900 - UIM RULES FOR RIVER MARATHON RACING

900.1 - GENERAL

- River Marathon Race is a one day for classes: P and PR or a multiple day motor boat Race covering a predetermined distance per day with an overnight stop(s) at a designated area for refuelling, repairs and rest if needed. The winner will be the boat which takes the least elapsed time in covering the total preestablished distance. The minimum length of a Marathon Race must be of 600 km.
- 2. International racing is open to the classes mentioned in Rule 900.15. Titles shall be given to these classes only. Other local classes can be invited by the National Authorities and or the organizers of River Marathon Races, if so, the classes and the capacity of the engines must be indicated in the Advance Program.
- 3. An entry fee may be set for all classes including those which may have been given a UIM international Title and must be indicated in the Advance Program.
- 4. An Advance Programme must be sent by the organisers of an international River Marathon Race to other National Authorities and to the UIM Office at least 90 days before the race.
- 5. In order to contend for the UIM awards and or trophies, and prize money, the winner of each racing class must have had to complete at least 75% of the raced legs and must have had to run at least 75% of the total distance of the raced legs. For the overall awards and prize money they must have 100% of the distance and raced legs. There will be an Overall Winner (first, second and third places), they will be the boats which start and finish all of the legs, under their own power, and they do it in the least amount of time, regardless of their class (the boat and/or the driver must not be changed).

900.2 - APPLICABLE RULES

- River Marathon Racing is governed by these rules and by UIM Circuit rule Groups 100, 200, 300 and 400.
- 2. In cases where these rules and the rules contained in the Circuit rule Groups are in conflict, these River Marathon rules will prevail.
- 3. Organisers of international races may prescribe deviations from the UIM Group 100, 200, 300 and 400 rules only when they are called for by national legislation or by safety or environmental requirements, or when the organisers deem those rules unsuitable for River Marathon Racing in general. Such deviations can, however, be applied only if they have been published in the Advance Programme.

900.3 - RACE OFFICIALS

Any Race Official may bring forth any infraction of these rules to the Officer of the Day, the Race Officials are:

- (a) Officer of the Day (Race)
- (b) Deputy Officer of the Day (Race)
- (c) Medical Officer
- (d) Technical Officer(s)
- (e) Scorer and time keeper
- (f) Start and Finish Line Officials
- (g) Ramp Officials

900.4 - RACE COURSE

- 1. Race Course: are those rivers and/or waters, and/or segments thereof, between the first starting line and the last finish line as designated by the Race Committee.
- A River Race can only be done on a rivers class I, II and III. Conditions on a river may vary from time to time during the year. In the Advance Program it must be indicated the class of the river for each of the legs of the race.
- 3. Race Leg are the segments of the race course between the starting line and finish line, as designated for any particular part of the course.
- 4. The length of the race course must be such that it can be covered in a maximum of seven days of racing, excluding possible lay days which can only be a maximum of 50% of the racing days. The minimum duration of a race is two days (for inflatable boats one day as per rule 900.1), excluding a possible lay-day.
- 5. A day's race course can consist of more than one leg and it can be done in the same or different rivers. The organizers must allow sufficient time between each leg for the racers to get to the finish line, it should be proportional to the length of the leg. The allowed time must be confirmed at the driver's meeting of each particular day and/or leg. If the race course is divided into two or more legs, the distance to be raced each day must be such that it can be covered between official sunrise and sunset of the region in question.
- 6. The race course does not need to be registered or officially measured by the UIM.
- A Race Leg is part of the distance to be covered in the River Marathon. A River Marathon is conformed by multiple Race Legs, they can be run on the same river on the same or different day(s) or on different rivers on different days.

The minimum distance of a Race Leg is 40 km (except for the Inflatable Boat Classes) and the maximum distance will be of 200 km. A particular day's Race Leg can be cut in a maximum of 4 sections, with up to 3 (three) time cuts. For these time cuts, the distance to be covered in a section cannot be less than 10 km. There cannot be a time cut of a day's Race Leg for the night.

The Race Legs should be run according to Rule 900. 3. 2. If for any reason the finish of a Race Leg is not done during the day it is programmed, then the Race Committee will have to determine if either the total Race Leg and/or the remaining part(s) of it will be cancelled.

If a Race Leg is being run with one or more time cuts, for scoring purposes it will be considered as one leg. If a boat gets a DNF or a DNS, the penalty time will be assessed as it was one Race Leg.

- 8. Refuelling: it will not be allowed during the time a Race Leg is being raced. If there is a particular Race Leg which is very long and boats need to be refueled, a time cut must be programmed. This will have to be indicated in the Advanced Program, as well as the refuelling procedure. It will have to be stated at the day's Driver's Meeting.
 - Depending where the race is being held, certain environmental rules and regulations will apply.
- 9. Crew Assistance: during the time a Race Leg is being raced, the race boats can be assisted by their crew to make any repairs on the boat and/or engine. The Crew Assistance during the race can be prohibited and will result in a DNF, this will have to be indicated in the Advance Program, in this case the only assistance to the race boats allowed is the coincidental assistance from the spectators and/or the Official / Sweep Boats.
- 10. The Race Committee can postpone a day's race for 24 hours, if the weather conditions and / or river conditions are not adequate. They will have to follow procedures indicated in Rule 309.01 and 309.02.
- 11. Cancellation of a Leg: if a Race Leg is cancelled or part of a Racing Leg is cancelled due to safety issues, only the portions which have been raced, will be accounted for, for the total distance of the Marathon. It will be up to the Race Committee to determine if the Race Leg and/or the section which was or were cancelled, are to be run in other section of the river and/or other river and the time when it would be run. This will have to be communicated to all the Drivers and a pre-run time must be allowed.

900.5 - CREW

- 1. Any race boat crew shall be comprised of no less than 2 members, one of them must be designated as the driver in the entry form.
 - The boat driver must be in possession of a current racing license issued by his/her National Authority.
- 2. All crew members full names, age and home address must be communicated to the race organisers when the boats official entry to the race is made.
- 3. Changes of the crew members during the race shall only be made with the explicit consent of the Race Committee except for the driver, who cannot be changed.
- 4. Each crew shall have one crew member designated as Captain who is responsible for the boat and all actions of its crew. All matters related to the race shall be conducted through the Captain.
- 5. The minimum age of a crew member is 18 years, for younger crew-members (16 years or older), they can race only with a written authorization from their parents and/or guardians.
- 6. The boat Drivers for the A and the UNLIMITED Racing Classes must have an Certified and/or Appostilled letter from their National Race Boat Federations, indicating that they have the racing experience, capabilities and medical condition to race in these classes. This letter will be valid for the following two years.

900.6 - EQUIPMENT

In order to race, each race boat must be equipped with the following:

- a) A minimum of two oars or paddles
- b) A minimum of two ropes, one measuring 12 mm (1/2 inches) in diameter and 10 m (33 ft) in length to be used for towing, another rope measuring at least 10 mm (3/8 inches) in diameter and 15 m (50 ft) in length, it must have at one end a flotation device and the other end must be fastened to the structure of the racing boat.
- c) A set of flags: red and yellow, measuring each one at least 400 x 600 mm (16 x 24 inches) and attached to a pole 800 mm (31 inches) long. No black flags should be carried in any of the race boats.
- d) An emergency first aid kit
- e) A repair kit with necessary tools
- f) Two readily accessible fire extinguishers (BC or equivalent rating) they must be mounted securely (on a strong mount) to avoid dislodging during an impact or an accident. Having a minimum capacity each of 1.00kg. It is recommended to use a permanent fire extinguisher system with the fire trigger button within the reach of the racing crew. All the fire extinguishers must have a standard approval label and/or certificate showing that it has been serviced within the last 12 months.
- g) Life jackets for all crew members conforming to minimum specifications as stipulated in Rule 205.06.
- h) Crash helmets conforming to rule 205.07 for all onboard crew members. Helmets should be replaced after a serious accident and if for any reason the helmet fails to pass the technical inspection.
- i) Clothing of any flammable material such as plastic or nylon, can be worn by crew members on top of the racing suit only in weather affected areas. The racing suit can be a one or two piece suit, it should be made of wool or cotton, any flame retardant material is highly recommended. Regular length pants and long sleeves are required.
- j) The use of helmet to life jacket back or side straps is highly recommended.
 - Restrained drivers must use a low profile Frontal Head Restraint (FHR) that satisfies SFI 38.1 or FIA 8858 standards, as from 1st June 2019.
- k) The crew must wear eye protection during the race, it is recommended that it is in the form of shatter proof material (plastic goggles or it could be a full face protection).
- 1) The use of closed fire masks (balaclavas) by the race crew is not recommended.
- m) It is recommended that any large items liable to move in a case of an impact, must be installed and/or fastened in a manner were they will not be projected to the crew and should be fastened in such a way that they can be taken in case of an emergency.

- n) The use of rear view mirrors are highly recommended. As of 2016 it will be compulsory.
- o) If the use of a Global Positioning System (GPS) is to be allowed during the race, only a small GPS (maximum of 5 inch screen / measured diagonally) can be used on the race boat. Mounted GPS must be in front of the Navigator (facing the navigator), if it is a handheld it must be under the control of the Navigator at all times. It must be indicated in the Advanced Program if the use of the GPS will be allowed during the race or not.
- p) A full time onboard breathing system is allowed for all Jet Boat Race Classes. If used, the rules in Rule 904. 2. 1 AIR SYSTEMS, apply.

900.7 - TECHNICAL SAFETY REGULATIONS

- 1. Fuel tanks must conform to the following when applicable:
 - a) Removable fuel tanks such as those used for outboards must have quick disconnect couplers to permit such tanks to be filled at a remote location, away from the boat
 - b) a fuel tank must be properly grounded. It must have a minimum 50 mm (2 inch) diameter spout to fit the fuel tender. The spout must be fixed to the boat.
 - c) fixed fuel tanks must be properly vented to the outside of the boat
 - d) all fuel tanks must be securely fastened.
- 2. Any water outlets exiting from the side of the boat must be directed horizontally or downward.
- 3. All propeller driven race boats must be equipped with a kill switch to stop the engine if the driver is separated from the boat.
- 4. For totally enclosed inboard engines the bilge must contain a blower or must be well ventilated.
- 5. It is recommended that all carburettors or induction inlets have flame arrestors, they should stay on the engine at all times when the engine is running.
- 6. It is recommended that all moving mechanical parts such as drive shafts, flywheels, belts, pulleys, etc., have a secure cover.
- 7. All Inboard engine boats and Outboard engine boats, must have a battery isolator switch. The switch should be accessible to the racing crew and must be marked by a red triangle 75 mm (3 inches) sides.
- 8. There should not be any sharp elements or protruding elements in the boat were the crew is seating while racing the boat, as stipulated in Rule 509.09.
- 9. It is recommended that the steering cables must be made of flexible stainless steel wire with a minimum diameter of 4.7 mm (3/16"). Production built rack and pinion push-pull steering systems are allowed. It is also recommended that the cables run from the steering wheel to the back, in a manner to avoid hitting the race crew if they are pulled to the back in an impact. If the steering cables are directly attached to the nozzle of the jet, the cables must run through the middle of the hull.
- 10. D-Shackles if used in any section of a steering system must have the original pin removed and replaced by a same size bolt. The bolt must pass through the shackle so as to enable a nylock nut to be fitted which will be further secured by a lock wire.
- 11. The use of bull dog clips or wire cramps is banned.

900.8 - INSPECTION PROCEDURES

- 1. Motors, hulls and compulsory equipment subject to these rules shall be inspected prior to racing and after any of the legs have been finished to assure compliance with these rules. The technical inspection shall be conducted by designated inspectors who must report compliance or non-compliance with these rules to the Technical Inspector, who will communicate the same to the O.O.D.
- Each race boat and support boat, must go through a technical and safety inspection before the race. All equipment shall be available for inspection during the time and at the location specified for technical inspection. If any equipment is found not to be in compliance with these rules, or if the captain or driver has failed to comply with the spirit or letter of these rules, the Race Committee may rescind the entry. Correction or substitution may be permitted if made prior to the start of the race. The start of the race shall not be delayed to allow compliance.

- 3. The engine block may be given a unique identification mark to facilitate enforcement of Rule 900.9.13.
- 4. Immediately after crossing the finish line of the last leg of the race, contestants shall report with their boats and motors to the inspector at the location designated by the Race Committee. The boats and motors shall remain in the custody of the inspector(s) until dismissed. Any contestant(s) refusing to comply with the orders of the Technical Inspector or who violates the provisions of this rule, should be communicated to the O.O.D., and may be disqualified from the race by the Race Committee.
- 5. The Chief Inspector shall have the power, after the finish of the race, to order any contestant(s) to dismantle the motor for inspection and/ or measurement at the designated area, this should be communicated to the O.O.D.
 - The Technical Inspector measures the engine capacity with a micrometer and/or gauge (if available), if the motor's capacity is on the upper limit, it will be at his/her discretion if the motor should or should not be dismantled. The cost of dismantling and assembling the motor should be paid by the contestant.
- 6. Any boat which after it has been inspected and according to its motor capacity should have raced in a bigger class, will be disqualified from the race by the Race Committee.
- 7. If during the technical inspection of the engine (tear down), the Technical Inspector determines that the motor is out of the specifications, the race boat and driver will be disqualified from the race and banned from any UIM sanctioned event for the following 12 months. The Organizing Committee and the UIM Commissioner will have to report in writing the findings to UIM, who will issue a sanctioning letter addressed to the driver's National Authority for the application of the sanction in the country as well.
- 8. After an accident all boats must be inspected and released by the Technical Official of the race. If a boat is not released it cannot continue to race.

900.9 - GENERAL RACING RULES

- Definitions:
 - a) Starting Line: it is an imaginary band, approximately one meter (three feet) in width, as drawn from the starting flag person to a point across the river or water as described by the Race Director at the daily drivers meeting
 - (1) To be ahead of the starting line implies being on the leg between the starting and finish lines so designated for that leg
 - (2) To be behind the starting line implies being out of the leg designated for that day.
 - b) Staging area: that segment of the water immediately behind the starting line and continuing away from the starting line. It should be of a distance of approximately 70 meters, if the conditions of the river do not allow to have the required length, the Race Committee can modify the staging area accordingly.
 - c) Holding area: that area behind the staging area and continuing for a reasonable distance away from the staging area.
 - d) Finish line: the imaginary band, approximately one meter (three feet) in width, drawn from the finish flag person to a point across and approximately perpendicular to the bank of the water. The finish line will be described at the drivers' meeting prior to the beginning of each leg.
 - e) Under its own power: The boat is in motion and not assisted by any other powered vehicle or craft. When starting a leg it cannot be done by the motion generated from the water current and/or the rowing action of the crew. On finishing a leg it can be done by motion generated from the water current and / or the rowing action of the crew considering that the boat has run all of the leg without any external assistance. This rule cannot be changed in the Advance Program.
 - f) Under the control of its own crew: The crew is deemed to be able to control the destiny of its own boat.
 - g) Wilfully: a boat is under its own power and under the control of its crew.
 - h) Being in tow (taking a tow): the boat is put into, or is in motion with the assistance (in any way) of, another powered vehicle or craft.
 - i) Allowed starting period: that period of time between a boat's designated starting time and the official closing of the starting line.

- j) Pit area: that area of the parking lot designated by the Race Committee for parking of racing boats, trailers and support vehicles. Each entrant will have a designated parking space for one boat and trailer in addition to an adjacent space for a support vehicle. Also, any area where boats are parked between legs of the race will be considered a pit area.
- k) Long block: the engine block, heads, valve train, crankshaft, rods, pistons, camshaft, and timing drive assembly.
- 2. A Drivers' Meeting will be held prior to each race leg of the race at the indicated time.

If the Race Leg has any time cuts, it will not be necessary to have a Driver's Meeting before each section, unless the Race Committee determines to be necessary, this will have to be indicated at the initial day's Driver's Meeting. Where the meeting area is small in its capacity, only the driver and navigator of each race boat entered in the next leg are allowed to attend the Drivers' Meeting. A roll call will be held at the beginning of the meeting, the name of each raced boat driver will be called out and a 15 minute penalty assessed for drivers being absent when their name is called. If a race boat driver is absent by Force Majeure the penalty will be reviewed by the Race Committee.

- 3. The life jacket and helmet must be worn by everyone in a race boat at all time while the boat is in motion under its own power, this implies during racing, testing or tuning. Violation of this rule will result in assessment of a 15 minute penalty.
- 4. Drinking alcoholic beverages or using intoxicating drugs by any race boat or safety boat drivers or race official prior and during the event hours is strictly prohibited. No boat (race or safety) driver shall drive a boat if alcoholic beverages or intoxicating drugs have been consumed. Violation of this rule will result in total disqualification for the drivers or suspension of official duties for the race official.
- 5. The use of offensive language by a crew member towards any other person or crew member or race officials will not be tolerated. Violation of this rule will result in assessment of a minimum ten minute penalty.
- 6. Intentionally causing damage to another boat or intentionally causing bodily harm to a crew member of another boat will not be tolerated. Anyone failing to comply with this rule will be totally disqualified.
- 7. A crew member must obey the instructions of any Race official. Failure to do so will result up to total disqualification from the race.
- 8. The possession of firearms at any time during the event by any crew member is strictly prohibited. Violation of this rule will result in total disqualification.
- 9. No person shall provide or receive assistance from the air or by radio during the race. Failure to observe this rule will result in the contestant being disqualified for the leg. Global Positioning Systems (GPS) are allowed.
- 10. After the boat has passed inspection, the Technical Inspector may re-inspect it to insure that all of its compulsory equipment is present and technical specifications are in compliance with the rules.
- 11. Smoking is prohibited in the designated pit area and / or onboard a boat and / or in an area 3 m (15 ft) around the boat. Violation of this rule by any crew or member of the team will result in a penalty to the race boat. This penalty will be assessed by the race officials and can be of 15 minutes to disqualification of one particular leg.
- 12. The hull shall not be replaced during the race. Failure to abide by this rule will result in total disqualification from the race.
- 13. ENGINE REPLACEMENT The organiser can decide to use Rule A or Rule B provided it is printed in the Advance Programme.
 - RULE A The engine block must not be changed during the race.
 - RULE B The complete engine can be changed once only during the race in the case of failure, provided the captain of the boat notifies the Technical Inspector who must authorize the change and inspect the engine to be replaced as well as the second one, for class homologation and give new identification numbers and / or marks. The second engine block cannot be replaced during the rest of the race. The Race Organizer may assess a penalty of up to 15 minutes for the engine change, this must be indicated in the Advance Program.

The initial engine block cannot be rebuilt and used for the remainder of the race. Failure to observe any part of this rule will result in total disqualification from the race. If there is no indication on the Advance Program regarding the change of engines, then rule A will apply.

- 14. A boat which has been disqualified for a leg, may continue in the race, for the disqualified leg it will have the same time as the boats which did not start (DNS) Rule 900.13.
- 15. The organizers must specify in the Advance Program if there will be fuel available for the race and if the fuel for the first leg is included, what type and / or quality of fuel and under what terms and conditions it will be supplied to the racing boats.
- 16. Fuel can be inspected by the Technical Inspector at any time during the race, this will be done according to the regulations and procedures indicated in Rule 508. Failure to let the fuel be inspected will result in total disqualification from the race. Regular Pump fuel refers to the fuel which anyone can buy on a regular basis in any fuel station at the race site, the octanage considered for the race, will be the highest available at these stations.
- 17. The race boat must have a set of race numbers on each side and one on the bow of the boat. The racing numbers size on the boat must comply with Rule 206.02. The colors can be according to this rule or they can be of another color with a contrasting surface surrounding them, or they could have an outline of at least 4 cm wide of a contrasting color.
- 18. Any issue not foreseen by these rules will be decided by the Race Committee, according to Rule 200.02.

900.10 - FLAG SIGNALS

- 1) Red Flag: raised and displayed by a safety boat or a race boat implies danger or emergency. All approaching boats must stop. It is the responsibility of a member of the safety boat, or race boat crew member if a safety boat is not present, to maintain a record of the time the boat is stopped. After stopping for a red flag, a race boat may not continue with the race until a safety boat has arrived and granted permission to continue the race even if the red flag was unjustly raised. Prior to granting permission to continue, the safety boat must record all boats' times out and forward them to the finish line officials for the leg. If a boat fails to wait for a safety boat before proceeding with the race, the time out will not be acknowledged. The boat which makes improper use of the red flag, will be disqualified from the race by the Race Committee.
- Yellow Flag: A safety boat member or race boat crew may raise its yellow flag only when they have a problem, when one of the crew is in the water, or they become an obstacle in the race course and the boat prevents or endangers the safe passage of oncoming boats or endangers the life of any or all the crew members. When a yellow flag is displayed the approaching boats should proceed with caution until they pass the problem area. The improper use of the flag will result in total disqualification of the offending boat for the leg.
- 3) Black Flag: do not leave the pit area return to the pit area. The race course is closed.
 The Black flag will be under the control of the O.O.D. Race boats are not allowed to carry one.
- 4) Green Flag: It will be raised for each boat at the starting line, 10 seconds before the starting time and lowered at the starting time. It will be raised again 10 seconds before the starting time of the following boat.
- 5) White Flag: It will be raised at the starting line, 1 (one) minute before the starting time of the first race boat of that leg and lowered 10 seconds before the starting time. For the following boats the green flag will be raised according to rule 900.10.4.
- 6) Black and White Chequered Flag: raised with the arrival of a boat at the finish line and lowered when the boat crosses the finish line.

900.11 - STARTING

- 1. A ramp official will be present at the launching site, prior to the start of the race, to assure orderly and timely launching. Each boat may be given a launch time, each boat will have five minutes to clear the ramp / launch area. Failure to do so will result in a penalty of 15 minutes. Emergency situations requiring longer times will not be subject to the penalty at the discretion of the ramp official.
- 2. The starting order for other than mass starts, shall be determined by drawing lots.
 - Subsequent starting orders for other than mass starts will be determined from the cumulative elapsed times for previous legs. The starting order will progress from the fastest time to the slowest time. The starting line officials may, at their discretion, alter the order of the start if conditions so warrant. At the starting line the numbers of the next boat to start should be displayed to the racers, the size of the numbers should be at least of 300 mm (12 inches) high and they must be black on a white surface.
- 3. A leg is deemed to be open to racing on completion of the drivers meeting. Thereafter, and until the leg is officially closed as per Rule 900.13.3, the leg is deemed to be open to racing.
- 4. All boats must be in the water and preferably behind the starting line when a leg opens to racing.
 - Any boat which is on the water and ahead of the starting line at this time will be deemed to be wrongfully on the leg and can be assessed a penalty of 3 minutes. In order to get behind the starting line without incurring in this penalty, such boat must proceed in accordance with Rule 900.11.12.
- 5. If the starting procedure is stopped for any reason, a red flag must be displayed by the Starting Officials at the Starting Line during all the time, and the Race Director must be informed.
 - When the race course is reopened, the racing starting procedure will be re-assumed within the next minute, and the procedure will be according to Rule 900.10.5 (a White Flag will be displayed for a minute and the last 10 seconds a Green Flag will be raised). The boat which was in the staging area last will then start, the Starting Officials will keep track of all the new starting minutes of the remaining race boats.
- 6. While the leg is open for racing, if for reasons beyond the control of the crew, a boat crossed the starting line, prior to its designated starting time, it will be wrongfully on the leg, the crew must raise the yellow flag, if not it will be assessed a penalty of 2 minutes. When possible the boat will have to return behind the starting line in accordance with Rule 900.10.12, in order to take his/her start.
- 7. A boat is deemed to have started a leg if it wilfully crosses the starting line from the staging area at any time after the ten (10) second flag (for its designated start) is raised and before the starting line is closed.
- 8. A boat will be assessed a penalty of 1 minute per second if it wilfully crosses the starting line from the staging area prior to its designated starting time.
- 9. If for any reason a boat will fully start on any previous minute, he/she will be assessed a penalty of 10 minutes per every minute that he/she advanced his/her start. In this case Rule 900.11.8 would also apply for the minute which the boat started in. For the time of the race leg, the jury will deduct the total amount of minutes which he/she advance his/her time and will add the corresponding time penalties.
- 10. Regardless of when a boat starts a leg, it will begin to accumulate a running time for that leg from the time that it was designated to start.
- 11. A boat that is unable to start at its designated starting time may remain in the staging area provided that it does not wilfully obstruct or impede a boat that is rightfully in the staging area. Failure to abide by this rule will result in assessment of a penalty of 15 minutes up to disqualification for the leg.
- 12. The boat that is unable to start at its designated starting time may cross the starting line from the staging area at any time within the allowed starting period provided that the ten second (green) flag has not been raised for another boat. Failure to abide by this rule will result in the assessment of a penalty of 10 minutes.
- 13. In order to return, or get behind the starting line when the starting line is officially open, a boat, wrongfully on a leg, must comply with the following procedures whenever applicable.
 - (a) If a boat is out of sight of the starting line, it may proceed with precaution at a reasonable speed and by no means at full speed against the direction of the race, navigating in the middle of the channel, this boat must display the yellow flag at all time. Failure to comply with this regulation will result in the assessment of a penalty of 15 minutes up to disqualification for the leg.

- (b) If a boat is within sight of the staging area, it may proceed against the direction of the race (not a full speed) only when another boat is not rightfully on the segment of the leg in the direction of the staging area, the returning boat must display the yellow flag at all time. Failure to comply with this regulation will result in the assessment of a penalty of 15 minutes up to disqualification for the leg.
- (c) A boat may enter, or pass through, the staging area from ahead of the starting line only without obstruction or impeding a boat that is rightfully in the staging area and only when the ten (10) second flag is not raised. In the event of a mass start, a boat may enter, or pass through the staging area from ahead of the starting line only when there are no other boats rightfully in the staging area. Failure to comply with this rule may result in assessment of a penalty of 15 minutes up to disqualification for the leg.
- 14. A boat which is unable to start a leg including the last one (DNS) may continue to compete in subsequent legs. It shall be given a time for the unstarted leg equal to the slowest boat time which finished within the allowed time of his/her class for that leg, plus the time penalties according to the Rule 900.13.9. This rule cannot be changed in the Advance Program.
- 15. For the starting positions for the race boats for the first leg of the race, the positions should be assigned by draw. If the river conditions for the first leg of the race, makes it complicated for faster boats to pass slower boats, the Organizer has the option of programming a qualifying session.
 - If so, the qualifying session should be held on the previous day of the first day of the race, and the procedure should be indicated in the Advance Program. This particular qualifying day will not be counted as part of the race days.

900.12 - RACE IN PROGRESS RULES

- 1. Any boat that is overtaking another boat must do so in a safe and courteous manner. Maintaining when possible a safe distance between the boats.
- 2. Any boat that is being overtaken must give way and let the faster boat through no later than the point at which the overtaking boat is within the peripheral vision of the driver. Encumbering a faster boat is not permitted and doing so will result in the assessment of a penalty of 15 minutes up to disqualification from the race.
- 3. Any boat that wilfully travels against the direction of the race after it has started, must do so according to Rule 900.11.13.
- 4. The loss of any equipment required in Rule 900.6 during a race must be reported to a finish line official for that leg, if not, a penalty of 5 minutes will be assessed.
- 5. A race boat might or might not be permitted to refuel on a leg which is open to racing. This should be indicated in the Advance Program, if it is not indicated, the race boats will not be permitted to refuel.
- 6. The crew of the boat must remain in their seats at all times during the race. It is not allowed for any member of the crew of the boat to ride on the bow of the boat at any time during the race. Failure to abide by this rule will result in assessment of a penalty of 15 minutes.
- 7. If a boat is either returning to the starting line area or going to the finish line it must proceed with caution and according to Rule 900.11.13, if during the process they come to a point where the racing channel is narrow, they must stop and keep clear of the racing line to allow the coming race boats to go through and to follow the race officials instructions if any at the site.
- 8. If a race leg is cancelled for any reason due to the actions of a racer and / or race boat, the offending race boat will receive a time penalty of 20 minutes. The offending race boat driver will not be considered for the Overall Winner Title of the race.
- During the race it is not allowed to have any helicopter assistance of any type to any race boat Helicopter assistance should be allowed after the sweep boat has passed or in an emergency. During the race, the helicopters being operated should keep a minimum height of 75 m from the water level. If they are to follow a race boat at any time, they should do it from the sides or from the back (a minimum linear distance of 75 m from the race boat). Helicopters, are not allowed to fly in front (the bow) of the race boats. It is recommended that the landing site for the helicopters, should be at least 100 m from the start and/or finish lines. This Rule can be waived by any of the Emergency and/or First Aid helicopter units.

900.13 - FINISHING RULES

For the purpose of the Rules 900.12, the winner of a race class is the race boat which finishes a leg under its own power in the least amount of time.

- 1. A boat must cross the finish line under its own power. All the boats of a class which cross the finish line within the allowed time frame for the leg will receive their actual time. The boats of a class which cross the finish line, after it has been officially closed, shall be given a time for the leg equal to the slowest boat time of his class which finished within the allowed time for that leg, plus the time penalties according to the adjustment factors indicated in Rule 900.13.9.
 - This will include the DNF boats Rule 900.13.5 This rule cannot be changed in the Advance Program.
- 2. Once a boat has crossed the finish line, it may not re-enter an open leg, unless it is approved by race officials and it may only re-enter in order to get to the boat ramp. It will have to do it with precaution and displaying the yellow flag. By no means it should cross the river if a racing boat is approaching the finish line. Failure to comply with this regulation will result in the assessment of a penalty of 15 minutes up to disqualification for the leg.
- 3. The leg's starting line and finish line for each class will be closed at the time indicated at the Driver's Meeting of that day, there will be a maximum of two hours allowed after the winner of a class arrives for them to be closed. If there are two or more legs which are run in a day, the closing times will be given at the day's.
- Driver's Meeting(s), the closing time must be calculated on the average boat speeds and leg length of the racing class (it is recommended to add up to an 80 % of the determined time). All the boats which cross the finish line after it has been officially closed will be given a time for that leg equal to the slowest boat time of his class which finished within the allowed time for that leg plus the time penalties according to the adjustment factors indicated in Rule 900.13.9., no matter how they got to the finish line by water or land. For the last leg if a boat has started the leg and was not able to finish within the time frame indicated in this rule it shall be given a time for the leg equal to the slowest boat time of his class plus the time penalties according to the adjustment factors indicated in Rule 900.13.9. This rule cannot be changed in the Advance Program
- A boat which is unable to finish a leg (DNF) may continue to compete in subsequent legs, this boat must have started the leg under its own power and must have run at least 2 km (1.2 mi). It shall be given a time for the unfinished leg equal to the time of the slowest boat of his class which finished within the allowed time for that leg, plus the time penalties according to the adjustment factors in Rule 900.13.9. If a boat arrives to the finish line after it has been officially closed Rule 900.13.3 will apply. This rule cannot be changed in the Advance Program.
- 6. Official results will be determined by total elapsed time plus any time penalties incurred. They must be posted at the site and before the next day driver's meeting.
- 7. Immediately after finishing a leg, the crew of the boat which has been picked for inspection should make his boat available to the Chief Inspector at the designated area and will be under the Inspectors custody until inspected. Failure to comply with this regulation will result in the disqualification for the leg.
- 8. If for any reason in one of the classes non of the boats finishes, the leg's finish line time for that class will be the time of the winner of the next smaller class plus 20 %. If there are no other classes to get this time from, the Finish Line Officials and the Chief Scorer will determine an Estimated Time, based on the distance of that particular leg at an average speed of that class, in this case for the boats which did not finish (DNF) this leg, they will have the Estimated Time plus the time penalties according to the adjustment factors in Rule 900.13.9, for the boats which did not start (DNS) this leg, they will have the Estimated Time plus the time penalties according to the adjustment factors in Rule 900.13.9. This rule cannot be changed in the Advance Program.

9. The time which will be given to the boats which do not start (DNS) or to the boats which finish after the finish line is closed or the ones which start and not finish (DNF), will be the time of the slowest boat of their class for that leg which finished within the allowed time, plus the time penalties calculated based on the following:

ADJUSTMENT FACTORS

DNF DNS

1.10 1.30

PROCEDURE

To calculate the time penalties for a particular boat which did not start (DNS) or a boat which did not finish (DNF) will be the following: The time of the slowest boat of the class which finished within the allowed time for that particular leg must be multiplied by the corresponding factor.

900.14 - SUPPORT BOATS

- 1. The race committee shall provide sufficient boats to act as safety boats at critical locations along the race course. The safety boats shall be properly equipped to provide rescue and emergency first aid services. They will be subject to inspection by the Technical Inspector. All occupants in safety boats shall wear nationally approved type life jackets. The safety boat captain will be a Race Official. The safety boat captain and his crew must abide by the orders of the Safety Director.
- 2. The safety boats are not towing crafts, however, at the boat captain's discretion, he/she may provide a tow after the leg is closed to the racing boats, to the nearest boat ramp or either the starting or finishing lines.
- 3. The Race Committee shall provide a sweep boat which will have a Race Official on board.
 - The sweep boat will be the last official boat to leave when the starting line is officially closed. The sweep boat captain will give directions to any race boats on the leg that are unable to continue under their own power.
- 4. The finish line will remain open until the sweep boat has crossed. Any race boat crossing the finish line after the sweep boat, and consequently after the leg has closed, will receive the time as if did not finish the leg DNF Rule 900.13.9 would apply.
- 5. The sweep boat shall be clearly identifiable.
- 6. The support boats of any of the race boats must pass a safety inspection as per Rule 900.8.2.
- 7. The support boats for the race boats, must comply with the navigation restrictions for the race. Towing will be done after the sweep boat has passed, unless authorized by the Race Committee. The allowed tow times will be indicated during the Day's Drivers Meeting.

900.15 - INTERNATIONAL RACING CLASSES

- 1. Series: There should be a minimum of three boats registered per class, if there are less they will move up to the next available class.
- A) Series Inboard Engine Boats, (I); classes FX, CX, A, and Unlimited
- B) Series Outboard Engine Boats (O); classes 2000 and 3000
- C) Serie Inflatable Boats (P); classes 550V, 550, 850V and 850
- D) Series Rigid Inflatable Boats (PR); classes as per Rule 902.3

2. Inboard Engine Boat Classes:

Classes of Inboard Racing Boats: are determined solely on cubic capacity of the engine used and are distinguished as follows:

Hull: The hull design is free but hull must be made from Aluminium, fiberglass upper decks are fine.

Length of the Hull: The minimum dimensions are 5.2 m (17 ft). An open river cockpit that meets or exceeds these specifications must be fitted to all inboard Race Boats.

The intention of these minimum specifications is to provide the best possible protection to drivers and navigators, NO guarantee is implied or stated, nor is any responsibility taken, regarding the degree of protection or safety afforded by any roll cage construction to these specifications.

1. ROLL CAGE SPECIFICATIONS

- All boats must have a well structured steel roll cage. Roll cage should have a minimum of two main hoops. Of
 these, a triangulated main hoop is required. A minimum of one hoop in front of the passengers to the dash is
 required. Faster boats should have an upper and lower front hoop. There should be a bar connecting the
 center of the front hoop to the top center of the main hoop and 2 rear arms to the gunnels or transom.
- The main hoops shall be made from 44.5mm diameter, either round chrome moly tube (SAE 4130), minimum wall thickness 2.1mm or DOM tubing (1018 to 1026) with a minimum wall thickness 2.6mm. All other braces & struts can be made out of 38.1mm diameter of the same tube type and minimum thickness.
 Consideration may be given for equivalent or stronger design but must be endorsed from the organizing group prior to the race date. Aluminium is NOT permitted.
- Attaching plates shall be a minimum of 5mm thick steel. Attachment plates to be welded centrally to the hoop tubes. If the main hoops sit on chines, it will be connected to the chine by a 10 mm thick aluminium plate welded to the chine. Attaching plates are to be bolted together to the hull with 2 M10 or 3/8" bolts or 4 M8 or 5/16" bolts or 6 M6 or ¼" bolts.
- Cockpit area of the cage must have bars forward of the driver, an inverted side escape zone, and must prevent the dash of the boat from collapsing under load.
- No equipment inside the boat may be attached to the cage structure if it compromises the roll cage integrity

Welding and forming:

- All joints must be fully welded by a competent welder and remain unground using the correct welding process for the material.
- Tubes cannot be flattened in order to make a joint
- The main hoops of the cage must be one piece and may not be repaired by splicing, patching, cam-shelling, etc. All other components may be repaired by splicing, patching, clam-shelling, etc. according to generally accepted aircraft repair procedures. Each splice joint shall have an insert of 6" (152mm) minimum 3"(76mm) on each side of the joint centerline with rosette welds visible
- Top corners of the main hoops shall be formed with one bend formed with a bender suitable for the material size used, and ovality distortion to ne no more than the wall thickness of the tube.
- Helmet clearance should be at least 100 mm from the main hoops for the tallest crew member.
- The Advance program must state home countries minimum roll cage requirements.

2.2 SAFETY HARNESS (SEAT BELTS)

- A 5- or 6-point safety harness must be fitted for every crew member and be securely attached to the roll cage.
 They must be a motor sport type approved with a minimum of 50 mm web for all belts and shall have a quick release buckle.
- Seat belts must be within their useful life as set by the manufacturer, considering the factory life of the belts beginning upon when installed. Belts with visible wear or tear, or in poor condition will not be allowed.
- The mounting points for the seat belt shoulder straps behind each crew member must be in a way that the shoulder strap angle be no more than 25 degrees to the horizontal.
- Seat belt harness points shall be secured to the safety cage and be constructed to withstand the same force
 as the harness is designed for and mounted in accordance to belt manufactures specifications.
- · Seat mounts should be mounted to the cage. Seats shall have side head support.

Engine Mounts: The engine mounts on all classes must be attached to the hull, at least on four points, unless the set up of the jet and the engine allows it to only be attached in three points closed coupled. A safety device must be installed to the engine to avoid its forward movement in a case of a front collision.

Throttle: The throttle pedal must be attached to the hull and must be spring loaded, so it is capable of returning to the idle position.

Flotation: It is recommended to put in the bow of the hull sufficient flotation material that would allow the recovery of the boat.

The engines on these class boats should be inboard, for each class there is a specific engine capacity range. All the boats must run with a propulsion of a jet pump and must not have any exposed propellers.

Classes Capacity:

FX Up to 5740 cc

CX Up to 6424 cc

A Up to 7700 cc OR up to 9900cc naturally aspirated, with a Maximum 750cfm carburetor.

Unlimited Above 7701 cc

Overall Any of the above

Multiplication Factors:

- a. Forced Induction engines or those engines using combustion supporting additives (e.g. nitrous oxide, turbo charged, etc.), will be required to multiply their engine capacity by 1.8 to obtain their racing class.
- b. Rotary Engines will be required to multiply their engine capacity by 1.8 and if forced induction is utilized a further 1.4 to obtain their racing class.
- c. Diesel engines are not subject to any multiplication factors to obtain their racing class irrespective of whether forced induction is utilized.
- d. Turbine engines boats are allowed, any boat with one will run in the Unlimited class.
- e. Two cycle engine boats will be required to multiply their engine capacity by 1.4 to obtain their racing class.

Exhaust: the use of a muffler is required. The maximum noise level allowed are 95 decibels (dbC). If the local Authorities have a maximum decibel level, it will have to be indicated in the Advance Program. It will be compulsory

that all boats have one at all times during practice and during the race, if the local authorities require so, this must be indicated in the advance program. For jet turbine engine boats it is not required to have engine noise reduction

mufflers.

For the "FX Class" the engines allowed to race are Small Block Chevrolet.

Roll Bar: Well braced and mounted steel tube (chrome moly or aluminium tube can also be used with the minimum

diameters and structure indicated previously in this rule).

Engine Type: 8 Cylinder, normally aspirated.

Engine: Chevrolet ZZ and Crate Engine with a maximum displacement of 5,740 cc. The allowed engines part numbers must be stated in the Advance Program. Repaired engines must use GM parts pertaining to that engine.

The advance program must state all current and past acceptable GM crate engine numbers.

Cylinder Bore: The Advance Program must indicate if cylinder bore is allowed or not. If allowed, only First size overbore is allowed.

Cylinder Heads: Stock GM ZZ4 or GM ZZ5 or GM ZZ6 cast aluminium or the CT350 iron heads, no after market cylinder heads are allowed. No polishing and/or port work of any kind is allowed.

Oil pump: no dry sump or vacuum pumps are allowed.

Oil Pan, Valve Covers and fluid damper: Any type. The oil pan can be of a larger capacity.

Ignition / Distributor : Any type.

Intake Manifold: No port matching on the intake manifold is allowed.

Carburettor: Any type not exceeding 750 CFM.

Exhaust system : Any type.

Fuel: Gasoline only. The Race Organizer must indicate in the Advance Program if there are any restrictions as far

as transporting large amounts of fuel in the Country where the race will be held.

Propulsion: Any type of jet drive, it can be modified.

For the "CX" Class the engines allowed to race are LS and CT Chevrolet crate engines. 6.2L (376CID)

Roll Bar: Same as for the FX Class.

Engine Type: 8 Cylinder, normally aspirated.

Engine: Chevrolet LS3 (376 ci) stock crate engine with maximum displacement of 6220 cc.

No modifications to the factory engine or its components are allowed. Repaired engines must use GM parts pertaining to that engine.

The advance program must state all current and past acceptable GM crate engine numbers.

Cylinder Bore: The Advance Program must indicate if cylinder bore is allowed or not. If allowed, only First size overbore is allowed. And up to 2 replaced sleeves in a block are allowed.

Cylinder Heads: Factory stock heads, no aftermarket or machining is allowed.

Oil Pump: No dry sump or vacuum pumps are allowed. Aftermarket oil pumps are allowed.

Oil Pan, Valve Covers and Fluid Damper: Any Type: the oil pan can be of a larger capacity.

Ignition / Distributor: Any type.

Intake Manifold: No aftermarket intake manifolds are allowed. No port matching on the intake manifold is allowed. Carburetor: Any type.

Fuel injection: Any type or fuel injection is allowed, must be fitted to a standard "factory GM manifold".

Exhaust system: Any type.

Fuel: Gasoline only. The Race Organizer must indicate in the Advance Program if there are any restrictions as far

as transporting large amounts of fuel in the Country where the race will be held.

Propulsion: Any type of jet drive, it can be modified.

For the A class, engines allowed are V8 engines Up to 7700 cc OR up to 9900cc naturally aspirated, with a Maximum 750cfm carburetor. Carburetor must have 4x 1.11/16" or 43mm throttle blade.

3. Outboard Engine Boats Classes

Classes of Outboard Racing Boats: are determined solely on cubic capacity of the engine used and are distinguished as follows:

Hull: The hull design for classes O 2000 and class O 3000 is open, there is no restriction.

Length of the Hull: The minimum dimension are 5.10 m (16 ft 9 in).

Racing Capsules: are not permitted

Roll Bar: Any aluminium boat must have a well structured steel chrome moly or aluminium roll bar. The minimum specifications for the chrome moly roll bar are : $3.81 \text{ cm} (1 \frac{1}{2})$ in diameter with a wall thickness of 1.65 mm (0.065), for the aluminium roll bar are : 3.16 cm (1.58) in diameter with a wall thickness of 3.00 mm (0.12). It is also recommended that the main "A" frame(s) be made of one piece and the structure of the roll bar be done with a set of triangles with front and back supports. It is also recommended that the elements of the roll bar be secured to the chines or any of the structural elements of the hull. If possible the seats and seatbelts should be attached to the roll bar cage structure. All boats must have a roll bar or a roll cage or a reinforced cockpit. The roll bar must be at least 1.00 mm (4) away from any side of the helmet of the racing crew when seated foam material can be used to cover this space, as stipulated in Rule 509.05.

Seats: There should be a high back seat for each member of the racing crew, securely attached to the hull. The back of the seat should support the back of the helmet. Each seat must have at least one foot rest/support.

Seat Belts: The crew of any racing boat with a roll bar, must be strapped to the seat with four point seat belt system, at all time during the race, the straps should have a minimum width of 50.8 mm (2"). Two seat belts straps should run over the waist at the height of the hips and the other two straps should run over the shoulders. It is recommended that the wear of the straps should be checked periodically. It is also recommended that an unleashed mechanism be put in so that the seat belts buckles of the driver and the navigator can be released with a simple hand movement.

Engine Mounts: The engine must be attached to the transom of the hull, at least in four points.

Engine Cover: All engines must run with their cover on.

Transmission: The transmission used is free

Throttle: The throttle pedal must be attached to the hull and must be spring loaded, so it is capable of returning to the idle position.

Flotation: It is recommended to put in the bow of the hull sufficient flotation material that would allow the recovery of the boat.

Propulsion: Only one propulsion devise is allowed and the total effort must be applied to the water.

Machinery: The motor brand or make is open, and outboard motor is a mechanical assembly which can be removed from the boat as a single unit, complete with its transmission, and which does not transmit the power through the hull at any point. The motor thus taken off and placed ashore, must be capable of being started, fed by its fuel tank. Any mechanism intended to modify the angle of attachment and/or the height of the motor is authorized.

The mounting supports fixed to the boat, the control levers, the tachometer with its connections, the battery with its conductors and the fuel tank and lines do not form part of the power unit.

Classes	Outboard	Capacity	Fuel
O 2000	1501 to 2050 cc	Sport	Fuel Rule 508.02
O 3000	2051 to 3000 cc	Racing	Fuel Rule 508.03

Low emission engines complying with EPA regulations will be allowed a 30% greater cylinder capacity of their class. In addition, the effect of any air compressor used in support of and as part of the fuel injection system, shall be ignored in determining class displacement.

4. Inflatable Boats Classes:

Classes of Outboard Inflatable Racing Boats: are determined solely on cubic capacity of the engine used and are distinguished as follows:

Hull:

- a) Boats can be inflated only with atmospheric air and the number of independent compartments must be such that the boat can float even if one half of the compartments is deflated.
- b) The boat must be deflectable, collapsible or foldable so that no dismantled part has a length greater than two thirds of the full length of the inflated boat, excepting the floor boards.
- c) The keel, inflatable or rigid, must extend along the whole boat and be properly fixed to the transom.
- d) The transom can be modified only for reinforcement purposes.
- e) The boats must conform with a model of the official catalogue of the manufacturer published during the last quarter of the previous year.
- f) Boats with a rigid underwater body made of fibreglass or any other type of rigid material are not allowed.
- g) Only original features provided for by the manufacturer are allowed under the water line.
- h) No other material can be inserted or attached between the floor and the bottom of the hull except the keel.
- i) Class 1,850 V: the only shape allowed is a V shape hull. Boats that tend to have the shape of a multihull are to be excluded, even if they are included in the official catalogue of the manufacturer. The transom must be made of rigid material to adequately support the motor.
- j) Length of the Hull: The minimum dimension are 3.50 m (11 ft 5 in).
- k) Racing Capsules: are not permitted.

Engine Mounts: The engine must be attached to the transom of the hull, at least in four points.

Engine Cover: All engines must run with their cover on.

Propulsion: Only one propulsion devise is allowed and the total effort must be applied to the water.

Transmission: An efficient gear changing system giving forward, neutral and astern movement is compulsory. The gear control handle must be within easy hand reach of the driver.

Starter: An electric or manual starter must assure quick and easy start without external aids.

Machinery: The outboard motor is a mechanical assembly which can be removed from the boat as a single unit, complete with its transmission, and which does not transmit the power through the hull at any point. The motor thus taken off and placed ashore, must be capable of being started, fed by its fuel tank. Any mechanism intended to modify the angle of attachment and/or the height of the motor is authorized.