chairman of ORC Ltd. For 2002.

9.2 Submissions

DSV 01 IMS 600 World Championship & Class Rules

The Committee agreed with the Offshore Classes & Events Committee's decision regarding the establishment of an IMS 600 Class with a World Championship in 2002. See 14.3 below.

FFV 02 IMS-2, Measurer's Jurisdiction

The Committee agreed in principle to the submission that a measurer must not interfere with the management of a NA which is not his/hers, unless he has been expressly invited to do so but recommended that the matter be referred to the Measurement Committee. See 12.5 below.

FFV 03 IMS-3, IMS New Offsets Files Production

The Committee agreed with the view of the Measurement Committee that use of designer lines was not recommended for IMS.

FFV 09 IMS-9, Minor IMS Certificate Non Conformity

The Committee agreed with the Measurement Committee that no change to IMS Appx 5 or 6 was appropriate. See 12.7, FFV09.

FFV 10 IMS-10, Dynamic Allowance

The matter was deferred to the ITC. See 10.6 below.

FIV 01 IMS Regulations – Rule 204, Application of Crew Weight Limit

The Committee agreed with the decision of the Offshore Classes & Events Committee as recorded in 14.3, FIV 01 below.

FIV 02 VPP Changes Rate

The discussion of the submission is covered during the ITC report; see 10.8.12 below.

FIV 03 Incorporate Age Allowance in Certificate Handicaps

The Committee supported the submission; discussion and action is recorded under the ITC section, 10.6.2 below.

FIV 04 Carbon Construction for Boats Of The C/R Division Below 17m Loa

The discussion was covered during the ITC report. See 10.8.9 below.

FIV 05 Regulation 205 – Sail Inventory Limitation

The Committee agreed with the recommendation, but discussion and action is reported in the ITC section, 10.8.10 below.

FIV 06 Category 5 Of Special Regulations

The Committee agreed in principle with the proposal to introduce a Special Regs Category 5.

FIV 08 ORC Club Treatment of Yachts With Special Features Not Allowed Under IMS

The Committee agreed in principle with this submission and suggested that the ITC examine the feasibility of progressive integration into the IMS.

IMA 01 Amendment to the Class Rules

The Committee agreed with the following recommendations of the Offshore Classes & Events Committee on this submission. "It was reported that this submission changed the class name from the "International Class "A" Yacht Association" to the "International Maxi Association" and would initially establish four new divisions within the class including the IMS Division, Cruising Division (Light & Heavy Displacement), Wally Division and Unlimited Division. The Committee agreed that World Championship events be offered to IMA yachts fully certificated under the IMS system. The Committee agreed to the approval of the submission."

IMS5001 IMS LPP/VPP

It was agreed not to support the submission. See also 10.8.12 below.

IMS 50 02 General Purpose Handicap

The Committee agreed with the recommendations of the Offshore Classes & Events Committee to approve the proposal to reduce the General Purpose Handicap range for the class to five seconds per mile effective 2003.

RFEV 01 Regulation 205, to Base Sail Inventory Limits on GPH

The submission was discussed during the ITC report. See 10.8.10 below.

RFEV 02 Regulation 205, Increase Number of Spinnakers

See ITC, 10.8.10 below.

RFEV 03 Regulation 205, Increase Number of Small Jibs For Boats With LPG<1.1*J

See ITC, 10.8.10 below.

RFEV 05 Incorporate Age Allowance Factor to all Time Allowances in the Certificate

As with FIV 03 above. See action under ITC, 10.6.2.

USSA 09 Carbon Fibre Hull Gyradius Adjustment

The Committee had agreed with the ITC's recommendation on this submission, but see 10.8.9.n.

USSA 10 Hull Measurement using a Laser System

Se the discussion and action under the ITC section, 10.8.14.

OCEANIC 01 To Restore Oceanic Committee as an ISAF Committee

It was agreed not to restore the Oceanic Committee as a committee of ISAF.

OCEANIC 02 Study of Single-Handed Oceanic Racing

The Committee agreed to a study by the Oceanic Committee for single-handed oceanic racing.

OCEANIC 03 Amend Terms of Reference

The Committee agreed that the Oceanic Committee should revise its Terms of Reference. It was agreed to change the Terms of Reference as proposed by the Committee.

RYA 01/P 048-01 Handicap/Rating Rules as ISAF Classes

It was noted that this submission had been withdrawn owing to Item 4 of these minutes.

16.3 Status of the ORC Management (Sub) Committee

It was noted that this submission had been withdrawn owing to Item 4 of these minutes.

118-01 Allocation of Class to ISAF Committees

It was agreed to recommend that the Farr 40, Mumm 30 and Mumm 36 Classes should, for the present time, remain under the Offshore One Design Sub-Committee.

16.3 Criteria for Submitting International Handicap Rule/System Status

It was noted that this submission had been withdrawn owing to Item 4 of these minutes. "The Working Party (as per Item 4) shall, among other matters, recommend the criteria for international and recognised handicap systems. The IMS rule is currently the only international rule."

120-01 Criteria for Sanctioning of International Handicap Rule/System Status

It was noted that this submission had been withdrawn owing to Item 4 of these minutes. "The Working Party (as per Item 4) shall, among other matters, recommend the criteria for international and recognised handicap systems. The IMS rule is currently the only international rule."

10. INTERNATIONAL TECHNICAL (SUB) COMMITTEE

ITC Chairman, David Pedrick, reported.

10.1. Minutes of June 2000 Meeting

Minutes of the previous meeting in Hamburg, Germany were approved as written.

10.2. ORC Chairman's Report

The ORC chairman complimented the ITC for its diligent work in many projects. It would come as no surprise that the Management Committee had an unusually full agenda during the year and the balance of his report would effectively be covered in detail when he reported on the activities of the Committee.

10.3. ORC Chief Measurer's Report

The Chief Measurer reported that IMS 2001 has produced excellent racing in Europe with few difficulties. Corrected time finishes in a number of important regattas were quite close, with different yachts winning individual races. In regattas with a large spread of yacht size, IMS 2001 seemed to be well-centred in its predictions of results. In some very closely contested classes, it is apparent that the differences in finish between boats was much more dependent on the performance of their crews than on the precision of IMS. Other ITC members agreed about the high quality of IMS race results in Europe and the United States among yachts having different hull and rig types, while also recognizing room for continued improvement in specific areas of speed prediction and race management.

The adjustment for asymmetric spinnakers in IMS 2001 appears to be very close to balanced, although some advantage may remain in flatter water conditions. (See Minute 4.7 for proposed refinement to IMS 2002.)

The penalty for booms classified as "Light" has influenced the construction of aggressively light aluminum booms. (See Minute 8.11 regarding the proposed removal of this penalty.) There was a particular yacht whose righting moment measurement was called to question, which is referred to the Measurement sub-Committee.

Unusual sensitivity to a yacht's trim was investigated, which led to the correction of several minor program bugs in the computation of LSM.

10.4. Aerodynamic Research

- 10.4.1. Wind Tunnel Tests: Two wind tunnel test programs have been conducted to establish experimental sail force data for both downwind and upwind sail configurations. The status of these test programs is discussed in the minutes that follow. The ITC expresses its great appreciation for the support of financial and in-kind contributions by the ORC Research Fund, US Sailing, North Sails, Quantum Sails, the Glen L. Martin Wind Tunnel (GLMWT) and the Wolfson Unit.
- 10.4.2. Downwind Sail Tests: Tests of asymmetric spinnakers was begun at GLMWT in 2000. Early results were used at the 2000 ORC Annual General Meeting to improve the assessment of asymmetric spinnakers tacked on centerline. Continued tests in 2001 investigated the respective forces of: spinnakers and mainsails with variations of spinnaker width relative to pole length; the height of the spinnaker on the mast from fractional to the limiting case of the masthead; and mainsail chord/foot length. Test results show that the VPP overpredicts the downwind drive force of spinnakers and underpredicts the drive force of the mainsail. For reasons given below, the correction of this imbalance needs the results of windward sail research, as well.
- 10.4.3. Windward Sail Tests: A family of upwind sail configurations was tested at the Wolfsan Unit in the week just prior to this AGM. The sail plans include fractional and masthead headsails, as well as a range of foot lengths of both the main and jib. Test results are being expedited for the ITC's review following the present meetings.
- 10.4.4. Windward Sail CFD Study: The same family of sail plans was run through a vortex lattice aerodynamic computer code called S2KV. The code runs reveal differences in the induced drag of the various sail combinations. Another study is under way using FLUENT, a RANS code.
- 10.4.5. The Balance of Power: The overall effect of the VPP's existing sail force prediction appears reasonable overall, as evidenced by the relative competitiveness of different sail plans. However, the distribution of force among individual sails needs to be re-balanced. This must simultaneously consider mainsails, jibs and spinnakers of different fractionality and chord length, including the influence of one sail on another sail in proximity to it. Sufficient test data is now available to develop revisions to the IMS aerodynamic model during 2002.

- 10.4.6. Windward Sail Force Modelling: The VPP presently creates a file of maximum sail forces for mainsails and jibs that does not vary according to relative size and position of the sails with respect to one another. Analysis of the new data described above will permit accounting properly for differences in jib fractionality and overlap. Furthermore, the current speed of computers permits interactive optimization of sail forces within the VPP's equilibrium solution. This enables, for example, changing the lift coefficients of a "reefed" jib and mainsail according to both the jib's shortened foot/chord length while maintaining full hoist and its reduced overlap of the mainsail. This new sail force modelling scheme is expected to be programmed as part of the committee's 2002 agenda.
- 10.4.7. Asymmetric Spinnaker Coefficients for 2002 (DSV 02): The sail force coefficients for asymmetric spinnakers tacked on centerline incorporated a year ago have produced predicted results that are very nearly in balance with actual racing performance in 2001. However, there appears to be a small bias favoring the sails in flat water areas, in particular. The ITC proposal that the asymmetric/centerline coefficients be raised slightly at deep running angles to fine-tune the treatment of this configuration was agreed.
- 10.4.8. Clarification of Spinnaker Trimming: See minute 12.1

10.5. Hydrodynamic Research

- 10.5.1. Model Tests: Towing tank facilities have had limited availability to the ORC this year due to a construction-related shut-down at Delft and America's Cup research at the Institute for Marine Dynamics. Three new models to investigate midship section shape effects and planned for Delft this year should be tested by the end of the year, and three new models planned for IMD are now planned for early 2002. In addition to these models, Delft has offered to build and test two new models for 2002.
- 10.5.2. Bow Series: Test results of two Delft models having progressively steeper bow profiles were analyzed for review at this meeting, but the results are not ready for immediate application. Since this is the only new model data presently available, no changes are proposed for the VPP's residuary resistance database for next year.
- 10.5.3. Induced Drag of Rudder: The induced drag contribution of rudders of varying span was researched by model tests that were funded in part by the ORC Research Fund, with testing of three rudders contributed by the IMD towing tank and the hull model provided by US Sailing. The VPP presently does not distinguish between the effects of rudders of varying draft unless the maximum draft of the rudder exceeds the maximum draft of the keel. The committee's proposal for 2002 to add an induced drag term that is a function of rudder draft in relation to keel draft, and as a function of keel draft relative to LSM was agreed. Deep rudders will lead to a decrease in overall induced drag, while shallower rudders will be credited with an increase in induced drag, all in a smoothly varying function.

- 10.5.4. Resistance Due to Heel: The increment in drag due to heel at zero side force has been analyzed for Delft Series models that have been tested both heeled and upright, and for limited additional, available data. A hydrodynamic CFD code named SPLASH, which models residuary resistance associated with generating free surface waves, is being modified in a US Sailing project as an additional means to investigate heeled drag effects. The committee considers the completion of an improved algorithm of drag due to heel to be one of its highest priorities in its 2002 agenda.
- 10.5.5. Effective Sailing Length: The influence of overhangs on effective sailing length in the existing LPP is approximated by the "sunk" flotation to produce LSM4. This is used both in the regression of tank test data and in the corresponding VPP speed predictions. Using the SPLASH CFD code, the committee will explore the influence of different shapes of overhangs on hulls of varying displacement and will investigate alternative parametric descriptions of overhang shapes.

10.6. Dynamic and Age Allowances (FFV 10, FIV 03, RFEV 05)

- 10.6.1. Dynamic Allowance for Racing Division: Submission FFV 10 requests that the Dynamic Allowance (DA) be introduced for all Racing Division yachts more than four years old. The ITC recommended that DA for Racing Division yachts be introduced as a gradual allowance, with a 20% pro-rated share of DA beginning in the fourth year (after three years), and a further 20% in each of the next four years. The full DA would then take effect in year eight. This was agreed by Council. Note that, due to the more aggressive dynamic parameters of a competitive Racing Division yacht, its full DA will still be much less than that of a typical Cruiser/Racer.
- 10.6.2. Age Allowance in Table of Handicaps: Submissions FIV 03 and RFEV 05 propose that the Age Allowance (AA) be incorporated into the printed values of the Time Allowances on IMS and ORC Club certificates. Because the AA is usually used, it is confusing to score races with handicaps that incorporate AA, when the certificate's Time Allowances do not incorporate it. This confusion would be eliminated by the proposal, although the opposite would be the case where Age Allowance is not used. By a narrow margin the ITC supported the proposal and the change was agreed by Council.

10.7. Scoring (FFV 08, RFEV 09, SWS 02)

10.7.1. Wind Averaging Principles: Wind averaging (W/A) is a method of compensating for the effects of natural wind variations more or less than a particular wind speed. It was created before the use of Performance Curve Scoring (PCS), especially for use when a discrete wind speed was selected for scoring purposes. However, the ITC considers that its use is not technically appropriate when scoring under PCS or PLS for constructed, inshore courses, although it is appropriate to use W/A in offshore courses and single-number handicaps to compensate for greater variation in conditions. The ITC recommends that inshore races use constructed-course handicaps that are consistently not wind-averaged, as in the table of Time Allowances. The calculation of wind averaging and its recommended use will be reviewed by the ITC in its 2002 agenda.

- 10.7.2. Wind Averaging on the Certificate (FFV 08): (Also to the Race Management sub-Committee.) With reference to the wind-averaging discussion above, the ITC recommends this submission except to revise the wording to, "Not Wind-Averaged" and "After Wind Averaging" in the respective titles.
- 10.7.3. Windward/Leeward Courses for Inshore Performance Line Scoring in place of Olympic (RFEV 09): After considerable debate in ITC and Race Management Committee about the pros and cons of a change, it was agreed to leave the course on the certificate unchanged.
- 10.7.4. ORC Club Scoring Options (SWS 02d): The submission requested that GPH be printed on all ORC Club certificates, which is often helpful as a regatta class identifier. This would free up a scoring choice on the certificate. The ITC recommended that GPH always appear on the certificate, and that the default ORC Club scoring options be: Performance Line – Inshore; Performance Line – Offshore; and Time-on-Time. The recommendation was agreed.
- 10.7.5. General Scoring Comments: The ITC encourages local race organizers to use scoring options that work well for their fleets. It acknowledges that the fully implemented Performance Curve Scoring (PCS) is burdensome for many types of regattas. When a race organizer chooses single-number scoring, the ITC recommends that Time-on-Time (TMF) be used in tidal conditions (currents). Time-on-Distance (GPH) is suitable where course distance is known accurately or when wind conditions vary significantly within the overall fleet that is being scored. When it is desired to account for performance variations due to course conditions but without using PCS, Performance Line Scoring (PLS) produces corrected time differences and order of finish that are very close to those produced by PCS. It is noted that fleets of similar yachts, such as the IMS 50 Class, have been satisfied with TMF scoring in their 2001 racing. The ITC also notes the counsel of Olin Stephens for the ORC to produce a new, clear guide to the use of IMS handicaps, including single-number.

10.8. Other Submissions

- 10.8.1. Mainsail Girth and Batten Spacing (DSV 03, SWS 01): These submissions request more lenient treatment of mainsail roach in excess of the girth limits in IMS Rule 826. This may be significant to sportboats. Noting the extensive review of aerodynamic modelling that is in progress for delivery next year, the ITC will include matters of accounting for large-roach mainsails more accurately in this project. Related to this VPP programming logic affecting large EC penalties was adjusted to reduce the effect. It was recommended to keep the limit on the placement of the upper batten while simplifying Rule wording. Rule 825 is to be amended to include MGTY. Rules 828.1, requiring uniform batten spacing, and 828.3 as to mizzens are to be deleted. Rule 828 then becomes just the text of the current 828.2, which reads: "No device other than a normal leech line shall be employed to adjust the curvature of any batten." The revisions were agreed.
- 10.8.2. Change Between Spinnaker Configurations (DSV 05, RFEV 06): Yachts that change their measured configurations from Asymmetric on Centerline to normal Symmetric Spinnaker are not permitted to have a spinnaker pole aboard in the first case, yet would be required to have it

aboard in the latter case. In either case, two spinnaker poles are required to conduct the inclining. The ITC recommended that all new freeboard measurements be done with no spinnaker pole aboard. The effect is estimated to be small enough to ignore the differences of this procedure relative to the existing measured fleet (see also Minute 12.7, DSV5).

- 10.8.3. World Test Fleet Update (FFV 01): The ITC has found that the maximum practical size of the test fleet used to review proposed rule changes in Test Runs is about 300 yachts. Called the "World Test Fleet," (WTF), it had grown to about 50% greater than this prior to these meetings. The ITC reviewed the WTF to reduce it well below 300 before adding new yachts to it. The request of this submission was much in excess of the practical considerations, although specific yachts on this list were considered in its updating of the WTF. The resulting WTF now stands at a little more than 300 yachts.
- 10.8.4. Three-Bladed Feathering Propellers (FFV 05): A specific proposal was made to provide a suitable PIPA value for a three-bladed feathering propeller, as is used on some cruiser/racers. The ITC agreed with the intent of this submission, making a small increase in the ST4 term of the following formulae to make an increased drag allowance for the additional, exposed propeller blade. The ITC recommended changing the first sentence of Rule 608.1a to read:

"For a folding or feathering two-bladed pusher propeller installed out of aperture, PIPA shall be determined by the formula:" etc.,

and the addition of a new provision:

"For a feathering three-bladed pusher propeller installed out of aperture, PIPA shall be determined by the formula:

 $PIPA = IPA + 0.70*(PHD)^2$

It recommended similar changes to Rule 608.3a, changing the text to read, ". . . folding or feathering two-bladed propellers . . ." and to insert a new provision, with any appropriate line-item renumbering:

"For a feathering three-bladed propeller:

PIPA = 0.06*ST1*(ST5-0.5*ST4)+0.42*(ST4)^2

The proposals were agreed for 2002.

- 10.8.5. VPP Behavior (FFV 11): It is, of course, always the ITC's goal to handicap yachts more fairly. Specific points raised in the submission's rationale are noted, and will be considered in its comprehensive review of the IMS's hydrodynamic modelling in 2002.
- 10.8.6. ORC Club Furling Jibs (FFV 12): Review of the furling jib credit formula in ORC Club will be reviewed in 2002.

- 10.8.7. ORC Club Jib Luff Length and Spinnaker Girth (FFV 13, FIV 08): Jib luff length is presently unmeasured and its proposed inclusion is considered unnecessary since there is already a credit for furling jibs. Treatment of spinnakers that differ from the current IMS limits is part of the review of the VPP's aerodynamic modelling in 2002.
- 10.8.8. ORC Club Special Features (FFV 14, FIV 08, GRE 01, SWS 02): (FIV 08 also to the Management sub-Committee; the others also to the ORC Club working party.) These submissions include shared requests. The PIPA data is considered more technically detailed than is intended to appear on the ORC Club certificate. Comment fields and mainsail girths on the certificate were agreed. Printing the mainsail weight was not agreed. ORC Club has the ability to handicap such special features as water ballast, canting keels, crew on trapeze and rotating masts, which may be implemented if a local authority so chooses. If all spinnaker measurements are zero, the ITC recommends that the handicaps be calculated only for the non-spinnaker configuration if this is feasible. The proposal was made for ORC Club only, not IMS.

10.8.9. Carbon Hull Construction (FIV 04, USSA 09): The ITC did not support the submission to permit carbon fiber for construction of cruiser/racers below 17 m LOA (except for the already permitted structural edge cappings), but the Management sub-Committee to whom the matter was referred recommended otherwise, and it was agreed by a majority vote of Council.

The gyradius assessment for carbon fiber hull construction was perceived to be too high, especially in relation to the allowance for "Light" construction (corresponding to Kevlar sandwich). The ITC recommended that the gyradius adjustments of Rule 726.5 be reduced from 0.010*CANOEL to 0.005*CANOEL for Carbon Racers, and from 0.014*CANOEL to 0.010*CANOEL for Carbon Cruiser/Racers. These adjustments correspond to less than one sec/mi in the Upwind 12-knot condition. ITC's recommendation was agreed.

10.8.10. Sail Inventory (FIV 05, RFEV 01, RFEV 02, RFEV 03): (Also to the Management sub-Committee.) The first two submissions request that sail inventory bands be defined by GPH instead of IMS "L" per Regulation 205. The point was made that yachts in a racing class would then be permitted comparable sail inventories. The submissions proposed a set of GPH rating bands as follows:

Group 1 (now less than 9 m): GPH greater than 730 sec/mi Group 2 (now between 9 and 12.8 m): GPH between 730 and 595 sec/mi Group 3 (now between 12.81 and 15.85 m): GPH between 595 and 510 sec/mi) Group 4 (now above 15.85 m): GPH less than 510 sec/mi

These specific handicap bands are not used universally, so the ITC proposed them as a default guide to race organizers, which they may adjust to suit their circumstances while preserving the intent of the general sail inventory controls. It was noted that the transition sizes of yachts in the present four groups are somewhat larger than those corresponding to these handicap bands. The

revision to IMS Regulations 205 was agreed, with GPH cutoffs to be expressed in the appropriate level of precision.

RFEV 02 requested increasing the number of spinnakers permitted in Group 3 from 3 to 4. RFEV 03 requested increasing by one the number of small jibs permitted for yachts whose LPG is less than 1.1*J, but IMS Regulation 205 already permitted these yachts to carry one additional small jib. The ITC recommended to accepting the first and rejecting the second submission, but Council agreed to both revisions.

- 10.8.11. Carbon Boom Gyradius Adjustment (FIV 07, RFEV 07): These submissions proposed to make a boom gyradius allowance using a method similar to masts. As is done for masts, there would be an aggressive default weight with the opportunity to weigh heavier booms. The ITC investigated the effect of this, and found that it would produce only extremely small adjustments in rated performance. The ITC recommended instead, that the matter of boom weight and construction be simplified by deleting Rule 726.10 accounting for gyradius differences between LIGHT and HEAVY booms and this was agreed.
- 10.8.12. VPP Annual Cycle (IMS 50 01 & FIV 02 also to Management): The approved issuing of the VPP is dependent on the Annual General Meeting, so this request would be difficult to accommodate. However, the ITC recognized that the goal during the past few years of issuing a "beta" version of the proposed new VPP soon after its final quarterly meeting, usually in mid-September. This was not possible this year, because the ITC's scheduled September meeting had to be cancelled following the September 11th attack in the U.S. It was also noted that the VPP had been very stable for several years. The ITC intends to implement next year's proposed scientific improvements in the VPP's hydrodynamic and aerodynamic modelling in a consistently stable way. After considerable discussion it was agreed unanimously to continue the current schedule.
- 10.8.13. Long Keels (SWS 03): The ITC discussed some of the potential causes of the perceived advantage of long-keeled yachts racing in Switzerland. Among them was the likelihood that the IMS's rough water allowances are excessive compared to their actual conditions. Suggestions were made for potential application in their locally used ORC Club handicaps.
- 10.8.14. Hull Measurement with Laser (USSA 10): A presentation of new Laser measurement technology was made by Dan Nowlan, US Sailing's Offshore Director. Because a similar presentation will be made at the main meeting of the Offshore Racing Committee, the remarkable abilities of this system will not be detailed here. The request of the submission is that hull offset files that are produced for yachts measured in the US in 2002 be accepted as valid. It is expected that about twenty yachts would be so measured n the US, but it could affect data for subsequent sisterships in other countries. The ITC is comfortable with the accuracy of the measurement data, pending its "beta" testing and approval of the ORC Chief Measurer, and recommends that this submission be approved. It is understood that US Sailing will keep the ITC advised of the progress of this project, as it has been doing already.

10.9. Summary of Proposed VPP Changes for IMS 2002

Principal VPP Changes:

- Induced drag effects of rudder span
- Sail force coefficients of asymmetric spinnakers on centerline
- Carbon hull gyradius assessment
- Gradual Dynamic Allowance for Racing Division yachts

Minor VPP Details:

- PIPA for 3-bladed feathering propellers
- Delete light boom gyradius assessment

VPP/LPP Bug Fixes:

- LSM calculation tolerance
- EC mainsail girth penalty fix

Certificate Matters:

- Incorporate Age Allowance (AA)
- Add Wind Averaging clarification in titles
- ORC Club GPH moved to separate position on certificate
- Various additional ORC Club certificate details
- Number of sails in GPH classes

10.10. VPP/LPP Documentation

Andy Claughton has produced a draft version of a documentation report of the LPP and VPP, which was commissioned through the ORC Research Fund. The report provides a very clear and thorough description of the IMS's fundamentals, hydrodynamic and aerodynamic components, logic of the equilibrium computation and some of the detailed formulations. The electronic version of the report will include links to deeper level of detail. The ITC compliments Andy on a superb document even if still in its present draft form.

10.11. Permitted Materials Text

The various materials regulations, references to IMD Rules and descriptions were consolidated into a table format and agreed by the ORC last year. Publication production circumstances prevented reformatting the IMS Regulations to incorporate the table. The ITC reviewed the table at these meetings and reaffirms their publication in the 2002 Regulations, subject to minor updating from this year's meetings and normalization of text within the Rules and Regulations. The table is intended to replace entirely Regulation 203, but will be inserted at the beginning of Appendix 1.

10.12. ISO Standards Monitoring

- 10.12.1. ISO Scantlings (ISO 12215-5): Alessandro Nazareth reported on comparisons between the present draft of the proposed ISO scantling requirements and the ABS Guide for Building and Classing Offshore Racing Yachts. The comparisons were made using software that was produced by the Wolfson Unit as an ORC Research Fund project. It appears that the design pressures of the ISO draft scantlings are significantly less than required by ABS for sailing yachts of approximately 12 m LOA, but might be similar for larger yachts. Several members of the ITC plan further study of the ISO draft scantlings. Completion of the ISO standard is not expected for at least one more year. Meanwhile, IMS yachts should still comply with the provisions of ORC Special Regulation 3.01.3, which requires compliance with the ABS Guide either by a past Plan Approval Certificate or a current statement by the designer AND builder.
- 10.12.2. ISO Stability (ISO 12217-2): The ISO stability standard is now in final draft. Category A of the ISO standard is similar to ORC Category 1. ISO Category B is similar to ORC Categories 2 and 3. It appears that yachts below 9 m LOA will not be able to qualify for Category A. Some IMS yachts of about 12 m LOA that meet Category 1 fail to meet ISO Category B. The ITC will continue to study these differences. The ITC is not aware of any need to change any of the ORC's standards at this time.

10.13. ORC Research Fund

Projects funded by the ORC Research Fund in 2001 have included support of the wind tunnel testing of spinnakers at the Glen Martin Wind Tunnel, the VPP/LPP documentation project and software by the Wolfson Unit for study of the ISO scantling standard. The ORC has provided approximately GBS 20,000 to fund these projects. Additionally, wind tunnel tests at the Wolfson Unit and towing tank tests at Delft University have been provided with no cost to the ORC.

A number of sources have contributed funding and services for IMS research in 2001. This year's wind tunnel tests of spinnakers (GLMWT) has a total value of about £ 30,000. The value of windward sail tests (Wolfson) is about £ 12,000. The three models at the IMD towing tank in this year's budget is values at about £ 70,000. The three model tests at Delft this year are valued at about £ 20,000. Additional analytical and processing services in these IMS projects have a value in excess of £ 10,000. The total value of all this research totals about £ 140,000, of which the ORC's share is about £ 12,000. (The value of the volunteer services of ITC members is not included in these amounts.)

IMS research projects that require funding in 2002 include: development of hullforms and computational fluid dynamic (CFD) runs to study dynamic length effects, residuary drag and heeled drag effects; and analysis and code programming to develop aerodynamic prediction models based on the new windward and spinnaker wind tunnel test data. The funding requirement to conduct this work is expected to be in the order of \pounds 30,000. The ITC request to allocate this budget from the ORC Research Fund for 2002 was approved.

10.14. ITC 2002 Agenda

The ITC's principal projects for next year are:

- Windward aerodynamic modelling
- Downwind aerodynamic modelling
- New towing test data in hydrodynamic database: Delft models (7 are planned) IMD/USSA models (3 are planned)
- Effective sailing length (LSM) modelling
- Residuary drag updating
- Heeled drag modelling
- Wind averaging study
- VPP/LPP documentation publication
- ISO standards monitoring

10.15. Next Meetings

The next meetings of the ITC are planned to be:

February 8-10, 2002	Madrid, Spain
May 17-19, 2002	Rome, Italy
September, 2002	Auckland, New Zealand
November, 2002	Cyprus (IASF Annual General Meeting)
January (end), 2003	Annapolis, Maryland, USA

11. CLUB WORKING GROUP

Ken Weller reported.

The ORC Club programme had enjoyed an extremely good year with growth of over 1000 certificates, up 33% from the previous year. Numbers had increased in nearly all countries. Japan had launched their Club programme with nearly 500 certificates, and Greece had begun converting a local rule to Club.

The provisional Club Rule booklet had been put on the Web as a PDF file and final revisions would be made immediately following annual changes agreed at the AGM, including several matters involving the facility to rate special features under ORC Club, at local or national discretion. Club and other hull files were being organized for listing and new standards distribution early in the new year. An upgraded Club "hull finder" software CD was distributed in early spring and some had made good use of it, but there had also been a few install problems which needed to be sorted out.

12. MEASUREMENT (SUB) COMMITTEE

Chairman Nicola Sironi reported.

12.1 Asymmetric Spinnakers measurement / use

The replacement of the SMW with SMG introduced last year has not produced anomalies.

Some methods of sheeting and tacking of asymmetric spinnakers on centerline during the year lead to questions and protests. It was agreed to reword IMS Rule 307.3 as follows:

"Where the spinnaker configuration is classified as Asymmetric Tacked on Centerline (i.e., no pole allowed on board -- see 804.1b), the spinnaker shall be tacked as close as possible to the deck level or its forward extension and sheeted on the same side as the boom except when gybing or maneuvering. No means of moving the tack point upwards shall be permitted. A single tack pennant not longer than 0.762m (2.5 ft) may be used, but a pennant shall not be adjustable except for hoisting, lowering and gybing the spinnaker."

12.2 Inclining test procedures / instruments / calibration

The inclining test and the status of the electronic instruments would remain from last year. Some standard procedures for equipment calibration and evaluation of new units were in course of completion, and had been extensively practiced in Spain during the course of the season. Jean-Louis Conti had made some systematic calibration on the older version of the German RM equipment and had pointed out that for consistency of results it is important to check that the instrument was horizontal fore-and-aft. A low cost new instrument announced was presented at the meeting, but some unexpected operational problems with the computer connection had prevented a demonstration.

For calibration of the instruments, which is required from time to time, it was suggested to use a laser beam projected on a surface at least 5m away and solidly linked to the instrument (be it the electronic box or the traditional water manometer).

12.3 Hull measurement machines / offsets files production from surfaces - specifications

Dan Nowlan made a presentation of an experimental measurement session that had been performed in April, sponsored by US Sailing and Carroll Marine, using a SMX laser-tracker instrument to measure the hull of a Farr 395. The same hull was scanned with a US HMI machine, and the results were very close.

The processing involved in the creation of an Offsets file comparable with the ones obtained using the HMI from the multitude of points acquired with the laser tracker was rather expensive and time consuming but if some time is dedicated to the project, it is foreseeable that an automated and simplified technique could be used to vastly reduce the cost and time associated with the measurement of a particular hull for IMS.

The Committee welcomed the proposal, and saw no objection in using offsets files produced with the laser tracker once a few more experiments led to a standard procedure. It was also foreseen that other instruments of known and proven precision could be able to acquire points on a hull to produce a valid

offsets file, but at present they were to be considered experimental, and issued with the approval of the Chief Measurer until a standard procedure was published.

The hull measurement machines still in operation were not, however, to be abandoned and an updated manual would be distributed for both the American and the German machines.

12.4 ORC Club Practices

The representatives of the countries where ORC Club is used reported on their practices, which have some local adaptations. Several countries confirmed the acceptance within ORC Club of features that are not permitted under IMS, like trapezes, water ballast, canting keels, rotating masts etc. The Committee acknowledged the appropriateness of the technical approaches presented, but did not recommend the inclusion of the treatment of these features in the ORC Club Rule Book, but rather in the accompanying administration manual

12.5 Territorial Jurisdiction

The subject was discussed again following a few incidents during the year. It was reiterated that the IMS Rule addresses this sufficiently and that measurement is not a "free" market. It is important when dealing with boats racing in different countries that the information is passed along among Rating Offices to avoid errors discrepancies and confusion.

12.6 Rating Office Software

Manolo Ruiz de Elvira, ITC member, presented a program he had developed under Windows to be used in conjunction with the IMS Designers VPP. It was reported that a version for Rating Offices could be available soon, after some beta-testing by selected Rating Offices.

12.7 Submissions

DSV3: It was reported that the problem object of the Submission was related to a program misinterpretation that is being fixed.

DSV4: It was agreed to add main girths, comments and propeller installation type (when PIPA is entered directly) to the Club certificate.

DSV5: It was recommended and agreed to change the wording of IMS Rule 402.2.b as follows:

"Booms shall be secured at the low points of P and PY, as the case may be. From 1/1/2002, no spinnaker pole(s) shall be aboard the yacht when measuring the freeboards. Masts shall be raked aft to the limit of their adjustment. Where this limit is forward of the vertical the mast shall be set vertical."

DSV7: It was recommended and agreed to reword IMS Rule 100 to describe the current scoring options available in IMS.

FFV2: see Minute 12.5

FFV3: Use of designer lines was not recommended for IMS.

FFV4: It was recommended to update the ORC Standard Hull list, including also the freeboard locations.

FFV 6: It was recommended and agreed to correct an oversight by deleting the second line from IMS 817 as battens and leech lines are already covered in section 307.

FFV 7: It was noted that this was already in IMS 823.

FFV9: After a long discussion on the establishment of tolerances on measurement, no change was recommended to Appendix 5 and 6 of the IMS Rule.

FIV1: It was recommended in principle

GRE2: It was recommended to print heavy items on the right of the certificate, at least as an option.

GRE3: see FFV4

GRE5: see Minute 3

RFEV6: see DSV5

In addition to the wording corrections proposed in the Submissions, it was recommended and agreed to update some references in the wording of IMS 801.1, 826 and Appx 4. It was noted that these were effectively editorial points, not rule changes.

13. SPECIAL REGULATIONS (SUB) COMMITTEE

Chairman Alan Green reported.

13.1 Terms of Reference

The Chairman read the Terms of Reference from the ORC Yearbook: "The committee shall be responsible for the maintenance, revision and amendment of the Special Regulations Governing Offshore Racing. It shall monitor developments in offshore racing to ensure the maintenance of standards of safety and seaworthiness."

16.3 Previous Minutes

Minutes of the meeting held on 7th November in Edinburgh were signed as a correct record.

13.3 Boom Preventer Advisory Note

The Committee had agreed in Edinburgh to print advice to fit a main boom preventer to reduce the risk of head injury. However Peter Taylor had since felt that a preventer could be dangerous: a boat after a "chinese gybe" could be pinned down in a seaway on its side with the mainsail backed and up in the air. Although the advisory note said a preventer should be easily released from the cockpit, nonetheless he was sure that dangerous situations would arise.

The Committee could not afford to recommend a practice which could be dangerous so the warning would not after all be printed.

13.4 Hobart Coronial Enquiry

The Coroner had criticised the Race Director for failing to ensure that a boat was accepted to race when its screening number was outside the range allowed in the Race Rules. The Race Director had since resigned.

TM reported that the CYCA had held a hearing under RRS 69 (allegations of gross misconduct) concerning the actions of an owner after he had sighted red flares. The hearing had concluded that there had been no gross misconduct.

The Coroners' Report had been published in December 2000 and was available through his office.

13.5 Hull Construction Standards

David Lyons had sent a report from the ITC. Draft ISO 12215 was progressing well but it was reported that it may not be ready for use within the lifetime of the 2002-2003 Special Regulations. The committee agreed to no change in SR 3.01.3 except a title change from "Scantlings" to "Hull Construction Standards" (submission from RORC). A case of unusual new construction which allegedly could not be assessed properly by the ABS guide, would be referred to the ITC Chairman.

13.6 Stability – Monohulls

David Lyons' report had also covered Stability and draft ISO 12217-2. It was reported that this too was progressing well but there was no reason to change SR 3.02.1. RORC had hoped to begin referring to ISO 12217-2 on rating certificates from a date (not yet known) in 2003.

13.7 Volvo Safety Committee

Alan Green had said that work had been done in examining a number of topics as reported in Edinburgh but there were no changes to recommend as a result. An inertia reel safety harness anchorage produced in France would be further developed by its inventors.

13.8 406 EPIRBs Mutual Interference

Jean Sans had found it possible for two or more 406 EPIRBS on the same boat to create mutual interference because of co-incidence in their transmission bursts (they randomly transmit a single burst within every 50-second period). In fact the design criteria reduced the chance of mutual interference to something in the order of 5 billion to 1 (see Cospas/Sarsat standards T 001 and T 007).

It was reported that correct registration of 406 identity codes was an issue and Jean Sans had discovered two identical numbers (this should be impossible). Government agencies were supposed to keep national records of all EPIRB numbers, but it appeared that most do not do so effectively. At a recent SAR conference a plea had been made for race organisers to collect and note down the EPIRB registration numbers of boats in their fleets. On testing, provided a race organiser agreed with the nearest SAR centre in advance, the authorities may permit an inspection team to operate EPIRBS for single one-minute "bursts" which would enable the SAR authority to read the code number transmitted. A transmission of only one minute would not normally trigger any SAR response.

13.9 Activity Reports

How much were ORC SRs used in the countries of those present?

SWE – Kjell Borking – widespread use. SWE also has a cat 5 which will be available as a model if required.

BRA – Abe Rosemberg – used in all Federation-approved races. Following SR 6.01, major safety seminar recently run by Brasilian Navy. More training will be developed.

JPN – Minoru Tomita – widespread use.

USA – Dan Nowlan – widespread use. Recommended for cruising boats. Training has been provided over a long period and is constantly developing. Training records are placed on web site so the status of an individual can be found quickly. Certificates are issued.

NZL – Peter Taylor – widespread use. Training programmes are being aligned with those developed in Australia and currently recommended for ORC use as an international model

POR – Alfredo Messeder – little activity

FRA – Jean Sans – used in all the major French-based offshore and oceanic events

AUS – Tony Mooney – since the Coroner's Report, organisers have realised dependence on an accepted international standard is prudent – widespread use

ITA – Giovanni Iannucci – widespread use. Problems with publication had been caused by the late availability of the ORC text for the 2000-2001 SR booklet. However a pack has been produced containing the regulations on a floppy disk, and a comprehensive book is under consideration on the lines of that published by eg Australia.

FIN – Patrick Lindqvist – used in all races under Federation control. Text is published in Federation yearbook

GBR – Janet Grosvenor – widespread use. Text in annual programme booklet of RORC also published by RYA. Although ORC does not stipulate training for SR Cat 2, RORC felt it worthwhile introducing training for the Fastnet just in L/Rs and First Aid. Doubts were dispelled as the supply of training

expanded to fill demand. User resistance was not so strong as expected and many crews expressed appreciation for having been obliged to acquire the skills they knew they should have had in the first place.

13.10 Submissions

The wording of items accepted for SRs will be subject to editing for clarity, better English, etc. Regardless of submitted texts, unless otherwise stated in these minutes new construction items will be grandfathered to affect only boats first launched 1/2003 and later. Details may be referred to the submission authority, and if significant, to the SR committee before the text is published. FICO submissions – the paper had carried an incorrect reference: the line reading "Recommended for approval by Alan Green" should be deleted.

submission	summary	comment
FICO 01	emergency exit - multihulls	accept
	handholds for emergency use on the outside of trimarans,	recommend only.
	trimaran exit	accept for 50-60 foot only
FICO 02	(there was no (a) (b) or (c) in this item)	
	(d) generators and installed propulsion engines to have same installation requirements	accept
	(e) watertight batteries	not accepted- more research please
	(f) forbid warm air heating from an engine	not accepted leave to common sense
FICO 03	(a) 9 GHz RTE to be compulsory	not accepted – already recommended
	(b) SART to be compulsory –(SART is already recommended in SR Grab Bag)	not accepted – already recommended
FICO 04	add a medical book.	accepted
FICO 05	ban titanium from stanchions pulpits and lifelines	not accepted-

		more research please
USSA 01	change 3.04.2 (b) (emergency exits multihulls) to apply only to Mu 0 and 1.	accepted
	add new 3.04.2 (c) for multihulls under 12.0M to have tools to cut an escape hatch (if they don't have a hatch)	accepted
USSA 02	add multihull zero to 3.10 (crash bulkhead)	accepted
USSA 03	3.11.1 –this line was a printing mistake	
	3.11.1 (b) multihull net alternative	accepted
USSA 04	allow only one bilge pump as multihulls have in- built flotation	accepted
USSA 05	require fire extinguishers on multihulls (the omission was a printing error)	accepted
USSA 06	anchors to be "fully assembled"	not accepted- – existing wording is adequate
USSA 07	harness tethers not made with flags so we cannot call for them	not accepted- on the contrary, –some are available (one was shown at the meeting): unless we require them they won't be made at all –
USSA 08	immersion suits recommended for multihulls above certain latitude	accepted but editor will re-define cold areas
FIV 06	create new Category 5	exists in SWE, AUS and other countries. Patrick Lindqvist will chair working party.
IMOCA 01	paragraph labels	already agreed at Edinburgh meeting
IMOCA 02	headstay and bow pulpit location	agreed SRs do not cover precisely every possible variation but committee prefers to leave as is
IMOCA 03	refer working deck to class rule definition	SR cannot refer to anonymous "class rules" as they cannot all be known: also, two different sets of "class" rules might held to apply

		at once – eg, IMS and
		also Mumm 36. – not
		accepted
RORC part 1		
SR 4.06	include handlamp on ship's power	require one of flashlights
		already required to be hi-
		powered (eg spotlight)
SR 4.22	slightly extend expiry date of flares to	change flare life to
	accommodate better varied application of	earliest of 4 years or
	SOLAS regulations	stamped expiry date.
		MNA may still override
		this if they choose (US
		goes for 6 years).
SR 3.19	simplify to "compass" (any type)	accepted
SR 3.22	Nav lights – change to permit non-electric bulb	accepted
51(5.22	types.	accepted
	J.F.	JS showed interesting
		description of fibre-optic
		nav light system on
		Banque Populaire (now
		sunk but not because of
		lights). Fibre-optics
		look promising but not
		yet fully developed for
		this application.
SR 4.20	Add for multihulls cat 3 and 4 an emergency	accepted
	cache of essential equipment to be accessible	1
	when craft is upright and inverted.	(if the cache is in a
		movable container it
		shall have a line and clip
		to keep it captive)
SR 4.19	L/R in multihulls to be accessible when craft is	accepted
	upright and inverted either way up	
SR 3.01.1	remove words "inter alia" but retain overall	accepted
	meaning	
SR 3.15 (b)	remove galley facilities requirement from cat 4	accepted
SR 3.23 (b)	change break point for engine regulations in	not accepted to change
	multihulls from 12.5 to 14.0.	to 14.0 but instead to
		12.0m to conform with
		earlier break point
SR 3.24 (a)	VHF power output detail (wording)	accepted
SR 4.22	cut number of red parachute flares in cats 0 and	not accepted to change
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 · · · O

	1 from 12 to 8 (noting all the electronic distress alerts we have now)	to 8 but instead to change to 6
SR 3.11	Lifelines, pulpits, stanchions re-write	accepted, except that waiver to permit absence of lower rail in pulpit, is not approved.

13.11 Training

Peter Taylor had studied several training programmes and had recommended that we adopt the Australian course as the basis for an ORC model. It was agreed that Peter Taylor, with help from Tony Mooney would edit the text to remove local references so that it is suitable for inclusion as a new appendix for the 2002-04 SR booklet.

Tony Mooney showed samples from a set of Power Point slides which have been developed as teaching aids for use in Australia, and could be made available to others. It was agreed that Tony Mooney would look into a distribution system which may be by CD or by email, or either.

13.12 Contingency Plans

Bruce Eissner had studied several contingency plans. The committee noted that increasingly, Formal Risk Assessments were being sought by local port authorities and this looked like becoming the norm. A contingency plan was a natural follow-on to a FRA.

The Committee agreed not to impose contingency planning on race organisers but would post a notice on the web site drawing attention to the subject and implanting a link to the AYF web site (where a contingency plan can be seen) and other web sites where relevant texts can be found.

13.13 Oceanic Races - ISAF Code of Conduct

To help make it as accessible as possible, it was agreed to print the code in an appendix to SRs (the code is in effect one short paragraph).

13.14 Sextant

It was noted that the sextant had been removed from Cats 0 and 1 at the last printing, on the basis that modern electronic aids had adequate in-built redundancy and were adequately duplicated around the world. However events of 11th September had caused a re-think. Although GPS is undoubtedly robust, and other systems (Loran C, GLONASS, and eventually, GALILEO) are or may be also in place nonetheless the backup of a sextant is probably a wise precaution. It was agreed to re-instate it but as a recommendation only.

13.15 Publication of 2002-2003 SRs Booklet and Web Site Files

Alan Green reported that with tremendous help from a UK RORC member, the Committee had been given a specially created new file generation system which made the input, editing and production of the SR files (including files for printing), a simple and fast process. Alan Green expected the new text to be available within a matter of a week or two. It was noted that users could have only the output files if they wished (like the sample .html sample files distributed to the ORC members before the present meeting), being the full text with all the regulations plus, as separate files, all the extract files. These latter will include files for Mo3 plus ORC liferaft, Mu3 plus ORC liferaft, and MoMu3 plus liferaft. It was also noted that the system could easily cope with other combinations on request.

Users could also, or alternatively, be supplied with the "generator" file with which foreign language file sets could be created with the same ease of operation.

It was agreed that the web site should include pictures and links. It was also agreed that Alan Green and Abraham Rosemberg would discuss this further when the future of the available web site was clear.

13.16 Liferafts: ORC SR Appendix A

It was reported that ORC Appendix A was too general to ensure the levels of quality and detail that were now considered essential. SOLAS rafts were heavy and bulky and could be more expensive than was needed in a good offshore raft for yachts. The ISO had been working for 14 years on a draft L/R standard (9650) but had failed to produce it. The current ORC draft takes into account all the detailed lessons learned in the Fastnet 79, Hobart 98, and other incidents and studies. The latest ISO draft was very near to the ORC draft though without several important details.

The Committee hoped that ISO would incorporate these outstanding details and finalise their standard, in which case the ORC could refer to ISO and not depend on its own standard.

In order to ensure that there is a good up-to-date standard available, the committee agreed to publish the present draft ORC standard with one or two minor amendments, for use for all rafts built from 1/2003. The boarding ramp would be part of the ORC standard (as it is in the ISO draft). It was noted that this was a critical boarding aid, often omitted from leisure rafts to save cost, weight and bulk.

It was agreed that SOLAS rafts would continue to be mandatory for category zero, but may be built for 4 persons and may be stowed in special compartments

14 OFFSHORE CLASSES & EVENTS (SUB) COMMITTEE

Chairman Don Genitempo reported.

14.1 The minutes of the meeting of November 7, 2000 were approved.

14.2 Reports of 2001 World Championships:

The Maxi Yacht Rolex Cup was hosted by the Yacht Club Costa Smeralda and was an outstanding series. There were 24 maxi yachts from 6 countries participating, but not enough in each Division to constitute a World Championship

IMS 30 World Championship. No world championship was held in 2001. The world championship is scheduled to be held in Brazil in 2002.

The IMS 50 World Championship was hosted by the Club de Mar de Mallorca and was an outstanding series. Bruno Finzi was the ORC representative at the event. Twelve yachts representing 6 countries competed in the eight race series. There was excellent and tough competition with the 3-year old Brava Q8 winning the world championship.

Scoring for the offshore race was in 2 parts. An intermediate finish line was established giving a score for the first half and then an additional score was given for the entire race.

The penalty system used is being submitted for consideration as a change to the Green Book.

It was suggested that the ORC provide assistance to the race committee to assure that good race management procedures are followed. Two-thirds of the boats were measured prior to the event and the ORC representative had the organizers select the top few boats for measurement checks during the races.

The ROLEX IMS World Championship was co-hosted by Real Club Nautico de Valencia and the Yacht Club Costa Smeralda. It was a beautifully hosted and outstanding series with 64 yachts representing 10 nations. In large fleets predetermined class divisions using rating limits are difficult to define. A working party was established to develop a solution that could be standardized for future events.

The European IMS Championship was hosted by the Royal Gothenburg Yacht Club in Marstrand, Sweden this year. Fifty-seven yachts representing 6 countries participated in this event. The initial part of the series consisted of 8 races with boats divided into 4 divisions.

The top one-third of each division then advanced to a final series of 3 inshore races to determine the European Championship. It was felt that the system has good potential but needed to be further developed before use in world championship events.

14.3 Submissions:

DSV 01: It was agreed to establish an IMS 600 Class with a World Championship in 2002. It was reported that the draft class rules for world championships restricted the class to production cruiser/racers. The Committee did not agree with the proposal to open the class to racers and custom built boats. On the subject of crew limitations, the draft class rules limit the crew to 50% professionals that will be submitted to the owners of the class for confirmation. The Committee agreed not to accept DSV-01.

FIV 01: Referring to crew weigh-in procedures, the Committee agreed to add the following to the last sentence of Rule 204 of the IMS Regulations.

"However, crew weigh-in before an event shall apply only if so stated in the Notice of Race for that event. If not so, the declared Maximum Crew Weight shall not be exceeded throughout the event and should be subject to controls at any time."

IMA 01: It was reported that this submission changed the class name from the "International Class "A" Yacht Association" to the "International Maxi Association" and would initially establish four new divisions within the class including the IMS Division, Cruising Division (Light & Heavy Displacement), Wally Division and Unlimited Division.

The Committee agreed that World Championship events be offered to IMA yachts fully certificated under the IMS system. The Committee agreed to the approval of the submission.

IMS 50 02: The Committee agreed to the approval of the proposal to reduce the General Purpose Handicap range for the class to five seconds per mile effective 2003.

RFEV 08: The Committee had accepted the suggestion to permit organizers to vary inspection dates and has proposed a revision to the Green Book.

14.4 Reports from the Affiliated Classes. The Chairman reported that under the new organization there would be no need to elect a representative to the Council from the Affiliated Classes and therefore, no new representative was elected.

IMS 30 Class: The Chairman reported that the class seemed to be reviving, particularly in South America. It was reported that Mark Essle from Brazil was reorganizing the class. An invitation to host the world championship in August 2002 had been received from Brazil. Abraham Rosenberg had briefed the committee on the excellent facilities South of Ilha Bela, south of Sao Paulo, which was a stop in a Whitbread race a few years ago. It was confirmed that the rating band for the class would be 630 to 655 with LOA 9.0 to 10.9 metres.

IMS 600 Class: It was reported that several fleets in Europe had already been organized and approximately 250 boats in 14 countries were being approached. A meeting of the class organizers took

place on 12 November at which time the draft class rules and constitution were reviewed. A mailing to owners within the class would be done shortly.

IMS 50 Class: Pasquale Landolfi reported that they had formed a new working group of 6 owners. Their next meeting will be in December. It was reported that four new boats were scheduled for construction that will add to the fleet of approximately 25 modern yachts currently in existence. The World Championship would be hosted by Club de Mar in Palma prior to the Copa del Rey. It was noted that the rejuvenated US IMS 50 Class had held a successful regatta in November and participation in the US was growing.

International Maxi Association. Gianfranco Alberini represented the class. It was noted that they were revising their constitution to change the name from ICAYA to IMA. They would have four divisions with one for IMS boats and one for cruising classes using the ORC Club rule. It was also noted that there had been no World Championship requested for 2001.

14.5 Calendar of Events 2002:

The Committee confirmed the following World Championships:

ROLEX IMS World Championship: It was agreed that the Championship would be held on the Isle of Capri, May 20-26

European IMS Championship: Yacht Club Punta Ala, 2-8 June

IMS 50 World Championship: Club de Mar de Mallorca, August 12-17. Maxi Yacht Rolex Cup: Porto Cervo, Sardinia, September 2-7.

IMS 30 World Championship: Isla Bela, Brazil, August 10-17.

IMS 600 World Championship: Monte Real Club de Yates, Bayona, October 5-11.

General:

In the future it was suggested to all classes that they set the dates for their world championships two years in advance in order to organize the scheduling of events with minimum overlap.

14.6 Calendar of Events 2003:

Nations Cup: It was reported that this had been submitted to the ISAF Executive for approval for September 2003 in Porto Cervo.

Rolex IMS World Championship: It was noted that 2003 was the last year for the Rolex sponsorship agreement. The Committee agreed that the 2003 World Championship would be held the first week of June in 2003, site to be determined.

IMS Continental Championships: The Committee had offered a regional event to Yacht Club Argentino to be held in February 2003 in Argentina and Uruguay. Yacht Club Argentino had previously requested to host the 2003 Rolex IMS World Championship.

IMS European Championship: A presentation was made by Neven Baran proposing that the IMS European Championship be held on the Island Cres, Croatia, June 21-26, 2003. The Committee was happy to accept the Croatian proposal for 2003, to be finalized at the November 2002 AGM.

14.7 Calendar of Events for 2004:

IMS World Championship: The Committee agreed to confirm the 2004 IMS World Championship for Yacht Club Argentino if they elected to extend an invitation.

14.8 Other Business:

a) A discussion had ensued on the question of how to assure that race management standards at IMS World Championships are of the highest quality. The Committee recommends Green Book Paragraph 5 be changed by inserting the following new paragraph 5.2 and renumbering all old paragraphs:

"5.2 (added) Race Committee.

For all World Championship events, the ORC shall appoint the chairman of the race committee. "

b) The Committee agreed the following modifications to Green Book Paragraph 6 to reflect the new class rules of the IMA:

Delete the third paragraph pertaining to the Maxi World Championship and replace it with the sentence " A World Championship may be offered to IMA yachts fully certificated under the IMS system."

c) The Committee agreed the following modification to Green Book Paragraph 6.1 to reflect the current practice:

"In ORC world championships, conditions permitting, each event should adhere to the following schedule:

Day	Race	Scoring Coefficient	Programme
1			Inspection
2			Inspection
3	1	1	Windward/Leeward
	2	1	Windward/Leeward
4	3	1.25	Long Offshore (part 1)
5	3 (cont.)	1.25	Long Offshore (total)
6	4	1	Windward/Leeward
	5	1	Windward/Leeward
7	6	1	Windward/Leeward
			Prizegiving

Before a World Championship may be awarded, the number obtained adding the number of races multiplies by their coefficients must be at least 6.5. This total must include at least one part of the long distance race.

Race Organizers may change the number of days scheduled for measurement and inspection."

c) The Committee agreed to the following modifications to Green Book Paragraph 7:

Amend 7.1 Scoring to add the following:

"The offshore race shall be scored as follows: a) Part 1 shall be scored using the elapsed time of Part I of the course. b) Part 2 shall be scored using the elapsed time of the complete course.

Amend 7.2 Penalties to add the following:

"For offshore races, the following penalties shall apply:

a) OCS: If a boat is OCS, the 20% penalty shall be divided equally between Part 1 and Part 2.

b) Alternative Penalty. If the infringement occurs in Part 1, the 20% penalty shall b e divided equally between part 1 and Part 2.

c) Measurement penalty. The penalty shall apply in full to both Part 1 and Part 2.

d) Disqualification. If the infringement occurs in Part 1, the penalty shall apply in full to both Part 1 and Part 2. If Part 2 is not completed, penalties occurring in Part 1 shall apply fully to Part 1"

15 RACE MANAGEMENT (SUB) COMMITTEE

Chairman Ecky von der Mosel reported

15.1 The minutes of the meeting of November 2000 were approved.

15.2 Submissions:

DSV 06: Proposal to revise the scratch boat for PLS. It was noted by some race organizers that the corrected times under PLS differ a lot from the elapsed times because the scratch boat for PLS is the theoretical fastest boat under IMS.

The Committee agreed to this submission and requested that the Chief Measurer determine a method for solving the problem.

FFV 08: Proposal to modify the IMS certificate format to add the statement "before wind averaging" for the heading "TIME ALLOWANCES IN SEC/MI BY TRUE WIND & ANGLE" and add the statement "after wind averaging" for the heading "TIME ALLOWANCES FOR SELECTED COURSES." Competitors cannot relate the time allowances shown for the 3 selected courses with the speed of their

boat because they include the concept of "wind averaging." The fact that time allowances for selected courses have been wind averaged should be clearly indicated on the IMS certificate (see also ITC 10.xx)

The Committee agreed with this submission.

FIV 09: Proposal to include in the IMS scoring software the option of constructing a course where the true wind speed is evaluated for each leg of the course. This would be an alternative to the existing Performance Curve or Performance Line systems or the Fixed Wind speed option that applies a single wind speed to the entire race. When the wind is fluctuating, it is very difficult to determine an average wind speed for the entire race and the overall average may distort the actual conditions on the course. It is much easier and more accurate to determine an average wind speed for each leg of the course.

The Committee agreed with this submission. It was noted that this would require revision of the IMS scoring programs to provide for the addition of a "wind speed" column in the constructed course portion of the PCS program and new calculations based on this information. It was agreed that this should be combined with a warning that this should be used only in case of substantial wind variations on separate legs of a course.

GRE 04: Proposal to include in the scoring software the input for wind speed in each leg of the constructed course.

See FIV 09.

GRE 06: Proposal to introduce a new more versatile and "user friendly" scoring program for IMS and ORC Club fleets. It was noted that this submission was withdrawn.

RFEV 09: Proposal to use a windward/leeward course to obtain the PLT and PLD values for the Performance Line Inshore system instead of the Olympic Triangle course currently used. PLS has demonstrated being a good simplification of the Constructed Course. It could be improved if the data is representative for a windward/leeward course rather than an Olympic triangle course since windward/leeward courses have the greater usage in club level events.

The Committee did not agree with this submission.

15.3 Other Business

a) During the previous meeting the question of new scoring programs was discussed. The Committee was willing to examine other IMS scoring programs that may be submitted to the ORC for evaluation.

b) It was noted that the IMS Guide required revision. Akis Tsalikis advised that the Hellenic Sailing Federation had updated the IMS Guide and he would make a translation into English and provide it to the other committee members for review and further update. Nicola Sironi agreed to collect and consolidate the comments into a new guide.

16. OFFSHORE PROMOTION & DEVELOPMENT (SUB) COMMITTEE

The chairman reported about the agreement with the Strategic Organization which had developed into the production of an attractive folder and of a promotional video. Regrettably, however, no sponsorship money had been collected by Strategic and therefore the expected promotional budget was not available.

He then reviewed the recommendations approved by the Offshore Racing Committee during the last meeting in Edinburgh and reported on what was accomplished during the year.

16.1 Web Site

It was recommended to look into contacting a web company to develop and maintain the ORC web-site. It was noted that this had not been done mainly because the on-going integration with ISAF generated uncertainty about who had to do the job.

The Committee agreed that some improvement was achieved thanks to the ORC own staff and that the present state of our web site is probably as good as it can be without dedicated professional attention. It was, however, still a static web site with only periodical updates and the news section is far from being comprehensive.

At the Palma meeting it was suggested that each ORC committee should be responsible for the content of a section on the web site. However, it was noted that the suggestion, which is summarized below, was never put into effect.

- News page and general info	Management
- General promotion pages	Promotion
- Safety at Sea	Special Regulations
- Technical matters	ITC
- Schedule of events and results	Offshore Classes
- Race management and scoring	Race management
- Certificates and measurement information	Measurement

The Committee still believed that the above system should be implemented and that a proper Content Management System should be set up to resolve the technical difficulties.

16.2 Publicist

It was recommended to hire a publicist to collect and disseminate information in a professional way. That was only partly achieved. At the Copa del Rey and at the IMS 50 Worlds, it was noted that the part time publicist, Sean McNeill, covered very well the events and his press releases were reasonably well picked up by media.

16.3 Promotional Package to Builders

It was recommended to provide promotional packages with ORC Club certificate to builders. The plan to implement the recommendation drawing from central resources was not successful due to technical and administrative problems. The Committee believed that a different approach, through the rating offices, might achieve the expected results.

16.4 Presentation Teams

It was agreed to look at setting up presentation teams to attend boat shows and sailing events. It was felt that shortage of funds had prevented the implementation of this recommendation and, as a consequence, only one promotional reception had been offered at the Key West regatta.

16.5 Invitation to Editors/Publishers

The Committee hoped to invite sailing magazines editors / publishers to major IMS events. It was also felt that in this case funding was crucial. However, organizing clubs have fulfilled that requirement and the major events have received an adequate media coverage.

A general discussion had followed and the Chairman, although acknowledging the merit of the Committee in highlighting the need for promotion, which had not been considered at all by the ORC before, in view of the limited results achieved, due to funding problems and to the difficulties met in running the daily requirements without a full time or even part-time marketing expert in the ORC staff – recommended three years ago at the Palma meetings as the key requirement to implement the promotional initiatives – posed the question as to whether or not it was worth to continue the activities of the Committee.

The members unanimously decided that the Committee should continue to operate, finding the way to overcome the problems encountered.

The discussion on the way ahead then resumed and the following recommendations, already submitted last year, were selected, reviewed and were submitted to the ORC for approval:

Web Site

To implement the system highlighted above and select the committee members who have access to the web site to update and improve their section.

Publicist

To confirm the part-time services of Sean McNeill to cover as many of the major IMS events (World, European, IMS 50 and IMS 600 World Championships, etc.) as possible, depending on funds available.

Promotional Packages

To offer promotional packages including a first year levy free ORC Club certificate for new yachts to ORC Rating Offices for distribution to builders of series production cruiser/racers in their country.

It was reported that the discussion then moved to other issues which, although not directly in the promotional field, were, however, influencing the image of the ORC and of the IMS.

The Committee felt that an important issue to be resolved was to establish better relationships and communications with the designers. If designers felt that they did not have a good channel into the rule makers, they tended to design to other rules. The Committee believed therefore that a direct channel to designers should be set up with the purpose to promote the IMS and also be responsible for the communication to the ITC.

The Committee also felt that the following technical shortcomings, which were often used against the IMS should be urgently tackled and resolved:

- IMS cannot rate boats of some types (water ballast, swing keel, etc.) as competing rules do;
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- IMS boats are perceived to be slower, of heavier displacement and more tender than many one-design boats and boats rated under other rating rules;

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- present measuring systems are considered not to be as accurate as the modern technology could provide.

17. PRELIMINARY MEETING DATES

19-21 January	Management & Working Party Key West, USA	
8-10 February	ITC	Madrid, Spain
17-19 May	ITC	Rome, Italy
September	ITC	Auckland, New Zealand
8-16 November	Annual Meetings	Limassol, Cyprus
End January 2003	ITC	Annapolis, USA

There being no further businesss, the meeting was adjourned at 16:30.