



## General Rules and Safety Regulations for "Marathon" Powerboat Racing 2009

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1.	Authority and Jurisdiction:
1.1	The Rules and Regulations for this Event have been drawn from a combination of RYA National Offshore Rules and UIM Pleasure & Navigation International Rules. The Event will be run under the Rules and Regulations of this Programme and any subsequent Race Instructions and Bulletins as may be issued in writing by the Organisers within the permitted jurisdiction of the Organisers.
1.2	The Event is under the sole jurisdiction of the Organising and Race Committee whose decisions on the interpretation of these Rules & Regulations and acceptance of entries and classification of entries are final. The Race Committee and Organisers reserve the right to refuse any entry which it considers not suitable for the race, is in violation of any rule or is likely to bring the sport into disrepute. The Race Committee and Organisers are under no obligation whatsoever to explain their reasons for such an action at any time. The Race Committee respectfully suggest that should any competitor be in doubt regarding the eligibility of their entry, they should contact the Organisers well in advance of the starting date for guidance. Enquiries and Responses should be in writing.
1.3	All crew taking part in this event must have the appropriate racing licence. Further details on the licensing requirements have been issued as a separate document. Minimum number of crew on board is 2 persons; maximum number of crew on board is 6 persons. Minimum age is 18 years at the start of the event.
1.4	Any infringement of the Rules and Regulations, the Race Instructions and Race Bulletins including those issued at Drivers' Briefings, may lead to disqualification.
1.5	The Rules & Regulations detailed below are current at time of publication, but the Race Committee reserve the right to make further changes for safety and other reasons at their discretion. No changes will be made to the Rules & Regulations after 90 days prior to the start of the event except for safety reasons.
1.6	In these Rules, the words "shall" or "must" means mandatory; the word "should" means recommended.



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2.	Competition Rules:
2.1	The Race Committee reserve the right to terminate the race at any time and this is totally at their discretion.
2.2	Competing craft will be asked to display the race decals on either side and on the deck of the craft. The decals will be provided by the Organisers/Sponsors.
2.3	Outside Assistance: including fuelling at a port or marina en route is allowed. Ship-to-ship or air-to-ship re-fuelling at sea is not permitted. Any competing craft may be towed and if a tow is accepted, then that competitor will be treated as a retirement from the race.
2.4	Disqualification The Race Committee reserve the right to disqualify a driver from the entire race for such faults as dangerous driving, or any other conduct which is considered prejudicial to the best interest of the race, its sponsors, the other competitors or the organisers.
2.5	Identification: All competing craft must carry race numbers as laid down in the UIM Rules; this includes deck numbers. Numbers shall be painted in waterproof black paint on a yellow or white background or be made of black coloured self-adhesive materials of adequate strength. No number may begin with a zero. All numbers shall be plain and upright. The numbers shall be painted as to be clearly visible from both sides and above. Numbers must be placed on both sides of the hull within the front third of the boat and on the foredeck within the front third of the boat. Numbers displayed on the foredeck must read correctly from the transom and shall be underlined by a black bar. Minimum dimensions for individual numbers must be: Height = 30 cm; width = 23 cm; thickness = 5 cm; spacing = 13 cm. The background shall extend at least 23 cm in front of and beyond the end number and at least 7.5 cm above and below the numbers. British boats will be expected wherever possible to make a race number change where an overseas competitor has the same number.
2.6	Advertising: No part of any advertising, sign writing, flags, badges, emblems or marks of any kind shall be within 24 inches of the race number. No material may be displayed which advertises any product which is in conflict with the race sponsor's products unless prior permission in writing is obtained. Display material considered to be offensive in the opinion of the organisers will be required to be removed. Failure to comply could result in disqualification.
2.7	Race Fuel: Only standard fuel as available from retail pump outlets will be allowed. No performance enhancing additives are permitted.



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3.	Race Boats:
3.1	The minimum hull length for all competing craft is 22ft / 6.70 meters and the maximum for all is 50ft / 15.20 metres using RYA/UIM standard measurement procedure. See Class classifications. A diagram is available from the Organisers for clarification. Grandfather clause: Any boat that took part in the RB08 or C/T/C08 will be allowed under this 3-year clause until the end of 2011.
3.2	All competing craft must be capable of exceeding 40 knots, except for Historic Class boats. Historic Class boats must have a speed capability of 30 knots up to a maximum of 50 knots.
3.3	In the Spirit of Offshore Endurance Racing, all competing craft must be Monohull. Canopies and partial Canopies are permitted.
3.4	Canopied boats: Must have a current Measurement Certificate and comply with full UIM 508 rules for canopies.
3.5	Partial canopy boats: there must be an open top frame with a minimum open space sufficiently large (minimum 55cm X 82.5cm) for each person in the boat to exit immediately. Alternatively, there must be an open space in the rear of the craft sufficiently large (minimum 1.3m X 1.3m) for all crew to exit the boat immediately. Partially canopied boats may have restraint systems fitted which, if fitted, must comply with the following Offshore Rules: 508.01 (Crew Immersion Test) , 508.17 (Air Supply), 508.19 (stop buttons for engine cut-off), 508.21 (Rear of Head Protection) and 508.22 (Specification of 5 or 6 strap Harness).
3.6	No seat belts or restraints whatsoever are permitted in open-top boats.
3.7	ALL Craft with a top speed in excess of 50 knots which do not have a forward cabin structure must have a Reinforced Water Deflector over and under the deck, designed and constructed of materials with sufficient strength to provide adequate crew protection. The forward fairing on deck must rise to a minimum height of the chin of the tallest crew member when in the normal driving position. The top 5cm of the water deflector must be at least 45 degrees from the horizontal with a minimum of 30cm width per person measured transversely in the horizontal plane. The Reinforced Water Deflector must be designed and constructed so as to present no hazard if the crew is thrown forward and must be so designed that it would not restrict the crew from being ejected in all cases. Open RIBs must have a solid fitted console to deflect water. In addition, all vessels must have a means of preventing the riding crew from sliding forward under the foredeck when in their normal racing position. A bulkhead or suitable kick-board in front of each of the riding crew must be fitted and be of sufficient strength to prevent the riding crew from forward movement in the event of rapid deceleration. The bulkhead/kick-board must be secured so that there is no more than 1 inch space between the crews' floor and the bulkhead.



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3.8	All competing craft must be capable of going astern.
3.9	Bow ballast tanks are permitted.
3.10	Where possible, teams should ensure that their boat has fixed lifting points, and their own certified strops, which must be carried in the boat. For ALL boats, the lifting positions of the craft for emergency lift by crane slings must be clearly marked on either side of the boat.
3.11	Buoyancy: It is recommended that enough buoyancy is provided in the race boat or in the material used for its construction to ensure that the boat floats if capsized or holed.
3.12	Bilge Pumps: Suitable & automatic bilge pumps shall be fitted to the boat capable of pumping out all sections of the boat even where water-tight bulkheads are fitted. They shall be accessible and be fitted with a suction pipe leading to the lowest point of the bilge and with a discharge pipe overboard. There shall also be at least one manual bilge pump in the boat.
3.13	All RIBS shall carry a hand or foot pump capable of being operated below the gunwale.
3.14	Deck Fittings: All boats must have guard rails or handholds as rails or handles raised above the deck of a suitable material or wire in stanchions. A single rail would suffice. A rope secured to the bow and made fast in the cockpit will not be accepted.
3.15	Towing: All vessels must be fitted with a proper facility (Sampson post or cleat) of adequate construction and strength for the boat to be towed when waterlogged for extended periods. Tow lines suitable in length and strength for the boat in all weathers must be carried by all craft and must be permanently attached to the strong point during races. In addition each boat should carry sufficient fenders & warps as to be able to dock or raft independently in port or to be able to raft suitably to another vessel if assistance was either required or being offered.
3.16	Anchor/s with adequate anchor lines must be carried at all times and shall be of a weight and type adequate to hold the boat and shall be properly stowed in an accessible place.
3.17	All boats must be equipped with a liquid filled magnetic compass. Compass deviation cards for magnetic compasses must relate to adjustment within the 6 months prior to the date of the event. Electronic compasses may be used in addition.
3.18	Navigation lights in working order shall be carried in accordance with International Rules for the Prevention of Collisions at Sea.
3.19	All boats shall carry an efficient fog horn and a powerful waterproof torch.



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3.20	Engine cut-off devices for connection to the crew are mandatory (first man out shuts off engine). An emergency over-ride system to restart the engine/s shall be mandatory. The lanyards used must not exceed 120cm between driver and the boat. The emergency cut-off devices must be positioned so that when they operate the lanyard and cap (or clip) will not catch or foul. The lanyards shall be attached to all crew members at all times when the boat is racing. For boats using restraints, see 3.5 above for stop buttons.
3.21	Fuel tanks must be purpose made and permanently fixed. They must be secure, non-leaking, vented, grounded and have an easily accessible means of shutting the fuel supply off from the tank/s. For safety, it is strongly recommended that fuel tanks in engine compartments are suitably encased to prevent any flying objects in the engine compartments from penetrating the bare skin of the fuel tank. When additional electric pumps are fitted to the fuel supply of outboard motors, a fuel cut-off switch for the pump shall be fitted in easy reach of all crew members. The positioning of the fuel cut-off switch must be clearly marked for safety reasons. Fuel transfer at sea is only permitted between your own fixed onboard tanks. Race fuel may not be stored or carried on board in any jerry-can type of container.
3.22	Batteries shall be housed in ventilated compartments, mounted upon a secure and solid platform and be fitted with an isolator switch. The battery isolator switch position must be clearly marked for safety reasons.
3.23	Electrical Harness: Properly protected terminal boards shall be used with flexible (not solid core) cabling supported well up to the terminals and at suitable intervals throughout the length of any run. Where relative movement or vibration occurs across any gap, cables shall be sheathed in plastic or metal tube anchored at both ends. Reinforced cable suitable for marine duty shall be used. Electrical equipment in engine compartments shall be kept to a minimum and sited away from heat or fuel.
3.24	Fire Prevention: All boats with inboard engines shall carry a fixed automatic fire extinguishing system. This system shall be properly installed, engineered and maintained. Sensors and injectors shall be in danger regions of the engine compartment/s. ALL boats including inboards shall carry a minimum of 2 fully charged dry powder 2kg fire extinguishers.
3.25	Retirement Flag: All boats shall carry an orange rectangular flag of minimum size 60cm X 40cm as a means of announcing retirement from a leg of the race, and the means of maintaining it aloft in a well visible position.
3.26	All boats shall display their national flag in either fabric or graphic form so as to be visible from both sides of the craft.



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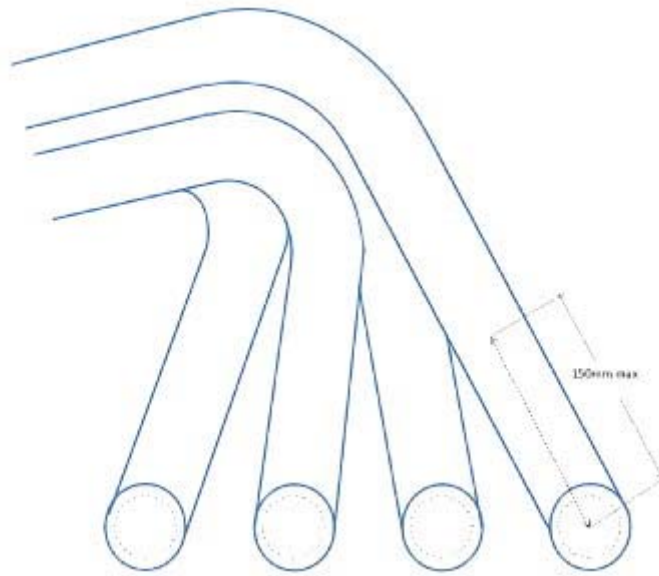
4.	Engines:
4.1	Engine limits are as described in the Class Classifications.
4.2	<p>ENGINE DESCRIPTIONS for all classes except A, B &amp; C Note: The term 'OEM' = Original Engine Manufacturer a) Engines eligible for Marathon classes other than the classes A, B and C (all these are 'free') must be based on currently, or previously advertised/available mainstream production units (ie, Mercruiser, Volvo, OMC, Yanmar, Cummins, FPT etc) available to the general public through normal distribution channels with a minimum production run of 500 units. Engines should be from the pleasure line, not the race line of engines from any manufacturer, If the engine is listed with separate runner exhaust, as described in section (g), the motor is not acceptable. As an example, the Merc 525hp motor used in P1, has CMI headers with runner lengths greater than 6" long, so these motors would not be permissible. The old Merc 500 carb, had GILL/Merc alloy manifolds with common plenum, they would be acceptable, as would STD Merc 496HO's, or 502efi's. b) The original bore &amp; stroke must be retained, however, an allowance will be made for OEM piston oversize, i.e., +0.030. c) Inlet system (intake manifold, intercooler, throttle body etc) MUST remain OEM; throttle bodies must retain OEM internal dimensions at butterfly. Turbochargers must be OEM as specified as STD for motor to which it's fitted. d) Internal engine modifications are allowed, such as camshaft choice, cylinder head gas flowing etc, however, rules for OEM induction systems, intercoolers, turbochargers, etc will be strictly enforced. e) Engine components may be compared to standard OEM components to establish eligibility. f) Transom or side exhausts are permitted, providing that the total volume of water passing through the engine cooling system mixes with the exhaust gases from the manifold. g) Choice of exhaust manifold is free, so long as they are not of the separate runner type, i.e., Stellings, CMI, PF Marine, KE Lightning, etc. Exhaust ports must exit to a common plenum within the manifold, with each branch not exceeding 150mm in length. It is in the competitors' interest to contact the RYA prior to purchasing exhaust systems to ensure eligibility if there is any doubt. No dispensation will be given for exhaust manifolds that do not meet the rules. (See diagrams below)</p>



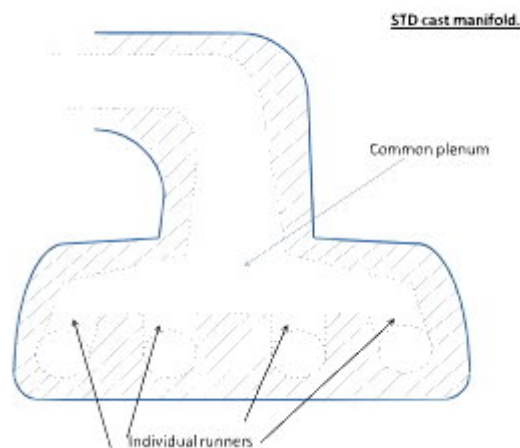
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Tubular "header" system with long, tuned length runners. Long runners are essential for high power in a normally aspirated engine. The aim is to exclude exhausts, whether cast or fabricated, from having individual exhausts Tracts (Runners) that exceed 150 mm in length.



h) Drive systems are free.

i) Height adjustable hydraulic engine jacks are NOT Permitted.



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4.3	Single Engine craft and single shaft driven boats may compete. All such boats must carry an auxiliary engine for use in emergency breakdowns capable of propelling the craft at 5 mph for a minimum of 35 miles. This engine can be stowed in the boat but must be shown to be sufficiently retained so that it will not work loose or cause damage.
4.4	Boats with more than one outboard engine or outdrive must have a properly engineered tie-bar system
4.5	Outboards: Engine mountings shall be attached to the transom with at least 4 bolts, which shall be either pinned or lock-nutted. Inboards: Engine mountings shall be sound and the mounting bolts securing to the hull shall be pinned or lock-nutted. Engines shall be enclosed in their own compartment/s with the exception of normal ventilation. Each and every engine need not be contained in its own compartment. The compartments shall have rigid covers.



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5.	Safety Equipment for the Boat:
5.1	Emergencies: It must be understood that in Marathon (Endurance) Racing every team/crew must be prepared for any/all eventualities with regard to their own safety. If any team experiences difficulties or an emergency during the race, then they must be aware and prepared to be effectively on their own until rescue teams (from whatever source) can arrive. Every team must therefore have emergency plans in place for immediate action until the appropriate rescue teams arrive.
5.2	It is mandatory that every boat carries one certified (within the last twelve months) Inflatable Life Raft capable of carrying the complete crew, together with adequate fresh water and a first-aid kit. The life raft shall be stowed in an easily accessible position so that in the event of emergency the life raft can be quickly released, particularly in the event of fire. The life raft is recommended to comply with ISAF Offshore Special Regulations (OSR) Appendix A Part 2 or ISO 9650 Type 1 Part 1, Group A standard, and should be fitted with a boarding ramp.
5.3	Flares: All boats will carry a R.O.R.C. standard flare pack comprising: 4 red parachute rockets, 4 red hand held, 2 orange smoke hand held, and 4 white collision hand held flares in a waterproof canister. If any flares are deployed must be replaced before the start of the next race.
5.4	VHF Radio: All boats will carry a shipboard installation of a fully synthesized VHF transceiver with GMDSS capability carrying all 55 International Channels, including Channel 37 (M), 157.850 MHz Simplex, with an aerial output of not less than 25 watts. In addition, a multi-channel waterproof hand held VHF radio, which should be carried by one crew member at all times when racing. Each vessel must have a Ship's Licence for their radio equipment and at least one crew must have an Operator's Licence, both Licences to be checked at Race Control and be available for scrutineering.
5.5	A portable emergency position indicating radio beacon (E.P.I.R.B.) operating on 406 MHz shall be carried and stowed in an easily accessible position.
5.6	First Aid Kit: All boats shall carry an adequate medical kit and emergency thermal protective aids (foil blankets).
5.7	All boats must carry a RADAR reflector suitable for the boat or a Search & Rescue Transponder – SART.
5.8	Tracker System: If made available through the organisers, all boats shall have tracker systems fitted which must be operative throughout the event.



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6.	Safety Equipment for each Crew:
6.1	Crash helmets are to be worn by all persons on board at any time when the boat is on the plane during the journey to and from the race and during racing and practising or testing. Crash helmets may be removed when undertaking repairs providing the boat is off the plane. Crash helmets must be orange in colour and have temple protection. Helmets must have the boat's race number on the top, painted in black and minimum height of 7.5cm. Helmets must be devoid of dents or splits and any modifications must not infringe on the standard. Bolts used for fittings and attachment of a visor must be small and must not protrude into the inner surface of the helmet. Visors must be devoid of cracks and easily detachable (i.e. not bolted down). Chin straps must be in good condition and operative. All crash helmets must comply with the following RYA specifications: It is mandatory to wear a helmet made to a minimum standard to include UN ECE22-05 or Snell M2000 or M2005 or Snell SA2000 or SA2005. It is also recommended that helmets are replaced when they reach five years old from date of manufacture. When a helmet is produced for scrutineering the wearer <i>must</i> prove compliance with the above standards; this may be by means of product literature. Once the Scrutineer is satisfied, the helmet will be marked with a "RYA helmet approved" date sticker.
6.2	Racing Vests: All crew must wear a racing vest suitable for their class. For crew using restraints, the racing vest must comply with rule 508.26 and must be a manual inflation type (pull to inflate.) For all other classes, the Racing Vest must comply with offshore RYA PB1 Rule E29. Specification: All vests must have inherent buoyancy of at least 16kg/33lbs (150 Newton) and must be fitted with collars. (The Grabner & Hutch Wilco Motorboat Offshore Racing vests which comply with UIM Rule 205.06. are acceptable.) Lacing ties and/or straps must be adequate & in good condition. All straps must be at least 40mm wide & have a minimum breaking strain of 500kg. There must be lifting straps at the front or on the shoulders. Zips are not permitted as the sole means of fastening a racing vest. Where zips are used as an ancillary means of closure, they must be in working order. Tears/rents or bad repairs through which buoyancy material may leak out are not permitted. Vests shall be at least 70% orange or yellow or have orange or yellow panels. Vests must have a lifting eye or strap attached to the main harness. Vests must not be able to ride up over the wearer's head & be secure to wearer's body. The disposition of the solid buoyancy must be such as to ensure that an unconscious person shall float face up in the water. The vest must have impact protection material covering the back.
6.3	The efficiency of the crash helmet and racing vest is the sole responsibility of the wearer.
6.4	Protective Clothing: All crew members whilst racing must wear suitable protective clothing that covers the torso and all limbs to the wrists and ankles. Protective clothing used must be durable enough to provide bodily protection and is recommended to be fire retardant.
6.5	All crew must carry on their person whilst racing a whistle, medical compress and a knife.