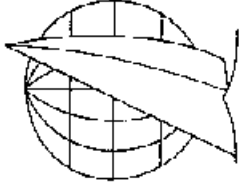


OFFSHORE RACING COUNCIL

World Leader in Racing Technology



INTERNATIONAL MEASUREMENT SYSTEM

IMS REGULATIONS

1998

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Any Notice of Race or Sailing Instructions in which a divisional distinction is specified should state the titles "Racing Division" and/or "Cruiser/Racer Division". Such a statement shall mean that the above definitions apply, unless otherwise amended by the Notice or Sailing Instructions.

Where divisions are not specified, then with regard to accommodations, yachts in the event need comply with only the Racing Division Accommodation Regulations of Part 3.

Event organizers may wish to provide an additional handicapping allowance for Cruiser/Racer yachts when directly competing against Racing yachts (i.e., mixed division racing). If such an allowance is desired, the recommended method is to increase (slow down) the values of the Time Allowances of each Cruiser/Racer Division yacht by the Dynamic Allowance (DA) percentage shown on the yacht's Certificate in the Limits and Regulations section. Unless otherwise specified in the Notice of Race or Sailing Instructions, the divisional allowance shall apply.

2. Recommended Divisional Grandfathering. The ORC recommends "grandfathering" of yachts in applying the respective divisional Accommodation Regulations as follows:

Racing Division: Yachts of Age Date or Series Date (whichever is earlier) prior to 1994 shall be deemed to comply with the Racing Division Accommodation Regulations provided they comply with the Rules for the World Championships of the Level Rating Classes (ORC "Green Book"), Part 13, Yacht Characteristics, as would apply according to a yacht's IOR rating (applying the Two "or" requirements to yachts rating above that level). See Appendix II for Green Book details.

This provision is not intended to permit degrading of existing accommodations. No yacht which has previously complied with the IMSA Accommodation Regulations without grandfathering shall be qualified under this grandfathering provision and no yacht shall be so qualified on which the accommodations existing prior to 1994 have been degraded.

TABLE of ACCOMMODATIONS

A/L	NUMBER OF BERTHS			FRESH WATER CAPACITY (LITRES)			DIESEL FUEL CAPACITY* (LITRES)			FOOD STOWAGE (CUBIC METRES)			PERSONAL GEAR STOWAGE (CUBIC METRES)			TABLE AREA (SQUARE METRES)			HEADROOM (METRES)		
	MIN	STD	MAX	MIN	STD	MAX	MIN	STD	MAX	MIN	STD	MAX	MIN	STD	MAX	MIN	STD	MAX	MIN	STD	MAX
7.0	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.1	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.2	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.3	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.4	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.5	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.6	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.7	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.8	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
7.9	2	2	2	n/a			12	20	30	0.11	0.12	0.18	0.07	0.08	0.12	n/a			1.30	1.45	1.55
8.0	2	3	4	n/a			12	20	30	0.16	0.18	0.27	0.11	0.12	0.18	n/a			1.30	1.45	1.55
8.1	2	3	4	n/a			12	20	30	0.16	0.18	0.27	0.11	0.12	0.18	n/a			1.30	1.45	1.55
8.2	2	3	4	n/a			12	20	30	0.16	0.18	0.27	0.11	0.12	0.18	n/a			1.30	1.45	1.55
8.3	2	3	4	n/a			12	20	30	0.16	0.18	0.27	0.11	0.12	0.18	n/a			1.30	1.45	1.55
8.4	2	3	4	n/a			13	22	33	0.16	0.18	0.27	0.11	0.12	0.18	n/a			1.30	1.45	1.55
8.5	2	3	4	23	35	52	15	24	36	0.16	0.18	0.27	0.11	0.12	0.18	0.30	0.33	0.40	1.52	1.58	1.64
8.6	2	3	4	24	36	54	16	26	39	0.16	0.18	0.27	0.11	0.12	0.18	0.30	0.33	0.40	1.57	1.63	1.69
8.7	2	3	4	25	38	57	17	28	42	0.16	0.18	0.27	0.11	0.12	0.18	0.30	0.33	0.40	1.59	1.65	1.71
8.8	2	3	4	26	39	58	18	30	45	0.16	0.18	0.27	0.11	0.12	0.18	0.30	0.33	0.40	1.61	1.67	1.73
8.9	2	3	4	27	41	61	20	32	48	0.16	0.18	0.27	0.11	0.12	0.18	0.30	0.33	0.40	1.62	1.68	1.74
9.0	3	4	5	38	57	85	20	33	49	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.63	1.69	1.76
9.1	3	4	5	39	59	88	21	35	52	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.64	1.70	1.77
9.2	3	4	5	40	60	90	23	37	55	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.65	1.71	1.78
9.3	3	4	5	41	62	93	24	39	58	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.66	1.72	1.79
9.4	3	4	5	42	64	96	25	41	61	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.67	1.73	1.80
9.5	3	4	5	44	66	99	26	43	64	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.68	1.74	1.81
9.6	3	4	5	45	68	102	28	45	67	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.69	1.75	1.82
9.7	3	4	5	46	70	105	29	47	70	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.70	1.76	1.82
9.8	3	4	5	48	72	108	30	49	73	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.70	1.76	1.83
9.9	3	4	5	49	74	111	31	50	75	0.22	0.24	0.36	0.14	0.16	0.24	0.40	0.44	0.53	1.71	1.77	1.84

*Fuel capacity for gasoline = 1.25 * fuel capacity for diesel

13.3 Fresh Water Capacity Minimum capacities shall be:

Two Ton	150 litres
One Ton	150 litres
Three-Quarter Ton	75 litres
Half Ton	50 litres
Quarter Ton	35 litres
Mini Ton	20 litres

13.4 Bunks Permanent bunks with mattresses shall be not less than:

Two Ton	8
One Ton	6
Three-Quarter Ton	4
Half Ton	3
Quarter Ton	2
Mini Ton	2

The above bunks and mattresses shall be of minimum thickness of 50mm and where the mattresses are built into the bunk the same thickness shall be maintained. The bunks and mattresses shall be of not less than the following dimensions:

1.9 metres long, 0.55 metres wide at one end, 0.35 metres wide at the other end.

13.5 Chart Table

All yachts shall be provided with a flat area suitable for chart work.

13.6 All yachts shall be fitted with a securely installed or gimbalbed stove, which shall comply with the following:

Mini Tonners and Quarter Tonners - a minimum of 1 burner
Half Tonners and above - a minimum of 2 burners

13.7 Inboard engine installation shall meet standards accepted in the country of registry and shall be such that the engine, when running, can be securely covered, and that the exhaust and fuel supply systems are securely installed and adequately protected from the effects of heavy weather. (Also ORC Special Regulation 3.23).

13.8 Maximum Beam - Mini Tonners

For all Mini Tonners there shall be a maximum beam limit of 2.5 metres (8'2").

Cruiser/Racer Division: Yachts of Age Date or Series Date (whichever is earlier) prior to 7/89 shall be deemed to comply with the Cruiser/Racer Accommodation Regulations provided they comply with the former IMS Basic Accommodation Requirements (as detailed in Part 4 herein). As with Racing Division grandfathering, the degrading of accommodations existing prior to 1/94 is not intended and not permitted.

While grandfathering is at the discretion of race organizers, to avoid possible misunderstandings, the ORC recommended grandfathering methods above shall apply unless specified otherwise in the Notice of Race or Sailing Instructions.

104. Remunerated Crew. Whenever and so long as an IMS rated yacht has among her racing crew a member who is being remunerated as such, the validity of her IMS certificate shall be automatically suspended. This provision shall not apply to remuneration for the non-racing activities of any paid hand regularly employed in the maintenance and delivery of the yacht.

PART 2 – LIMITS AND EXCLUSIONS

201. Stability Index. A yacht's eligibility for entry in IMS races of ORC Special Regulations Categories 0, 1 or 2 may be limited by the Notice of Race or Sailing Instructions on the basis of her Stability Index.

The Stability Index minima in the table below are recommended. Because the ORC Race Categories are stated in general terms, the special circumstances of any particular race may make deviations from these recommendations appropriate.

<u>ORC Race Category</u>	<u>Minimum Stability Index</u>
0	120
1	115
2	110

202. Minimum Displacement. The purpose of this regulation is to exclude extremely light yachts from competition in events where it is felt their particular characteristics in combination with course and wind conditions would make equitable handicapping difficult.

A yacht shall be excluded from racing if its IMS Sailing Trim Displacement (with "default" crew weight) is less than:

$$(((L \cdot SM0 / 3048) \cdot 2.5 * (MB / 3048) \cdot 0.5) \cdot 0.333 + 7.81) \cdot 0.543 \cdot 32.204 \text{ Kg}$$

203. Permitted Materials. Except as provided in 203.2 below, no yacht shall race under the IMS if in the structure of the hull, appendages, deck, deck fittings, rigging, spars, spar fittings, battens, headboards and hardware of sails, steering systems, interior fittings and joinerwork any material is used other than those permitted in 203.1 below and in addition, for standing rigging specifically, only as permitted in 203.1(f) below. Exterior hatches may be of the same material as the deck. Chainplates may be of the same material as the surrounding deck, but must be included in any required plan approval.

Where the weight of a fiber reinforced plastic (FRP) mast has been measured under IMS 725 and recorded on the Rating Certificate (MWT), restrictions related to FRP construction below do not apply to the molded mast and spreaders, except that masts shall not be of sandwich construction. Where the classification of a boom is recorded as "LIGHT" on the Rating Certificate, restrictions related to FRP construction do not apply to the molded boom.

Note: Attention is directed also to limitations on spar material detailed under IMS Rule 205.4.

1. Permitted Materials and Construction.

- (a) Wood, natural fibres and unreinforced plastic.
- (b) Plastic reinforced with fibre of any of the following materials: glass, polyester, Polyamide, polyethylene, aramid and natural fibre except that high strength carbon (see Appendix 1) may be used as follows:
 - In rudders and rudder stocks.
 - In sail battens.
 - In the walls of spinnaker poles and reaching struts.
 - In masts (and integral mouldings, such as tangs), booms, spreaders and junner struts.
 - For Racing Division yachts and also for Cruiser/Racer yachts of LOA > 17.00 m (see 103.1), in the structure of the hull, deck and interior joinerwork.
- (c) Iron, steel, lead, copper and their alloys; bronze, brass, monel and aluminium of the 5000 and 6000 series.
- (d) In the hull skin, deck skin and interior joinerwork, core material only of wood or plastic foam of nominal density not less than 70 kg/cu.m.
- (e) Except for spinnaker poles, reaching struts, rudders and rudder stocks, where plastic is used as a construction material in hull, deck, appendages or spars, the following curing temperature and pressure limits apply:
 - Externally applied heat shall not be greater than 80°C.
 - Externally applied pressure shall not be greater than the ambient atmospheric pressure of the vacuum bag method.

b) **Headroom.** Headroom (H) is defined as the vertical height from the cabin sole to the underside of the deck. (Deck beams and deck stringers may be excluded from the measurement). To qualify as headroom for the purposes of a) above, there must be no obstruction in the vertical from the deck to the cabin sole, for example, companionway steps or platform.

NOTE: For yachts of Age or Series Date (whichever is the earlier) of 1/91 or later, the qualifying headroom (H) must be found about the after face of the main mast.

NOTE: For yachts with an Age or Series Date (whichever is the earlier) of 1/21/1985 or earlier:

- a) The cabin sole is defined as surface free of obstruction designed to be suitable for the crew to stand upon. This cabin sole shall have an area (A) over which there is the required headroom (H) as defined in b) below. If any obstruction, e.g. an engine or engine box, shaft tunnel, keelson, floor frame or cockpit sole, within the qualifying area of the cabin sole reduces the required headroom, area of such obstruction will not count towards area (A) and the extra area must be found elsewhere.
- b) **Headroom.** Headroom (H) is defined as the vertical height from the cabin sole to the underside of the deck. (Deck beams and deck stringers may be excluded from the measurement). To qualify as headroom for the purposes of a) above, there must be no obstruction in the vertical from the deck to the cabin sole.
- c) The length of the cabin sole (LC) shall be defined as a continuous length fore and aft over which it is possible to lay a cord on the level of the cabin sole having the required headroom, except in the way of masts and bulkheads.
- d) The width (W) shall be the maximum width having the required headroom (H) measured across the cabin sole in any transverse section or the sum of two widths measured across the cabin sole at any transverse section but separated by an obstruction having less than the required headroom (H).

13.2 Minimum Qualifying Dimensions

	Area A		Length LC		Width W		Headroom H	
	m ²	ft ²	m	ft	m	ft	m	ft
One and Two Ton	1.5	16.140	1.8	5.11"	0.45	1.51½"	1.83	6.0"
Three-quarter Ton	1.3	13.988	1.8	5.11"	0.40	1.3½"	1.75	5.9"
Half Ton	0.5	5.380	1.2	3.11½"	0.35	1.1½"	1.70	5.7"
Quarter Ton	0.4	4.304	1.2	3.11½"	0.35	1.1½"	1.30	4.3"
Mini Ton	0.4	4.304	1.2	3.11½"	0.35	1.1½"	1.24	4.1¼"

For Mini-Tonners, sitting area shall total a minimum of 0.5 sq. metres (5.38 sq. ft.) with a minimum height of 0.75 metres (2.5") above the seat.

APPENDIX II -- "Green Book" Accommodations

For Racing Division yachts which are eligible for grandfathering but have never been measured under the IOR, IMS Regulations 103.2 may be applied according to the following table.

	Mini Ton
LOA < 7.5m	Quarter Ton
7.5m <= LOA < 8.5m	Half Ton
8.5m <= LOA < 10.0m	Three-Quarter Ton
10.0m <= LOA < 11.5m	One Ton
11.5m <= LOA	

Extract from 1994 Rules for the World Championships of the Level Racing Classes ("Green Book")

13. YACHT CHARACTERISTICS

13.1 Interior Dimensions

The interior dimensions of the level racing classes are required to meet certain criteria. The dimensions are defined below and the dimensional values of each class are given in the table in 13.2.

- a) For yachts with an Age or Series Date (whichever is the earlier) of 1/1986 or later:
- An area of cabin sole shall be defined as having the following characteristics:
 - It shall have a flat surface free of obstructions, which shall be continuous except that it may be divided once in any transverse station by an engine, engine box, keelson, shaft tunnel or centerboard trunk. For yachts with an Age or Series Date (whichever is the earlier) of 1/1990 or later - where, in any section, there exists a qualifying headroom which is divided once by an obstruction as permitted above, the vertical height of the underside of the deck above a fair horizontal projection of the adjacent cabin sole through the obstruction shall not be less than the minimum qualifying headroom (H) for the class. The area occupied by the obstruction, however, shall not be included in the calculation of qualifying area for e) ii) below.
 - Throughout this area of cabin sole, headroom (H) as defined in b) below shall be greater or equal to the minimum qualifying headroom (MH) found from the table in 13.2.
 - In any transverse station there shall be a minimum continuous width of at least half MW.

- ii) To meet the interior dimensions requirement:

The area of cabin sole defined above shall have an area greater than or equal to the minimum area (MA) found from the table in 13.2.

It shall have a continuous length fore and aft greater than or equal to the minimum fore and aft length (MLC) found from the table in 13.2.

In at least one transverse station there shall be a width greater than or equal to the minimum width (MW) found from the table in 13.2. This may be divided once - see i) above.

- (f) For any standing rigging which by the IMS Rule is not allowed to be adjusted while racing, the only permitted materials are steel wire and steel rod.

- (g) For hull skins, the provisions of APPENDIX I -- Hull Skin Construction Limits shall apply according to Age Date given therein.

2. Dates of application.

- (a) For all yachts with an Age Date of July 1990 or later, the above limitations apply except that for yachts with an Age Date of April 1991 or earlier the limitations shall not apply to pre-existing interior fittings and joinerwork and for yachts with an Age Date of April 1993 or earlier the limitations shall not apply to pre-existing steering system components.
- (b) For all yachts, regardless of Age Date, from calendar date 1/1/90 the above limitations apply to the addition and replacement of components. Except for the repair with like material of damage to hull, deck or appendages, the limitations apply also to modifications.
- (c) For yachts for which the National Authority is satisfied by documentary evidence that hull construction commenced prior to calendar date 1/1/90, the limitations shall not apply to hull, deck and appendages, provided Age Date is also prior to July 1990.
- (d) For headboards of sails, the limitations shall apply to sails and headboards measured 1/92 and later.
- (e) For hardware of sails, the limitations shall apply to sails measured 4/93 and later.
- (f) For yachts subject to Racing Division "grandfathering" as provided in 103.2, the limitations of 203 shall not apply to structure and outfit as it existed on the yacht as of 30 September 1993.

Any questions regarding the application of Regulation 203 shall be referred to the ORC Chief Measuree.

204. **Crew Weight Limit.** The owner shall be responsible for insuring that the weight of the crew, weighed in light street clothes, on board the yacht for any race does not exceed the Maximum Crew Weight printed on the Rating Certificate and any excess shall automatically suspend validity of the Certificate. Except where a yacht's Certificate or the composition of a yacht's crew has since changed, where a yacht has been found to comply with her Crew Weight Limit for an event, she shall be deemed to comply throughout the event.

205. Sail Inventory.

1. A yacht while racing shall not carry on board more sails of each type than the numbers set out below:

IMS "L":	the numbers set out below:				
	Below 9.00	9.00 - 12.80	12.81 - 15.85	Above 15.85	
Large jibs	2	3	4	5	
Small jibs	2	2	3	4	
Light staysails	1	1	1	1	
Spinnakers	3	3	3	4	
Mainsails	1	1	1	1	
Storm Trysails	1	1	1	1	
Storm Jibs	1	1	1	1	
Heavy - Weather Jibs	1	1	1	1	

- Large jibs are those having an LPG greater than 1.1*J.
 - Small jibs are those having an LPG less than or equal to 1.1*J. Sails in this category, which includes inner forestaysails, must be set on stays permanently attached to the mast and tacked on the center line of the yacht.
 - Where the largest jib for which a yacht is rated is a Small Jib, the total number of jibs allowed shall be the respective Small Jib maximum plus one.
 - Light staysails are those having an LPG less than or equal to 1.1*J which shall only be set flying.
 - The specifications of storm and heavy weather sails are those of the ORC's Special Regulations Governing Offshore Racing, paragraphs 4.24(b), 4.24(c), and 4.24(d).
 - Except that only one tizzzen is permitted, there is no limit on the number of sails that are set on or from the after mast of two masted yachts.
2. For long distance races the race organizer may modify these limitations to permit carrying additional sails of the kinds and numbers appropriate to the character of the race.
3. *Bioplers prohibited.* When a spinnaker is set, no jib shall be tacked in such a way as to cause or permit the luff or forward edge of that sail to lie outside of the spinnaker or spinnaker sheer and, when a spinnaker is set, no sail shall be sheeted to the main boom except the spinnaker itself.

206. Halyard Locks. Except for any existing halyard lock installed prior to 10/93, devices for securing halyards under tension, e.g., halyard locks, shall not be located higher than 2.438m above the local deck surface.

APPENDIX I -- Hull Skin Construction Limits

Resistance of Hulls to Local Impact. To limit damage from local impact, no yacht of fibre reinforced plastic sandwich hull construction with an Age Date of July 1994 or later shall race under IMS if the outer hull skin contains a reinforcement weight less than that given below:

- E-Glass Reinforcement with Epoxy, Polyester or Vinylster Resin $W_s = 105.0 * L + 138.0 \text{ g/m}^2$
- S-or R-Glass Reinforcement with Epoxy or Vinylster Resin $W_s = 90.2 * L + 125.0 \text{ g/m}^2$
- Kevlar Reinforced with Epoxy or Vinylster Resin $W_s = 59.0 * L + 80.2 \text{ g/m}^2$
- High Strength Carbon Fiber Reinforcement with Epoxy or Vinylster Resin $W_s = 73.8 * L - 100.0 \text{ g/m}^2$

W_s = minimum required weight of reinforcement in g/m^2
 $L = 0.5 * (LOA + LSMO)$
 L shall not be taken as less than 9.15m.

Notes:

- High Strength Carbon Fibre is defined as having a maximum fiber modulus of 250GPa (36,250,000 psi) and minimum tensile strain at failure of 1.4%.
- For hybrid laminates, weight is to be determined on percentage volume of each different reinforcing material in terms of total reinforcing volume.
- Core material density shall not be less than 70 kg/m^3 .
- Polyethylene, polyester and natural fibres shall not count toward fibre reinforcement weight.

Also, the number of plies in the outer hull skin is to be no less than indicated below for all types of reinforcement.

- 2 plies $L < 9.15\text{m}$
- 3 plies $9.15\text{m} \leq L < 15.20\text{m}$
- 4 plies $15.20\text{m} \leq L < 21.40\text{m}$
- 5 plies $21.40\text{m} \leq L < 24.40\text{m}$

A ply must have a minimum weight of 175 g/m^2 .

Part 3 -- RACING DIVISION ACCOMMODATION REGULATIONS

301. Purpose. The purpose of these requirements is to insure that all yachts racing under IMS meet minimum standards of accommodation in order to provide for comfort of crews and stowage of gear, maintain long term value of the yachts and to prevent unrated performance advantage from stripping hulls for racing.

302. Compliance. Except where "grandfathering" as in 103.2 may apply, a yacht shall not race under IMS unless she complies with all the requirements of Part 3.

1. Acknowledging that it is difficult to cover every condition and innovation, designers, builders and owners carry the responsibility for complying with the intent and spirit of the Accommodation Regulations.
2. A standard Accommodation Compliance Form may be provided for certifying compliance. Where compliance has been documented to the satisfaction of the National Rating Office, the yacht's IMS rating certificate shall bear a notation to that effect.
3. A yacht's compliance with the Accommodation Regulations may be challenged by a competitor, a race organizing authority or other yachting authority with IMS oversight in the area of competition. In the event of such a challenge, the authority shall render a decision in accordance with the fundamental requirements, the detailed requirements and the expressed intent of the Accommodation Regulations. Nominal compliance with words and numbers but not with substance shall not be recognized as acceptable compliance.

303. Fundamental Requirements and Definitions.

1. All systems relating to living, eating, sleeping, and stowage specified in these regulations shall be arranged in a manner suitable for use at sea and shall operate so as to provide the service function normally associated with the system. Items shall be presented as they are intended to be used. For example, any item intended for use as a berth shall be in place and its function declared at the time of inspection.
2. Designations such as table, berth, sink, stove, and so forth are intended to define the full utility of conventional equipment and whatever weight is customarily associated with it.
3. Designations such as locker, bin and drawer, specify rigid construction and full practicality for convenient and safe segregated stowage usable and accessible under offshore conditions. The contents of all compartments shall be fully secured by doors or other suitable devices.
4. "Permanently installed" means the items are built in and may not be removed from their permanently installed position for or during racing.

420. Calculation of Accommodation Rating. A yacht with an Accommodation Rating less than 100.0 shall be excluded from racing in the Cruiser/Racer Division.

1. **Accommodation Rating.**
 - For AL 8.5m or greater, Accommodation Rating = the sum of the Accommodation Scores.
 - For AL below 8.5m, Accommodation Rating = the sum of the Accommodation Scores + 22.
2. **Accommodation Score** for any element is calculated as follows:
 Accommodation Score = (Actual / Standard) * Weighting Factor

Where:

- "Actual" is the number of qualifying berths, volume of qualifying personal gear stowage and so forth actually found on the yacht.
- "Standard" is the Standard value for the particular element as given according to Accommodation Length in the Accommodation Table.
- "Weighting Factor" is the Weighting Factor given in the table in Section 419 for each element.

NOTE:

- The value for "Actual" shall not be taken as greater than the Maximum value for the Accommodation Length as given in the Accommodation Table.
- If "Actual" is less than the Minimum value given for the AL, the yacht does not qualify.

3. **Example:** AL = 10.1m

ACCOMMODATION ELEMENT	ACTUAL VALUE	STANDARD VALUE	WEIGHTING FACTOR	ACCOMMODATION SCORE
Berths	4	4	x 30	= 30.00
Fresh Water Capacity	75	78	x 12	= 11.54
Fuel Capacity	55	54	x 8	= 8.15
Food Stowage	0.26	0.24	x 15	= 16.25
Personal Gear Stowage	0.15	0.16	x 10	= 9.38
Table Area	0.52	0.44	x 5	= 5.91
Headroom	1.76	1.79	x 20	= 19.66
			Accommodation Rating:	100.89

5. In reference to any requirements for berths or settees, "hard bottom type" means built in, rigid and paneled construction which supports a hard-bottomed berth or settee when in its horizontal position.

304. **Accommodation Length** is intended as a simplified representation of the size of the yacht and provides a reference for quantifying various accommodation requirements set forth below. Accommodation Length appears on the IMS certificate.

Accommodation Length (AL) shall be taken as the lesser of length overall (LOA) or 3.25 times the maximum beam (MB) of the yacht. Any fractional excess in AL beyond a tenth of a metre shall be ignored.

For example: LOA = 10.153m

Max Beam = 3.261m: $3.25 * 3.261 = 10.59825$

Accommodation Length = 10.1m

305. Headroom & Interior Volume.

The requirements for Headroom and Interior Volume respectively are mutually exclusive and one or the other, but not both, shall be applied to a yacht according to Age Date or Series Date.

Where a yacht to which the Headroom requirement applies does not meet the Headroom Minimum, but would qualify under Interior Volume, the Interior Volume method shall be applied.

Headroom. For yachts of Age Date or Series Date (whichever is earlier) prior to 1/94, Headroom shall be measured from the cabin sole to the overhead. Qualifying headroom shall be not less than the Minimum given in the Table of Accommodations and shall extend fore and aft over a length of $0.2 * AL$ (calculated to the nearest centimetre).

Interior Volume. For yachts of Age Date or Series Date (whichever is earlier) of 1/94 or later, compliance with the provisions for Interior Volume is required.

The purpose of this requirement is to define an interior volume which is appropriate to the size of the yacht and which allows the arrangement of interior accommodations suitable for cruising, whether or not the interior is actually fully fitted for that function (see diagram).

1. **Lower Reference Datum.** A level datum, parallel to the waterplane in measurement trim, shall be established at a height of $0.001 * AL \pm 1.9m$ above the inside of the hull surface, projected if necessary, at the deepest interior fairbody section which, for this purpose, shall not be found outside the 90% IH overhead area (see 305.4 below).

Note that this level is independent of the actual height of the cabin sole.

410. Scoring Variable Elements of Accommodation.

The requirements for certain elements of accommodation, outfit and construction vary by Accommodation Length and are scored under a "soft limits" system providing flexibility in meeting requirements. Under this system, some latitude is allowed in capacities, numbers, areas and volumes, but the deficiencies, sufficiencies and excesses are scored and the total of these must equal at least 100 points of Accommodation Rating.

The elements scored and the relative weight given to each in the scoring scheme are:

	AL:	8.5m or greater	less than 8.5m
Berths (number)		30	30
Fresh Water Capacity (litres)		12	N/A
Fuel Capacity (litres)		8	8
Food Stowage (cubic metres)		15	10
Personal Gear Stowage (cubic metres)		10	10
Table Area (square metres)		5	N/A
Headroom (metres)		20	20

For each element above, the Accommodation Table at the back of this book specifies the requirement according to Accommodation Length.

In the Accommodation Table, three values are given for each accommodation element: a Standard value, a Maximum value and a Minimum value. A yacht which was, for its size (AL), designed and outfitted with the Standard number of bunks, Standard fuel capacity and so forth would score exactly 100 as its Accommodation Rating (the minimum for compliance). Elements in excess of Standard will increase the Accommodation Rating and those below Standard will decrease it.

An excess beyond the given Maximum for any element is not counted and deficiency below Minimum on any element of accommodation disqualifies the yacht from racing in the Cruiser/Racer Division.

5. **Watertight gear storage lockers with access from the cockpit shall be arranged with a minimum total volume of $0.2 - (0.025 * (AL - 8.5)) \text{ cu.m.}$. The volume of lockers for bottled gas and liferafts shall not count in complying with this requirement.**

417. Fresh Water Capacity: For yachts with an AL of 8.5m and greater, to qualify tank capacity for Accommodation Scoring (see 419, 420 & Table), fresh water pumps shall be installed at the sink and wash basin and fresh water shall be contained in permanently installed tankage either of rigid construction or of the bladder type.

418. Fuel Capacity: To qualify tank capacity for Accommodation Scoring (see 419, 420 & Table), yachts with inboard engines shall be directly supplied from permanently installed fuel tankage.

2. **Interior Height (IH)** is calculated as (metres):

For AL 11.0m or greater:

$$IH = 1.5758 + 0.1656 * (AL - 8.5) \times 0.5$$

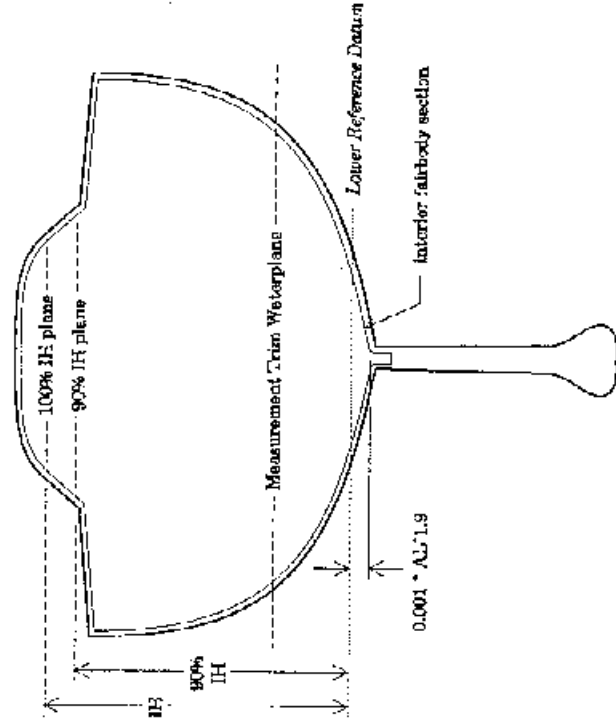
For AL below 11.0m:

$$IH = 0.167 * AL$$

The IH obtained from the above formula shall not be taken as more than 2.0 metres. IH shall be rounded to the nearest hundredth of a metre.

3. **Overhead Area at Full Interior Height:** At a height IH above the level established in 305.1 there shall exist under the overhead a plane of length not less than $0.2 * AL$ and area not less than $0.007 * AL^2$, ignoring deck beams and deck stringers. The aft extent of this area at the centerline shall lie not forward of a point located $0.55 * LOA$ aft of the stem. For yachts of Age Date or Series Date (whichever is earlier) prior to 4/97, the aft extent of this area shall lie not forward of a point on the yacht's centerline located $0.55 * LOA$ aft of the stem.

4. **Overhead Area at 90% Interior Height:** At a height $0.9 * IH$ above the level established in 305.1 there shall exist under the overhead a plane of length not less than $0.25 * AL$ and minimum area $0.026 * AL^2$. For a length of $0.2 * AL$, found parallel to the centerline of the yacht, the outboard width of this plane shall be not less than $0.105 * AL$. Deck beams and deck stringers may be ignored.



306. Cabin Sole. Cabin soles shall extend fore and aft over a length which provides convenient access to lockers, berths, galley, head, navigation area and other components making up the yacht's interior. Cabin soles may be discontinuous in height and interrupted in way of ring frames or other structural members.

1. The sole shall extend transversely to the inner skin of the hull or vertical faces of berth fronts, lockers or partitions.
2. The cabin sole shall be a structure independent of the inner skin of the hull. It may be of any pernilled material provided it exhibits similar strength and stiffness characteristics to that of solid wood cabin soles when installed in accordance with good yacht practice.

As noted for the accommodation elements below, see the Accommodation Table Minimum for the quantitative requirement (number, volume, etc.)

307. Berths:

(a) Berths which qualify shall be of substantial construction in keeping with the requirements for an offshore yacht and shall be fitted with mattresses as set forth in this section. For yachts of AL at least 8.5m but less than 17.0m, at least two of the qualifying berths shall be of the hard bottom type. For yachts of AL 17.0m or greater, at least four of the qualifying berths shall be of the hard bottom type.

(b) For yachts with an AL of 8.5m or greater each berth shall be at least 1.9m in length measured to the inside of any structure of the berth, bulkheads or partitions encompassing the berth. The minimum width measured in a similar manner to length at the top surface of the mattress shall be 0.6m measured at 1/4 of the berth length. For yachts with an AL of less than 8.5m the minimum length shall be 1.83m and minimum width shall be 0.55m.

For all yachts the minimum width of a double berth measured as above shall be twice that required for a single berth.

The foot and head ends of berths may taper as required by the hull shape.

(c) With all berths in the horizontal position the minimum clearance above any mattress at the centerline over half of the length of the berth shall not be less than 0.5m.

(d) Mattresses of a size covering the entire surface shall be fitted to all berths; they shall be of a thickness not less than 0.03m for soft bottom berths. For hard bottom berths the minimum thickness shall be 0.1m for yachts with an AL of 8.5m or greater and 0.075m for yachts with an AL of less than 8.5m. Minimum mattress density shall be 8kg/cu.m.

*The required seating shall be found within a forward percentage of measured cockpit length. This percentage shall be equal to the lesser of 1.75 - (Cockpit Length/0.3*MAX(AL,LOA))*100 or 100.0%.*

4. For the purpose of calculating compliance with 407.2 and .3, folding seats shall not be counted.
5. Watertight gear stowage lockers with access from the cockpit shall be arranged with a minimum total volume of $0.2 + (0.025 * (AL - 8.5)) \text{ cu.m.}$ The volume of lockers for bottled gas and liquids shall not count in complying with this requirement.

416 B. Cockpit -- For yachts of Age or Series Date (whichever is earlier) prior to 1/98:

1. The total of the maximum lengths, found below the working deck, of all cockpits shall not exceed the greater of $0.3 * AL$ or $0.3 * LOA$.

Areas open underneath bridge/decks shall be included in the cockpit length. For the purpose of measuring cockpit length the aft end of a cockpit shall not be taken aft of the aftermost end of the working deck.

2. Excluding provision for winch access and wheel clearance, at least the forward 75% of the length of the cockpit shall be surrounded with seatbacks or coaming of minimum height above the mean height of the seats of 0.20m.

3. The minimum seating area of cockpit seats shall be 0.20 sq.m. * Standard number of berths and shall meet the requirements below:

- The seat height above the cockpit sole, taken as the mean height along the seat depth, shall be a minimum of 0.30m for AL below 8.5m and 0.35m for AL 8.5m and greater.

- Seat depth shall be not less than 0.30m.

- For yachts of Age or Series Date (whichever is the earlier) of 1/196 or later, the minimum required seating shall be found within the forward 75% of the length of the cockpit(s).

4. For the purpose of calculating compliance with 416.2 and .3, folding seats shall not be counted.

416 A. Cockpit -- For yachts of Age or Series Date (whichever is earlier) of 1/98 or later:

1. *The total of the maximum lengths, found below the working deck, of all cockpits shall not exceed the greater of 0.3*AL or 0.3*LOA.*

Cockpit areas open underneath bridgedecks shall be included in the cockpit length. Closed bridgedecks and seats may be excluded from cockpit length provided they are nowhere lower than the local sheerline. For the purpose of measuring cockpit length the aft end of a cockpit shall not be taken aft of the aftermost end of the working deck. Where the transom slopes down and aft, the aftermost end shall not be taken forward of a transverse vertical plane projected through the aftermost location of the upper lifeline.

2. *Excluding provision for winch access and wheel clearance, at least the forward 75% of the length of the cockpit shall be surrounded with seatbacks or coamings of minimum height above the mean height of the seats of 0.20m and of minimum height above the local sheerline according to the following table:*

AL:	<11.0m	<=11.0<18.0m	>=18.0m
Height:	0.19m	0.15m	0.20m

3. *The minimum length of cockpit seats, measured along the inboard edge for each side of the cockpit, including any transverse extension fulfilling all the seat requirements listed below, shall not be less than: 0.2*AL*Cockpit Length/(0.3*MAX(AL,LOA)), and shall meet the requirements below:*

- The seat height above the cockpit sole, taken as the mean height along the seat depth, shall be a minimum of 0.30m for AL below 8.5m and 0.35m for AL 8.5m and greater.*
- Seat depth, measured perpendicular to the seat, shall be not less than 0.35m.*
- Bridge decks which comply with the seat height and depth requirements may be counted.*
- The width of the cockpit sole, ignoring any which lies outboard of the inboard edge of seats, shall not be less than 0.6m where AL>8.5m.*

(e)

For all yachts of Age or Series Date (whichever is earlier) of 1/1/96 or later, the minimum height of the bottom of any hard berth (excluding the mattress) shall be 0.30m above the cabin sole.

For minimum number of berths, see Table Minimum.

308. Personal Gear Stowage: To qualify, stowage for personal gear (clothing, toiletries and miscellaneous articles) shall be provided in the form of built in rigid lockers with doors, bins with hatches, and drawers. Bilge areas located below the cabin sole and hanging locker volume (see 312 below) shall not be included when measuring space for this stowage requirement. Space under berths shall not be counted except space in the form of fitted drawers which may comprise not more than 30% of the qualifying total volume.

For minimum volume, see Table Minimum.

309. Galley.

1. **Stoves:** All Stoves must be gimbed or fitted with night retaining rails to permit their safe operation underway. For yachts having AL less than 8.5m, the stove shall have at least one burner. For AL 8.5m but less than 11m, two burners. For AL 11m, but not greater than 15m, three burners. For AL over 15m, four burners.

An oven with its own burner or a microwave counts as one burner. To count as a burner, a microwave shall have a sufficient source of power at all times including extended passages at sea.

2. **Sinks:** For yachts of AL of 8.5m or greater, a sink shall be permanently installed and fitted with a drainage system which permits use underway and of size in keeping with the accommodations of the yacht.

3. **Galley Gear Stowage:** Seaworthy stowage shall be provided, segregated for a normal complement of cooking utensils, cutlery, glasses, dishes, etc.

4. **Food Stowage:** To qualify, stowage for food shall be provided in rigid lockers, bins, or other suitable compartments. Spaces below the cabin sole shall not be considered as meeting the requirements.

For minimum volume, see Table Minimum.

310. Head Compartment. For yachts of AL of 8.5m and greater the head compartment shall be constructed in such a manner as to be totally separated from the main cabin by rigid partitions and a rigid door when in use. There shall be sufficient space and clearances within the head compartment with the door shut to permit crew to sit, stand, and turn around.

1. **Toilet:** Approved type permanently installed and operable in compliance with local regulations pertaining to Marine Sanitation Devices and their use.

For yachts with an AL of 11m and greater the toilet shall be of a type plumbed for the intake of seawater.

2. **Wash Basin:** For yachts with an AL of 11m and greater a wash basin shall be permanently installed. It may be fixed, folding or sliding and shall be fitted with a drainage system which permits use underway.

311. Navigation Table. A flat area suitable for chart work shall be required.

1. For yachts of AL 8.5m or greater and commensurate with the size of the yacht, the navigation table or area shall be built with storage for charts, navigational instruments, books, etc.

2. For yachts of AL less than 8.5m counter tops, cabin tables or portable chart boards are acceptable. Where portable chart boards are used, provisions for stowage and securing when in use must be provided.

312. Hanging Locker. Hanging Locker(s) shall be provided of sufficient dimension to permit hanging garments vertically and of capacity to accommodate one garment for each required berth, but of not less than 0.06 cu.m. total volume.

313. Fresh Water Capacity: For yachts with an AL of 8.5m and greater, to qualify, fresh water pumps shall be installed at the sink and wash basin and fresh water shall be contained in permanently installed tankage either of rigid construction or of the bladder type.

For minimum capacity, see Table Minimum.

314. Fuel Capacity: To qualify, yachts with onboard engines shall be directly supplied from permanently installed fuel tankage.

For minimum capacity, see Table Minimum.

1. **Toilet:** Approved type permanently installed and operable in compliance with local regulations pertaining to Marine Sanitation Devices and their use. For yachts with an AL of 11m and greater the toilet shall be of a type plumbed for the intake of seawater.

2. **Wash Basin:** For yachts with an AL of 11m and greater a wash basin shall be permanently installed. It may be fixed, folding or sliding and shall be fitted with a drainage system which permits use underway.

413. Navigation Area. For yachts of 11m AL and greater the navigation area shall form a separated unit and shall include a chart table, a seat and storage for navigation equipment, charts and books, etc.

For yachts of AL of at least 8.5m but less than 11.0m, the navigation area shall be built with a surface for chart work, storage for charts, navigational instruments, books, etc.

For yachts of AL less than 8.5m, counter tops, cabin tables or portable chart boards are acceptable. Where portable chart boards are used, provisions for stowage and securing when in use must be provided.

For yachts of AL 10.0m and greater, the chart table shall be not less than 0.5sq.m. in area.

414. Hanging Locker. Hanging Locker(s) shall be provided of sufficient dimension to permit hanging garments vertically and of capacity to accommodate at least one garment for each qualifying berth (see 410). For yachts grandfathered as in 103.2, the locker(s) shall be of not less than 0.06cu.m. total volume. For other yachts total volume shall be not less than 0.04cu.m. * Standard number of berths given in the Table of Accommodations.

415. Main Hatch/Companionway. The main hatch/companionway shall be located within the 90% Interior Height area, giving access to the interior from a cockpit or deck. It shall be fitted with steps or stairway(s) inclined appropriately for convenient access and the maximum vertical step interval, both inside and outside the hatch, shall not be greater than 0.35m.

411. Galley Area:

A galley area is not permitted in a space counted as a Sleeping Area. Convenient standing space for operation of the galley must be within the Full Interior Height area to allow working in an upright position.

- 1. Stoves:** All Stoves must be gimbaled or fitted with high retaining rails to permit their safe operation underway. For yachts having AL less than 8.5m, the stove shall have at least one burner. For AL 8.5m but less than 11m, two burners. For AL at least 11m, but not greater than 15m, three burners. For AL over 15m, four burners.
An oven with its own burner or a microwave counts as one burner. To count as a burner, a microwave shall have a sufficient source of power at all times including extended passages at sea.
- 2. Sinks:** For yachts of AL of 8.5m or greater, a sink shall be permanently installed and fitted with a drainage system which permits use underway and of size in keeping with the accommodations of the yacht.
- 3. Galley Gear Storage:** Seaworthy stowage shall be provided, segregated for a normal complement of cooking utensils, cutlery, glasses, dishes, etc.
- 4. Food Storage:** In addition to the above, to qualify stowage volume for Accommodation Scoring (see 419, 420 & Table), stowage for food (other than refrigerated) shall be provided in rigid lockers, bins, or other suitable compartments. Spaces below the cabin sole shall not be considered as meeting the requirements.
- 5. Refrigerated Food Storage:** Except where locally or nationally specified otherwise, for yachts with AL of 8.5m or greater, 40% of the Minimum Food Storage requirement (see Table) shall be in the form of built in, properly insulated ice boxes or refrigerators. Portable ice boxes of any type will not meet the requirements.

412. Head Compartment. *The crew space provided for full use of all the head compartment facilities shall be located within the 90% Interior Height area. For yachts of AL 8.5m and greater, a dedicated head compartment shall be constructed using rigid partitions and a rigid door in such a manner as to totally enclose the compartment when in use. There shall be sufficient space and clearances within the enclosed head compartment with the door shut to permit crew to sit, stand, and turn around.*

Part 4 -- CRUISER/RACER DIVISION ACCOMMODATION REGULATIONS

401. Purpose. *The minimum requirements set forth in these regulations are intended to guarantee as far as possible that yachts participating in the IMS Cruiser/Racer Division follow the basic philosophy of that yacht type which include:*

- *The purpose of the yacht shall be in the first instance cruising.*
- *Accommodation layout and outfit shall be at least comparable to the standards of series production models which would find a broad market as cruising yachts.*
- *Sacrifice of layout and accommodation to features which are primarily suited to the racing character of a yacht shall be suppressed.*
- *The yacht without modification is fully suitable and actually used for cruising.*

402. Compliance. Except as may be "grandfathered" (see 103.2), a yacht shall not qualify for racing in the Cruiser/Racer Division unless she complies with all the requirements of Part 4. Subject to the grandfathering provisions of 103.2, yachts of Age Date or Series Date (whichever is earlier) prior to 7/89 shall be deemed to comply with the Cruiser/Racer Regulations provided they meet the requirements of all sections of Part 4 except those given in *italics* (which apply only to yachts not grandfathered). That is, grandfathered yachts shall comply with the former Basic Requirements.

- 1.** Acknowledging that it is difficult to cover every condition and innovation, designers, builders and owners carry the responsibility for complying with the intent and spirit of the Accommodation Regulations.
- 2.** A standard Accommodation Compliance Form may be provided for certifying compliance. Where compliance has been documented to the satisfaction of the National Rating Office, the yacht's IMS rating certificate shall bear a notation to that effect.
- 3.** A yacht's compliance with the Accommodation Regulations may be challenged by a competitor, a race organizing authority or other yachting authority with IMS oversight in the area of competition. In the event of such a challenge, the authority shall render a decision in accordance with the fundamental requirements, the detailed requirements and the expressed intent of the Accommodation Requirements. Nominal compliance with words and numbers but not with substance shall not be recognized as acceptable compliance.

403. Fundamental Requirements and Definitions.

1. All systems relating to living, eating, sleeping, and storage specified in these regulations shall be arranged in a manner suitable for cruising use and shall operate so as to provide the service function normally associated with the system. Items shall be presented as they are intended to be used. For example, any item intended for use as a berth shall be in place and its function declared at the time of inspection.
2. Designations such as table, berth, sink, stove, refrigerator, and so forth are intended to define the full utility of conventional equipment and whatever weight is customarily associated with it.
3. Designations such as locker, bin and drawer, specify rigid construction and full practicality for convenient and safe segregated storage usable and accessible under offshore conditions. The contents of all compartments shall be fully secured by doors or other suitable devices.
4. "Permanently installed" means the items are built in and may not be removed from their permanently installed position for or during racing.
5. In reference to any requirements for berths or settees, "hard bottom type" means built in, rigid and paneled construction which supports a hard-bottomed berth or settee when in its horizontal position.

404. Accommodation Length is intended as a simplified representation of the size of the yacht and provides a reference for quantifying various accommodation requirements set forth below. Accommodation Length appears on the IMS certificate.

1. Accommodation Length (AL) shall be taken as the lesser of length overall (LOA) or 3.25 times the maximum beam (M/B) of the yacht. Any fractional excess in AL beyond a tenth of a meter shall be ignored.
For example:
LOA = 10.153m
Max Beam = 3.261m: $3.25 \times 3.261 = 10.59825$
Accommodation Length = 10.1m
2. In addition to specific requirements detailed throughout Part 4, note that some elements of accommodation involving volumes, capacities and so forth are subject to a "soft limit" scoring system explained in 419 and 420 in conjunction with the Table of Accommodations provided at the back of this booklet. The relevant capacities, etc. are given in the table according to the yacht's AL.

1. Berths:

- (a) Berths which qualify to be counted for Accommodation Scoring (see 419, 420 & Table) shall be of substantial construction in keeping with the requirements for a cruising yacht and shall be fitted with mattresses as set forth in this section. At least half of the berths shall be of the hard bottom type. *Where a settee is declared as a berth, at least half of the remaining required berths shall be of the hard-bottom type.*
- (b) For yachts with an AL of 8.5m or greater each berth shall be at least 1.9m in length measured to the inside of any structure of the berth, bulkheads or partitions encompassing the berth. The minimum width measured in a similar manner to length at the top surface of the mattress shall be 0.6m measured at 1/4 of the berth length. For yachts with an AL of less than 8.5m the minimum length shall be 1.83m and minimum width shall be 0.55m.
For all yachts the minimum width of a double berth measured as above shall be twice that required for a single berth.
The foot and head ends of berths may taper as required by the hull shape.
- (c) With all berths in the horizontal position the minimum clearance above any mattress at the centerline over half of the length of the berth shall not be less than 0.5m.
- (d) Mattresses of a size covering the entire surface shall be fitted to all berths; they shall be of a thickness not less than 0.05m for soft bottom berths. For hard bottom berths the minimum thickness shall be 0.1m for yachts with an AL of 8.5m or greater and 0.075m for yachts with an AL of less than 8.5m. Minimum mattress density shall be 8kg/cubic m.
2. Personal Gear Stowage: To qualify stowage volume for Accommodation Scoring (see 419, 420 & Table) stowage for personal gear (clothing, toiletries and miscellaneous articles) shall be provided in the form of built in rigid lockers with doors, bins with hatches, and drawers. Bins/areas located below the cabin sole and hanging locker volume (see 414 above) shall not be included when measuring space for this stowage requirement. Space under berths and/or settees shall not be counted except space in the form of fitted drawers which may comprise not more than 30% of the qualifying volume. *For yachts of Age Date or Series Date (whichever is earlier) of 1/1/94 and later, the total volume of personal gear stowage shall be not less than the Maximum value given in the Table of Accommodations.*

Except in the case of a cat rig, at least either a sleeping area or a living area must be located forward of the forward mast. For yachts below 8.5m AL, at least 50% of this sleeping or living area shall be forward of the mast.

409. Living Area. A living area (cabin) shall consist of space containing a table and settees. At least 80% of the living area length must be located within the 90% Interior Height area.

1. **Table:** The table shall be located within the 90% Interior Height Area. For yachts with an AL of 8.5m or greater, to qualify the table surface area for Accommodation Scoring (see 419, 420 & Table), the cabin table shall be of substantial construction and arranged with convenient seating shall be permanently installed. The table may be fixed to the cabin sole or hinged from a bulkhead to facilitate stowage.

2. **Settees.** Settees are required sufficient to allow a number of crew equivalent to the standard number of Berths to sit around the table. Provided it meets the berth requirements, a settee may also be counted as a berth (but see 410.1(a)).

To qualify as a settee the unit must be in compliance with at least the following minimum requirements:

- Hard bottom type.
- Minimum total length of settees measured at the midline: 0.60m * Standard number of berths, but need not total more than 4.80m
- Minimum sitting depth, with cushions in place, 0.40m over 80% of the minimum length. The ends of the settee may be tapered only as required by the hull shape.
- Backrest minimum height 0.30m above seat cushion.
- Top of cushions above cabin sole a minimum of 0.30m below 8.5m AL and a minimum of 0.40m for AL 8.5m and greater.
- Seating height over top of cushions a minimum of 0.80m below 8.5m AL and a minimum of 0.90m for AL 8.5m and greater.

410. Sleeping Area. A sleeping area (cabin) shall consist of a space containing berths and adequate facilities for personal gear stowage. A 90% Interior Height is required over a minimum width of 0.3m and a minimum length of 0.035*AL.

405. Headroom & Interior Volume.

The requirements for Headroom and Interior Volume respectively are mutually exclusive and one or the other, but not both, shall be applied to a yacht according to Age Date or Series Date. Where Headroom is the applicable requirement, the yacht's Actual qualifying Headroom shall be incorporated in the Accommodation Scoring (see 419) and where Interior Volume is the requirement, for accommodation scoring purposes, the Actual Value shall be set equal to the Standard Value given in the Table of Accommodations.

Where a yacht to which the Headroom requirement applies does not meet the Headroom Minimum, but would qualify under Interior Volume, the Interior Volume method shall be applied.

Headroom. For yachts of Age Date or Series Date (whichever is earlier) prior to 1994, Headroom shall be measured from the cabin sole to the overhead. Headroom qualifying for Accommodation Scoring (see 419, 420 & Table) shall extend fore and aft over a length of 0.2*AL (calculated to the nearest centimetre).

Interior Volume. For yachts of Age Date or Series Date (whichever is earlier) of 1/194 or later, compliance with the provisions for interior volume shall be required.

The purpose of this requirement is to define an interior volume which is appropriate to the size of the yacht and which allows the arrangement of interior accommodations suitable for cruising, whether or not the interior is actually fully fitted for that function (see diagram).

1. Lower Reference Datum. A level datum, parallel to the water-plane in measurement trim, shall be established at a height of $0.091*AL+1.9m$ above the inside of the hull surface, projected if necessary, at the deepest interior fairbody section which, for this purpose, shall not be found outside the 90% IH overhead area (see 405.4 below).

Note that this level is independent of the actual height of the cabin sole.

2. Interior Height (IH) is calculated as (metres):

For AL 8.5m or greater:

$$IH = 1.5758 + 0.1656*(AL - 8.5)^{0.5}$$

For AL below 8.5m:

$$IH = 1.5758 - 0.2220*(8.5 - AL)^{0.5}$$

The IH obtained from the above formula shall not be taken as more than 2.0 metres. IH shall be rounded to the nearest hundredth of a metre).

3. Overhead Area at Full Interior Height:

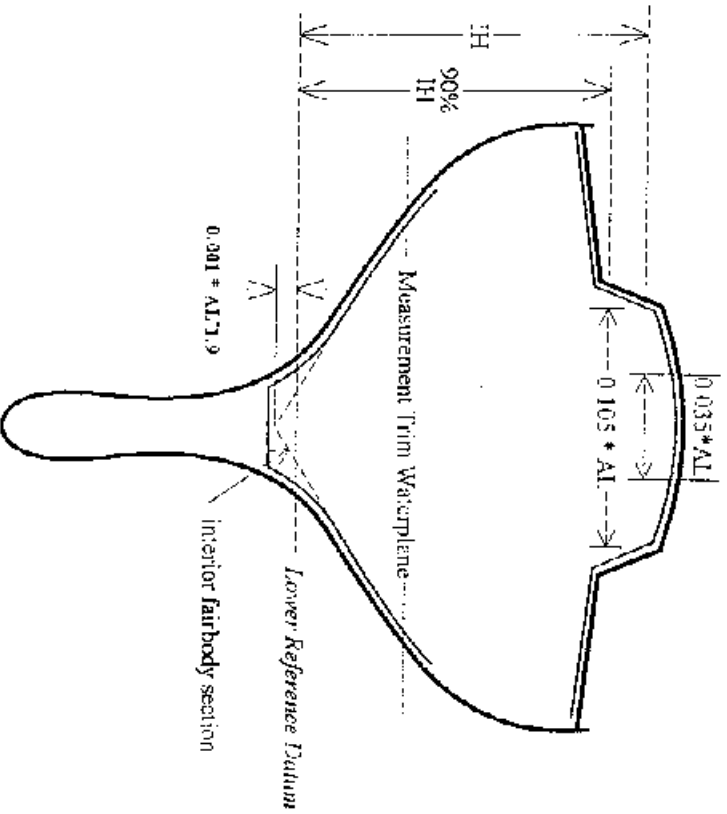
At a height H above the level established in 405.1 a rectangle of length $0.2 * AL$ and width $0.035 * AL$ shall exist under the over-head. Deck beams and deck stringers may be ignored.

4. Overhead Area at 90% Interior Height:

At a height $0.9 * H$ above the level established in 405.1 a rectangle of length $0.3 * AL$ and width $0.105 * AL$ shall exist under the over-head. Deck beams and deck stringers may be ignored.

5. Scoring Interior Volume:

Provided the yacht complies with the Interior Volume requirements, in the Accommodation Scoring scheme (419 & 420) the Standard Value for Headroom from the Table of Accommodations shall be entered as the yacht's Actual value for Headroom.



406. Cabin Sole. Cabin soles shall extend fore and aft over a length which provides convenient access to lockers, berths, galley, head, navigation area and other components making up the yacht's interior. Cabin soles may be discontinuous in height and interrupted in way of ring frames or other structural members.

1. The sole shall extend transversely to the inner skin of the hull or vertical faces of berth fronts, lockers or partitions.
2. The cabin sole shall be a structure independent of the inner skin of the hull. It may be of any permitted material provided it exhibits similar strength and stiffness characteristics to that of solid wood cabin soles when installed in accordance with good yacht practice.

407. Bulkhead, Partition & Panel Construction. For bulkheads and structural partitions or panels, rigid construction means weight comparable with conventional solid plywood construction according to the following table:

AL:	<8.5m	8.5-11.0m	11.1-15.0m	>15.0m
Panelweight (incl.bondings):	5.5kg/m ²	7.25kg/m ²	8.5kg/m ²	10kg/m ²
Plywood thickness:	7mm	10mm	12mm	14mm

(comparative information only)

- Specifications may be reduced by 30% for partitions which do not support the hull and/or deck structure (e.g., settee bottoms) and by 50% for vertical cabinetry panels and the like (e.g., galley cabinetry, doors) which do not support the hull structure.

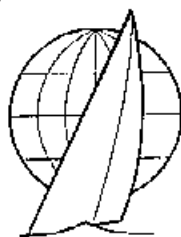
Yachts of carbon fibre construction as permitted under 203.1 (b) are exempted from these requirements.

408. Accommodation Areas. The interior of the yacht shall include the following areas (compartments as required): living area, sleeping area(s), galley area, and as required by yacht size, head compartment and navigation area.

Living areas and sleeping areas shall be separated by means of rigid bulkheads or partitions according to the minimums in the following table. Walk-through openings in these required bulkheads or partitions shall not be wider than 0.70m. For yachts above 14m AL, these openings shall have doors of rigid construction.

AL:	<8.5m	8.5-14.0m	14.1-18.0m	>18.0m
Living area	1	1	1	1
Sleeping area(s)	1	1	2	3
No. of bulkheads	0	1	2	3

OFFSHORE RACING COUNCIL.



IMS ACCOMMODATIONS CERTIFICATE -- RACING DIVISION

1998 IMS Regulations

As locally permitted, may be self-scored by owner.

Retain original for your records; provide copies to Race Organizers on request. To have a Racing Division notation entered on your IMS Certificate, send a copy to your Rating Office.

YACHT: _____ Owner: _____
SAIL #: _____ IMS Cert. #: _____ Address: _____
MODEL: _____
Age or Series Date (launched): _____
LOA: _____ Maximum Beam: _____ Phones: _____
Check one: () original inspection () revision

After reading the 1998 IMS Regulations Part 3 Racing Division Accommodations Regulations; particularly paragraph 303, Fundamental Requirements and Definitions, complete the Accommodation Compliance Worksheet and the Examiner and Owner's Acknowledgment boxes on this form.

When completing sections of the worksheet regarding Headroom and Interior Volume, note that older yachts, defined as Age or Series Date (whichever is earlier) prior to 1/94 may comply with either the Headroom requirements or the Interior Volume requirements, while newer yachts (Age or Series Date 1/94 or later) must comply with Interior Volume requirements. Both requirements are given in Section 305 of the IMS Regulations.

Yachts which fail the requirements of Part 3 of the IMS Regulations may be "grandfathered" into compliance with Racing Division requirements, provided they meet both of the following criteria: 1) earlier of Age or Series Date prior to 1/94, and 2) compliance with the Rules for the World Championships of the Level Rating Classes (ORC "Green Book"), Part 13, Yacht Characteristics, as appropriate for the yacht's IOR rating. Owners of these yachts shall complete the appropriate compliance section on the reverse.

Instructions

1. Calculate the Accommodation Length (AL). AL is the lesser of LOA or $3.25 \times$ Maximum Beam. The value of AL is to be truncated to the tenth part of a metre. Enter AL here: _____
2. Enter the Table of Accommodations on the line beginning with the smallest value of AL which equals that calculated in Step 1. For each element in the Table, there are columns of values labeled MIN, STD and MAX. On the worksheet, enter the value of MIN for each element in the indicated space.
3. Aboard the yacht, determine the ACTUAL value of each element and record it on the worksheet.
4. After filling in the ACTUAL value found for each element, check to see that it is not less than MIN; if any ACTUAL values are less than Table MIN values, the yacht will not qualify under the Regulations. Note that for yachts of Age or Series Date (whichever is earlier) of 1/94 or later, Interior Volume requirements supersede Headroom requirements.
5. If the yacht fails to meet the requirements of Part 3 of the IMS Regulations and it meets the requirements of the ORC for "grandfathering" into the Racing Division as listed above, complete the appropriate section on the reverse.
6. Fill out the Examiner and Owner's Acknowledgment boxes.

Note: While the IMS Certificate may be annotated Racing Division for the convenience of owners and Race Organisers on the basis of the Accommodation Certificate submitted to your National Authority, the notation is not prima facie evidence that the yacht complies — a yacht is always subject to inspection and/or protest.

**RACING DIVISION
ACCOMMODATION COMPLIANCE
WORKSHEET**

(Fill out this section for all yachts)

ACCOMMODATION ELEMENT	MIN VALUE	ACTUAL VALUE
Berths (307)	_____	_____
Fresh Water Capacity (313)	_____	_____
Fuel Capacity (314) *	_____	_____
Food Stowage (309.4)	_____	_____
Personal Gear Stowage (308)	_____	_____
Headroom (305)†	_____	_____

Note *: Table Values are for Diesel; use 1.25 x Table Value for Gasoline in 314.
 †: This line only for yachts with Age or Series Date prior to 1/94.

Examiner: After reviewing appropriate sections of the Regulations, check line if yacht complies:

Headroom (305)* _____	Galley Stoves (309.1) _____	Toilet (310.1) _____
Interior Volume (305)† _____	Galley Sinks (309.2) _____	Wash Basin (310.2) _____
Cabin Sole (306) _____	Galley Gear Stowage (309.3) _____	Navigation Table (311) _____
Berths (307) _____	Food Stowage (309.4) _____	Hanging Locker (312) _____
Personal Gear Stowage (308) _____	Head Compartment (310) _____	Fresh Water Capacity (313) _____
		Fuel Capacity (314) _____

* Note: Only for yachts with earlier of Age or Series Date prior to 1/94.

† Note: For yachts with earlier of Age or Series Date 1/94 or later. Optional for yachts with earlier Age or Series Date.

Yachts which comply with the ORC Rules for the World Championships of the Level Rating Classes:
 (If yacht complies with standard requirements above, do not complete this section.)

If the yacht complies with the "grandfathering" recommendations of the ORC (see IMS Regulations, Section 103.2) and it does not meet the requirements of IMS Regulations Part 3 summarized in the worksheet above, fill out the following:

My yacht complies in all respects with Part 13 of the ORC Rules for the World Championships of the Level Rating Classes. _____ (owner's initials)

My yacht's IOR rating is: _____

Note: The "Part 13" requirements are given in Appendix II of the IMS Regulations.

EXAMINER

I certify that this yacht complies with the IMS Regulations Part 3 requirements for Racing Division.

Name: _____

Title: _____

Signature: _____

Date: ___/___/___

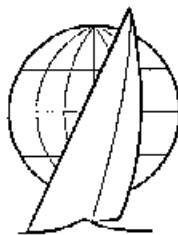
OWNER'S ACKNOWLEDGMENT

I understand my responsibilities under the IMS Rule and Regulations and affirm that the accommodation scoring entries above correctly describe my yacht.

Owner's signature: _____

Date: ___/___/___

OFFSHORE RACING COUNCIL



IMS ACCOMMODATIONS CERTIFICATE -- CRUISER/RACER DIVISION

1998 IMS Regulations

As locally permitted, may be self-scored by owner.

Retain original for your records; provide copies to Race Organizers on request. To have a Cruiser/Racer notation entered on your IMS Certificate send a copy to your Rating Office.

YACHT: _____ Owner: _____
 SAIL #: _____ IMS Cert. #: _____ Address: _____
 MODEL: _____
 Age or Series Date (launched): _____
 LOA: _____ Maximum Beam: _____ Phones: _____
 Check one: original inspection revision

After reading the 1998 IMS Regulations Part 4 Cruiser/Racer Division Accommodations Regulations; particularly paragraph 403, Fundamental Requirements and Definitions, complete either Part A or B, as appropriate for your yacht, and the Examiner's and Owner's Acknowledgment boxes at the end of this form.

As a candidate for the Cruiser/Racer Division, your yacht will fall into one of two categories according to "age", defined as the earlier of Age Date or Series Date. Either the yacht will be of an age prior to 7/89 and subject to the less stringent Regulations of former years or it will be of an age 7/89 or newer, subject to all the requirements. Both sets of requirements are given in Part 4 of the IMS Regulations.

This Accommodation Certificate form includes sections for both groups of yachts. Fill out only the one (Part A or Part B) that applies to your yacht and complete the Examiner's and Owner's Acknowledgment boxes as well.

For yachts with Age or Series Date (whichever is earlier) prior to 7/89, complete Part A -- Older Yachts.

For yachts with Age or Series Date (whichever is earlier) 7/89 or later, complete Part B -- Newer Yachts.

General Instructions for Parts A and B.

1. Calculate the Accommodation Length (AL). AL is the lesser of LOA or 3.25 x Maximum Beam. The value of AL is to be truncated to the tenth part of a metre. Enter AL here: _____
 2. Enter the Table of Accommodations on the line beginning with the value of AL, which equals that calculated in Step 1. For each element in the Table, there are three columns of values labeled MIN, STD and MAX. On the worksheet below, enter the value of MIN, STD and MAX for each element in the indicated space.
 3. Aboard the yacht, determine the ACTUAL value of each element and record it on the appropriate worksheet.
 4. Perform the calculation of Accommodation Rating below after filling in the ACTUAL value found for each element; remember that ACTUAL may not be taken as greater than MAX and that if ACTUAL is less than MIN for any element the yacht will not qualify under the Regulations.
- Note:** While the IMS Certificate may be annotated Cruiser/Racer for the convenience of owners and Race Organizers on the basis of the Accommodation Certificate submitted to your National Authority, the notation is not prima facie evidence that the yacht complies — a yacht is always subject to inspection and/or protest.

Part A -- Older Yachts (Age or Series Date prior to 7/89):

ACCOMMODATION RATING CALCULATION

ACCOMMODATION ELEMENT	MIN VALUE	MAX VALUE	ACTUAL VALUE	STD VALUE	WEIGHTING FACTOR	SCORE
Berths (410.1)	_____	_____	(_____ / _____)	_____	x 30 =	_____
Fresh Water Capacity (417)	_____	_____	(_____ / _____)	_____	x 12 =	_____
Fuel Capacity (418) *	_____	_____	(_____ / _____)	_____	x 8 =	_____
Food Stowage (411.4)	_____	_____	(_____ / _____)	_____	x 15 =	_____
Personal Gear Stowage (410.2)	_____	_____	(_____ / _____)	_____	x 10 =	_____
Table Area (409.1)	_____	_____	(_____ / _____)	_____	x 5 =	_____
Headroom (405)	_____	_____	(_____ / _____)	_____	x 20 =	_____

*Note: Table Values are for Diesel; use 1.25 x Table Value for Gasoline in 418.

For AL less than 8.5m, add 22.0:
ACCOMMODATION RATING =

Examiner: After reviewing appropriate sections of the Regulations, check line if yacht complies.

Headroom (405)	_____	Galley Sinks (411.2)	_____	Wash Basin (412.2)	_____
Cabin Sole (406)	_____	Galley Gear Stowage (411.3)	_____	Navigation Area (413)	_____
Table (409.1)	_____	Food Stowage (411.4)	_____	Hanging Locker (414)	_____
Berths (410.1)	_____	Refrigerated Stowage (411.5)	_____	Fresh Water Capacity (417)	_____
Personal Gear Stowage (410.2)	_____	Head Compartment (412)	_____	Fuel Capacity (418)	_____
Galley Stoves (411.1)	_____	Toilet (412.1)	_____		_____

Part B -- Newer Yachts (Age or Series Date 7/89 and later):

Yachts with Age or Series Date (whichever is earlier) of 1/1/94 or later are required to comply with two additional requirements which are described at the bottom of this section. These requirements should be reviewed by owners and examiners before completing items marked †.

ACCOMMODATION RATING CALCULATION

ACCOMMODATION ELEMENT	MIN VALUE	MAX VALUE	ACTUAL VALUE	STD VALUE	WEIGHTING FACTOR	SCORE
Berths (410.1)	_____	_____	(_____ / _____)	_____	x 30 =	_____
Fresh Water Capacity (417)	_____	_____	(_____ / _____)	_____	x 12 =	_____
Fuel Capacity (418) *	_____	_____	(_____ / _____)	_____	x 8 =	_____
Food Stowage (411.4)	_____	_____	(_____ / _____)	_____	x 15 =	_____
Personal Gear Stowage (410.2) †	_____	_____	(_____ / _____)	_____	x 10 =	_____
Table Area (409.1)	_____	_____	(_____ / _____)	_____	x 5 =	_____
Headroom & Int. Volume (405) †	_____	_____	(_____ / _____)	_____	x 20 =	_____

*Note: For Gasoline, use 1.25 x Table Value for Diesel in 418.
†See notes below regarding 405 & 410.2.

For AL less than 8.5m, add 22.0:
ACCOMMODATION RATING =

Examiner: After reviewing appropriate sections of the Regulations, check line if yacht complies.

Headroom & Int. Volume (405) †	_____	Berths (410.1)	_____	Toilet (412.1)	_____
Cabin Sole (406)	_____	Personal Gear Stowage (410.2) †	_____	Wash Basin (412.2)	_____
Bulkhead, Partition & Panel Construction (407)	_____	Galley Area (411)	_____	Navigation Area (413)	_____
Accommodation Areas (408)	_____	Stoves (411.1)	_____	Hanging Locker (414)	_____
Living Area (409)	_____	Sinks (411.2)	_____	Main Hatch & Companionway (415)	_____
Table (409.1)	_____	Galley Gear Stowage (411.3)	_____	Cockpit (416)	_____
Settees (409.2)	_____	Food Stowage (411.4)	_____	Fresh Water Capacity (417)	_____
Sleeping Area (410)	_____	Refrigerated Stowage (411.5)	_____	Fuel Capacity (418)	_____
		Head Compartment (412)	_____		

†Requirements for yachts of Age Date or Series Date (whichever is earlier) of 1/1/94 or later: Headroom & Interior Volume: Interior Volume requirements apply rather than Headroom. Provided the yacht complies with the Interior Volume requirements, use for the Accommodation Rating calculation (above) the Standard value for Headroom from the Table of Accommodations. Personal Gear Stowage (410.2) - The total volume of personal gear stowage shall not be less than the Maximum value given in the Table of Accommodation.

EXAMINER

I certify that this yacht complies with the IMS Regulations Part 4 requirements for Cruiser/Racer Division.

Name: _____

Title: _____

Signature: _____

Date: ___/___/___

OWNER'S ACKNOWLEDGMENT

I understand my responsibilities under the IMS Rule and Regulations and affirm that the accommodation scoring entries above correctly describe my yacht.

Owner's signature: _____

Date: ___/___/___