

## MINUTES - OFFSHORE SPECIAL REGULATIONS SUB-COMMITTEE



Met at 0930 – 1755 hours on Monday 10<sup>th</sup> November 2008 in the Doblón Room, at the Hotel Melia Castilla, Madrid, Spain.

***Please refer to the ISAF website, [www.sailing.org](http://www.sailing.org) for the details of the submissions on this agenda.***

### CONTENT

1.	Minutes of Previous Meeting	1	10.	Re-Drafting of Offshore Special Regulations	8
2.	Offshore Special Regulations	2	11.	ISAF Racing Rules	9
3.	Hull Scantling Working Party	5	12.	ISAF Regulations	9
4.	Deferred Submissions	5	13.	Class Rule Variation of OSR	10
5.	Interpretations	6	14.	ISO Standards	10
6.	ISO Harmonisation	7	15.	Training	10
7.	Submissions	8	16.	International Regulations Commission	10
8.	recommendations not based on submissions	8	17.	Any Other Business	11
9.	Small craft Safety Recommendations	8			

#### Present:

Patrick LINDQVIST (FIN) – Chairman  
Jean Bertrand MOTHES-MASSE (FRA)  
- Vice Chairman  
Günter AHLERS (GER)  
Will APOLD (CAN)

Giovanni IANNUCCI (ITA)  
Ken KERSHAW (GBR)  
Abraham ROSEMBERG (BRA)  
Sten EDHOLM (ORC Representative)

#### Apologies

Bruce EISSNER (USA)

#### Others Present:

Simon FORBES (ISAF Technical Manager)  
Jason SMITHWICK (Head of ISAF Technical and Offshore Department) for agenda Item 3

Henry THORPE (ISAF Technical Co-ordinator)

*Refer to the ISAF Council minutes of 14 November 2008 for the final Council decision on all recommendations not containing the prefix SR within these minutes. In regard to submissions with the prefix SR these minutes include the opinions of the **Offshore Committee** held on the 12 November 2008 who on behalf of council approve changes to the offshore special regulations (OSR's).*

*Details of submissions and supporting papers on this agenda can be found at [www.sailing.org/meetings](http://www.sailing.org/meetings)*

## **1. MINUTES OF PREVIOUS MEETING**

### (a) Minutes

The minutes of the Special Regulations Sub-Committee Meeting of 5 November 2007 (circulated and approved after the meeting) were signed with no further comment.

## 2. OFFSHORE SPECIAL REGULATIONS

In accordance with ISAF Regulation 15.17.6(c) the Offshore Committee is responsible for approving the Special Regulations on behalf of Council and the submissions are numbered "SR"

### Design Criteria

#### (a) OSR 3.14 – Pulpits, Stanchions, Lifelines

Submission SR02-08 was received from US Sailing. Dan Nowlan presented a photo of a yacht with a substantially chamfered hull to deck join with the stanchions positioned down this chamfer, thereby reducing the effective height of the stanchion. The submission wording was acknowledged to not be fully sufficient and that it could have unintended consequences. On a proposal by Ken Kershaw the following recommendation was unanimously approved:

**Recommendation to the Offshore Committee: Defer** – on a unanimous vote, and ask the Equipment Control Sub Committee for advice on the wording and a definition.

Offshore Committee Decision: Defer

### Portable Equipment

#### (b) OSR 4.23 – Require White Hand Flares

Submission SR03-08 was received from the Royal Yachting Association. It was noted that the requirement for white flares had only recently been removed from the OSR, that they are not readily available in some countries and that the OSR are minimum standards and that Race Organisers may add white flares to the requirements.

**Recommendation to the Offshore Committee: Reject.**

Offshore Committee Decision: Reject

#### (c) OSR 4.26.4 – Storm Sail Areas Reduction of Allowed Maximum Area

Submission SR04-08 was received from the Norwegian Sailing Federation and replaces deferred submission SR15-07. Niels Nordenstrom observed that last year there had been a view that the maximum size of storm sails was too large but there had been concerns over implementation and grandfathering of existing sails. He argued that storm sails are the smallest and cheapest sails to purchase or modify, that the biggest danger was not that storm sails were too small in 15 m/s but were too large in 30 m/s. It was noted that some Volvo 70s have storm sails smaller than the maximum permitted, however it was generally agreed that sail makers tended to make storm sails to the maximum size. It was therefore agreed to recommend adoption of the submission.

**Recommendation to the Offshore Committee: Approve** On a vote of 7 in favour and 1 abstention.

Offshore Committee Decision: Approve

### Personal Equipment - Lifejacket and Harness and Survival Suits

(d) OSR 5.01.2 – Strength of Crotch Strap and Thigh Straps for Lifejackets

Submission SR05-08 was received from the Norwegian Sailing Federation proposing strength requirements for lifejacket crotch straps and their attachments.

Ken Kershaw noted that the ISO lifejacket standards for a Level 150 device are performance standards. It specifies a water entry test for the PFD. The PFD is donned, inflated and then the tester jumps into the water feet first from a height of 1 metre. The PFD must not ride up over a prescribed distance. It was observed that if a lifejacket is to be used as a tool to lift people out of the water – then a whole new approach is required.

Gunter Ahlers advised that he did not want to be lifted out of the water on a crotch strap.

**Recommendation to the Offshore Committee:** Reject (Unanimous)

Offshore Committee Decision: Reject (was not considered)

(e) OSR 5.02.1 – Mandatory crotch strap for Safety Harness

Submission SR06-08 was received from the Norwegian Sailing Federation. Ken Kershaw noted that if a standard harness without crotch straps is donned correctly then there is no way to fall out and that training is a better approach than over-prescription. It was agreed to appoint a working party chaired by Alan Green and including Sten Edholm and others to review submission SR05-08 and SR06-08 regarding crotch straps on lifejackets and safety harnesses, to take account of reported incidents and appropriate tests and to report accordingly to the OSRSC in November 2009.

**Recommendation to the Offshore Committee:** Defer to the working party

Offshore Committee Decision: Defer

(f) OSR 5.07 – Editorial Amendment to the ISO Standard Reference

Submission SR07-08 was received from the Chairman of Offshore Committee. It was noted that this was a housekeeping amendment.

**Recommendation to the Offshore Committee:** Approve effective from Jan 2009

Offshore Committee Decision: Approve

(g) OSR 4.04 – Man Overboard Prevention and Recovery Aid

Submission SR08-08 was received from the Chairman of Offshore Committee regarding avoiding dragging a crew tethered on a 2 metre harness behind a yacht.

The submission was in two parts. The first part regarding requiring jackstays to pass through a pad eye not less than 2 metre from the aft pushpit was considered too prescriptive.

**Recommendation to the Offshore Committee:** Reject amendment to 4.04(vi) and approve the amendment to appendix G

Offshore Committee Decision: Reject 4.04(vi) and Approve Appendix G

## Training

### (h) OSR 6.05 – Position of First Aid Training Requirements within the Document

Submission SR09-08 was received from Royal Yachting Association. It was noted that this was principally housekeeping following amendments made last year.

**Recommendation to the Offshore Committee:** Approve effective from Jan 2010

Offshore Committee Decision: Approve

## Stability

### (i) OSR Appendix K – Boat Condition for the Calculation of Stability

Submission SR10-08 was received from Royal Yachting Association regarding the mandatory inclusion of deck houses in stability data. Mike Urwin as Chairman of the working group that drafted the original Appendix K noted that a falsely optimistic result is created by not including the deckhouse and that the working party's original concern a few years ago that design files were not available was in retrospect not valid.

**Recommendation to the Offshore Committee:** Approve effective from 1 January 2009

Offshore Committee Decision: Approve

### (j) OSR Appendix K – General Standards for the Assessment of ISO Category

Submission SR11-08 was received from Royal Yachting Association. Ken Kershaw noted that the ISO standards allow lower stability if a boat can remain afloat. It was also proposed to not use buoyancy in the rig as it significantly complicates the assessment for compliance with the standards.

**Recommendation to the Offshore Committee:** Approve effective from 1 January 2009

Offshore Committee Decision: Approve

### (k) OSR Appendix K – General Modifications

Submission SR12-08 was received from US Sailing. There were three parts to the submission. The first two were not approved as the issues had already been covered by SR 10 and SR 11. The third item regarding the mainsail area to be used in the knockdown recovery factor was debated. The submission observed that the mainsail area used is a basic triangle. Ken Kershaw considered this was not the case and that the ISO standard was in the process of being modified. For the sake of clarity it was agreed to recommend that the amendment to 1.3 be approved. It was also agreed that ISAF should write to the convenor of ISO WG 22 to request a change from the basic triangular mainsail area.

It was agreed that there would be no grandfathering regarding this item.

**Recommendation to the Offshore Committee:** Approve only the modification to 1.3 knockdown recovery factor (first two amendments are

covered by SR10 and SR11-08)

Offshore Committee Decision: Approve modification to 1.3

### 3. HULL SCANTLING WORKING PARTY

#### (a) Report

A report was received from Ken Kershaw, chairman of the working party.

#### (b) OSR 3.03 – Hull Construction Standards

Submission SR01-08 was received from Chairman of Offshore Committee. It was noted that there would be no affect on existing boats. The date of implementation is dependent on the ISO Standard 12215 – Part 9. Ken Kershaw noted that Part 9 had progressed slowly but work had accelerated recently and that a final draft would be published in early 2009 with a final document by June 2009. If there was a change in this schedule, ISAF would need to publicise the change.

There was some concern regarding the proposal of ISAF building plan review, it was agreed to delete reference to 'ISAF build plan review' and 'ISAF certificate of build plan review'.

It was noted that the ABS Classification Society does not do classification for yachts under 24 m. There are 20 Notified Bodies throughout Europe which will work using ISO 12215. Rob Weiland noted that some Notified Bodies were more lenient than others.

In 3.03.1(a) bullet point 2 the text is amended to: "ISAF' is replaced by 'a notified body recognized by ISAF'

The draft was then amended as shown in Appendix 1 of these minutes

**Recommendation to the Offshore Committee:** - Approve as amended in Appendix of these minutes.

Offshore Committee Decision: Approve as amended

### 4. DEFERRED SUBMISSIONS

#### (a) OSR 3.29 – Class B A.I.S. Transponders

Deferred Submission SR09-07 was received from Royal Yachting Association

Kirk Brown from the US Marine Trade Organisations reported that last year's reservations regarding cost, US governmental frequency approval and the availability of Type B AIS transponders had largely disappeared. 15,000 units have been produced worldwide. Currently the cost was around €1,000 and anticipated to drop to €500 within two years.

Alan Green proposed that the wording be amended so that should a yacht have an AIS class A transponder this would also be acceptable. It was noted that in some areas carriage by small craft was already mandatory such as in some parts of Turkey. It was also a requirement for some Figaro 2 events.

It was questioned whether there was a requirement for the AIS transponder to be switched on at all times whilst racing. The issues of racing tactics, the range of transmission and receiving, the effect of the gain of the antenna, loss

on the feeder line and height of aerial were noted. James Dadd noted that the Volvo 70s used supplied equipment to remove these issues. It was agreed that the Special Regulations should specify the carriage of the unit and that use of the AIS Transponder was at the discretion of the person in charge unless otherwise specified in the Notice of Race or Sailing Instructions.

**Recommendation to the Offshore Committee: Approve** but amend to read as follows and effective from January 2010. On a vote of 5 in favour, 1 against, 1 abstention

Add new paragraph 3.29.1 (n) as follows:

**n) An AIS Transponder** **MoMu1,2**

**o) A type B AIS Transponder is recommended** **MoMu3**

Offshore Committee Decision: Approve with deletion of 'type B'

## 5. INTERPRETATIONS

Interpretations to the Offshore Special Regulations have been published by the Chairman of the Special Regulations Sub-Committee. The aim of these submissions is to discuss the interpretation and see whether these should be incorporated into the Special Regulations and the interpretation removed.

(a) **OSR Interpretation 1 - Hatches**

Submission SR28-07 was received to incorporate previous interpretation Number 1 dated January 2003.

**Recommendation to the Offshore Committee: Approve**

Offshore Committee Decision: Approve

(b) **OSR Interpretation 2 – Emergency Rudders**

Submission SR29-07 was received to incorporate previous interpretation No 1/2004. The Committee were concerned that there was a significant difference between an emergency steering arrangement and requiring an emergency rudder. It was agreed to withdraw the submission and retain the existing interpretation.

**Recommendation to the Offshore Committee: Withdrawn**

(c) **OSR Interpretation 3 - Engines**

Submission SR30-07 was received to incorporate previous interpretation No 3/2004.

**Recommendation to the Offshore Committee: Approve**

Offshore Committee Decision: Approve

(d) OSR Interpretation 4 – Watertight Bulkheads

Submission SR31-07 was received to incorporate previous interpretation 4/2004

**Recommendation to the Offshore Committee:** Approve

Offshore Committee Decision: Approve

(e) OSR Interpretation 5 - Liferafts

Submission SR32-07 was received to incorporate a previous interpretation 24 June 2005.

**Recommendation to the Offshore Committee:** Approve

Offshore Committee Decision: Approve

(f) OSR Interpretation 6 - Lifelines, Pulpits and Stanchions

Submission SR33-07 was received to incorporate a previous interpretation.

**Recommendation to the Offshore Committee:** Approve

Offshore Committee Decision: Approve with amendments

## 6. ISO HARMONISATION

A number of issues relating to key design features of modern cruiser/racers which comply to the ISO standards but do not meet the OSR..

(a) OSR 3.08.3 – Companionway Sill Heights

Submission SR34-07 was received regarding harmonisation with ISO standards.

**Recommendation to the Offshore Committee:** Approved effective January 2009. (Unanimous vote)

Offshore Committee Decision: Approve

(b) OSR 3.08.2 – Windows in Superstructure

Submission SR35-07 was received regarding harmonisation with ISO standards.

**Recommendation to the Offshore Committee:** Approved but only keep reference to 3.02.1 and not repeat text again.

Offshore Committee Decision: Approve

(c) OSR 3.08.3 – Cockpit Volumes

Submission SR36-07 was received from the Chairman of the Offshore Committee. Although there was a wish that the Special Regulations should not be type-forming in design, representatives of the TP 52 Class and the IRC Rating Rule advised that new racing designs would go for significantly larger cockpits if this submission was approved.

**Recommendation to the Offshore Committee:** Reject

Offshore Committee Decision: Reject

(d) OSR 3.08.3 – Companionway Hatch Sill Heights (Multihulls)

Submission SR13-08 was received from the Chairman of the Offshore Committee. It was noted that the ISO 11812 went into considerable detail regarding companionway sill heights for bridgedeck catamarans.

**Recommendation to the Offshore Committee:** Approve

Offshore Committee Decision: Approve

## **7. SUBMISSIONS**

(a) Standard Format for Stability Data and Construction Criteria on Offshore Rating Certificates – Submission 035-08

Submission 035-08 from the Executive Committee (on behalf of the Chairman of the International Regulations Commission) was received regarding a standard format for stability data and construction criteria to be agreed and promoted by ISAF to be used on all offshore rating certificates.

It was agreed to appoint a working party of Mike Urwin (IRC), Sten Edholm and Jean Louis Conti (ORC) and Dan Nowlan (USA/PHRF)

## **8. RECOMMENDATIONS NOT BASED ON SUBMISSIONS**

(a) 4.05 Fire Extinguishers

Sten Edholm reported on a fire on board a 30ft carbon-fibre trimaran during the Round Gotland Race. The conclusion was that the fire extinguishers were too small and that a minimum size of 2kg should be specified for Category 1-3 effective 1 January 2009.

On a proposal by Sten Edholm, seconded by Abe Rosemberg it was unanimously approved to be effective 1 January 2009.

On a proposal by Sten Edholm seconded by Abe Rosemberg it was agreed with 6 in favour to specify dry powder fire extinguishers

NEW 4.05.4

Fire Extinguishers, at least two, of minimum 2kgs each of dry powder or equivalent.

Category 3 – Effective 1 January 2009

Offshore Committee Decision: Approve

(b) OSR 4.22 Lifebuoys

Sten Edholm questioned why OSR 4.22 deals with lifebuoys and lifeslings as alternatives when in his view they are for different purposes.

## **9. SMALL CRAFT SAFETY RECOMMENDATIONS**

Ken Kershaw presented a report and noted that to support category 6 they had investigated safety boat regulations but felt that the task was too varied to write down hard and fast rules. They proposed adding some recommendations to the ISAF website highlighting key features and fit out equipment.

## **10. RE-DRAFTING OF OFFSHORE SPECIAL REGULATIONS**

The Committee considered proposals to change the layout, writing style and



presentation of the Offshore Special Regulations to help readability and compliance. In particular regarding a desire to reduce the volume of the basic text of the regulations it was noted that by moving Category 0, Multihull specific and recommendations to appendices a 33% reduction could be achieved.

Dan Nowlan proposed that Ron Trossbach be considered for the Working Party.

Sten Edholm wanted the re-draft to include a review of Category Zero, combined with a follow up review of Cat 1 and Cat 2 in relation to the well defined and accepted Cat 3 and felt that a reasonable re-draft would take a year to produce. It was requested short summaries of ISO standards should be include where relevant.

New Chairman of Offshore Committee and Chairman of Special Regulations SC to form a working party.

- + January 2009 Form working party
- + January – June Working Party Meetings
- + November 2009 – draft for consideration
- + November 2010 final document

## **11. ISAF RACING RULES**

### **(a) RRS Appendix J, K and L – Submission 238-07**

Deferred submission 238-07 from the Chairman of the Equipment Committee was noted regarding including safety details in RRS Appendix J, K, L - Notice of Race, Sailing Instructions – Guides.

As the 2009-2012 RRS have now been published the urgency for the submission had gone. However the reason for the submission remains valid. It was noted that the submission had been withdrawn.

## **12. ISAF REGULATIONS**

### **(a) Administration of Offshore Special Regulations – Submission 124-08**

Submission 124-08 from the Chairman of the Offshore Committee regarding ISAF regulations on the administration of the Special Regulations.

Mike Urwin observed that as the fundamental basis of the Special Regulations was one of safety it would be wrong to prevent urgent amendments.

Paul King felt that IRC and ORC should be included in the right to make submissions regarding the Special Regulations.

Recommendation to the Offshore Committee: Approve with the following amendment to 36.2.2: “International or Recognised Rating Systems”

### **(b) Obtaining Designation as an International or Recognized Class - Submission 071-08**

Submission 071-08 from US Sailing was received regarding requiring ISAF Offshore Special Regulations compliance for yacht classes seeking designation as an ISAF Class in lieu of invoking the ERS.

Dan Nowlan explained that the submission had arisen from a specific issue with the Melges 32 class which has dyneema lifelines and an incident where crew fell overboard following the lifeline failure. Whilst the Committee were sympathetic they concluded that the submission could not be approved as worded.

Recommendation to the Offshore Committee: Reject

### **13. CLASS RULE VARIATION OF OSR**

Jean-Bertrand Mothes-Masse gave a summary highlighting the modifications of the OSR in the IMOCA 60 and Class 40 rules. He felt that the IMOCA 60 Class, as an ISAF International Class, was out of control. He felt that IMOCA had decided to change the Class Rules by themselves without referring to any Authority, (for example lifelines in textile instead of stainless steel required by the OSRegs), and many others items regarding safety. His opinion was that the Vendée Globe race is sailed under Class Rules not adopted by ISAF. The committee expressed its view that ISAF should approach IMOCA to review variations following experiences in the Vendee Globe race.

### **14. ISO STANDARDS**

#### **(a) Availability**

The Committee received a paper from the secretariat on plans for making ISO standards more readily accessible to committee members, equipment inspectors and manufacturers. This was much appreciated by the Committee members.

### **15. TRAINING**

The Committee received a summary of a survey of MNAs regarding Offshore Personal Survival training. It was noted that a summary of courses was on the ISAF website.

Sten Edholm raised the issue of re-fresher courses and whether a one day re-fresher course should be acknowledged in the future. Sweden will before next AGM 2009 produce a suggestion for a one-day Refresher Course.

Giovanni Ianucci suggested a short refresher course could be used providing the sailor could show he had been actively racing over the past five years.

### **16. INTERNATIONAL REGULATIONS COMMISSION**

Alan Green as Chairman of the International Regulations Commission gave a verbal report of the meeting earlier this week. He felt that there should be an Appendix developed for the Special Regulations covering singlehanded racing and this could be started by collating best practice from existing events.

The Commission had addressed environmental issues such as transfer of alien species in ballast water and on vessel hulls, antifouling coating restrictions, security of non-Solas vessels, the Italian Government's submission on amending the COLREGS, availability of ISO Standards, collisions with drifting shipping containers, liferaft servicing, avoidance of cetaceans (whales) and exclusion zones

around windfarms.

**17. ANY OTHER BUSINESS**

There being no other business the meeting was closed at 1749

**REVISED SUBMISSION SR01-08 Offshore Special Regulations 3.03**  
**OSR 3.03 – Hull Construction Standards (Scantlings)**

A submission from the Chairman of the Offshore Committee  
(on behalf of the working group chaired by Ken Kershaw)

Proposal:

Replace the existing rule OSR 3.03 and move the current rule to a separate appendix for easy referencing during a phase in period.

**3.03 Hull Construction Standards (Scantlings)**

**Table 2**

<u>LOA</u>	<u>earliest of age or series date</u>	<u>race category</u>
<u>All</u>	<u>January 1986 and after</u>	<u>MoMu0,1</u>
<u>12m (39.4 feet) and over</u>	<u>January 1987 and after</u>	<u>MoMu2</u>
<u>under 12m (39.4 feet)</u>	<u>January 1988 and after</u>	<u>MoMu2</u>

**Category**  
**MoMu0,1,2**

**MoMu0,1,2**

**3.03.1**

**(a)**

**A yacht of less than 24m in hull length (measured in accordance with ISO 8666) with Age or Series Date on or after 1 June 2009 shall have**

- been designed and built in accordance with the requirements of ISO 12215 Category A \***
- on board ~~an ISAF~~ a certificate of building plan review from a notified body recognized by ISAF.**
- on board a declaration signed and dated by the builder to confirm the yacht is built in accordance with the ~~ISAF building plan review and the plans reviewed by the Notified Body requirements of ISO 12215 Category A\*~~**

**(b)**

**A yacht of 24m in hull length and over (measured in accordance with ISO 8666) with Age or Series Date on or after 1 June 2009 shall have**

- been designed and built in accordance with requirements as from time to time specified by ISAF.**
- on board ~~an ISAF~~ a certificate of building plan review from an organization recognized by ISAF.**
- on board a declaration signed and dated by the builder to confirm the yacht is built in accordance with the ~~ISAF build plan review and requirements.~~**

**MoMu0,1,2**

### 3.03.2

Mo 0,1,2

- (a) A yacht of less than 24m in hull length (measured in accordance with ISO 8666), irrespective of Age or Series Date, if subject to any significant repair or modification to the hull, deck, coachroof, keel or appendages on or after the 1 June 2009, shall have
- the repair or modification designed and built in accordance with ISO 12215 Category A\*
  - on board ~~an ISAF~~ a certificate of building plan review for the repair or modification **from a notified body recognized by ISAF**
  - on board a declaration signed and dated by the builder to confirm that the repair or modification is in accordance with ~~the ISAF build plan review and the requirements of ISO 12215 Category A \*~~
- (b) A yacht of 24m in hull length and over (measured in accordance with ISO 8666), irrespective of Age or Series Date, if subject to any significant repair or modification to the hull, deck, coachroof, keel or appendages on or after the 1 June 2009, shall have
- the repair or modification designed and built in accordance with the requirements as from time to time specified by ISAF.
  - on board ~~an ISAF~~ a certificate of building plan review for the repair or modification **from an organization recognized by ISAF**
  - on board a declaration signed and dated by the builder to confirm that the repair or modification is in accordance with ~~the ISAF build plan review and the requirements.~~

### 3.03.3

Mo 0,1,2

In cases when a builder no longer exists a race organizer or class rules may accept a signed statement by a naval architect or other person familiar with the requirements of 3.031 and 3.03.2 above and in lieu of the builders declaration required by 3.031 and 3.03.2 above.

### 3.03.4

A yacht with Age or Series Date on or before the 1 June 2009 shall comply with 3.03.1, 3.03.2 and 3.03.3 above or with appendix M to these OSR.

\* or as from time to time specified by ISAF

Add new Appendix M

Appendix M

M 3.03 Hull Construction Standards (Scantlings)

MoMu0,1,2

**M.1** **A yacht laid down or with a series date on or before the 1 June 2009 shall comply with ORS 3.03.1, 3.03.2 and 3.03.3 or with this appendix.**

Table 2

LOA	earliest of age or series date	race category
all	January 1986 and after	MoMu0,1
12m (39.4 feet) and over	January 1987 and after	MoMu2
under 12m (39.4 feet)	January 1988 and after	MoMu2

**M.2** **A yacht defined in the table above shall have been designed, built, maintained, modified and repaired in accordance with the requirements of either:**

- the EC Recreational Craft Directive for Category A (having obtained the CE mark), or
- the ABS Guide for Building and Classing Offshore Yachts in which case the yacht shall have on board either a certificate of plan approval issued by ABS, or written statements signed by the designer and builder which confirm that they have respectively designed and built the yacht in accordance with the ABS Guide,
- ISO 12215 Category A, with written statements signed by the designer and builder which confirm that they have respectively designed and built the yacht in accordance with the ISO standard,
- except that a race organizer or class rules may accept when that described in (a), (b), or (c) above is not available, the signed statement by a naval architect or other person familiar with the standards listed above that the yacht fulfills the requirements of (a), (b), or (c).

**M.3** **Any significant repairs or modifications to the hull, deck, coachroof, keel or appendages, on a yacht defined in table 2 shall be certified by one of the methods above and an appropriate written statement or statements shall be on board.**

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2

MoMu0,1,2